

# Waterfront Seawall Review Panel April 14, 2011

## **Project Area**

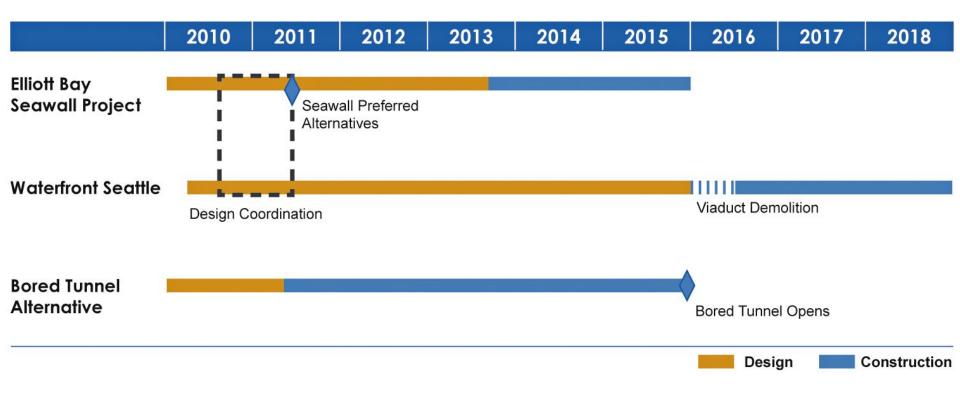


#### A Reminder: What's at Risk?

- Public safety
- Transportation corridor
- Critical utilities
- Residential and commercial structures
- Public recreation
- Tourism and local attractions
- Seattle's front porch



## **Project Schedule**



### **Waterfront Coordination**

#### Work to date:

- Held weekly design coordination meetings/working sessions
- Collaborated with CWC subcommittees
- Convened joint stakeholders group
- Developed "bookend" alternatives to maintain flexibility
- Drafted integrated outreach plan

#### **Next steps:**

Continue design and outreach coordination and integration



## **Environmental Impact Statement (EIS)**

Spring (June) 2010	Winter 2011*	Spring 2011	Fall 2011	TBD**	TBD**	TBD**
Define project's Purpose and Need	Establish range of alternatives for analysis	Write environmental discipline reports for alternatives	Summarize discipline reports into Draft EIS	Publish Draft EIS	Publish Final EIS	Issue Record of Decision

<sup>\*</sup>April—Define local alternatives

<sup>\*\*</sup>Pending schedule coordination with U.S. Army Corps of Engineers

## **Project Goals**

- Address critical structural public safety needs at shoreline.
- Respect cultural, archeological, and historic resources.
- Consider long-term vision for the Central Waterfront.
- Provide enhanced habitat and environmental quality.
- Provide enhanced public gathering and recreational opportunities.
- Support economic vitality of the waterfront.
- Minimize cumulative construction impacts.
- Support fiscal responsibility.



## Developing Alternatives





## Seawall Team Working in Parallel

**U.S. Army Corps of Engineers** 



**Waterfront Seattle Team** 



**Public** 

Establish Range of **Alternatives** 

## Working with the Army Corps

The City of Seattle and the U.S. Army Corps of Engineers share the goal of addressing the critical safety need of the seawall.

- The City of Seattle's proposed schedule to advance construction of the central waterfront portion of the seawall would require special Congressional authorization, and is subject to the availability of funding.
- The Corps of Engineers has not approved these alternatives. The Corps will continue to work with the City and incorporate stakeholder comments into the alternatives, where appropriate.





## **Working with Waterfront Seattle**



## Working with the Public

- For those most affected, the project is well-known
- Seize the habitat opportunity by using innovative and science-based enhancements
- Maintain a responsible project budget
- Create more physical access to water and public gathering space
- Maintain transportation routes, including continuous nonmotorized pathways
- Consider construction impacts to businesses and tourism
- Preserve historical and cultural significance

#### **Elements of an Alternative**

- Wall location
- Habitat enhancement measures
- Restored roadway and pedestrian/bicycle facilities
- Flexibility for Waterfront Seattle
- Potential early wins, both in-water and uplands



## **Comparing Alternatives**

		Alternative	Zone 6 North Pier	Zone 5 Bell Harbor	Zone 4 Park/Aquarium	Zone 3 Commercial Piers	Zone 2 Ferry Terminal	Zone 1 Pioneer Square
Nearshore Habitat Wall Location	5	Ex	0'	0'	0'	0'	0'	0'
	TOCAL	Α	-9'	-9'	-9'	+3'	-15'	0'
	•	В	-9'	-9'	-75'	-30'	-15'	-15'
		Ex	Minimal habitat	Habitat bench	Minimal habitat	Minimal habitat	Minimal habitat	Minimal habitat     Advantageous bathymetry
	Aquatic	Α	Cobble reef     Substrate enhancement     Habitat bench     Light penetrating surface	Habitat bench improvement     Light penetrating surface	Cobble reef     Substrate enhancement     Habitat bench     Light penetrating surface	Habitat bench     Light penetrating surface	Habitat bench     Light penetrating surface	Cobble reef     Substrate enhancement
		В	Same as A	Same as A	Same as A with:  Natural light Intertidal zone	Same as A	Same as A	Same as A with:  Improved habitat Intertidal zone Light penetrating surface
	,	Ex	none	none	none	none	none	none
	Riparian	Α	Base planting	Base planting	Base planting	Base planting	none	Base planting
	"	В	Additional planting opportunities	Additional planting opportunities	Additional planting opportunities	Additional planting opportunities	none	Additional planting opportunities
S		Ex	Sidewalk	Sidewalk     Multi-use trail     Public short-stay marina	Sidewalk     Multi-use trail     Waterfront Park     Pier 62/63	Sidewalk     Multi-use trail	Sidewalk     Multi-use trail     Public ferry terminal	Sidewalk  Multi-use trail  Washington St Boat Landing
Restored	Public Amenities	A	Restored sidewalk     Potential early wins	Restored sidewalk     Restored multi-use trail     Public short-stay marina     Potential early wins	Restored sidewalk Restored multi-use trail Waterfront Park (existing) Pier 62/63 (existing) Potential early wins	Restored sidewalk     Restored multi-use trail     Potential early wins	Restored sidewalk Restored multi-use trail Public ferry terminal Potential early wins	Restored sidewalk     Restored multi-use trail     Restored Washington St     Boat Landing     Potential early wins
		В	Same as A	Same as A	Same as A	Same as A	Same as A	Same as A





