WATERFRONT SEATTLE and EMERGENCY PREPAREDNESS

June 2018

4.19 Cemetery Park
Samcheong Park
Maronie Park
Jongmyo Park
Independence Park
Tapgol Park
Cheonggyecheon Park
Jangchungdan Park
Mt. Namsan Park
Seonyudo Park
Seoul Forest
Hyochang Park
Kildong Ecological Park
Yeouido Park
Yongsan Park
Dosan Park
Yongdungpo Park
Cheongdam Park
Boramae Park
Yangjae Citizens' Forest

MOTOR FREIGHT
PORT OF SEATTLE

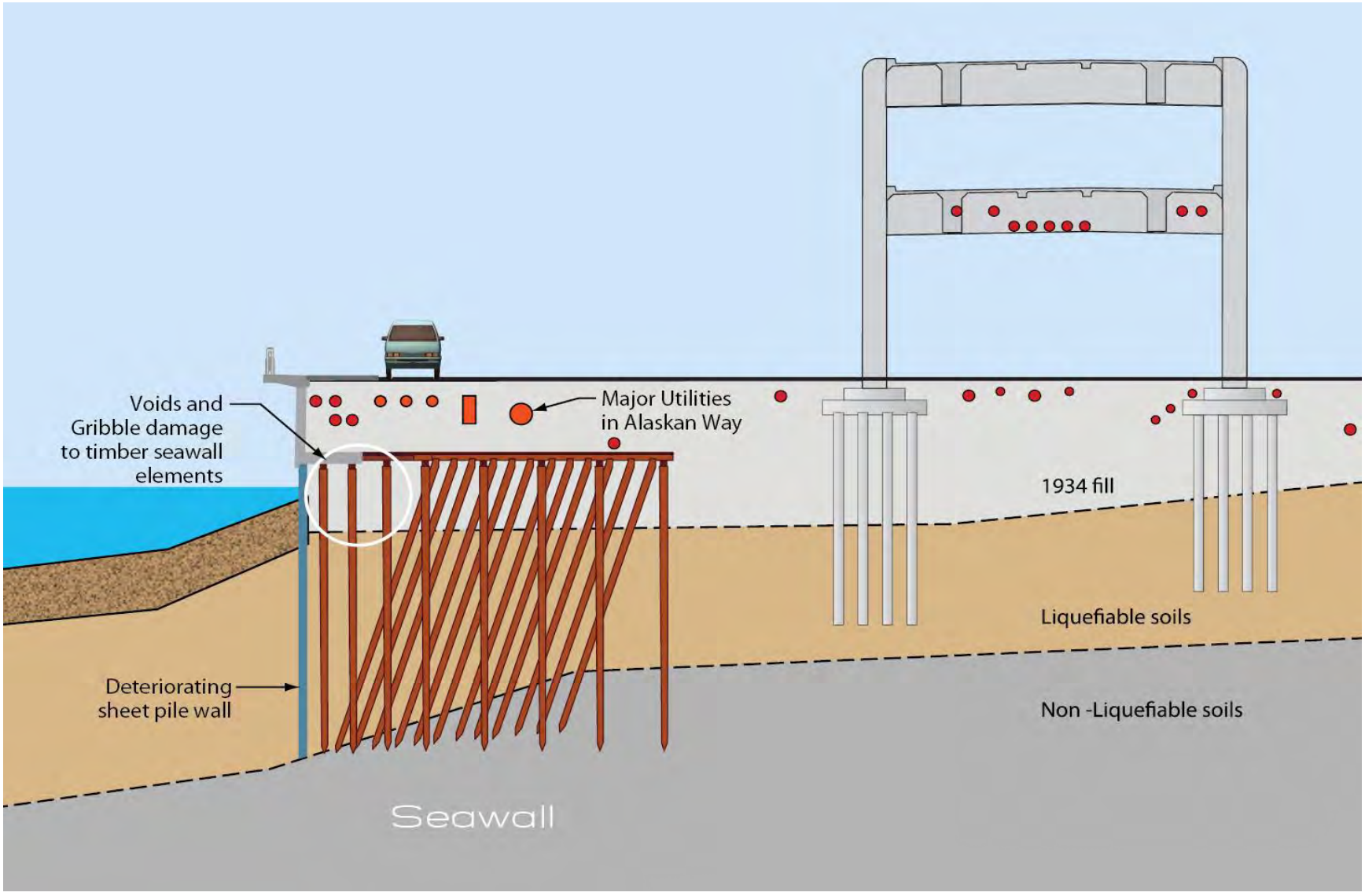
CORONA COFFEE
COMMERCIAL IM
18017-4
5-2-51

