



KRISTOPHER B. KING

Executive Director

**Preservation
in the
21st Century**

**PRESERVATION
ESTD SOCIETY 1920
of CHARLESTON**



ASHLEY RIVER

BIRD'S EYE VIEW OF THE CITY OF
CHARLESTON
 SOUTH CAROLINA
 1872

REFERENCES

- 10 Public Buildings
- 11 City Hall
- 12 City House
- 13 Mt. Pleasant House
- 14 Fire and Marine Building
- 15 Post Office
- 16 American Hotel
- 17 Queen's Chapel
- 18 Market House
- 19 Market
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- 10 Churches
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Published according to Act of Congress in the year 1872 by the Librarian of Congress



April 21, 1920











WESTEDGE

22 WestEdge

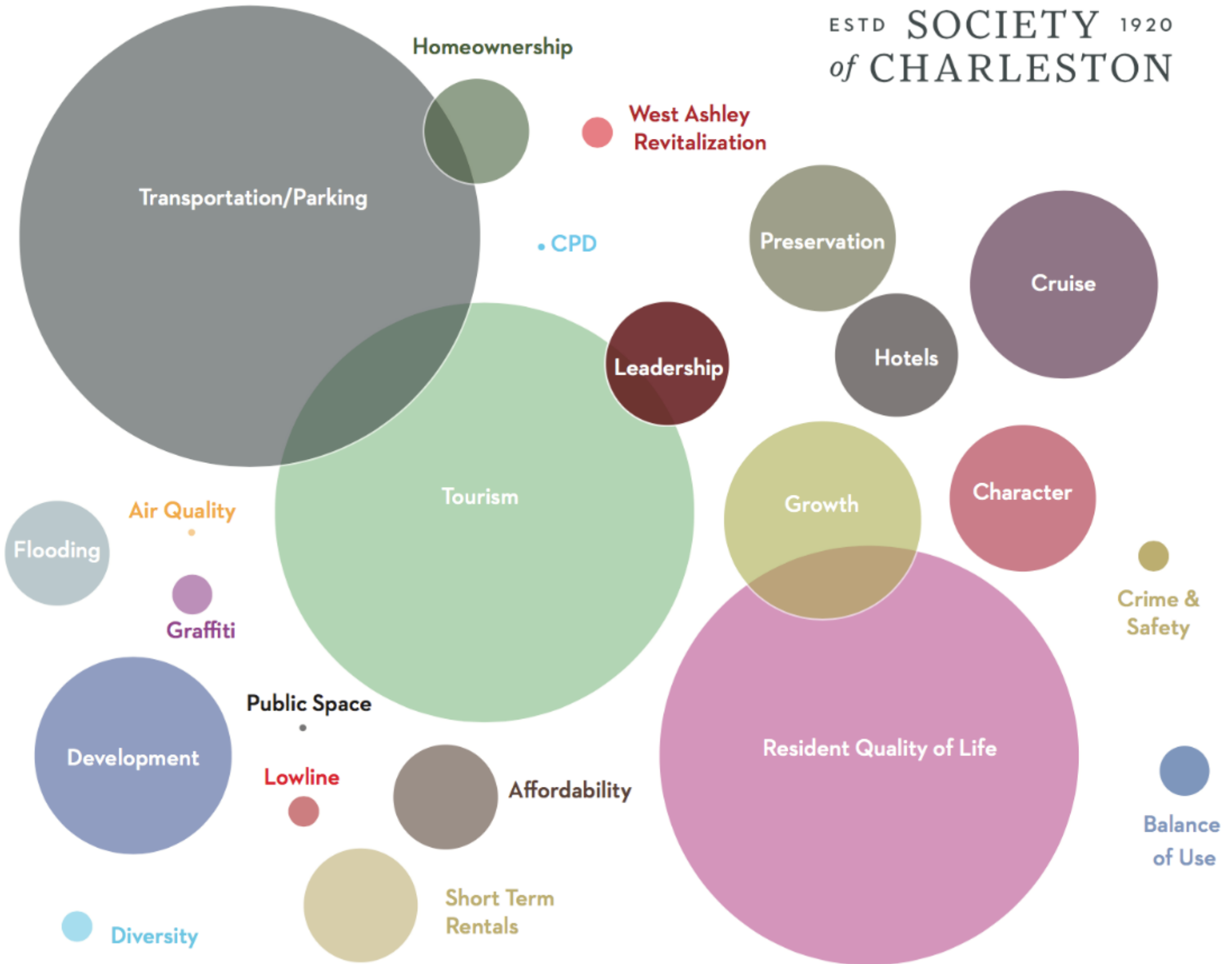


10 WestEdge



2015 Survey – Issues impacting Charleston?

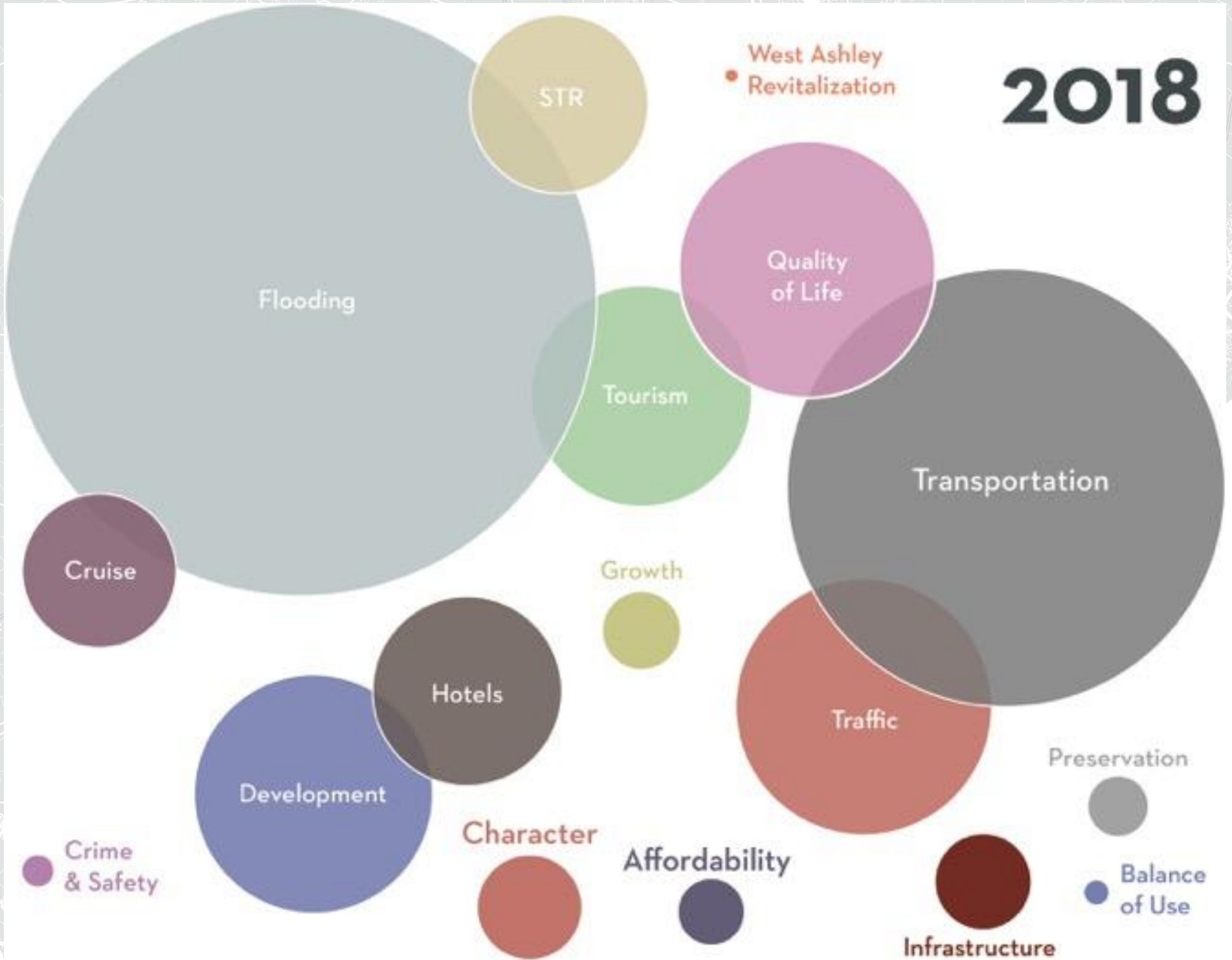
PRESERVATION
ESTD SOCIETY 1920
of CHARLESTON



