

WATERFRONT COMMISSION PROJECT BRIEFING

Alexandria Waterfront Implementation: Flood Mitigation Project

April 21, 2026

T&ES - Project Implementation

Draft, Deliberative, Pre-Decisional



Waterfront Briefing

- ▶ **Key Issues**
 - ▶ **NPS Update**
 - ▶ **Cost Estimate Update**
 - ▶ **Alternate Pump Location: 1 Prince Cost Estimate**
- ▶ **Options & Associated Costs**
- ▶ **Next Steps**



NPS Update: Deed Modification

- ▶ **Interior Department & NPS changed position and intent:**
 - ▶ Deed modification required to build pump station as planned.
 - ▶ NPS has stated support for the flood mitigation project since 2017.
 - ▶ Deed modification and NEPA process were underway.

- ▶ **Changes in position:**
 - ▶ Pump station considered an “impermissible use.”
 - ▶ Will not change current height restriction (15’).
 - ▶ Do not consent to modification.

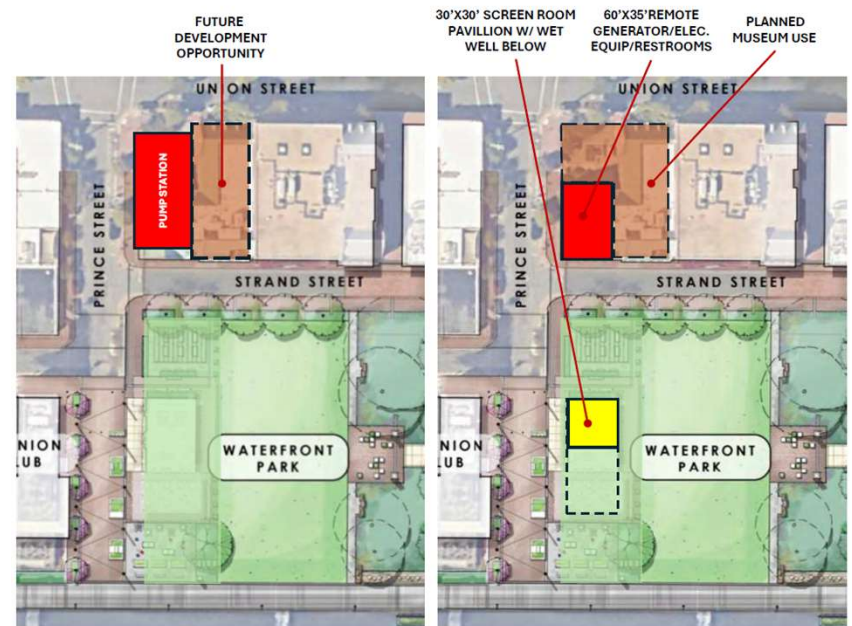


Cost Estimate Update

- ▶ **Based on recent cost estimates, project costs have increased:**
 - ▶ Phase 2 estimated cost increased from \$118M to \$189M
- ▶ **Major Cost Drivers:**
 - ▶ Market and price impacts from tariffs and inflation
 - ▶ Increasing labor costs over time
 - ▶ Delays & added costs associated for alternative analyses
 - ▶ Greater understanding of construction risks & environmental conditions
- ▶ **Total estimated project costs exceed current funding by \$60M - \$80M**

1 Prince Street Alternatives

- ▶ Validated City's initial cost estimate (\$25M - \$46M)
- ▶ Evaluated full relocation and a "split station" concept
- ▶ AWA Stakeholders reviewed draft
- ▶ Final Report anticipated by end of March
- ▶ NPS reversal may preclude split-station concept



Full Relocation

+ \$22.5M - \$53.3M*

Split Station

+ \$23.3M - \$51.7M*

***DRAFT FIGURES**
(pending collaboration with AWA)



Project Design Alternatives

▶ **Concept & Additional Cost:**

- ▶ **Option 1A – Deliver current project concept. (\$60M - \$80M) – Precluded by NPS**
- ▶ **Option 1B – Option 1A plus 1 Prince Pump Station. (\$80M - \$130M)**
- ▶ **Option 2 – Defer bulkhead and park improvements. (\$20M - \$30M) – Precluded by NPS**
- ▶ **Option 3 – Enhanced Gravity-storm sewer system (anticipated within budget*)**
 - ▶ Eliminate pump station & defer improvements to Point Lumley Park & Bulkhead
- ▶ **Option 4 – Minimal infrastructure improvements (within budget)**
 - ▶ Repair/replace limited portion of existing system and address sunny day flooding
 - ▶ Limited pipe upsizing
 - ▶ No bulkhead improvements or increase in height

*Independent cost verification required if option selected.