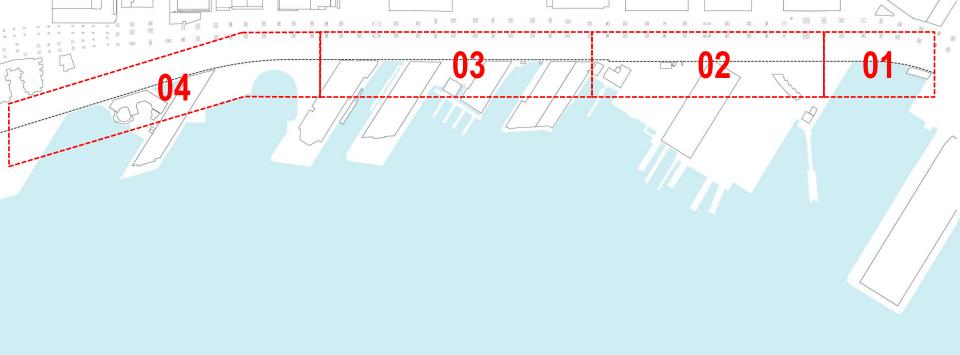


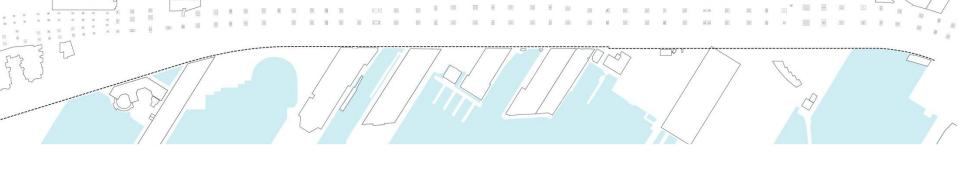


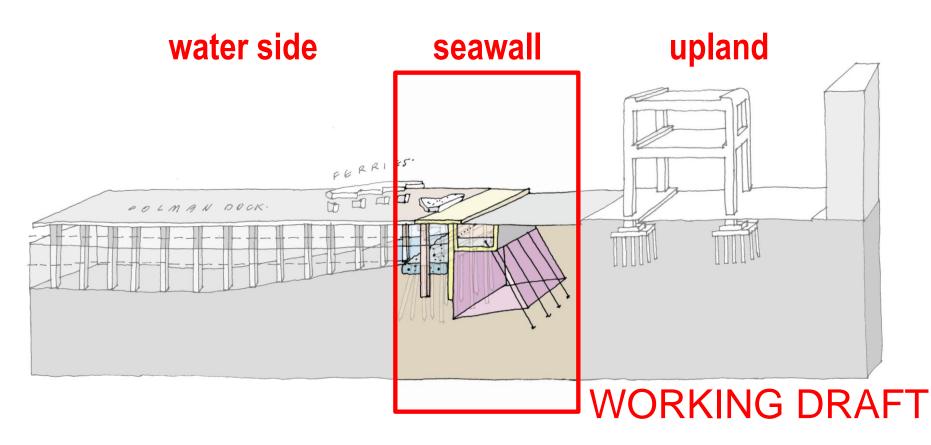


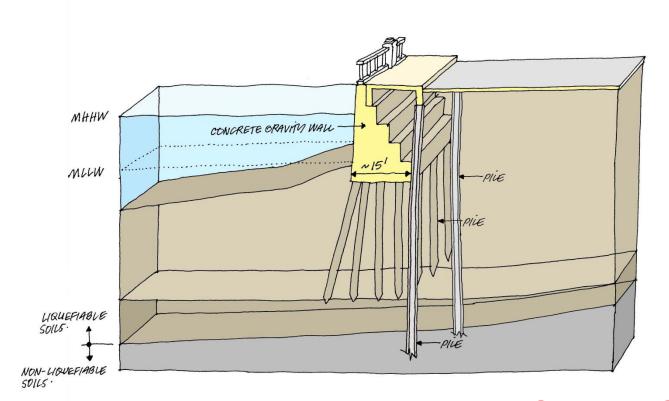
Elliott Bay 🛂 Seawall 19





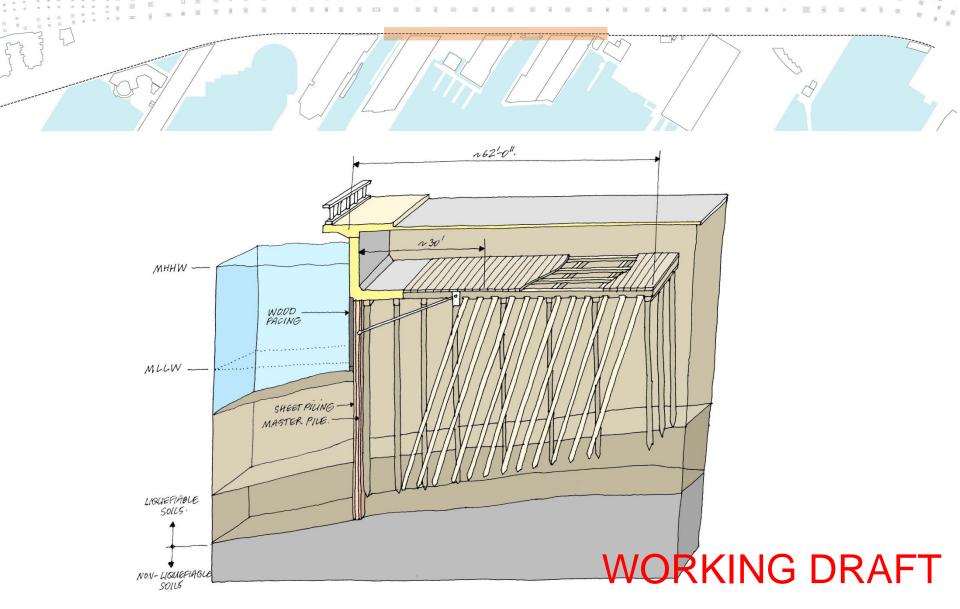






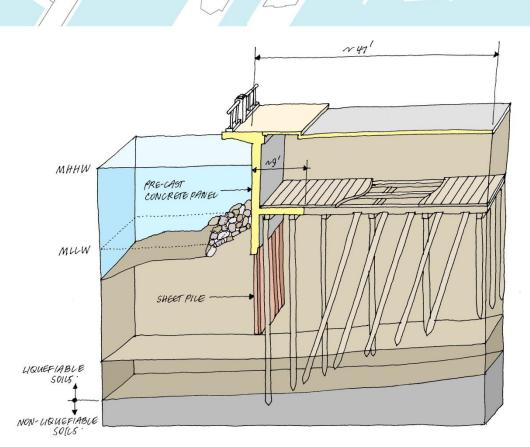
existing gravity wall





existing type B seawall





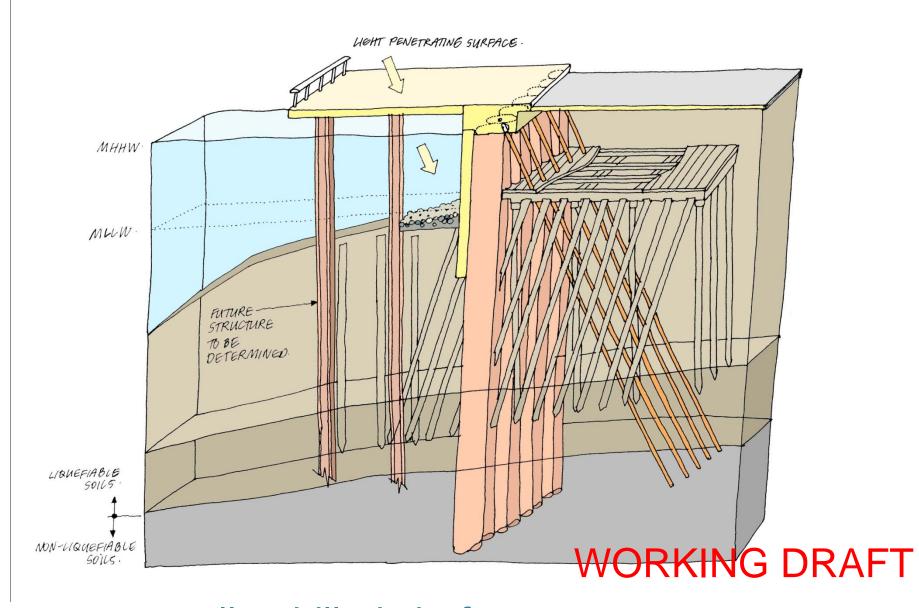
existing type A seawall



LIGHT PENETRATING SURFACE. MHHW. MULW. FUTURE STRUCTURE DETERMINED. LIQUEPIABLE SOILS NON-LIQUEPIABLE 50165. **WORKING DRAFT** 

