



# **Waterfront Commission Update**

## **Alexandria Waterfront Implementation**

**March 19, 2024**

# Anticipated Near-Term Schedule

- March:
  - 19th - Updates to Waterfront / Parks and Recreation Commission
  - 21st - Updates to Waterfront / Parks and Recreation Commission (VIRTUAL)
  - **26th – 7pm - Public Open House – Charles Houston Recreation Center**
- April / May
  - OHAD BAR Concept Review (Station Only) – Anticipated April/May – Date TBD
  - Additional Public Meetings, as new information and updates available

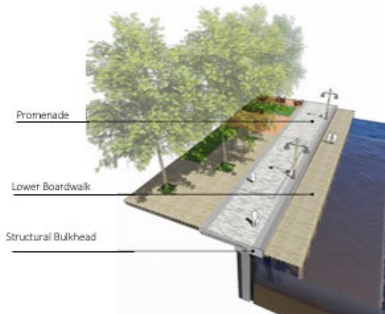
The City seeks to implement the Waterfront Implementation Project to:

- Mitigate stormwater and the most frequent tidal and riverine flooding
- Replace aging and failing shoreline infrastructure, where practicable and affordable
- Improve public accessibility and public amenities within key waterfront locations of Old Town Alexandria.
- Actualize the goals of the Waterfront Small Area Plan

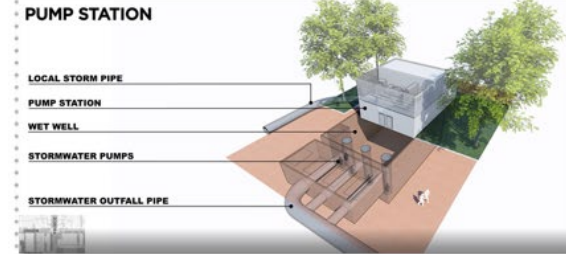
## BACKFLOW of River Outfalls



## OVERTOPPING of Bulkhead



## INUNDATION of Storm Sewers



- **Cultural Resource Investigations**

- Supplemental Phase 1A documentary study by Waterfront Historian
- Informed team of higher risk of encountering historic wharf structures and/or ships at historic shorelines for PS2 in Founders Park

- **Environmental Investigations**

- Additional quantification of soil contamination – informed us of higher than anticipated costs of disposal
- Additional groundwater table monitoring – documenting higher than previously recorded water table.
  - Additional challenges and risks with underground storage (higher dewatering costs, risk of losing storage capacity and potential risk of water contamination)

- **Structural Assessments**

- Bulkhead condition at Waterfront Park has continued to decline from prior assessment.
- Additional scope and cost to repair or replace now anticipated, if feasible within funding.

- **Pump Station Location Assessment**

- PDB Team re-evaluated pump station size, location, and permanent impacts to park areas.
- Identified opportunity to reduce capital costs, risk, and asset management costs with alternative pump station approach.



## • Structural Assessments

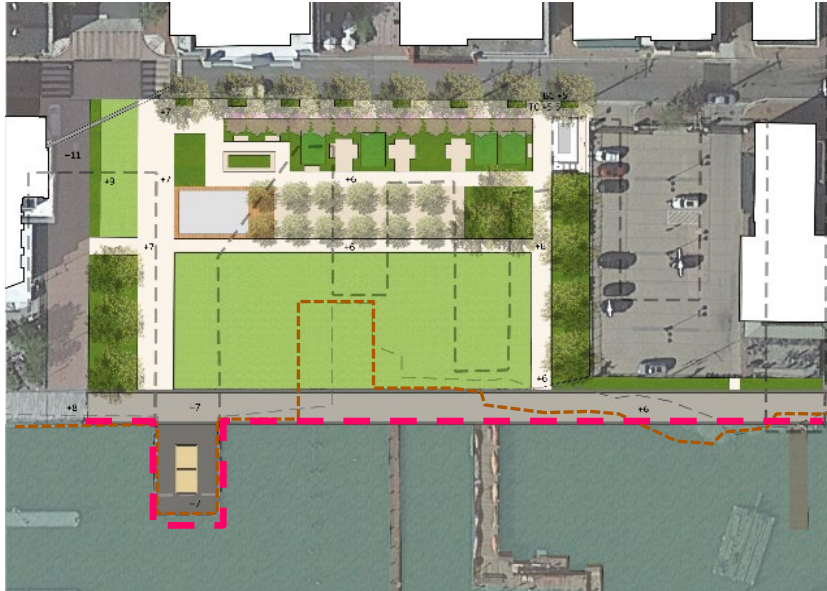
- Bulkhead condition at Waterfront Park (H) has declined from prior assessment.
- May require additional scope and cost to repair, or replace, if feasible and within funding.

