



SPECIAL MEETING AGENDA

Planning and Zoning Board City of St. Augustine, Florida

Alcazar Room

Tuesday, September 19, 2023, 1:00 pm

Agenda

- 1. Roll Call**
- 2. General Public Comments for Items Not on the Agenda**
- 3. Presentation and Discussion Regarding Potential Resilient Shoreline Concepts and Ordinance**
 - a. Discussion with city environmental consultant WSP USA Environment & Infrastructure, Inc. (WSP) and Erin Deady, Erin L. Deady, P.A. to begin the discussion related to adopting a shoreline ordinance and updates to the City's Conservation Overlay Zone code to incorporate resiliency and sustainability initiatives.
 - b. Planning and Zoning Board discussion
- 4. Discussion and Recommendation Related to Updating the City's Parking Code Regulations**
 - a. Discussion and Recommendations related to potential updates to the City's Parking Code to incorporate mobility concepts adopted in the City's Mobility Plan and the Comprehensive Plan
 - b. Planning and Zoning Board discussion and recommendation
- 5. Adjournment**

Notices: In accordance with Florida Statute 286.0105: "If any person decides to appeal any decision made by the Planning and Zoning Board with respect to any matter considered at this scheduled meeting or hearing, the person will need a record of the proceedings, and for such purpose the person may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." In accordance with the Americans with Disabilities Act, persons needing a special accommodation to participate in this proceeding should contact the individual or agency sending notice not later than seven days prior to the proceeding at the address given on the notice. Telephone: (904) 825-1007; 1-800-955-8771 (TDD) or 1-800-955-8770 (V), via Florida Relay Service.

Please note that one or more members of the City Commission or its appointed boards or committees may attend this meeting and participate, however they may not engage in a discussion or debate amongst themselves on any issue that will likely come before their respective elected or appointed body.

The materials prepared and presented are part of the City's ongoing Florida Public Records and Government in the Sunshine compliance and are not intended to be relied upon or to reach investors or the trading markets.

CITY OF ST. AUGUSTINE

MEMORANDUM

TO: Planning and Zoning Board

DATE: September 19, 2023

RE: **Item 3**

Presentation and Discussion Regarding Potential Resilient Shoreline Concepts and Ordinance

This Special Meeting of the PZB is a follow up meeting to the information that was discussed in February regarding the City's resilient shoreline issue. This provides an opportunity for the PZB to meet with the city's consultants that are working on data collection and drafting ordinance language related to shorelines, seawalls, feasibility, and other impacts on the extensive proximity of the city to the water.

The discussion will be led by the city's environmental consultant WSP USA Environment & Infrastructure, Inc. (WSP) and Erin Deady AICP, Esq., Erin L. Deady, P.A. to garner feedback from the Board and the public related to adopting a shoreline ordinance and updates to the City's Conservation Overlay Zone code to incorporate resiliency and sustainability initiatives.

Please find attached for your information a presentation prepared by Ms. Deady, the *Florida Seawall and Shoreline Regulation Considering Sea Level Rise Impacts* document, and the model ordinance from Tampa Bay.

Thank you for your attention to this matter. If you have any questions, please call me at (904) 209-4320 or email at askinner@citystaug.com or Jessica Beach, P.E., Chief Resilience Officer at (904) 209-4227 or email at jbeach@citystaug.com.



Amy McClure Skinner, AICP
Director
Planning and Building Department

Shoreline* Policy Overview

* Non-Beaches

Erin L. Deady, AICP, Esq.
Erin L. Deady, P.A.
Delray Beach, FL
September 19, 2023

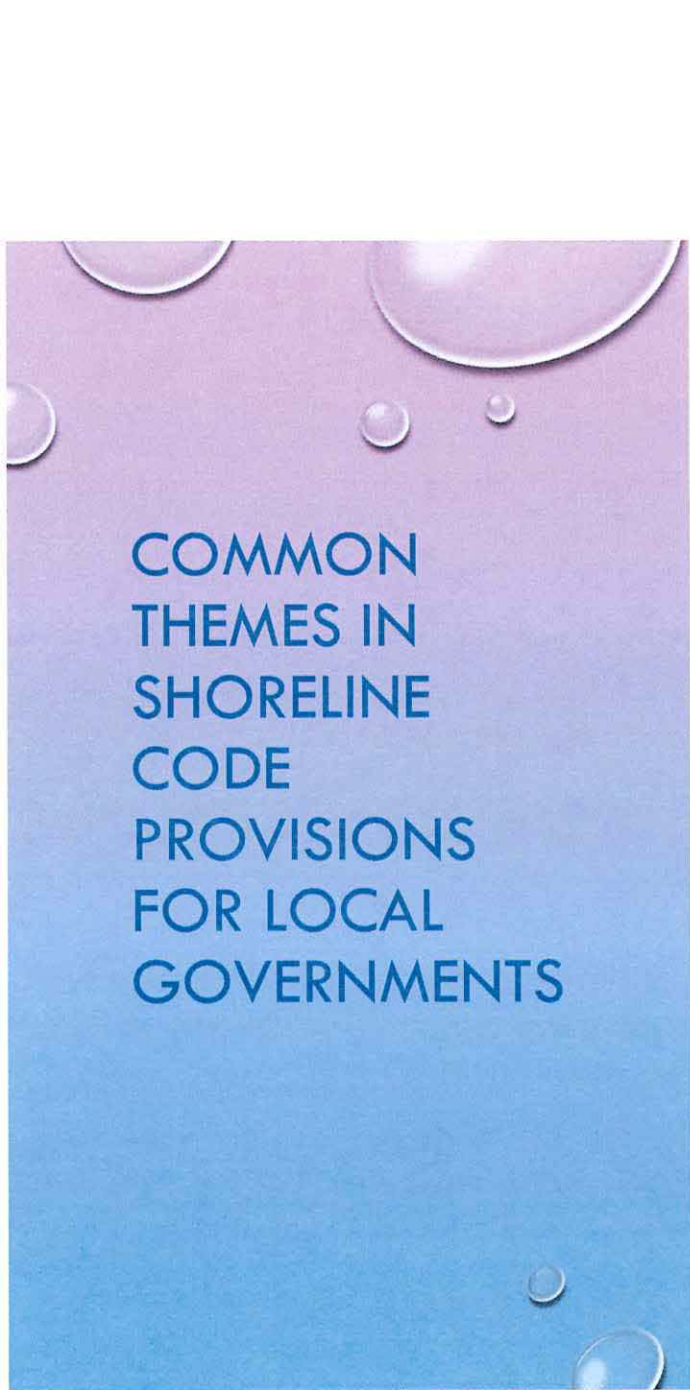
WHAT WE REVIEWED AND SUMMARIZED IN PREVIOUS RESEARCH



Assumptions:

- Recently promulgated (generally last 5 years)
- In response to sea level rise (most of those listed) or special cases (such as Punta Gorda that has unique ownership and maintenance obligations of seawalls)

- | | | | |
|-----|-----------------------|-----|-------------------------------------|
| 1. | Bay Harbor Islands | 14. | North Bay Village |
| 2. | Broward County | 15. | Pinellas County |
| 3. | Delray Beach | 16. | Punta Gorda |
| 4. | Fort Lauderdale | 17. | Tampa Bay Regional Planning Council |
| 5. | Golden Beach | 18. | Cape Coral |
| 6. | Hallandale Beach | 19. | Key Biscayne |
| 7. | Highland Beach | 20. | Miami-Dade County |
| 8. | Hillsboro Beach | 21. | St. Petersburg |
| 9. | Hollywood | 22. | St. Petersburg Beach |
| 10. | Lauderdale-by-the-Sea | | |
| 11. | Longboat Key | | |
| 12. | Miami | | |
| 13. | Miami Beach | | |



COMMON THEMES IN SHORELINE CODE PROVISIONS FOR LOCAL GOVERNMENTS

Most existing ordinances focus almost exclusively on *seawall heights*, some newer ones in response to sea level rise

Most establish a *minimum height*, some establish a *maximum threshold* or condition (Delray Beach, Ft. Lauderdale, Golden Beach, Hillsboro Beach)

Most “*encourage*” *hybrid or living shorelines* or other environmental co-benefits, but do not address other shoreline uses extensively

Some include a *basis for the sea level rise projection* considered (future condition)

Some have a *timeline for compliance* (Broward: 4 feet NAVD88 by 2035 and 5 feet NAVD88 by 2050)

Some consider *overall property elevation* (Delray Beach, Highland Beach, Ft. Lauderdale, Hillsboro Beach)

Three include *real estate disclosure* (Broward, Delray and TBRPC)** we can discuss this further

POLICY EXAMPLES: SEAWALLS/SHORELINE POLICY

Tampa Bay Regional Planning Council

5' NAVD inclusive of SLR by 2070

Substantial Repairs can trigger compliance; 50% length, repairs > 50% cost of new seawall or BH or elev. change > than 50% length

Defines disrepair

Specifies materials; Promote living shorelines; Provides hierarchy of shoreline responses based on existing shorelines

POs are prohibited from tidal water entering property to flow to adjacent properties, *public infrastructure* or public ROW (trespass of water = public nuisance)

Failure to maintain = follows existing underlying Code Enforcement procedures

Allows automatically elevated structure not dependent on human intervention

Application process based on complexity of project

Disclosure on tidally influence area and meeting min. barrier elevation stds.

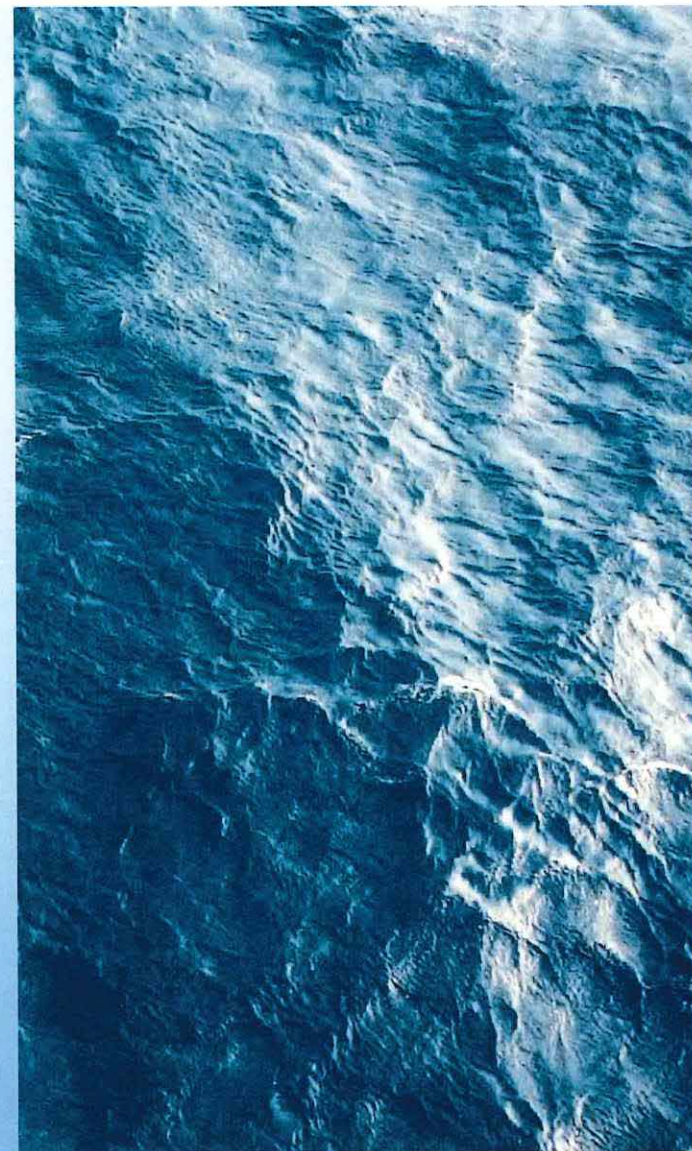
TBRPC “MODEL” ORDINANCE A GOOD MODEL TO START WITH -- 12 SECTIONS

- 01: Purpose and intent
- 02: Applicability
- 03: Definitions
- 04: Minimum elevations for tidal flood barriers within tidally influenced areas
- 05: Shoreline overlay districts, shoreline structures and hierarchy of response
- 06: Design and Construction of Natural Shorelines
- 07: Design and Construction of Hybrid Shorelines
- 08: Design and Construction of Seawalls/bulkheads
- 09: Authorizations for tidal flood barriers, living shorelines and NNBFs—Required and Hardships
- 10: Applications for Permits
- 11: Maintenance and operations of tidal flood barriers, living shorelines and NNBFs
- 12: Required notifications in contracts for sale of real estate



WHAT ARE THE KEY PRIORITIES FOR SHORELINE POLICY IN ST. AUGUSTINE?

- What are the problems, challenges and opportunities in adopting a shoreline ordinance and updates to the City's Conservation Overlay Zone code to incorporate resiliency and sustainability initiatives?



The background of the slide features a vertical gradient from a light blue at the bottom to a bright white at the top. Scattered across this gradient are several realistic water droplets of various sizes. Some droplets are in sharp focus, showing highlights and shadows, while others are blurred in the background. They are primarily located in the upper left and lower right corners, with a few smaller ones in the center.

QUESTIONS?

ERIN@DEADYLAW.COM

**Florida Seawall and Shoreline Regulation
Considering Sea Level Rise Impacts**



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Introduction



Introduction

This memorandum provides a review of recently revised seawall ordinances throughout the State of Florida in response to rising sea levels. The following local governments are included:

- | | |
|---------------------------|--|
| 1. Bay Harbor Islands | 12. Miami |
| 2. Broward County* | 13. Miami Beach* |
| 3. Delray Beach | 14. North Bay Village |
| 4. Fort Lauderdale* | 15. Pinellas County* |
| 5. Golden Beach | 16. Punta Gorda |
| 6. Hallandale Beach | 17. Tampa Bay Regional Planning Council* |
| 7. Highland Beach | 18. Cape Coral |
| 8. Hillsboro Beach | 19. Key Biscayne |
| 9. Hollywood | 20. Miami-Dade County |
| 10. Lauderdale-by-the-Sea | 21. St. Petersburg* |
| 11. Longboat Key | 22. St. Petersburg Beach |

It should be noted that this is not a comprehensive list of every seawall or shoreline ordinance that exists within Florida. This analysis is limited to only those in recent years (generally less than 5) that have adopted shoreline policies in response to increasing sea levels and in an effort to make shoreline policy more responsive to future flood conditions from these impacts. Local governments with an asterisk * indicate those ordinances listed in the scope of services as required by this review (6 total).

The most recent and comprehensive of these policies is that of the Tampa Bay Regional Planning Council.¹ The most recent version of this ordinance was completed in October of 2022 and is considered the presently “final” version accepted by the Council, but ongoing stakeholder education and outreach continues under the contract for the development of the ordinance. Based upon this continued and updated research tracking such policies, the Tampa Bay Regional Planning Council’s Model Shoreline Ordinance is the most comprehensive of the existing policies.

Typically, shoreline ordinances can be housed within multiple locations of a Code of Ordinances. Such shoreline ordinances do not always align with other key provisions such as fill policy or general floodplain management.² So the integration of any shoreline ordinance must work within

¹ Erin L. Deady was the primary contracted author of this Model Shoreline Ordinance by Tampa Bay Regional Planning Council.

² See FEMA Model Floodplain Management Ordinance section related to seawalls and bulkheads:

01.8 Other development in coastal high hazard areas (Zone V) and Coastal A Zones. In coastal high hazard areas and Coastal A Zones, development activities other than buildings and structures shall be permitted only when also authorized by the appropriate federal, state or local authority; when located outside the footprint of, and not structurally attached to, buildings and structures; and when analyses prepared by qualified registered design professionals demonstrate no harmful diversion of floodwater or wave runup and wave reflection that would

the existing policy approach for multiple code sections and an integrated review of the existing code should occur in the drafting process.

1. Bay Harbor Islands³

The Town of Bay Harbor Islands was one of the first local governments in South Florida to raise seawall height standards due to sea level rise in 2013. Bay Harbor Islands is a small island municipality in Miami-Dade County. The elevation at the top of any seawall cap in Bay Harbor Islands is now **5.50 feet above mean sea level (MSL)**. The Town specifically identified geographical areas that experience more frequent and turbulent wave action from Biscayne Bay: property owners in those areas may elect to raise the **top of a seawall cap to 6.0 feet above MSL**. Property owners are not required to elevate their seawalls pursuant to code, but they are encouraged to do so.

