CITY DOCK RESILIENCY PROJECT

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CITY COUNCIL WORK SESSION JUNE 8, 2023



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Hillman Garage Open for Business!

JUNE 14, 2023 CITY DOCK PROJECT: PHASE ONE COMPLETE!





City Dock Resiliency Project Noving Forward!

 P3 PARTNERSHIP: SUCCESSFUL FINANCIAL MODEL

• P3 FUNDS MAJOR UP-FRONT COSTS FOR DESIGN AND CONSTRUCTION OF CITY DOCK RESILIENCY AND REDEVELOPMENT PROJECT

Funding For City Dock Resiliency Project

TOTAL PROJECT COST: STATE OF MARYLAND: FEDERAL EDA: FEDERAL DELEGATION DIRECT SPENDING: CONCESSION PAYMENT/GOBONDS (SUB DEBT): **COMPROMISE ST. PHASE ONE TOTAL:** COMPROMISE ST. PHASE TWO TOTAL: STATE OF MARYLAND COMPROMISE: **FLOOD PROJECT FEDERAL GRANT:** CITY

\$54 M \$10 M \$3.2 M \$3.4 M \$24.5 M \$22 M \$7 M \$5.1 M \$3.4 M

\$1.3 M







RESILIENCY APPROACH: PROTECT DOWNTOWN AND

USNA

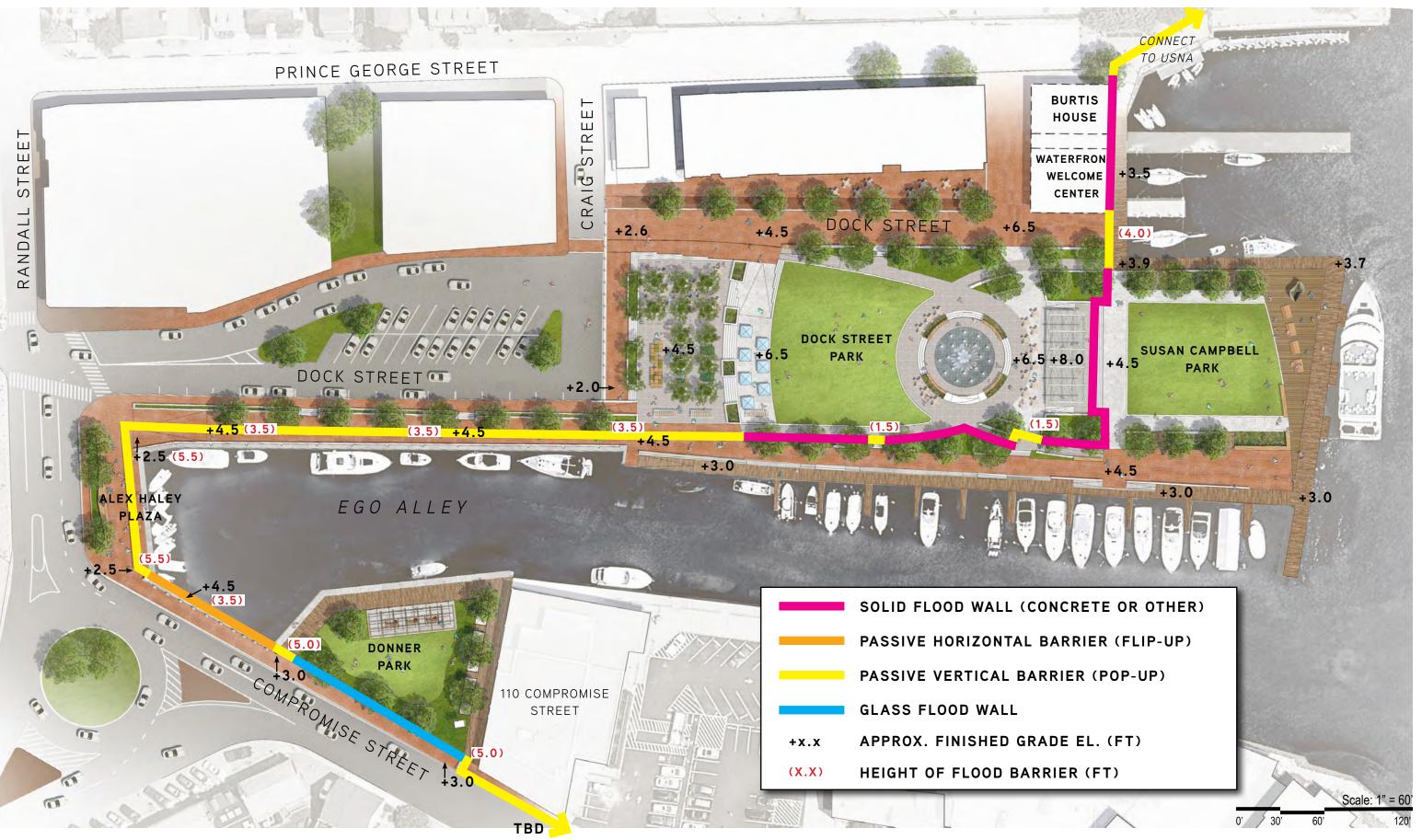
- **A. RAISED ELEVATIONS**
- TO 4.5'
- **B. FLOOD DEVICES**
- **C. NATURAL LAND BARRIER**
 - TERRACED PARK PROVIDES NATURAL LAND BARRIER UP TO 8'
 - ISLAND

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

ELEVATES NEWMAN STREET BULKHEAD

DEPLOYABLE BARRIER BEHIND BULKHEAD FOR PROTECTION UP TO 8'

• LAWNS, RAIN GARDENS, SHADE TREES TO MITIGATE FLOODING AND HEAT



FLOOD BARRIER PLAN



PASSIVE VERTICAL FLOOD BARRIER

ANNAPOLIS CITY DOCK | SCHEMATIC DESIGN





City Dock Action Committee **Endorses** Active **Park Plan!**

Planning **Commission and HPC Concur with New Direction**

TELLING ANNAPOLIS' STORY: LEGACY WOVEN INTO THE FABRIC OF THE NEW PARK DESIGN

Celebrating Annapolis' Diverse Legacy



Started as a chimney sweep

Ex-slave William Bishop became rich Annapolitan

Michael

UNESCO Middle Passage Marker

The UNESCO Slave Route Project: Resistance, Liberty, Heritage

aunched in 1994, the international and inter-regional project 'The Slave Route: Resistance, Liberty, Heritage addresses the history of the slave trade and slavery through the prism of Itural dialogue, a culture of peace and reconciliation. It thereby endeavours to improve the understanding and transmission of this human tragedy by making better known its deep-seated causes, its consequences for societies today and the cultural interactions born of this history. The project is structured around five key fields of activity: scientific research, development of educational materials, preservation of written archives and oral traditions, promotion of living cultures and contributions by the African diaspora and, lastly, preservation of sites of memory

The promotion of the memorial heritage related to the slave trade and slavery plays a decisive role not only in educating the general public, and young people in particula iliation and social cohesion processes in socie