- **City is realizing the anticipated Benefits of Progressive Design Build!**
  - Cost reduction and innovation with expert designer and builder input
  - Builder input on assessing and pricing risk, means and methods, and cost estimates
- **Primary Cost Saving and Risk Mitigation Measures:**
  - **Eliminate Underground Storage**
  - **Single Pump Station Alternative**
- **Scoping To Budget Continues to keep project costs within Funding:**
  - Includes Primary Cost and Risk and saving measures above
  - Currently both Baseline and Alternate Approach excludes replacement of aging and/or failed bulkhead from Cameron to Queen
  - Park/Street Restoration and Limited Park improvements.
  - Maintains most of Waterfront Park Improvements in current condition.
- **Additional strategies will be further evaluated:**
  - Alternative/Hybrid Shoreline within Point Lumley Park to minimize impacts and cost of new bulkhead
  - Reducing Overhead Power Line Undergrounding (Prince Street and Strand Street)
  - Minimizing landscape and bulkhead improvements north of King Street



# Point Lumley Park – Shoreline Alternatives

Draft, Deliberative, Pre-Decisional



BULKHEAD OPTION\*



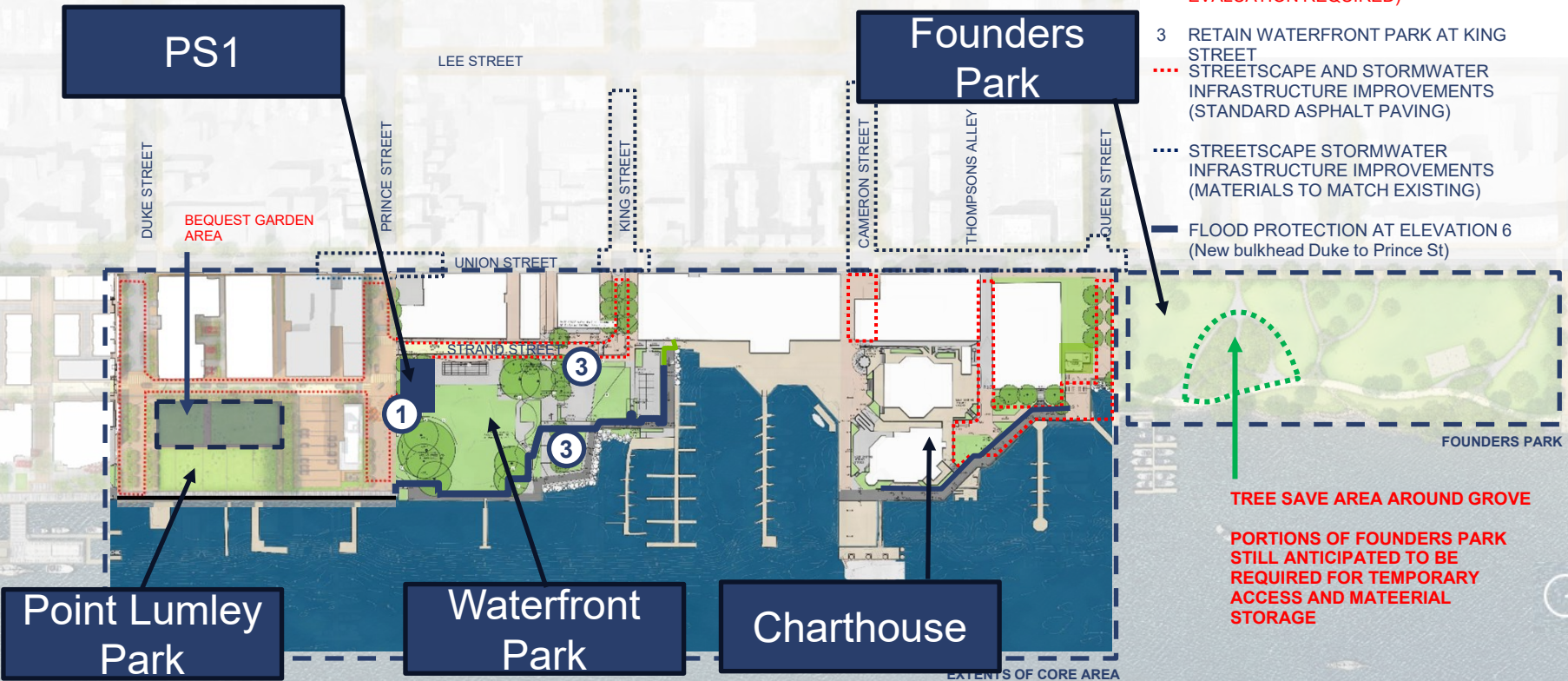
HYBRID SHORELINE ALTERNATE\*

\*Cost and regulatory impacts will be a primary driver in feasibility and selection

# Alternative – Single Station Approach

LEGEND **Draft, Deliberative, Pre-Decisional**

- 1 PUMP STATION
- 2 ~~POTENTIAL UNDERGROUND STORMWATER DETENTION CHAMBERS (FURTHER EVALUATION REQUIRED)~~
- 3 RETAIN WATERFRONT PARK AT KING STREET  
STREETScape AND STORMWATER INFRASTRUCTURE IMPROVEMENTS (STANDARD ASPHALT PAVING)  
STREETScape STORMWATER INFRASTRUCTURE IMPROVEMENTS (MATERIALS TO MATCH EXISTING)
- FLOOD PROTECTION AT ELEVATION 6 (New bulkhead Duke to Prince St)



TREE SAVE AREA AROUND GROVE

