

AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING CHAPTER 54 OF THE CODE OF THE CITY OF MIAMI BEACH, ENTITLED "FLOODS," BY CREATING ARTICLE III, TO BE ENTITLED "RESILIENCY STANDARDS FOR TIDAL FLOOD PROTECTION," TO STATE THE PURPOSE AND INTENT OF THE ARTICLE; ESTABLISH DEFINITIONS; AND ESTABLISH CONSTRUCTION STANDARDS THAT ENSURE THAT SEAWALLS AND OTHER TIDAL FLOOD BARRIERS STRENGTHEN COASTAL RESILIENCE AND MITIGATE THE EFFECTS OF TIDAL FLOODING AND SEA LEVEL RISE; AND PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION, AND AN EFFECTIVE DATE.

WHEREAS, sea level rise is one of the effects of climate change and is a result of different factors, including – an increase in water volume that is added by melting land ice and the thermal expansion of sea water as it warms up; and

WHEREAS, sea level rise experts project an estimated increase in sea level of approximately 10 to 17 inches by 2040; 21 to 40 inches by 2070; and 40 to 92 by 2120; and

WHEREAS; seawalls and similar tidal flood barriers strengthen 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; In 2016, the Mayor and City Commission passed Resolution No. 2016-29454, which required that all new seawalls on private property, and for public projects, have a minimum elevation of 5.7 feet NAVD; however, applications for new or substantially rehabilitated seawalls not associated with new or substantial building construction would be permitted a minimum elevation of 4.0 feet NAVD88 if designed and constructed to accommodate a minimum elevation of 5.7 feet NAVD88 (and not lower than the adjacent yard); and

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

WHEREAS, a minimum and maximum elevation standard for seawall construction should be set to reduce the potential for a substantial visual discontinuity with their neighbors; and

WHEREAS, properties with low-lying seawalls can be the source of tidal waters flooding adjacent properties or public rights-of-way; and

WHEREAS, seawalls, bulkheads, living shorelines, or other shoreline protection structures need to be raised in a timely manner to reduce tidal flooding impacts on adjacent private properties and public rights-of-way; and

WHEREAS, the City promotes and encourages the use of living shorelines to provide a natural alternative to “hard” shoreline stabilization methods and provide numerous benefits including nutrient pollution remediation, essential fish habitat structure, and buffering of shorelines from waves and storms; and

WHEREAS, the proposed changes in this Ordinance will result in a more resilient waterfront.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AS FOLLOWS:

SECTION 1. That Article III of Chapter 54 of the Code of the City Miami Beach is hereby created as follows:

CHAPTER 54

FLOODS

* * *

ARTICLE III. Resilience Standards for Tidal Flood Protection.

Sec. 54-59. Purpose and intent.

The purpose of this article is to protect the public’s health, welfare and safety by setting minimum standards to be used in the design, construction and maintenance of waterfront structures. This article establishes a minimum elevation for new seawalls and requires failing and low seawalls, bulkheads, living shorelines, or other shoreline protection structures that cause tidal surface water flooding to adjacent properties to be maintained. The physical seawall improvements ensure new seawalls, bulkheads, living shorelines, or other shoreline protection structures are designed with application of consistent standards that account for future tidal flood conditions and coastal water levels predicted with sea level rise, in accordance with current regional sea level rise projections, as updated and adopted by the City Commission.

Sec. 54-60. Applicability.

Mandatory compliance with the requirements of this Article shall be required for all applicants with building permit applications that meet the following criteria:

- (1) All new waterfront construction and substantial improvements; or
- (2) All new seawalls; or

(3) Substantial improvements to shorelines and shoreline structures.

Mandatory compliance with the requirements of this Article shall be required for all low seawalls, bulkheads, living shorelines, or other shorelines protection structures that cause tidal surface water flooding to adjacent properties and/or public right of way.

This article is not applicable to oceanfront beaches or shorelines seaward of the Coastal Construction Control Line.

Sec. 54-61. Definitions.

The following words, terms, and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Bulkhead: A vertical or near-vertical, substantially impermeable structure erected along water or a waterway, designed and constructed in such manner as to be substantially impermeable and safely sustain any loads, both vertical and lateral, that may come upon it, such as earth fill, water, moving traffic, storage of materials alongside, and the like. coastal bulkheads are most often referred to as Seawalls; however, by definition, they are intended to act as a shoreline stabilization structure that primarily retains soil and provides minimal protection from waves.

