PROPOSED CHANGES
ULDR SECTION 47-19.3 - BOAT SLIPS, DOCKS, BOAT DAVITS, HOISTS AND SIMILAR MOORING STRUCTURES

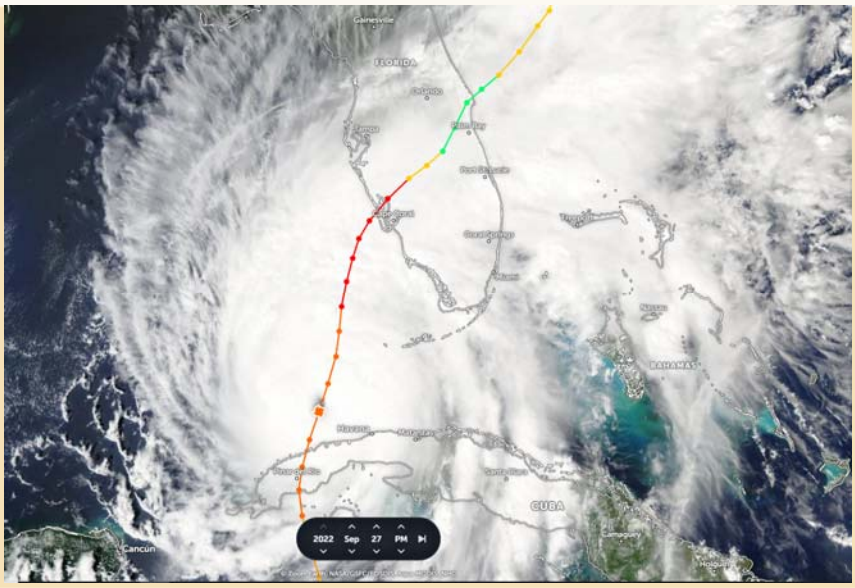
OCTOBER 11, 2022
COUNCIL OF FORT LAUDERDALE CIVIC ASSOCIATIONS

Nancy J. Gassman, Ph.D., Assistant Public Works Director - Sustainability

EXISTING FTL SEAWALL ORDINANCE MODIFICATIONS SHAPED BY CFLCA IN 2016

- Sets a **minimum seawall elevation** at **3.9 feet** NAVD88;
- Recommends **design of seawall for future height adjustment** up to 5.0 feet NAVD88;
- Sets an allowable **maximum height** of the seawall and dock based on a property's base flood elevation;
- Requires seawall reconstruction to the minimum elevation if the **substantial repair threshold (50%)** is triggered;
- **Requires maintaining seawalls in good repair** and sets a timeline of 365 days for completion of repairs if cited;
- **Requires owners to prevent tidal waters entering their property from impacting others** and sets a timeline of 365 days for remedy if cited;
- Allows **fixed docks to extend 10 inches** above the adjacent seawall; and
- Addresses **floating docks.**

SEAWALLS AND FLOOD PROTECTION



Hurricane Ian 2022

Date UTC−4	Time	Type	Wind mph	Pressure mb
Sep 29	11 PM	H1	85	985
Sep 29	8 PM	H1	80	986
Sep 29	5 PM	H1	75	986
Sep 29	2 PM	H1	75	986
Sep 29	11 AM	S	70	986
Sep 29	8 AM	S	70	987
Sep 29	5 AM	S	70	986
Sep 29	2 AM	S	65	986
Sep 28	11 PM	H1	90	973
Sep 28	8 PM	H1	90	960
Sep 28	5 PM	H4	135	949
Sep 28	2 PM	H4	140	938
Sep 28	11 AM	H4	155	937
Sep 28	8 AM	H4	155	937
Sep 28	5 AM	H4	145	941
Sep 28	2 AM	H4	155	945
Sep 27	11 PM	H3	130	946
Sep 27	8 PM	H3	120	947
Sep 27	5 PM	H3	120	949
Sep 27	2 PM	H3	120	951
Sep 27	11 AM	H3	115	957
Sep 27	8 AM	H3	115	963
Sep 27	5 AM	H3	125	949

H3 Category 3 Major Hurricane
120 mph winds

USACE/Broward County Flood Risk Management Study for Tidally Influenced Coastal Areas