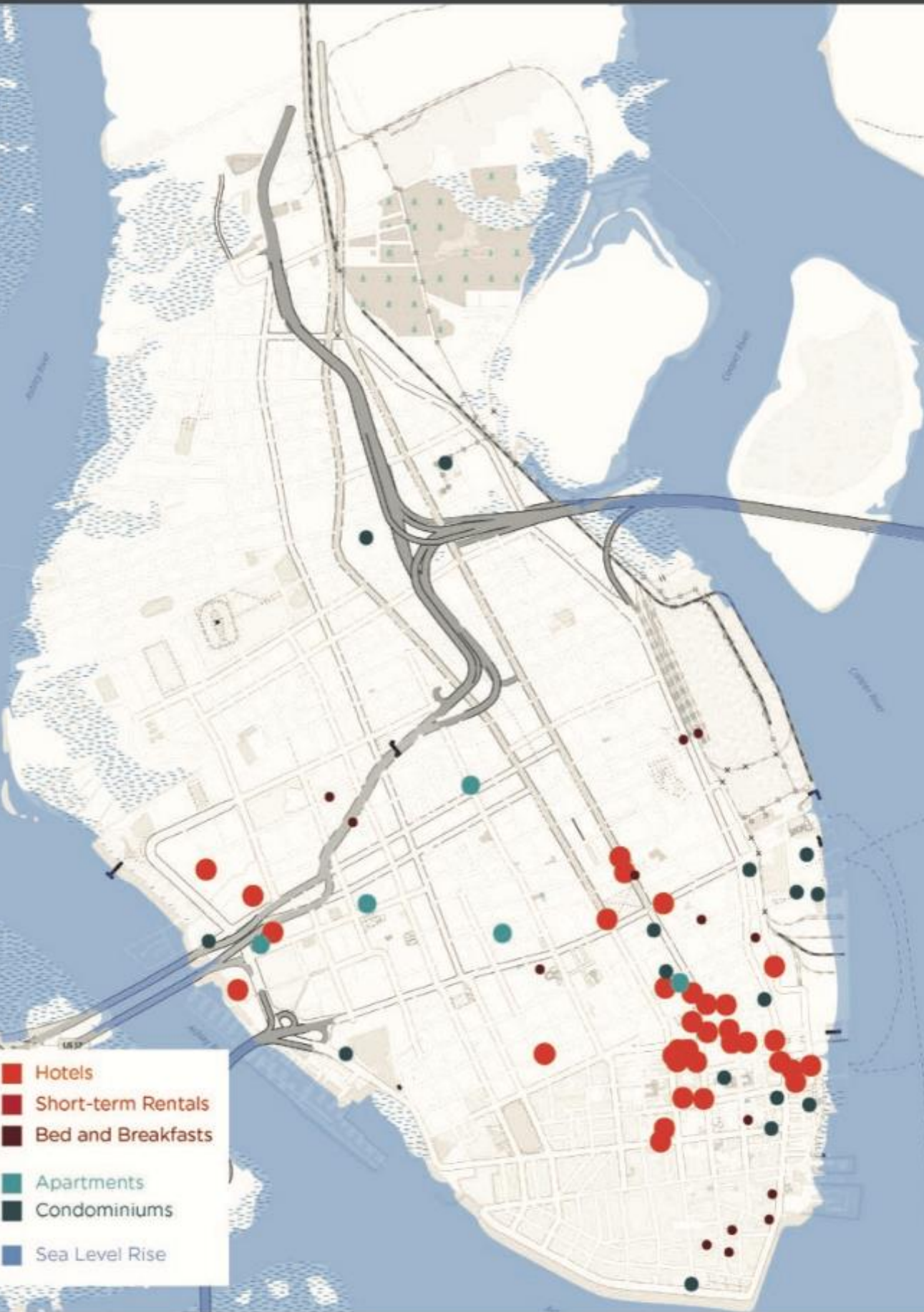


2018

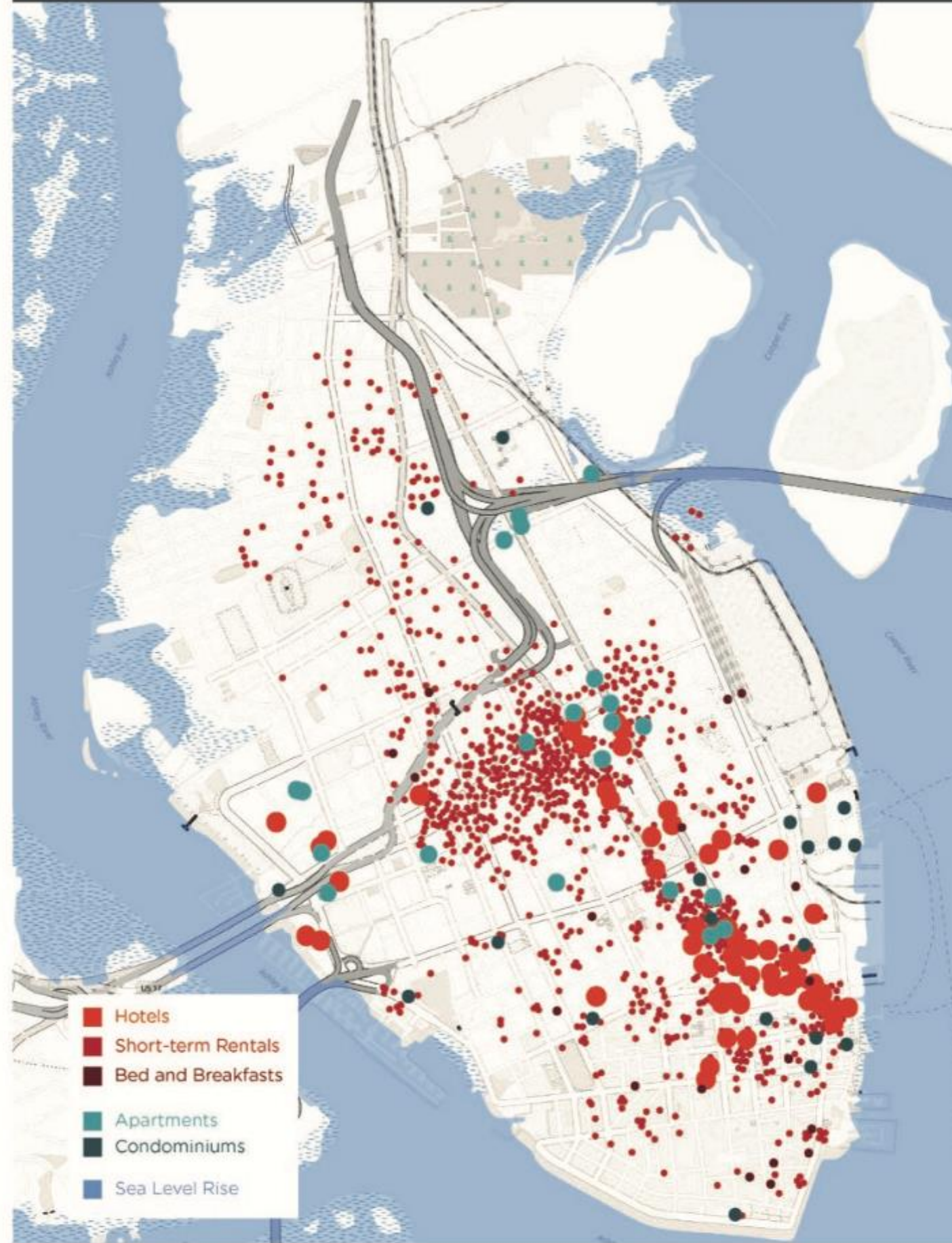
West Ashley
Revitalization



CHARLESTON 2010



CHARLESTON TODAY





King Street

 Urban Land Institute South Carolina



COLLEGE of
CHARLESTON

THE RILEY CENTER FOR
LIVABLE COMMUNITIES

Charleston Downtown
Alliance



Credit: Andrew J. Whitaker, Post & Courier

Editorial: New data clarify Charleston's affordability crisis; something has to give