Seawalls in Bay Harbor Islands must be constructed of reinforced concrete, with a cap beam and supported on concrete pilings driven to bedrock. Seawalls are required to penetrate into the soil at least two feet. No rip-rap is permitted in place of a seawall, but rip-rap may be installed adjoining a seawall if approved by the Town and regulatory agencies having jurisdiction (Miami-Dade County Division of Environmental Resources). If a seawall is replaced, all existing tie backs must be removed. Property owners are encouraged to remove failed tie backs when possible due to frequent system failures and damage caused on upland lands.

Under the policies, it is unlawful and a public nuisance for any property owner in the Town to permit, or to fail to repair or reconstruct, any failed seawall upon his property. It is further declared unlawful and a public nuisance for any property owner to fail to remove from his property or an adjacent body of water the debris and rubble of any failed seawall.

2. Broward County⁴

increase damage to adjacent buildings and structures. Such other development activities include but are not limited to:

- (1) Bulkheads, seawalls, retaining walls, revetments, and similar erosion control structures;
- (2) Solid fences and privacy walls, and fences prone to trapping debris, unless designed and constructed to fail under flood conditions less than the base flood or otherwise function to avoid obstruction of floodwater; and
- (3) On-site filled or mound sewage systems.

Available at: https://www.fema.gov/sites/default/files/2020-07/fema_model-code-coordinated-ordinances_version-2.pdf

³ The ordinance can be found at:

https://library.municode.com/fl/bay_harbor_islands/codes/code_of_ordinances?nodeId=PTIICOOR_CH23ZOPL_ARTIZORE_S23-12GEPR

⁴ The Article XXV standards can be found at: <https://www.broward.org/Climate/pages/usace.aspx>.

Broward County also produced the illustrated Resilient Shorelines Brochure, available at the following link, describing permitting requirements and costs to property owners as well as the alternatives and considerations for difference waters edge conditions:

https://www.broward.org/Climate/Documents/ResilientShorelinesBrochure_compressed_06.23.2020.pdf

In a two-pronged code of ordinances and comprehensive plan approach, the Broward County Commission established a seawall and top-of-bank elevation for tidally-influenced properties,⁵ in accordance with sea level rise predicted through 2070 (Policy 2.21.7⁶ & Article XXV- Resiliency Standards for Tidal Flood Protection). The proposed regional resilience standard includes requiring a minimum elevation of **4 feet NAVD88 by 2035 and 5 feet NAVD88 by 2050** for seawalls and shorelines.

Furthermore, local governments are required to adopt a local ordinance implementing this regional standard within a 2-year timeframe. The proposed regional standard was informed by the technical work undertaken with the support and expertise of the U.S. Army Corps of Engineers (USACE) as part of the joint Broward County/USACE Flood Risk Management Study for Tidally Influenced Coastal Areas authorized under the Planning Assistance for States Program.

Broward County put Policy 2.21.7 into effect on January 7, 2020. The policy applies to all tidally-influenced properties in the County and local governments within the County are expected to implement the standard by February 13, 2022.

It is also important to note that Article XXV requires a disclosure in real estate transactions: Section 39-408 requires disclosure in contracts for sale of real estate located in tidally influenced areas of Broward County executed after December 31, 2020. The seller shall include in the contract or a rider to the contract the following disclosure in not less than fourteen-point, capitalized, bold-faced type:

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.

⁵ Broward County, *Municipalities with Tidally Influenced Waterways*, https://www.broward.org/Climate/Documents/Tidal_Cities.pdf.

⁶ POLICY 2.21.7 In order to ensure coordination, consistency and maximum effectiveness of improvements necessary to mitigate high tide flooding associated with realized and additional sea level rise through the year 2070, tidally-influenced municipalities shall adopt within 24-months of the effective date of this Policy (February 13, 2020), regionally consistent top elevations for seawalls, banks and berms, and other appurtenant 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, which shall serve as the model ordinance, and shall not be applicable to oceanfront beaches or shorelines seaward of the Coastal Construction Control Line.

Local governments are required to adopt a local ordinance implementing the regional standard by February 13, 2022.

3. Delray Beach⁷

The City of Delray Beach adopted new ordinances in January of 2022 which specifically justify new minimum and maximum seawall heights on the basis of sea level rise projections. The new regulations establish a “minimum allowable seawall elevation of **4.2 feet NAVD88**, providing significant protection from the predicted height of seasonal high tides and projected sea level rise to occur within the 30-year lifespan of a seawall constructed after adoption of [the] Ordinance.” The maximum elevation standard is intended to avoid “visual discontinuity with adjacent properties”. The regulations also specify that “seawalls should be designed and constructed in a manner that does not create drainage issues for adjacent properties.”

Further, “The maximum elevation of a seawall or dock is determined by the base flood elevation (BFE) for the property, as identified in the corresponding FEMA Flood Insurance Rate Map (FIRM). Property owners choosing to construct seawalls at less than 5.0 feet NAVD88 must design and construct seawalls to accommodate a future seawall height extension up to a minimum elevation of 5.0 feet NAVD88.”

<u>Table 7.1.7(D)</u> <u>Seawall Height Requirements</u>		
<u>Property's FEMA Flood Insurance Rate Map Location</u>	<u>Minimum (NAVD88)</u>	<u>Maximum Allowable Seawall or Dock Elevation</u>
<u>In a floodplain with a BFE greater than or equal to 5.0 feet NAVD88</u>	<u>4.2 feet NAVD88</u>	<u>Base flood elevation of the property</u>
<u>In a floodplain with a BFE equal to 4.0 feet NAVD88</u>		<u>5 feet NAVD88</u>
<u>In an X zone, not in a floodplain</u>		<u>Meet the definition of grade as determined by Section 4.3.4(J)(2)</u>

An article from February 2nd, 2022 in *The Coastal Star* quotes Cynthia Buisson, Delray Beach Assistant Public Works Director, as saying “ We’re going to continue to monitor sea level rise. There may be changes that come forward. Instead of having to replace your entire sea wall, you can just add a cap for that additional level of protection”. The article notes that about “70% of current sea walls in Delray Beach are below its new minimum and only a quarter are in good or satisfactory condition”, according to a 2018 survey.

in the period leading up to the adoption of these ordinances, the City’s Public Works Department and Aptim conducted a seawall vulnerability analysis that was completed in October of 2018 and presented to the Commission in February of 2019. The Intracoastal Waterway Water Level and

⁷ The ordinances can be found at:

<https://www.delraybeachfl.gov/home/showpublisheddocument/10775/637792360765270000>

Infrastructure Vulnerability Study included 1 mile of public seawalls and 20 miles of private seawalls and assessed the vulnerability to future seasonal flooding along the ICW and current conditions of seawalls. The study advised a 30-year planning elevation for seawalls and a height of between **3.9 - 4.4 feet NAVD by 2048 and a 5.3 – 7.4 feet NAVD by 2093**. The City's current ordinance does not require private owners to raise seawalls to any prescribed height.

In Delray Beach, under current policy, it is unlawful and a public nuisance for any property owner adjacent to any natural or artificial canal, stream or other body of water to maintain or allow to be maintained property in a condition requiring construction of a seawall or maintenance or repair of an existing seawall. Construction of a seawall or repair or maintenance of an existing seawall is deemed necessary when the lack of a seawall or need for maintenance or repair causes a situation that threatens or endangers the public health, safety or welfare, or that impedes the navigability of any canal, stream or other body of water, or that endangers swimming or other water sports.

4. Fort Lauderdale⁸

In response to damaging King Tide flooding events, the City of Fort Lauderdale enacted ordinances in 2016 to increase shoreline resilience. The City's website includes this regulatory action under the heading "City Steps to Address Sea-Level Rise". The City's ordinance addresses the relationship of dock height in seawall calculations, provides maximum and minimum seawall heights, and ensures that public and private seawalls and tidal protection systems remain effective. The group of policies also addresses maintenance of seawalls in good repair and authorizes enforcement by citation. The table below depicts the new standards, which provide a minimum height of 3.9 ft. NAVD and a maximum height of **5 ft. NAVD** or base flood elevation of the property.

⁸ A copy of the City's ordinance is provided here:

<https://gyr.fortlauderdale.gov/home/showpublisheddocument/18864/636153283833900000>

Property's FEMA Flood Insurance Rate Map Location	Minimum Allowable Height (FT NAVD88)	Maximum Allowable Seawall or Dock Elevation (FT NAVD88)
In floodplain with base flood elevation greater than or equal to 5.0 ft. NAVD88	3.9	Base flood elevation of the property
In floodplain with base flood elevation equal to 4.0 ft. NAVD 88	3.9	5
In an X zone, not in a floodplain	3.9	Meet the definition of grade as determined by Section 47-2.2(g)(1)(a)

The regulations do not mandate a specific date for achieving compliance: ongoing seasonal high tides, storm surges, and sea level rise will trigger citations under the ordinance that require seawall raising. A property owner may receive a code violation under two conditions: (1) failing to maintain a seawall in good repair, and (2) failure to prevent tidal waters from entering their property and impacting other properties or the public right of way. If cited, a property owner has 60 days to demonstrate progress towards making a repair, and one year to fully remedy the situation. The ordinance also states that if there is any required seawall repair that meets the substantial repair threshold, it must be constructed to meet the minimum elevation requirements established by the City.

5. Golden Beach⁹

The Town of Golden Beach, a small oceanfront community in Miami-Dade County, joined the ranks of municipalities taking regulatory action on seawall height due to sea level risk by adopting amendments to its code in June of 2022, establishing that “all new and replacement docks shall be constructed at a minimum height of **3.425 NAVD-88**, and a maximum not to exceed 4.425 NAVD-88.” In the Town resolution regarding the proposed modification, which preceded the Code update, it is stated that “the Town of Golden Beach is moving forward to address sea level rise in a multi-faceted fashion. The Town is looking at policy changes that spur adaptation on private property.”

⁹ The revised code can be found at:

https://library.municode.com/fl/golden_beach/codes/code_of_ordinances?no-deld=SPAGEOR_CH46WA_ARTIVSEDO_S46-85HESEDOEXDEDO&showChanges=true

The referenced resolution can be found at:

<https://www.goldenbeach.us/wp-content/uploads/2021/09/RESO.-2760.21-TO-MODIFY-THE-TOWNS-EXISTING-CODES.pdf>

6. Hallandale Beach¹⁰

One of the earliest municipalities to respond to the Broward County mandate of local seawall height ordinances according to a regional standard, the City of Hallandale Beach added new code provisions in November of 2020 with stated purposes to:

- (1) Provide a standard for flood mitigation infrastructure that serves as a barrier to tidal flooding, not seepage, by accounting for water levels predicted under combined conditions of sea level rise, high tides, and high frequency storm surge through the year 2070; and
- (2) Ensure new shoreline structures and major shoreline improvements are designed for use as tidal flood barriers through application of consistent standards that account for future predicted tidal flood conditions and coastal water levels associated with sea level rise in accordance with current regional sea level rise projections, as updated and adopted by the county board of commissioners.

The new ordinance applies to “all new or substantially repaired or substantially rehabilitated banks, berms, green-grey infrastructure, seawalls, seawall caps, upland stem walls, or other similar infrastructure shall be designed and constructed to perform as tidal flood barriers. Tidal flood barriers shall have a minimum elevation of **five feet NAVD88**. Applications for new or substantially repaired or substantially rehabilitated tidal flood barriers submitted prior to January 1, 2035, may be permitted a minimum elevation of **four feet NAVD88**, if designed and constructed to **accommodate a minimum elevation of five feet NAVD88** by January 1, 2050.

The ordinance, like the others created in Broward to date, specifies the requirements for maintenance by the property owners, and the repercussions for failure, as well as the obligation to “prevent the trespass of tidal waters onto adjacent property or public right-of-way”, which is considered to be a “public nuisance and a citable offense”. It includes notable design requirements such as:

- (d) Tidal flood barriers shall be designed and constructed to prevent tidal waters from flowing through the barrier, while still allowing for the release of upland hydrostatic pressure.
 - (e) To the extent practicable, tidal flood barriers shall be designed and constructed to adjoin immediately proximate tidal flood barriers to close gaps and prevent trespass of tidal water.
- and
- (g) All tidal flood barriers shall be constructed with natural limerock rip-rap, or other approved habitat enhancement, at the waterward face of the structure.

¹⁰ The Hallandale Beach ordinance can be found at:

https://library.municode.com/fl/hallandale_beach/ordinances/code_of_ordinances?nodeId=1063235

(h) Property owners are encouraged to consider approaches and materials that enhance the biological value of traditional (flat surface) seawalls and flood barriers with the incorporation of living shoreline features, use of hybrid green-grey materials, and the use of biological forms, where practicable.

7. Highland Beach¹¹

In January of 2021, the small residential community of Highland Beach in southern Palm Beach County, whose population more than doubles in wintertime, passed an amendment to the seawall provisions in its code, specifying new parameters for measuring seawalls. Instead of using mean sea level as a basis for seawall measurement, the Town switched to base flood elevation (BFE) “as provided by FEMA FIRM maps” to locate all seawalls. Specifically, “all seawalls west of State Road A1A shall be at **base flood elevation (BFE) or higher**”.

In a February 2022 article in *The Coastal Star*, Jeff Remas, Highland Beach’s floodplain administrator was quoted as saying “Highland Beach last year began using base flood elevation because its previous 6 feet NAVD 88 minimum requirement was getting confused with that height using NGVD 29, which is lower. The change also makes the town proactive as sea levels rise”. He also said “This way, as the flood maps raise the base flood elevation, the sea wall height requirement also increases without the need for legislative intervention.”

8. Hillsboro Beach¹²

¹¹ The Highland Beach ordinance can be found at:
https://library.municode.com/fl/highland_beach/codes/code_of_ordinances?nodeId=PTI-COOR_CH6BUST_ARTVSEBUREWA_S6-128APREBUSEREWARENOABPROW

¹² The Hillsboro Beach ordinance can be found at:
<https://www.townofhillsborobeach.com/DocumentCenter/View/4413/ORD-2020-05-Seawall-Ordinance-9-1-2020>

In July 2020, the Town of Hillsboro Beach approved a minimum allowable seawall elevation of **5 ft. NAVD** by 2035. The ordinance is based on floodplain, and allows up to a maximum of 7 ft. NAVD for properties in a floodplain with base flood elevations of 5 ft. NAVD or higher.

Property's FEMA Flood Insurance Rate Map Location	Minimum Allowable Seawall Elevation	Maximum Allowable Seawall or Dock Elevation
In a floodplain with a base flood elevation greater than or equal to 5.0 feet NAVD88	5.0 feet NAVD88	Base Flood elevation of the property
In a floodplain with a base flood elevation equal to 5.0 feet NAVD88	5.0 feet NAVD88	7 feet NAVD88
In an X zone, not in a floodplain	5.0 feet NAVD88	Meet the definition of grade as defined herein

9. Hollywood¹³

The City of Hollywood, consistent with the 2020 regulatory requirement by Broward County, adopted new provisions for seawall height – and the height of similar structures – in February of 2022. In the new “Resiliency Standards for Tidal Flood Barriers” chapter of its code, the legislation states the intention to “provide a standard for tidal flood mitigation infrastructure that serves as a barrier to tidal flooding, not groundwater seepage, by accounting for water levels predicted under combined conditions of sea level rise, high tides, and high frequency (25-year return interval) storm surge through year 2070”. It requires that “All new or substantially repaired or substantially rehabilitated banks, berms, green-grey infrastructure, seawalls, seawall caps, upland stem walls, or other similar infrastructure shall be designed and constructed to perform as tidal flood barriers. Tidal flood barriers shall have a minimum elevation of **five feet NAVD88**. Applications for new or substantially repaired or substantially rehabilitated tidal flood barriers submitted prior to January 1, 2035, may be permitted at a minimum elevation of **four feet NAVD88**, if designed and constructed to **accommodate a minimum elevation of five feet NAVD88 by January 1, 2050**.”

¹³ These code provisions can be found at:

<https://codehub.gridics.com/us/fl/hollywood#/2d6a317b-1f6b-4ee6-ad5b-36ae88698eb4/75e25caa-4a7e-49a5-bcc3-de3516097bc8/a13e9b46-d172-4845-9e7e-c21034aca1ce/4467afde-bf03-4b6a-a8e9-0316437fd0c9>

and

<https://codehub.gridics.com/us/fl/hollywood#/2d6a317b-1f6b-4ee6-ad5b-36ae88698eb4/75e25caa-4a7e-49a5-bcc3-de3516097bc8/a13e9b46-d172-4845-9e7e-c21034aca1ce>

The new code adds clarity to the consequences of failing to maintain one's seawall, requiring that "all property owners must maintain a tidal flood barrier in good repair" and tidal flood barriers must "prevent tidal surface waters from impacting adjacent property or public right-of-way. Causing, suffering, or allowing the trespass of tidal surface waters onto adjacent property or public right-of-way is hereby declared a public nuisance and a citable offense requiring abatement."