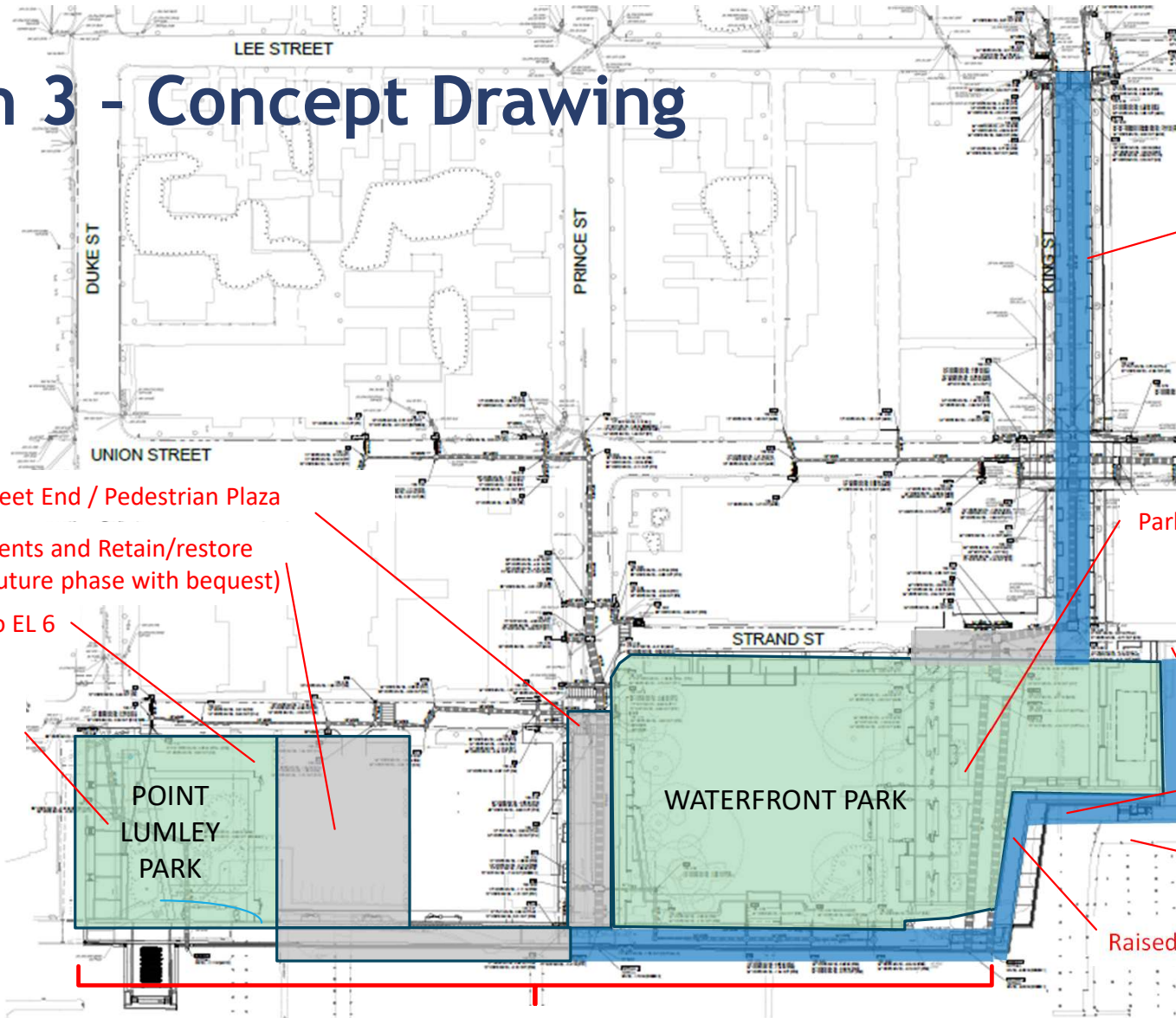
Alternative Project Concept

- ▶ **Council-Selected Concept :**
 - ▶ **Enhanced Gravity-storm sewer system (within budget*)**
 - ▶ **Council-selected this option** for further development and validation (March 24th)
 - ▶ Eliminate pump station & defer improvements to Point Lumley Park & Bulkhead, as needed, to scope to budget.

