

ORDINANCE NO. 2017-294

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF HILLSBORO BEACH, FLORIDA, AMENDING CHAPTER 12 ENTITLED "LAND DEVELOPMENT CODE" BY SPECIFICALLY CREATING SECTION 12-268 ENTITLED "SEAWALLS"; PROVIDING FOR DEFINITIONS; PROVIDING FOR NEW SEAWALLS TO HAVE A MINIMUM ELEVATION AND SPECIFIC DESIGN REQUIREMENTS; PROVIDING THAT EXISTING SEAWALLS SHALL BE PROPERLY MAINTAINED; PROVIDING FOR A TIME FRAME TO CONSTRUCT OR REPAIR A SEAWALL IN THE EVENT TIDAL WATERS FLOW UNIMPEDED ON TO ADJACENT PROPERTIES; PROVIDING FOR THE ESTABLISHMENT OF CONSTRUCTION STANDARDS THAT ENSURE THAT SEAWALLS AND SIMILAR STRUCTURES CONTRIBUTE TO COASTAL RESILIENCE AND MITIGATE THE EFFECTS OF TIDAL FLOODING AND SEA LEVEL RISE; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; PROVIDING FOR CODIFICATION; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, during the fall of 2015 and the fall of 2016, southeast Florida experienced extreme high tides (King Tides) that substantially exceeded the predicted high tides; and

WHEREAS, the King Tides for both the years of 2015 and 2016 resulted in rendering a segment of State Road A-1-A impassable creating a life safety issue for the residents of the Town of Hillsboro Beach, Florida; and

WHEREAS, It has been recommended to the Town by Nancy J. Gassman, Ph.D., an expert on the subject of tidal effects that the maximum allowable seawall elevation of 4.0 feet NAVD88 would provide significant protection from the predicted height of seasonal high tides and address projected sea level rise expected to occur within the 40 year lifespan of a seawall constructed after adoption of this Ordinance; and

WHEREAS, seawalls and similar structures contribute to coastal resilience when constructed in a manner that is substantially impermeable and meet a minimum height standard that effectively addresses existing tidal flooding and future sea level rise for the expected lifetime of the seawall or structure; and

WHEREAS, seawalls elevation requirements need to be set and the structures constructed in a manner that does not create drainage issues on the adjacent properties; and

WHEREAS, currently, major repairs of the seawall may result in a significant investment without a resulting elevation in height; and

WHEREAS, seawalls with defects need to be repaired in a timely manner to reduce tidal flooding impacts on adjacent properties and specifically, State Road A-1-A; and

WHEREAS, properties with low lying seawalls or lacking seawalls can be the source of tidal waters flooding adjacent properties or public Rights-of-Way or other public facilities.

WHEREAS, the Town Commission desires to minimize and control the adverse effects of rising sea levels and King Tides and thereby protect the health safety and welfare of the residents of Hillsboro Beach and preserve the quality of life for the Town's residents.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COMMISSION OF THE TOWN OF HILLSBORO BEACH, FLORIDA THAT:

Section 1. The foregoing "Whereas" clauses are hereby ratified and confirmed as being true and correct and are hereby made a part of this Ordinance.

Section 2. Chapter 12 of the Code of Ordinances entitled "Land Development Code" is amended to create Section 12-268 which shall read as follows:

Section 12-268. SEAWALLS.

- A. **Purpose.** It is the purpose of this ordinance to prevent flooding in the Town of Hillsboro Beach caused by rising sea levels and the periodic King Tide effect that results in portions of State Road A-1_A becoming impassable and closed to vehicular traffic resulting in a risk to the health, safety and welfare of the residents of Hillsboro Beach. In order to protect the health, safety, and welfare of the citizens of the Town and to prevent the adverse impacts on the State Road A-1-A caused by tidal waters from the Intracoastal Waterway, this ordinance is intended to require improvements to one's real property to impede tidal waters flowing on to private and public property and causing damage to adjacent properties.
- B. **Findings.** Based on evidence associated with rising sea levels and King Tides presented in hearings, studies, and reports made available to the Town Commission and the resultant adverse impacts on municipalities located in South Florida including but not limited to "Leveraging Catastrophe Bonds : As a Mechanism for Resilient Infrastructure Project Finance"; "A Research Paper Reviewing Issues and Unintended Consequences related to Raising Minimum Building Finish Floor Elevations prepared for City of Miami Beach; "City of Fort Lauderdale Frequently Asked Questions: Proposed Sea Wall Ordinance"; Miami Beach Flooding Mitigation Committee Meetings Minutes of July 9th, 2014; City of Miami Beach Memorandum dated February 18th, 2015 relative to Discussion Regarding Seawall Height Standards and Its Impact on Single Family Home Development; and "Max Seawall Heights for Coastal Cities in Broward County"; a PowerPoint Presentation entitled "King Tides,