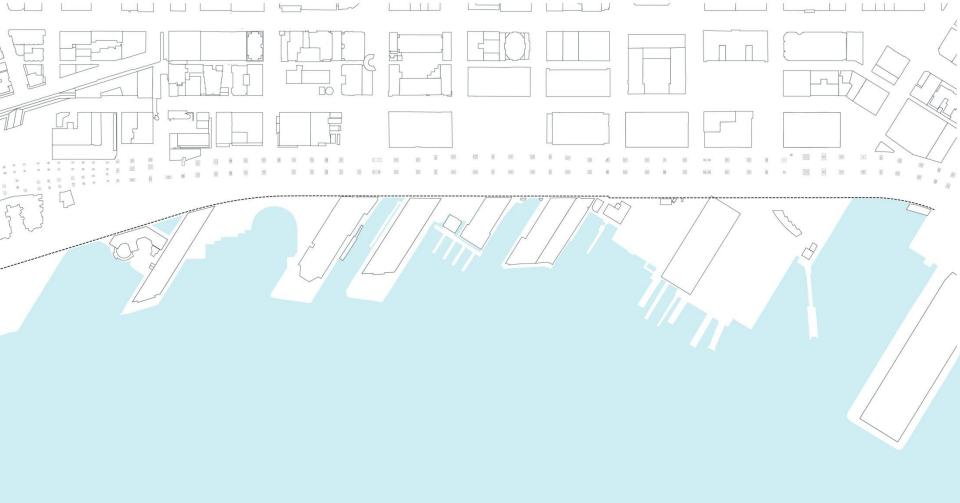
new seawall – jet grouting









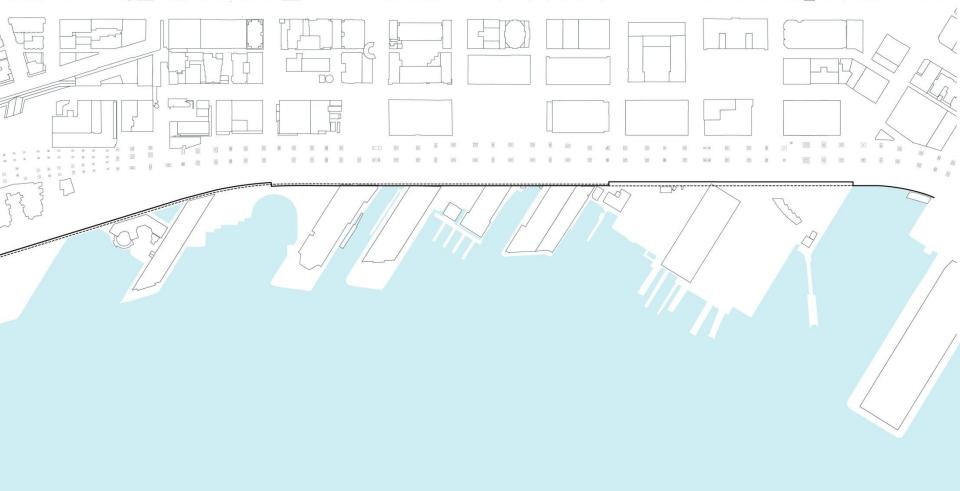


---- existing seawall

#### **WORKING DRAFT**

alternative A On





existing seawall alternative seawall

#### **WORKING DRAFT**

alternative A On





existing seawall
alternative seawall
sidewalk
multi-use path

alternative A On

#### **WORKING DRAFT**





existing seawall

alternative seawall

sidewalk

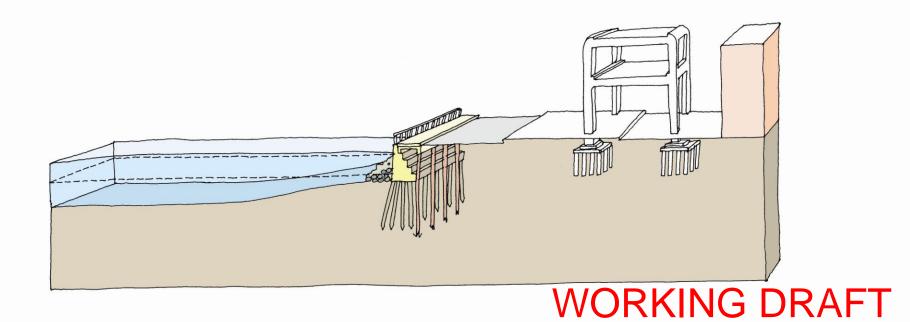
multi-use path

