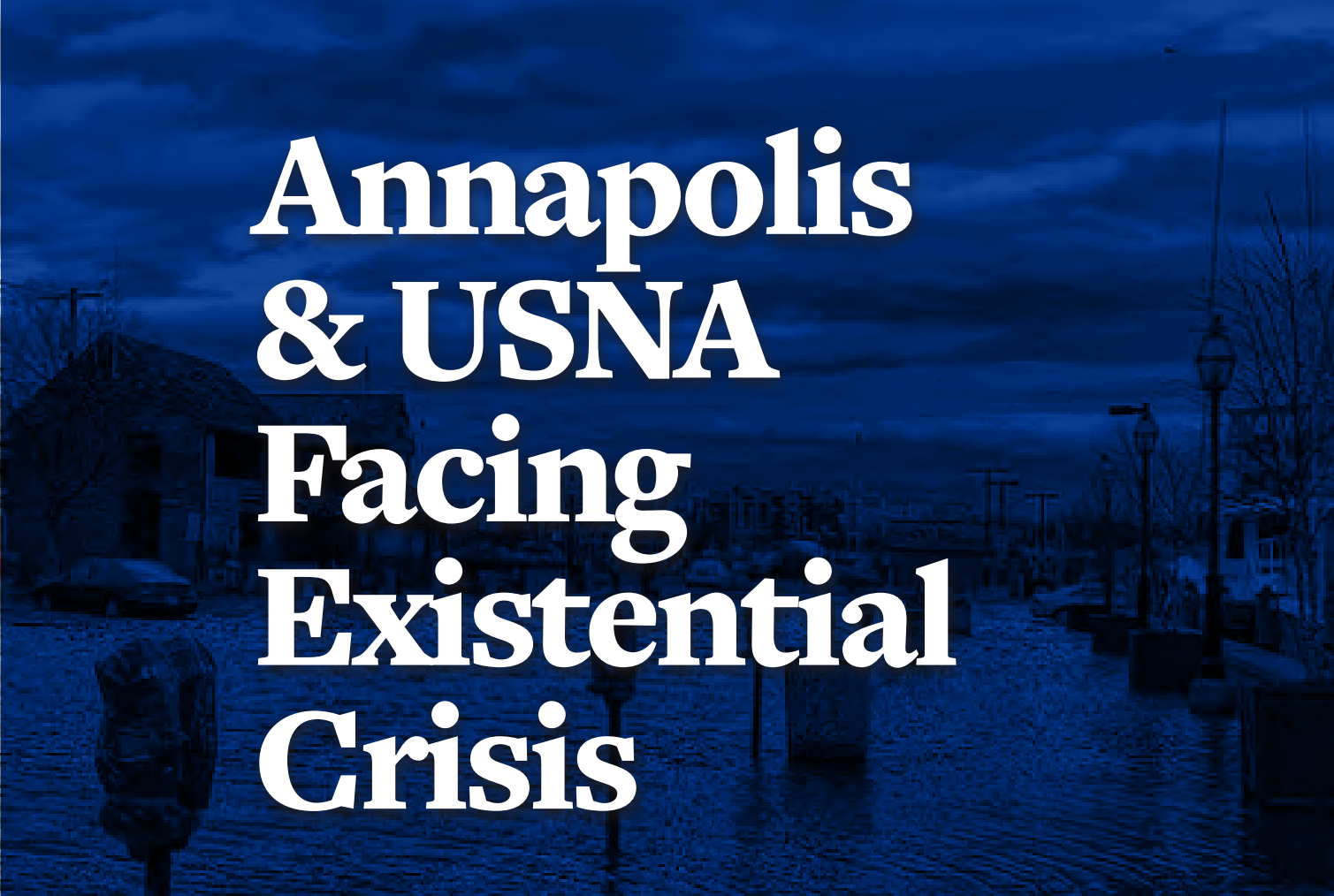




CITY DOCK RESILIENCY PROJECT

PRESENTATION TO PLANNING COMMISSION
MAY 18, 2023

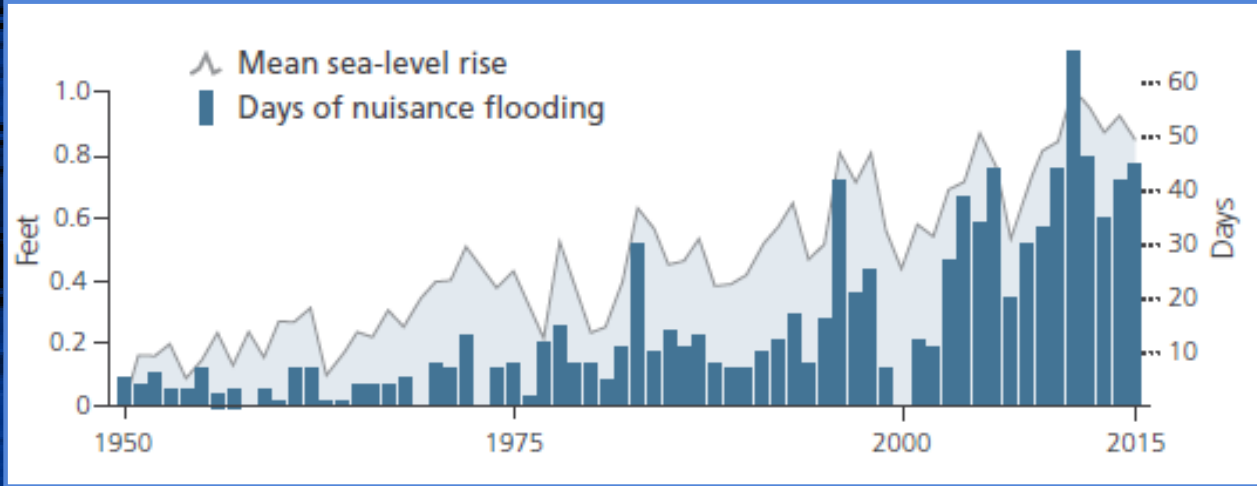


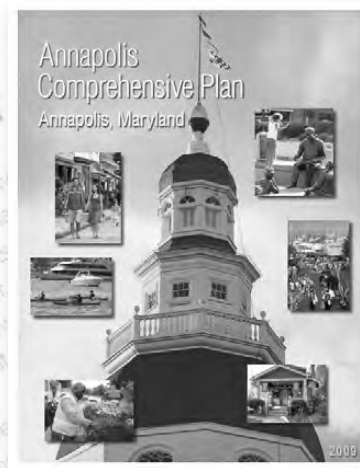
Annapolis & USNA Facing Existential Crisis