PORTIONS OF FOUNDERS PARK STILL ANTICIPATED TO BE REQUIRED FOR TEMPORARY ACCESS AND MATERIAL STORAGE



# Baseline - Two Pump Station Impacts

Draft, Deliberative, Pre-Decisional

## PUMP STATION 1 – WATERFRONT PARK



- Above Grade Size: ~35'x60'footprint
- Total Impact: ~4,800 SF
- Long side facing Prince Street
- Two Stories – internal stair

## PUMP STATION 2 – FOUNDERS PARK



- Above Grade Size: 35'x40'
- Total Impact: ~4,100 SF
- Long side facing to Founders Park
- Two Stories- internal stair

**Total Combined permanent impact to public space: ~9,000 SF**

# Waterfront Park - Single Pump Station Alternative

Draft, Deliberative, Pre-Decisional



- Above Grade Size: 36'x100'
- Total Impact: ~6,000 SF
- Long side facing to Founders Park
- Two Stories- internal stair

PS1

Total permanent impact to public space: ~6,000SF

## Net reduction of permanent impacts to park areas: ~3,000 SF

- Significantly reduces capital cost and risk due to:
  - Contaminated soil in Founders Park
  - Cultural Resource Implications/Risks
  - Eliminates excavation and construction next to an existing building (211 Harbor Center)
  - Single building site / building crew
  - Lowers dewatering costs
- Single Asset to operate and maintain
- Lower replacement and lifecycle costs
- Maintains/Maximizes Open Space
- Eliminates permanent visual impacts to Founders Park

# PS1 – Pump Station Concept

(Single Station Alternative - Development Ongoing)



# PS1- WATERFRONT PARK (Single Station)

Study to determine scale and mass if only a single pump station were to be constructed:

- Two story Pump Station required
- 30-35' max height anticipated
- Coordination ongoing with Dominion Energy
- Coordination ongoing with National Park Service for deed modification of height limitations.
- BAR Concept Review anticipated – seeking input on architectural features
- Materials are conceptual – coordination with BAR and budget affordability required.