habitat corridor enhancement

alternative A On

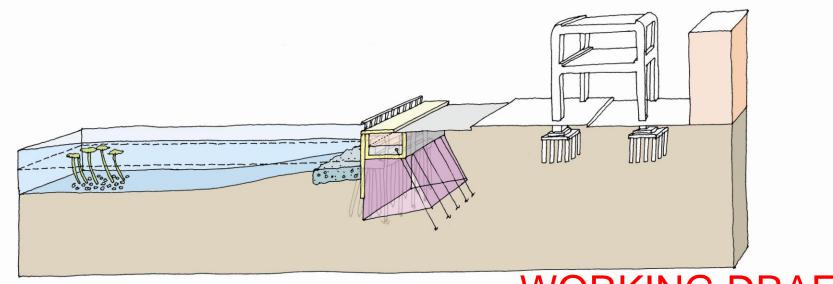
#### **WORKING DRAFT**





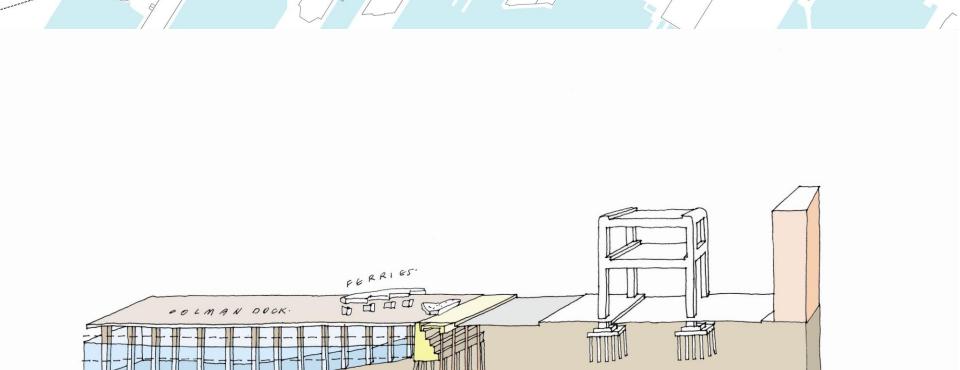
existing – zone 01





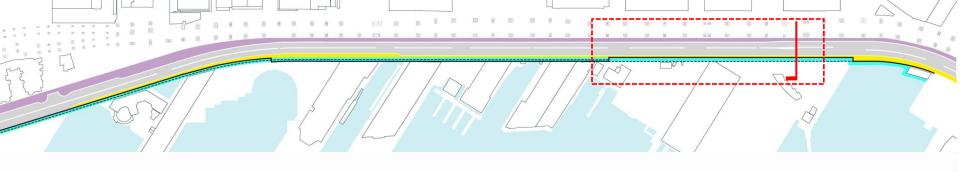
alt A - zone 01

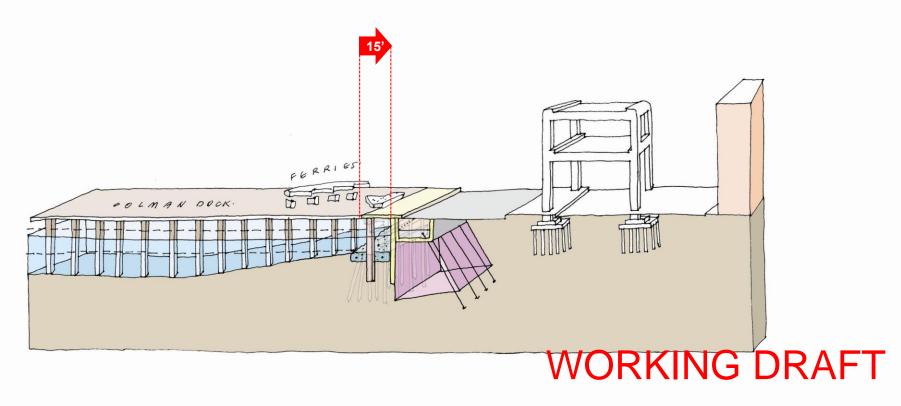




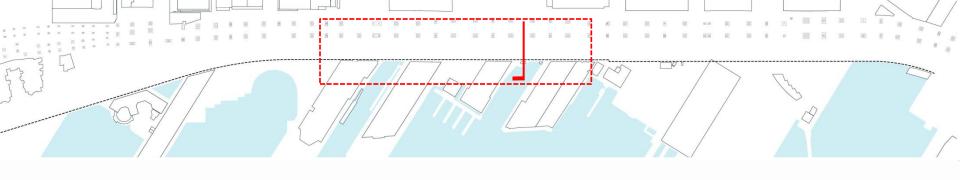
existing – zone 02

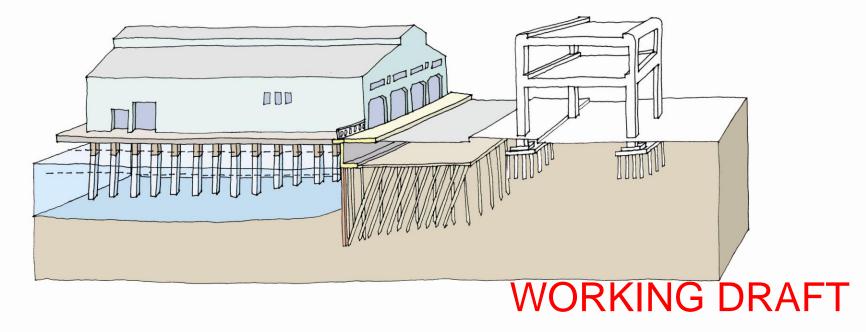






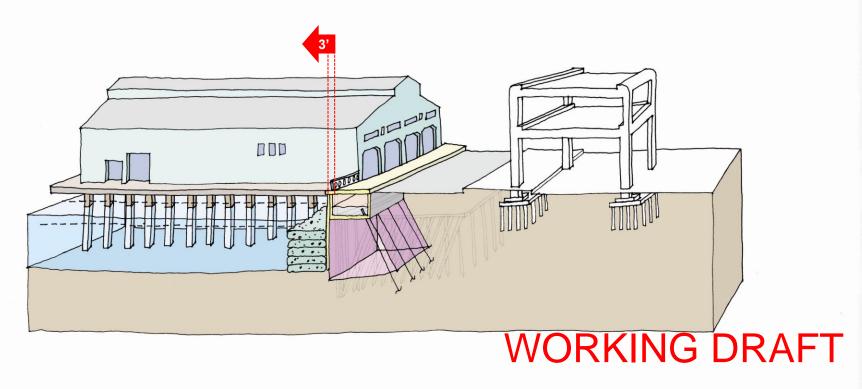
alt A – zone 02



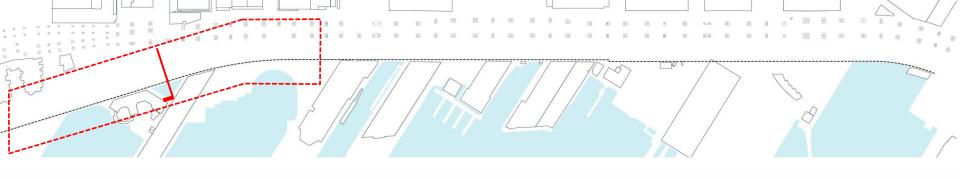