Sea Level Rise, and Seawalls in SE Florida” presented by Dr. Nancy Gassman; “King Tide 2016: A Glimpse at what South Florida’s Future Could Like” Briefing Book for U.S. Congressman Ted Deutch; and “Climate Change and Sea-Level Rise in Florida” prepared by the Florida Oceans and Coastal Council, Tallahassee, Florida, the Town Commission finds:

- 1) The construction of new seawalls or the repair to existing seawalls to prevent tidal waters from flowing overland and leaving one’s property is necessary to protect the health, safety, and welfare of the Town residents; and
- 2) The town has a substantial interest in attempting to prevent the closure of State Road A-1-A due to tidal waters flowing overland from the Intracoastal waterway onto the state road;

C. The following words when used in this section shall have the following meaning:

(1) NGVD 29 or the National Geodetic Vertical Datum of 1929 means the vertical control datum established for vertical control surveying in the United States of America by the General Adjustment of 1929. The datum is used to measure elevation or altitude above, and depression or depth below, mean sea level (MSL).

(2) NAVD88 or the North American Vertical Datum means the vertical control datum of orthometric height established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988.

(3) Seawall means vertical or near vertical structures placed between an upland area and a waterway. For the purposes of the Land Development Code, rip rap is not considered a seawall.

(4) Rip rap means a foundation of unconsolidated boulders, stone, concrete or similar materials placed on or near a shoreline to mitigate wave impacts and prevent erosion.

D. The top surface of a newly constructed seawall shall have a minimum elevation of 4.0 feet NAVD88 (see table). The elevation shall not exceed a maximum of the base flood elevation (BFE) as identified in the most recent FEMA Flood Insurance Rate Map (FIRM) for the property, except as specifically set forth herein. For properties with a BFE of 4.0 feet NAVD88, the minimum seawall elevation shall meet 4.0feet NAVD88 and the maximum seawall elevation shall be 5.0 feet NAVD88. For waterfront properties with a habitable finished floor

elevation of less than 4.0 feet NAVD88, a seawall may be constructed at less than the stated minimum elevation if a waiver is granted by the Town Commission. For properties within an X zone, the minimum seawall elevation shall meet 4.0 feet NAVD88 and the maximum shall meet the definition of grade defined as the base flood elevation requirement for the lowest floor as shown on the flood insurance rate map published by the Federal Emergency Management Agency (FEMA). Property owners choosing to construct seawalls at less than 5.0 feet NAVD88 are strongly encouraged to have the foundation designed to accommodate a future seawall height extension up to a minimum elevation of 5.0 feet NAVD88.

| <u>Property's FEMA Flood Insurance Rate Map Location</u> | <u>Minimum Allowable Seawall Elevation</u> | <u>Maximum Allowable Seawall or Dock Elevation</u> |
|---|--|--|
| <u>In a floodplain with a base flood elevation greater than or equal to 5.0 feet NAVD88</u> | <u>4.0 feet NAVD88</u> | <u>Base Flood elevation of the property</u> |
| <u>In a floodplain with a base flood elevation equal to 4.0 feet NAVD88</u> | <u>4.0 feet NAVD88</u> | <u>5 feet NAVD88</u> |
| <u>In an X zone, not in a floodplain</u> | <u>4.0 feet NAVD88</u> | <u>Meet the definition of grade as defined herein.</u> |

(1) Seawalls shall be designed and built in a substantially impermeable manner to prevent tidal waters from flowing through the seawall while still allowing for the release of hydrostatic pressure from the upland direction. To effectuate the release of hydrostatic pressure, if needed because of insufficient structural strength of the seawall, seawalls shall be designed to provide for "seepage holes" with adequate back-flow prevention or a valve with backflow preventer. Additionally, the design of Seawalls shall take into account the existing historic storm water runoff patterns and provide for maintaining those patterns so as not to cause flooding of adjacent roadways.