CORONA
COMMERCIAL
SUNDE & d'EVERS Co
MAIN STORE COLMAN
SHIP CHANDLER
SHIP RIGGER
SHIP STORE
SAIL MAKER

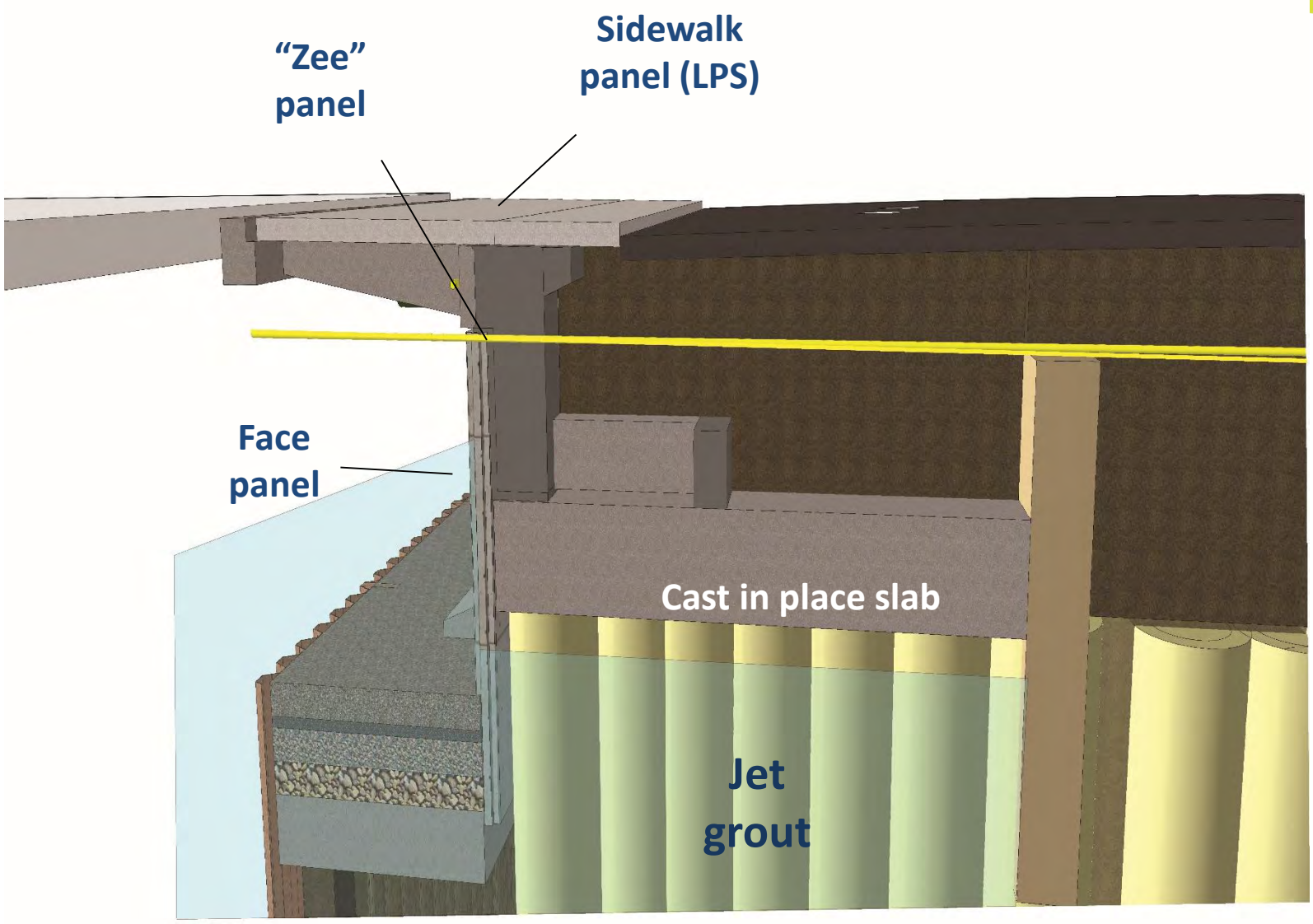
ANTIQUES

WATERFRONT SEATTLE PROGRAM
SEAWALL PROJECT
SR 99 TUNNEL PROJECT
SEATTLE MULTIMODAL TERMINAL AT COLMAN DOCK PROJECT
PARTNER PROJECTS
Project construction dates are tentative and subject to change
ELLIOTT BAY
OLYMPIC SCULPTURE PARK
Waterfront Seattle (2018+)
Pier 62 Rebuild (2017-2019)
BELLTOWN
Seattle Multimodal Terminal at Colman Dock Project (2017-2023)
PIKE PLACE MARKET
Seawall Project (2013-2017)
WEST EDGE
RETAIL CORE
SR 99 Tunnel Project (2011-early 2019)
PIONEER SQUARE
STADIUMS

ORIGINAL SEAWALL

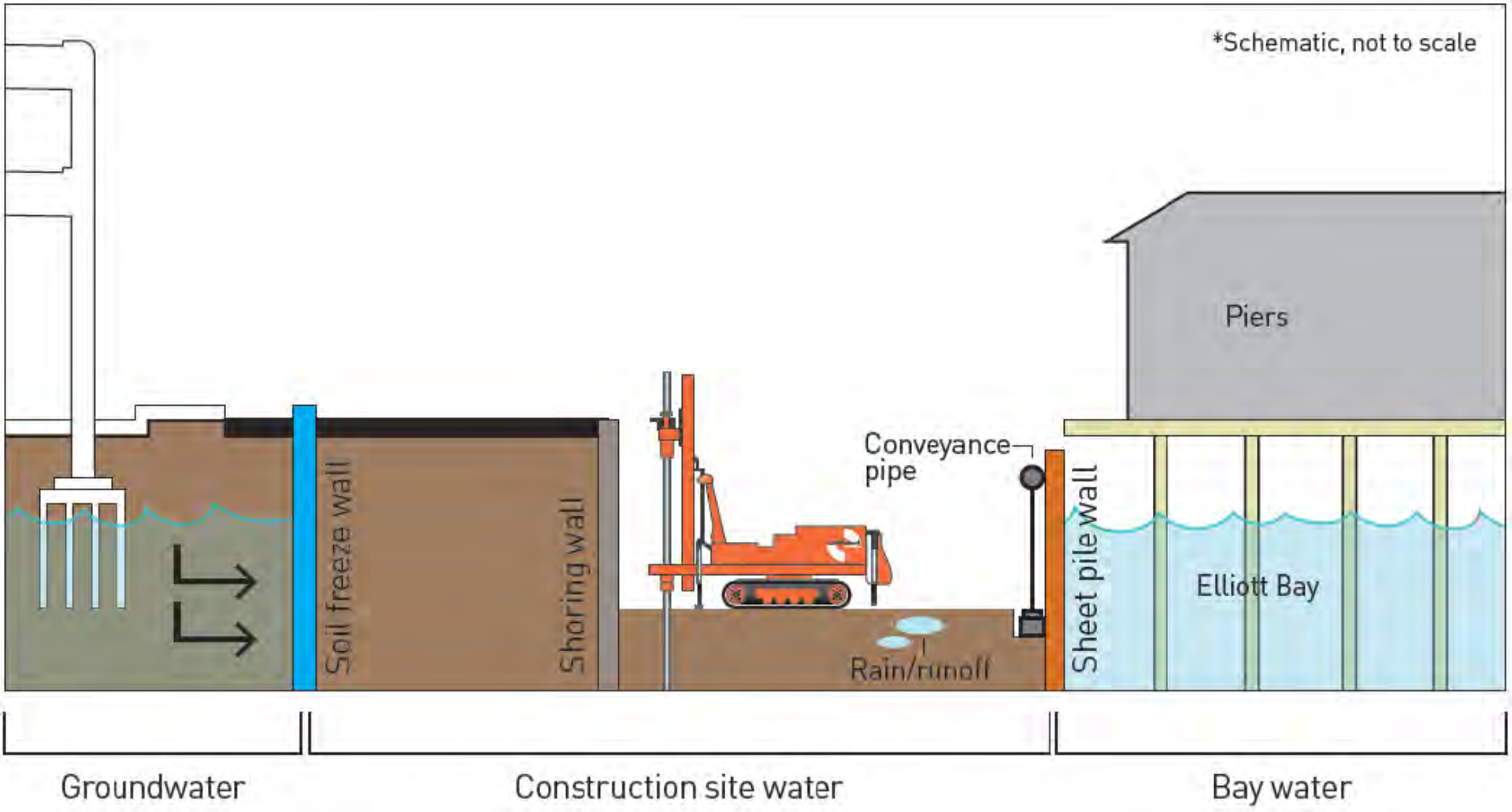


NEW SEAWALL


"Zee" panel
Sidewalk panel (LPS)
Face panel
Cast in place slab
Jet grout

NEW SEAWALL

WATER MANAGEMENT



NEW SEAWALL

NEW SEAWALL

NEW SEAWALL

Enter

WATERFRONT SEATTLE PROGRAM

RAILROAD WAY	PIONEER SQUARE	TRANSIT HUB	HISTORIC PIERS	CENTRAL PUBLIC SPACE	BELLTOWN
1 WATERFRONT	1 ALASKAN WAY	1 ALASKAN WAY	1 ALASKAN WAY	1 ELLIOTT WAY	1 ELLIOTT WAY
2 PIONEER SQUARE	2 WATERFRONT PROMENADE	2 WATERFRONT PROMENADE	2 WATERFRONT PROMENADE	2 WATERFRONT PROMENADE	2 LENORA ST. PED BRIDGE RETROFIT
3 STADIUMS	3 WASHINGTON ST. BOAT LANDING	3 COLUMBIA ST.	3 SENECA ST.	3 UNION ST.	3 BELL ST.
	4 S. KING ST.	4 MARION ST. PEDESTRIAN BRIDGE		4 WATERFRONT PARK REBUILD	4 PORTAL PARK
	5 S. MAIN ST.	5 COLMAN DOCK TERMINAL REPLACEMENT		5 OCEAN PAVILION	
	6 S. WASHINGTON ST.	6 YESLER WAY		6 PIERS 62/63 PHASE 1 REBUILD	
	7 HABITAT INTERTIDAL ZONE			7 OVERLOOK WALK	
				8 PIKE/PINE STS.	

