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CITY OF MYRTLE BEACH COUNTY OF HORRY STATE OF SOUTH CAROLINA TO AMEND APPENDIX A ZONING OF THE CODE OF ORDINANCES ARTICLE 11 FLOODPLAIN MANAGEMENT REGULATIONS TO ADJUST REGULATIONS AS REQUIRED BY FEMA AND THE SOUTH CAROLINA CODE OF LAWS AND TO MAINTAIN REGULATORY CONSISTENCY WITH THE ADOPTION OF THE 2019 FEMA FLOOD MAPS.

IT IS HEREBY ORDAINED that Article 11 Floodplain Management Regulations, Appendix A, Zoning of the Code of Ordinances is amended as follows:

#### Section 1101. Purpose and Intent

Certain areas within the City of Myrtle Beach are subject to periodic inundation by flood waters which results or may reasonably be foreseen to result in loss of life and property, health and safety hazards, disruption of commerce and governmental services and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety, and general welfare. These hazards are caused by the occupancy of flood hazard areas by uses which are vulnerable to floods because they are inadequately elevated or not otherwise protected from flood damage. Therefore, it is the intent of this ordinance to lessen such hazards and losses by restricting or prohibiting uses which are dangerous to health, safety, or property in times of flood; by requiring that uses vulnerable to floods be protected against flood hazards at the time of initial construction; and by controlling filling, grading, alteration of natural protective barriers, placing of obstructions or other activities, uses, or characteristics of use which may increase flood damage.

 1101.A. Objectives. The objectives of this ordinance are to protect human life and health; to minimize the expenditure of public money for costly flood control projects; to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; to minimize prolonged business interruptions; to minimize damage to public facilities and utilities such as water and gas mains, electrical, telephone and sewer lines, streets and bridges located in the floodplains; to help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas; and, to insure that potential buyers are notified that a property is in a floodplain.

1101.B. Warning and Disclaimer of Liability. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazard or uses permitted with such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City

of Myrtle Beach	or by any of	ficer of	or employed	e there	of for any flood	damages
that result from	reliance or	this	ordinance	or an	y administrative	decision
lawfully made he	reunder.					

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1101.C. Interpretation. In the interpretation and application of this ordinance all provisions shall be considered as minimum requirements, liberally construed in favor of the governing body, and deemed neither to limit nor repeal any other powers granted under State law. This Ordinance is not intended to repeal, abrogate, or impair any existing easement, covenants, or deed restrictions. However, where this ordinance and other conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

Furthermore, these flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, floodproofed, or otherwise unprotected from flood damages.

1101 E. Establishment of Development Permit- a Development Permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities.

1101 F. Compliance- No structure or land shall hereafter be located, extended, converted, or structurally altered without full compliance with the terms of this ordinance and other applicable regulations.

### Section 1102. Definitions Specific to Floodplain Management

The definitions in this part supplement those given in Article 2 - *Definitions* of the Ordinance, but are intended to apply only to the floodplain management regulations.

**Accessory structure:** Structure which is 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 accessory structures.

**Appeal:** A request for a review of the building official's interpretation of any provision of this ordinance or a request for a variance.

**Area of special flood hazard:** The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year.

Basement: Any area of the building having its floor subgrade (below ground level) on all

sides.

**Building:** Any structure built for support, shelter, or enclosure for any occupancy or storage.

Coastal "A" Zone or LiMWA Zone ( Limit of Moderate Wave Action ): An area of special flood hazard identified on FEMA's Flood Insurance Rate Maps as being directly landward of velocity zones and/or subject to wave actions at least 1.5 feet in height and not greater than 3' in height.

Coastal high hazard area (VE Zone): The area subject to high velocity waters, including but not limited to hurricane wave wash. The area is designated on the flood insurance rate map as Zone VE.

Development: any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or

19 <u>excavation</u>20 <u>drilling oper</u>

drilling operations, or storage of equipment or materials.

**Existing construction:** Any structure for which the "start of construction" commenced before July 5, 1977.

**Expansion to an existing manufactured home park or subdivision:** The preparation of additional sites by the construction of facilities for serving the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

**Flood, Base or 100 Year Flood:** The flood having a one percent chance of being equaled or exceeded in any given year.

**Flood, 500 year:** The flood having a two-tenths one fifth percent chance of being equaled or exceeded in any given year.

**Flood Insurance Rate Map (FIRM).** An official map of the City, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the City.

**Flood Insurance Study.** The official report provided by the Federal Emergency Management Agency. The report contains flood profiles, as well as the flood boundary floodway map and the water surface elevation of the base flood.

 **Lowest Floor:** The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage, in an area other than a basement area is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this ordinance.

**Manufactured home:** A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include recreational vehicles.

**Manufactured home park or subdivision:** A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

**Manufactured home park or subdivision, existing:** A manufactured home park or subdivision for which the construction of facilities for serving the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before December 11, 1990.

**Manufactured home park or subdivision, new:** A manufactured home park or subdivision for which the construction of facilities for serving the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after December 11, 1990.

**New construction:** Any structure for which the "start of construction" commenced after July 5, 1977.

#### Recreational vehicle: A vehicle which is:

- a) Built on a single chassis;
- b) 400 square feet or less when measured at the largest horizontal projections;
- c) Designed to be self-propelled or permanently towable by a vehicle no larger than 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.

 **Start of construction:** The first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings or any work beyond the stage of excavation. 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 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 as part of the main structure. The "start of construction" includes the first permanent framing or assembly of the structure or any part thereof on its piling or foundation.

**Structure:** Anything constructed, erected or established on and at least six inches (6") above the ground, including but not without limiting the generality of the following: buildings, signs, sea walls, trailers, fences, and patio walls.