**NUISANCE FLOODING, INCREASED BY
925% IN ANNAPOLIS**

YEAR	FLOOD DAYS PER YEAR
1969	3.8
2013	38.5
2019	52
2065	365

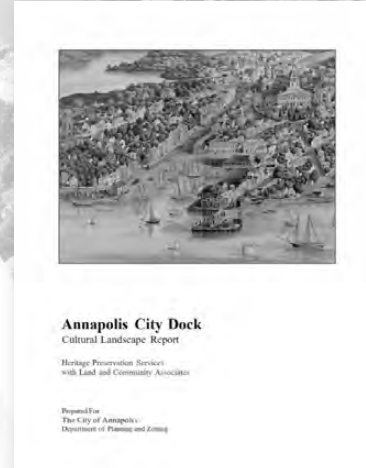




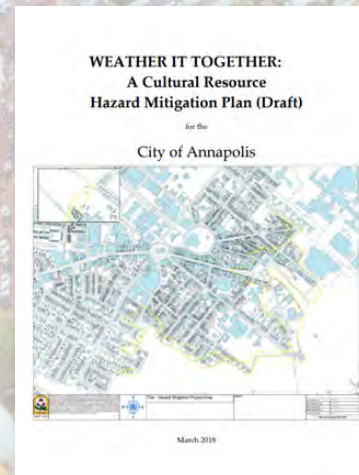
Annapolis Comprehensive Plan
2009



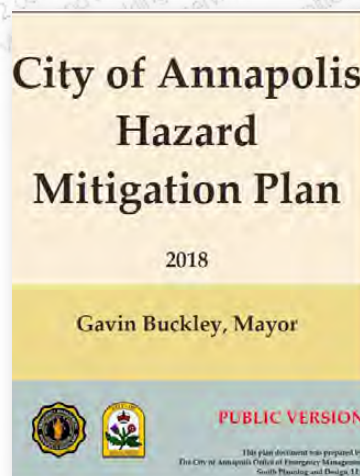
City Dock Master Plan
2013



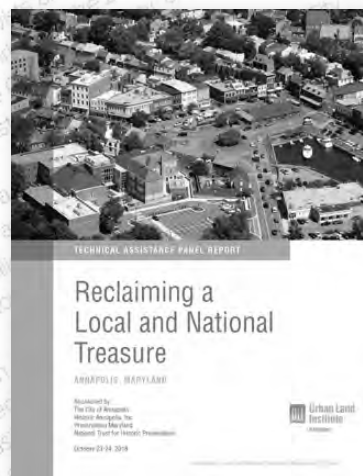
Cultural Landscape Report
2018



Cultural Resource Hazard Mitigation Plan
2018



Cultural Resource Hazard Mitigation Plan
2019



ULI "Reclaiming a Local and National Treasure"
2019



CDAC Transforming City Dock
2020



UNSA Resiliency Plan
2022



AMRP + CITY OF ANNAPOLIS

How Does A Preeminent Historic Coastal City Respond to an Impending Threat?

THE CITY ADOPTED A PROACTIVE RESILIENCY STRATEGY.

- BUILT ON PRIOR STUDIES
- PARTNERSHIP WITH USNA-ONGOING COLLABORATION
- UMD/PUBLIC AND PRIVATE RESILIENCY EXPERTS
- BROAD-BASED COMMUNITY CONSENSUS

ANNAPOLIS IS LEADING THE WAY NATIONALLY!

Resiliency Approach:

PROTECT DOWNTOWN AND USNA

TIERED APPROACH FOR LINE OF DEFENSE:
FLOOD PROTECTION SYSTEM FROM GATE
ZERO TO NEWMAN ST

A. ELEVATED INFRASTRUCTURE

- ELEVATES BULKHEAD TO CONTINUOUS 5'

B. FLOOD DEVICES

- DEPLOYABLE BARRIER BEHIND BULKHEAD FOR PROTECTION UP TO 8'

C. NATURAL LAND BARRIER

- TERRACED PARK PROVIDES NATURAL LAND BARRIER UP TO 8'

D. NEW CONSTRUCTION

- ELEVATE NEW STRUCTURES TO MEET FEMA FLOOD PLAIN



Resiliency Strategy Elevations & Barriers



FLOOD BARRIER PLAN

City Dock FEMA Flood Requirements

REQUIRED TOTAL ELEVATION	7'
CITY REQUIRED ELEVATION	2'
FEMA ELEVATION	5" ABOVE SEA LEVEL
CURRENT BASE ELEVATION	1.5'-3+
SEA LEVEL	0'

Legend

Height District within Flood Zones

DISTRICT

- 1
- 2
- 3
- AE Flood Zone

0 0.04 0.07 0.15 Miles



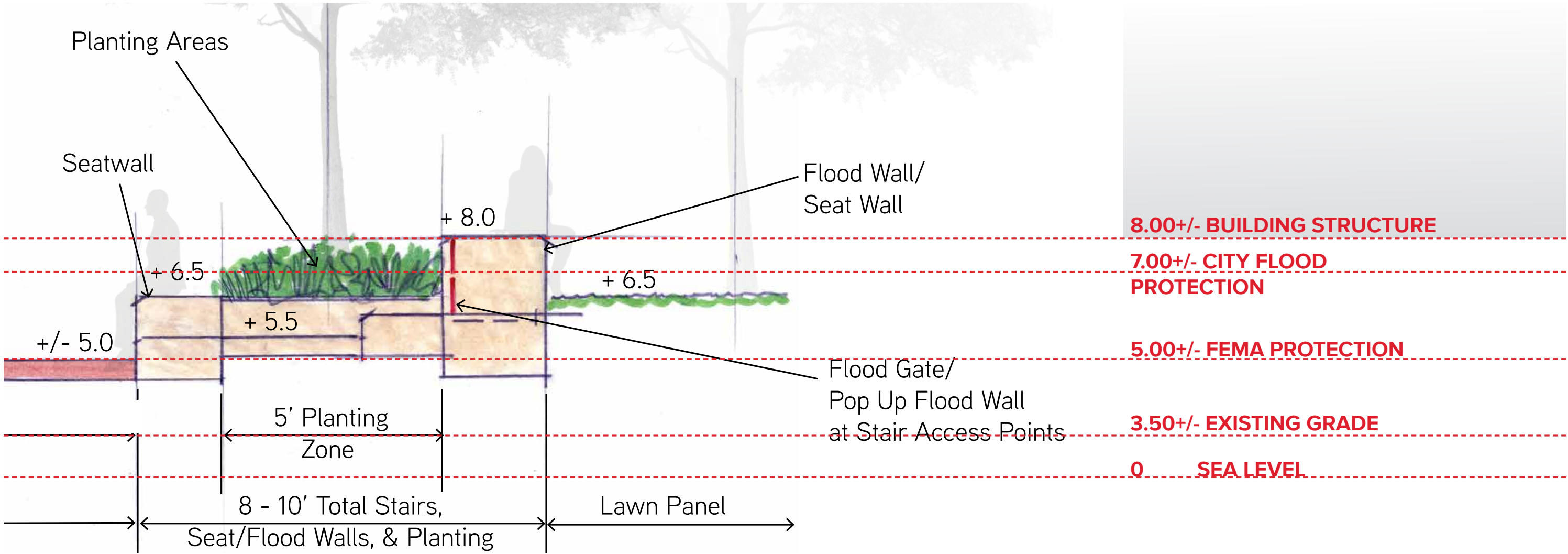
O-15-23 is the Next Step in Implementing City Dock Resiliency Strategy