500 ft.

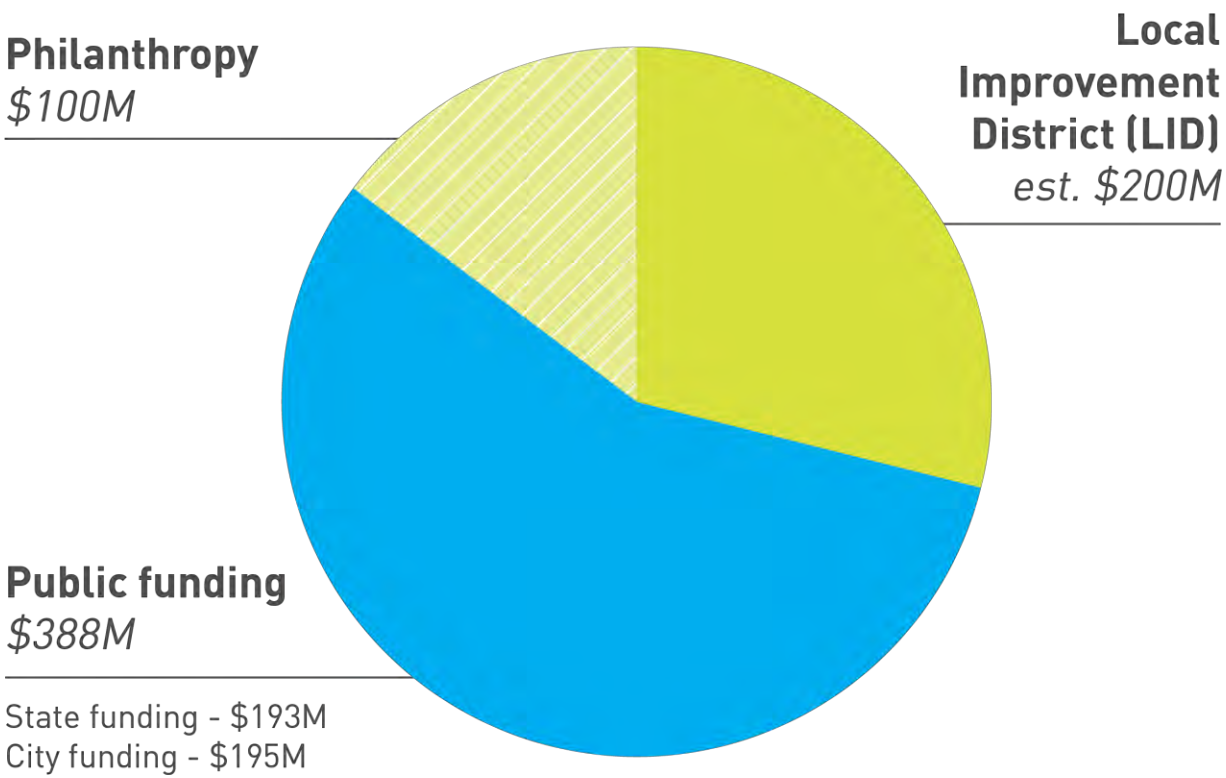
CONNECTING THE CITY TO THE BAY

PEOPLE PLACES

QUIET SPACES

FUNDING

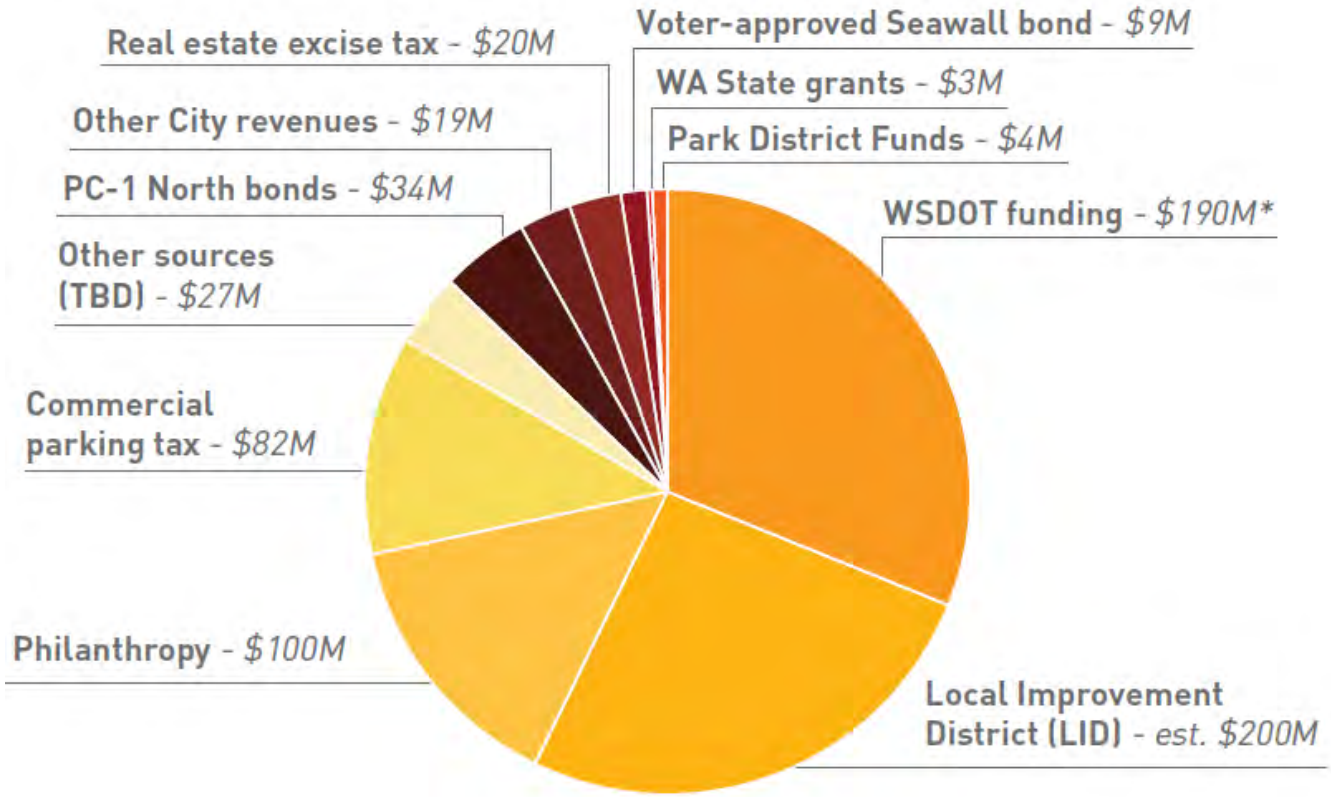
FUNDING SOURCES



TOTAL= $688M

*Does not include WSDOT-funded Marion Street Pedestrian Bridge over Alaskan Way (pending future agreement)