BY THE EDITORIAL STAFF
JAN 16, 2021 UPDATED APR 2, 2021

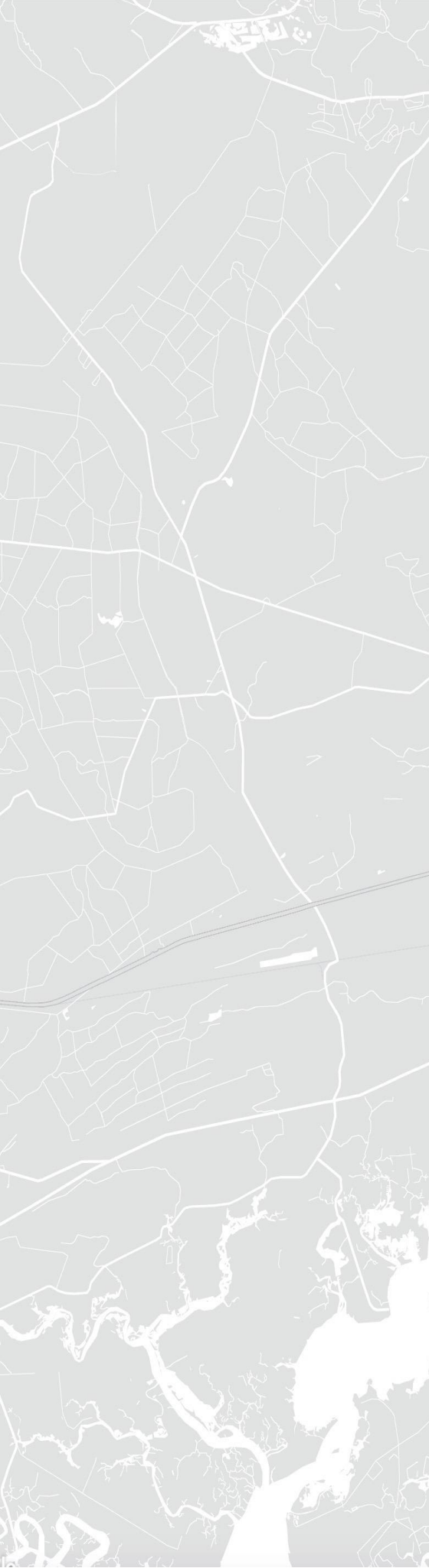
Housing prices still unaffordable for most in Charleston region, burdening workforce

BY ABIGAIL DARLINGTON ADARLINGTON@POSTANDCOURIER.COM
JAN 26, 2019 UPDATED SEP 28, 2020

Sea rise imperils affordable housing in Charleston and other coastal areas, study finds

BY CHLOE JOHNSON CJOHNSON@POSTANDCOURIER.COM
DEC 4, 2020 UPDATED DEC 17, 2020





← Tweet



Matthew Fortner
@MatthewFortner

No snow sighted yet downtown .
But these high tides! This is at
Broad Street near Lockwood.
[#chswx](#)



0:09 257 views

8:34 AM · 03 Jan 18

5 Retweets 5 Likes



Tweet your reply



Army Corps' Seawall (3x3)



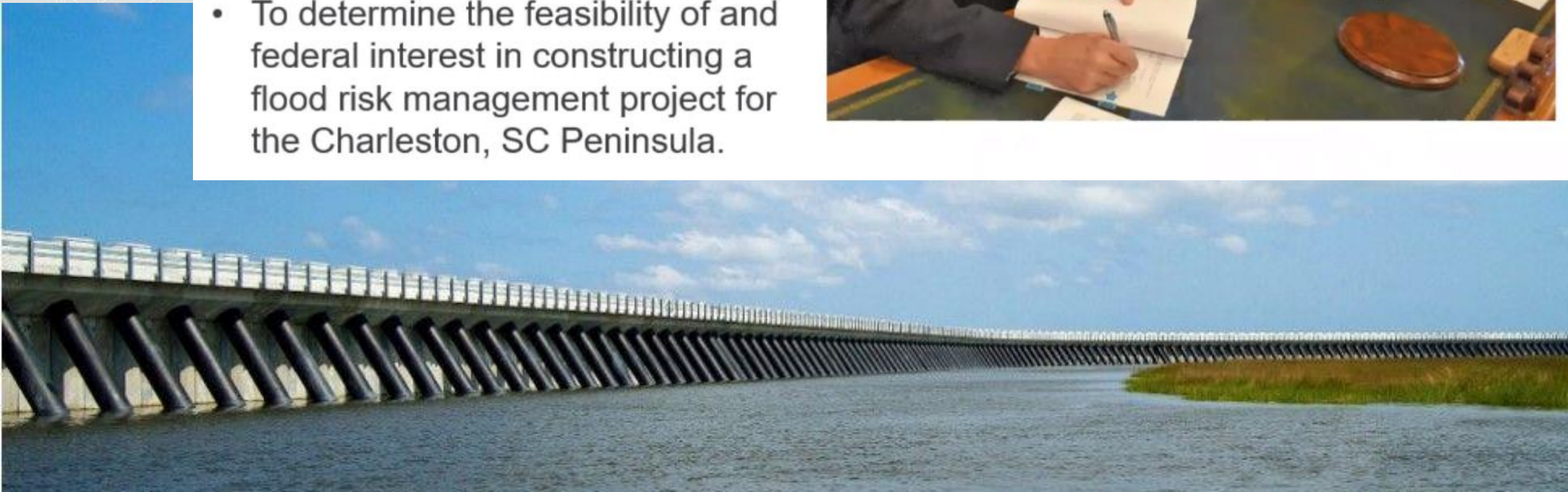
STUDY AUTHORITY AND PURPOSE



- Rivers and Harbors Act of 1962 (P.L. 87-874), Section 110
- Senate Resolution, Committee on Environment and Public Works, April 22, 1988
- Bipartisan Budget Act of 2018 (P.L. 115-123), Division B, Subdivision 1, Title IV
- Federal Cost Share Agreement with City of Charleston signed in October 2018

Study purpose/scope:

- To determine the feasibility of and federal interest in constructing a flood risk management project for the Charleston, SC Peninsula.