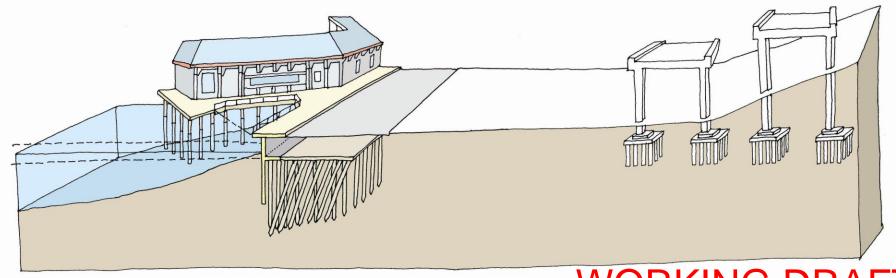
existing – zone 03



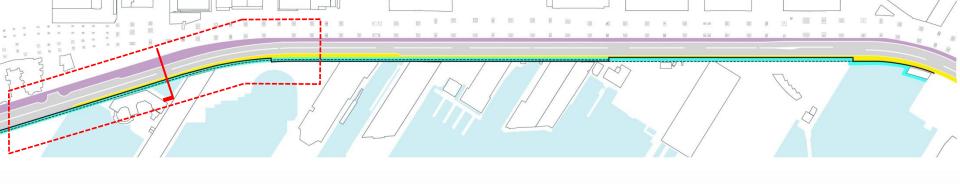


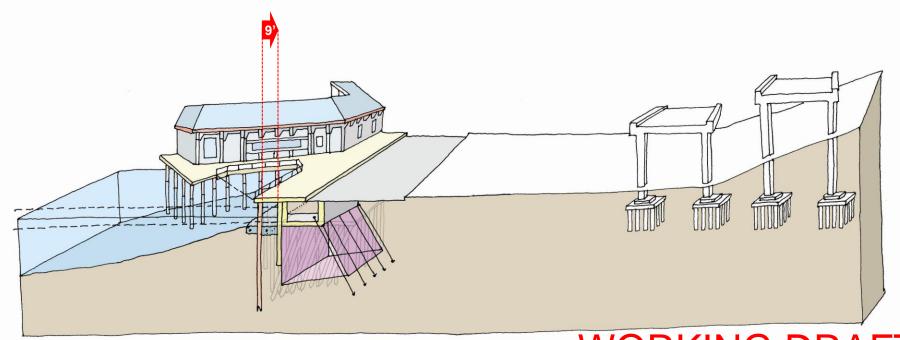
alt A – zone 03



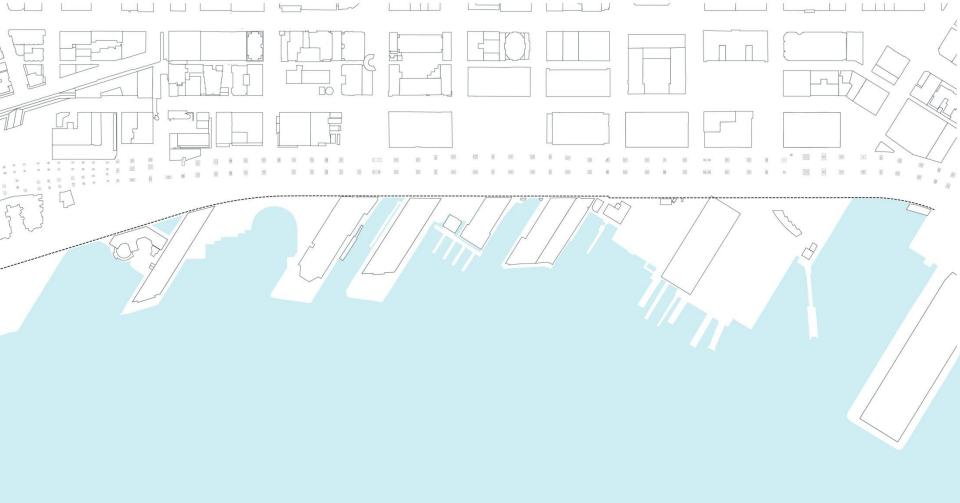








alt A – zone 04

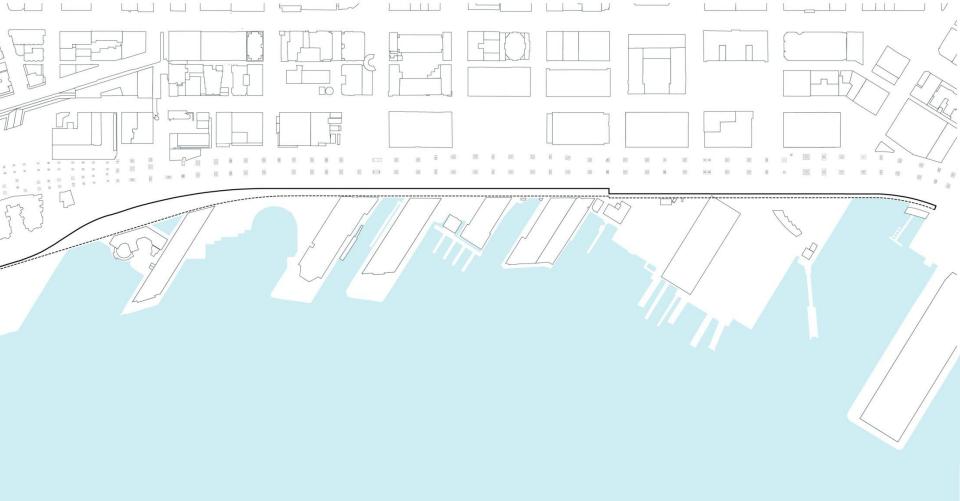


----- existing seawall

### **WORKING DRAFT**

alternative B On





existing seawall

**WORKING DRAFT** 

alternative B ⊘<sup>N</sup>

alternative seawall





existing seawall alternative seawall sidewalk multi-use path