Green-grey infrastructure or materials is a combination of engineered and natural features that provide environmental qualities and ecosystem value.

Living Shoreline: A green infrastructure technique using native vegetation alone or in combination with low sills (such as low elevation Seawalls or Bulkheads) to stabilize the shoreline as a natural alternative to “hard” shoreline stabilization methods like Riprap or Bulkheads. Living Shorelines may be more resilient than Bulkheads in protecting against the effects of hurricanes. A Living Shoreline may have its waterside face consist of plants and other natural elements that improve water quality, provide additional fish habitat, and fosters increased biodiversity. The landside interface may be located anywhere on an existing property fronting the Living Shoreline, as long as it is constructed in a manner and location that ensures any habitable structures on that property are protected from flooding from tidal waters and it prevents flooding of adjacent properties and the public right-of-way.

NAVD88 or the North American Vertical Datum (“NAVD 88”) 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.

Public nuisance means injurious to the safety or health of the entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any public right-of-way.

Rip-rap means a foundation of unconsolidated boulders, stone, rubble, concrete without protruding rebar or similar materials placed on or near a shoreline to mitigate wave impacts and prevent erosion.

Seawall means the vertical or near vertical (often interlocking) structures placed between an upland area and a waterway or waterbody for erosion control.

Seawall cap means the concrete beam (usually cast-in-place and reinforced) which connects seawall panels, piles and anchoring system (if present) together at the top of the seawall structure.

Shoreline means the tidally influenced area where land meets water.

Substantial repair or rehabilitation means:

- a) Any improvement and/or repairs to the existing seawall with a cost of \$300 or more per linear foot.

Tidally-influenced areas means a waterway with water level changes in response to the daily tide.

Sec. 54-62. Minimum Elevations and Materials for New or Substantially Rehabilitated Coastal Infrastructure within Tidally-Influence Areas.

- a) All new seawalls or existing seawalls that require substantial repairs; shall have a minimum elevation of 5.7 feet NAVD88. All existing seawalls that require repairs but the repairs are considered less than substantial and existing seawalls that fall below an elevation that incurs flooding to adjacent property and/or public right of way shall have a minimum elevation of 4.0 feet NAVD88 if designed and constructed to accommodate a minimum elevation of 5.7 feet NAVD88.
- b) To the extent practicable, seawalls shall be designed and constructed to adjoin immediately proximate seawalls to close gaps and prevent trespass of tidal surface water.
- c) Property owners are encouraged to consider approaches and materials that enhance the biological value of traditional (flat surface) seawalls with the incorporation of living shoreline features, the use of materials that encourage biodiversity, and the use of biological forms, where practicable.
- d) This section shall not be construed to require the installation of a seawall where other flood protection measures and living shorelines serve as an equally effective tidal flood barrier.

Sec. 54-63. Coastal Infrastructure Maintenance Requirements within Tidally-Influence Areas.

- a) All property owners must maintain their seawalls, bulkheads, living shorelines, or other shoreline protection structures or elements in good repair. A shoreline protection structure is presumed to be in disrepair if it allows for upland erosion, transfer of material through the barrier/wall or allows tidal waters to flow unimpeded through and/or over the top of the barrier/wall to adjacent properties or public right-of-way. Property owners with seawalls, bulkheads, living shorelines, or other shoreline protection structures or elements below the minimum required finished elevation, with permeable erosion barriers such as riprap, or land/water interface of another nature are prohibited from allowing tidal waters entering their property to flow to adjacent properties or public rights-of-way. Failure to maintain flood mitigation infrastructure shall be a citable offense. The owner of the seawall shall demonstrate progress towards repairing the cited defect within sixty (60) days of receiving a citation. If the required repair meets the substantial repair threshold, the property owner must design, obtain permits, and cause to be constructed seawall improvements that meet the minimum elevation and design requirements within seven hundred and thirty days (730) days of receipt of the citation.
- b) Property owners with seawalls below the minimum elevation set forth in section 54-62(a), or permeable erosion barriers such as rip-rap, living shorelines, 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. 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 submitting a building permit, and be able to demonstrate progress toward addressing the cited concern within sixty (60) days of receiving a citation from the city and must complete the proposed remedy within seven hundred and thirty days (730) days of citation.