10. Lauderdale-by-the-Sea¹⁴

With similar timing and in similar fashion to the regulatory response of the City of Hollywood to the new County municipal requirement, the small Town of Lauderdale-by-the-Sea adopted new seawall height provisions for its code in February of 2022 to address the threats of sea level rise. With language very similar to Hollywood's, which likely derives from the regional standard created by the County ordinance, the code states its purpose to "provide a standard for flood mitigation infrastructure that serves as a barrier to tidal flooding, not seepage, by accounting for water levels predicted under combined conditions of sea level rise, high tides, and high frequency storm surge through the year 2070." It establishes the required "minimum elevation of **five feet NAVD88**" for "tidal flood barriers" for all tidal flood barriers, which are defined in the same manner as in the Hollywood ordinance.

The new Lauderdale-by-the-Sea code also specifies property responsibilities for maintenance, with commensurate penalties for failure, and requires a real estate disclosure of property location in a "tidally influenced area". It further outlines these notable design requirements:

(1) Tidal flood barriers shall be designed and constructed to prevent tidal waters from flowing through the barrier, while still allowing for the release of upland hydrostatic pressure.

(2) To the extent practicable, tidal flood barriers shall be designed and constructed to adjoin immediately proximate tidal flood barriers to close gaps and prevent trespass of tidal water.

and

(4) All tidal flood barriers shall be constructed with natural limerock rip-rap, or other approved habitat enhancement, at the waterward face of the structure.

(5) Property owners are encouraged to consider approaches and materials that enhance the biological value of traditional (flat surface) seawalls and flood barriers with the incorporation of living shoreline features, use of hybrid green-grey materials, and the use of biological forms, where practicable.

11. Longboat Key¹⁵

¹⁴ The code can be found at:

https://library.municode.com/fl/lauderdale-by-the-sea/codes/code_of_ordinances?no-deId=PTIICOOR_CH9FLPRCO_ARTXIRESTTIFLPR

¹⁵ A copy of that ordinance is provided at:

In the summer of 2018, the Town of Longboat Key revised its seawall standards to allow barriers up to **4.5 ft. NAVD** - a foot and a half higher than previously allowed inclusive of the seawall cap. All seawall height increases that propose to modify the preconstruction grade elevation landward of the seawall in excess of six inches shall require an applicant to submit a drainage plan to the town demonstrating that there are no adverse stormwater runoff impact(s) to immediately adjacent properties. Elevation of the top of the seawall cap or top of the revetment shall not be greater than 12 inches from the existing grade prior to construction. Existing grade is defined as the elevation or grade of the parcel as of March 15, 1991. If fill material is deposited after the above date, the previous elevation shall be considered as the existing grade for purposes of this section. The burden of proving the existing grade shall be upon the applicant.

12. Miami¹⁶

In the spring of 2020, the City of Miami made significant changes to its code of ordinances to create a more resilient waterfront, provide for increased shoreline protection and provide new standards for seawalls and living shorelines. Miami formerly required seawalls to be constructed to +5 ft NVGD (National Geodetic Vertical Datum standard) north of the Rickenbacker Causeway, +6 ft NVGD south of the Rickenbacker Causeway, and +5.5 ft NVGD along the Miami River.

The Section on waterfront properties states:

For all tidally-influenced areas and waterfront properties, except those fronting the Miami River and its tributaries, the top elevation of seawalls, bulkheads, living shorelines, or other shoreline protection structures or elements shall be constructed to a minimum elevation of six feet NAVD 88. The top elevation of new seawalls, bulkheads, living shorelines or other shoreline protection structures or elements fronting the Miami River or its tributaries shall be constructed to a minimum elevation of four feet NAVD 88 with the same being designed and constructed with the ability to be incrementally raised a minimum of two feet above their initial designed and constructed elevation to mitigate high tide flooding associated with realized and additional sea level rise through the year 2070. An application for a permit required by this article shall be accompanied by a proposed plan for incremental improvements through the year 2070 demonstrating the ability for the permitted improvement to be incrementally raised through 2070 as well as appropriate modification details, to include load calculations, demonstrating the capability of being raised a minimum of two feet above the minimal elevations. All such structures or elements must be designed and constructed in accordance with the department of resilience and public works' design and construction

https://library.municode.com/fl/longboat_key/codes/code_of_ordinances?nodeId=TIT15LADECO_CH151SHCO_151.03PEREAP

¹⁶ The City of Miami Code of Ordinances, *Chapter 29 – Landfills and Waterfront Improvements*, https://library.municode.com/fl/miami/codes/code_of_ordinances?nodeId=PTIITHCO_CH29LAWAIM

standards. These standards apply to new construction or when substantial improvements to a property are performed. This subsection is not to be interpreted to impair the obligation of contracts, including without limitation, restrictive covenants or deed restrictions, under the Constitution of the state.

In addition to seawall elevations, the City transitioned from NGVD to North American Vertical Datum of 1988 (NAVD) as the standard for elevation data, established standards for natural waterfronts and permeable erosion barriers, and triggers for when property owners must improve waterfronts to the new standard.

For all “Tidally-Influenced Areas” and waterfront properties, the top elevation of seawalls, Bulkheads, Living Shorelines, or other shoreline protection structures or elements shall be constructed to a **minimum elevation of six feet NAVD 88, designed to be capable of being raised to a final minimum elevation of at least eight feet NAVD 88**. This standard applies to new construction or when substantial improvements are performed, though a variance is available for certain property owners regarding the eight-foot final minimum elevation. Seawalls, Bulkheads, and Living Shorelines must be provided with specific purpose surveys certifying the alignment and elevation of the top of wall or Bulkhead line with elevations spaced at a maximum of 10-ft intervals showing the highest and lowest elevations of the barrier and clearly identifying the location and elevation of the structure/barrier at each property corner. **Elevations of adjacent properties and public rights-of-way must also be provided to ensure proper harmonization is provided between the proposed barrier with the surrounding lands.**

The City of Miami also added the following relevant definitions to its code:

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 provided that the landside interface of a Living Shoreline be Substantially Impermeable and constructed to a finished elevation that meets current requirements as set by the Department of Resilience and Public Works. 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.¹⁷

Riprap: A foundation of unconsolidated boulders, stone, concrete, or similar materials placed on or near a shoreline to mitigate wave impacts and prevent erosion.

¹⁷ See also, Savanna Barry, Sara Martin & Eric Sparks, University of Florida IFAS Extension, *A Homeowner’s Guide to the Living Shoreline Permit Exemption Part 1: Florida Department of Environmental Protection* [A Homeowners Guide to the Living Shoreline Permit Exemption Part 1 0.pdf \(floridadep.gov\)](#).

Seawall: Essentially the same as a bulkhead. A vertical or near-vertical, substantially impermeable structure that provides shoreline protection from waves while retaining upland soils. Seawalls are typically located on the coast fronting beaches or other Tidally-Influenced waterways and are subject to storm surges with pounding surf, eroding shorelines, and wave overtopping from coastal storm or extreme high tide events. The elevation of the top of a Seawall must comply with the current minimum finished elevation requirements as set by the Department of Resilience and Public Works to ensure protection of the surrounding properties and the public right-of-way from flooding associated with currently realized and expected future sea level rise.

Substantially Impermeable: Any shoreline protection constructed, repaired, or reconstructed pursuant to this Section, in a manner that prevents groundwater on the landward side of the structure from being affected by Tidal Waters passing through the wall. As Tidal Waters rise, the groundwater elevation behind the wall shall remain relatively static in order to be considered Substantially Impermeable.

Tidal Waters: Any water that alternately rises and falls in a predictable and measurable rhythm or cycle due to the gravitational attraction of the moon and sun, including seasonal tide events such as King Tides. Extreme tidal elevation changes caused by a storm event (i.e. storm surge) is not to be used as a determining factor of whether or not an existing shoreline protection structure is in violation of the City's maintenance requirements. City of Miami File ID: 7338 (Revision: A) Printed On: 5/19/2020

Tidally-Influenced or Tidally-Influenced Areas: Any water-fronting land area where water levels change in response to daily changes in Tidal Waters or the change in the water levels itself in response to daily changes in Tidal Waters.

13. Miami Beach¹⁸

Miami Beach adopted the Unified Sea Level Rise Projections of the Southeast Florida Regional Climate Change Compact in 2016. Based on the adopted projections, the City developed new seawall guidelines.

An interim elevation of **4.0 ft. NAVD** is included as an option for private seawalls where raising the seawall to the recommended **5.7 ft. NAVD** would cause negative consequences to private views for low-lying homes. If a wall is built to 4.0 ft. NAVD, it is required that the structural design accommodate future retrofit for an extension up to elevation 5.7 ft. NAVD.

Furthermore, the city recently amended its Public Works Manual to require the raising of seawall heights in certain situations. As amended, the manual now requires that new private and public

¹⁸ The code can be found at:

<https://www.miamibeachfl.gov/wp-content/uploads/2021/01/Miami-Beach-Commission-Adopts-Seawall-Ordinance-.pdf>

seawalls be constructed to a minimum elevation of **5.7 feet NAVD** (*from 3.2 feet previously*). Existing seawalls that are not being repaired or replaced are permitted to remain so long as they meet the minimum 4.0 feet NAVD with the structural design to accommodate extension to 5.7 feet NAVD in the future. This new height is informed by sea level rise projections, design storm events, and coincides with the typical lifespan of a seawall.

The ordinance also provides penalties for property owners who do not maintain their seawalls, which can lead to flooding on surrounding properties. A first offense violation will result in a \$250 fine per day and \$500 per day for further violations.

14. North Bay Village¹⁹

North Bay Village is a small community in Miami-Dade County comprised of three small islands constructed behind seawalls, many of which have not been replaced or hardened since their original construction in the 1940's. On February 9, 2021, the North Bay Village Commission unanimously approved new proposed minimum standards for new and redeveloped seawalls.

The minimum standards require that new seawalls be designed to last for at least 25 years and that they be built to a **5.94 feet NAVD** elevation standard, meaning the tops of seawalls would be approximately 5.74 feet above the water level at high tide in Biscayne Bay. In addition to allowing traditionally constructed seawalls, North Bay Village's new code provides property owners with an option to construct living shorelines to receive "points" in its sustainable building program. These seawall standards are intended to protect the Village against significant weather events and flooding. The ordinance applies only to new seawalls and those being substantially redeveloped.

At the writing of this memorandum, the Village has commenced with the implementation of the new ordinance, helping property owners understand the implications of the ordinance as permits are processed. Some property owners are grappling with the unanticipated costs associated with substantial improvements to property and with understanding how the regulations apply to some projects and not others.

15. Pinellas County²⁰

¹⁹ The basic seawall provisions including maintenance and enforcement requirements can be found at: https://library.municode.com/fl/north_bay_village/codes/unified_land_development_code?nodeId=CH9GE-SIDEST_DIV5DESTCOSI_S9.12COCOWIBIBANOBVAVIAP

The seawall design standards can be found at (with supporting technical documentation): https://library.municode.com/fl/north_bay_village/ordinances/unified_land_development_code?nodeId=1086884

²⁰ This provision can be found here: https://library.municode.com/fl/pinellas_county/codes/code_of_ordinances?nodeId=PTIIPICOCO_CH58EN_ARTXVWANARE_DIV4DRFISE_S58-576SAESCR

In October 2018, Pinellas County established by code the minimum elevation for “seawalls, bulkheads and retaining walls” as “five feet USCGS datum mean sea level” for those seawalls “fronting on the bay” and “six feet USCGS datum mean sea level” for those seawalls “fronting on the Gulf of Mexico” in the County.

Three years later, the County established flood risk, as understood through the *Pinellas County Sea Level Rise and Storm Surge Vulnerability Assessment* (RESTORE Act Vulnerability Assessment (2021)), or through subsequent amendments to the same, or through newer sources of flood hazard data, as the basis for designating flood hazard areas at the County level.²¹

While no direct linkage between the seawall height provisions and the basis for flood hazard designation can be assumed, it is clear that Pinellas County has been actively moving towards enacting a more stringent regulatory response to the risks posed by sea level rise in recent years.

16. Punta Gorda²²

As opposed to many other local governments where seawalls are both publicly or privately owned and maintained, Punta Gorda maintains its seawalls and canal systems through two canal maintenance assessment districts: Punta Gorda Isles and Burnt Store Isles. Through these districts, Punta Gorda is responsible for maintenance of 109 miles of seawalls, dredging, and mangrove trimming along 54 miles of canals. Every year (typically in the winter months when the tides are low), the City performs an assessment of the seawall infrastructure. By utilizing the annual seawall assessment data, the seawall replacement program is planned a year in advance (seawalls that fall into the canal unexpectedly or a seawall that is inspected and found to be at extreme risk of failure is given a priority). When a wall is designated for replacement, a SOW is furnished to the City’s contractor for replacement. Once the work is completed property owners are responsible to water the newly placed sod. The current level of assessments is shown in the image below.

²¹ This provision can be found at:

https://library.municode.com/fl/pinellas_county/codes/code_of_ordinances?no-deld=PTIILADECO_CH158FLMA_ARTIAD_DIV2AP_S158-23BAESFLHAAR

²² The ordinance can be found at:

<https://www.ci.punta-gorda.fl.us/home/showpublisheddocument/1413/637955723128870000>

Punta Gorda Isles Canal Maintenance Assessment District		
FY 2018 Assessment Rate:	\$550	per single family residential lot
FY 2017 Assessment Rate:	\$550	per single family residential lot
Burnt Store Isles Canal Maintenance Assessment District		
FY 2018 Assessment Rate:	\$555	per single family residential lot
FY 2017 Assessment Rate:	\$570	per single family residential lot

Residents are responsible for their own docks, lifts, fences, irrigation and water lines, electrical and any other owner improvements in the vicinity of the seawall.²³

17. Tampa Bay Regional Planning Council²⁴

In September 2022, the Tampa Bay Regional Planning Council developed a model seawall ordinance to aid its communities on the southwest coast of Florida. The model ordinance states its purpose as “to ensure that local shorelines are resilient to changing sea levels and tidally influenced flooding through 2070 to provide community flood protection benefits and ensure the ecological integrity of coastal habitats and shorelines on bay waters and riverine systems”. A central feature of the ordinance is the establishment of “a consistent minimum elevation and design criteria for tidal flood barriers (which include, but are not limited to, banks, berms, green-grey infrastructure, seawalls, seawall caps, natural and nature-based features (NNBFs), upland stem walls, or other infrastructure)”.

Further, the model ordinance’s definition of “seawall” includes specificity about its function to guard property against the effects of sea level rise. It states that “the elevation of the top of a seawall must comply with the current minimum finished elevation requirements in the Code as set by the Department of _____ [insert local government building department here] to ensure protection of adjacent property, public right-of-way or other public infrastructure from flooding associated with currently realized and expected future sea level rise.” Specifically, the ordinance sets five feet NAVD88 as a minimum top elevation to account for projected sea level rise, and specifies that the height provision should be reviewed no less often than every five years.

²³ Waterfront Property Owner’s Manual, Punta Gorda can be found at:
<https://www.ci.punta-gorda.fl.us/home/showdocument?id=56>

²⁴ The latest version of the Model Ordinance can be found at:
<https://www.tbrpc.org/shoreline-model/>

The ordinance also specifies that the height of seawall structures should be required “in NAVD 88 or a subsequent vertical datum” and that “seawall height standards shall incorporate sea level rise projections, seasonal tidal fluctuations and other factors influencing water levels that should be considered for protecting shorelines and property from future flood risk by the year 2070.” It also includes provisions on the types of - and design of - seawall structures that may be employed, including natural, hybrid and armored seawall or bulkhead shoreline treatments.