*Independent cost verification required and is currently underway

Option 3 - Concept Drawing

Draft, Deliberative, Pre-Decisional



Lower King Street Pedestrian Improvements

Park Restoration (in kind)

Regraded/Repaved Street End / Pedestrian Plaza

Defer Park Improvements and Retain/restore existing parking lot (future phase with bequest)

Re-grade to EL 6

Restore Park In Kind (phase additional improvements as feasible)

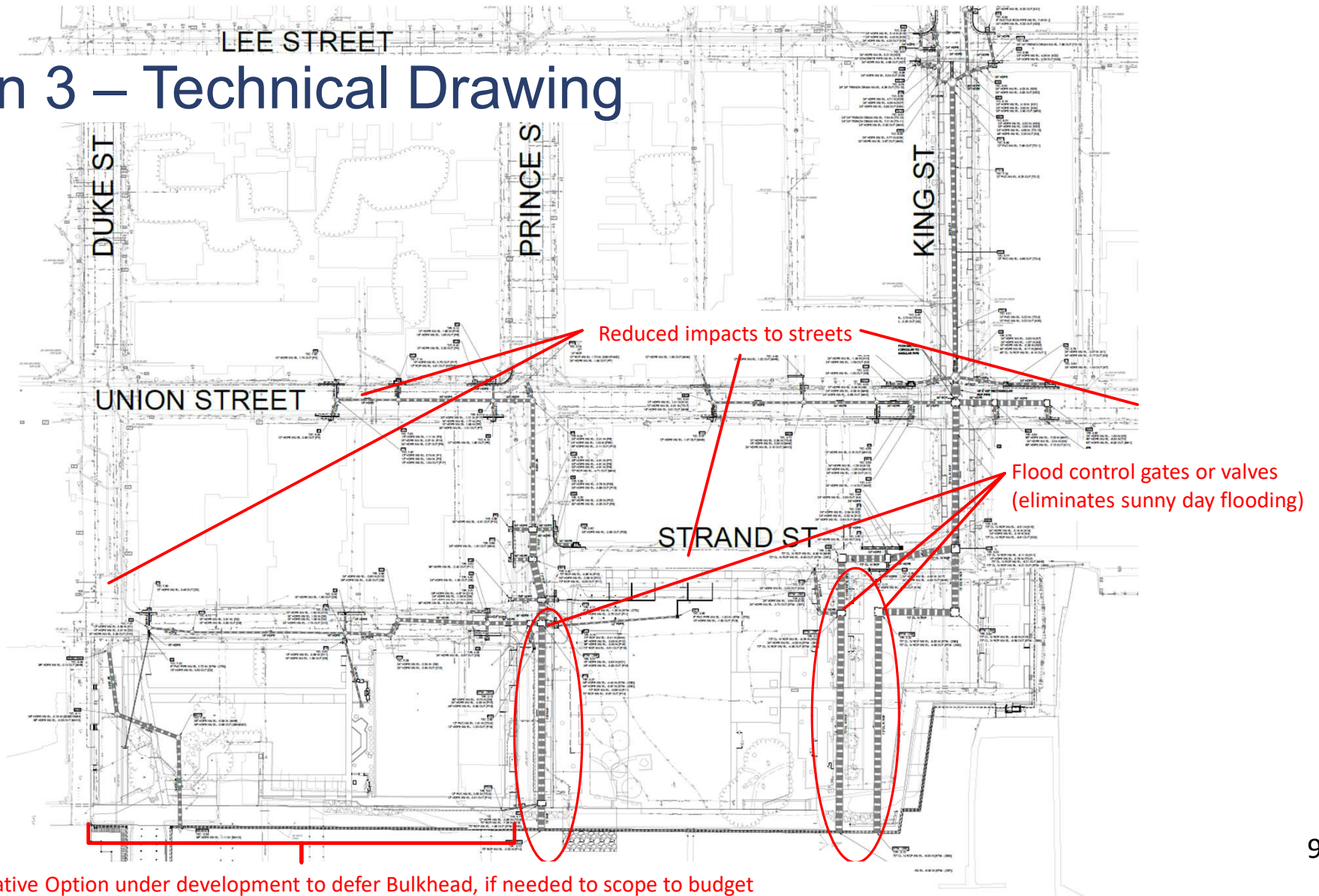
Bulkhead to Remain

ODBC Piers Remain

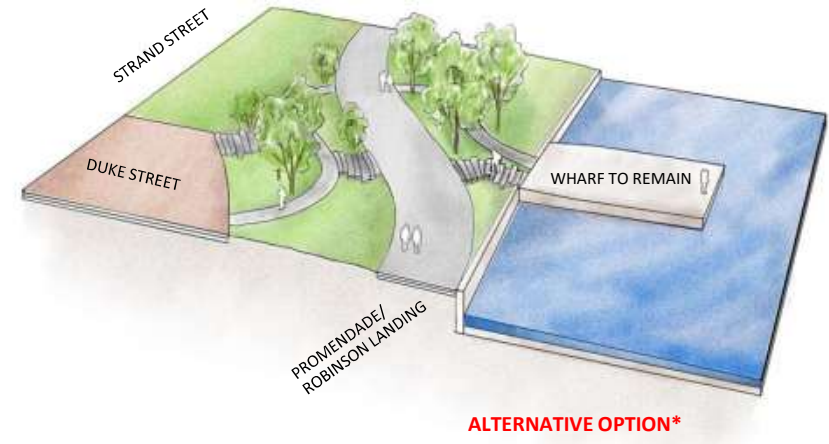
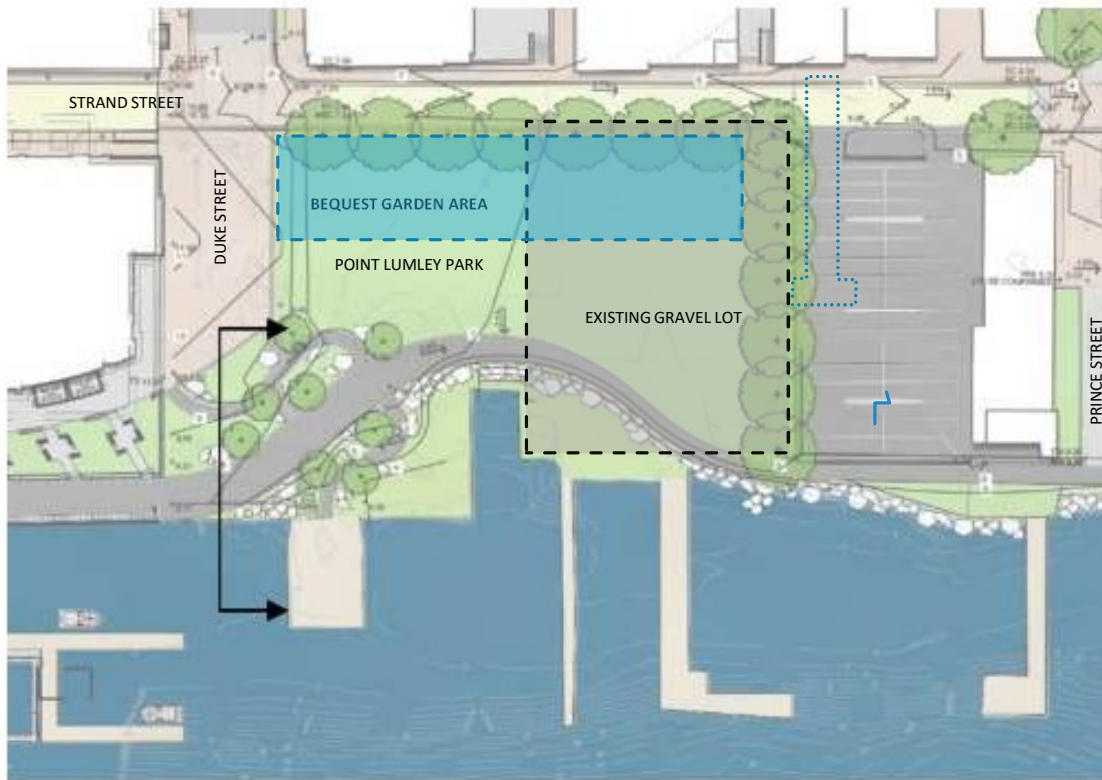
Raised Promenade