**Substantial damage:** Damage of any origin sustained by a structure whereby the cost of reconstructing the structure to its condition immediately before damage would equal or exceed 50 percent of the market value of the structure immediately before the damage occurred.

**Substantial improvement:** Any improvement of a structure, whether it is an addition, rehabilitation, or reconstruction, the cost of which equals or exceeds 50 percent of the market value of the structure immediately before the improvement is started. In the case where more than one improvement is made over time, the percentage value (that is, the value of the improvement expressed as a percentage of the value of the structure immediately before the improvement) of the most recent improvement shall be added to the percentage value of all other improvements made within the previous 10 years; and if that cumulative percentage equals or exceeds a total of 50 percent, then it shall be classified as a substantial improvement.

**Note:** For example, if an owner of a house valued at \$100,000.00 makes a \$20,000.00 improvement, that is, a 20 percent improvement, then five years from now, when the house is valued at \$150,000.00, the owner may make an improvement of just under \$45,000.00 in value-that is, an improvement that cost slightly less than the equivalent of 30 percent of the then current market value of the house-without exceeding the 50 percent maximum that defines the cumulative improvements as being a substantial improvement: 20 percent improvements now + 30 percent improvement five years from now. Similarly, if the value of the house five years from now has fallen to \$90,000.00, the owner could make an improvement of just under \$27,000.00, which is 30 percent of the value of the house when the new improvement is to be made.

For the purposes of these floodplain regulations, the market value shall be the assessed value as determined by a licensed real estate appraiser or by the Horry County Tax Assessor; at the discretion of the property owner.

 For the purposes of these floodplain management regulations, any improvement of any wall, ceiling, floor, or other structural member of a structure, whether or not that improvement affects the external dimensions of the structure, shall be included when determining a substantial improvement has been made. Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications, which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or any alteration of a historic structure, provided that the alteration will not preclude the structures continued designation as a historic structure shall not be included in determining if a substantial improvement has been made.

**Violation:** The failure of a structure or other development to be fully compliant with these regulations.

# Section 1103. Adoption of Flood Insurance Study and Flood Insurance Rate Maps

1103.A. Federal Insurance Administration. The areas of special flood hazard identified by the Federal Insurance Administration through a scientific and engineering report entitled "The Flood Insurance Study for Horry County, South Carolina, and Incorporated Areas," effective September 17, 2003 December 16, 2019, with accompanying flood insurance rate maps and flood hazard boundary maps and any revision thereto are hereby adopted by reference and declared

to be a part of this ordinance. These maps divide the City of Myrtle Beach into zones, each having specific flood potential or hazard. Upon annexation any special flood hazard areas identified by the Federal Emergency Management Agency in its Flood Insurance Study for the unincorporated areas of Horry County, with accompanying map and other data are adopted by reference and declared part of this ordinance.

1103.B. Use of Best Available Data. Data from preliminary, draft, and final Flood Insurance Studies constitutes best available data from a federal, state or other source. Data must be developed using hydraulic models meeting the minimum requirement of NFIP approved models. If an appeal is pending on the study in accordance with 44 CFR Chapter 1, Part 67.5 and 67.6, the data does not have to be used.

# Section 1104. Floodplain Management Regulations Established as Supplementary

The flood insurance zone designations established by this ordinance are not intended to be utilized as separate zoning district classifications, but as designations which identify areas subject to regulations which are supplementary to the regulations of the zoning district to which such designations are attached, appended, or "overlaid." Regulations which apply to areas designated on the flood insurance rate map as being within such appended or overlaid designations must be determined by joint reference to the regulations of both the basic district classification and the appended or overlay classification.

#### Section 1105. General Requirements

Within those areas of the municipality designated as special flood hazard areas by the flood insurance rate map, the following general requirements must be met:

 1105.A. Notwithstanding any other provisions of the Ordinance concerning the reconstruction of any non-conforming structure which is located in a special flood hazard area and which is located in a special flood hazard area and which sustains substantial damage, regardless of the value of the reconstruction, shall comply with all requirements for substantial improvement in these floodplain regulations.

1105.B. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

1105.C. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage. Electrical, heating, ventilation, plumbing, and 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.

1105.D. All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damage.

1105.E. All new and replacement water supply systems shall be designed to minimize

1		or eliminate infiltration of flood waters into the system.
2 3 4 5	1105.F.	All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
6 7 8 9	1105.G.	On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
10 11 12	1105.H.	A building permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities.
13 14 15 16 17		Development may not occur in the Special Flood Hazard Area (SFHA) where alternative locations exist due to the inherent hazards and risks involved. Before a permit is issued, the applicant shall demonstrate that new structures cannot be located out of the SFHA and that encroachments onto the SFHA are minimized. In all areas of special flood hazard the following provisions are required:
19 20 21	<u>1105.I.</u>	Reasonably Safe from Flooding - Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding.
22 23	<u>1105.J.</u>	Anchoring - All new construction and substantial improvements shall be anchored to prevent flotation, collapse, and lateral movement of the structure.
24 25 26 27 28 29 30	1105.K.	Flood Resistant Materials and Equipment - All new construction and substantial improvements shall be constructed with flood resistant materials and utility equipment resistant to flood damage in accordance with Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, dated 8/08, and available from the Federal Emergency Management Agency.
31 32 33	1105 L.	Minimize Flood Damage - All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.
34 35 36 37 38 39 40	1105.M.	Critical Development - shall be elevated to the 500 year flood elevation or be elevated to the highest known historical flood elevation (where records are available), whichever is greater. If no data exists establishing the 500 year flood elevation or the highest known historical flood elevation, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates 500 year flood elevation data.
41 42 43 44 45 46	1105 N.	Utilities - Electrical, ventilation, plumbing, heating and air conditioning equipment (including ductwork), 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 the base flood plus feet (freeboard).