**EXCEEDS 15' HEIGHT RESTRICTION PER NPS SETTLEMENT / DEED**





# PS1- WATERFRONT PARK (Single Station)

Draft, Deliberative, Pre-Decisional

- Team assessing further reduction in footprint
- Location of exterior walls structurally tied to underground wet-well structure
  - informs minimum footprint dimensions
- Materials are conceptual – coordination with BAR and budget affordability required.



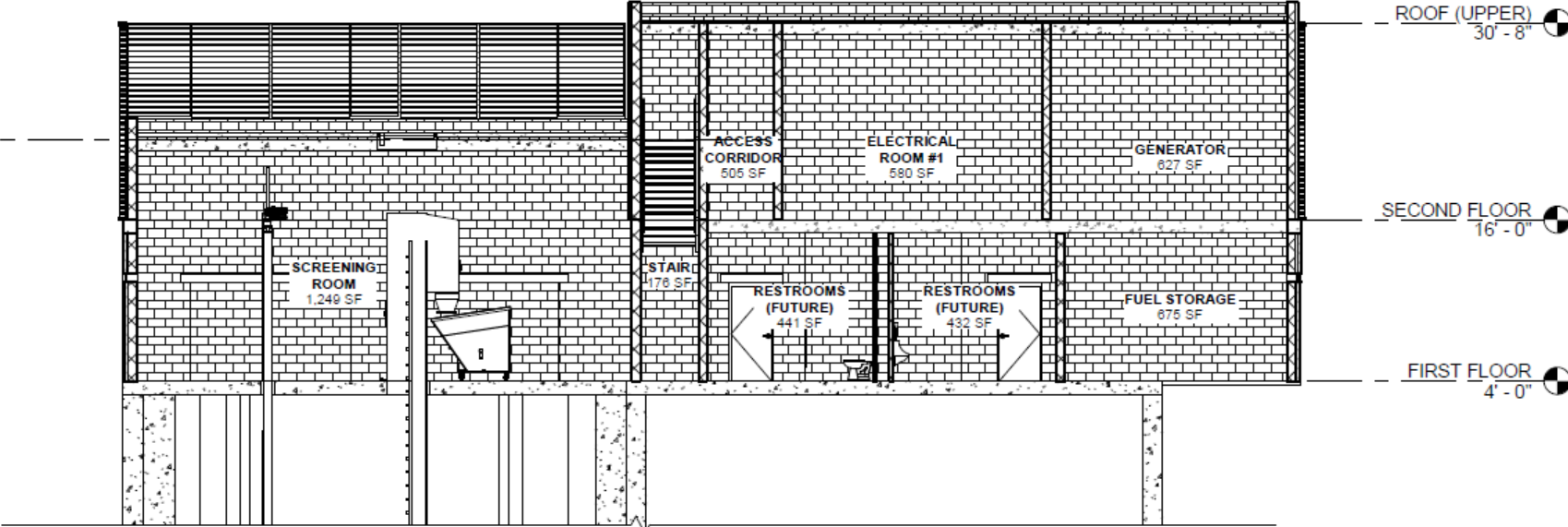
## SOUTH ELEVATION



Draft, Deliberative, Pre-Decisional

# PS1- WATERFRONT PARK (Single Station)

Draft, Deliberative, Pre-Decisional