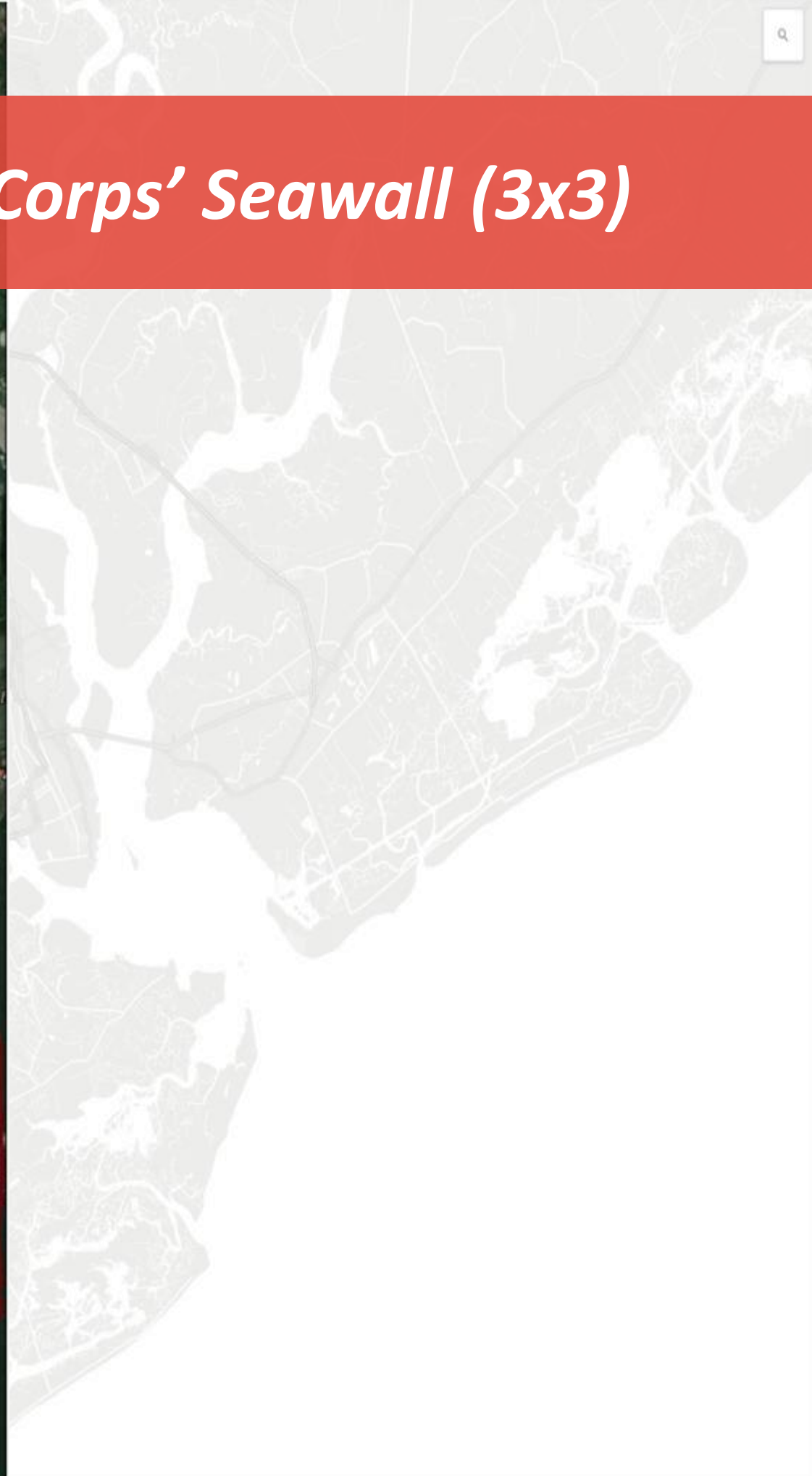


Alternative 2

Army Corps' Seawall (3x3)

Legend

- Charleston Peninsula Study Area
- Storm Surge Wall (elevation 12ft NAVD88)
- Nonstructural Measures
- Pump Stations



Army Corps' Seawall (3x3)

Charleston Perimeter Protection Analysis

12/4/2020 DRAFT

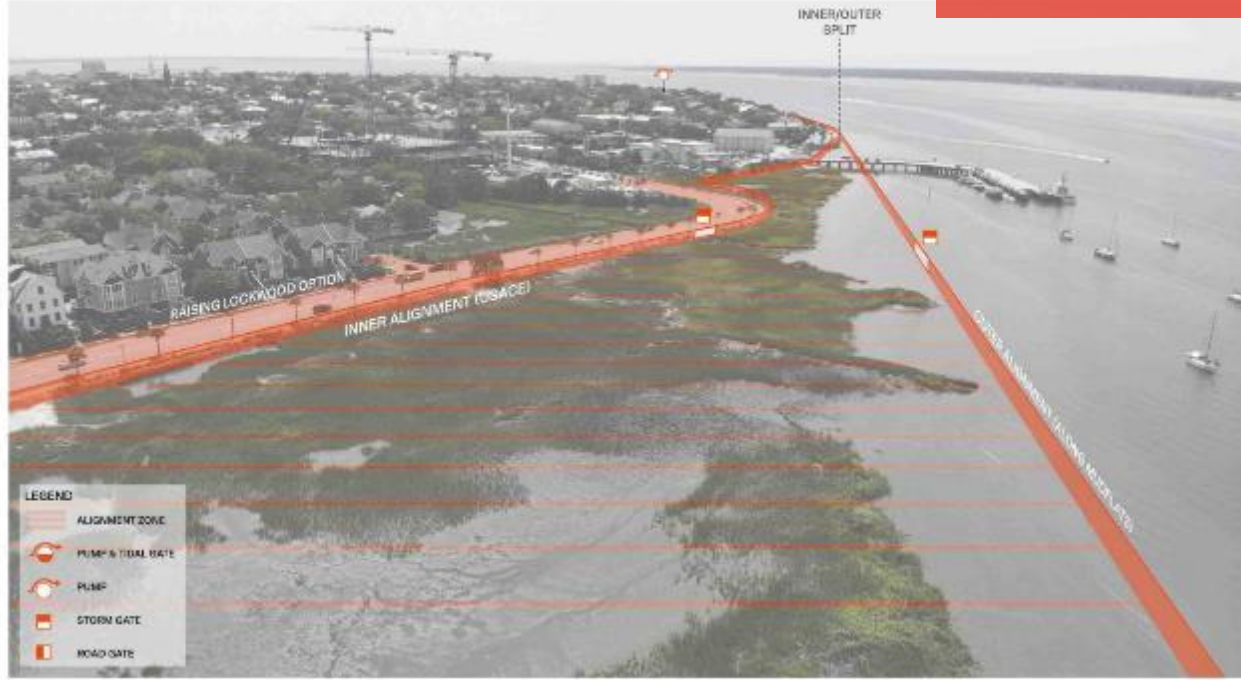
High Battery



Army Corps' Seawall (3x3)

Charleston Perimeter Protection Analysis
12/4/2020 DRAFT

Lockwood Corridor
Looking Toward the Low Battery



Army Corps' Seawall (3x3)

Wagener Terrace

Looking North from Longborough Walking Path

Charleston Perimeter Protection Analysis

12/4/2020 DRAFT





Lockwood Drive ★



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Murray Boulevard at
Lenwood Boulevard



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Lockwood Drive ★



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Murray Boulevard at
Lenwood Boulevard



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Army Corps' Seawall (3x3)

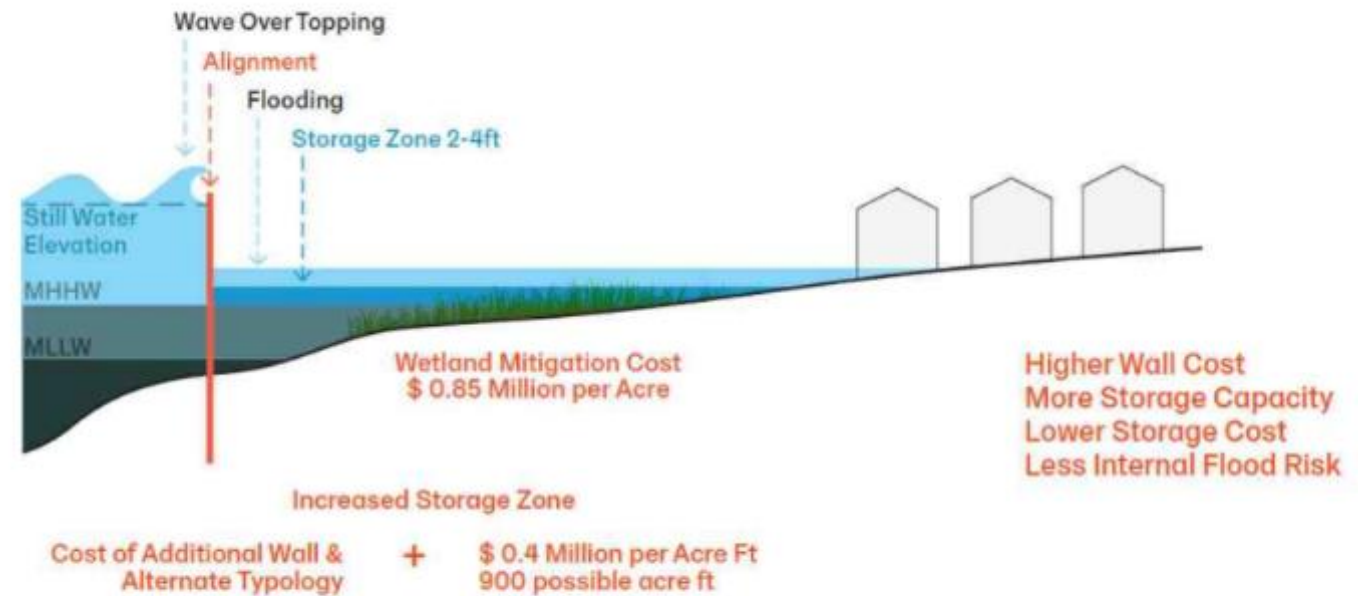
Alternatives Overview: Inner vs. Outer Alignment