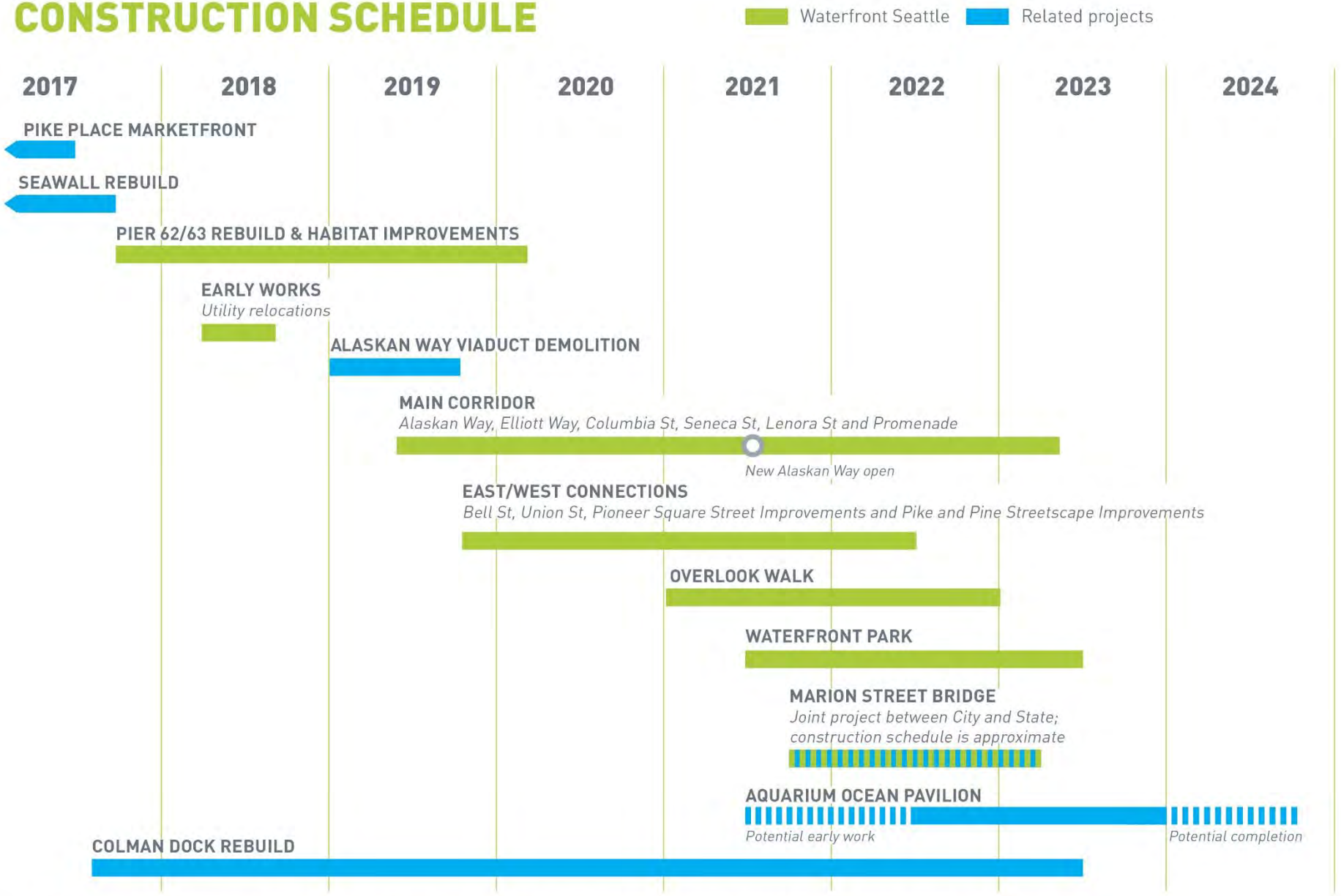
FUNDING



TOTAL= $688M

*Does not include WSDOT-funded Marion Street Pedestrian Bridge over Alaskan Way (pending future agreement)

CONSTRUCTION SCHEDULE



NOTE: Construction dates subject to change pending: A. completion dates of new SR-99 tunnel and demolition of the Alaskan Way Viaduct; B. ongoing construction sequencing evaluation and assumptions for all projects