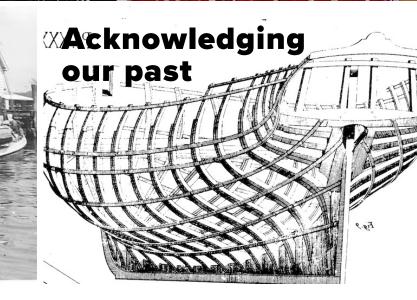


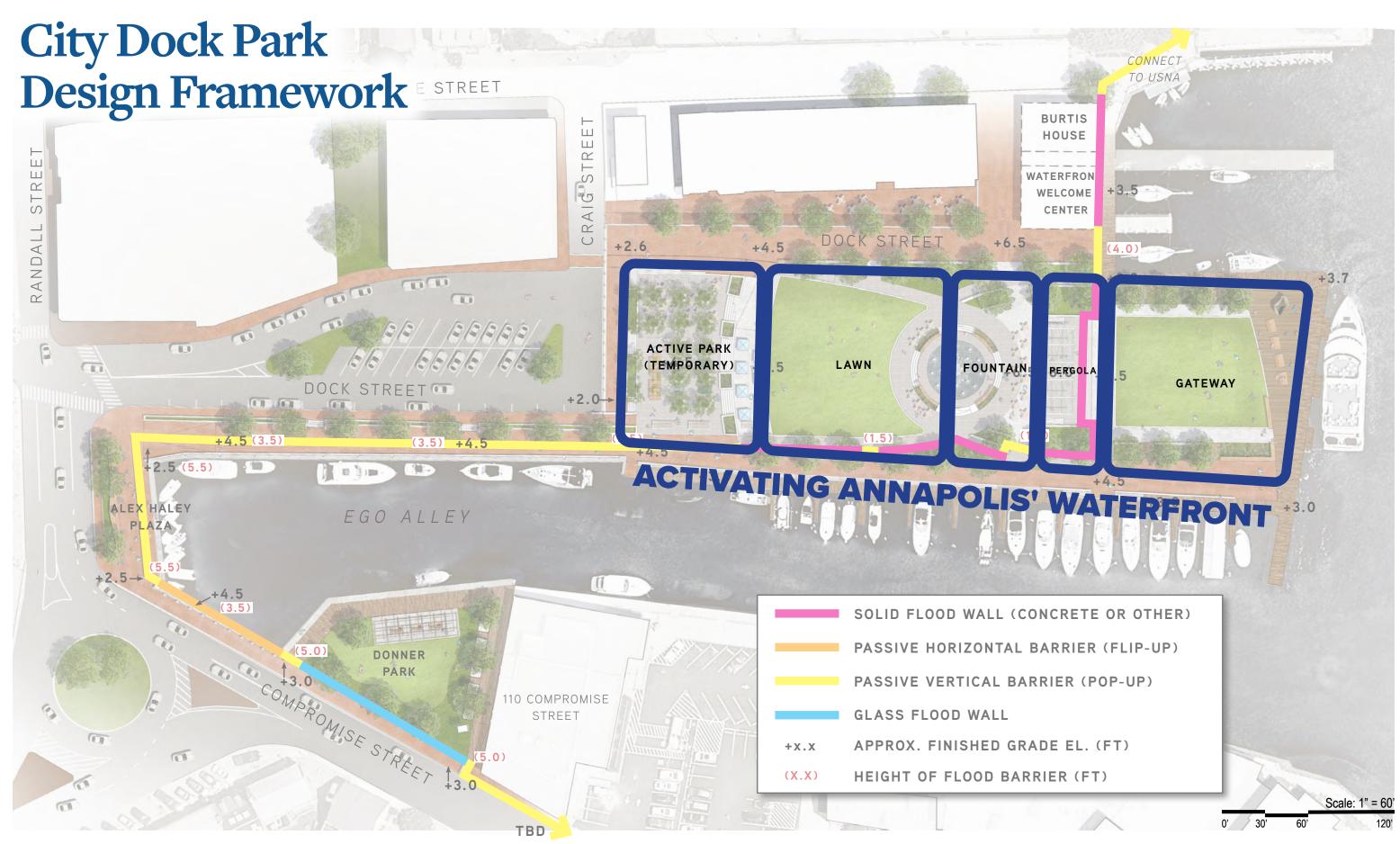
Chesapeake Watermen











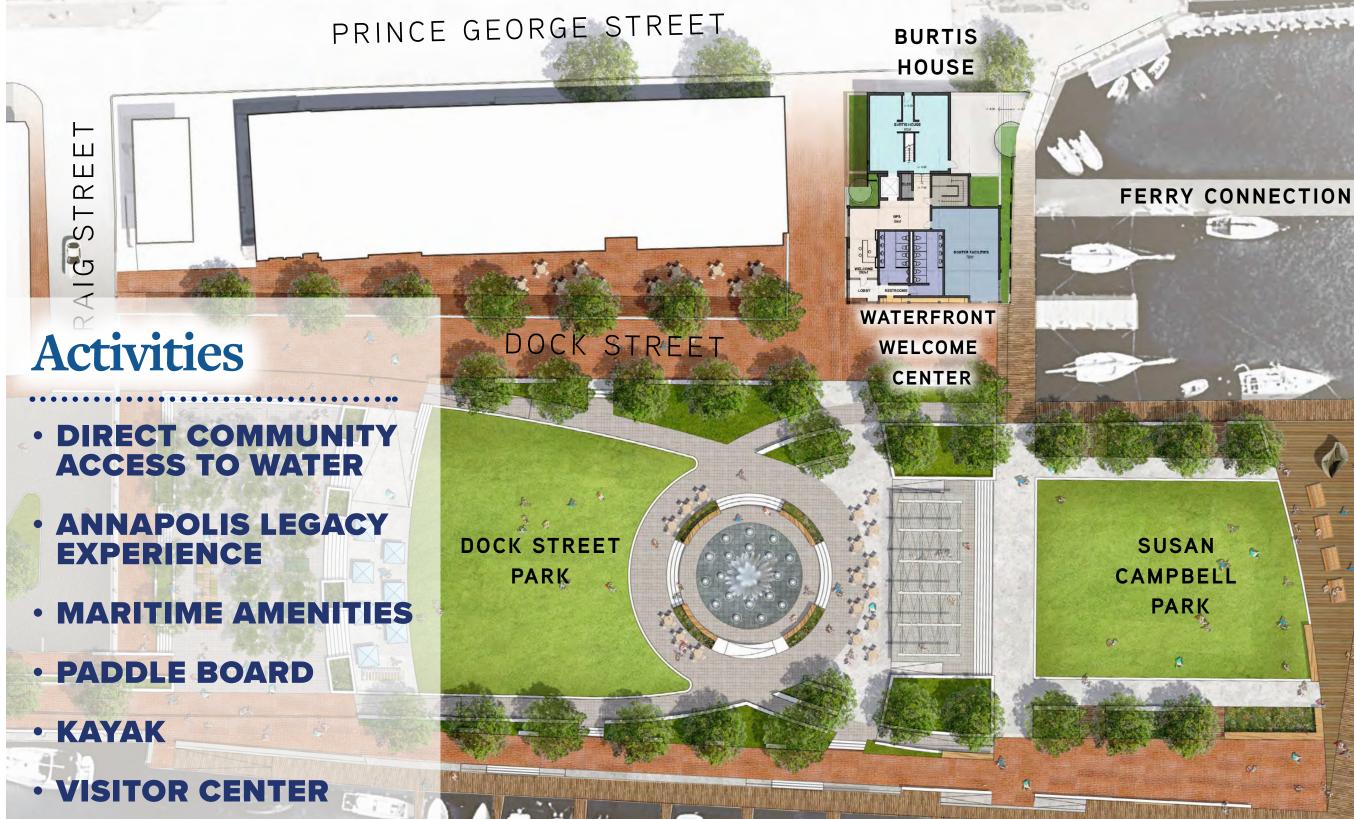
REVISED PARK ORGANIZATION

Annapolis' Waterfront Revitalized



OVERALL PLAN

World-Class Gateway to Chesapeake Bay: **Restoring the Working Waterfront**

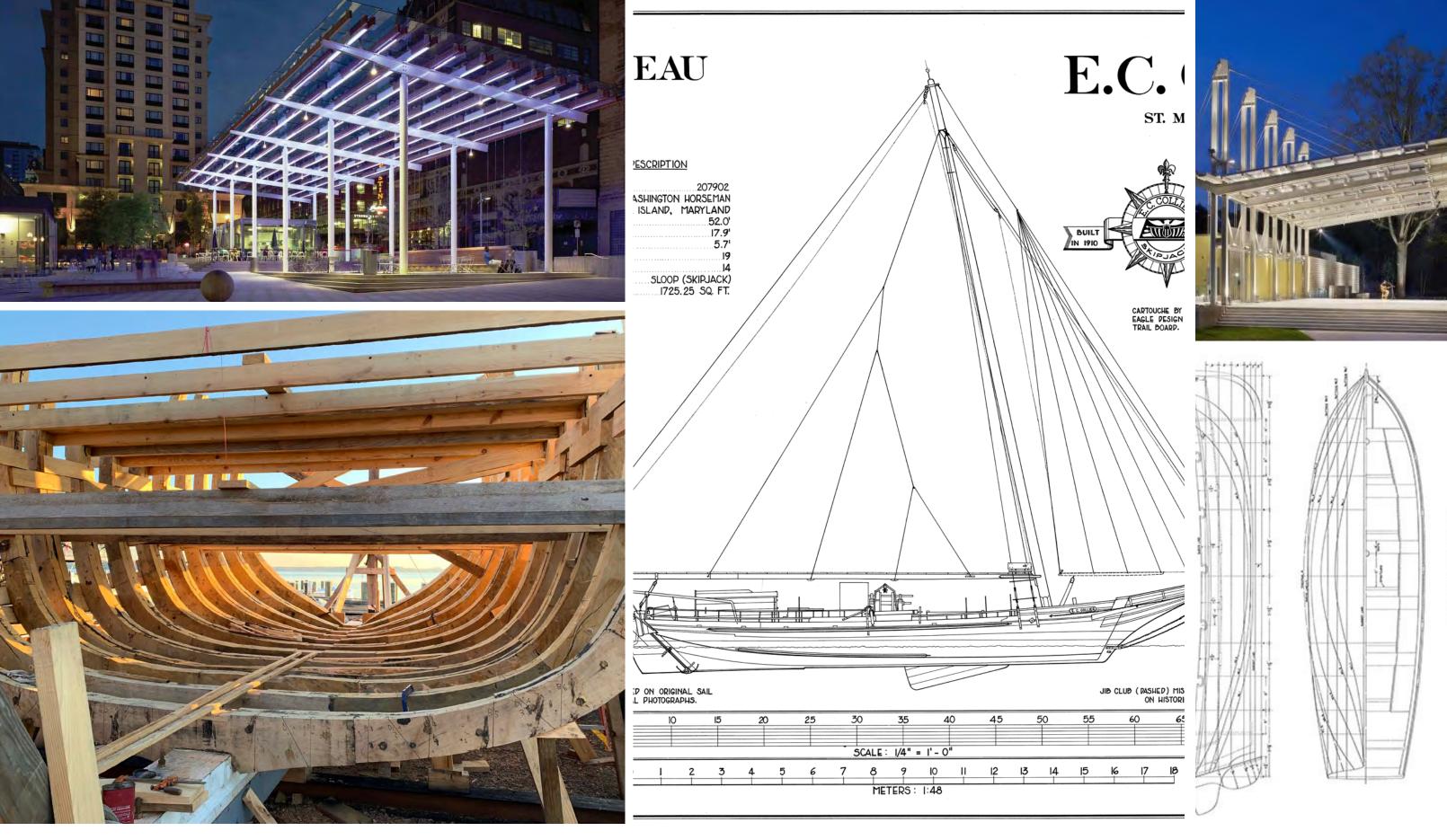




ACTIVATION FOR PARK ALONG PROMENADE



FOUNTAIN EXPERIENCE AT CITY DOCK



PERGOLA: SLAVERSHIP / SKIPJACK



LEGACY FOUNTAIN | PERGOLA





GATEWAY | PROMENADE