1105.P. Sanitary Sewage Systems – 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, on-site waster disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.  1105.Q. Gas Or Liquid Storage Tanks – All gas or liquid storage tanks, either located above ground or buried, shall be anchored to prevent floatation and lateral movement resulting from hydrodynamic and hydrostatic loads.  1105.R. Alteration, Repair, Reconstruction, Or Improvements – Any alteration, repair, reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance. This includes post-FIRM development and structures.  18 19 1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may	1	1105.O.	Water Supply Systems - All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
<ul> <li>1105.P. Sanitary Sewage Systems – 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, on-site waster disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.</li> <li>1105.Q. Gas Or Liquid Storage Tanks – All gas or liquid storage tanks, either located above ground or buried, shall be anchored to prevent floatation and lateral movement resulting from hydrodynamic and hydrostatic loads.</li> <li>1105.R. Alteration, Repair, Reconstruction, Or Improvements – Any alteration, repair, reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance. This includes post-FIRM development and structures.</li> <li>1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may</li> </ul>	2		be designed to minimize of eliminate initiation of noodwaters into the system.
systems and discharges from the systems into floodwaters, on-site waster disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.  10 1105.Q. Gas Or Liquid Storage Tanks – All gas or liquid storage tanks, either located above ground or buried, shall be anchored to prevent floatation and lateral movement resulting from hydrodynamic and hydrostatic loads.  11 1105.R. Alteration, Repair, Reconstruction, Or Improvements – Any alteration, repair, reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction' as contained in this ordinance. This includes post-FIRM development and structures.  18 1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may		1105.P.	Sanitary Sewage Systems - New and replacement sanitary sewage systems
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10 105.Q. Gas Or Liquid Storage Tanks – All gas or liquid storage tanks, either located above ground or buried, shall be anchored to prevent floatation and lateral movement resulting from hydrodynamic and hydrostatic loads.  11 105.R. Alteration, Repair, Reconstruction, Or Improvements – Any alteration, repair, reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance. This includes post-FIRM development and structures.  18 105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may	7		disposal systems shall be located and constructed to avoid impairment to them
10 105.Q. Gas Or Liquid Storage Tanks – All gas or liquid storage tanks, either located above ground or buried, shall be anchored to prevent floatation and lateral movement resulting from hydrodynamic and hydrostatic loads.  13 1105.R. Alteration, Repair, Reconstruction, Or Improvements – Any alteration, repair, reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance. This includes post-FIRM development and structures.  18 1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may	8		or contamination from them during flooding.
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13 1105.R. Alteration, Repair, Reconstruction, Or Improvements – Any alteration, repair, reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance. This includes post-FIRM development and structures.  18 1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may	11		above ground or buried, shall be anchored to prevent floatation and lateral
reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance. This includes post-FIRM development and structures.  17 structures.  18 19 1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may	12		movement resulting from hydrodynamic and hydrostatic loads.
reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance. This includes post-FIRM development and structures.  17 structures.  18 19 1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may	13	1105.R.	Alteration, Repair, Reconstruction, Or Improvements - Any alteration, repair,
as contained in this ordinance. This includes post-FIRM development and structures.  17 structures.  18 19 1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may	14		reconstruction, or improvement to a structure that is in compliance with the
17 <u>structures.</u> 18 19 <u>1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may</u>	15		provisions of this ordinance, shall meet the requirements of "new construction"
18 19 1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may	16		as contained in this ordinance. This includes post-FIRM development and
19 1105.S. Non-Conforming Buildings or Uses - Non-conforming buildings or uses may	17		structures.
	18		
20 not be enlarged replaced or rebuilt upless such enlargement or reconstruction	19	<u>1105.S.</u>	Non-Conforming Buildings or Uses - Non-conforming buildings or uses may
10t be enlarged, replaced, of rebuilt diffess such enlargement of reconstruction	20		not be enlarged, replaced, or rebuilt unless such enlargement or reconstruction
21 <u>is accomplished in conformance</u>	21		<u>is</u> accomplished in conformance
with the provisions of this ordinance. Provided, however, nothing in this	22		with the provisions of this ordinance. Provided, however, nothing in this
23 <u>ordinance shall prevent the repair, reconstruction, or replacement of an</u>	23		ordinance shall prevent the repair, reconstruction, or replacement of an
24 <u>existing building or structure located totally or partially within the floodway,</u>	24		existing building or structure located totally or partially within the floodway,
25 provided that the bulk of the building or structure below base flood elevation in	25		provided that the bulk of the building or structure below base flood elevation in
the floodway is not increased and provided that such repair, reconstruction, or	26		the floodway is not increased and provided that such repair, reconstruction, or
<u>replacement meets all of the other requirements of this ordinance,</u>	27		replacement meets all of the other requirements of this ordinance,
28 1105.T. Americans with Disabilities Act (ADA) - A building must meet the specific	28	<u>1105.T.</u>	Americans with Disabilities Act (ADA) - A building must meet the specific
29 <u>standards for floodplain construction outlined in Article IV.B, as well as any</u>	29		standards for floodplain construction outlined in Article IV.B, as well as any
30 applicable ADA requirements. The ADA is not justification for issuing a	30		applicable ADA requirements. The ADA is not justification for issuing a
variance or otherwise waiving these requirements. Also, the cost of	31		variance or otherwise waiving these requirements. Also, the cost of
	32		improvements required to meet the ADA provisions shall be included in the
costs of the improvements for calculating substantial improvement.	33		costs of the improvements for calculating substantial improvement.
34			
		1105. <u>IU</u> .	For any structure which is elevated no less than three feet above base flood
			elevation, the maximum building height requirement of the district where the
			structure is located, as found elsewhere in this ordinance, shall be relaxed so that a structure may extend no more than three feet above the maximum
			requirement. Such permission shall be within the authority of the zoning
· · · · · · · · · · · · · · · · · · ·			administrator and shall not require the property owner to request a variance
from the Board of Zoning Appeals. However, the relaxation of the height	41		from the Board of Zoning Appeals. However, the relaxation of the height
			requirement of this subsection shall not apply to properties governed by section
			1803 - Airport Hazard Zone For Myrtle Beach International Airport of this
			Ordinance (the airport hazard zoning regulations of the Myrtle Beach International Airport) to the extent that such relaxation does not comply with