Briefing for Climate Change Task Force
Sep 04, 2018
Fort Lauderdale, FL

Glenn B. Landers, P.E.
Planning and Policy Division
Jacksonville District

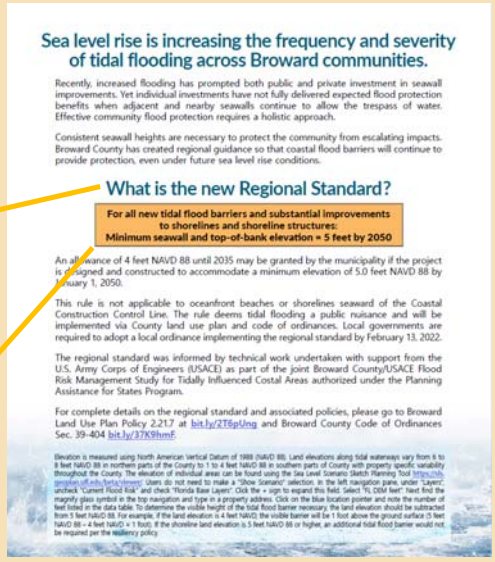
BUILDING STRONG®

US ARMY CORPS OF ENGINEERS | Jacksonville District

BROWARD COUNTY – REGIONAL TIDAL BARRIER STANDARD

What is the new Regional Standard?

For all new tidal flood barriers and substantial improvements to shorelines and shoreline structures:
Minimum seawall and top-of-bank elevation = 5 feet by 2050



Sea level rise is increasing the frequency and severity of tidal flooding across Broward communities.

Recently, increased flooding has prompted both public and private investment in seawall improvements. Yet individual investments have not fully delivered expected flood protection benefits when adjacent and nearby seawalls continue to allow the trespass of water. Effective community flood protection requires a holistic approach.

Consistent seawall heights are necessary to protect the community from escalating impacts. Broward County has created regional guidance so that coastal flood barriers will continue to provide protection, even under future sea level rise conditions.

What is the new Regional Standard?

For all new tidal flood barriers and substantial improvements to shorelines and shoreline structures:
Minimum seawall and top-of-bank elevation = 5 feet by 2050

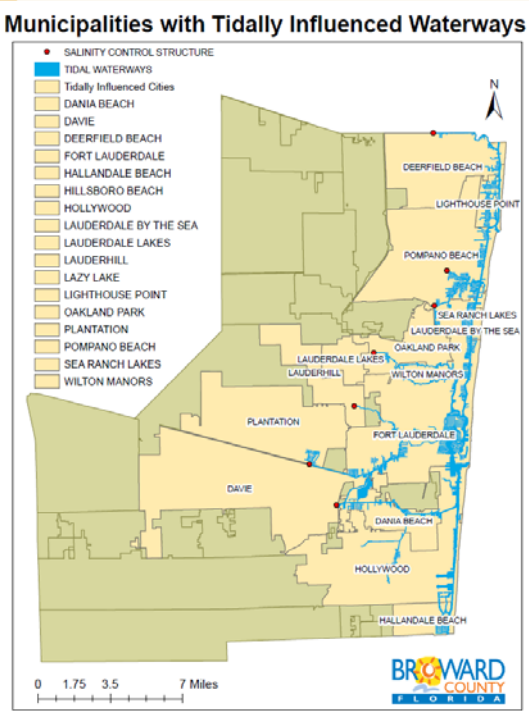
An allowance of 4 feet NAVD 88 until 2035 may be granted by the municipality if the project is designed and constructed to accommodate a minimum elevation of 5.0 feet NAVD 88 by January 1, 2050.

This rule is not applicable to oceanfront beaches or shorelines seaward of the Coastal Construction Control Line. The rule deems tidal flooding a public nuisance and will be implemented via County land use plan and code of ordinances. Local governments are required to adopt a local ordinance implementing the regional standard by February 13, 2022.

The regional standard was informed by technical work undertaken with support from the U.S. Army Corps of Engineers (USACE) as part of the joint Broward County/USACE Flood Risk Management Study for Tidally Influenced Costal Areas authorized under the Planning Assistance for States Program.

For complete details on the regional standard and associated policies, please go to Broward Land Use Plan Policy 2.21.7 at bit.ly/2T6pUng and Broward County Code of Ordinances Sec. 39-404 bit.ly/37K9hmF.

Elevation is measured using North American Vertical Datum of 1988 (NAVD 88). Land elevations along tidal waterways vary from 6 to 8 feet NAVD 88 in northern parts of the County to 1 to 4 feet NAVD 88 in southern parts of County with property specific variability throughout the County. The elevation of individual areas can be found using the Sea Level Scenario Sketch Planning Tool https://sls.geodata.sfwmd.gov/sls/viewer/. Users do not need to make a "Show Scenario" selection. In the left navigation pane, under "Layers", uncheck "Current Flood Risk" and check "Florida Base Layers". Click the + sign to expand this field. Select "FL DEM feet". Next, find the magnify glass symbol in the top navigation and type in a property address. Click on the blue location pointer and note the number of feet listed in the data table. To determine the visible height of the total flood barrier necessary, the land elevation should be subtracted from 5 feet NAVD 88. For example, if the land elevation is 4 feet NAVD, the visible barrier will be 1 foot above the ground surface (5 feet NAVD 88 – 4 feet NAVD = 1 foot). If the shoreline land elevation is 5 feet NAVD 88 or higher, an additional tidal flood barrier would not be required per the resiliency policy.