DRAFT

Florida Local Jurisdictions Considering Seawall Height Regulations In Response to Sea Level Rise

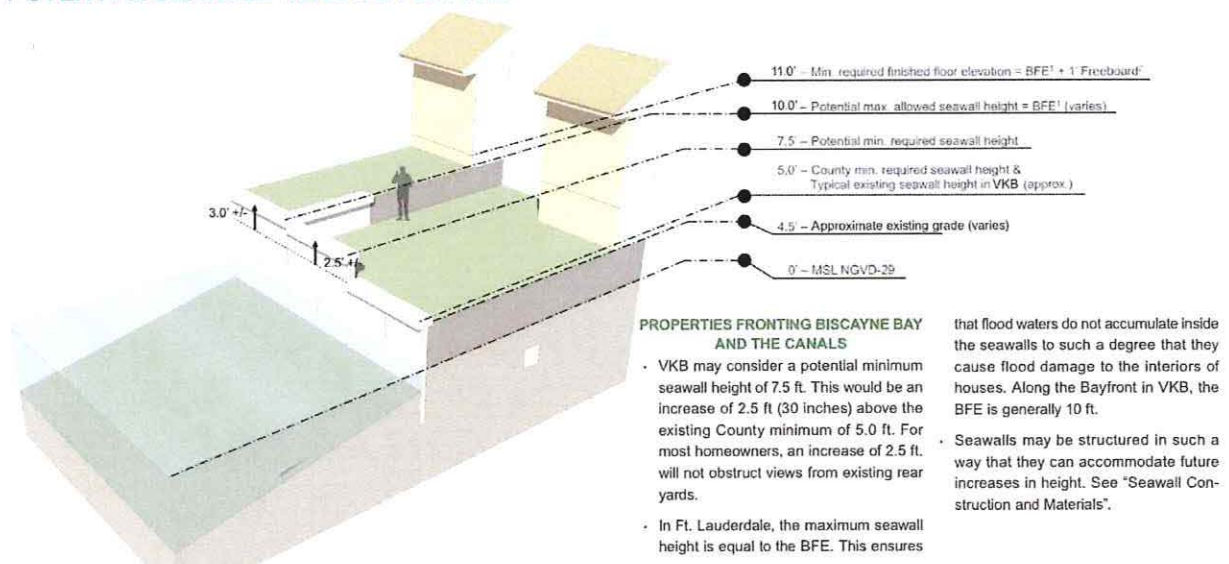
18. Cape Coral²⁵

The Southwest Florida City of Cape Coral has been working on revisions to its Seawall Engineering Design Standards, including installation, design, and height. These draft standards are still under staff review, including value engineering and have not yet been approved by City Council.

The long-awaited standards appear still not to be codified at the writing of this memorandum. However, a November 9, 2021 ABC7 article quoted various local leaders as supporting the regulatory action. Former Mayor Joe Mazurkiewicz said the “long awaited standards [would be] a win-win for the citizens, who will get better and safer seawalls more quickly”. CCCIA Executive Director Bill Johnson was quoted as saying “The old standards were revised back in 2002, so we wanted to look to see what we could do to get them up to today’s standards.”

19. Key Biscayne²⁶

POTENTIAL SEAWALL HEIGHTS FOR VKB



²⁵ The Draft standards (as of 2019) can be found at:

<https://files1.revize.com/revize/capecoral/fl/ADA%20Cape%20Coral%20Seawalls%20Precast%20Concrete%20Seawall%20%20H-1%20set%208.13.19.pdf>

²⁶ This draft plan can be found at:

https://files.keybiscayne.fl.gov/Document%20Center/Your%20government/Council/Boards/2040%20Vision%20Board/VKB_Resiliency&Future_V8.pdf

As per the April 2nd, 2022 Resiliency & Future Draft for Speak Up Key Biscayne which includes a section entitled "Strengthen & Modernize the Seawalls", providing "considerations allowing for future increases in height, tie rods, alternative materials", it specifically states "VKB [Village of Key Biscayne] may consider a potential minimum seawall height of 7.5 ft.. This would be an increase of 2.5 ft (30 inches) above the existing County minimum of 5.0 ft..." and includes this project as one of "six Lines of Effort [that] have been identified to help guide a multi-disciplinary approach to protect the island from storm surges and Sea Level Rise." Including ample information and illustrations on the spatial and dimensional considerations behind the report's recommendations, the report depicts what the shoreline could look like under a new seawall regulatory framework.

As per the April 11th, 2022 Policy & Regulation Draft the report includes the following considerations vis a vis future seawall standards:

- Establish a minimum height for new and reconstructed that meets or exceeds country requirements
- Be aware that the county is currently considering a new minimum standard of 6.0 NGVD/7.5 NAVD.
- Eliminate or raise maximum height restrictions.
- Maximum height is currently limited in VKB to 2.5 ft below BFE under "Maximum lot elevation and drainage".
- Consider the example of Ft. Lauderdale where the maximum height is equal to BFE.
- Insofar as it will likely be infeasible – and perhaps undesirable – to achieve the desired maximum height in the short term, require new seawalls to be engineered so that they can accommodate a future increase in height up to the maximum.
- Because this matter concerns individual property owners, including many home owners, be sure to draft these new standards in such a way that they are comprehensible to non-professionals.
- Include examples and details of non-standard approaches, including living shorelines, living seawalls, and alternative materials, such as glass reinforced polymer concrete.

20. Miami-Dade County

As per a May 16th, 2022 Miami Herald article by Alex Harris, the County is considering raising "heights of roads, seawalls and canals" to "a new minimum height of 6 feet", or more specifically, the minimum elevation would change "from 3.45 feet to **6 feet NAVD88**". Further, "Miami-Dade hasn't changed the most basic form of flood protection - the minimum height for building things like roads and new homes - in 40 years. Now a new proposal on the table could nearly double that standard, a dramatic change that reflects two inevitable realities: sea rise poses an increasingly imminent threat and adapting to it will raise construction costs."

This regulatory height was determined with help from recent hurricane and tidal flooding data. According to the same Herald article, Marina Blanco-Pape, Director of DERM's Water Management Division, said researchers analyzed the storm surge Miami-Dade experienced in Hurricane

Irma, which drove 6 feet of storm water ashore in the south end of Biscayne Bay and four feet of storm surge in the northern, more urban areas. “That’s how we came to pick that 6 feet NAVD88, because we thought it would give us the added protection because of sea level rise-driven storm surge impacts,” she said. Another factor is groundwater, which is also rising along with sea levels. During the average October currently, a period where there’s more rain and tidal flooding, an analysis of 170 wells in Miami-Dade found groundwater reached a maximum height of 5.71 feet NAVD88, although the median height was just under 2 feet NAVD88.

21. St. Petersburg²⁷

The City of St. Petersburg has taken a proactive stance regarding sea level rise in its approach to all City construction projects. In a 2019 update to its code, the City stated that “It is the policy of the City to apply the consideration of sea level rise and resiliency to the City's decision-making, including in the procurement of City construction projects”, and further that documentation for all City projects should indicate:

- (1) Whether the project considers the latest regional best available science regarding the effects of sea level rise, climate-related vulnerability and resiliency in St. Petersburg;
- (2) Whether the project affects an area that is vulnerable to the impacts of sea level rise;
- (3) Whether the project will increase the resiliency of the City with respect to sea level rise; and
- (4) Whether the project is compatible with the City's sea level rise mitigation and resiliency efforts.

While the City has not, as of the writing of this memorandum, adopted a seawall height ordinance, the City has clearly demonstrated its intention to consider sea level rise in connection with future development. The City has been at the center of regional sea level rise analysis for some time because of the long operating tidal gauge located within its borders, which provides a reliable record of sea level rise data for the City and beyond. As per *Bay Soundings: Tampa Bay's Environmental News* and a 2014 study by the Tampa Bay Climate Science Advisory Panel (CSAP), the St. Petersburg tidal gauge has the longest history in the region and shows that water levels have increased approximately 6.6 inches over the last 70 years.

22. St. Petersburg Beach²⁸

BayNews9 reported on October 19, 2020 that a recently completed study for St. Petersburg Beach, a small, historic barrier island community off of the coast of St. Petersburg, determined

²⁷ The ordinance can be found here:

https://library.municode.com/fl/st._petersburg/codes/code_of_ordinances?no-deId=PTIISTPECO_CH2AD_ARTVPUCOET_DIV5SUREFA_S2-249COSELERIREALCOPR

²⁸ This ordinance can be viewed here:

<https://www.spblibrary.com/DocumentCenter/View/1918/2021-01-PDF>

costs and strategies for addressing the increasingly prevalent “sunny day” flooding in the city and projected future sea level rise impacts. Among the recommended strategies was the raising of seawalls by two-and-a-half feet, an action which the City found to be financially unfeasible at that time but is considering as possible. Mayor Al Johnson was quoted as saying that the city is focusing on sea level rise because it is a “threat to St. Pete Beach”.

Meanwhile, in January of 2021, the City passed an ordinance to replace the City’s current standard for measuring seawall height, USCGS datum sea level, with the more reliable standard North American Vertical Datum 88 (NAVD88).

While seawall height has not yet been regulated in St. Petersburg Beach, the City has conducted groundwork that will aid carrying out that action in the future.

**Uniform Resilient Shoreline Protection
Model Ordinance Template**

ARTICLE _____. – REGIONAL RESILIENCY STANDARDS FOR TIDAL FLOOD BARRIERS, LIVING
SHORELINES, AND NATURAL AND NATURE-BASED SHORELINE FEATURES

Adopted by the _____ [ELECTED BODY] on _____, 202__ into the
_____ Code of Ordinances (Code), Article ____ within Chapter __ serves as a model code
for adoption of regionally consistent minimum standards and a basis for tidal flood resilience and
shoreline protection across the community.

Sec. ____-01. Purpose and intent.

The purpose of this article is to ensure that local shorelines are resilient to changing sea levels and tidally influenced flooding through 2070 to provide community flood protection benefits and ensure the ecological integrity of coastal habitats and shorelines on bay waters and riverine systems. This includes establishing a consistent minimum elevation and design criteria for tidal flood barriers (which include, but are not limited to, banks, berms, green-grey infrastructure, seawalls, seawall caps, natural and nature-based features (NNBFs), upland stem walls, or other infrastructure) that impede tidal waters from flowing onto a subject and adjacent property or public right-of-way, and located within or along a tidally influenced area that will:

- (a) Provide a standard for tidal flood barriers that serve as a mitigation strategy for tidal flooding, by accounting for water levels predicted under combined conditions of sea level rise and high tides, through the year 2070; and
- (b) Ensure new shoreline protection structures and major shoreline modifications are designed for use as tidal flood barriers.
- (c) Facilitate the construction of living shorelines and NNBFs, where appropriate, that can provide defense against tidal flooding, enhance water quality and improve natural resource benefits.
- (d) Establish a policy for protecting and preserving natural shorelines, promoting living and hybrid shorelines and defining appropriate locations and land-use types for implementing hardened structures.

Sec. ____-02. Applicability.

This article applies to 1) all new tidal flood barriers, 2) the replacement, substantial repair or substantial rehabilitation of shorelines and shoreline structures, and 3) the installation of any fixed infrastructure attached to tidal flood barriers (such as mooring structures). This article is not applicable to oceanfront beaches, passes, inlets or shorelines seaward of the Coastal Construction Control Line.

Sec. ____-03. Definitions.

For the purposes of this article, the following terms, phrases, words, and their derivation shall have the meanings given herein, except when the context clearly indicates a different meaning. In the interpretation and application of this article, the definitions provided for herein shall control over definitions that may be included in other documents or manuals, including, but not limited to, the Florida Building Code. Words used in the present tense include the future tense, words in the plural number include the singular number, and words in the singular number include the plural number. The word "shall" is mandatory and the word "may" is permissive.

Uniform Resilient Shoreline Protection Model Ordinance Template

Appurtenant Structure includes boathouses, sheds, gazebos, detached apartments, and pool houses on the same parcel as the principal property.

Bank means the level space separating a waterway from an inland area, often sloped, elevated and constructed of compacted soil.

Berm an earthen mound designed with impermeability to resist the flow of tidal waters through it to an adjacent property or public right-of-way.

Bulkhead a vertical or near-vertical, substantially impermeable structure that provides shoreline protection from waves while retaining upland soils.

Breakwater a structure constructed from rip rap, armor stone or precast concrete units that has a top elevation at or above the Mean High Water Line, with a specified slope and linear geometry, that is placed offshore for the purpose of dissipating wave energy before reaching the shoreline.

Cap means the top of a seawall which is usually formed and poured with concrete and rebar.

Crest means the highest portion of a shoreline feature.

Datum (vertical) means a base elevation used as a reference from which to reckon heights or depths.

Escarpment an area of the shoreline where the elevation changes suddenly. Escarpments are usually caused by erosion and refers to a steep slope (greater than 2:1) and greater than 18 inches in height.

Erosion the process of losing soil to wind, water, through natural processes or anthropogenic means.

Fetch the distance of open water over which wind blows or waves propagate unobstructed.

Grade (Slope, incline, gradient, pitch) - a physical feature of a landform which is described by the tangent of the angle the surface makes to horizontal. Typically described by the ratio of "rise over run" or vertical to horizontal distance.

Green-grey infrastructure or green-grey materials a combination of engineered and natural elements that provide environmental qualities, ecosystem value and protective services.

High Tide Flooding refers to king tides or exceptional high tides which occur seasonally around a new or full moon when the Moon and Sun are at their perigee (closest point to Earth).

Living shorelines, a suite of shoreline protection techniques that incorporate habitat restoration alone or in combination with some type of built infrastructure to provide coastal protective services. Living shorelines use native vegetation alone or in conjunction with low sills, encompassing riprap, oyster bag arrays, in front of low elevation Seawalls or Bulkheads to stabilize the shoreline.

Mean High Water Line the average of the high tide water levels over a 19-year time period (tidal epoch). These water levels vary based on the area of tidal influence, the distance from a pass or inlet or distance upstream from the mouth of a river.

Uniform Resilient Shoreline Protection Model Ordinance Template

Mooring structure a boat dock, slip, davit, hoist, lift, floating vessel platform, mooring pile, or similar structure attached to land or to a seawall, to which a vessel can be secured by ropes or cables.

North American Vertical Datum (NAVD 88) means the vertical control for 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. The National Geodetic Survey (NGS) is working on replacing NAVD 88 with plans to release the new datums in 2022.

Overtopping water levels or waves that are above the crest height of a shoreline treatment or seawall.

Natural and Nature-Based Features (NNBFs) are landscape features that are used to provide engineering functions relevant to flood risk management, while producing additional economic, environmental, and/or social benefits. Examples include beaches and dunes; vegetated environments such as salt marshes, freshwater wetlands and fluvial flood plains, and seagrass beds; coral and oyster reefs, barrier islands and others. NNBFs may occur naturally or be engineered, constructed and/or restored to mimic natural conditions.

Public interest determination an analysis that balances criteria for a determination on whether a seawall/bulkhead tidal flood barrier project is not contrary to the public interest.

Public nuisance a condition injurious to the public health or safety of the community or a neighborhood, or injurious to any considerable number of persons, or a condition that obstructs the free passage or use, in the customary manner, of any public right-of-way or adversely impacts the operation of public infrastructure.

Revetments structures usually made of large, loose, irregularly shaped stone or other material such as limerock or clean concrete rubble and have a specified slope on the waterward face. Revetments are constructed directly on the shoreline on or around the Mean High Water Line.

Rip Rap/Armor Stone generally rounded, limestone or granite that is placed on a slope to interlock and dissipate wave energy. Rip rap is effective at retaining sediment when used in conjunction with geotextile fabric.

Sea level rise projections the projected rise in water level for the Gulf of Mexico without the influence of a storm. Sea level rise projections are defined by the State of Florida in Section 380.093, F.S. to include National Oceanic and Atmospheric Administration 2017 tech report scenarios for Intermediate Low and Intermediate High for 2040 and 2070. Sea level rise projections will be updated approximately every five (5) years, based on updated information produced by the National Oceanic and Atmospheric Administration, the National Climate Assessment, the Florida Flood Hub and other appropriate sources predicting future flood risk.

Seawall a vertical or near-vertical, substantially impermeable structure typically made of concrete, vinyl or steel, that provides shoreline protection from waves while retaining upland soils. The elevation of the top of a seawall must comply with the current minimum finished elevation requirements in the Code as set by the Department of _____ [insert local government building department here] to ensure protection of adjacent property, public right-of-way or other public infrastructure from flooding associated with currently realized and expected future sea level rise.

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Seawall Enhancement Project work performed in conjunction with an existing seawall/bulkhead which cannot be removed due to requirements of the immediately adjacent upland infrastructure. Enhancement projects improve water quality, increase soil retention, provide habitat and reduce wave energy impacts to the seawall. Examples of enhancements include installing vegetation, planter tubes and riprap at the wall base to prevent scour.

Seawall height standards the height of seawall structures as prescribed in this Article or by a local building code represented in NAVD 88 or a subsequent vertical datum. Seawall height standards shall incorporate sea level rise projections, seasonal tidal fluctuations and other factors influencing water levels that should be considered for protecting shorelines and property from future flood risk by the year 2070. The elevation of the top of a seawall, bulkhead cap or other protection must comply with the current minimum finished elevation of 5.0' NAVD 88 by the City/County to ensure protection of adjacent property, public right-of-way or other public infrastructure from flooding associated with currently realized and expected future sea level rise.

Shoreline means a tidally influenced area where land meets water.

Shoreline Overlay District means an area that is established including tidally influenced areas to preserve and enhance the environmental qualities of surface waters and the natural and economic values of shoreline areas within _____, to provide for the efficient and beneficial utilization of those waters and shoreline areas, and to protect the public health, safety and welfare.