1 2 3		the provisions of section 1803 - Airport Hazard Zone For Myrtle Beach International Airport.
4 5 6 7 8	1105. <u>⊌V</u> .	A non-conversion agreement will be required of all new residential construction and substantial improvements with fully enclosed areas below the base flood elevation. The non-conversion agreement must be registered with the Horry County Register of Deeds office, and a clocked copy must be returned to the City to be filed with the construction services department.
10 11 12 13	1105. <b>₭<u>₩</u>.</b>	All fences crossing floodplain boundaries are subject to flood review. The most restrictive zone crossed by the fence will prevail. All fencing material shall be flood-resistant materials.
14 15 16 17		<ol> <li>For fences under 100-Year Flood (AE) zone regulation with exposed foundations, vents will be required every 48 linear inches. The vent size shall be the equivalent of one structural block (masonry, brick, etc). The vent shall not be more than twelve inches (12") above the adjacent grade.</li> </ol>
19 20 21 22		<ol><li>For fences under Coastal High Hazard (VE) zone regulation, exposed foundation designs and walls are prohibited. All fencing must allow for full flow of water in any direction.</li></ol>
23	1105. <b>∟</b> <u>X</u> .	Swimming Pools in Floodplain.
24 25 26		<ol> <li>Swimming pools must be sited as far away from the regulatory flood boundary as feasible.</li> </ol>
27 28 29 30 31 32		2. No above grade pools are allowed in the Coastal High Hazard (VE) zones unless the entire pool form is elevated completely out of the regulatory floodplain in, or on, an approved structure. Furthermore, no portion of the pool structure in the Coastal High Hazard (VE) zone will be allowed more than six inches (6") above the adjacent grade.
33 34 35 36		3. Any fill used for pool construction in the 100-Year Flood (AE) zone must be compatible with the existing soils. Fill for pool construction is not allowed in the Coastal High Hazard (VE) zone.
37 38 39 40 41 42 43 44 45 46 47		4. Swimming pools under elevated buildings: <ul> <li>a. Within areas designated as VE Zones, when the area beneath the building is enclosed such enclosures shall be constructed of nonsupporting breakaway walls and in compliance with 44CFR Chapter 1, Part 60, Subpart 60.3, Chapter 1 of the National Flood Insurance Act of 1968 (42 U.S.C. 4011 et seq.), Section 1325 as applicable. In areas designated as AE zone on a flood insurance rate map, the enclosure must meet opening requirements. An annual permit will be required before the erecting of any temporary pool enclosures.</li> </ul>
48 49 50		b. When the area beneath the building is not enclosed and the pool or related potential obstruction is flush with the natural grade, it may be allowed under the following conditions:

1 2 3			<ul> <li>The design engineer is required to certify that the pool or other potential obstruction will not be subject to breaking up or flooding out of the ground and affecting the piles or columns of the building;</li> </ul>
4 5 6			<ul> <li>and</li> <li>ii. The pool must meet the same anchoring requirements as the support system of the building.</li> </ul>
7			
8			6. Requirements for Manufactured Homes
9			ecial flood areas where the placement and replacement of manufactured estantial improvements to existing manufactured homes are allowed, the
10 11			stantial improvements to existing manufactured nomes are allowed, the tions shall apply:
12	ionowing i	ogulu	tions shall apply.
13	1106.A.	All n	nanufactured homes shall be anchored to resist flotation, collapse, or
14			al movement by providing over-the-top and frame ties to ground anchors.
15		Spec	cific requirements shall be that:
16 17		1.	Over-the-top ties be provided at each of the four corners of the
18			manufactured home, with two additional ties per side at intermediate
19			locations and manufactured homes less than 50 feet long requiring one
20			additional tie per side;
21		2	France time he was ideal at each sounce of the house with five additional
22 23			Frame ties be provided at each corner of the home, with five additional ties per side and intermediate points and manufactured homes less than
24			50 feet long requiring four additional ties per side;
25			,
26			All components of the anchoring system be capable of carrying a force of
27			4,800 pounds; and
28 29		4.	Any additions to the manufactured home be similarly anchored.
30		٦.	This additions to the mandiactured nome be similarly anonored.
31	1106.B.	Man	ufactured homes that are placed or substantially improved within 100-Year
32			d (AE) zones on the City's flood insurance rate map on sites (i) outside of
33			anufactured home park or subdivision, (ii) in a new manufactured home
34 35			or subdivision, (iii) in an expansion to an existing manufactured home park abdivision, or (iv) in an existing manufactured home park or subdivision on
36			h a manufactured home has incurred substantial damage as a result of a
37		flood	
38			
39			Shall be elevated on a permanent foundation such that the lowest floor of
40 41			the manufactured home is elevated no less than three feet above the base flood elevation;
42			mod dievation,
43		2.	Shall be securely anchored to an adequately anchored foundation system
44			to resist flotation, collapse, and lateral movement;
45 46		3.	Where the home is not elevated on nilings, shall be elevated on
40 47			Where the home is not elevated on pilings, shall be elevated on compacted fill;
48			<del></del>
49			Where the home is elevated on pilings, shall be on lots large enough to
50			permit steps, shall have piling foundations placed in stable soil no more 10