TYPICAL CROSS SECTION

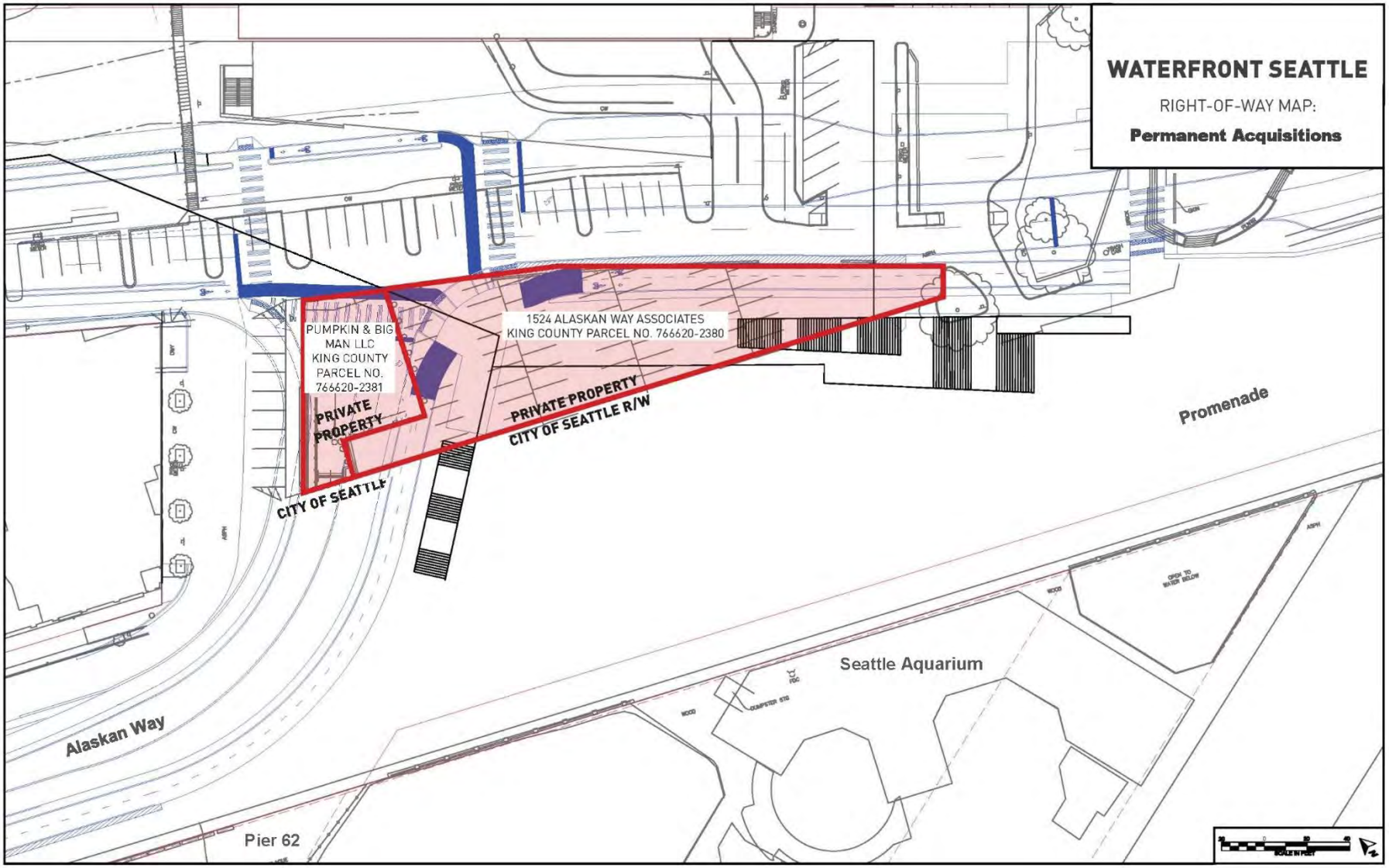
ALASKAN WAY

TYPICAL INTERSECTION

PROMENADE

CENTRAL PUBLIC SPACES

PROPERTY ACQUISITIONS



OVERLOOK WALK

OVERLOOK WALK BRIDGE

OVERLOOK WALK

OVERLOOK WALK

ELLIOTT WAY BRIDGE

EAST-WEST CONNECTIONS

EMERGENCY PREPAREDNESS
Planning and Design Phase

- Typically, the City does not physically build its own projects, an independent contractor is hired
- Standard contract language includes all safety regulations and insurance requirements
- During design phase, the project team:
  - Coordinates with agency partners and stakeholders
  - Does preliminary traffic control planning
  - Incorporates unique constraints into contract

WATERFRONT CONSTRUCTION: COMMITMENTS

- Provide access through waterfront area for all modes (transit, freight, bicycles, pedestrians, cars)
- Provide access to businesses and residents, including emergency response
- Maintain major utilities service and reliability
- Maintain railroad, port cruise ships, and ferry operations
- Coordinate work zones and detour routes with all projects
- Ensure construction sequencing balances the needs of all projects in the waterfront area

EMERGENCY PREPAREDNESS
Construction Phase

- Contractor is required to submit work plans and documentation for approval by the City, such as:
  - Long term and short term work schedules
  - Documentation of all materials that will be used
  - Safety plan
  - Traffic control plans
- City evaluates all documents to ensure compliance with contract requirements

EMERGENCY PREPAREDNESS
Construction Phase

- City inspects all work by the contractor to ensure compliance with contract requirements
- Safety is addressed through verbal communication first, then written documentation, then formal notification to Washington State Department of Labor and Industries
- Anything found to be non-compliant is rejected

EMERGENCY PREPAREDNESS
Construction Phase

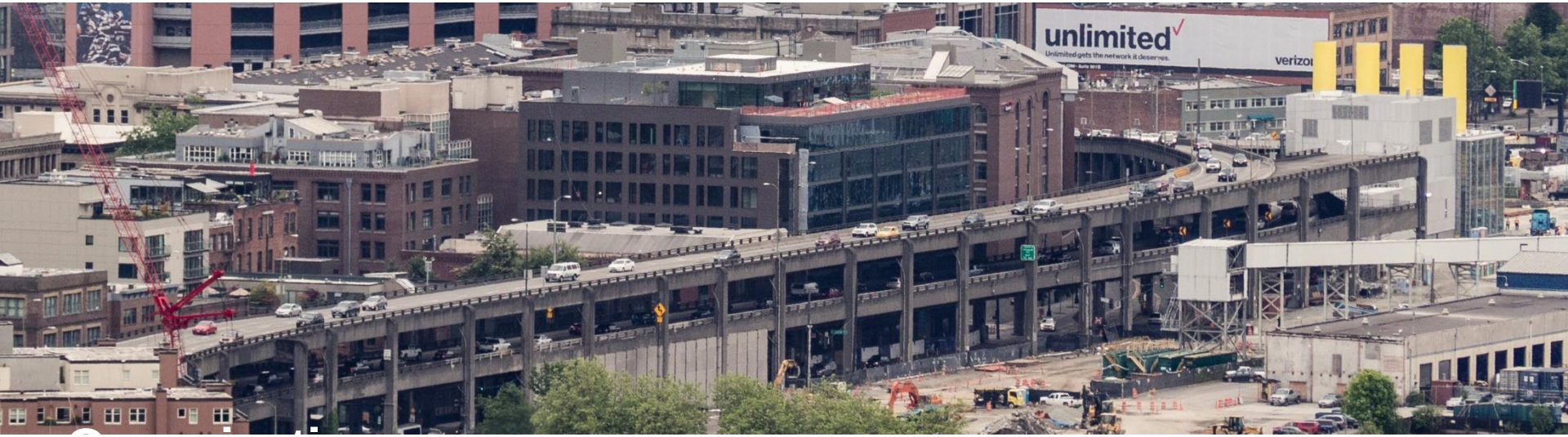
- If there is a major safety hazard, the City notifies the contractor to stop working until the issue is remedied
- Both the City and contractor have safety managers
- Most incidents are resolved by the project team within the project site and do not affect the City as a whole

EMERGENCY PREPAREDNESS
Construction Phase

- For large scale incidents that affect more than just the project site, departmental resources are activated:
  - Traffic Operations Center
  - Emergency operations room/team
- Set up a command structure to manage emergency response
- Many plans have already been developed, such as a Continuity of Operations Plan
- Seattle Department of Transportation participates in City-wide emergency operations/response efforts

QUESTIONS?