Shoreline modification structures or actions that permanently change the physical configuration or quality of the shoreline, particularly at the point where upland areas and tidal waters meet.

Shoreline type the state of the shoreline in terms of environmental or structural elements that presently exist or could exist in the future at that tidally influenced area.

Sill - a low-elevation, shore-parallel structure constructed of precast concrete units with proper pH balance, riprap, oyster bags, oyster domes, or similar material on the waterward side of a created tidal wetland fringe marsh. A sill is typically constructed below the Mean High Water Line.

Storm surge the abnormal rise in the water elevation caused by a combination of effects from a storm including the atmospheric pressure changes, wind effects, the Earth's rotation, shallow water depth and rainfall.

Substantial modification, repair or substantial rehabilitation means:

- (a) Any modification to the shoreline or a shoreline structure along more than fifty percent (50%) of the length of the property's shoreline; or
- (b) Any modification, alteration, or installation of an appurtenant structure that exceeds fifty percent (50%) of the replacement cost of the existing tidal flood barrier along the shoreline.

Substantially impermeable means any shoreline protection constructed, repaired, or reconstructed pursuant to this Section, in a manner that prevents groundwater on the landward side of the structure from being affected by tidal waters on the seaward side of the wall.

Tidal datum a standard elevation defined by measurement of a certain phase of the tide over long time periods. Tidal datums are used as references to measure local water levels and should not be extended

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into areas having differing oceanographic characteristics without substantiating measurements. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. Tidal datums are also the basis for establishing privately owned land, state owned land, territorial sea, exclusive economic zone, and high seas boundaries.

Tidal flood barrier means any structure or shoreline feature including, but not limited to, banks, berms, green-grey infrastructure, seawalls, seawall caps, NNBFs, upland stem walls, or other infrastructure that impedes tidal waters from flowing onto a subject and adjacent property or public right-of-way, and located within or along a tidally influenced area.

Tidal waters mean any water that alternately rises and falls in a predictable and measurable rhythm or cycle due to the gravitational attraction of the moon and sun, including seasonal tide events such as King Tides. Extreme tidal elevation changes caused by a storm event (i.e. storm surge) are not to be used as a determining factor of whether or not an existing shoreline protection structure is in violation of the _____'s maintenance requirements.

Tidally influenced area means the real property adjacent to, or affected by, a body of water with water level changes in response to the daily tide.

Toe scour – loss of soil or erosion at the outside toe base of a seawall, breakwater or revetment due to wave action, overflowing flood waters or currents. If the issue is not addressed the area of influence may grow to the point the foundational base is damaged or structural stability is affected.

Wetland a distinct ecosystem that is inundated by water, either permanently or seasonally, where oxygen-free processes prevail. The primary factor that distinguishes wetlands from other landforms or water bodies is the characteristic vegetation of aquatic plants, adapted to the unique hydric soil.

Sec. ____-04. Minimum elevations for tidal flood barriers within tidally influenced areas.

(a) By 2040, all new or substantially repaired or substantially rehabilitated banks, berms, green-grey infrastructure, revetments, seawalls, seawall caps, upland stem walls, or other similar infrastructure shall be designed and constructed to perform as tidal flood barriers. Tidal flood barriers shall have a minimum elevation of five (5) feet NAVD 88 to account for projected sea level rise in combination with high tides by 2070. Heights specified by this Section shall be reviewed no less than every 5 years in conjunction with updates to the national sea level rise projections.

(b) Tidal flood barriers shall be improved, designed, and constructed to prevent current and future tidal waters from impacting adjacent property, public right-of-way, or other public infrastructure. Causing, suffering, or allowing the trespass of tidal waters onto adjacent property, public right-of-way or other public infrastructure is hereby declared a public nuisance and a citable offense requiring abatement. The owner shall demonstrate progress toward addressing the cited concern within sixty (60) days after receipt of the citation and complete the construction of an approved remedy no later than three hundred sixty-five (365) days after receipt of the citation. For projects that require specialized environmental analysis (e.g. benthic resources survey) that have defined seasonal limitations or for other just cause, the jurisdiction may approve extensions of the 60-day and 365-day timelines herein pursuant to this section in writing or as defined in _____ [other relevant existing Code Section for the JURISDICTION],

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(c) All property owners must maintain any existing tidal flood barrier in good repair. A tidal flood barrier is presumed to be in disrepair if it allows tidal waters to flow unimpeded through or over the barrier and onto adjacent property or public right-of-way. Failure to maintain a tidal flood barrier in good repair shall be a citable offense. The owner of the tidal flood barrier shall demonstrate progress towards repairing the cited defect within ninety (90) days after receiving a citation and shall complete repairs within three hundred sixty-five (365) days after receipt of the citation. If the required repair or rehabilitation meets the substantial repair or substantial rehabilitation threshold, no later than three hundred sixty-five (365) days after receipt of the citation, the property owner shall design, obtain permits, cause to be constructed, and obtain final inspection approval of shoreline modifications that meet the minimum elevation and design requirements. The _____ Department is permitted to extend these timelines upon good cause shown and reasonable progress towards compliance being diligently pursued by the property owner. Reasonable progress towards compliance may include, but is not limited to, hiring a licensed contractor, submitting a building permit application, diligently pursuing the issuance of a building permit with the applicable departmental disciplines charged with review of the same, and any acts evidencing progress towards the actual construction of the repaired or new shoreline modifications. Should the property owner adhere to the timeframes set forth in this Section (including any extensions granted by the _____ Department) the property owner shall be entitled to a complete abatement of any fines accrued pursuant to this Section. The foregoing shall not be an exclusive remedy and the _____ [JURISDICTION] may at its option additionally institute a civil action to enforce the provisions in this chapter.

(d) Subject to the provisions of this Article, tidal flood barriers shall be designed to reach the required elevation as determined in (a) and constructed to adjoin immediately proximate or adjacent tidal flood barriers, to the extent practicable, to close gaps and prevent trespass of tidal water.

(e) All tidal flood barriers undergoing replacement, substantial repair or substantial rehabilitation shall be constructed along the property's entire shoreline.

(f) For tidal flood barriers, property owners are required to implement approaches and materials that enhance the biological value of traditional vertical seawalls and flood barriers with the incorporation of seawall enhancement design, living shoreline features, use of hybrid grey-green materials, and the use of biological forms, where practicable.

(g) This section shall not be construed to require the installation of a seawall where other shoreline protection measures serve as an equally effective tidal flood barrier.

(h) Tidal flood barriers capable of automatically being elevated in advance of high tides or other technologies to prevent tidal flooding are permissible if automation does not require daily human intervention. Permitting for such barriers shall include documented evidence signed and sealed by a licensed engineer that such structures shall not cause damage to natural resources including those located in uplands or nearshore waters or adverse impact from wave deflection, run-up, etc..

(i) All elevations shall be in the NAVD 88 datum.

Sec. __-05. Shoreline overlay districts, shoreline structures and hierarchy of response.

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(a) A Shoreline Overlay District shall be established identifying the types of tidal flood barriers that will be permitted based upon regionally uniform environmental conditions, engineering attributes and resilience factors. Shoreline Overlay Districts are comprised of shoreline uses that identify the shoreline type that presently exists within that specific geographic area. All property located within the Shoreline Overlay District is subject to both the standards applicable to that property as well as the requirements imposed by this Section.

(b) Purpose. The purpose of the Shoreline Overlay District is the protection of the _____ [JURISDICTION's] private property, public right-of-way, or other public infrastructure, natural shoreline and coastal resources. These features require protection because of their important flooding and erosion prevention functions, their scenic qualities, their value for public recreation and water access, and their value as wildlife habitat. The district establishes rules and standards for tidal flood barriers and shoreline types.

(c) Boundaries. The Shoreline Overlay District shall encompass all lands, including underwater lands, which are located within the following area: landward of the mean high water line of any tidal waters within the [JURISDICTION], to a line which is fifty (50) feet landward of said mean high water line. The overlay district shall consist of shoreline types as follows:

(1) Natural Shoreline: any shoreline that is designed to gradually slope to achieve the minimum elevation for tidal flood barriers and can support native wetland plants (marsh, mangroves, cypress trees) and native upland plants.

(2) Hybrid Shoreline: any shoreline that is designed to achieve the minimum elevation for tidal flood barriers that includes an engineered treatment such as a sill made from oyster domes, oyster bags, or rip rap, etc. to reduce wave energy and includes natural vegetation upland of the sill.

(3) Seawall/bulkhead (armored): a shoreline design with a vertical structure to achieve the minimum elevation for tidal flood barriers to high wave energy conditions and/or spatial limitations such as adjacent upland infrastructure (roads, buildings, pools).

(d) All shoreline types must connect to the adjacent natural or manmade feature of equal or higher elevation to provide a continuous protection to achieve the minimum elevation for tidal flood barriers.

(e) The Shoreline Overlay District map identifies the shoreline types at the individual parcel level, as well as a generalized representation of the extent of the JURISDICTION's shoreline overall. The Shoreline Overlay District map is an approximate representation of the extent and location of the Shoreline Overlay District and has not been formally delineated or surveyed. Additional site-specific evaluation may be required to confirm the location of the Shoreline Overlay District prior to undertaking any shoreline modification.

(f) Permitted, conditionally permitted or prohibited tidal flood barriers pursuant to existing shoreline conditions. The 3 shoreline types defined in this section shall be authorized for implementation according to the existing shoreline condition.

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Tidal flood barriers shall be permitted, conditionally permitted or determined to be in the public interest as defined in Table ____-____.

Table ____-____.

Existing Shoreline Condition / Type	Future Permitted Tidal Flood Barriers	Future Conditionally Permitted Tidal Flood Barriers	Future Tidal Flood Barriers subject to the public interest determination
Natural	Living Shoreline	Sill with plants (if erosion exists)	Seawall/bulkhead (armored)
Hybrid	Sill and plants	Sill without plants	Seawall/bulkhead (armored)
Seawall/bulkhead (armored)	Sea wall with Enhancements (riprap and sediment tubes with plants)	Sea wall with riprap only	Seawall/bulkhead (armored) with no enhancements

(g) Public interest determination. Seawalls or bulkheads (armored) tidal flood barriers with or without enhancements shall be determined to be not contrary to the public interest. A public interest evaluation shall be undertaken that balances design of the seawall or bulkhead with or without enhancements considering future impacts such as sea level rise and tidal flooding with the benefits, costs, protection and potential adverse impact of the tidal flood barrier for its projected useful life of 50 years. The following criteria shall be considered and balanced in determining whether or not the seawall or bulkhead (armored) tidal flood barrier with or without enhancements is not contrary to the public interest.

1. Whether or not the seawall or bulkhead (armored) tidal flood barrier will adversely affect the public health, safety, or welfare or the property of others;
2. Whether or not the seawall or bulkhead (armored) tidal flood barrier will adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats;
3. Whether or not the seawall or bulkhead (armored) tidal flood barrier will adversely affect navigation or the flow of water or cause harmful erosion or shoaling;
4. Whether the seawall or bulkhead (armored) tidal flood barrier will adversely affect the fishing or recreational values or marine productivity in the vicinity of the activity;
5. Whether the seawall or bulkhead (armored) tidal flood barrier will be of a temporary or permanent nature (subparagraph 62-330.302(1)(a)5, F.A.C.);
6. Whether the seawall or bulkhead (armored) tidal flood barrier will adversely affect or will enhance significant historical and archaeological resources under the provisions of Section 267.061, F.S. (subparagraph 62-330.302(1)(a)5, F.A.C.);
7. The current condition and relative value of functions being performed by areas affected by the proposed seawall or bulkhead (armored) tidal flood barrier (subparagraph 62-330.302(1)(a)7, F.A.C.);
8. The condition of the waterway where the seawall or bulkhead (armored) tidal flood barrier will be located (width or open waterway, vegetation, etc.);
9. The current elevation of the subject and adjacent properties; and
10. The type of property served by the seawall or bulkhead (armored) tidal flood barrier (single family residential, multi-family residential, industrial, commercial, etc.).

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Applicants shall submit materials to _____ [JURISDICTION] staff to assist with the public interest evaluation for seawall or bulkhead (armored) tidal flood barrier projects. For further guidance interpreting 1-7 in the criteria above, consult Sections 10.2.3.1-10.2.3.7 of the Environmental Resource Permit Applicant's Handbook Volume 1, December 2, 2020, for the Department of Environmental Protection and all five water management districts, or its successor Handbook.¹

(h) No shoreline modification shall be made unless consistent with this Section.

(i) A shoreline modification must be authorized in accordance with the Shoreline Overlay District, the underlying zoning and any other overlay district in which it is located. In the event of a conflict, the more restrictive regulation shall apply.

(j) Nonconforming shoreline types are those that were legally established or constructed prior to the adoption of Sec. _____. Nonconforming shoreline types shall be subject to the same requirements as nonconforming uses/structures in Sec. _____.

(k) Variances for limited relief relative to the shoreline types as permitted or conditionally permitted in Table ____-____ shall be considered pursuant to Sec. _____ when the requirements of this Code will create an unnecessary hardship, as distinguished from a mere inconvenience, where the requirements of this Code render the land difficult to use because of some rare and unique physical attribute of the property itself or some other factor unique to the property, such as the width of the adjoining water body, for which the variance is requested.

(l) Waivers or administrative adjustments shall be available consistent with Section ____-____. *[If no such section exists within the relevant Code, consider: There are situations that require flexibility to technical standards, dimensional standards, design criteria, and/or specific use standards to respond to unique site conditions and/or existing conditions in the immediate vicinity. The waiver and administrative adjustment provisions are intended to allow an applicant to seek flexibility to certain code requirements and allow the _____ to administratively process and take action on said requests.]*

Sec. ____-06. Design and Construction of Natural Shorelines.

Natural shorelines are gradually sloped to achieve the minimum elevation for tidal flood barriers and can support native wetland plants (marsh, mangroves, cypress trees) and native upland plants. Natural shorelines shall consist of a gradual slope no steeper than 4:1 with a minimum top elevation of 5.0 feet NAVD88 coupled with native plants and could include a sill to address wave energy dissipation if necessary. Natural shorelines shall be kept in their current state if there are no erosional features. If there are ongoing erosional features, these can be addressed by implementing nature-based shoreline designs such as Living Shorelines, which could include a sill of natural material such as riprap, precast concrete units, oyster bags, or precast domes to provide protection from wave energy, but must include a naturally sloped shoreline with native plants to stabilize the shoreline itself. Natural shorelines that do not have an existing elevation of 5 feet NAVD88 shall also include the addition of an earthen or other type of berm to achieve the minimum elevation. Natural shorelines shall meet all applicable state and federal regulatory requirements and allow for the trimming of mangroves beyond a height of 6 feet, per the current FDEP mangrove trimming guidelines or those of an applicable deleted agency with that authority. A Living Shoreline may have its waterside face consist of plants and other natural elements that improve

¹ Environmental Resource Permit Applicant's Handbook Volume 1, December 2, 2020, for the Department of Environmental Protection and all five water management districts available at:
https://www.sfwmd.gov/sites/default/files/documents/erp_swerp_manual.pdf

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water quality, provide additional fish habitat, and foster increased biodiversity, provided that the landside interface of a Living Shoreline be substantially impermeable and constructed to a finished elevation that meets Federal and State permitting guidelines as applicable. 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.

Sec. __-07. Design and Construction of Hybrid Shorelines

Hybrid shorelines include an engineered treatments such as a sill to reduce wave energy and include natural vegetation upland of the sill. Hybrid shorelines shall include a minimum top elevation of 5.0 feet NAVD88 and remain in place with the addition of native plants, as appropriate. Engineered treatments such as a sill made from precast concrete units, oyster bags, or riprap, etc. shall be designed to reduce wave energy and should also include natural vegetation upland of the sill. Hybrid shorelines shall meet all applicable state and federal regulatory requirements and allow for the trimming of mangroves beyond a height of 6 feet, per the current FDEP mangrove trimming guidelines.

Sec. __-08. Design and Construction of all Seawalls/bulkheads (armored).