Charleston Perimeter Protection Analysis

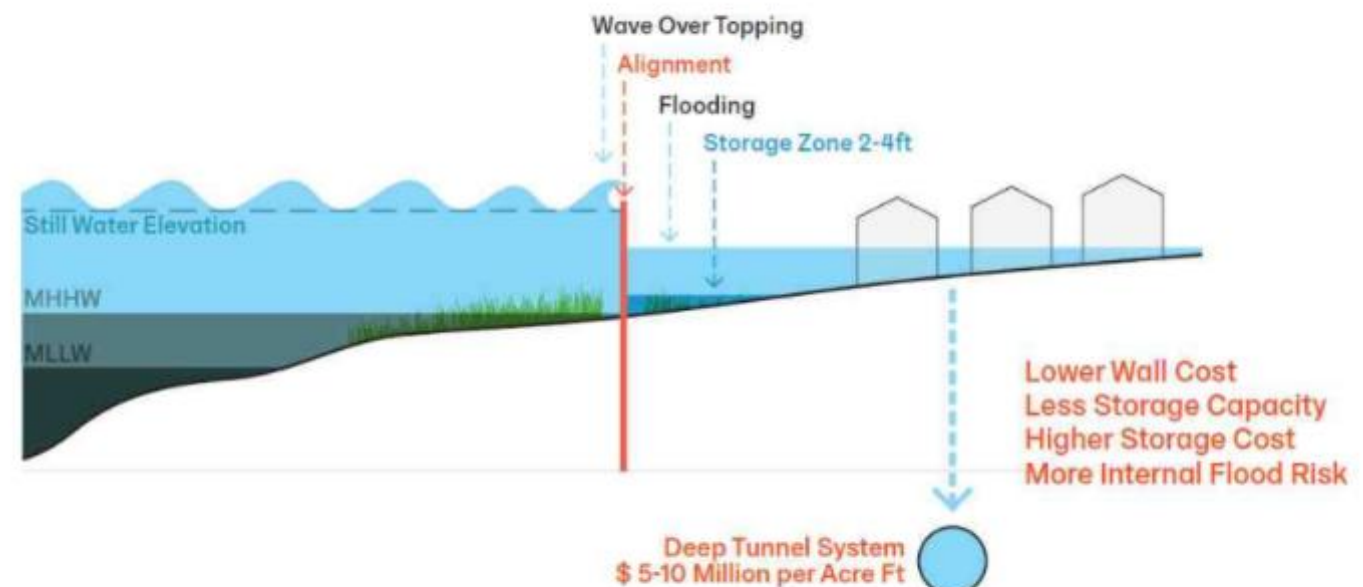
12/4/2020 DRAFT



Outer Alignment Concept



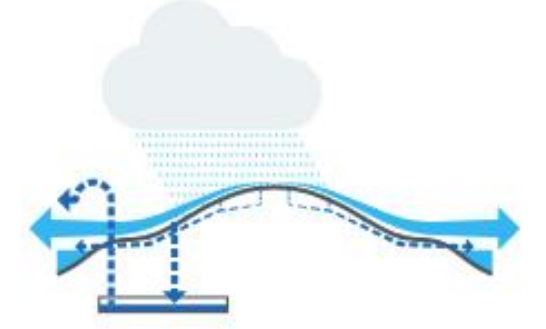
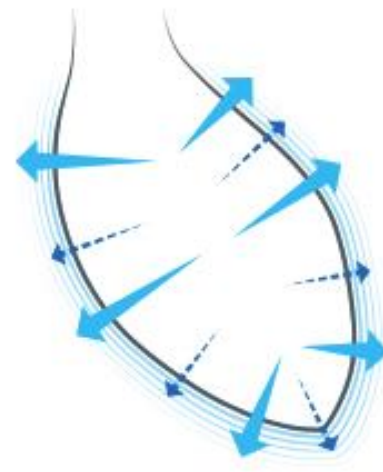
Inner (USACE Optimized) Alignment Concept



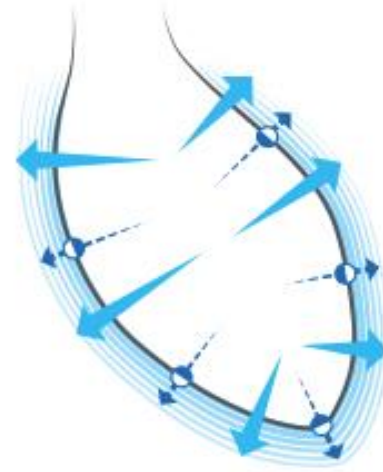




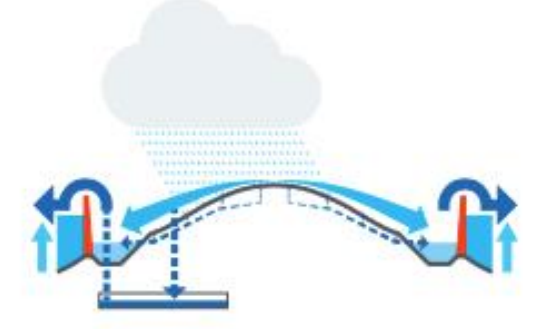
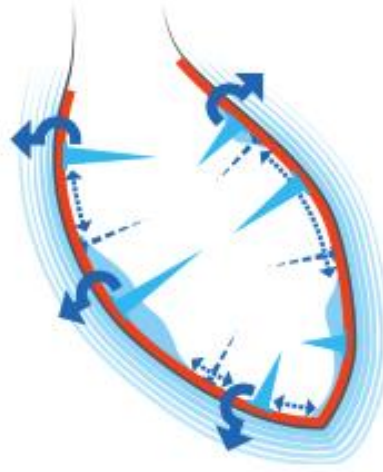




Currently runoff drains via gravity into the Cooper or Ashley River overland or in pipes with some water going into the deep tunnel system, where it is pumped out after a storm event.



With sea level rise and more severe tidal flood events, drain lines need check valves to prevent back flow.



After the perimeter protection system goes is built runoff becomes trapped behind the wall during rain events. Water will need to be managed by a combination of pumping, the deep tunnel system and an interconnected ring of detention basins and water storage infrastructure.



USACE Optimized Alignment Overview.
Credit: Waggonner & Ball





Public park next to a levee in the Netherlands.

Credit: Waggoner & Ball





High Ground

High ground is defined as land outside of the 100 year floodplain and above the max category 3 storm surge.

Adapt Zone

The adapt zone consists of land outside of the 100 year floodplain that is still within the maximum storm surge of a category 3 hurricane.

Alignment Zone

The USACE proposed perimeter protection would provide storm surge mitigation for areas below 12 ft NAVD and inside the alignment.

Compound Flood Risk

This zone encompasses areas within the floodplain above the tidal flood risk zone.

Tidal Flood Risk Zone

This zone corresponds to the elevation where 95% of the land is in the 100 year floodplain.



Elevation Risk Zones with USACE proposed protection.
Credit: Waggonner & Ball



Elevation Risk Zones without USACE structure (existing).
Credit: Waggonner & Ball