(2) Fixed docks may be constructed at an elevation less than the elevation of the adjacent seawall to which it is attached but shall not be constructed at an elevation more than 10 inches above the adjacent seawall's elevation. Floating docks shall be allowed and must be permitted and permanently attached to a marginal dock, finger pier, mooring pilings, or seawall.

(3) Seawalls improvements constituting substantial repair at the time of permit application shall meet the minimum elevation and consider the design recommendations as set forth in this section for the continuous seawall for the length of the property. For the purposes of

this section, substantial repair threshold shall mean any improvement to a structure as defined as follows:

- a) If more than fifty percent (50%) of the total gross floor area of the building or more than fifty percent (50%) of a structure or more than fifty percent (50%) of its replacement value west of State Road A1A is damaged, destroyed or removed for any reason the entire building, structure or use thereof shall be required to meet the Town's Land Development Code.

(4) All property owners shall maintain their seawalls in good repair. A seawall is presumed to be in disrepair if it allows for upland erosion, transfer of material through, around or over the seawall or allows tidal waters to flow unimpeded through the seawall to adjacent properties or public Right-of- Way or the seepage of water is restricted such that water remains on the land side of the seawall and intrudes on neighboring property or public facilities or Right-of-Way. Property owners failing to maintain their seawalls may be cited. The owner of the property on which the seawall is constructed is required to initiate a process, including but not limited to hiring a contractor or as an owner applying for a building permit, and be able to demonstrate progress toward repairing the cited defect within 60 days of receiving notice from the Town and complete the repair within 365 days of citation or as extended by the Town Commission. The property owner shall insure that the seawall is designed and constructed to meet the minimum elevation requirement and design requirement as set forth in this section.

(5) Property owners with seawalls below the minimum elevation, or permeable erosion barriers, or a land/water interface of another nature shall not allow tidal waters entering their property to impact adjacent properties or public Rights-of-Way or other public facilities. Property owners failing to prevent tidal waters from flowing overland and leaving their property may be cited. The owner of the property is required to initiate a process, including but not limited to, hiring a contractor or as an owner submitting a building permit, and be able to demonstrate progress toward addressing the cited concern within 60 days of receiving notice from the Town and complete the proposed remedy within 365 days of citation.

(6) Any property owner required to install or repair a seawall or an existing structure or rip-rap under the Code of Ordinances may submit an alternative design including existing rip-rap to that specified in this ordinance to be reviewed by the Town's consulting engineer. If determined by the Town's Consulting Engineer that the functional requirements stated herein are satisfied, the

Town's Manager shall submit the alternate design to the Town Commission for its review and approval with or without conditions or denial.

Section 3. If any section, subsection, sentence, clause or provision of this Ordinance is held invalid, the remainder of this Ordinance shall not be affected by such invalidity.

Section 4. That all ordinances or parts of ordinances and all resolutions or parts of resolutions in conflict with this Ordinance are repealed to the extent of such conflict.

Section 5. It is the intention of the Town Commission of the Town of Hillsboro Beach, that the provisions of this Ordinance shall become and be made a part of the Code of Ordinances of Town of Hillsboro Beach, Florida, and the Sections of this ordinance may be renumbered, re-lettered and the word "Ordinance" may be changed to "Section," "Article," or such other word or phrase in order to accomplish such intention.

Section 6. This Ordinance shall be effective fifteen (15) days after its passage and adoption by the Town Commission of the Town of Hillsboro Beach.

PASSED AND ADOPTED BY THE TOWN COMMISSION OF THE TOWN OF HILLSBORO BEACH, FLORIDA, ON FIRST READING, THIS 2ND DAY OF MAY, 2017.