Seawall/bulkhead (armored) shorelines include an existing vertical structure that cannot be removed due to high wave energy conditions and/or spatial limitations such as adjacent upland infrastructure (roads, buildings, pools). Armored shorelines shall include a minimum top elevation of 5.0 feet NAVD88 and maximum elevation not to exceed X feet or X%. Armored shorelines in disrepair or not meeting the minimum height for tidal flood protection shall be replaced with natural treatments where feasible. If a natural shoreline is not possible, a hybrid shoreline design option should be assessed and implemented. For sites that cannot employ a natural shoreline, nor a hybrid shoreline, then seawall enhancements shall be employed which include some provision for riprap and planters for native wetland species. If there is sufficient space above the mean higher high water line to soften the bank to a 4:1 slope, or gentler slope, then the seawalls/bulkhead (armored) should be removed, and a hybrid shoreline implemented. All existing vertical seawalls shall require enhancements including, at a minimum, riprap placed at the toe of the seawalls/bulkhead (armored) shoreline. It is preferable that riprap extend up to the intertidal range to include embedded planted tubes that are planted with marsh or mangrove plants to provide habitat value. Seawall/bulkhead (armored) shorelines shall meet all applicable state and federal regulatory requirements and allow for the trimming of mangroves beyond a height of 6 feet, per the current FDEP mangrove trimming guidelines or those of an applicable deleted agency with that authority. Exemptions to enhancement requirements shall be addressed through the public interest determination process subject to a site-specific analysis. Seawall/bulkhead (armored) shorelines shall be designed to prevent harmful diversion of floodwaters or wave runup and wave reflection and prevent adverse impacts to adjacent property. Tidal flood barriers shall also be constructed, operated and maintained to prevent tidal waters from flowing through the barrier, while still allowing for the release of upland hydrostatic pressure.

Sec. __-9. Permits and authorizations for tidal flood barriers, living shorelines and NNBFs—Required and Hardships.

No tidal flood barriers, living shorelines and NNBFs shall be constructed, reconstructed or repaired until a permit authorizing such construction, reconstruction or repair has been obtained from the building department. No such permit shall be issued for any new construction or shoreline modification or repair to an existing shoreline modification or structure which is deemed, substandard by _____ of the _____ department or not in compliance with design and construction standards. If a property owner, who is required to repair or replace a tidal flood barrier, living shoreline or NNBF due to

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the existing structure being in disrepair or allowing tidal waters to flood the public right-of-way, public infrastructure and/or neighboring properties can demonstrate an extreme financial hardship related to the costs associated with such work, then the _____ may consider such hardship on a case-by-case basis and elect to waive a portion of or all fees associated with the permitting for such construction taking into account the following criteria:

(a) The property owner's income as evidenced by prior years' income tax returns for as many years as requested by the _____; and

(b) The property owner's general ability to pay or finance the required shoreline modifications without causing an undue economic hardship.

Sec. __-10. - Same—Application.

(a) Permits required by this article shall be applied for either by the owner-builder or by a licensed contractor certified in a proper category and having a bona fide contract with the owner to perform such work. Application shall be made upon a suitable form provided by the _____ Department.

(b) For new construction or repairs amounting to \$X,000.00 (TBD) or more in value, two copies of the certified/signed and sealed plans shall be submitted with the application, plans shall include the following information, at a minimum, except as to any item which may be waived in writing by the _____ department:

(1) A current (less than one (1) year old) certified/signed and sealed survey drawing of the property upon which the shoreline modification is to be made, referenced to the NAD 83 horizontal and NAVD88 vertical datums and showing sufficient topographic information to determine the impacts of the proposed shoreline modifications to the adjacent private and public lands. Other publicly available data such as LiDAR can be utilized to fulfill this requirement.

(2) A plan view drawing, showing the relation of the proposed shoreline modification to the site and to adjoining land or areas.

(3) Arrangement and structural details in the plan, section, and elevation views sufficiently detailed to serve as construction drawings.

(4) The type and character of the soil substrata which will bear the shoreline modification or structure. When required by the building department, core borings shall be taken to a depth six feet deeper than the proposed base of construction or to a depth below the deepest piling, and the findings of the same shall be made a part of the permit application.

(5) Soundings, pertinent elevations, and horizontal locations of the proposed structures shall be shown and referenced to the NAVD88 vertical datum and NAD 83 horizontal datums.

(6) Tidal flood barriers inclusive of living seawalls, living shorelines and NNBFs must be provided with specific purpose surveys certifying the alignment and elevation of the top of wall or bulkhead line with elevations spaced at a maximum of 25-ft intervals showing the highest and lowest elevations of the barrier and clearly identifying the location and elevation of the structure/barrier at each property corner. Elevations of adjacent properties and public rights-of-way must also be

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provided to ensure consistency is provided between the proposed barrier with the surrounding lands.

(7) The name and address of the owner and property tax folio(s) of the property(ies) upon which the shoreline modification(s) is(are) to be made or constructed.

(8) A construction cost estimate of the proposed shoreline modification substantiated by a fully executed construction contract or validated and attested to by a licensed professional engineer.

(9) The signature and seal of the engineer designing the shoreline modifications.

(10) The engineer's design computations, when required by the _____ Department.

(c) For shoreline modifications addressing less than 25% of the length or surface area; less than \$X,000.00. For construction or repairs less than \$X,000.00 in value, no approvals required.

(1) A current (less than 1 year old) certified/signed and sealed survey sketch drawing of the property upon which the shoreline modification is to be made, referenced to the NAD 83 horizontal and NAVD88 vertical datums and showing sufficient topographic information to determine the impacts of the proposed shoreline modifications to the adjacent private and public lands. Other publicly available data such as LiDAR can be utilized to fulfill this requirement.

(2) A plot plan, showing the relation of the proposed shoreline modification to the site and to adjoining land or areas.

(3) The name and address of the owner of the property upon which the shoreline modification is to be made.

(4) Arrangement and structural details in the plan, section, and elevation views sufficiently detailed to serve as construction drawings.

(5) A cost estimate of the proposed shoreline modification substantiated by a fully executed construction contract or validated and attested to by a licensed professional engineer.

(6) The signature and seal of the engineer designing the shoreline modification(s), when required by the _____ Department.

(7) The engineer's design computations, when required by the building department.

Sec. __-11. – Maintenance and operations of tidal flood barriers, living shorelines and NNBFs.

All property owners must maintain their tidal flood barriers, living shorelines and NNBFs in good repair to address general tidal flooding conditions from high tides and projected sea level rise, understanding that storm events are not general conditions. A tidal flood barrier is presumed to be in disrepair if it allows for upland erosion, transfer of material through the tidal flood barrier/wall, or allows tidal waters to flow unimpeded over or through the barrier/wall beyond the intended design of the tidal flood barrier such that it adversely impacts adjacent properties, public infrastructure or the public right-of-way. Property owners with tidal flood barriers below the minimum required finished elevation, with permeable erosion barriers such as riprap, or a land/water interface of another nature are prohibited from allowing tidal

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waters entering their property to flow onto adjacent properties, public infrastructure or public rights-of-way. Privately owned waterfront shoreline modifications shall be privately maintained, even though a portion of the shoreline modification may extend into publicly owned land. Failure by the owner to keep the above-mentioned shoreline modifications in a state of repair to address general tidal flooding conditions from high tides and sea level rise acceptable to the _____ department or failure to prevent tidal waters from flowing overland or through the above-mentioned shoreline modifications beyond the intended design of the tidal flood barrier to adversely impact adjacent properties, public infrastructure or the public right-of-way shall be subject to enforcement as set forth in chapter _____, article ____ of the _____ Code, entitled "Code enforcement," and may be brought for further proceedings before the code enforcement board.

Sec. ____-12. Required disclosure in contracts for sale of real estate.

In any contract for the sale of real estate located in tidally influenced areas of _____ executed (date to be determined by Coalition) the seller shall include in the contract or a rider to the contract the following disclosure in not less than fourteen-point, capitalized, bold-faced type:

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.

CITY OF ST. AUGUSTINE

MEMORANDUM

TO: Planning and Zoning Board

DATE: September 19, 2023

RE: **Consideration and Discussion Related to Updating the City's Parking Code Regulations: Draft Parking Code Update Provided by Staff Proposing Certain Changes to the Code.**

Staff has provided documents for a parking code update based on various elements of the City's Comprehensive Plan 2040, Mobility Fee and Mobility Plan dated February 2022, feedback from the City's mobility consultant NUE Urban Concepts, and discussion from several Special Planning and Zoning Board meetings. Below is an overview and summary of the proposed changes.

- For properties within the Historic Preservation Districts 1, 2, 3, and 4 that wish to provide a parking facility there are now required multi-modal parking spaces.
- Bicycle, scooter, motorcycle and micromobility racks are required for specific land uses.
- Parking space size requirements for bicycles and motorcycles.
- Provisions for conducting a shared parking analysis.
- Modifications to off-site parking guidelines such as allowed distances and review that can be completed at the staff level.
- Decreases for minimum off-street requirements for several uses citywide based on the most recent Institute of Traffic Engineers (ITE) standards.
- Parking management strategies to encourage a park once environment and encourage the use of multimodal transit, shared parking, mobility hubs, valet parking, fee-in-lieu of, and new parking technologies.
- Shared parking requirements are now more comprehensive rather than the previous language of joint use parking facilities.
- Added flexibility for parking facility materials through the Public Works and Utilities Departments and potential language for including pedestrian friendly design standards.
- Parking space size requirements for structured public parking facilities.
- Requirements for parking facilities on non-conforming lots to be more flexible.
- Using the residential typology development option under the San Marco Avenue Design Standards properties adjacent to King Street, Masters Drive, and S. Dixie Highway are eligible for reductions.
- Increase in compact spaces allowed from 25% up to 50%.
- Introduction of in-lieu of parking fees.
- Minor update to Sec. 28-347. – Supplementary regulations for certain uses regarding off-site parking options.

- No modifications to the City's parking requirements for short term rental registration are proposed.

The goal for the September 19th Planning and Zoning Board meeting is to have a revised parking code that is ready for review by the City Commission. There are a few action items, outlined below, that state specific requests and direction from the Board.

1. A review and recommendation of the modified Sec. 28-372 which is now titled "Off-street parking provisions for neighborhood development."
2. A review and recommendation of the initial parking reduction giving to shared parking agreements. This is under letter (f) within Sec. 28-373. – Required off-street parking.
3. Setting the dollar amount for the parking in-lieu of fee. This is under letter (g) within Sec. 28-373. – Required off-street parking, and
4. A recommendation on whether to use new multimodal parking requirements as an additional requirement or as a tool for vehicle parking space reduction. This is under letters (h) and (i) within Sec. 28-373. – Required off-street parking.

The parking code proposal found in this packet is a redlined version of the City's current parking code, which was last updated in 1988. This redlined version contains the existing code language and is presented to be able to compare the existing and proposed language.

Thank you for your attention to this matter. If you have any questions or require additional information, please do not hesitate to call me at (904) 209-4331 or email at jfredriksson@citystaug.com or call Amy Skinner at (904) 209-4320 or email at askinner@citystaug.com.



Jacob Fredriksson, CNU-A
Planning Manager
Planning and Building Department

DIVISION 2. - OFF-STREET PARKING AND LOADING

Sec. 28-366. - In general.

All new and expanded uses and structures as well as all changes in use shall meet all requirements contained in this section for off-street parking and loading. Where fractional spaces result from parking space requirement calculations, the parking space required shall be the nearest whole number.

Off-street vehicle parking, including public parking facilities, must be designed, constructed and maintained in accordance with the requirements of this section as well as the goals, objectives, and policies of the City's Comprehensive Plan and Mobility Plan.

Sec. 28-367. - Historic preservation districts requirements.

~~Uses and structures located in historic preservation districts 1, 2, 3 and 4 are not required to provide off-street parking and loading. Any parking facilities within these districts shall meet the specific requirements contained in this section. Parking facilities within historic preservation districts 1, 2 and 3 shall not exceed a maximum of twenty (20) spaces and shall not be located within twenty-five (25) feet of another facility. All parking facilities shall have a fence or wall around the perimeter of the facility. Parking facilities located on the premises of a structure shall meet the height requirements for fences or walls established by the architectural guidelines for historic preservation as appropriate to the era of the structure. Parking facilities located off the premises shall meet the height requirements for pre-1821 construction. No parking garages shall be approved within historic preservation districts 1, 2 and 3, and any parking facility located on a corner lot shall be by exception only.~~

- (a) Parking exemption. Uses and structures located in historic preservation districts 1, 2, 3 and 4 are not required to provide off-street parking and loading.
- (b) Parking requirements. Any parking facilities within historic preservation districts 1, 2, 3 and 4 shall meet the specific requirements contained in this section.
- (c) Maximum spaces. Parking facilities within historic preservation districts 1, 2 and 3 shall not exceed a maximum of twenty (20) spaces and shall not be located within twenty-five (25) feet of another facility.
- (d) Multimodal facilities. Any parking facilities within historic preservation districts 1, 2, 3, and 4 shall provide multi-modal parking consistent with the requirements of Sec. 28-372.
- (e) Fence or walls. All parking facilities shall have a fence or wall around the perimeter of the facility. Parking facilities located on the premises of a structure shall meet the height requirements for fences or walls established by the architectural guidelines for historic

preservation as appropriate to the era of the structure. Parking facilities located off the premises shall meet the height requirements for pre-1821 construction.

(f) Parking garages. No parking garages shall be approved within historic preservation districts 1, 2, and 3.

(g) Parking visibility. Any parking facility located on a corner lot shall be by exception only. All ingress and egress shall be designed and constructed to ensure pedestrian and bicycle safety. Access connections shall minimize vehicle conflicts, address adequate site visibility, and provide safe pedestrian and bicycle crossing.

Sec. 28-368. - Design standards.

(a) *Approval of plans and specifications.* No permits shall be issued for any parking facility until the plans and specifications, including required landscaping, materials and storm drainage, have been submitted to and approved by the planning and building department and the ~~engineering division~~ public works/utilities department(s). These plans and specifications shall include proper drainage and retention, surface materials, curbing and screening as required, clearly marked and dimensioned, with handicap and other special use spaces designated. All entrances, exits and aisles shall be dimensioned, with the traffic pattern indicated.

(b) *Drainage.* Off-street parking and loading facilities shall meet city requirements for stormwater retention and drainage to prevent damage to abutting property, the public right-of-way and the adjacent environment. All such facilities shall be paved with erosion-resistant materials in accordance with city specifications. These specifications may include alternative surfaces, pervious surfaces, drainage and retention systems that are sustainably designed according to best management practices and City policy. Drainage from parking facilities into the city drainage system (either overground or direct underground) shall require the approval of the ~~engineering division~~ public works/utilities department(s).

(c) *Lighting.* Adequate lighting shall be provided if an off-street parking or loading facility is to be used at night. Such lighting shall be provided to ~~insure~~ ensure user safety and security. Lighting shall be designed and installed to minimize glare on adjacent property and streets. No source of illumination shall be directed into the windows of any residential building.

(d) *Landscaping.* Landscaping requirements for parking facilities shall be as required by Chapter 25.

(e) *Separation from walkways and streets.* Off-street parking and loading facilities shall be separated from walkways, sidewalks, streets or alleys by a wall, fence, curbing, bollards, landscaping or other approved protective device. Such protective devices shall not impair the visibility of pedestrians, bicycles, or vehicles at ~~entrances and exits~~ access connections.

~~(f) *Entrances and exits.* The location and design of entrances and exits shall be in accordance with city specifications. The number of curb cuts shall be the minimum required to allow free and safe use of the facility without impairing traffic flow along the street. The use of shared or~~

~~common curb cuts is encouraged where practical. Trees and appropriate landscaping may be used to define entrances and exits. Landscaping, curbing or other protective devices may be provided to control access and to separate pedestrian and vehicular traffic.~~

- (f) Access connections. The location and design of ingress and egress shall be in accordance with city specifications. The number of curb cuts shall be the minimum required to allow free and safe use of the facility without impacting pedestrian and bicycle safety and impairing traffic flow along the street. Trees and appropriate landscaping may be used to define ingress and egress. Landscaping, curbing or other protective devices may be provided to control access and to separate pedestrian and vehicular traffic. Access connections should be designed with the highest priority given to the pedestrian.
- (g) Shared and cross-access. Access shall be taken from a shared or common curb cut access connection where such opportunity exists. Multiple uses on a parcel shall share all access connections, unless otherwise prohibited by a development order condition. Where access connections are less than 75 feet from an adjacent parcel, access easements to the property boundary shall be provided to allow for shared access and cross-access. Where a parking lot drive-aisle terminates adjacent to a property boundary, a stub-out or easment shall be provided to the property boundary to allow for cross-access. The City may require shared or cross-access easements to facilitate internal circulation and circulation between adjacent developments to reduced impedance to pedestrian, bicycle, and vehicle mobility along adjacent rights-of-way.