**LONGITUDINAL SECTION**



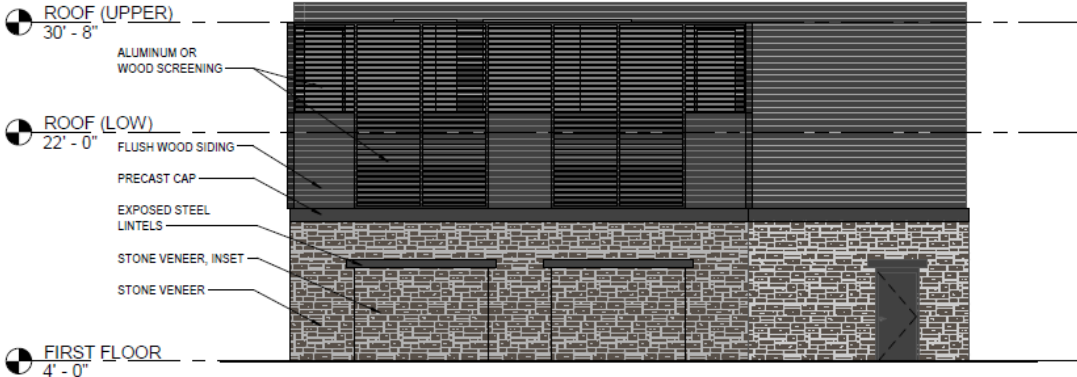
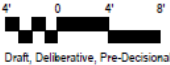
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# PS1- WATERFRONT PARK (Single Station)

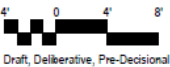
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## EAST ELEVATION

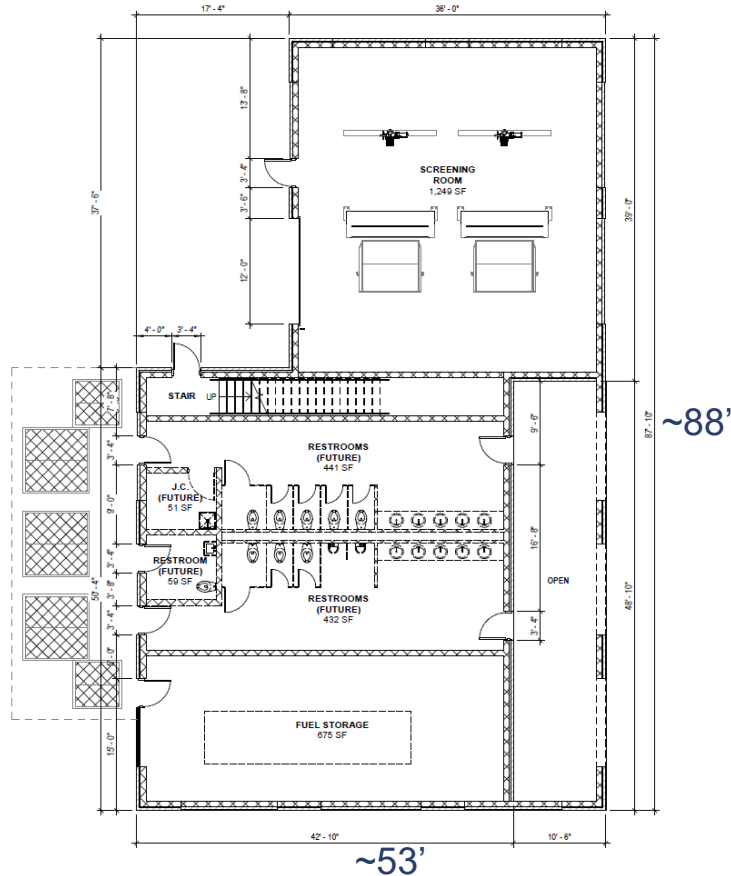


## WEST ELEVATION



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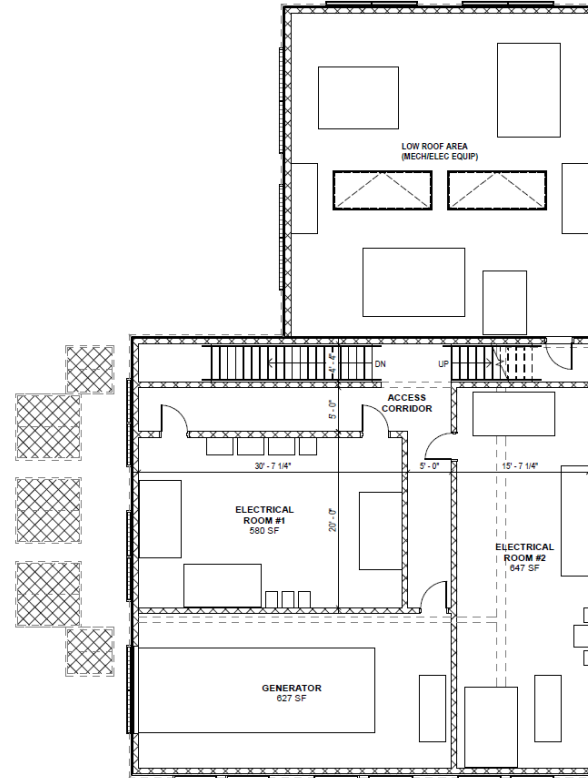
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FIRST FLOOR PLAN