Annapolis' Waterfront Revitalized



OVERALL PLAN

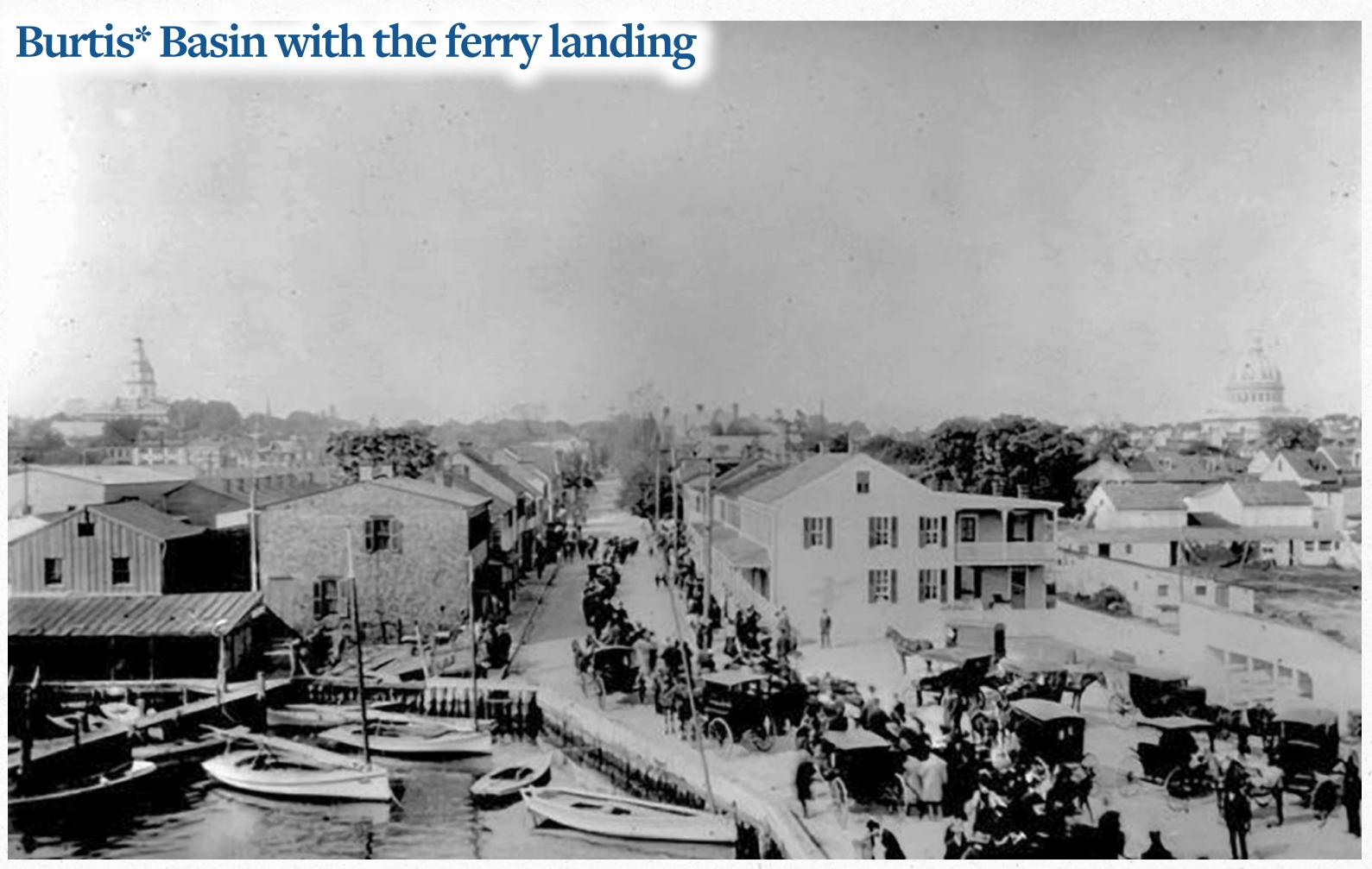
Existing Harbormaster Building

Museum of Historic Annapolis



Newly Proposed Building







Historic image of Burtis house and outbuildings



Close up of the Burtis Basin and Hell Point

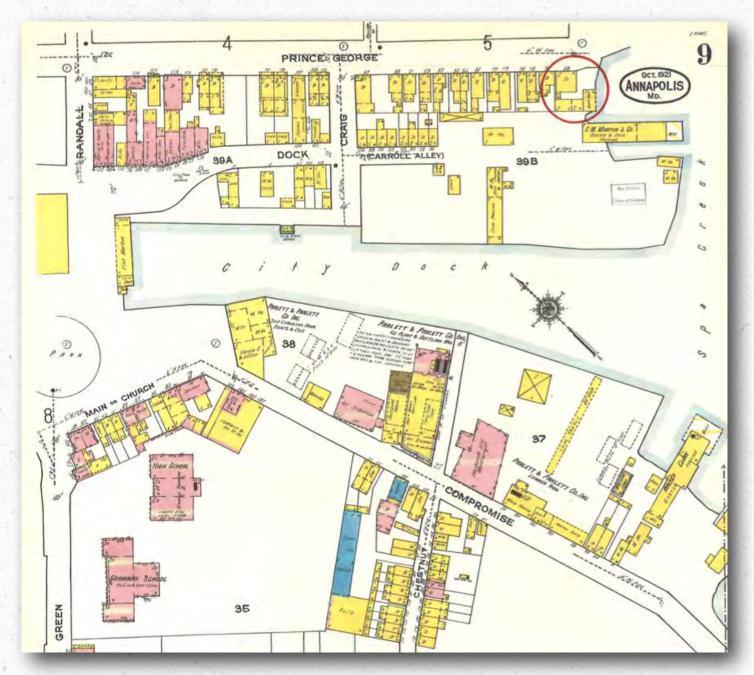


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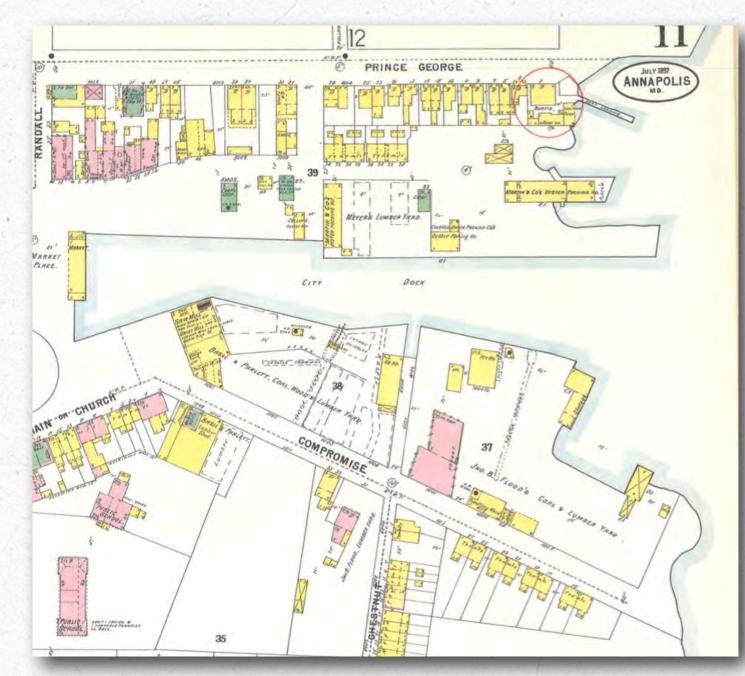


Full Annapolis City Map Published by G. M. Hopkins in 1878.

Sanborn 1921 and 1897



Sanborn 1921.



Sanborn 1897.