alternative B ⊘<sup>N</sup>

### **WORKING DRAFT**





existing seawall

alternative seawall

sidewalk

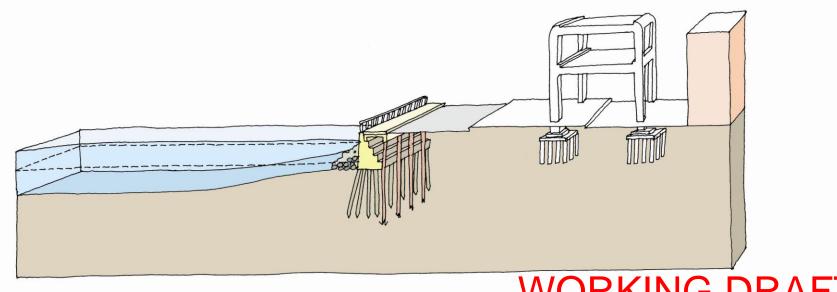
multi-use path

habitat corridor enhancement

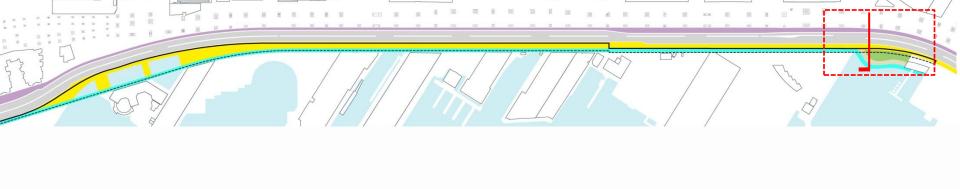
alternative B ⊘<sup>N</sup>

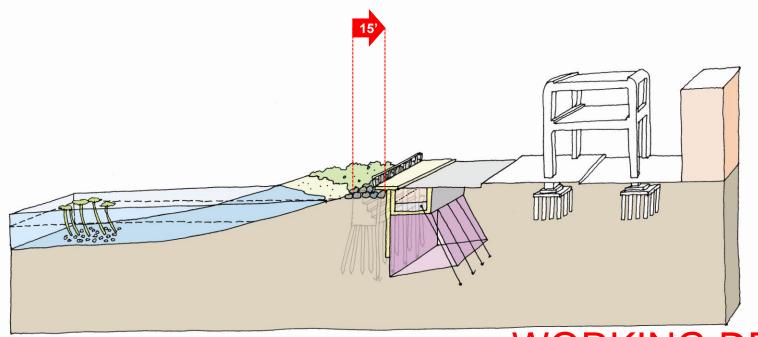
### **WORKING DRAFT**



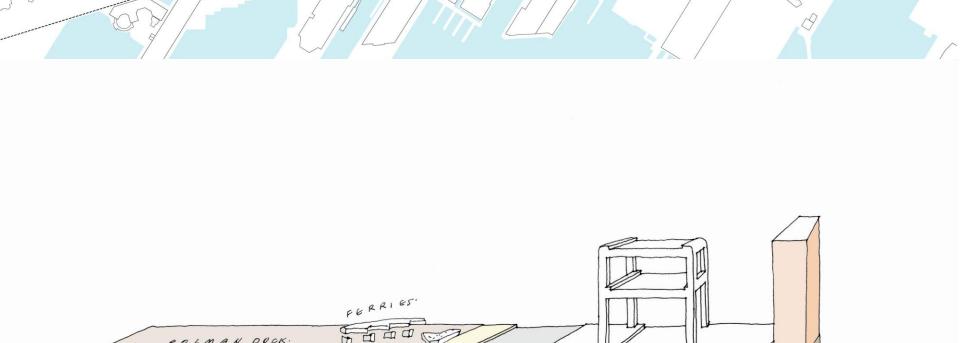




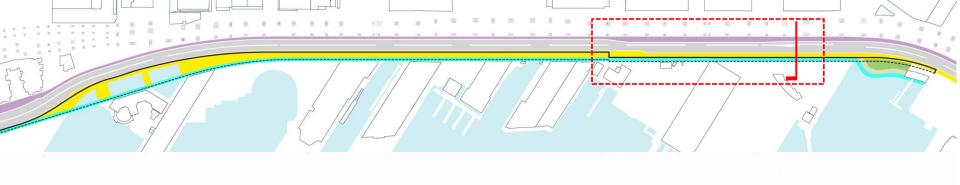


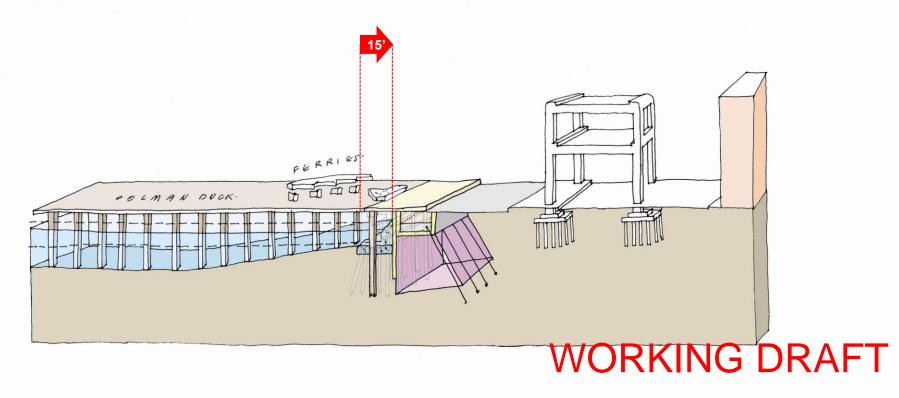


alt B – zone 01