BROWARD COMPREHENSIVE PLAN/LAND USE PLAN REQUIREMENT

Policy 2.21.7 of the Broward Comprehensive Plan (adopted Jan 7, 2020, item 32) requires that **tidally-influenced municipalities adopt regionally consistent top elevations for seawalls, banks, and berms**…consistent with Broward County Chapter 39, Article XXV by March 31, 2022.

- **Broward code based on FTL seawall ordinance**
- **Major change is minimum elevation of five (5) feet NAVD88.**

COMPLIANCE WITH COMPREHENSIVE PLAN

- POLICY CC 2.2.3a: To ensure coordination, consistency and maximum effectiveness of coastal improvements necessary to mitigate high tide flooding associated with realized and additional sea level rise through the year 2070, **the City will adopt and update as necessary regionally consistent top elevations standards for seawalls,** banks and berms, and other appurtenant coastal infrastructure (e.g., boat ramps) consistent with the findings and recommendations of the United States Army Corps of Engineers/Broward County Flood Risk Management Study for Tidally Influenced Coastal Areas. **These standards shall be consistent with Chapter 39, Article XXV – Resiliency Standards for Flood Protection - of the Broward County Code of Ordinances.**

KEY MODIFICATIONS

ULDR SECTION **47-19.13** - RESILIENCY STANDARDS FOR TIDAL FLOOD PROTECTION

- Establishes terms, phrases, words for definition and interpretation purposes of this section;
- Extends the elevation requirement from only seawalls to all tidal flood barriers;
- Requires a minimum elevation of five (5) feet National American Vertical Datum (NAVD88) for new or substantially repaired tidal barriers;
- Allows for structures permitted before Jan 1, 2035 to be built at four (4) feet NAVD88 but they must be designed to be elevated to five (5) feet NAVD88 by Jan 1, 2050;
- Establishes a maximum elevation for tidal barriers related to the base flood elevation (BFE) of the property or 6 feet which ever is lower; (continued)...

KEY MODIFICATIONS

ULDR SECTION **47-19.13** - RESILIENCY STANDARDS FOR TIDAL FLOOD PROTECTION (CONT)

- Requires tidal structures built where no previous seawall existed to provide habitat enhancement at the waterward face of the bulkhead or seawall;
- Encourages incorporation of living shoreline features;
- Provides for the City Engineer's ability to issue a waiver from the top elevation requirement for waterfront properties containing a principal structure with a habitable finished floor elevation of less than 4.0 feet NAVD88; and

(continued)...

KEY MODIFICATIONS

ULDR SECTION 47-19.13 - - RESILIENCY STANDARDS FOR TIDAL FLOOD PROTECTION

- Required disclosure in contracts for sale of real estate after December 31, 2022.

"THIS REAL ESTATE IS LOCATED IN A TIDALLY INFLUENCED AREA. THE OWNER MAY BE REQUIRED BY COUNTY OR MUNICIPAL ORDINANCE TO MEET MINIMUM TIDAL FLOOD BARRIER ELEVATION STANDARDS DURING CONSTRUCTION OR SUBSTANTIAL REPAIR OR SUBSTANTIAL REHABILITATION OF SEAWALLS, BANKS, BERMS, AND SIMILAR INFRASTRUCTURE OR WHEN REQUIRED TO ABATE NUISANCE FLOODING."

WHAT HAS NOT CHANGED?

- Required **ONLY** for **new** seawall/tidal barrier construction OR for reconstruction if the **substantial repair threshold (50%)** is triggered OR **if cited**;
- **Requires maintaining seawalls/tidal barriers in good repair** and sets a timeline of 365 days for completion of repairs if cited;
- **Requires owners to prevent tidal waters entering their property from impacting others** and sets a timeline of 365 days for remedy if cited; and
- Provides guidance for **minimum and maximum top elevations.**

NEXT STEPS

- Presentation to the Sustainability Advisory Board (Oct 24)
- Presentation to Planning and Zoning Board (Nov)
- Post public notice and first reading before the City Commission (Dec)
- Second reading and approval by City Commission (Jan)
- Implement within 10 days of approval