Sec. 54-64. As-built Requirements and Resilience Standard Certification.

- a) Property owners are required to submit to the Building Department and Public Works Department an as-built survey that is prepared by a professional surveyor to show elevation of seawall (NAVD88) at the commencement of construction.
- b) Property owners are required to submit to the Building Department and Public Works Department certification by a professional engineer stating that shoreline protection structures have been designed and constructed in accordance with this Article and Miami Beach's Resilience Standards for Tidal Flood Protection ordinance.

Sec. 54-65. Enforcement; Warnings; Civil Penalties.

- (a) Failure to maintain flood mitigation infrastructure as set forth in Section 54-63(a)

or to prevent tidal waters from flowing overland and leaving their property as set forth in Section 54-63(b) shall be enforced by a floodplain administrator or designee, a code compliance officer, or a police officer ("enforcement officer") in accordance with the procedures and penalties set forth in Section 54-65(b) through (j).

- (b) Warning. An enforcement officer shall first issue a written warning to remedy the violation prior to issuing a notice of violation unless one written warning has been issued in the 12 months preceding the date of violation. The written warning shall require the property owner to initiate seawall repair or improvement, and be able to demonstrate progress toward addressing the cited concern within sixty (60) days of receiving notice from the city and complete the proposed remedy within seven hundred and thirty days (730) days of citation. The written warning shall be substantially in the same form as a notice of violation as identified in section 54-65(c). Failure to either demonstrate progress towards addressing the cited concern within (60) days of receiving notice from the City or upon failing to complete the proposed remedy within seven hundred and thirty days (730) days of citation shall result in subsequent violations set forth in this subsection. Each day such violation continues shall be considered a separate offense.
- (c) Penalties. If an enforcement officer finds a violation, the officer shall issue a notice of violation to the violator as provided in chapter 30. The notice shall inform the violator of the nature of the violation, amount of fine for which the violator may be liable, instructions and due date for paying the fine, notice that the violation may be appealed by requesting an administrative hearing within ten days after service of the notice of violation, and that failure to do so shall constitute an admission of the violation and waiver of the right to a hearing.
- (d) A violator who has been served with a notice of violation shall elect either to:
 - (1) Pay the civil-fine as follows for violations of sections 54-63(a) and/or (b):
 - i. First offense\$250.00;
 - ii. Second and subsequent offenses\$500.00.
 - or
 - (2) Request an administrative hearing within ten days before a special master appointed as provided in article II of chapter 30 to appeal the decision of the enforcement officer which resulted in the issuance of the notice of violation.
- (e) If the named violator, after notice of violation, fails to pay the civil fine or fails to timely request an administrative hearing before a special master, the special master shall be informed of such failure by report from the enforcement officer. Failure of the named violator to appeal the decisions of the enforcement officer within the prescribed time period shall constitute a waiver of the violator's right to administrative hearing before the special master. A waiver of the right or an administrative hearing shall be treated as an admission of the violation and penalties may be assessed accordingly. The special master shall be prohibited

from hearing the merits of the notice of violation or consideration of the timeliness of the request for an administrative hearing if the violator has failed to request an administrative hearing within ten days of the issuance of the notice of violation.

- (f) A certified copy of an order imposing a fine may be recorded in the public records, and thereafter shall constitute a lien upon any real or personal property owned by the violator, which may be enforced in the same manner as a court judgment by the sheriffs of this state, including levy against the violator's real or personal property, but shall not be deemed to be a court judgment except for enforcement purposes.
- (g) Any party aggrieved by the decision of the special master may appeal the decision in accordance with law.
- (h) The city may institute proceedings in a court of competent jurisdiction to compel payment of civil fines.
- (i) A certified copy of an order imposing a civil fine may be recorded in the public records and thereafter shall constitute a lien upon any other real or personal property owned by the violator and it may be enforced in the same manner as a court judgment by the sheriffs of this state, including levy against the personal property, but shall not be deemed to be a court judgment except for enforcement purposes. After two months from the filing of any such lien which remains unpaid, the city may foreclose or otherwise execute upon the lien.
- (j) The procedures for appeal of the notice of violation by administrative hearing shall be as set forth in sections 30-72 and 30-73.