New Bulkhead

Option 3 – Technical Drawing



Point Lumley Shoreline Alternate



***ALTERNATIVE SHORELINE OPTION WILL BE FURTHER EVALUATED IF NEW COST PROJECTIONS INDICATE FULL BULKHEAD NOT IN BUDGET**

Performance & Benefits

NPS ELIMINATED OPTION 1A AND 2

	Option 1A & 1B	Option 2	Option 3	Option 4
OPTION'S BENEFITS	CURRENT PROJECT CONCEPT	PUMP STATION ONLY - DEFER PT. LUMLEY (BULKHEAD/PARK)	ENHANCED GRAVITY SYSTEM DEFER PT. LUMLEY (BULKHEAD/PARK)	OUTFALL REPLACEMENT & BACKFLOW PREVENTERS
ELIMINATE SUNNY DAY FLOODING	YES	YES	YES	YES
RIVER FLOOD PROTECTION (TO EL. 6.0)	YES	YES	YES	NO
IMPROVE STREET FLOODING	YES	YES	YES	LIMITED
ELIMINATE TIDAL INFLUENCE ON STORM SEWER	YES*	YES*	NO. Improved.	NO
PREVENTS STORM SEWER IMPACT (1-2' SEA LEVEL RISE)	YES	YES	NO. Adaptable with future station.	NO

*When Potomac River is below proposed bulkhead elevation – no impact.