~~(g)~~ (h) Interior driving aisles and maneuverability. The minimum width of interior driving aisles and maneuverability space within parking facilities shall be related to the angle of the parking spaces and the use of one-way or two-way traffic as follows:

Parking Space Angle in Degrees	One-Way Traffic Aisle Width/Maneuverability Space in Feet	Two-Way Traffic Aisle Width/Maneuverability Space in Feet
0 (Parallel)	13	24
30	13	24
45	13	24
60	18	24
90	24	24
<u>Drive aisles with no parking immediately adjacent</u>	<u>10</u>	<u>20</u>

~~(h)~~ (i) Existing site constraints. For parking facilities to be used in conjunction with existing structures containing physical constraints, such as trees or buildings, making it impractical to provide entrances, exits and interior aisles in accordance with subsections ~~(f) and (g)~~ (f), (g), and (h) hereof, the city planning and building manager may grant a variance from such requirements; provided, however, no variance shall be given by the planning and building manager to the

required parking space requirements or required interior maneuverability space. director may grant relief from such requirements.

The city also recognizes that due to the unique layout and design of the existing commercially zoned areas of the city that the parking requirements of this section may not be able to be met based on the existing development or nonconforming lots. When the layout, design, deed restriction or unique condition of an existing lot or building in the existing commercially zoned areas of the city creates a hardship which affects the ability to meet the required number of parking spaces, the following may be allowed:

- a. The number of required spaces may be reduced by the variance process outlined in the land development code.
- b. A reduction of up to 50 percent for required parking spaces may be applied to changes of use or re-model projects to existing buildings within the existing commercially zoned areas of the city; provided that the site plan includes proposed bicycle and/or motorcycle parking for the equivalent of the reduced number of parking spaces, and provided that the proposed site plan includes meeting the current requirements of the landscaping code of the City of St. Augustine. This reduction will not apply to new construction in the existing commercially zoned areas.
- c. New construction in the existing commercially zoned areas of the city may have the number of required parking spaces reduced by up to 25 percent if the lot is considered a nonconforming lot; provided that the site plan includes proposed bicycle and/or motorcycle parking for the equivalent of the reduced number of parking spaces and provided that the proposed site plan includes meeting the current requirements of the landscaping code of the City of St. Augustine.

(j) *Valet Parking.* Off-street parking with a valet service or operator, which allows for attendants to receive, park and deliver the automobiles of occupants, tenants, customers, invitees, and visitors, including tandem parking, may be utilized in lieu of the requirements of this code provided the following requirements are complied with:

- (1) *Agreement.* Any required valet or tandem parking utilized in lieu of the parking requirements set forth in this code shall be governed by an agreement with the City (in such form as may be approved by the City Attorney) and recorded with the St Johns County Clerk of Circuit Court. The agreement shall constitute a covenant running with the land binding upon the owners, heirs, administrators, successors, and assigns. The agreement may be released by the City at such time that site plan approval is obtained for an alternative parking arrangement which satisfies the parking requirements for said use or a fee-in-lieu payment is made to the City.
- (2) *On-site parking management.* A parking professional shall be available for the vehicle retrieval during business hours.

- (3) Parking space dimensions. The dimensions for valet and tandem parking spaces shall be a minimum of eight (8) feet wide by sixteen (16) feet deep with a maximum stacking of two vehicles along a one-way drive aisle of twelve (12) feet and a two-way drive-aisle of twenty-four (24) feet.
- (4) Accessible parking. Valet parking may be utilized to conform with the number of accessible parking spaces provided that:
 - a. At least two handicapped accessible spaces are provided adjacent to the vehicle queuing area for those vehicles which cannot be operated by the parking professional; and,
 - b. The person's vehicle may be safely operated by aforementioned on-site parking management.
- (5) Queue. The required queue is to be provided on private property as opposed to public rights-of-way. The valet drop-off/queuing area must be provided with a minimum length of 100 feet. Greater queuing area may be required as a condition of site plan or use by exception approval based upon the intensity of the use and location. The length of the queuing area may be reduced when supported by a queuing analysis and where potential queue back up would not impact an arterial, collector or entry corridor. Any queuing analysis shall be based on a methodology agreeable to and is subject to approval by the City.

Sec. 28-369. - ~~Compact~~ Parking space standards.

~~A compact parking space shall be at least eight (8) feet wide by eighteen (18) feet in length. All compact spaces shall be indicated by signs. A maximum of twenty-five (25) percent of required parking spaces may be compact spaces.~~

- (a) A standard parking space shall be at least nine and one half (9 ½) feet wide by nineteen (19) feet in length.
- (b) A compact parking space shall be at least eight (8) feet wide by eighteen (18) feet in length. All compact spaces shall be indicated by signs. A maximum of fifty (50) percent of required parking spaces may be compact spaces.
- (c) Parking garage space shall be at least nine (9) feet by nineteen (19) feet. When the front of the vehicle is adjacent to a wall, wire or fixed barricade, or mechanical system, the minimum length shall be twenty (20) feet, plus any additional space for protective barricades. Where a wall, structural support, mechanical system, or other fixed object or object that limits site visibility, or where adjacent to a pedestrian access, spaces shall be a minimum of ten (10) feet wide.
- (d) Bicycle racks and weather protected storage units shall be designed, constructed, and maintained to include provisions for the secure storage and locking of bicycles on a hard surface at least seven (7) feet in length. Fixed objects which are intended to serve as bicycle parking facilities shall be clearly labeled as available for bicycle parking.

- a. A bicycle rack shall mean a fixed object clearly labeled as to secure at least two (2) bicycles.
- b. A weather protected bicycle storage unit shall mean bicycle parking that is easily accessible to residents, visitors, customers, and employees and covered to protect bicycles from rain and other types of weather.
- (e) Motorcycle spaces shall be a minimum of three (3) feet in width and at least ten (10) feet in length. Concrete, erosion resistant material, or other material that will not be damaged by the motorcycle kickstands is required for the motorcycle parking spaces. Motorcycle parking shall be labeled as such.

Sec. 28-370. - Handicap parking space standards.

Handicap parking spaces shall conform to the standards of the most recently adopted Florida Building Code.

Sec. 28-371. - Location.

(a) A required off-street parking and loading facility shall be located on the same lot or parcel of land it is intended to serve. However, an off-street parking and loading facility within ~~four hundred (400) feet~~ one thousand three hundred and twenty (1,320) feet, or one quarter mile, of the premises may be allowed as a permitted use by exception.

(b) The planning and zoning board may grant ~~an exception~~ a permitted use by exception within one thousand three hundred and twenty (1,320) feet, or one quarter mile, when practical difficulties prevent the placing of all or part of the facility on the premises they are designated to serve. The board shall review the proposal for impact upon pedestrian and vehicular traffic patterns and user safety, impact upon surrounding properties from noise, glare, visual quality, nuisance and traffic generation. Exceptions reviewed by the planning and zoning board shall include provisions that promote the City's Mobility Plan. Such provisions may include, but are not limited to, on-site bicycle racks, motorcycle parking, and/or a drop off valet service.

(c) The planning and building department director, or designee, may permit off-site parking within four hundred (400) feet when such parking facilities provide the number of spaces required for all uses or structures or meet the requirements of Sec. 28-373. – Required off-street parking.

~~Sec. 28-372. – Joint use of parking facilities.~~

~~Nothing in this chapter shall be construed to prevent the joint contractual use of off-street parking facilities by two (2) or more structures or uses when such facilities provide the number of spaces required for all uses or structures.~~

Sec. 28-372. – Off-street parking provisions for neighborhood development.

- (a) Intent. The purpose of this section is to reduce parking demand, support the use of multi-modal forms of transportation, encourage redevelopment, preservation of existing buildings, reduce construction costs, and increase the efficiency of taxable land within the City of St. Augustine.
- (b) Parking Space Requirements. For all uses within these specific neighborhood development areas, except for lodging, the provision of off-street parking spaces will not be required.
- (c) Location. Development which is exempt from providing off-street parking must (1) take place on a property that has a Commercial Low or Commercial Medium Future Land Use designation and (2) be located directly adjacent to the following avenues, streets, and lanes:
- (1) Uptown San Marco Commercial District
 - i. San Marco Avenue between W San Carlos Avenue and W Castillo Drive.
 - (2) East King Street Commercial District
 - i. E King Street between the San Sebastian River and Granada Street.
 - (3) West City Commercial District
 - i. W King Street between the western most limits of the City of St. Augustine and the San Sebastian River.
 - ii. Pellicer Lane between W King Street and Davis Street.
 - iii. Palmer Street between W King Street and Evergreen Avenue.
 - (4) North Lincolnville Commercial District
 - i. Washington Street between Bridge Street and De Haven Street.
- (d) Minimum Bicycle Parking Requirements.

	<u>Required Number of Bicycle Racks</u>	<u>Required Number of Bicycle Storage Units (Weather Protected)</u>
<u>Residential/Lodging</u>	<u>1 for every twenty units / 1 minimum</u>	<u>1 for each dwelling unit</u>
<u>Civic</u>	<u>1 for every 10,000 square feet of gross floor area / 1 minimum</u>	<u>1 for every 10,000 square feet of gross floor area / 2 minimum</u>
<u>Commercial</u>	<u>1 for every 5,000 square feet of gross floor area / 1 minimum</u>	<u>1 for every 5,000 square feet of gross floor area / 2 minimum</u>
<u>Industrial</u>	<u>1 for every 20,000 square feet of gross floor area / 1 minimum</u>	<u>1 for every 5,000 square feet of gross floor area / 2 minimum</u>

Sec. 28-373. - Required off-street parking.

- (a) Intent. The purpose of this section is to ~~insure~~ ensure the reasonable provision of off-street, on-site parking facilities. Any use not listed shall provide off-street parking facilities as required

of the use listed which is most closely related to it, as determined by the planning and building department.

(b) *Continuation required.* Off-street parking or loading facilities shall be maintained and continued as long as the main use continues.

(1) *Repair.* Conforming buildings and uses existing at the time of adoption of this chapter (June 27, 1988) may be modernized, altered and/or repaired without providing additional facilities, providing there is no increase in area or capacity.

(2) *Enlargement.* When a building or use existing at the time of adoption of this chapter is enlarged or increased in area or capacity by adding floor area, volume or seats, off-street parking and loading as required by this chapter shall be provided for the additional floor area, volume, capacity or seats so created or used.

(3) *Change in use.* When the use of a building or portion thereof changes and results in an increase in person travel demand above the existing use of the property, the new use shall meet the off-street parking requirements of this section.

~~(e) *Required parking San Marco Avenue Design Standards.* Developments within the San Marco Avenue Design Standards entranceway corridor area, utilizing the residential typology development option, shall receive a twenty five (25) percent reduction for the total calculated required parking based on (d) Minimum spaces required in order to maintain the appearance of a residential in nature front yard consistent with the intent of the design standards.~~

(c) *Required parking and Design Standards:*

a. San Marco Avenue Design Standards. Developments within the San Marco Avenue Design Standards entranceway corridor area, utilizing the residential typology development option, shall receive a twenty-five (25) percent reduction for the total calculated required parking based on (d) Minimum spaces required in order to maintain the appearance of a residential in nature front yard consistent with the intent of the design standards.

b. King Street Design Standards. Developments adjacent to King Street (East and West), Masters Drive and S. Dixie Highway, utilizing the residential typology development option, shall receive a twenty-five (25) percent reduction for the total calculated required parking based on (d) Minimum spaces required in order to maintain the appearance of a residential in nature front yard consistent with the intent of the design standards.

(d) *Minimum spaces required:*

	Use	1 Space Per Gross Floor Area (Sq. Ft.)	1 Space Per Rates Patron Capacity	Units, Seats, Rooms, Spaces	Special Requirements
(1)	Amusement/recreation				
	Skating rink	300			

	Indoor recreation		4 patrons or seats		
	Bowling			3 per lane	
	Miniature golf			2 per hole	
	Outdoor recreation		4 patrons or seats		
	Outdoor pool				1 per 75 ft. water area
	Racquet courts				3 per court
(2)	Art gallery, library and museum	400			
(3)	Auditorium			4 seats	
(4)	Auto, boat, equipment sales, rentals	300 <u>500</u> (buildings)			
(5)	Banks and financial institutions	300		3 per automatic teller machine	
(6)	Barber/hair salon				3 spaces per operator or chair
(7)	Bar, lounge, tavern, nightclub		3 patrons or seats		
(8)	Boarding and rooming houses, and hostels			1 per bed	and 2 per resident manager
(9)	Bus/transportation depot	300			
(10)	Church/funeral home			4 seats	(for churches based on largest group assembly room)
(11)	Community center	250 <u>500</u>			
(12)	Clinic	<u>400</u>			5 per doctor/ dentist
(13)	Clubs, lodges	250			(includes outside assembly/recreation)
(14)	Convention center	200			
(15)	Daycare, child care facility				1 per employee
(16)	Furniture, clothing, appliance store	500			
(17)	Garage, repair			3 per bay	
(18)	Gym, spa	200			
(19)	Hospital			1.5 per 3 beds	plus as required for accessory uses
(20)	Hotel/motel/inn		3 (for meeting or banquet rooms) and	4 (for meeting or banquet rooms) and 1 per room	75% as required for accessory uses

(21)	Industrial manufacturing	1,000 devoted to manufacturing, shipping or receiving			and 1 per stored company vehicle and as required for office use
(22)	Shopping center	300 <u>500</u> (nonstorage area)			
(23)	Marina			1 per 2 newly constructed wet boat slips, excluding those used for charter boats, plus 1 per 10 dry boat storage spaces. Wet slips used for charter boats (including those for fishing, shelling, diving, and sightseeing purposes) are computed at 1 per 3 boat passengers based on the maximum number of passengers, and charter boats used for dining are computed at 1 per 2 boat passengers based on the maximum number of passengers. Each parking space provided to meet the marina's boat slip or dry storage parking requirements may also be credited towards meeting 100 square feet of the parking requirements for	and as required for accessory uses

				the marina or permitted marina-related activities, excluding restaurants, lounges/bars and private clubs. Uses not receiving credit from parking provided for boat slips or dry storage spaces shall provide parking at the normal rate for those uses as required within this Code.	
(24)	Mobile home			2 per unit	
(25)	Multifamily residential/apartments				
	1 bedroom			1.5 <u>1</u> per unit	
	2 bedrooms			2 <u>1.5</u> per unit	
	3 or more bedrooms			2.25 <u>2</u> per unit	
(26)	Office use medical/dental	400			3 per doctor
	Veterinary	400			3 per doctor
	Professional/business office	400			
	Real estate, property rental/management, employment office	300 <u>400</u>			
(27)	Restaurant	75 <u>100</u> patron area (nonfixed seating)	or 4 patrons (fixed seating)		and 1 per 200 sq. ft. nonpatron area
(28)	Restaurant, fast food or drive-through, <u>coffee shop or café</u>	75 <u>100</u> patron area (nonfixed seating)	or 3 patrons (fixed seating)		and 1 per 100 <u>200</u> sq. ft. nonpatron area
(29)	Schools				
	Elementary			2 per classroom, office and kitchen	

	Jr. high/high			2 per classroom, office and kitchen	and 1 per 6 auditorium or gym seats
	College/university/technical or vocational school		<u>2 for every 3 employees, and 1 for every 5 students not residing on campus</u>	1 per classroom, and 1 per 4 students at average capacity class attendance	and 10% as required for accessory uses including libraries, book stores, athletic facilities and cafeterias or restaurants
(30)	Single-family/duplex			2 per unit	
(31)	Recreational vehicle park/campground			1 per space	and as required for office use
(32)	Nursing home			1 per 6 beds	and 1 per employee
(33)	Retirement home/adult congregate living facility		2 patrons	or 1 per bedroom	
(34)	Service station	200 (buildings)			
(35)	Wholesale distribution	1,500			and as required for office
(36)	Warehouse storage	2,000			and as required for office
(37)	Mini-warehouse and self-storage facility			1 per 10 storage units	2 per office plus 2 per caretaker's unit
(38)	Convenience store	100 <u>200</u>			
(39)	Theatre		4 seats		
(40)	Grocery/supermarket	200 <u>300</u>			
(41)	Business, commercial, or service establishments	300 <u>500</u>			
(42)	Outdoor market	100 <u>300</u> (sale/display area)			
(43)	Public service				1 per employee plus 1 per stored company vehicle
(44)	Winery	450			
(45)	Winery with restaurant				
	a. Winery area	450			
	b. Restaurant area				
	1. Patron area	75 <u>100</u>	or 4 patrons or seats		