Draft, Deliberative, Pre-Decisional



SECOND FLOOR PLAN



Draft, Deliberative, Pre-Decisional

# PS1- WATERFRONT PARK (Single Station)

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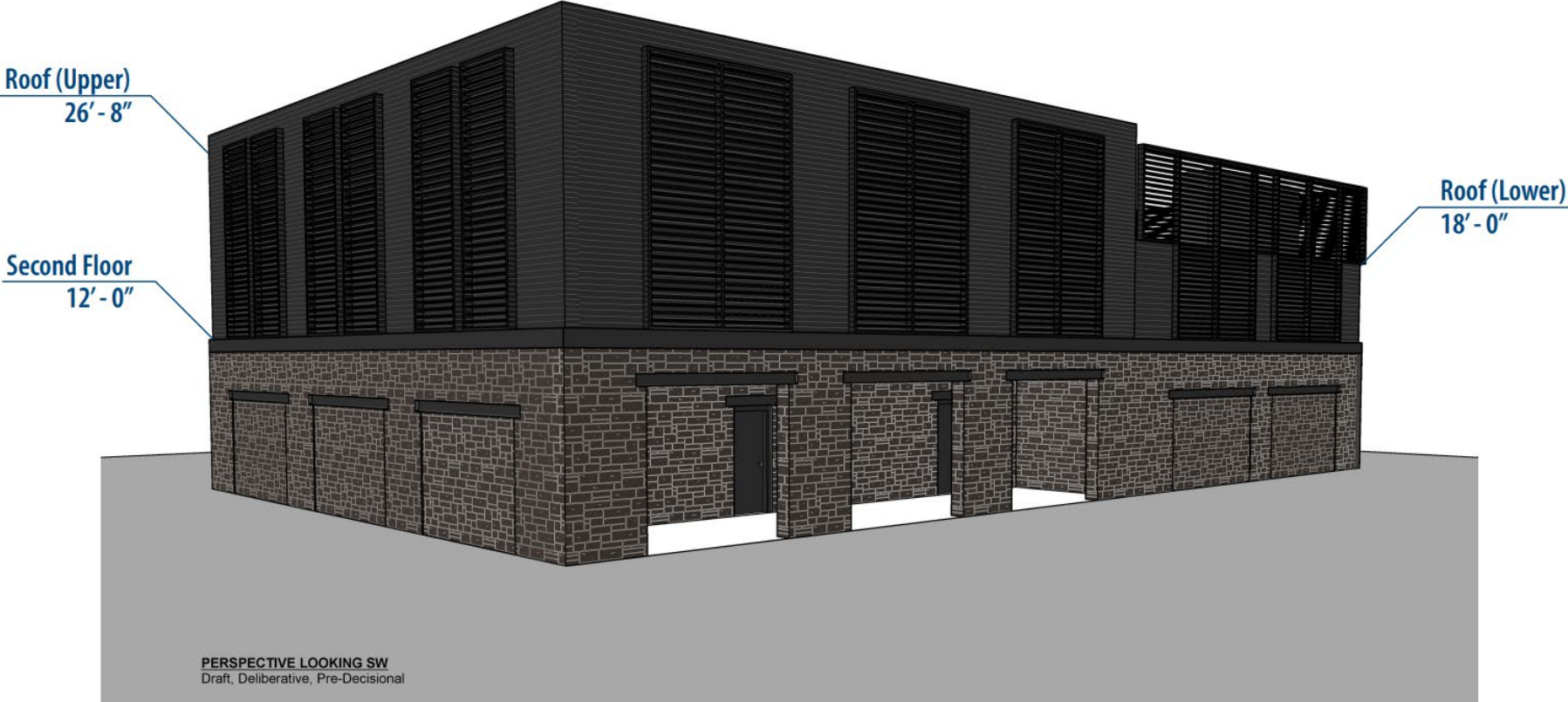
- Team working to further minimize footprint
- Location of exterior walls structurally tied to underground wet-well structure and informs minimum footprint dimensions
- Materials are conceptual – coordination with BAR and affordability required.