EXPERT TEAM:

- Assembled Architects, FEMA Experts, Cultural Hazard Mitigation Plan Author, Resiliency Experts, Attorneys

PURPOSE:

- Measure building elevation in City Dock AE flood-zone to align with FEMA and City flood requirements
- Comply with FEMA National Flood Insurance Program
- Unlock critical Federal funding for City Dock



Planning Process

- CDAC Consensus Plan
- Implementation Strategy: mobility, parking, garage, resiliency, open space, water access
- Conceptual Design City Dock Park
- Ordinance to allow design of public structures to proceed
- Public input to design process: Planning Commission, HPC, CDAC and Council



City Dock Resiliency Project Moving Forward with O-15-23

CITY DOCK RESILIENCY PLAN ON SCHEDULE

- **Garage Opens June 2023**
- **Construction to begin Winter 2024**

COHESIVE RESILIENCY EFFORT TIED TO FUNDING

- **Elevated Infrastructure**
- **Elevated New Public Bldgs.**
- **Funding tied to Design of Entire City Dock Resiliency Project**
- **Design to be Completed Fall 2023 to Unlock Significant Federal funding**



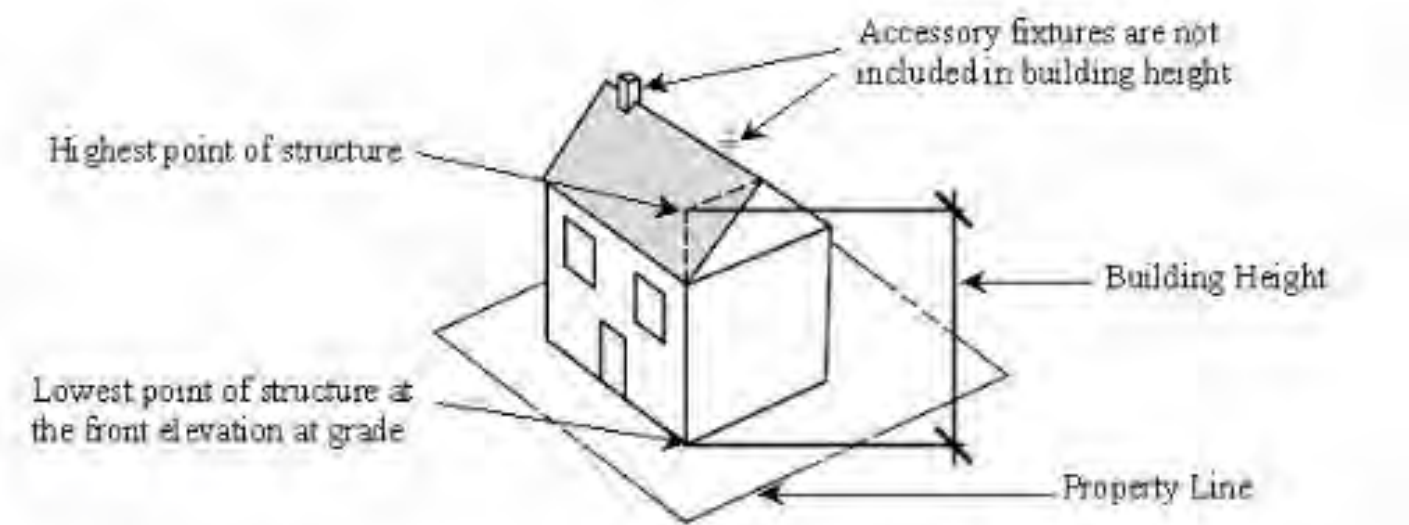
NATIONAL FLOOD INSURANCE PROGRAM



HEIGHT MEASUREMENT

21.72.010 - Terms.

"Building height" means the vertical distance from the lowest point of a structure at its front elevation at grade to the highest point of the structure, not including accessory fixtures attached to the structure. See illustration.



Refer to [Chapter 21.56](#) for measurement of building height in the historic district.

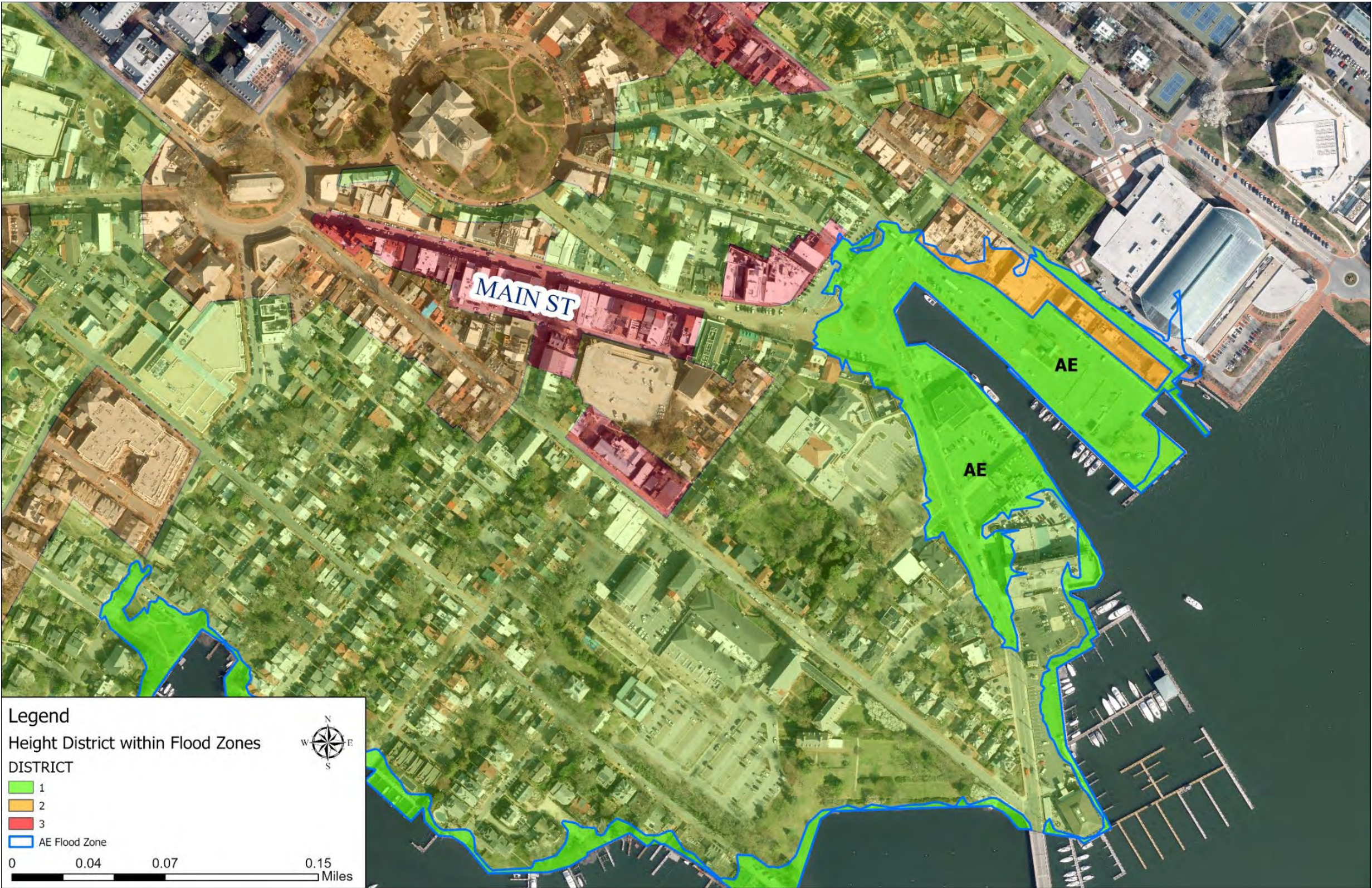
21.56.170 - Height measurement.