25

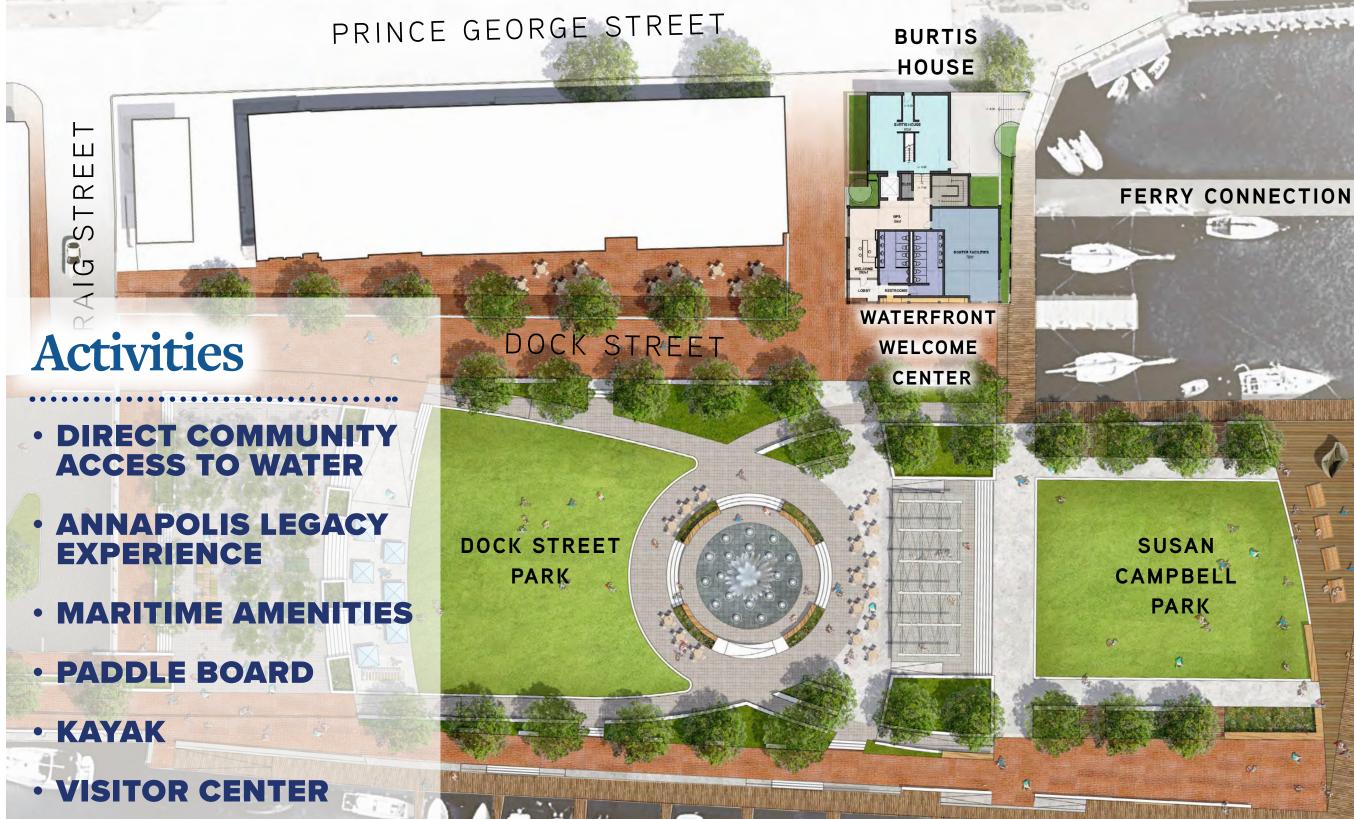
2018 image of City Dock



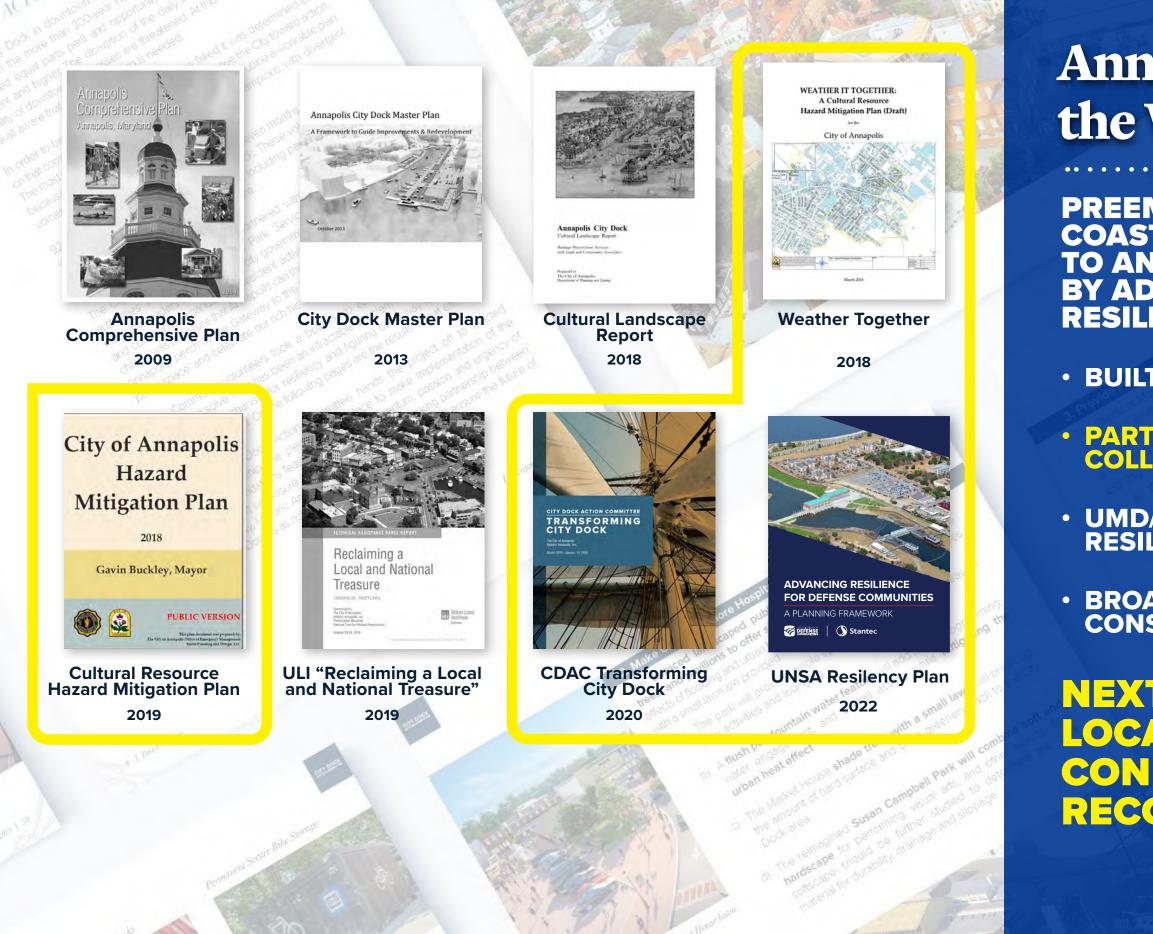
City Dock



World-Class Gateway to Chesapeake Bay: **Restoring the Working Waterfront**



Next Steps



Annapolis is Leading the Way Nationally!

PREEMINENT HISTORIC COASTAL CITY RESPONDING TO AN IMPENDING THREAT BY ADOPTING A PROACTIVE RESILIENCY STRATEGY.

BUILT ON PRIOR STUDIES

PARTNERSHIP WITH USNA-ONGOING COLLABORATION

 UMD/PUBLIC AND PRIVATE RESILIENCY EXPERTS

 BROAD-BASED COMMUNITY CONSENSUS

NEXT STEP: UPDATE OUR LOCAL ORDINANCES TO CONFORM WITH FEMA RECOMMENDATIONS.

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 FENA Flood Requirements

REQUIRED TOTAL ELEVATION CITY REQUIRED ELEVATION FEMA ELEVATION CURRENT BASE ELEVATION SEA LEVEL

7' 2' 5" ABOVE SEA LEVEL 1.5'-3+

0'

Lege	end		N
Height District within Flood Zones			W WE
DISTR	RICT		s
1			
2			
3			
A 🔲 A	E Flood Zone		
0	0.04	0.07	0.15



AE

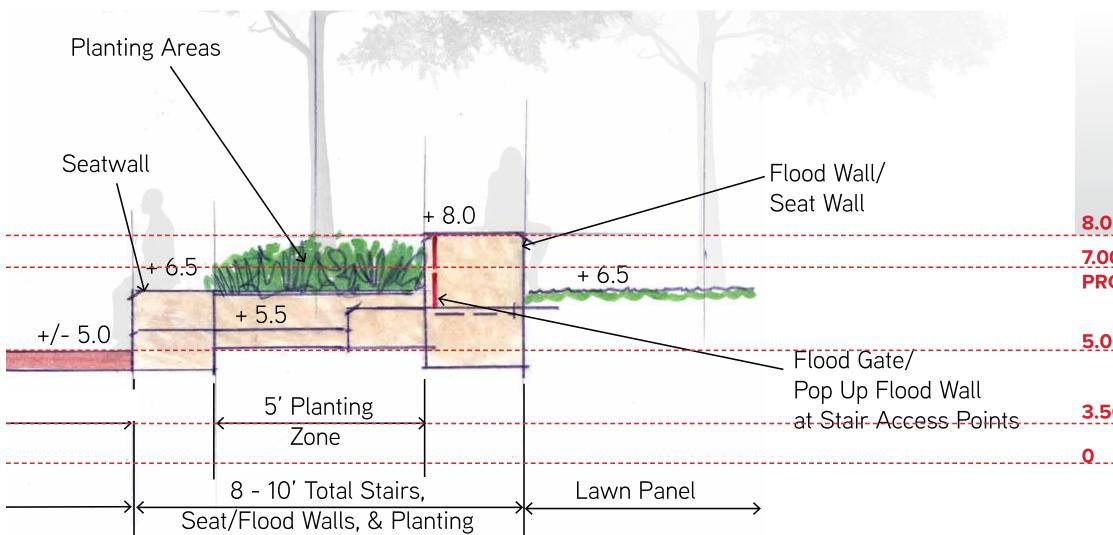