1 2 3			than ten feet apart, and shall have pilings with reinforcements placed above the base flood elevation; and
4		5.	Shall be provided with adequate drainage and access for a hauler.
5 6 7 8 9	1106.C.	in ar (AE)	ufactured homes that are to be placed or substantially improved on sites a existing manufactured home park or subdivision within 100-Year Flood zones on the City's flood insurance rate map and that are not subject to provisions of subsection A above:
11 12 13 14 15 16 17 18		1.	<ul> <li>Shall be elevated so that either:</li> <li>a. The lowest floor of the manufactured home is no less than three feet above the base flood elevation, or</li> <li>b. Its chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade, and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.</li> </ul>
20 21 22 23 24 25 26		2.	<ul> <li>And:</li> <li>a. Where the home is not elevated on pilings, the home shall be elevated on compacted fill;</li> <li>b. Where the home is elevated on pilings, lots shall be large enough to permit steps; piling foundations shall be placed in stable soil no more than ten feet apart; and</li> <li>c. Adequate surface drainage and access for a hauler shall be provided.</li> </ul>
27 28 29 30 31 32 33 34 35	Recreation (VE) zone consecutive is ready fo	nal ve es on ve day or high	7. Requirements for Recreational Vehicles  chicles placed on sites within 100-Year Flood (AE) or Coastal High Hazard the City's flood insurance rate map shall be on the site for fewer than 180 ys, be fully licensed, and be ready for highway use. A recreational vehicle hway use if it is on its wheels or jacking system, is attached to the site only nect type utilities and security devices, and has no permanently attached
36 37 38 39	Pool equip	oment <i>All N</i> e	B. Requirements for Pool Equipment Enclosures enclosures may be constructed below the height requirements of sections onresidential Structures or 1111.B - All Buildings or Structures Shall Be ded the following regulations are complied with:
40 41	1108.A.	The	applicant shall prove to the satisfaction of the zoning administrator that:
42 43 44 45 46		1.	Placing the enclosure above the base flood elevation level as required by sections 1110 – Development of 100-Year Flood (AE) Zones and 1111 – Development of Coastal High Hazard (VE) Zones will impair the operation of the equipment;
47 48 49			All alternative locations where the enclosure would comply with the height requirements of sections 1110. B – All Nonresidential Structures and

1 2 3		1111. B - All Buildings or Structures Shall Be Elevated have been considered and rejected;
4 5 6 7		<ol> <li>The enclosure has been designed and located so that the exception to the height requirements of sections 1110. B – All Nonresidential Structures and 1111. B - All Buildings or Structures Shall Be Elevated are the minimum necessary to afford relief, and</li> </ol>
8 9 10		4. All due consideration has been given to the flood risk, adjacent structures, and the potential in increased waterborne debris.
11 12	1108.B.	The size of the enclosure shall be the smallest necessary to meet state health requirements but shall not exceed 100 square feet.
13 14 15 16 17	1108.C.	The enclosure shall not be located within the zoning setback lines nor any closer than ten feet to any principal building. Pool equipment enclosures shall be placed in an area which least impacts neighboring property.
18	1108.D.	The height of the enclosure shall not exceed 8' above its floor.
19 20 21 22	1108.E.	The floor level of any enclosure in a 100-Year Flood (AE) zone shall be elevated to at least two feet above the grade of the pool.
23 24 25	1108.F.	An enclosure in the Coastal High Hazard (VE) zone may be built at grade level, provided the walls of the enclosure shall be breakaway walls.
26 27 28	1108.G.	Enclosures shall be constructed of flood resistant materials and securely anchored to be in accordance with the current Standard Building Code.
29 30 31 32 33	1108.H.	Enclosures in the 100-Year Flood (AE) zone shall incorporate a minimum of two openings, which will allow the entry and exit of floodwaters. The openings shall begin at floor level and be sized to allow one square inch of opening for one square foot of area enclosed within the structure.
34 35 36	1108.I.	All electrical connections shall be elevated to the level of the base flood elevation or as high as possible.
37	Section	1109. Requirements for Subdivisions
38 39 40 41	1109.A.	All subdivision proposals shall be consistent with the need to minimize flood damage;
42 43 44 45	1109.B.	All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
46 47 48	1109.C.	All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards; and
49 50	1109.D.	Base flood elevation data shall be provided for all subdivision proposals and other proposed development (including manufactured home parks and 12

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#### Section 1110. Development of 100-Year Flood (AE) Zones

Within those areas designated as 100-Year Flood (AE) zones on the applicable FIRM, the following additional regulations shall apply to all new construction and substantial improvements:

1110.A. All residential structures, including prefabricated and manufactured homes, shall have the lowest floor of such structure, including basement, elevated no less than three feet above the base flood elevation. Notwithstanding this requirement, all manufactured homes shall also be subject to any applicable provisions of section 1106 - Requirements for Manufactured Homes.

1110.B. All nonresidential structures shall have the lowest floor, including basement, elevated no less than three feet above the base flood elevation, or together with attendant utility and sanitary facilities, shall be designed so that the structure is watertight to a height not less than three feet above the base flood level with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

 1110.C. For all elevated residential and nonresidential structures with fully enclosed areas that are below the lowest floor and subject to flooding, including ingress and egress, such enclosed areas shall be designed to preclude finished living space and to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.

1. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided; the bottom of all openings shall be no higher than one foot above grade; openings may be equipped with screens, louvers, or other coverings or devices intended to collapse under wind and water loads without causing collapse displacement, or other structural damage to the elevated portion of the building or supporting foundation system. Only the portions of openings that are below the base flood elevation (BFE) can be counted towards the required net open area.

 Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door), er a maximum of 299 square feet for storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator). Ventilation per section 1110.C.1 - Designs is still required.

3. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.

1	4.	Openings may be equipped with screens, louvers, valves, or other
2		coverings or devices provided they permit the automatic flow of floodwaters
3		in both directions.
4		
5	<u>5.</u>	Fill placed around foundation walls must be graded so that the grade inside the
6		enclosed area is equal to or higher than the adjacent grade outside the building
7		on at least one side of the building.
8		

1110.D. Structures not meeting the requirements of section 1110.C - For All Elevated Residential And Nonresidential Structures shall either be constructed on properly designed and compacted fill that extends at least three feet beyond the building wall before dropping below the base flood elevation and has appropriate protection against erosion and scour, such design to be approved by a registered engineer, or be constructed on pilings which meet the engineered support requirements of section 1111 – Development of Coastal High Hazard (VE) Zones.

1110.E. Requirements for floodways. Located within areas of special flood hazard established in section 1103 are areas designated as floodways (see Article 2 - Definitions). Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris and potential projectiles and which have erosion potential, the following provisions shall apply:

 Prohibited in floodways are encroachments, including fill, new construction, substantial improvements, and other developments unless certification (with supporting technical data) by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

2. If section 1110.E.1 - *Prohibited In Floodways* is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 11 - *Floodplain Management Regulations*.

 The placement and replacement of manufactured homes and substantial improvements to existing manufactured homes shall be prohibited in floodways.

### Section 1111. Development of Coastal High Hazard (VE) Zones

Within those areas designated as Coastal High Hazard (VE) areas on the applicable FIRM, the following additional regulations shall apply to all new construction and substantial improvements:

1111.A. All buildings or structures shall be located landward of the reach of the mean high tide.

1111.B. All buildings or structures shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the bottom

of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated no less than three feet above the base flood level; and the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval). A registered professional engineer or architect shall develop or review the structural design, specification and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of 1111.E – *Breakaway Wall*. In addition, the space below the lowest floor shall be free of obstructions or be constructed with breakaway walls.

1111.C. If breakaway walls are utilized, such enclosed space shall not be used for human habitation and shall be utilized only for building access, parking, or limited storage.

1111.D. No improvements to a structure shall enclose the space below the lowest floor unless breakaway walls are used.

1111.E. For the purposes of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or state codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

1. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

2. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Maximum wind and water loading values to be used in this determination shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval).

Such enclosed space shall be usable solely for parking of vehicles, building access, or limited storage.

 1111.F. There shall be no fill used as structural support. Limited non-compacted fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm surge, thereby rendering the building free of obstruction prior to generating loading forces, ramping effects or wave deflection. Only beach compatible sand may be used. The local administrator shall approve design plans for landscaping/aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil scientist which demonstrates that the following factors have been fully

	considered:
	4. Deuticle composition of fill protested does not have a tandamouter evenesive
	<ol> <li>Particle composition of fill material does not have a tendency for excessive natural compaction;</li> </ol>
	2. Values and distribution of fill will not source would defloation to adjacent
	<ol><li>Volume and distribution of fill will not cause wave deflection to adjacent properties; and,</li></ol>
	3. Slope of fill will not cause wave run-up or ramping.
1111.G.	There shall be no alteration of sand dunes which would increase potential flood damage.
1111.H.	The placement and replacement of manufactured homes and substantial improvements to existing manufactured homes shall be prohibited in Coastal High Hazard (VE) zones.
11111.	Areas located in the Coastal A Zone or LiMWA zones located as shown on the
	FEMA SFHA map must apply the same regulations as the Coastal High Hazard
	(VE) flood zones above.
Saatian	1112 Davolanment of Ocean Front Single Family Residential
	<u> 1112. Development of Ocean Front Single Family Residential</u> ies Located Seaward of Ocean Boulevard. These requirements
Silali al	oply to all new construction and substantial improvements.
1112 A.	
	All buildings or structures used for single family residential use shall have the
11273.	
1127.	first living floor to be elevated 8ft from adjacent grade or meet flood zone
1127	first living floor to be elevated 8ft from adjacent grade or meet flood zone regulations (whichever is higher). The area below the elevated floor must be
1127.	first living floor to be elevated 8ft from adjacent grade or meet flood zone regulations (whichever is higher). The area below the elevated floor must be free of obstructions with enclosures only for parking, storage, and building
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	first living floor to be elevated 8ft from adjacent grade or meet flood zone regulations (whichever is higher). The area below the elevated floor must be free of obstructions with enclosures only for parking, storage, and building access as set forth in the VE flood zone regulations.  All buildings or structures shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the bottom
	first living floor to be elevated 8ft from adjacent grade or meet flood zone regulations (whichever is higher). The area below the elevated floor must be free of obstructions with enclosures only for parking, storage, and building access as set forth in the VE flood zone regulations.  All buildings or structures shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the
	first living floor to be elevated 8ft from adjacent grade or meet flood zone regulations (whichever is higher). The area below the elevated floor must be free of obstructions with enclosures only for parking, storage, and building access as set forth in the VE flood zone regulations.  All buildings or structures shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated no less than three feet above the base flood level; and the pile or column foundation and structure attached thereto is
	first living floor to be elevated 8ft from adjacent grade or meet flood zone regulations (whichever is higher). The area below the elevated floor must be free of obstructions with enclosures only for parking, storage, and building access as set forth in the VE flood zone regulations.  All buildings or structures shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated no less than three feet above the base flood level; and the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects
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	first living floor to be elevated 8ft from adjacent grade or meet flood zone regulations (whichever is higher). The area below the elevated floor must be free of obstructions with enclosures only for parking, storage, and building access as set forth in the VE flood zone regulations.  All buildings or structures shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated no less than three feet above the base flood level; and the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval).
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	first living floor to be elevated 8ft from adjacent grade or meet flood zone regulations (whichever is higher). The area below the elevated floor must be free of obstructions with enclosures only for parking, storage, and building access as set forth in the VE flood zone regulations.  All buildings or structures shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated no less than three feet above the base flood level; and the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval). A registered professional engineer or architect shall develop or review the structural design, specification and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of 1112.E —
1112 B.	All buildings or structures shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated no less than three feet above the base flood level; and the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval). A registered professional engineer or architect shall develop or review the structural design, specification and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with