PERSPECTIVE OF SOUTH ELEVATION



# PS1- WATERFRONT PARK (Single Station)

Draft, Deliberative, Pre-Decisional



PERSPECTIVE OF NORTH ELEVATION

# Lower King Street

## Lower King Permanent Design

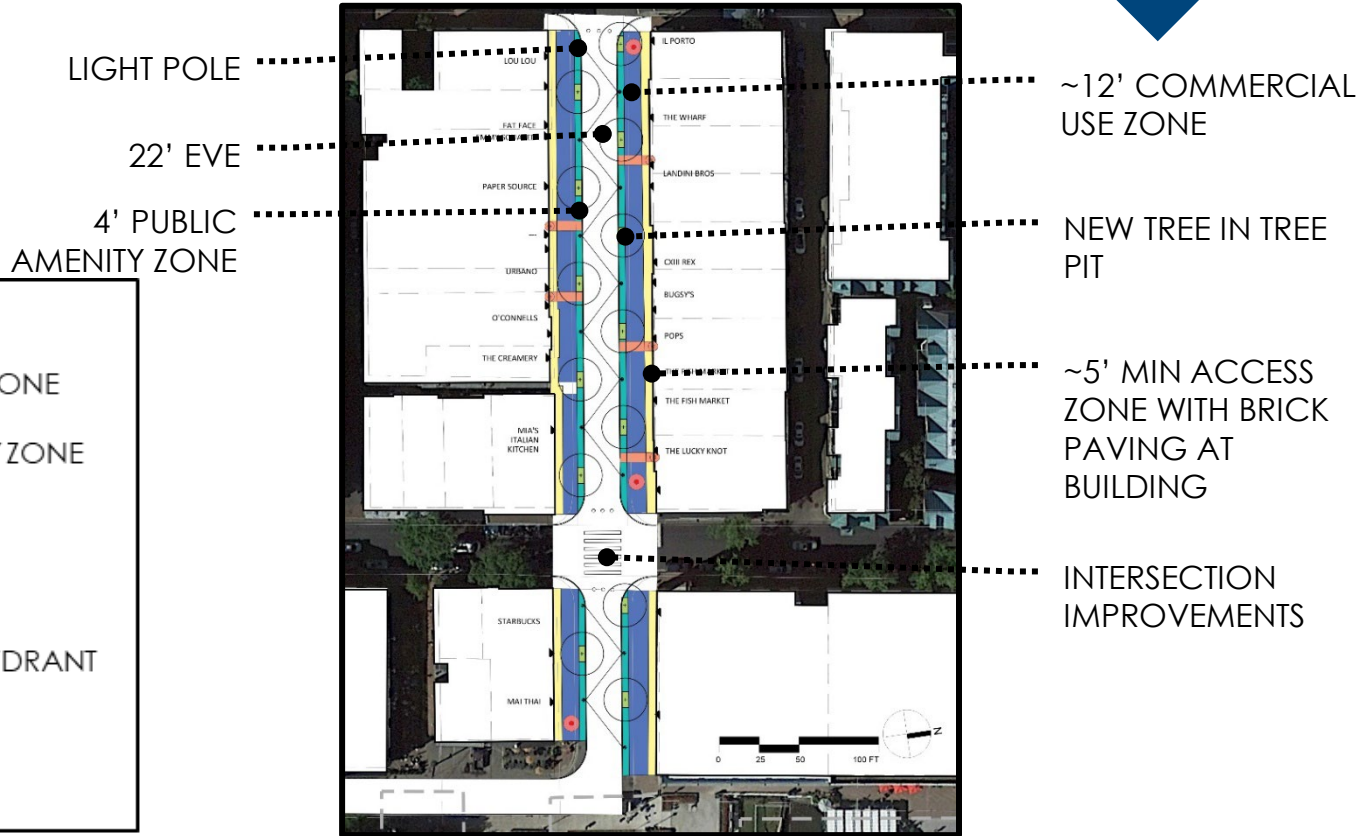


City of Alexandria  
Department of Transportation & Environmental Services