- c. For the purpose of achieving a permanent height limit, the height of a building shall not be allowed to increase because of an increase in the elevation of the front setback line occurring after the effective date of this Zoning Code.

CITY DOCK PLAN AREA

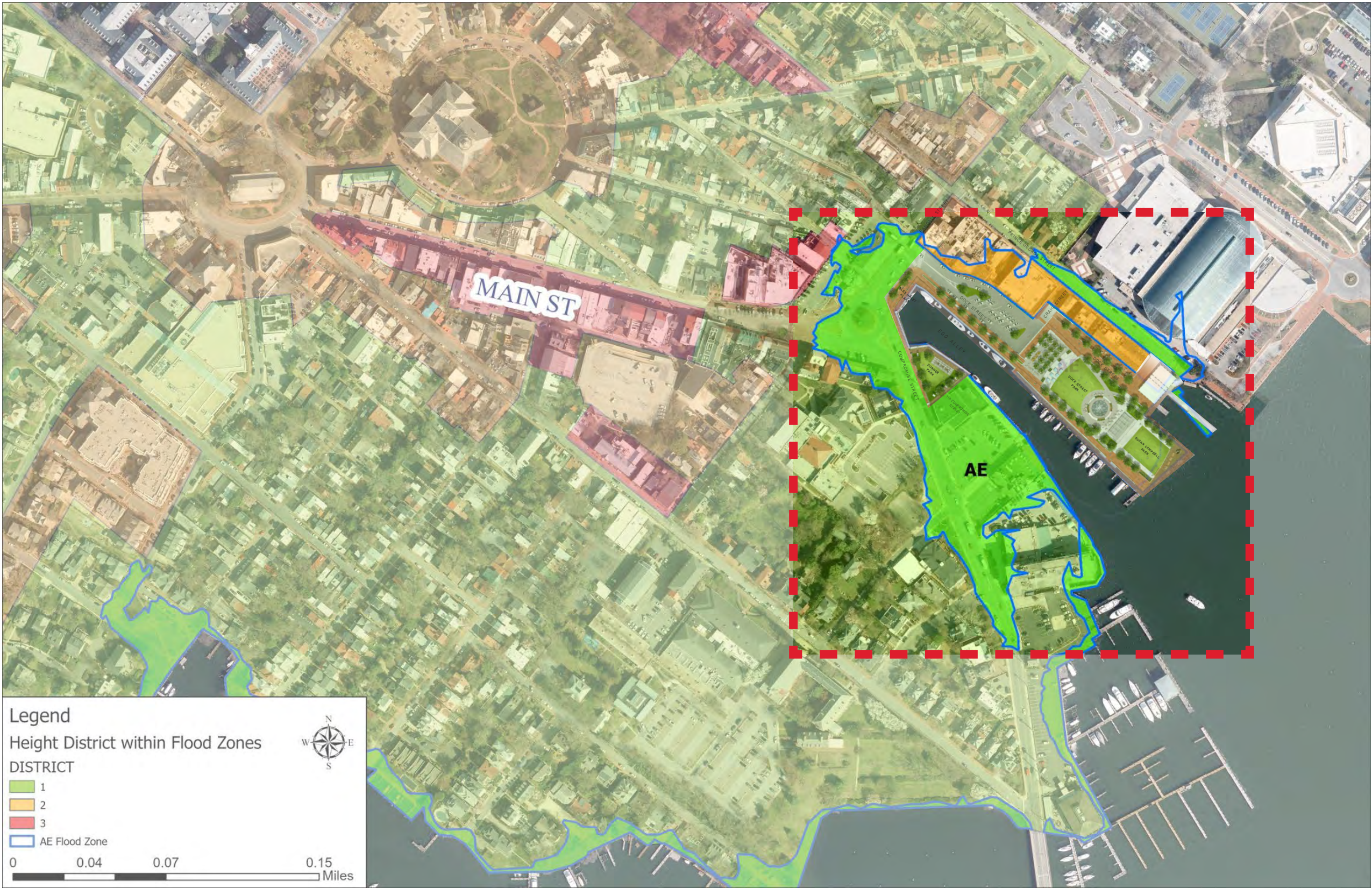