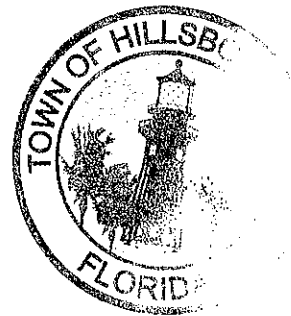
PASSED ADOPTED BY THE TOWN COMMISSION OF THE TOWN OF HILLSBORO BEACH, FLORIDA, ON SECOND AND FINAL READING, THIS 11TH DAY OF JULY, 2017.

By: Deborah L. Tarrant
Deborah L. Tarrant, Mayor

ATTEST:

By:

Wadie Atallah
Town Administrator



Wadie Atallah

From: Sonnett, Anson
Sent: Thursday, June 29, 2017 9:02 PM
To: Wadie Atallah
Cc: Poole, James
Subject: RE: Seawall Ordinance
Attachments: SKM_554e17062915360.pdf

Wadie,

Please feel free to share our concerns with anyone you think appropriate. The Department is concerned that the Town's proposed ordinance does not include language to ensure the historical stormwater runoff pattern will be maintained after residents construct their new seawalls at an elevation higher than the roadway. Today, runoff from the Department's right-of-way is able to freely sheet flow directly into the intracoastal to the west. The individual designs for the residents new seawalls will need to include an engineered solution to accommodate the stormwater runoff which naturally flows into the intracoastal today.

I've attached a sketch to show our concern as simply as possible and that may be beneficial for your discussions with folks with limited technical knowledge.

Sincerely,

Anson Sonnett, PE
Project Manager
Anson.Sonnett@dot.state.fl.us
FDOT-District IV
3400 W. Commercial Blvd.
Fort Lauderdale, FL 33309-3421
(954) 777-4474

From: Wadie Atallah [<mailto:watallah@townofhillsborobeach.com>]
Sent: Thursday, June 29, 2017 2:58 PM
To: Sonnett, Anson
Cc: Poole, James
Subject: RE: Seawall Ordinance

It was a pleasure speaking with you both this morning. Just to ensure that I understood the Departments' concern with potential impacts of the proposed seawall ordinance, I would appreciate receiving a written explanation of the concern via e-mail or a letter so I can provide to the attorney working on the ordinance. Thank you.

Wadie Atallah
Interim Town Manager
Town of Hillsboro Beach

From: Sonnett, Anson [<mailto:Anson.Sonnett@dot.state.fl.us>]
Sent: Thursday, June 29, 2017 2:19 PM
To: watallah@townofhillsborobeach.com

Cc: Poole, James
Subject: Seawall Ordinance

Wadie,

Great speaking with you, here is James's contact information in case you can't get ahold of me.

James Poole, P.E.
District Drainage Engineer – District 4
Florida Department of Transportation
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309-3421
(954) 777-4204

Sincerely,

Anson Sonnett, PE
Project Manager
Anson.Sonnett@dot.state.fl.us
FDOT-District IV
3400 W. Commercial Blvd.
Fort Lauderdale, FL 33309-3421
(954) 777-4474

scenario 1 ok
intra-coastal



scenario 2 ?





PUBLIC NOTICE

Notice is hereby given that prior to the Town Commission's consideration of the ordinance on its second reading, a **Public Hearing** will be held on Tuesday, July 11th at 9:00 AM or as soon thereafter as possible, in the Town Hall located at 1210 Hillsboro Mile Hillsboro Beach, Florida, the **Third / Final Reading** of the following Ordinance will be presented to the Town Commission of the Town of Hillsboro Beach, Florida:

TOWN OF HILLSBORO BEACH, FLORIDA

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All interested parties may appear at said meeting and be heard with respect to the proposed Ordinance. The proposed Ordinance may be inspected by the public in the Office of the Town Clerk, Town Hall 1210 Hillsboro Mile, Hillsboro Beach, Florida. Yude Alvarez, CMC, Town Clerk, Town of Hillsboro Beach, Florida