Alaskan Way Viaduct
REPLACEMENT
PROGRAM



Korean Delegation

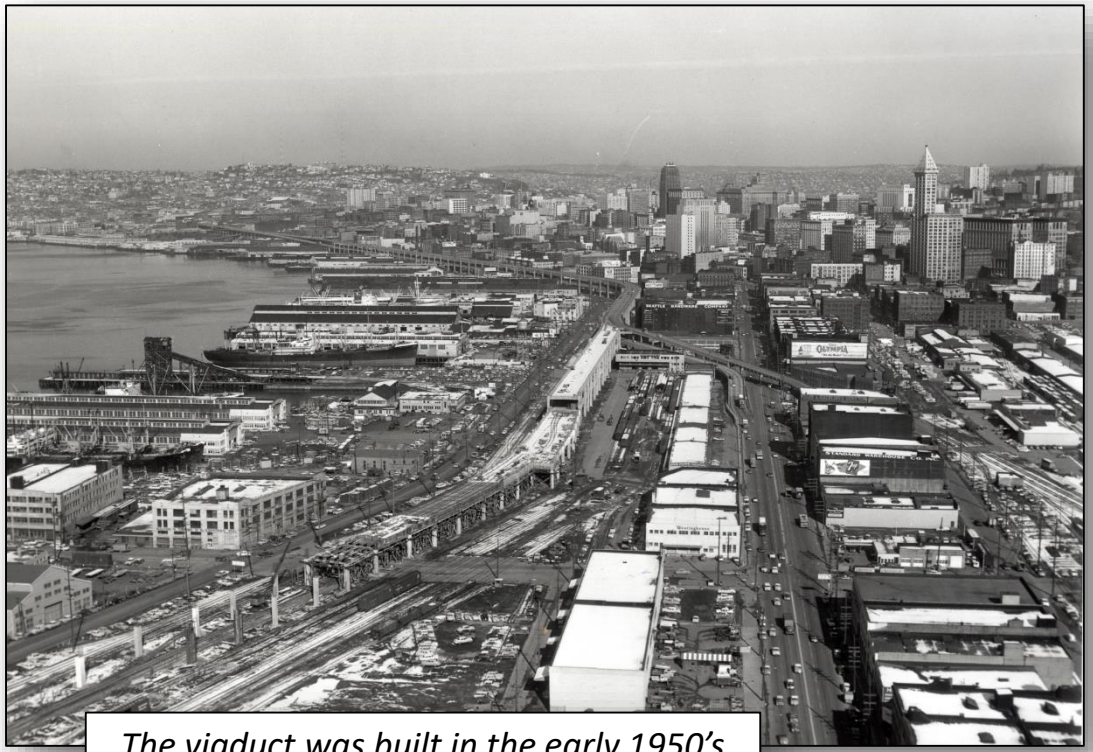
Patrick Fuller, Project Engineer

June 25, 2018

U.S. Department of Transportation Federal Highway Administration | WSDOT | King County | Port of Seattle | City of Seattle

TODAY'S FOCUS

- The big picture
- Emergency preparedness and safety during construction



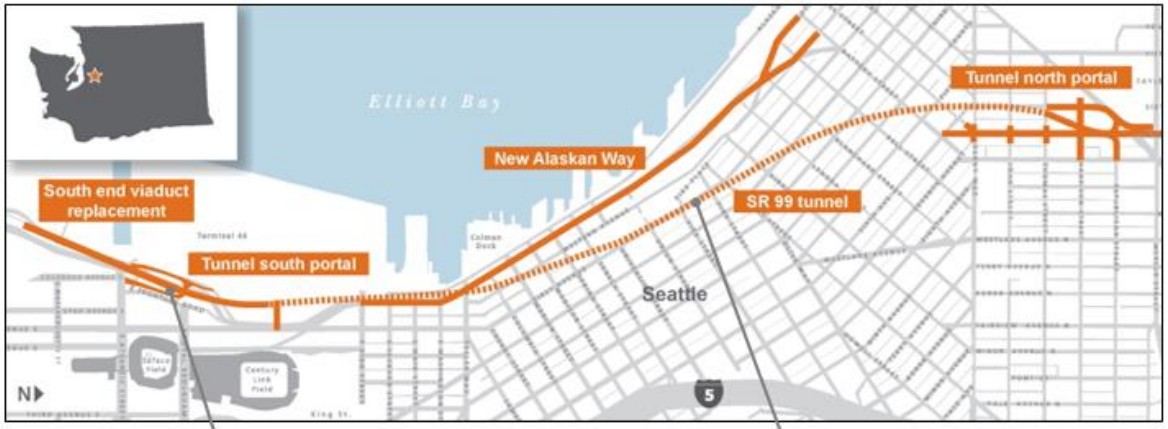
The viaduct was built in the early 1950's

Columns reinforced after 2001 earthquake

This is a

SAFETY PROJECT

Alaskan Way Viaduct REPLACEMENT PROGRAM



South-end replacement	Start	End
Electrical line relocation	2008	2009
Holgate to King (stage 1)	2009	2009
Holgate to King (stage 2)	2010	2012
Holgate to King (Stage 3)	2012	2014

SR 99 tunnel	Start	End
SR 99 tunnel main contract	2011	2019
North Access Project	2014	2017
SR 99 Connections	2018	2019
South Access – Surface Street Connections	2019	2020
South Access (S. Dearborn Street off-ramp)	2016	2017
South Access (drilled shafts)	2014	2014

✓ = completed project ☐ = in progress

Miscellaneous projects	Start	End
Trager Building demolition	2007	2007
Viaduct column stabilization near Yesler Way	2007	2008
WOSCA Building demolition	2009	2009
Pier 48 warehouse demolition	2010	2010
Automated viaduct closure gates	2010	2011
Western Building structural work	2011	2017
SR 99 south-end fiber replacement	2011	2011
Alaskan Way widening	2012	2012
Cedarstrand Building demolition	2012	2012
SR 99 Demolition, Decommissioning and Surface Street	2019	2020
New Alaskan Way[1]	2019	2023

Mitigation projects	Start	End
SR 519 Phase 2	2008	2010
Spokane Street Viaduct Fourth Ave. off-ramp[3]	2008	2010
I-5 active traffic management	2009	2010
I-5 active traffic management sign bridges	2009	2009
I-5 travel time signs	2009	2009
City street intelligent transportation systems	2009	2010
SR 99 intelligent transportation systems	2010	2011
Enhanced transit/demand management[4]	2010	2014
Parking mitigation for central waterfront	2011	2019

[1] *Per City of Seattle's Waterfront Seattle schedule*

[2] *Per Seattle Tunnel Partners' most recent schedule*

[3] *Partially funded by the state*

[4] *Per 2014 legislation, additional mitigation funding is being provided by WSDOT from funds outside the AWV Program*

Projects already

COMPLETED

Tunnel features:

- Two 11-foot lanes in each direction
- 8-foot and 2-foot shoulders
- Modern safety and traffic systems
- No mid-tunnel entrances or exits

Final product:

SR 99 TUNNEL

TODAY'S FOCUS

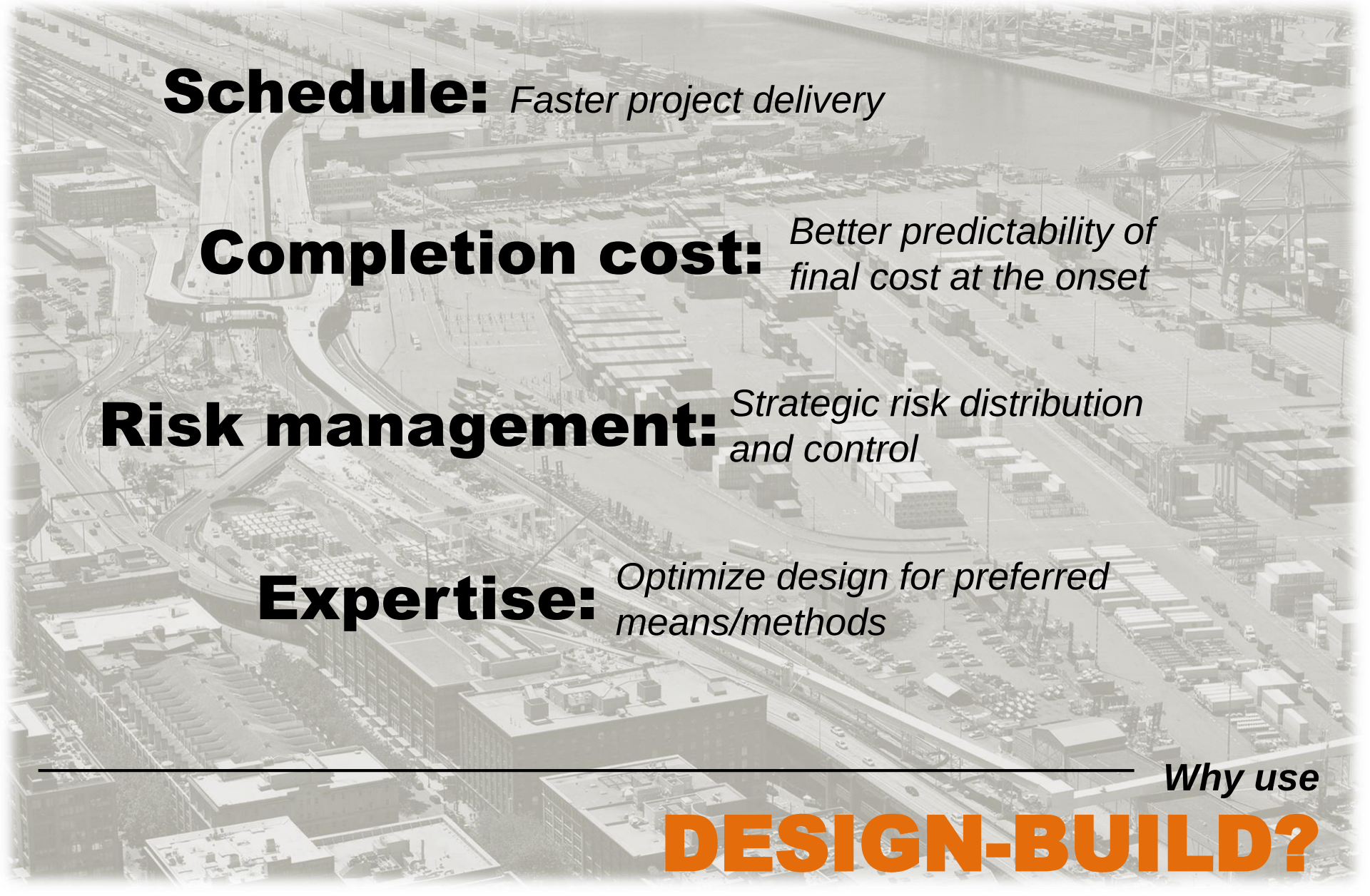
- The big picture
- Emergency preparedness and safety during construction

Design-Build – A method of project delivery in which the owner executes a single contract with one entity (the Design-Builder) for design and construction services to provide a finished product.

VS.

Design-Bid-Build – Traditional approach for delivery of transportation projects in which the owner completes the design and accepts the lowest responsive bid for construction from qualified contractors.

What is DESIGN-BUILD?



Schedule: *Faster project delivery*

Completion cost: *Better predictability of final cost at the onset*

Risk management: *Strategic risk distribution and control*

Expertise: *Optimize design for preferred means/methods*

Why use

DESIGN-BUILD?

2.29.10.2 Emergency Access

The Design-Builder shall work with emergency service providers and develop an Emergency Access Plan for the various Work zones within the Project. The Emergency Access Plan shall address the concerns of emergency service providers about emergency access to and through the Project. This may include installing gates to allow emergency personnel to access the Project area.

The Design-Builder shall allow WSDOT Maintenance and all affected Local Agencies access to the Project Site to respond to urgent safety concerns.

Site visit for Seattle Fire Department

Contract

PROTOCOLS & SPECIFICATIONS

WSDOT verifies completed work in the tunnel with the contractor

2.9.4 *WSDOT's Responsibilities*

Program Communications will retain primary responsibility for the following communications tasks, ***although the Design-Builder may assist WSDOT in completing these tasks at WSDOT's request:

- Maintaining the SR 99/Alaskan Way Viaduct Replacement Program Communications Plan and the SR 99/Demolition, Decommissioning, and Surface Street Project Communications Plan.

Communication
PROTOCOLS

Surveyor inspects the viaduct as the tunneling machine passes beneath the structure

Viaduct safety

DURING CONSTRUCTION

How to REACH US

Website:
www.AlaskanWayViaduct.org

Twitter:
@BerthaDigsSR99

Email:
viaduct@wsdot.wa.gov

Hotline:
1-888-AWV-LINE

Office of Emergency Management

We partner with the community to prevent, prepare for, respond to, mitigate the impacts of, and recover from disasters.

Korean Delegation Visit

June 18 & 25, 2018

City of Seattle

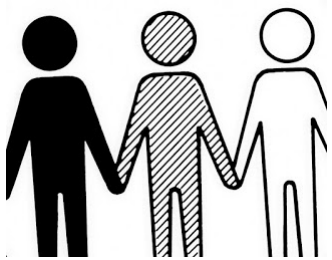
217.5
sq kilometers

18
hazards

10,000+
city employees

900,000
annual 9-1-1 calls

1,100+
new residents weekly



113,000+
foreign-born residents

129
languages

40 million
visitors

20%
use transit

19,500+
daily passengers

Emergency Response

Response Units

Mutual Aid

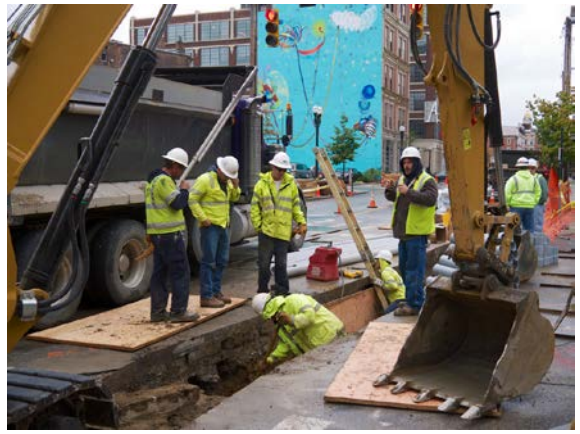
Dispatch Center

Department Command & Control

Multiple Departments Involved

Coordination Needed

City EOC



Construction / Transportation Incidents

- Fire Department
  - Heavy Rescue
  - Confined Space
  - Hazardous Material
  - Mass Casualty
- Transportation
  - Traffic Cameras
  - Traffic Signals
  - Message Signs
  - Heavy Equipment
  - Barricades