AE FLOOD ZONE AND HISTORIC DISTRICT

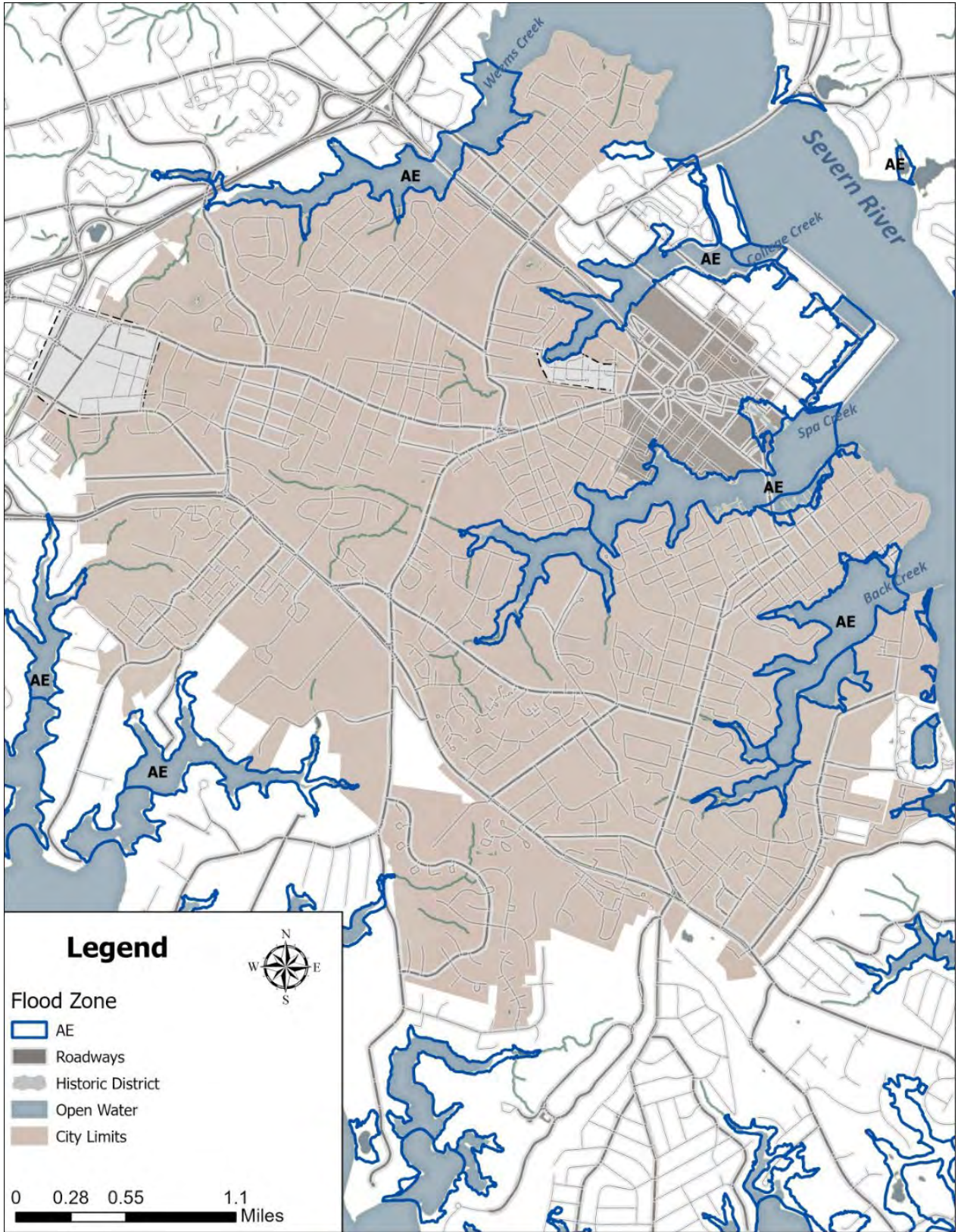


AE = 1% Annual chance of flooding and a 26% chance over the life of a 30-year mortgage. (FEMA)

CITY DOCK PLAN AREA AND AE FLOOD ZONE



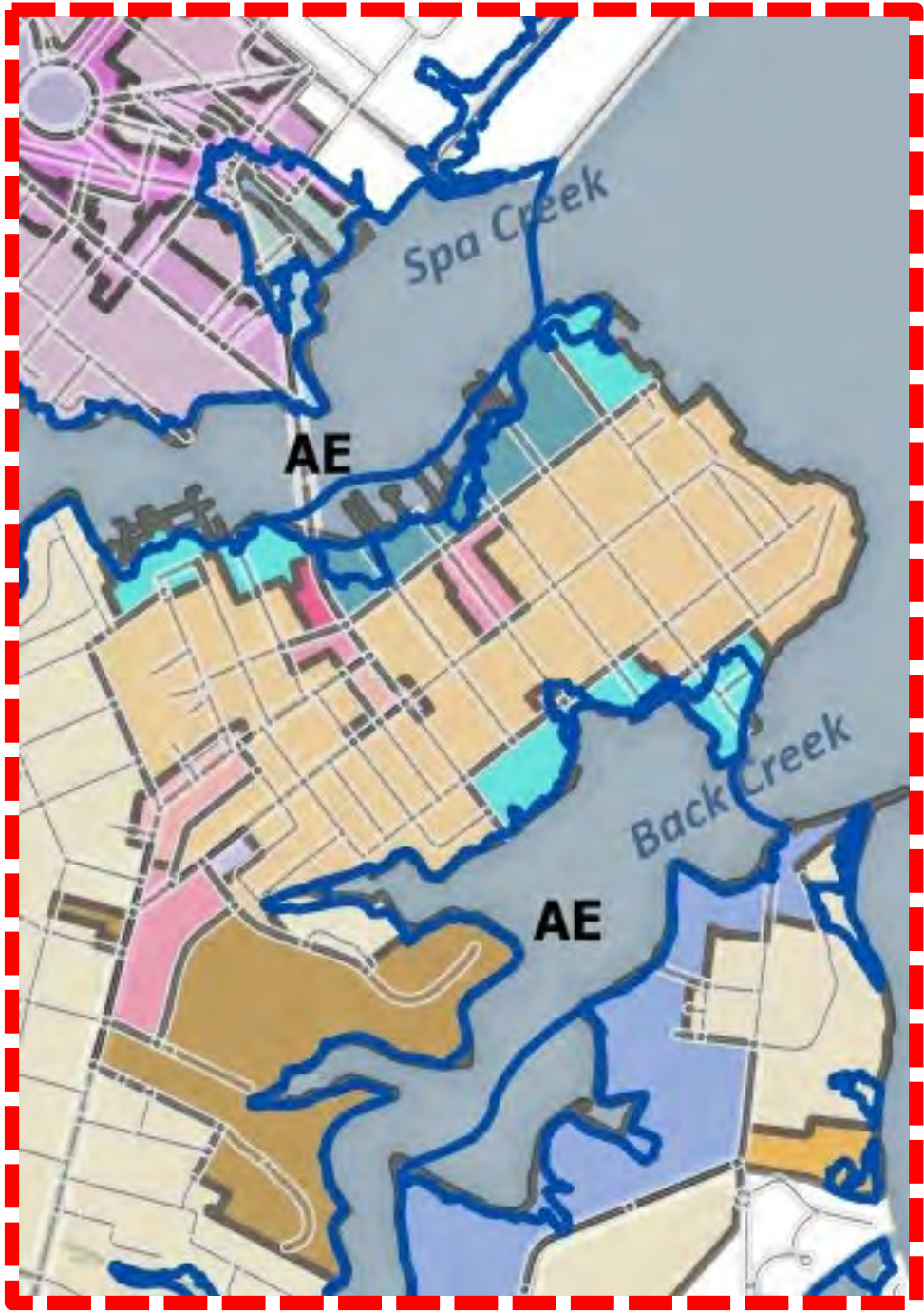
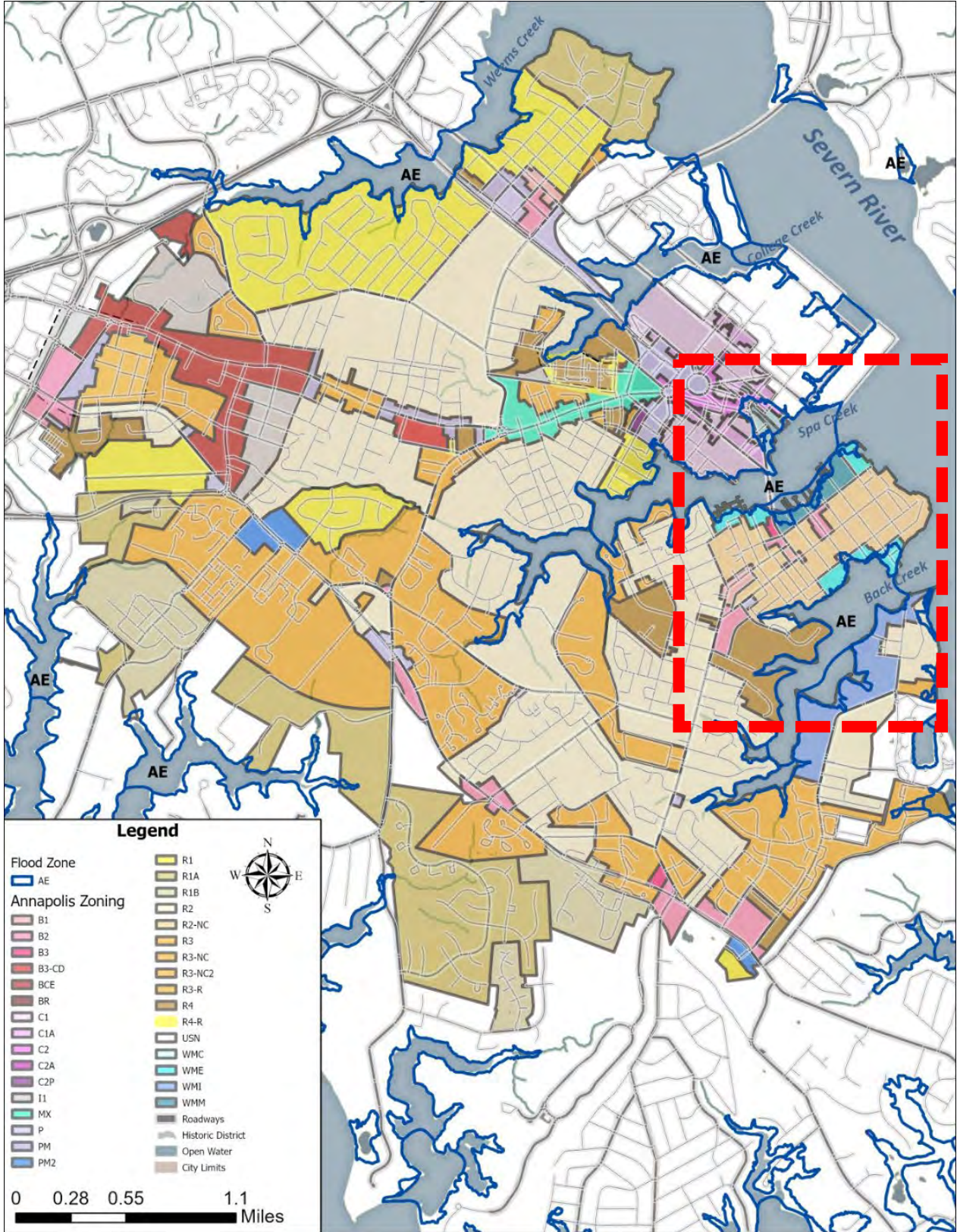
AE FLOOD ZONE CITYWIDE