O-15-23 is the Next Step in Implementing City Dock Resiliency Strategy

EXPERT TEAM:

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

PURPOSE:

- to align with FEMA and City flood requirements
- Comply with FEMA National Flood Insurance Program
- Unlock critical Federal funding for City Dock





Measure building elevation in City Dock AE flood-zone

0+/- BUILDING STRUCTURE	
0+/- CITY FLOOD OTECTION	
0+/- FEMA PROTECTION	
0+/- EXISTING GRADE	
SEA LEVEL	

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

CITY DOCK RESILIENCY PLAN ON SCHEDULE

- Garage Opens June 14, 2023
- Construction to begin Winter 2024

COHESIVE RESILIENCY EFFORT TIED TO FUNDING

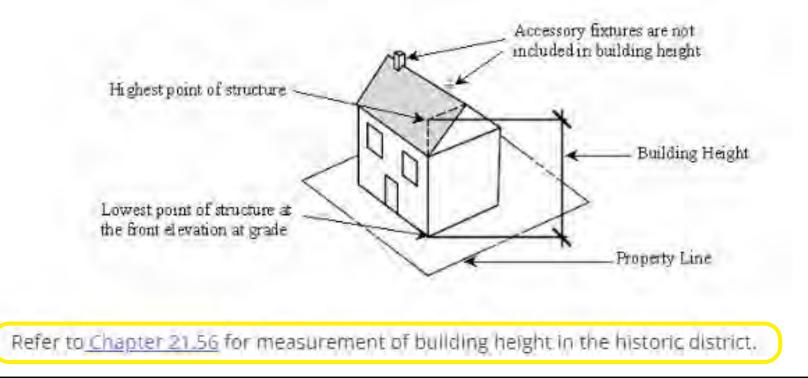
- Elevated Infrastructure
- Elevated New Public Bldgs.
- Funding tied to Design of Entire City Dock Resiliency Project
- Design to be Completed Fall 2023 to Unlock Significant Federal funding PROMISE



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.



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.