1112.C. If breakaway walls are utilized, such enclosed space shall not be used for human habitation and shall be utilized only for building access, parking, or

1		limited storage.
2 3 4	<u>1112.D.</u>	No improvements to a structure shall enclose the space below the lowest floor unless breakaway walls are used.
5 6 7 8 9 10 11 12	1112.E.	For the purposes of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or state codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:  1. Breakaway wall collapse shall result from a water load less than that which
13 14		would occur during the base flood; and
15 16 17 18 19 20 21 22 23		2. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Maximum wind and water loading values to be used in this determination shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval); and
24 25		3. Such enclosed space shall be usable solely for parking of vehicles, building access, or limited storage.
26 27 28 29 30 31 32 33 34 35	<u>1112.F.</u>	There shall be no fill used as structural support. Limited non-compacted fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm surge, thereby rendering the building free of obstruction prior to generating loading forces, ramping effects or wave deflection. Only beach compatible sand may be used. The local administrator shall approve design plans for landscaping/aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil scientist which demonstrates that the following factors have been fully considered:
36 37 38		1. Particle composition of fill material does not have a tendency for excessive natural compaction; and
39 40 41 42		2. Volume and distribution of fill will not cause wave deflection to adjacent properties; and
43 44		3. Slope of fill will not cause wave run-up or ramping.
45 46 47		11123. Development of 500-year Floodplains se areas designated as "X" (shaded) on the applicable FIRM, as well as within

all special flood hazard areas, new critical facilities, such as fire stations, major police

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49 50 stations, hospitals, residential health care facilities, electrical transmission switching stations and distribution substations, main telephone switching offices, and hazardous

materials storage sites, are prohibited. Sanitary sewer pump stations are not considered a critical facility for the purposes of this paragraph.

# Section 11134. Information and Certifications to be Included with the Building Permit Application and at Specified Stages of Construction

11134.A. Within those areas of the City of Myrtle Beach designated as special flood hazard areas by the FIRM, all building permit applications for new construction or substantial improvement of residential and nonresidential structures, including prefabricated and manufactured homes, shall have indicated:

 The elevation in relation to National Geodetic Vertical Datum 1929 (NGVD 1929) of the bottom of the lowest structural member of the lowest floor (including basement) of all structures in the Coastal High Hazard (VE) zones:

2. The elevation in relation to NGVD 1929 of the lowest floor level (including basement) of all structures in 100-Year Flood (AE) zones; and

3. The elevation in relation to NGVD 1929 to which any nonresidential structure (including basement) has been flood-proofed.

4. Submission of "V-Zone" design certification pertaining to foundation and anchoring design.

5. Submission of breakaway wall certification if applicable.

6. Site plan references and indication of floodplain boundaries, flood zones and base flood elevations.

11134.B. For 1113.A.1 - Lowest Structural Member Of The Lowest Floor and 1113.A.2 - The Lowest Floor Level above, an elevation certificate (FEMA Form 81-31) certifying such elevations, completed by a South Carolina registered land surveyor or engineer, shall be provided no later than seven days from the completion of construction of the lowest structural member or the lowest floor level. The director of construction services may issue a stop construction order if the certificate is not provided to him within the seven-day period. In addition, an elevation certificate (FEMA Form 81-31) certifying such elevations, completed by a South Carolina registered land surveyor or engineer, shall be provided upon the completion of the project, prior to the issuance of any certificate of occupancy.

11134.C. For 1113.A.3 - Any Nonresidential Structure a floodproofing certificate (FEMA Form 81-65) certifying such elevation, completed by a South Carolina registered land surveyor or engineer, shall be provided upon completion of the project, prior to the issuance of any certificate of occupancy.

11134.D. In addition certification from a South Carolina registered professional engineer or architect that a nonresidential floodproofed structure meets the floodproofing

requirements of sections 1110. B – All Nonresidential Structures and 1110.D - Structures Not Meeting The Requirements Of section 1110.C or that all structures in Coastal High Hazard (VE) zones meet the requirements of section 1111 - Development of Coastal High Hazard (VE) Zones shall be submitted. Applications for building permits shall also include evidence that all necessary permits have been obtained from federal, state, or local government agencies from which prior approval is required.