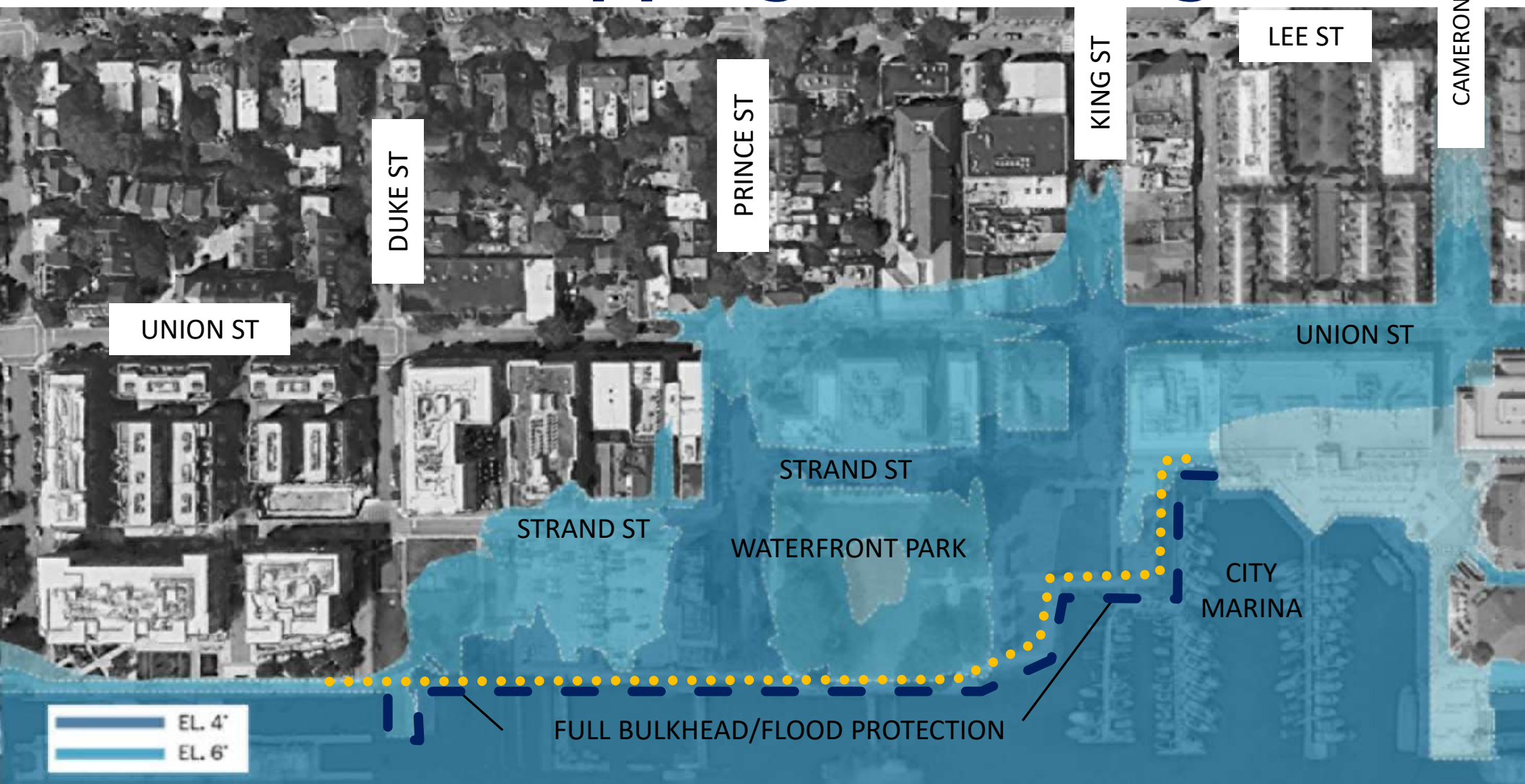


Aging & Failing Infrastructure



Riverine Overtopping & Flooding

Draft, Deliberative, Pre-Decisional



Riverine Protection and Benefits

ALTERNATIVE ELIMINATES 100% OF SUNNY-DAY FLOODING AND RIVER OVERTOPPING UP TO ELEVATION 6

	Sunny-Day Flooding	River Overtopping Bulkhead
In the Last 20 Years, we've seen an average of	145 events/yr	37 events/yr
In the Last 5 Years, we've seen an average of	185 events/yr	48 events/yr
In the Last 2 Years, we've seen an average of	194 events/yr	54 events/yr
In the Last 1 Year, we've seen...	227 events/yr	93 events/yr
Between now and Year 2100, we anticipate...	353 events/yr	341 events/yr

Potomac River Surface Elevation

Flooding Analysis Over Time At Prince Street/Waterfront



Council Guidance

(Received March 24)

- ▶ **Further evaluate Option 3 Enhanced Gravity System:**
 - ▶ Further develop design for improved gravity-system and backflow.
 - ▶ Remove pump station. Defer Point Lumley Park/Bulkhead elements, as needed.
 - ▶ Determine construction means and methods
 - ▶ Validate construction costs (vs funding).
 - ▶ Stakeholder Outreach and Public Engagement
 - ▶ Update project schedule

- ▶ **Validate anticipated benefits:**
 - ▶ Addresses sources of most frequent and severe flooding
 - ▶ “Sunny day flooding” from river backflow
 - ▶ Replaces & raises a critical bulkhead segment
 - ▶ Anticipated to be within existing funding
 - ▶ Construction team can proceed with design & construction with limited further delay
 - ▶ Many stakeholder concerns addressed



Next Steps

- ▶ **Stakeholder Outreach & Community Engagement**
- ▶ **Design Development**
 - ▶ Cost update
 - ▶ Schedule update
- ▶ **Council Concurrence on Scope (Public Hearing June 13)**
 - ▶ Includes review of Comprehensive Agreement
 - ▶ Council to authorize City Manager to receive and negotiate a GMP
- ▶ **Advance Design & Development Review Process**
- ▶ **Development of Guaranteed Maximum Price (GMP)**
- ▶ **Construction Phase Planning and Stakeholder Outreach**
- ▶ **Final Design & Permitting**



Stakeholder Outreach & Community Engagement

- ▶ **5/13 - Old Town Civic Association**
- ▶ **5/18 - Virtual Stakeholder Meeting (Zoom)**
 - ▶ **Open to the public – please [register online](#)***
 - ▶ **Alexandria Waterfront Alliance**
 - ▶ **Old Dominion Boat Club**
 - ▶ **Neighboring Business Stakeholders**
- ▶ **5/19 - Waterfront Commission**
- ▶ **5/21 - Parks and Recreation**

* https://alexandriava.zoom.us/webinar/register/WN_u9u5ZgeSSBGmEOx0yJUS_Q#/registration



Questions?

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