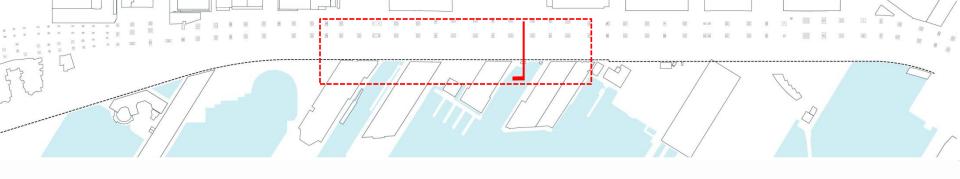


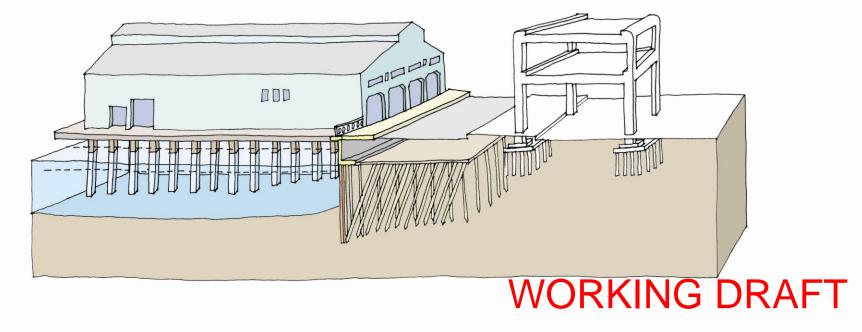




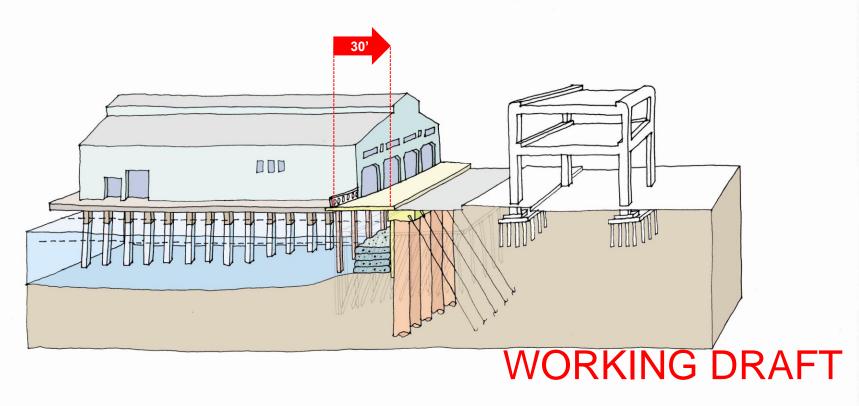


alt B – zone 02

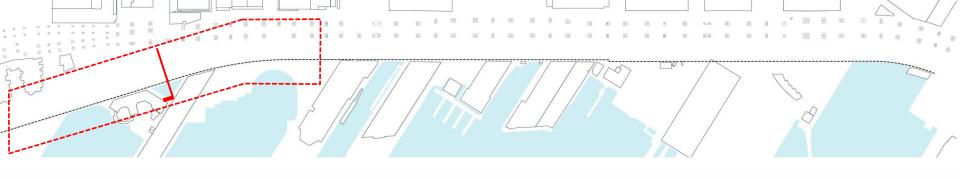


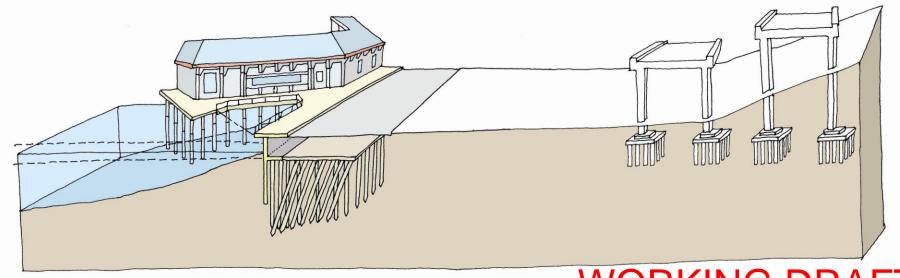




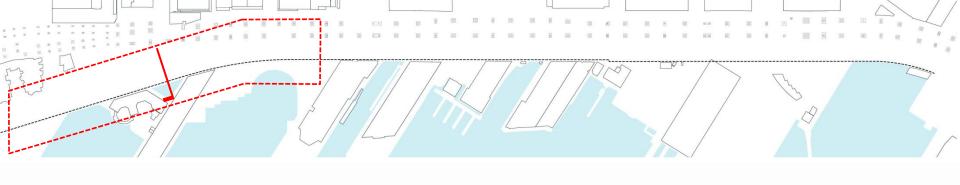


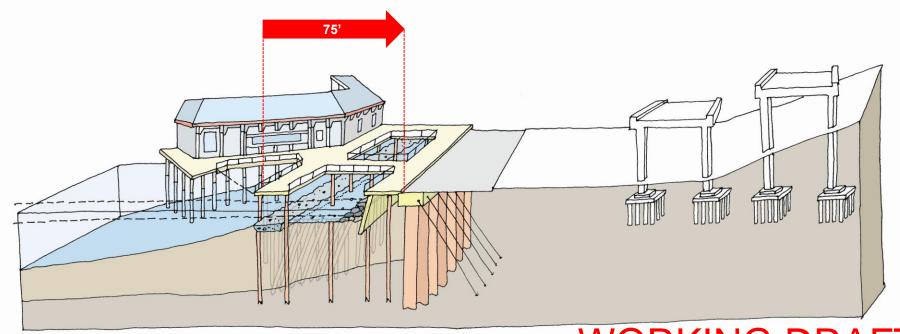
alt B – zone 03





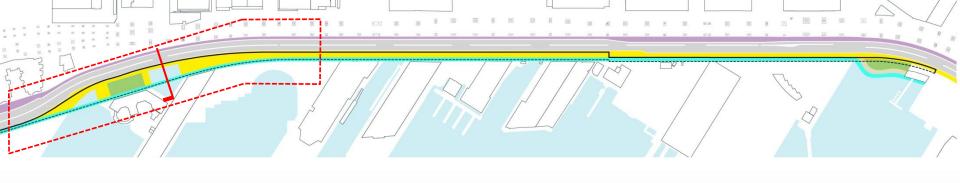


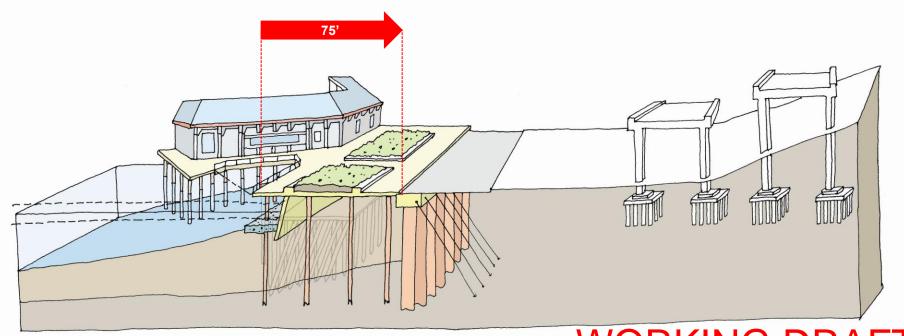




alt B – zone 04 (water)







alt B – zone 04 (land)