WAGGONNER
& BALL



THE WATER INSTITUTE
OF THE GULF™



moffatt & nichol

ARCADIS

Robinson
Design
Engineers



Image Credit: ONE
imaginethewall.com



Ecologically
Enhanced Seawall
Enhanced
Battery Wall

Sheltered
Water

Oyster Reef

Intertidal Habitat

Breakwater

Salt Marsh

Image Credit: ONE
imaginethewall.com



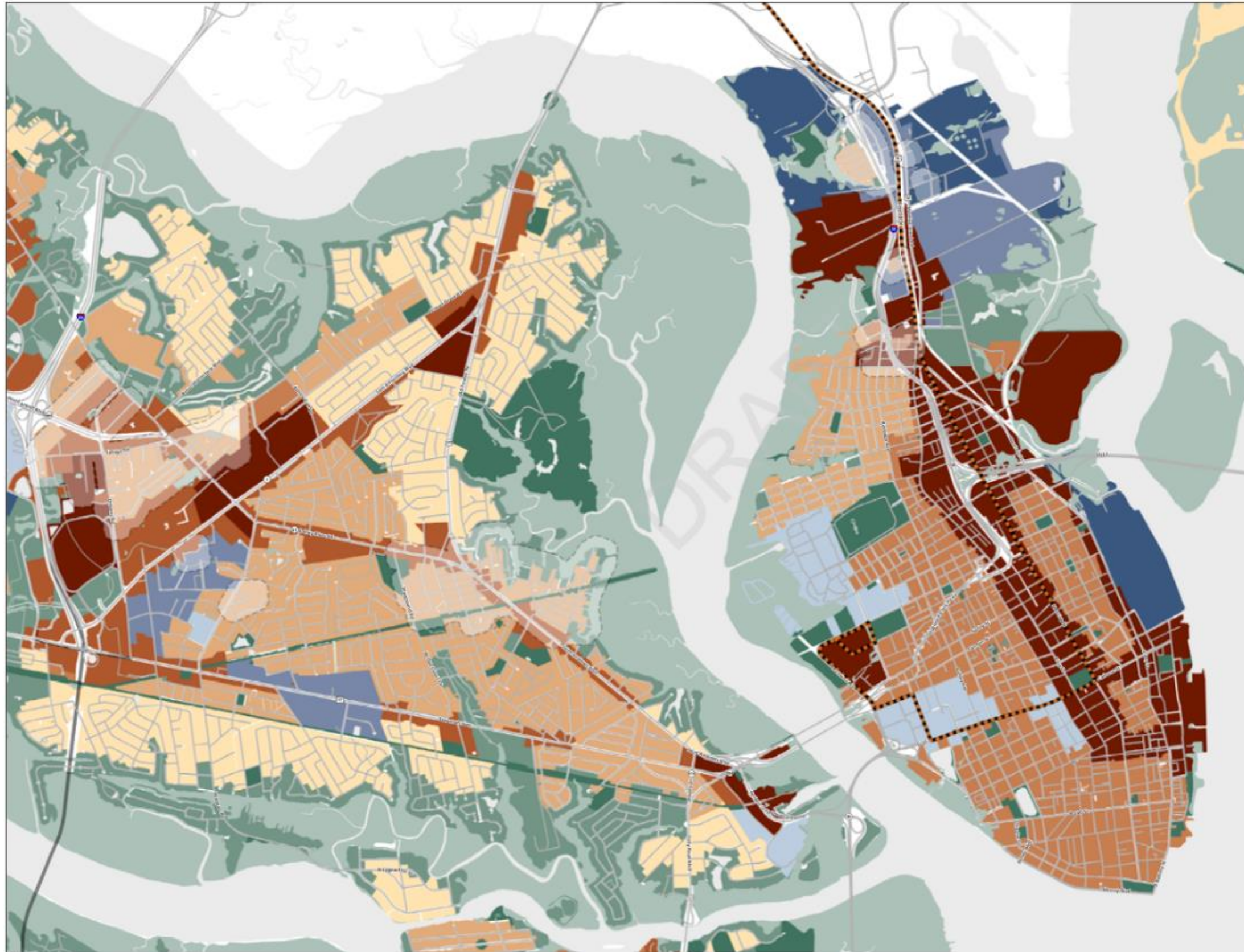


CHARLESTON CITY PLAN

THE CITY OF CHARLESTON COMPREHENSIVE PLAN 2020

What Is the Future Land Map?

A major component of the City Plan, the future land use map brings together various aspects of the plan into a visual guide for land use and development in Charleston. The map is an articulation of the community's vision of how the City develops, where it is appropriate to expand, where we should scale back and, while not a zoning map, it helps the community make land use and growth management decisions now and into the future. Intended as a general guide rather than a regulatory tool, the map is not parcel-specific and boundaries between land use categories are not exact.



Rural
Areas outside of the designated Urban Growth Boundary, where densities would not exceed one unit per acre, and in general would be much lower. Development in these areas includes low density residential, agricultural areas, forestry areas, and recreational areas. Blocks do not follow a pattern and lots vary widely in size.

Suburban Edge
Generally suburban in character, but lower densities than typical suburban residential areas. Suburban Edge occurs mainly inside and next to the Urban Growth Boundary and often adjacent to neighborhoods in low-lying areas. Uses are almost exclusively residential and densities range from one to four dwelling units per acre (1 du/a to 4 du/a). Examples include Sandhurst, Shadowwood, and Stiles Point neighborhoods.

Suburban
Low intensity, suburban-style areas, adjacent to higher intensity areas that include a mix of uses. Limited mixed-use occurs at key cross roads. Densities range from four to eight dwelling units per acre (4 du/a to 8 du/a). Examples include Wagner Terrace, Riverland Terrace, Arundale, and St. John Woods neighborhoods.

Neighborhood
These areas include a mix of uses, but primarily residential areas with regular block patterns and a wide range of building types and setbacks. Often next to more urban areas, uses can include a variety of neighborhood compatible services and densities range from six to twelve dwelling units per acre (6 du/a to 12 du/a). Examples include Ansonborough, and Hampton.

Neighborhood Edge
The neighborhood edge designation is found on the periphery of existing neighborhoods and future neighborhoods. Uses vary widely but are mainly those things that residents need such as offices, stores and restaurants but they are typically found along roads and transit routes forming the edge of neighborhoods rather than the centers. While traditionally threaded along major roads, over time, these areas could transition to more urban compact design patterns and contain more residential uses, especially along major transit routes. Examples include many portions of Folly Road and some portions of Savannah Hwy, Sam Rittenberg Blvd and Boss Ferry Rd.

City Center
The densest, most mixed-use portions of the City. The tallest buildings would occur here along with the most buildings of regional significance. Blocks may be larger, streets have steady street tree planting, and buildings are set close to wide sidewalks. These areas occur on the highest ground elevations in the City allowing for best opportunities for growth. Densities range from ten dwelling units per acre and up. Examples: The Central Business District of Charleston (portions of King, Calhoun, Meeting and East Bay Streets), the Magnolia area, areas around Citadel Mall, areas along Sam Rittenberg Blvd and Clements Ferry Rd.

Campus
The City's campus areas primarily encompass significant education, medical or office uses that do not conform to traditional urban block patterns. No residential uses occur here other than those associated with a school or large senior living campus. Examples include: College of Charleston, Charleston area high schools and the St. Francis hospital area.

Job Center
The job center areas primarily contain light manufacturing, warehousing, office/warehousing, and some commercial and office uses that conform to traditional urban block patterns. These areas serve as incubators for small and entrepreneurial businesses. Residential uses are very limited in order to help preserve these areas for business expansion and job generation. Examples include: areas along Clements Ferry Road, around the Dupont.

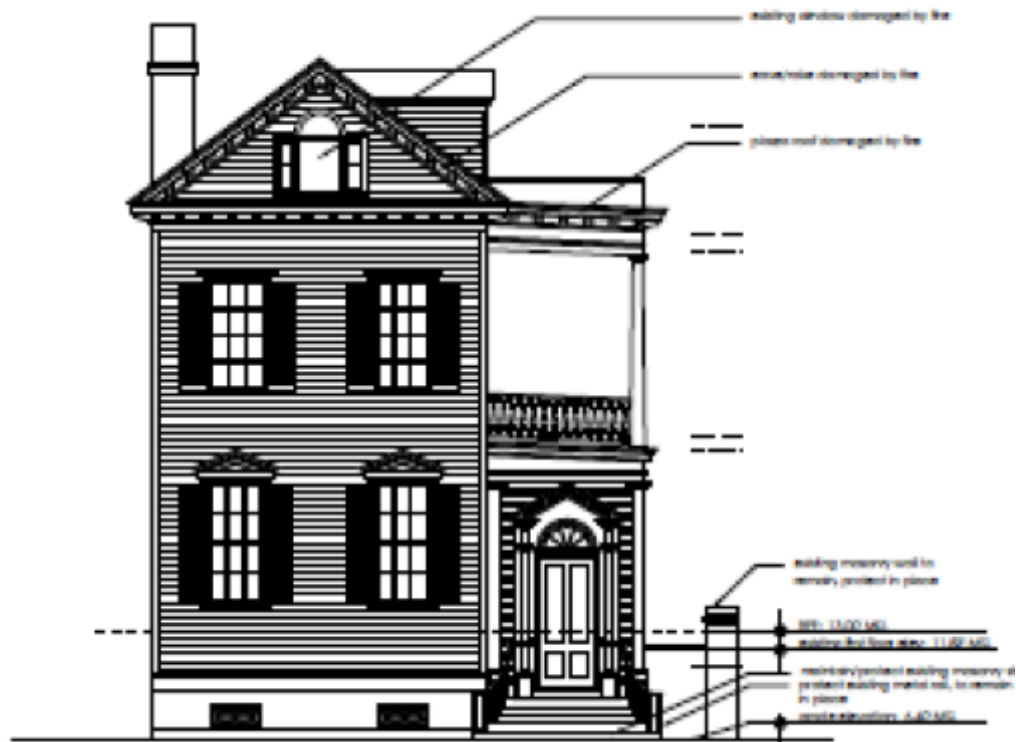
Industrial
The City's industrial areas primarily include more intensive manufacturing, warehousing and distribution uses involving heavy truck traffic and potential emissions not found with lighter manufacturing operations. Residential uses are not typically allowed in an effort to preserve these areas for job generation and reduce conditions from industrial traffic, emissions, and noise. Examples include the east side of the Charleston Neck area and the Columbus Street Terminal.