CITY DOCK PROJECT AREA

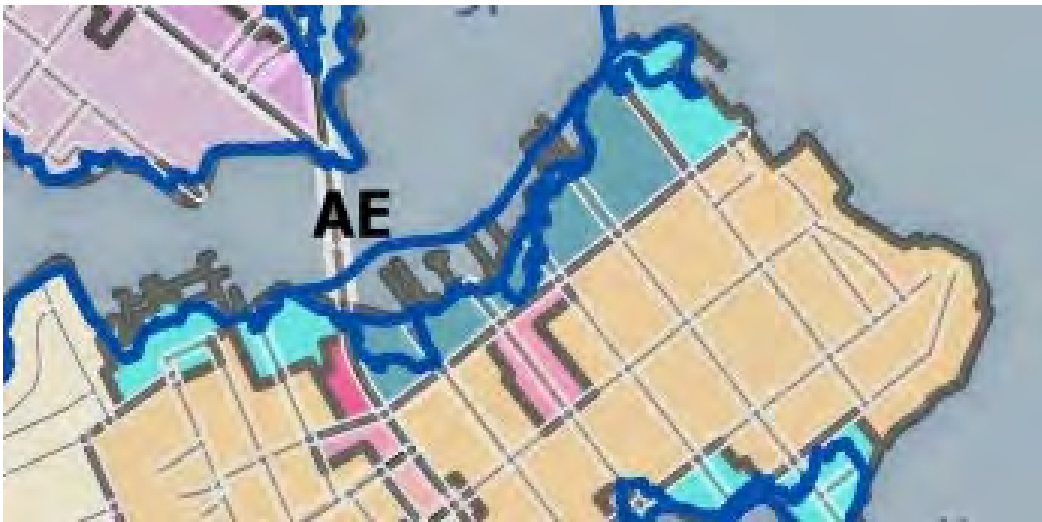


OTHER AE FLOOD ZONES



- Waterfront Maritime Mixed (WMM)
- Waterfront Maritime Eastport (WME)