KEY DETAILS OF 0-15-23

1

9	C. For the purpose of achieving a permanent height limit, the height of a building
10	allowed to increase because of an increase in the elevation of the front se
11	occurring after the effective date of this Zoning Code
12	1. Exception. Buildings that must comply with the Federal Emergency
13	Management Agency (FEMA) Floodplain Management elevation requi
14	AE flood zones are exempted from subsection C above. The area include
15	found in the FEMA Zone AE flood hazard map covering Annapolis Cit
16	(see FEMA Policy #204-078-1 and FEMA's National Flood Hazard Lay
17	Viewer at https://www.fema.gov/flood-maps/national-flood-hazard-lay
18	2. Exception Criteria. Exempted structures will be measured from the ne
19	the front setback line not to exceed the flood protection elevation plus of

shall not be setback line

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ew grade at one foot.

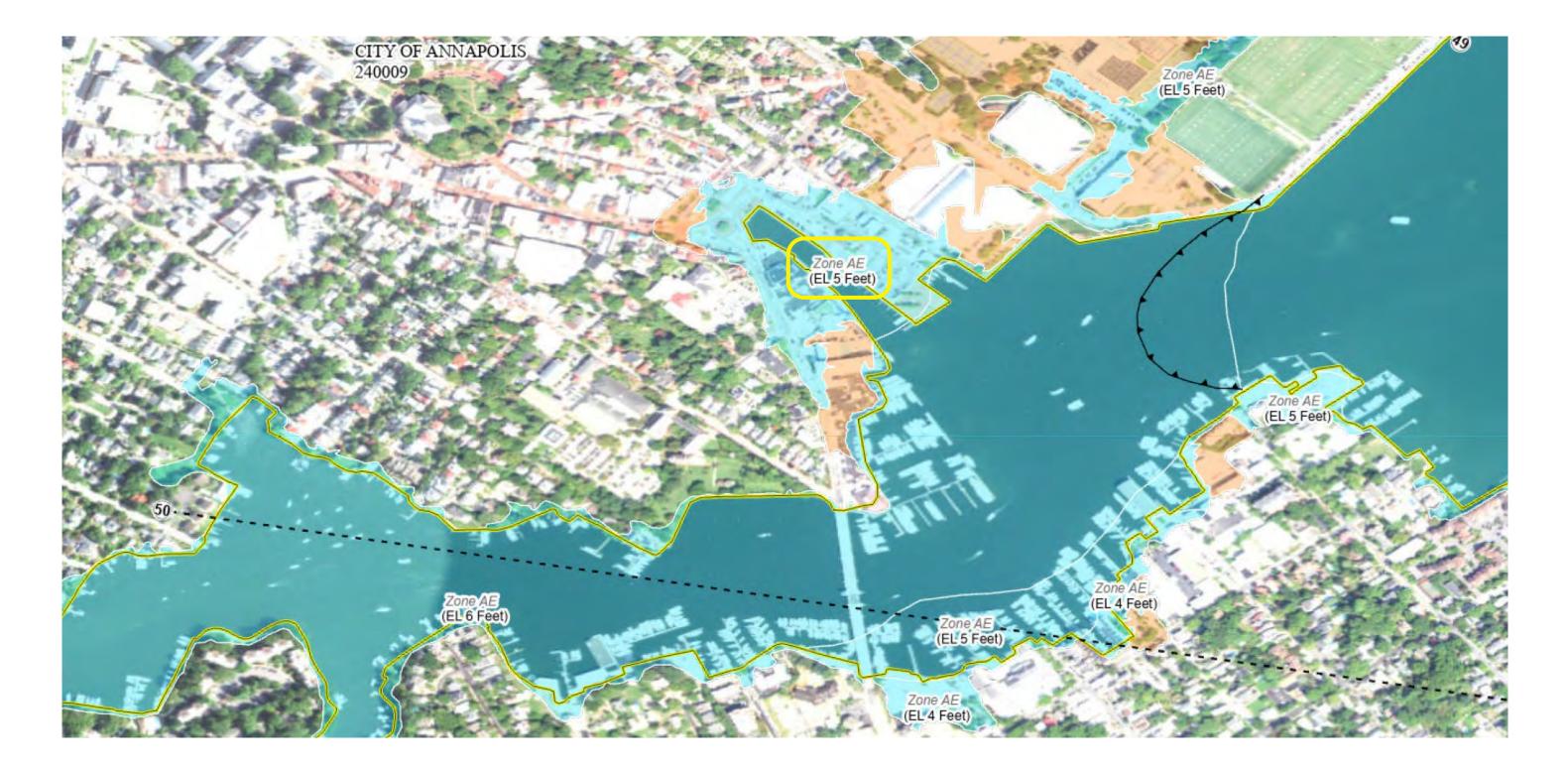


FLOOD PROTECTION ELEVATION PLUS ONE FOOD

9	C. For the purpose of achieving a permanent height limit, the height of a building shall not be
10	allowed to increase because of an increase in the elevation of the front setback line
11	occurring after the effective date of this Zoning Code
12	1. Exception. Buildings that must comply with the Federal Emergency
13	Management Agency (FEMA) Floodplain Management elevation requirement for
14	AE flood zones are exempted from subsection C above. The area included is
15	found in the FEMA Zone AE flood hazard map covering Annapolis City Dock.
16	(see FEMA Policy #204-078-1 and FEMA's National Flood Hazard Layer NFHL
17	Viewer at https://www.fema.gov/flood-maps/national-flood-hazard-layer).
18	2. Exception Criteria. Exempted structures will be measured from the new grade at
19	the front setback line not to exceed the flood protection elevation plus one foot.

Section 17.11.179 of the Code of Ordinances which guides Building and Construction practices defines **"Flood Protection Elevation"** as "The base flood elevation plus two feet of freeboard. Freeboard is a factor of safety that compensates for uncertainty in factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, obstructed bridge openings, debris and ice jams, climate change, and the hydrologic effect of urbanization in a watershed." Section 17.11.540 (B) (3) (a) of the Code of Ordinances states: "If floodproofing is proposed, structures shall: Be designed to be dry floodproofed such that the building or structure is watertight with walls and floors substantially impermeable to the passage of water to the level of **the flood protection elevation plus one foot**".