Natural/Wetland
Marsh, wetlands, small water bodies or other lands that cannot be developed due to their geography or topography.

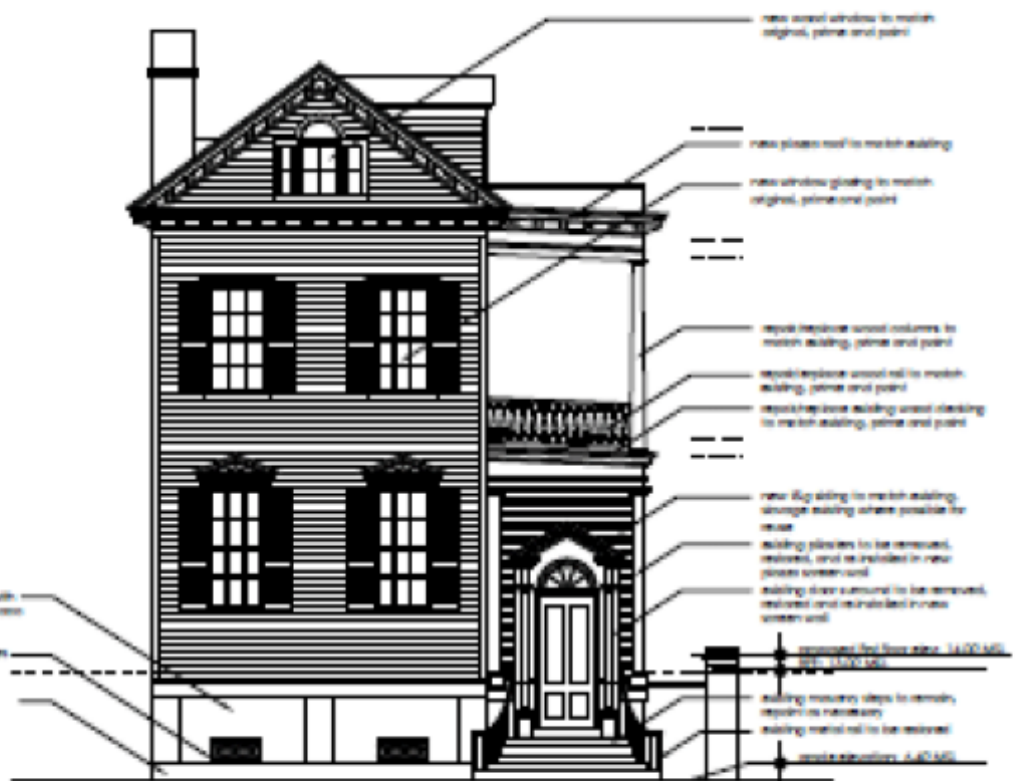
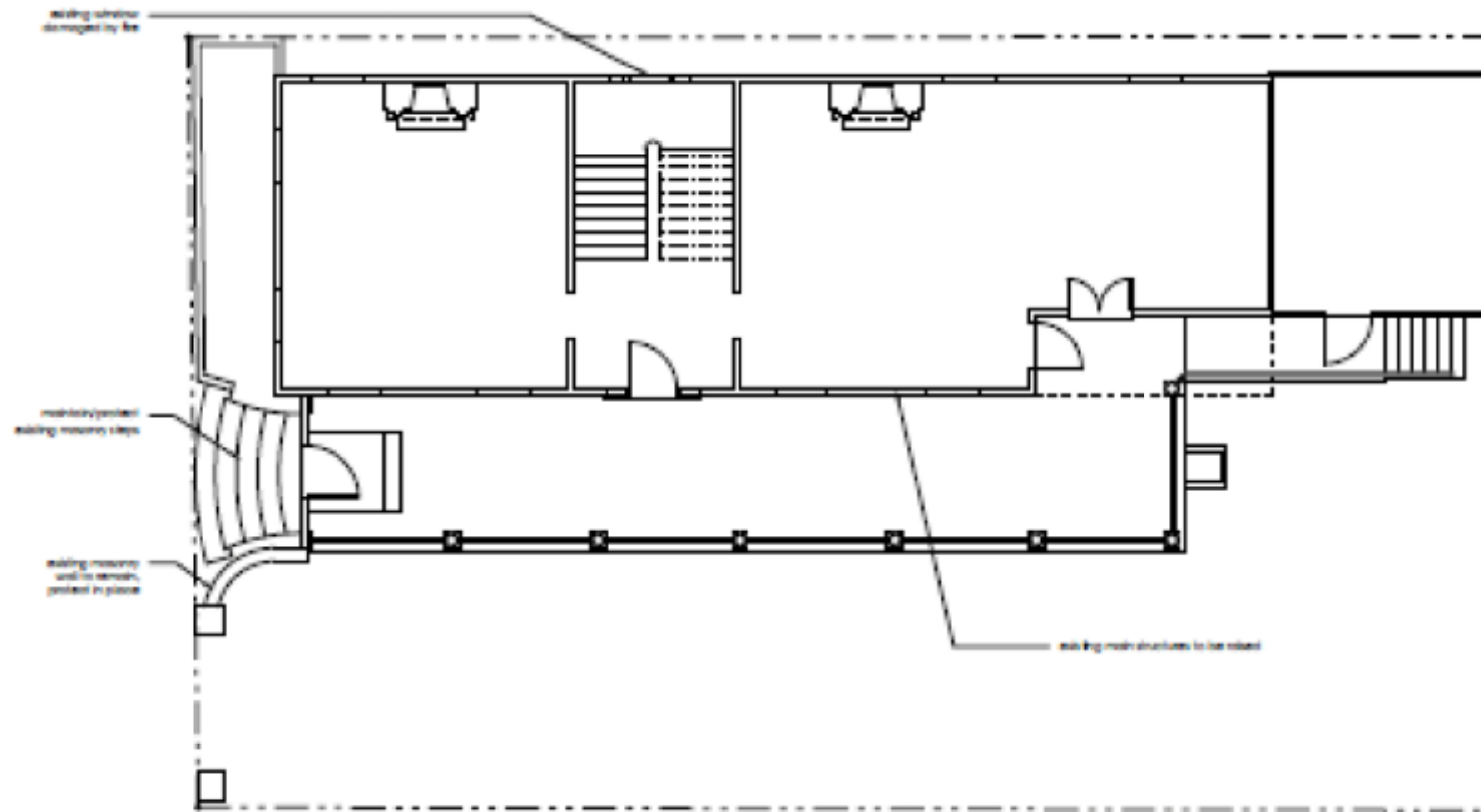
Low Impact & Conserved
This designation encompasses two types of land areas: 1) Low elevation lands in potential tidal flood-risk areas and future marsh migration areas. Some of these areas may see limited development, but structures are likely to be elevated so as not to impair natural intertidal systems. Uses are limited and residential densities limited to less than one unit per acre. 2) Lands preserved via public ownership (not necessarily open to the general population) or private ownership with preservation or conservation easements that significantly restrict development.

Park
Publicly or privately owned lands open to the general population for recreational purposes, active or passive, or designated for future such uses.