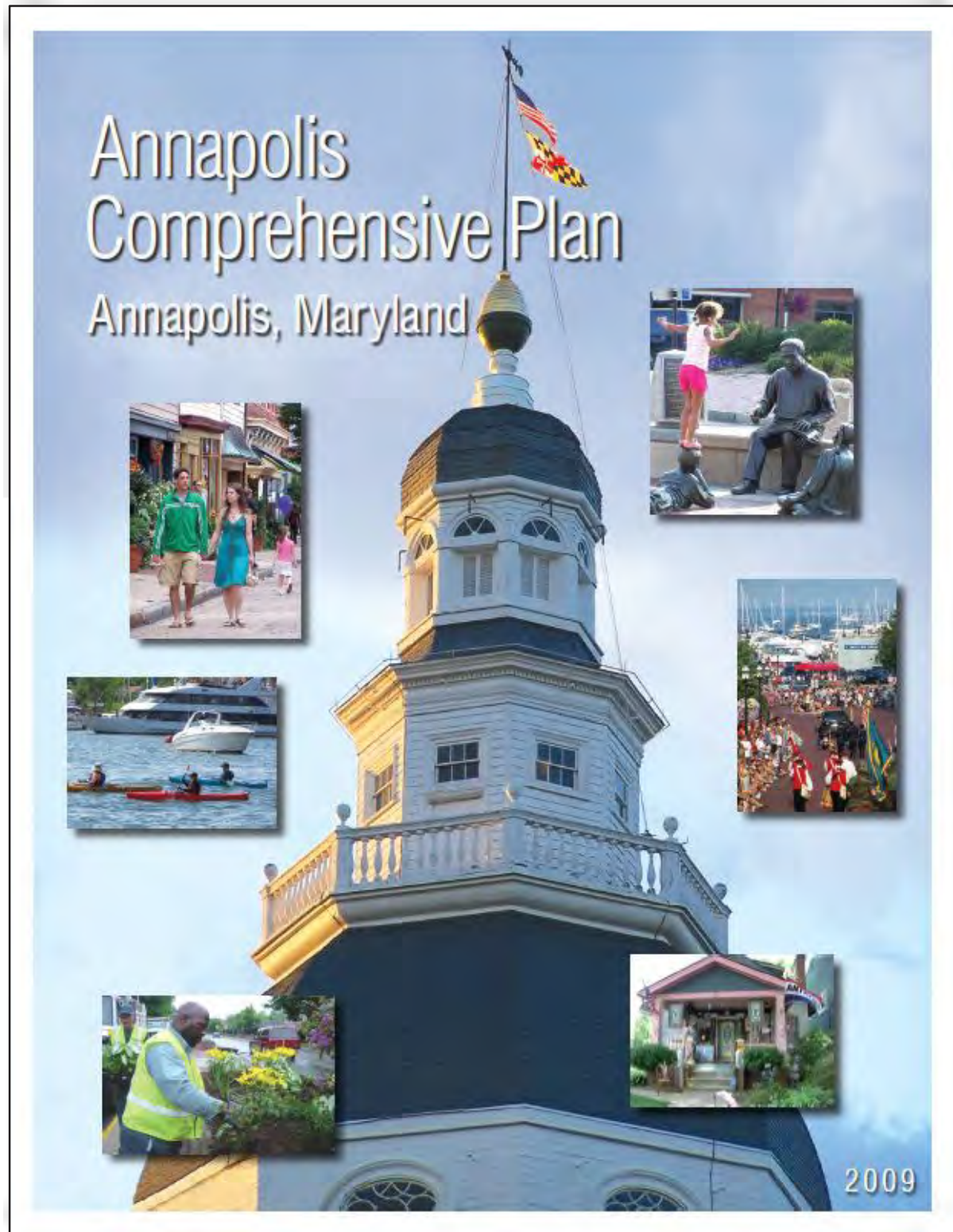
WATERFRONT MARITIME MIXED DISTRICT



21.50.290 - Bulk Regulations Table WMM District.

Building or structure distance from Severn Avenue	Height (maximum)	Required sky exposure plane
50 feet or less	2.5 stories not to exceed 28 feet, measured at the highest point of the structure from the existing grade along Severn Avenue.	Measured from a height of 22 feet above the yard setback from Severn Avenue and rising over a slope of three feet of horizontal distance for every two feet of vertical distance.
50 to 65 feet	Per the required sky exposure plane.	Measured from a height of 28 feet above a 50-foot setback line from Severn Avenue and rising over a slope of three feet of horizontal distance for every two feet of vertical distance.
Over 65 feet	(i) Structures used solely for the construction, maintenance and repair of watercraft: 45 feet (ii) All other structures: 3.5 stories not to exceed 38 feet, measured along all façades; (iii) Pursuant to the procedures set forth in Chapter 21.18 of this Zoning Code, the Planning and Zoning Director may permit an extension of the maximum ridgeline in preceding subsection (ii) to 45 feet upon findings that this would achieve a roof slope more compatible with adjacent structures and character.	Measured from a height of 28 feet above any yard setback and rising over a slope of three feet horizontal distance for every two-feet of vertical distance.

2009 COMPREHENSIVE PLAN



The 2009 Comprehensive Plan provides several policy recommendations aimed at advancing the resilience and value of the City Dock area and which underscore the intent of the ordinance.

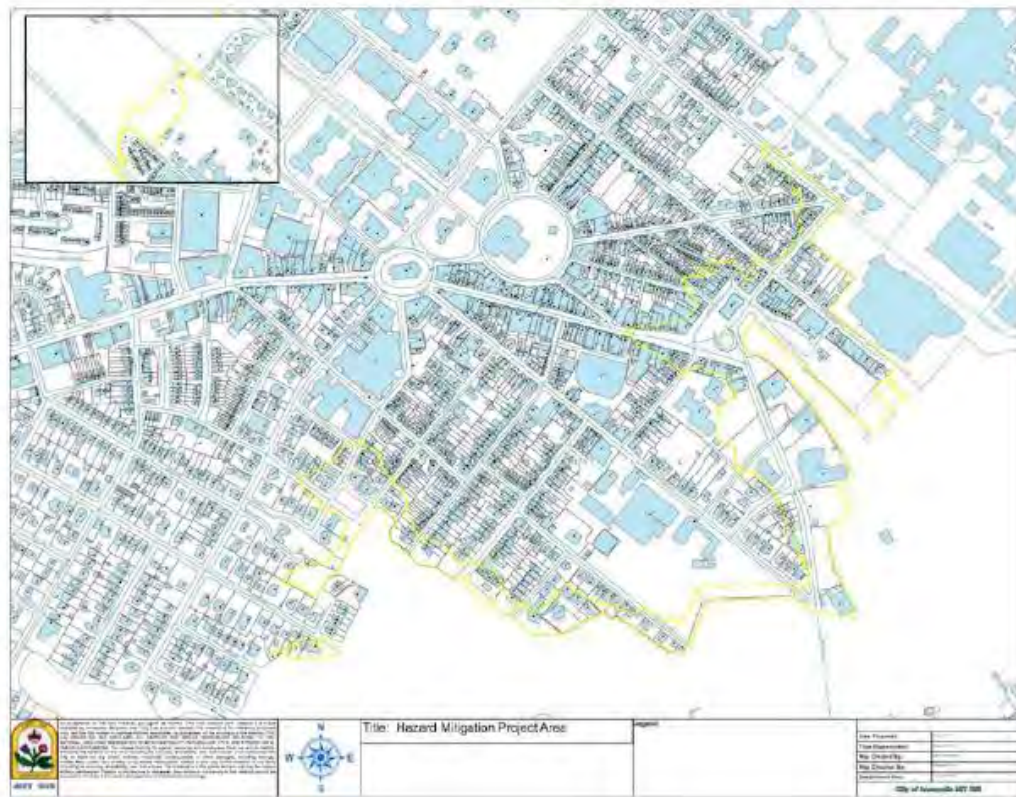
- In Chapter 3, which addresses Land Use and Economic Development, Policy 6 is “Enhance the Public Realm of the City Dock and its Environs.”. This policy recommends that “Given the importance of the City Dock area to Annapolis, a plan for its future must be developed with broad participation by the entire community, as well as downtown residents and businesses.” This recommendation resulted in the formation of the City Dock Action Committee and the resulting 2020 Consensus Plan.
- Also in Chapter 3, Policy 10 is “Evaluate risks from sea level rise in decisions involving land use along the waterfront.” This policy recommends that “The parts of the established downtown which are prone to severe flooding and may be expected to be impacted by sea level rise should be the subject of a study to determine the costs and benefits of public decision-making in mitigating property damage.” This scope was addressed as part of the 2020 Consensus Plan as well as the 2018 Weather It Together: A Cultural Resources Hazard Mitigation Plan, and the 2018 Hazard Mitigation Plan.