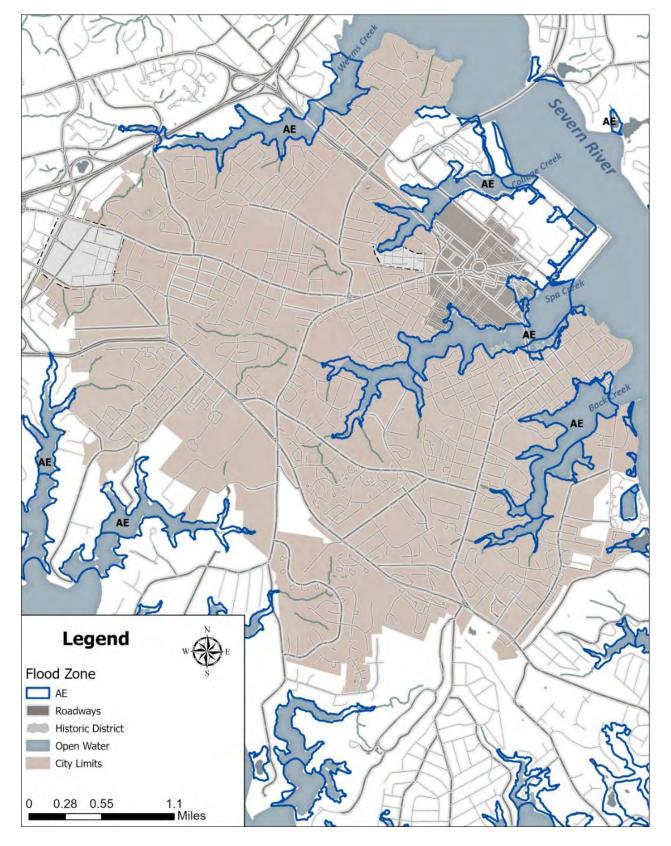
FEMA REQUIREMENTS



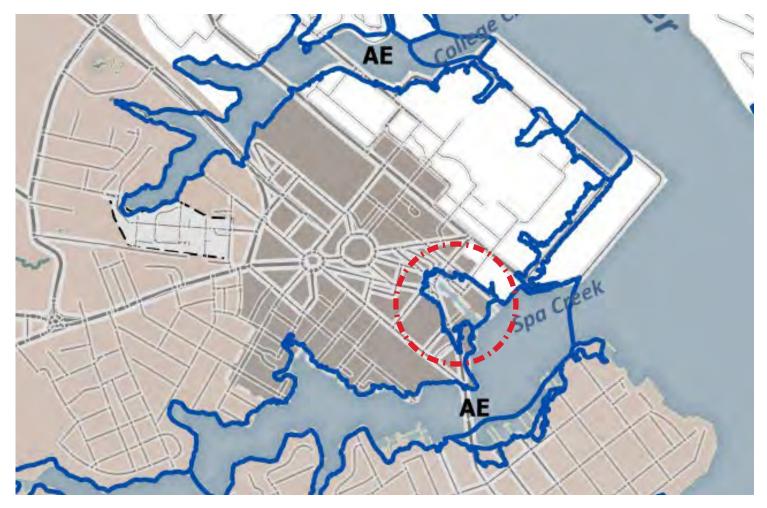
CITY DOCK PLAN AREA AND AE FLOOD ZONE



AE FLOOD ZONE CITYWIDE

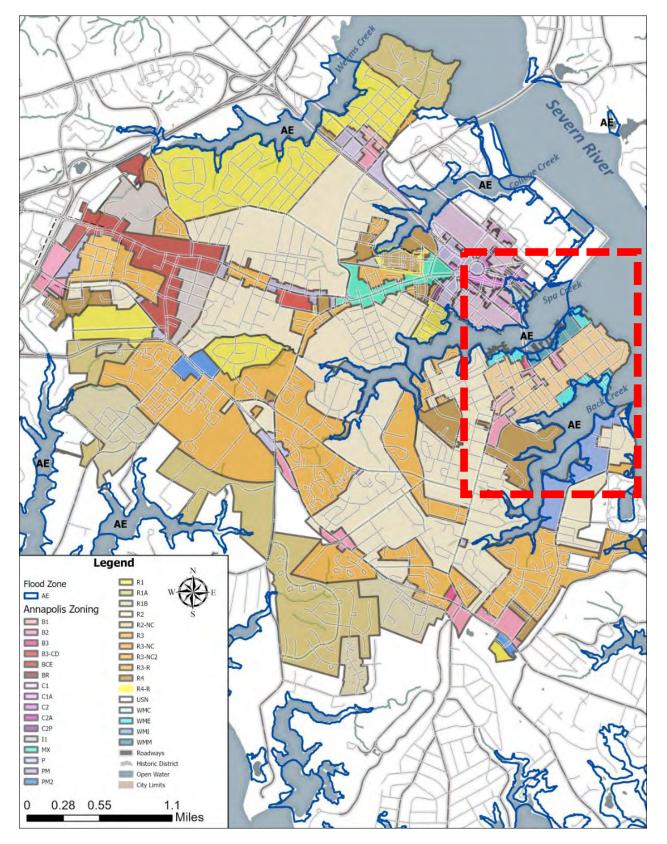


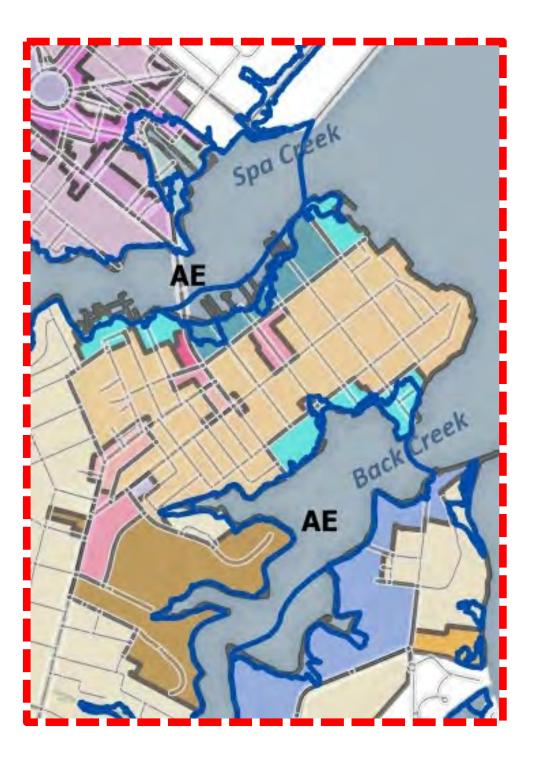
CITY DOCK PROJECT AREA





OTHER AE FLOOD ZONES

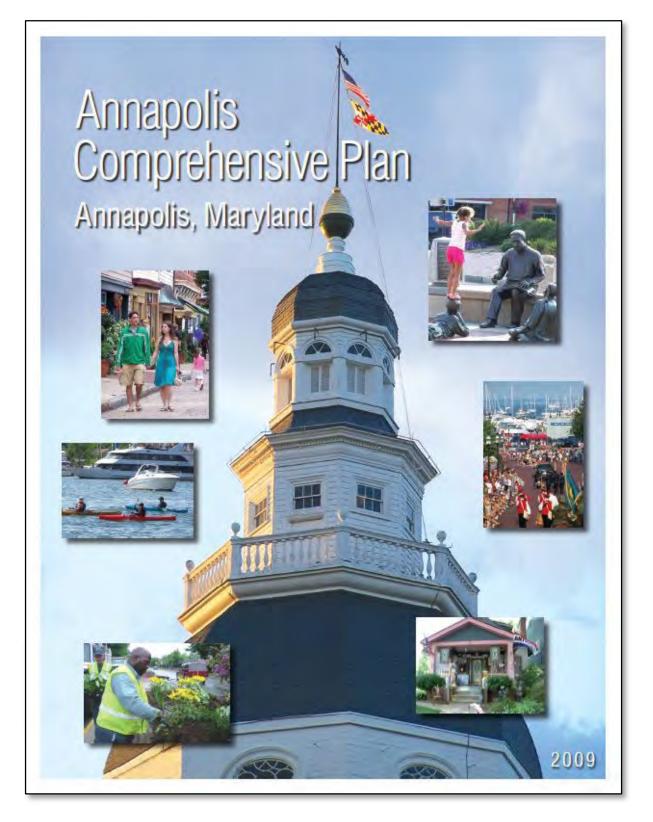




Waterfront Maritime Mixed (WMM)

Waterfront Maritime Eastport (WME)