#### Section 11145. Administration, Enforcement, and Appeal

In addition to the procedures for the administration, enforcement and appeal of the provisions of this Ordinance as defined in Articles 3 – *Administration And Enforcement* and 5 – *Board Of Zoning Appeals*, the following additional regulations shall apply:

- 1114<u>5</u>.A. Duties and responsibilities of the zoning administrator related to flood plain management shall include, but not be limited to:
  - 1. Review all development permits to ensure that the permit requirements of this ordinance have been satisfied.
  - Review proposed development to assure that all necessary permits have been received from those governmental agencies from 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, and require that copies of such permits be provided and maintained on file with the building permit.
  - 3. Notify adjacent communities and the appropriate state agencies prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
  - 4. Ensure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.
  - 5. Verify and record the actual elevation (in relation to mean sea level) of the bottom of the lowest horizontal structural member of the lowest floor (including basement) of all new or substantially improved buildings in Coastal High Hazard (VE) zones. Said elevation shall be certified by the professional engineer or architect of the permittee.
  - 6. Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved buildings in 100-Year Flood (AE) zones. Said elevation shall be certified by the professional engineer or architect of the permittee.
  - 7. Verify and record certification from the permittee's registered professional engineer or architect when flood-proofing is utilized for a particular building.
  - 8. Verify and record the actual elevation (in relation to mean sea level) to which the new or substantially improved nonresidential buildings have

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engineer or architect of the permittee. Verify and record certification from a registered professional engineer or architect that the building in Coastal High Hazard (VE) zones is designed to be securely anchored to adequately anchored pilings or columns in order to withstand velocity waters and hurricane wave wash. 10. Review plans of structures in Coastal High Hazard (VE) zones for adequacy of breakaway walls in accordance with section 1111 -

been floodproofed. Said elevation shall be certified by the professional

11. Interpret the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in section 1114 - Administration,

12. Maintain and make available for public inspection all records pertaining to

11145.B. Variance procedures associated with flood plain management regulations.

- 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 that the variance is the minimum necessary to preserve the historic character and design of the structure. Such variance may be administratively granted without regard to the procedures set forth
- In passing upon applications for variances, the Board of Zoning Appeals shall consider all technical evaluations, all relevant factors, standards
  - The danger that materials may be swept onto other lands to the injury
  - The danger to life and property due to flooding or erosion damage;
  - The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - The importance of the services provided by the proposed facility to
  - The necessity to the facility of a waterfront location, where applicable;
  - The availability of alternative locations not subject to flooding or
  - The compatibility of the proposed use with existing and anticipated
  - The relationship of the proposed use to the comprehensive plan and
  - The safety of access to the property in times of flood for ordinary and

1 2 3 4 5 6 7 8		<ul> <li>emergency vehicles;</li> <li>j. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and</li> <li>k. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities, such as sewer, gas, electrical, water systems, streets, and bridges.</li> </ul>
10 11 12 13 14 15		Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, provided the above items have been fully considered. As the lot size increases beyond the one-half acre, the technical justification require for issuing the variance increases.
17 18 19 20 21		3. Upon consideration of the factors listed above and the purposes of this ordinance, the Board of Zoning Appeals may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39		<ul> <li>4. Conditions of variances.</li> <li>a. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.</li> <li>b. Variances shall only be issued upon: <ol> <li>A showing of good and sufficient cause;</li> <li>A determination that failure to grant the variance would result in exceptional hardship to the applicant; and</li> <li>A determination that the granting of a variance will not result in additional threats to public safety, result in extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.</li> </ol> </li> <li>c. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation at a specified number of feet below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.</li> </ul>
40 41 42 43 44 45 46	1114 <u>5</u> .C.	Procedures for requesting amendments to the flood insurance rate maps: Requests for amending the flood insurance rate maps (FIRM) may be submitted by affected individuals directly to the Federal Emergency Management Agency. The City of Myrtle Beach has no authority to amend or grant variances to the flood insurance rate maps without prior approval of the Federal Insurance Administration.
47 48 49 50	1114 <u>5</u> .D.	Free of obstruction or Break away walls with areas used only for vehicle parking, facility access or storage: All properties in within Zones V130, Coastal High Hazard (VE), and V on the City's Flood Insurance Rate Map must comply with 44 CFR Chapter 1, Part 60, Subpart 60.3, as applicable, and have the

space below the lowest floor either free of obstruction or constructed with nonsupporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds 1 per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions: (i) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and, (ii) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. Such enclosed space shall be useable solely for parking of vehicles, building access, or storage. Any nonconforming or noncompliant enclosure or use is prohibited and must be removed, and not reinstalled. Any such nonconforming or noncompliant enclosure or use, without regard to permitting, time of existence, custom or practice is expressly not subject to grandfathering, and may not in any way continue. The removal of the nonconforming or noncompliant enclosure or use shall be accomplished by September 1, 2010, and may not be erected or placed again under any circumstances. Failure to remove the nonconforming or noncompliant enclosure or use may result in additional enforcement action, including but not limited to the City's Declaration in implementation of Title 44, CFR, Chapter 1, Part 73, Section 73.3, as the procedure for the denial of flood insurance for that property, as provided for in federal law. The required removal of the nonconforming or noncompliant enclosure or use or the continuing prohibition of installation of a nonconforming or noncompliant enclosure may not be the subject of an appeal or request for variance from the Board of Zoning Adjustments.

This ordinance will take effect upon second reading.

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BRENDA BETHUNE, MAYOR

41 ATTEST:

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JENNIFER ADKINS, CITY CLERK

1<sup>st</sup> Reading: 10-26-2021 2<sup>nd</sup> Reading: 11-9-2021

#### **Detailed Staff Report**

### Section 403. Findings of Fact Required

 In reviewing any petition for a zoning amendment, the Planning Commission shall identify and evaluate all factors relevant to the petition, and shall report its findings in full, along with its recommendations for disposition of the petition, to the City Council. Factors shall include, but shall not be limited to, the following:

 403.A. Whether or not the requested zoning change is consistent with the Comprehensive Plan or is justified by an error in the original ordinance.

403.B. The precedents and the possible effects of such precedents, which might result from approval or denial of the petition.

403.C. The capability of the City or other government agencies to provide any services, facilities, or programs that might be required if the petition were approved.

403.D. Effect of approval of the petition on the condition or value of property in the City.

403.E. Effect of approval of the petition on adopted development plans and policies of the City.

#### **Staff Comments:**

Construction Services-Floodplain Manager: see attached presentation