# Project Boundaries



# Staff Recommendation

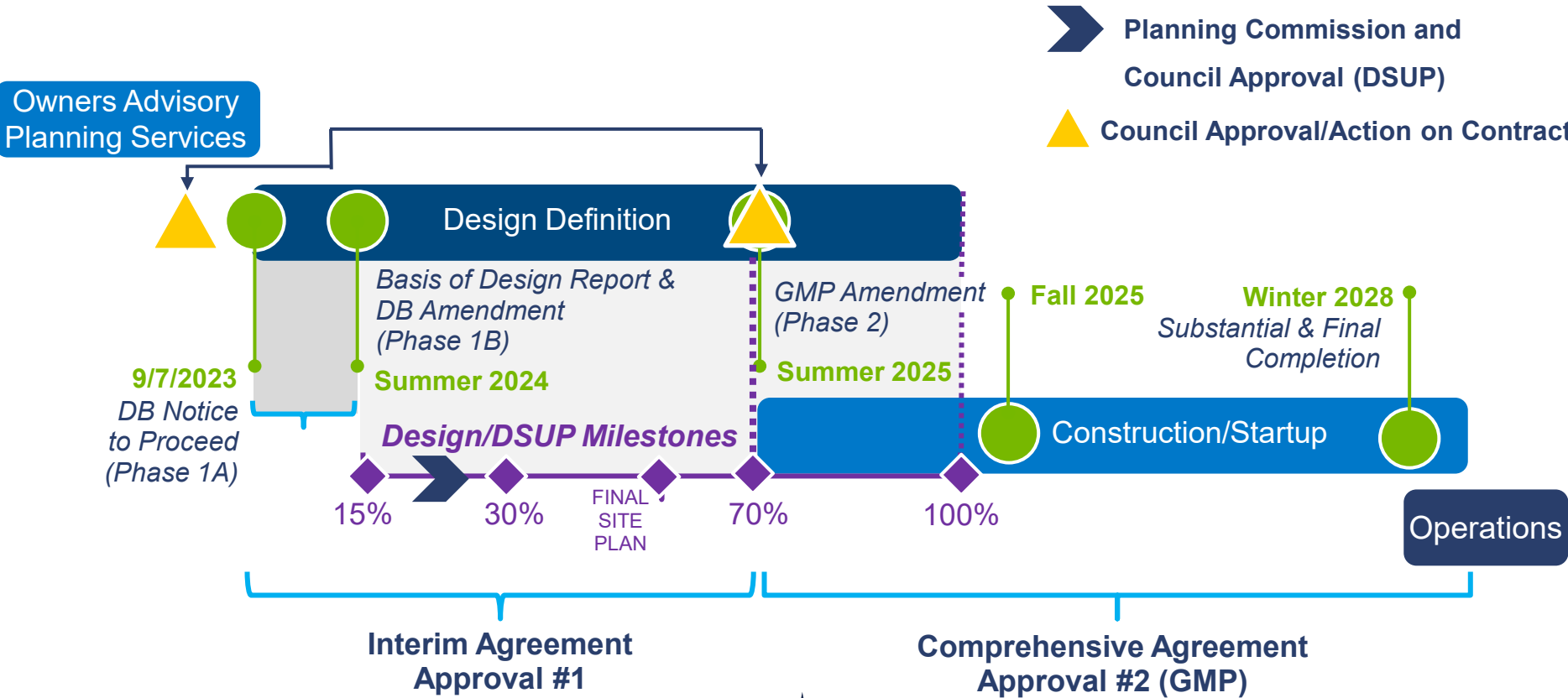


# Project Schedule





# Baseline Project Schedule



★ Construction will commence AFTER City's 275<sup>th</sup> birthday celebration

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