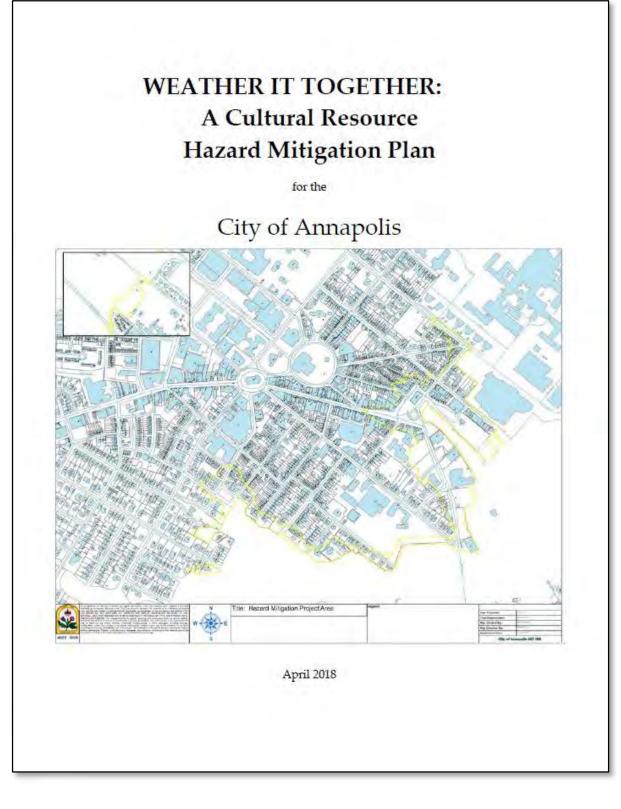
2009 COMPREHENSIVE PLAN



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

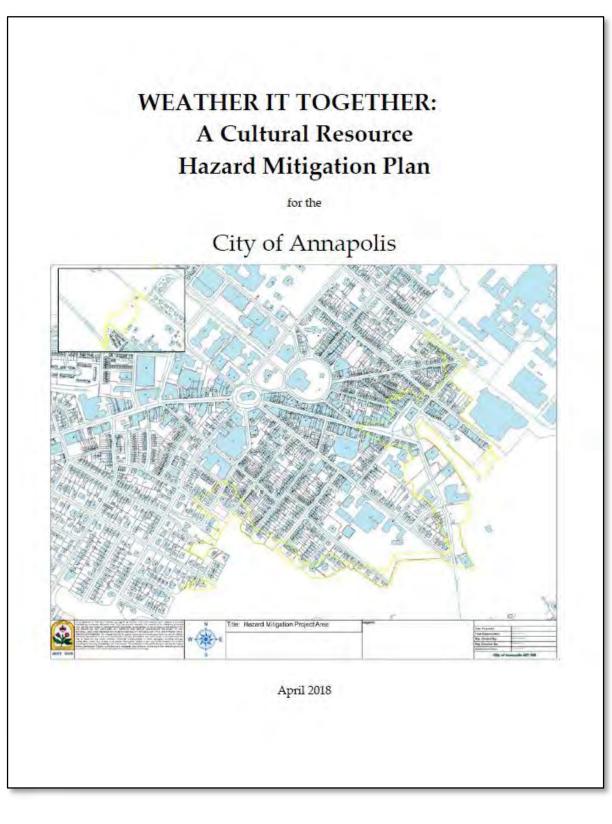


The 2018 Weather It Together: A Cultural Resource Hazard Mitigation Plan, provides several recommended projects in Chapter 4: Adaptation in Our Landmark City that align with this ordinance.

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



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."
- 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 flooded commercial properties via drainage improvements. There are 44 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: Newman Street; and Prince George Street.

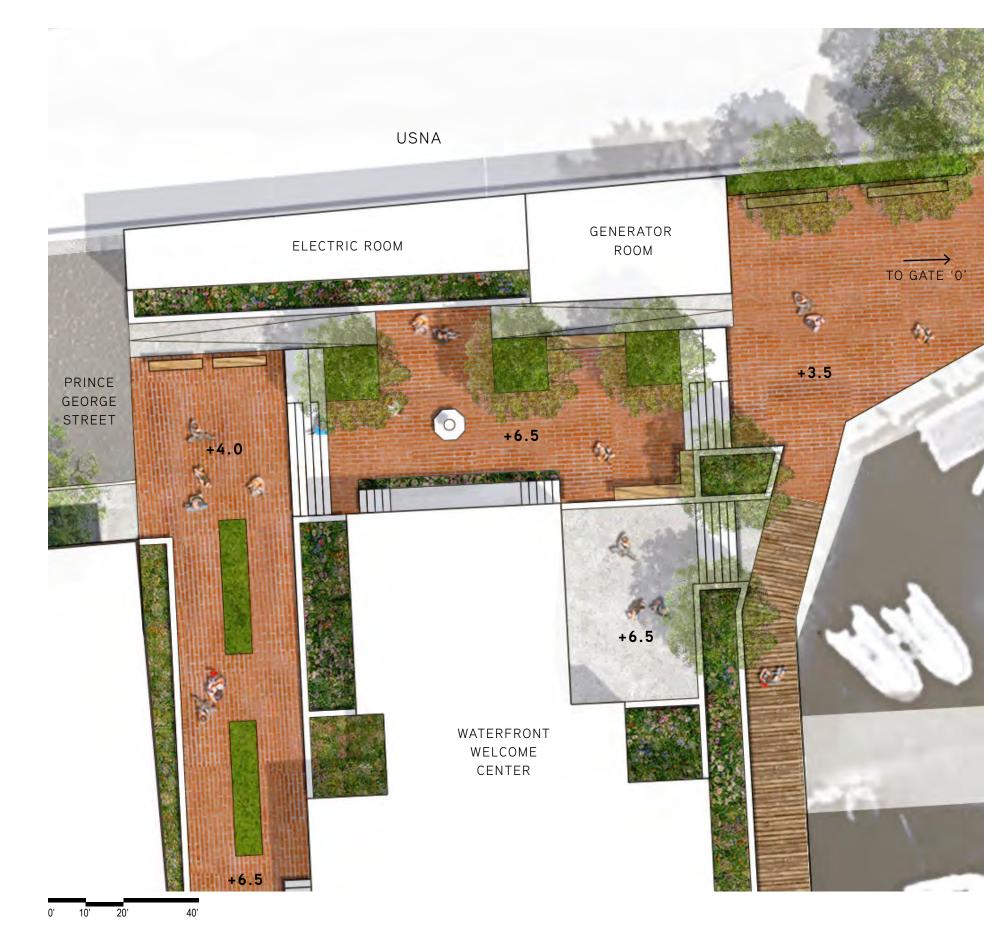
Prevention Goal #2: "Integrate hazard mitigation planning, recommendations,

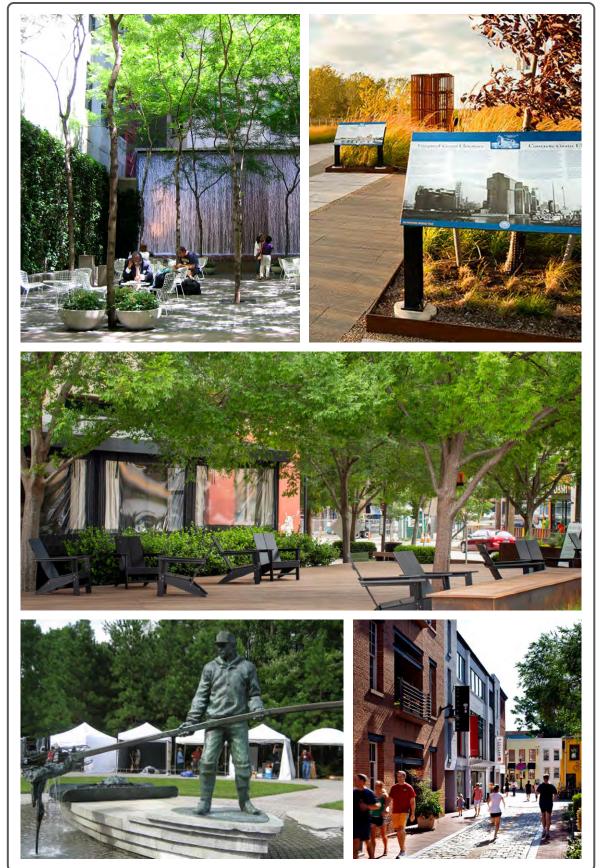
description for this recommended project, the Plan acknowledges that "The Annapolis Flood Mitigation Project seeks to mitigate damages to repeatedly recorded events from 2005-2015 (~4.4 events per year) where MLLW (mean lower low water) was 3 feet or greater. In some cases, multiple flood events Compromise Street; Craig Street; Dock Street; Main Street; Market Space;

City Dock Project Moving Forward Recommend Adoption of 0-15-23!

THANK YOU FOR ALL YOUR SUPPORT







PRECEDENT IMAGERY

PRINCE GEORGE ST. POCKET PARK

ANNAPOLIS CITY DOCK | SCHEMATIC DESIGN