	2. Non-patron area (kitchen, etc.)	100			
(46)	Bed and breakfast			1 per room	2 for owner/resident manager
(47)	College dormitory			<u>1 per bed 2 per 3 residential students</u>	and 10% as required for accessory uses provided as part of the dormitory
(48)	Special event venue			One (1) parking space per four (4) seats, except for special event venue space in hotels and motels as below, and If the special event venue is an accessory or ancillary use to a hotel or motel one (1) parking space per two hundred (200) square feet of special event venue space, and One (1) parking space per two hundred (200) square feet for designated special event venue outdoor standing patron areas and if accessory or ancillary to other uses (other than hotel and motel requirements above) 75% of calculated required parking for the special event venue use shall be provided on-site in	

				addition to other required parking.	
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- (e) Parking management. To encourage a park once environment and encourage the use of multimodal transportation, this division includes provisions for shared parking, mobility hubs, fee-in-lieu of programs and introduction of new parking technologies to reduce the number of off-street parking spaces.
- (f) Shared Parking. Nothing in this chapter shall be construed to prevent the shared contractual use of off-street parking facilities by two (2) or more structures or uses subject to the conditions below:
- (1) With shared entrances, exits, driveways, and/or drive aisles that meet requirements based on an analysis submitted by the applicant, or
 - (2) Are located within four hundred (400) feet of each other.
 - (3) If the above criteria are met the total number of parking spaces may be reduced up to twenty-five (25) percent.
 - (4) Parking requirements for shared uses shall be reviewed by city staff using the parking matrix below:

<u>Use</u>	<u>Weekday</u>			<u>Weekend</u>	
	<u>Night</u> <u>Midnight to 6:00 a.m.</u>	<u>Day</u> <u>6:00 a.m. to 6:00 p.m.</u>	<u>Evening</u> <u>6:00 p.m. to Midnight.</u>	<u>Day</u> <u>9:00 a.m. to 4:00 p.m.</u>	<u>Evening</u> <u>6:00 p.m. to Midnight.</u>
<u>Residential</u>	<u>90%</u>	<u>50%</u>	<u>90%</u>	<u>70%</u>	<u>90%</u>
<u>Office</u>	<u>5%</u>	<u>90%</u>	<u>10%</u>	<u>5%</u>	<u>5%</u>
<u>Commercial/Retail</u>	<u>5%</u>	<u>50%</u>	<u>80%</u>	<u>80%</u>	<u>70%</u>
<u>Hotel</u>	<u>80%</u>	<u>60%</u>	<u>90%</u>	<u>80%</u>	<u>90%</u>
<u>Restaurant</u>	<u>10%</u>	<u>50%</u>	<u>80%</u>	<u>50%</u>	<u>90%</u>
<u>Entertainment/Recreational (theatres, bowling alleys, etc.)</u>	<u>10%</u>	<u>40%</u>	<u>80%</u>	<u>80%</u>	<u>90%</u>
<u>Other</u>	<u>80%</u>	<u>90%</u>	<u>50%</u>	<u>70%</u>	<u>70%</u>

- (g) In-Lieu of Parking Fees. Developments required to provide off-street parking shall have the option of providing spaces through payment to the City of an in-lieu parking fee. Payment of a fee in-lieu of required parking shall be pursuant to the following provisions:
- (1) Capital improvements program. Prior to allowing payment in-lieu of parking, the City shall include one or more off-street parking facilities in the Capital Improvement Plan.
 - (2) Authorization. The payment of an in-lieu of parking fee is authorized in the City as established by adoption of this ordinance updating the City of Saint Augustine's

parking code on [DATE]. The fee adopted per required off-street parking space is [DOLLAR AMOUNT].

- (3) *Parking facilities.* To establish a payment of an in-lieu parking fee program requires the establishment of areas, districts or zones to provide either a structured or surface off-street parking facility. The service area for each facility is dependent upon the funding of a micromobility (electric scooters and/or electric bikes) program or a frequent transit circulator program offering frequencies of 15 minutes or less or an on-demand program. The service areas for these facilities shall meet the following criteria:
- a. Off-street surface parking facility with-out a programmed micromobility or transit circulator program should not serve an area greater than a one thousand three hundred and twenty (1,320) foot, or one quarter mile, radius measured from each project access;
 - b. Off-street surface parking facility with a programmed micromobility or transit circulator program should not serve an area greater than a five thousand two hundred and eighty (5,280) foot, or one mile, radius measured from each project access;
 - c. Off-street structured parking facilities with 250 or less parking spaces and with-out a programmed micromobility or transit circulator program should not serve an area greater than a two thousand six hundred and forty (2,640) foot, or half mile, radius measured from each project access;
 - d. Off-street structured parking facilities with 250 or less parking spaces with a programmed micromobility or transit circulator program should not serve an area greater than a five thousand two hundred and eighty (5,280) foot, or one mile, radius measured from each project access; or
 - e. Off-street structured parking facilities with more than 250 shall be required to have a programmed micromobility or transit circulator program and can serve an area up to a 2-mile radius measured from each project access,
- (4) *Parking off-set.* Developments may elect to pay an in-lieu of parking fee for all or a portion of required off-street parking. The following uses shall be required to provide drop-off and pick-up areas or valet service for motor vehicles where the payment in-lieu of option is used for more than 10% of the required off-street parking:
- a. Any use for over-night accommodations such as a hotel, motel or bed and breakfast shall provide space to accommodate at least two vehicles, plus one space per 50 rooms, for drop-off and pick-up. Any use that provides over-night accommodations where the parking facility entrance is more than four hundred (400) feet from the front entrance of the use, valet service shall be provided.
 - b. Any residential use shall provide space to accommodate at least two vehicles, plus one space per 50 units, for drop-off and pick-up.
 - c. Adequate queuing space shall be provided and the City may require a traffic analysis, depending on the type of use and location, to demonstrate that adequate queuing space is provided.
 - d. The dimensions for drop-off and pick-up areas shall be the same as those for parking spaces and required type of drive-aisle access provided. The drop-off and pick-up areas may be provided on a drive-aisle, so long as there is a drive aisle provided and required parking spaces are not blocked.

- (5) Use of funds. All proceeds from such a fee shall fund the City of St. Augustine's Mobility Plan Projects to encourage accessible, energy efficient, sustainable and economically viable transportation options that meet the needs of residents, employers, employees and visitors through a variety of innovative methods that are sensitive to the environmental, historical, and cultural resources of the City of St. Augustine.
 - (6) Fee Payment. For property owners opting to pay in full, or lessees of properties, payment of the in-lieu fee is due upon issuance of a building permit.
 - (7) Installment Payment. The in-lieu fee may also be paid in installments. Applicants for an in-lieu fee which is not paid in full at the time of permit issuance, must enter into an In-Lieu of Parking Fee Agreement with the City prior to or upon issuance of a building permit subject to the following:
 - a. Such agreement shall be recorded in public records with the St. Johns County Clerk of Circuit Court;
 - b. The obligations imposed by such an In-Lieu of Parking Fee Agreement constitute a restrictive covenant upon a property, and shall bind successors, heirs and assigns. The restrictive covenant shall be released upon full payment of the in-lieu parking fees including attorneys' fees and costs;
 - c. In-Lieu of Parking Fee Agreements shall only be made between the City and the Owner(s) of the subject property;
 - d. If an In-Lieu of Parking Fee Agreement is entered into, installment payments shall be made over a period not to exceed five (5) years with payments made at least twice a year. The first installment shall be 25 percent of the total fee and is to be paid upon signing the agreement. Additional installments shall be based upon the total number of years of the installment agreement and the required number of annual payments; and
 - e. There shall be no interest due under this payment schedule for installment agreements of three (3) years in length or less. For installment agreements greater than three (3) years, the interest shall be based on the annual maximum percentage on bond payments made by the City, or 5%, annually, whichever is less.
 - (8) Record of program utilization. The Director of the Planning and Building Department, or designee, shall maintain a record of the developments that utilize the in-lieu of parking fee program and the number of spaces allocated to the program for each programmed public parking facility.
 - (9) Operating hours. The operating hours of the programmed public parking facility are at the sole discretion of the governmental entity that owns the facility and shall not be affected by parking spaces intended for commercial tenants of the development. The programmed public parking facility shall be accessible twenty-four hours if funds are collected from overnight accommodation or residential uses.
 - (10) Biennial fee review. The in-lieu of parking fee shall be reviewed at a minimum every two years and the fee adjusted as warranted.
- (h) Multimodal Parking Requirements. In addition to any off-street parking provided for vehicles' the following requirements for multi-modal transportation must also be met.
- (1) Bicycle, scooter and micromobility device parking. One rack accommodating two bicycles, scooters, micromobility devices or some combination thereof shall be provided per the following:

- a. One (1) rack for every ten (10) off-street parking spaces provided for non-residential uses.
- b. One (1) rack per dwelling unit for multifamily uses with three or more dwelling units and one (1) rack per every ten (10) off-street parking spaces provided for visitors. In addition, for common area structures, such as a clubhouse, or per every ten (10) off-street parking spaces provided or one for every 1,000 sq. ft. of common area structure, whichever is greater.
- (i) Motorcycle moped and motorized scooter parking. One space for the parking of a motorcycle, moped, motorized scooter or similar vehicle that requires license and registration by Florida Statute shall be provided for every 20 off-street parking spaces provided.

Sec. 28-374. - Off-street stacking requirements.

(a) Whenever a structure or use requires the off-loading of passengers or allows for use without exiting the vehicle, stacking or off-loading lanes and spaces will be required on-site as follows:

- ~~(1) Drive-through uses. Three (3) stacking spaces per window.~~
 - ~~(2) Child care facilities. One (1) stacking space per eight (8) students up to a minimum of five (5) spaces.~~
 - ~~(3) Schools. One (1) stacking space per fifteen (15) students up to a maximum of ten (10) spaces.~~
 - ~~(4) Hotel/motel office. Two (2) stacking spaces.~~
 - ~~(5) Automatic/mechanical car wash. Three (3) stacking spaces per individual unit.~~
 - ~~(6) Hand car wash/auto detailing. Two (2) stacking spaces per individual unit or work station.~~
 - ~~(7) Dumpsters/trash receptacles. One (1) stacking space per dumpster or receptacle location, oriented to allow loading without requiring access or maneuvering through parking spaces.~~
- a. Fast food drive-thru. A methodology meeting is required to identify three (3) existing locations for the same fast-food use or equivalent and that the queue provided be the maximum of the three (3) sites, unless otherwise approved by the City's Planning and Building Department.
 - b. Car wash drive-thru. A methodology meeting is required to identify three (3) existing locations for the same car wash use or equivalent and that the queue provided be the maximum of the three (3) sites, unless otherwise approved by the City's Planning and Building Department.
 - c. Non car wash or fast-food drive-through uses. Three (3) stacking spaces per window.
 - d. Child care facilities. One (1) stacking space per eight (8) students up to a maximum of five (5) spaces.
 - e. Schools. One (1) stacking space per fifteen (15) students up to a maximum of ten (10) spaces.
 - f. Hotel/motel office. Two (2) stacking spaces.
 - g. Automatic/mechanical car wash. Three (3) stacking spaces per individual unit.
 - h. Hand car wash/auto detailing. Two (2) stacking spaces per individual unit or work station.

- i. Dumpsters/trash receptacles. One (1) stacking space per dumpster or receptacle location, oriented to allow loading without requiring access or maneuvering through parking spaces.

(b) A stacking space shall be a minimum of twelve (12) by twenty (20) feet and shall be located so as not to obstruct, endanger or interfere with either on-site or off-site access, maneuvering or traffic patterns. Stacking lanes shall be marked or separated to prevent use as access and to protect users while off-loading or waiting.

Sec. 28-375. - Off-street loading requirements.

Whenever a structure or use requires the loading or off-loading of supplies or materials, loading zones or spaces will be required on-site as follows:

(1) Multiple office building, motel, hotel, hospital, auditorium, theatre or similar use. One (1) space if aggregate floor area is over five thousand (5,000) square feet but not greater than forty thousand (40,000) square feet, plus one (1) space for each additional sixty thousand (60,000) square feet or major fraction thereof.

(2) Retail or service establishment, wholesale establishment, mini-warehouse and self-storage facilities, industrial uses and restaurant. One (1) space if the gross floor area is not greater than twenty thousand (20,000) square feet; two (2) spaces if the aggregate floor area is more than twenty thousand (20,000) square feet but not greater than sixty thousand (60,000) square feet; plus one (1) space for each additional sixty thousand (60,000) square feet or major fraction thereof.

(3) In no case shall the required off-street loading space be less than the following:

- a. Auditoriums, theatres, hotels, motels, hospitals, industrial uses, warehouse uses, multiple office buildings or individual offices of greater than four thousand (4,000) square feet; retail stores, restaurants and all other commercial buildings shall have at least one (1) space.
- b. Shopping centers or shopping plazas shall provide at least one (1) space for every two (2) stores or businesses located so as to service both locations.

(4) In no case shall the required off-street loading space be part of the area used to satisfy the off-street parking requirements of this chapter. The off-street loading space required for the uses mentioned in this section shall in all cases be on the same lot or parcel of land use as the structures or use it is intended to serve.

(5) A loading space shall be located so as to facilitate loading and off-loading and so as not to obstruct, endanger or interfere with either on-site or off-site access, maneuvering or traffic patterns. Loading spaces or loading zones shall be marked or located to prevent use as access or parking and to protect users while loading or off-loading.

(6) A loading space or loading zone may be located adjacent to a building to allow parallel parking when use of such space or zone is limited to fifteen (15) minutes or less, when this time limit is clearly indicated, and when other parking is prohibited.

(7) A loading space or loading zone shall be a minimum of twelve (12) feet by twenty-five (25) feet and shall be oriented so as to allow loading and off-loading without requiring access or maneuvering through parking spaces.

(8) A loading space or loading zone for ride share uses must be designed in a manner to ensure safety of pedestrians and convenience for users meaning they must be located adjacent to a building or a sidewalk and must be consistent with Sec. 28-376. – Mobility hubs.

Sec. 28-376. – Mobility hubs.

(a) Mobility hub. A new development, redevelopment, or change of use may propose the planning, design and construction of a mobility hub. Mobility hubs are intended to serve multimodal transportation and can include:

- (1) A covered, ADA accessible facility that is amenitized, lighted, provides for air circulation and connectivity to adjacent multimodal facilities and land uses;
- (2) Designated drop-off and pick-up areas for ride-share, ride-hail, transit, trolley, and deliveries;
- (3) Parking spaces for car share and low speed vehicles;
- (4) Micromobility racks, corrals, charging or docking stations;
- (5) Charging stations for electric vehicles and mobile devices;
- (6) Sponsorship of the City's micromobility program;
- (7) If located in a Historic Preservation zoning district, the mobility hub facility shall meet historic district architectural requirements and be compatible with surrounding land uses;
- (8) The City may consider allowing for the naming or branding of the facility after the development or an appropriate name. Any naming or signs shall conform to all requirements of the City code; and
- (9) The size, scale, amenities, and any agreements with the City provided with the mobility hub shall be used to determine how many required parking spaces maybe off-set. The maximum off-set available would be 40% of the total required parking, subject to review by the Planning and Building Department director.

Sees. 28-376—28-399. – Reserved.

Secs. 28-377 – 28-399. - Reserved.

Sec. 28-151. - Parking.

- (i) Each vacation rental, except as provided in subparagraph (iii) below, will provide at least one (1) stabilized parking space per bedroom offered for rent.
- (ii) Stabilized parking for vacation rentals may not consist of unimproved dirt, sand, or grass. For the purposes of this division, stabilized parking shall be defined as a space that is covered and graded by semi-permeable or impervious materials such as asphalt, concrete, pavers, gravel, or a similar material.
- (iii) Vacation rentals in all zoning districts that otherwise have on-site parking requirements will provide stabilized parking on the site of their rental property. If on-site parking is not feasible, the owner may make an application to the planning and zoning board for a use by exception for offsite parking. The application to the planning and zoning board for a use by exception for offsite parking may include in the alternative, parking permits to the municipal parking garage, or, if on-street parking permits for vacation rentals are provided pursuant to city regulations, residential street parking permits. Issuance of the necessary permits will meet the required parking for the vacation rentals.

(Ord. No. 19-50, § 1, 1-27-20)

Sec. 28-347. – Supplementary regulations for certain uses.

- (3) Parking lots. Off-street parking lots shall be a permissible use by exception in all districts where such lots are ~~within four hundred (400) feet~~ one thousand three hundred and twenty (1,320) feet, or one quarter mile, of ~~the~~ premises requiring off-street parking; those within four hundred (400) feet can be approved by the Planning and Building department director, or designee as per Sec. 28-371. ~~such~~ Parking lots in residential districts shall also conform to the following:
 - a. A six-foot solid masonry wall or fence shall be erected along all property lines adjunct to residentially zoned property.
 - b. No source of illumination for such lots shall be directly visible from any window in any residence in the residential district.
 - c. There shall be no movement of any vehicles on such lots between the hours of 11:00 p.m. and 7:00 a.m.
 - d. There shall be no sales or service activity of any kind on such lots.
 - e. Vehicles prohibited from being parked in residential districts by section 28-336 shall not be permitted to be parked on such lot.
 - f. All parking lots shall be paved with erosion-resistant material in accordance with city specifications (see division 2 of this article).