SECTION 2. REPEALER.

All ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION 3. SEVERABILITY.

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

SECTION 4. CODIFICATION.

It is the intention of the Mayor and City Commission of the City of Miami Beach, and it is hereby ordained that the provisions of this Ordinance shall become and be made part of the Code of the City of Miami Beach, Florida. The sections of this Ordinance may be renumbered or relettered to accomplish such intention, and the word "ordinance" may be changed to "section," "article," or other appropriate word.

SECTION 5. EFFECTIVE DATE.

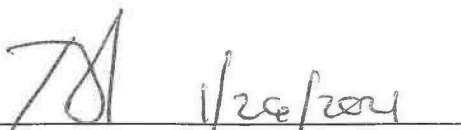
This Ordinance shall take effect on the 23 day of January, 2021.

PASSED AND ADOPTED this 13 day of January, 2021.

ATTEST:



Dan Gelber, Mayor



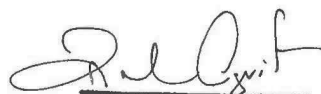
Rafael E. Granado, City Clerk

(Sponsored by Commissioner Samuelian)

Underline denotes additions



APPROVED AS TO
FORM & LANGUAGE
& FOR EXECUTION


City Attorney 12/2/20 Date
FA

MIAMI BEACH

COMMISSION MEMORANDUM

TO: Honorable Mayor and Members of the City Commission
FROM: Raul J. Aguila, Interim City Manager
DATE: January 13, 2021

2:25 p.m. Second Reading Public Hearing

SUBJECT: AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING CHAPTER 54 OF THE CODE OF THE CITY OF MIAMI BEACH, ENTITLED "FLOODS," BY CREATING ARTICLE III, TO BE ENTITLED "RESILIENCY STANDARDS FOR TIDAL FLOOD PROTECTION," TO STATE THE PURPOSE AND INTENT OF THE ARTICLE; ESTABLISH DEFINITIONS; AND ESTABLISH CONSTRUCTION STANDARDS THAT ENSURE THAT SEAWALLS AND OTHER TIDAL FLOOD BARRIERS STRENGTHEN COASTAL RESILIENCE AND MITIGATE THE EFFECTS OF TIDAL FLOODING AND SEA LEVEL RISE; AND PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION, AND AN EFFECTIVE DATE.

RECOMMENDATION

The Administration recommends that the City adopt the Ordinance.

BACKGROUND/HISTORY

The 2019 Community Satisfaction Survey shows that 39.7% of residents have observed increased flooding in their neighborhood, down from 73.7% in 2016. The City of Miami Beach is investing in aging infrastructure to reduce food risk, adapt to climate change, and is committed to building resilience on several fronts. Over the last few years, the City has updated its land use development regulations for new construction to address water retention, setbacks and increase in base flood and freeboard elevation. These measures also contemplate sea level rise scenarios to reduce the risk to the new inventory of buildings.

Miami Beach has approximately 53 miles of seawalls, of which 92% are owned by private property. Existing City legislation does not address tidal waters overtopping seawalls and impacting adjacent property and public right-of-way.

The proposed Ordinance was modeled from seawall ordinances recently adopted by Broward County and the City of Fort Lauderdale. The City of Miami has also drafted an ordinance that is going through the review and approval process. The proposed Ordinance looks at best management practices from these other municipalities but is specific to Miami Beach, and accounts for the feedback from the community. The main purpose of the Ordinance is to provide the City the enforcement ability to address overtopping and to integrate the city's

seawall elevation requirements adopted in 2016 into Chapter 54 Floods.

The Ordinance was developed after discussions and direction at the Land Use and Sustainability Committee. On July 24, 2020, the Committee forwarded the ordinance, by acclamation, to the City Commission for first reading. On December 9, 2020, the Mayor and City Commission unanimously adopted the Ordinance on first reading.