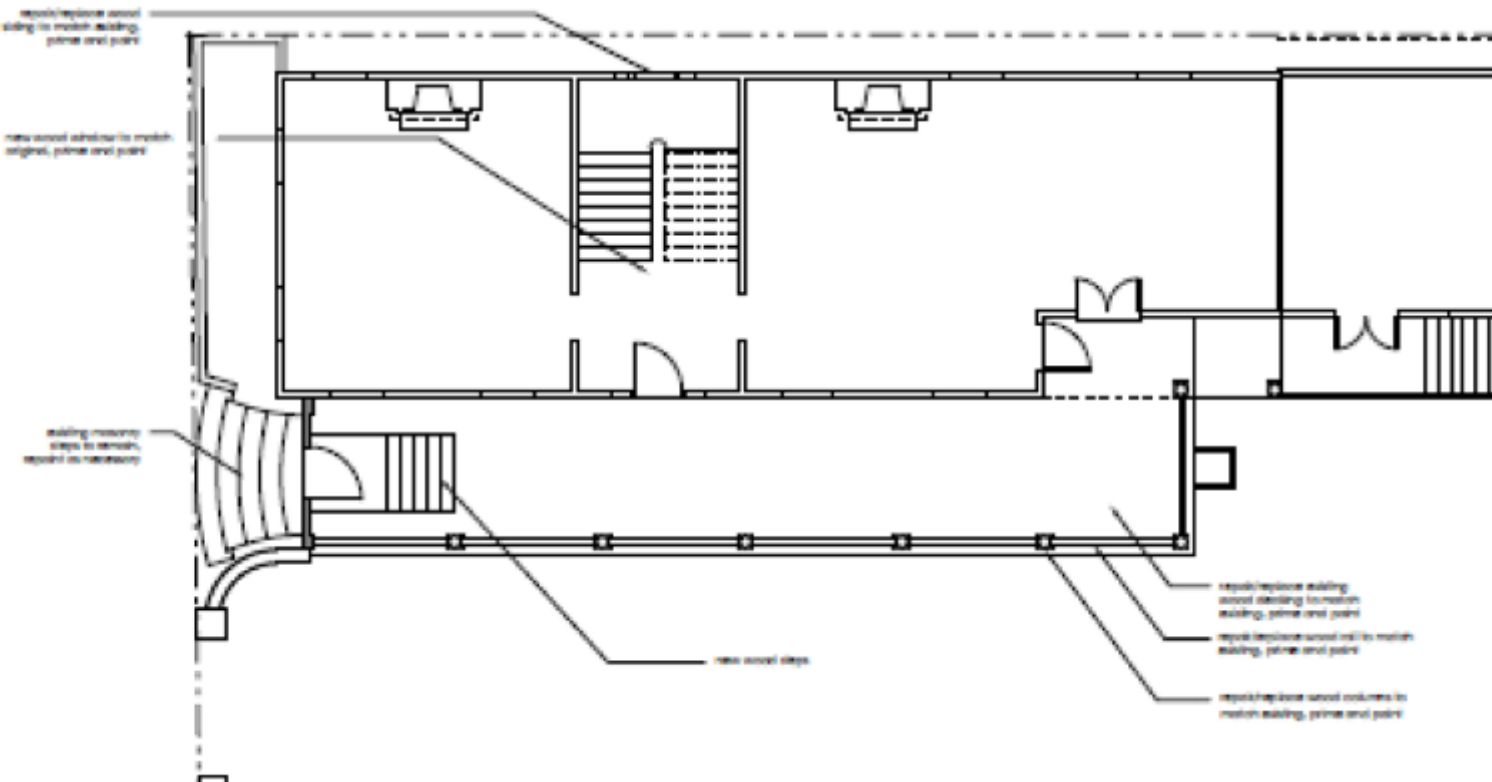




existing west elevation: 3/16" = 1'-0"



proposed west elevation: 3/16" = 1'-0"



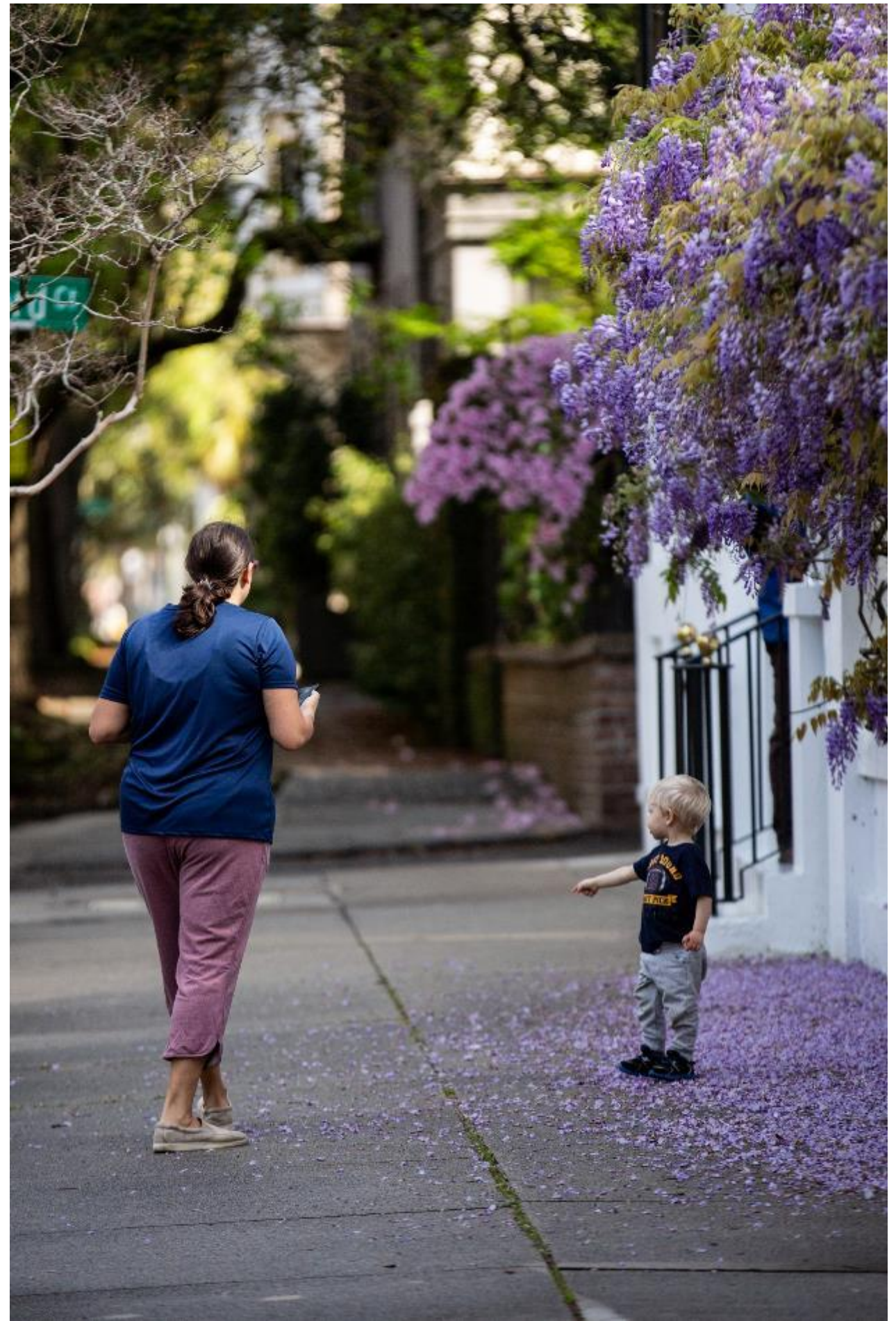


1 APPROVED SOUTH ELEVATION IN CONTEXT
ASBY SCALE 1/8" = 1'-0"



1 PROPOSED SOUTH ELEVATION IN CONTEXT
ASBY SCALE 1/8" = 1'-0"







Ed McMahon of the Urban Land Inst. -Secrets of Successful Communities

1. Develop a shared vision for the future
2. Inventory local and regional assets
3. Build plans around the enhancement of assets
4. Use education, incentives, partnerships, and voluntary initiatives, not just regulation
5. Pick & choose among development proposals
6. Cooperate with neighbors for mutual benefit
7. Protect community character & foster an authentic sense of place
8. Have strong leaders & committed citizens



PSC advocates for

- a city that is **RESILIENT** in its responses to a wide array of challenges;
- a city whose citizens are **ENGAGED** and informed on key issues
- a city whose character is **AUTHENTIC** rather than marketed as a “brand;”
- a city that is highly **LIVABLE** and prioritizes residents’ needs