# **Comparing Alternatives**

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		В	Same as A	Same as A	Same as A	Same as A	Same as A	Same as A

### **Next Steps and Contact Information**

- April 25: Seattle City Council briefing
- Ongoing: Briefings, collaboration with Waterfront Seattle team, coordination with Army Corps

#### **Contact Information:**

- Email: <a href="mailto:seawall@seattle.gov">seawall@seattle.gov</a>
- Website: <a href="http://www.seattle.gov/transportation/seawall.htm">http://www.seattle.gov/transportation/seawall.htm</a>
- Phone: Stephanie Brown, SDOT: 206-386-4635
  - Jennifer Wieland, SDOT: 206-733-9970

### **Back Pocket**



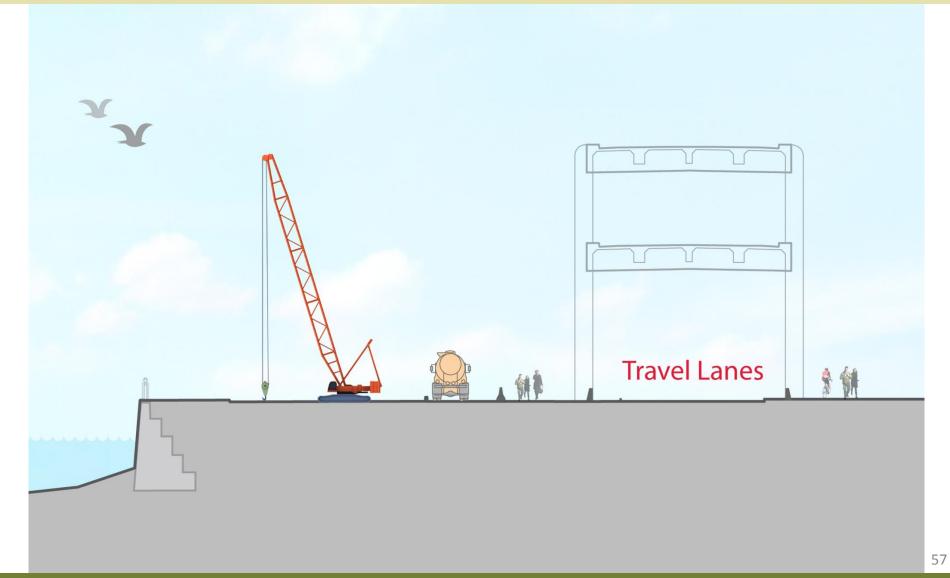


### Setting the Context for Habitat Enhancements

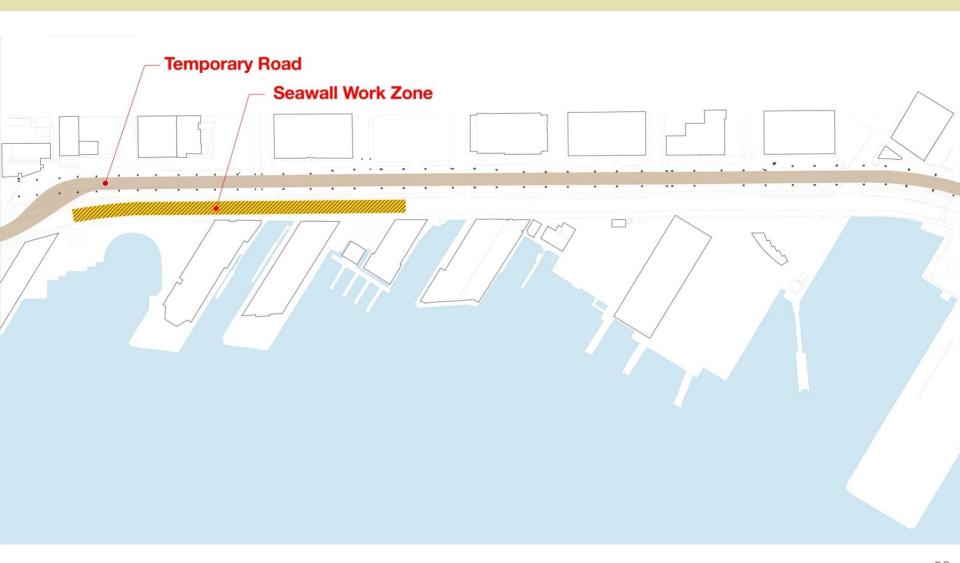
- ~60% overwater coverage
- Limited plant life and associated invertebrates under piers
- Increased productivity in naturally lighted areas
- Habitat is low to moderate quality overall



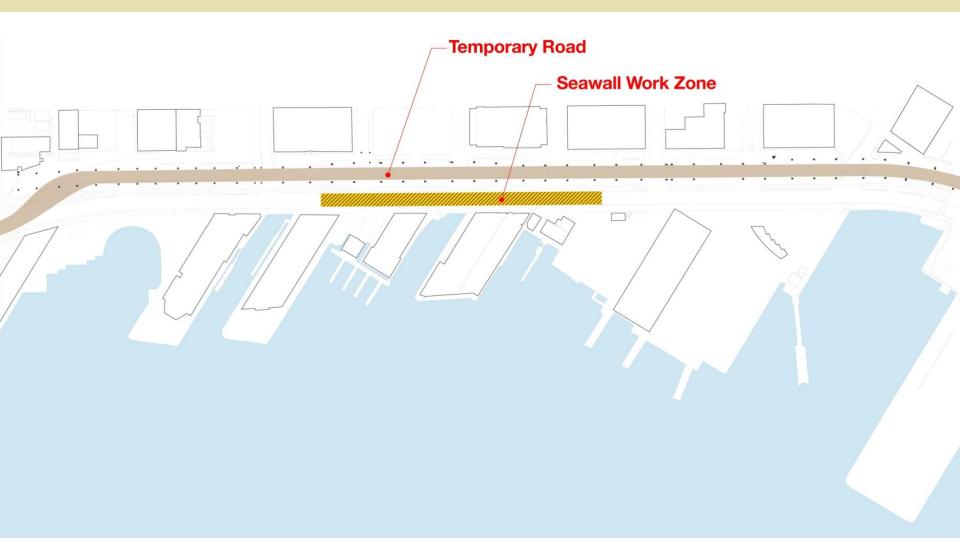
### **Potential Construction Roadway Configuration**



# **Potential Temporary Road: Phase 1**



# **Potential Temporary Road: Phase 2**



# **Potential Temporary Road: Phase 3**