Stakeholder Engagement

Staff has engaged the following entities that provided feedback on the draft ordinance:

- Marine and Waterfront Protection Committee
- National Flood Insurance Program Community Rating System Program for Public Information
- Sustainability Committee
- Marine Industry Focus Group
- General Public Engagement Meeting

On August 17, 2020, staff held a focus group discussion with marine contractors to gain insight on the industry's perspective on the proposed ordinance and discuss potential of setting special rates for Miami Beach property owners. Each seawall is unique and is designed to accommodate existing conditions and specific design elements required by the property. In addition, contractors pricing includes many factors such as variable material costs the amount of work in relationship to their equipment and staff.

On October 6, 2020, staff held a public meeting and provided a seven-day public comment period to obtain feedback of the proposed ordinance from residents. The meeting had 62 participants the questions and comments can be broken down into the following three areas:

1. Affordability and financing of private property upgrade costs
2. Complexity and time needed for permitting and construction of new seawalls
3. Necessity to protect private properties adjacent to low and failing seawalls

The public has expressed concerns related to affordability of seawall upgrade and the process to replace seawalls. The city examined a special assessment district (discussed at June 2019 Sustainability and Resilience Committee) and convened banks and funders to develop a special program for Miami Beach property owners (discussed at September 2019 and January 2020) to identify means to facilitate funding of private property adaptation. After thorough research and discussions with the financial industry, it has been determined that these are not feasible alternatives at this time.

Seawall replacement requires permitting approvals from the Army Corps of Engineers, the State of Florida, Miami-Dade County Resources and Regulatory Department, and the City of Miami Beach. The ordinance presented to the Land Use and Sustainability Committee in July 2020 proposed that 550 days be provided to a property owner to have enough time to complete the permitting, design, and construction. Based on discussions with the marine industry and feedback from residents regarding design and permitting challenges the Ordinance has been updated to allow for 730 days for reconstruction of failing seawalls. The City has also initiated discussions with Miami-Dade County to understand if the local regulatory permitting process can be streamlined.

To understand how neighboring municipalities are addressing overtopping and enforcement, staff also convened meetings with City of Miami, Broward County, and the City of Fort Lauderdale. Broward County and the City of Fort Lauderdale have passed ordinances addressing overtopping and the City of Miami is in the process of developing an ordinance.

Proposed Seawall Ordinance Overview

The proposed Seawall Ordinance codifies minimum elevations for new seawalls and requires seawalls that are in disrepair and are causing flooding on adjacent properties be maintained.

The Ordinance establishes that all new seawalls must be constructed to an elevation of 5.7 ft NAVD, or 4 ft NAVD if designed to support a future elevation of 5.7 NAVD. The elevation requirements are already in effect. On May 11, 2016, the City passed a resolution to require that new seawalls, and those meeting the substantial reconstruction requirements, have higher elevation standards (R2016-4009). The Ordinance further codifies this requirement and includes that seawalls must be upgraded if the property has new construction or substantial improvements. It should be noted that property owners are encouraged to consider designs using materials to further biodiversity of the City's coastal marine habitat.

The Ordinance also establishes overtopping as a trigger for seawall elevation and seawall maintenance requirements. Seawalls must be maintained in good repair as to not allow soil to eroded into the bay or waterway or to allow tidal waters to flow through the seawall and impact adjacent private property(s). The Ordinance also requires that seawalls must be maintained to prevent tidal waters from flowing overland and leaving their property.

Enforcement of the maintenance requirements set forth in the Ordinance will be enforced by either the floodplain administrator, a Code Compliance officer, or a police officer. The Ordinance includes a \$250 fine for the first offence (day) and \$500 per day fine for subsequent infractions and requires that following a citation, the property owner has 730 days to complete repairs. A violator that has been served a notice can request an administrative hearing within ten days to appeal the decision of the enforcement officer.

Information about the new Ordinance and how to report potential violations will be included on the City's website at www.mbrisingabove.com/seawalls.

CONCLUSION

The Administration recommends the Mayor and City Commission to approve the Ordinance on Second Reading.

Applicable Area

Citywide

Is this a "Residents Right to Know" item, pursuant to City Code Section 2-14?

Yes

Does this item utilize G.O. Bond Funds?

No

Strategic Connection

Environment & Infrastructure - Reduce risk from storms, high tides, groundwater, and sea level rise.

Legislative Tracking

Environment and Sustainability

Sponsor

Commissioner Mark Samuelian