2018 WEATHER IT TOGETHER PLAN

WEATHER IT TOGETHER: A Cultural Resource Hazard Mitigation Plan

for the

City of Annapolis



April 2018

The 2018 Weather It Together: A Cultural Resource Hazard Mitigation Plan, provides several recommended projects in Chapter 4: Adaptation in Our Landmark City that align with this ordinance.

- Project 1 is “Tools and Practices for Flood Preparedness and Adaptation” and within the description of this project, the plan acknowledges: *“In light of the ongoing and increasing threat of rising sea levels and storm surges, approaches to mitigate flooding damage must recognize the unique aspects of the historic fabric of the study area, but, at the same time, recognize that certain traditional approaches to historic preservation (such as building elevation) may have to be re-examined in light of the threat of the possible ultimate destruction of these valuable resources.”* The Plan further acknowledges:

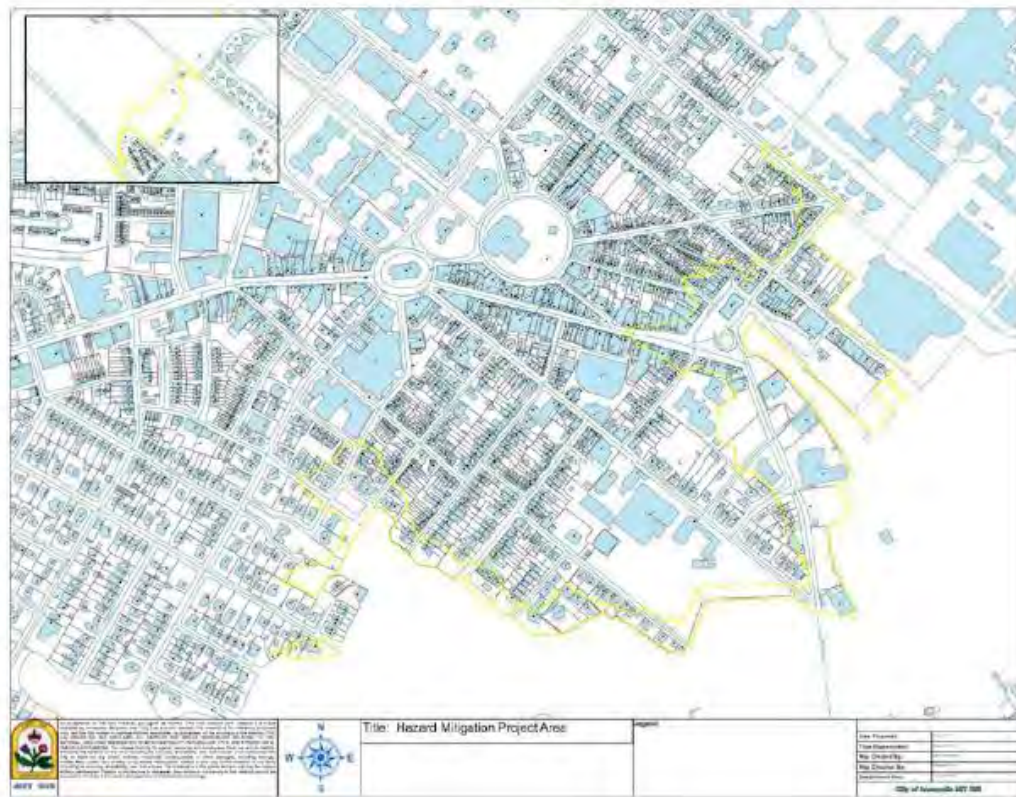
“The issue of elevating historic structures is a challenge. While raising a building changes the historic relationship of the structure to its site, given the tragic losses of the physical heritage that could occur through sea level rise and coastal flooding, it may be the most appropriate preservation direction to take.... Because preservation includes the history of change, the reasons for elevating a building could be part of an interpretative narrative of a property (the Sands House on Prince George Street, for example, was elevated by 14” early in the twentieth century).””

2018 WEATHER IT TOGETHER PLAN

WEATHER IT TOGETHER: A Cultural Resource Hazard Mitigation Plan

for the

City of Annapolis



April 2018

- Project 3 is “Structural Adaptation Measures” and directly addresses the strategy of the City Dock project to raise the public right of way areas and the need for adjacent buildings to adapt to this new elevation. In the description, the Plan acknowledges:

“Raising streets and roads within the public right-of-way is an option. It is an incremental process that can provide a barrier to flood waters, protecting many (not all) structures in the City Dock area of the study area. Access to adjacent properties will be changed and must be addressed in the overall project design and specifications.... The interface between a raised street surface and the adjacent sidewalk and building entry elevations is of prime consideration....”

City of Annapolis Hazard Mitigation Plan

2018

Gavin Buckley, Mayor



PUBLIC VERSION

This plan document was prepared by:
The City of Annapolis Office of Emergency Management
Smith Planning and Design, LLC

The 2018 City of Annapolis Hazard Mitigation Plan also provides several recommended projects in Chapter 12: New Mitigation Goals, Objectives, & Projects that align with this ordinance.

- Prevention Goal #1: "Implement and enforce floodplain management ordinance."
- Prevention Goal #2: "Integrate hazard mitigation planning, recommendations, and mitigation strategies into other City planning tools and documents."
- Property Protection Goal #3: "Protect infrastructure and facilities."
- PROJECT B: "Annapolis Flood Mitigation-Drainage Improvements". In the description for this recommended project, the Plan acknowledges that "The Annapolis Flood Mitigation Project seeks to mitigate damages to repeatedly flooded commercial properties via drainage improvements. There are 44 recorded events from 2005-2015 (~4.4 events per year) where MLLW (mean lower low water) was 3 feet or greater. In some cases, multiple flood events occurred within the same year, but were added and entered as one single event. Roughly 39 commercial buildings would benefit from drainage improvements along several streets, including:
Compromise Street; Craig Street; Dock Street; Main Street; Market Space; Newman Street; and Prince George Street.

THANK YOU FOR ALL YOUR SUPPORT