Triggers & Steps

- Other Resources
- Managing the Media
- Public Notifications & Warning

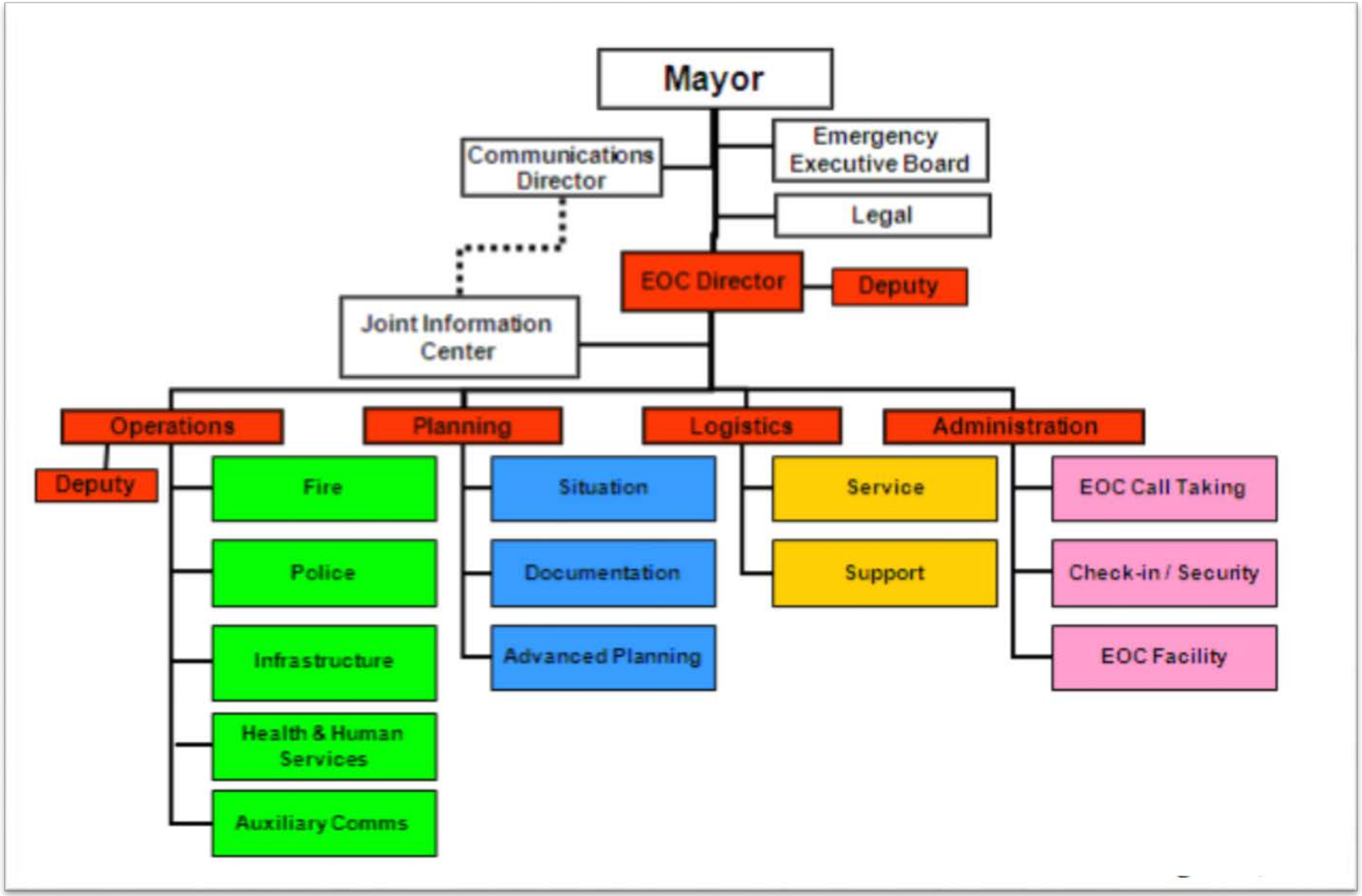
Life Safety Response

Protective Measures

Role of the Emergency Operations Center

1. Coordinate Information
2. Coordinate Resources
3. Develop Plans of Action
4. Make Policy Decisions

Emergency Operations Center Structure



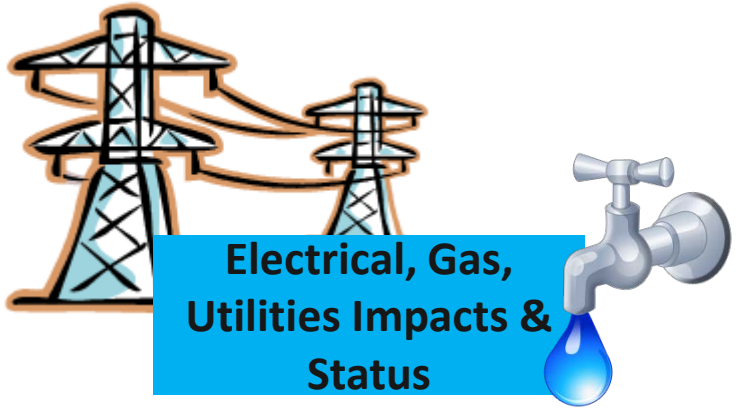
OPERATIONS

FIRE
EOC DIRECTOR
EXIT

Managing the Impacts

Roads / Transit Impacts & Status

Public Safety Impacts

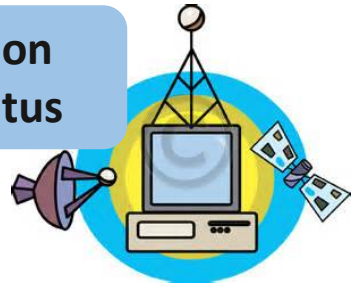


Electrical, Gas, Utilities Impacts & Status

Shelters Status

Buildings Safety & Status

Communication Impacts & Status



Medical & Hospital Impacts & Status

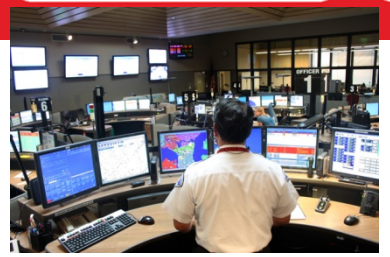
Notifications & Public Warning

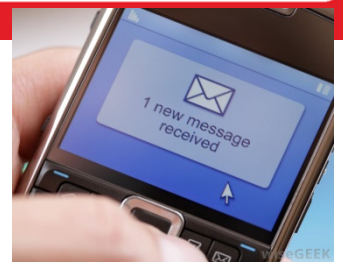
ALERT SEATTLE

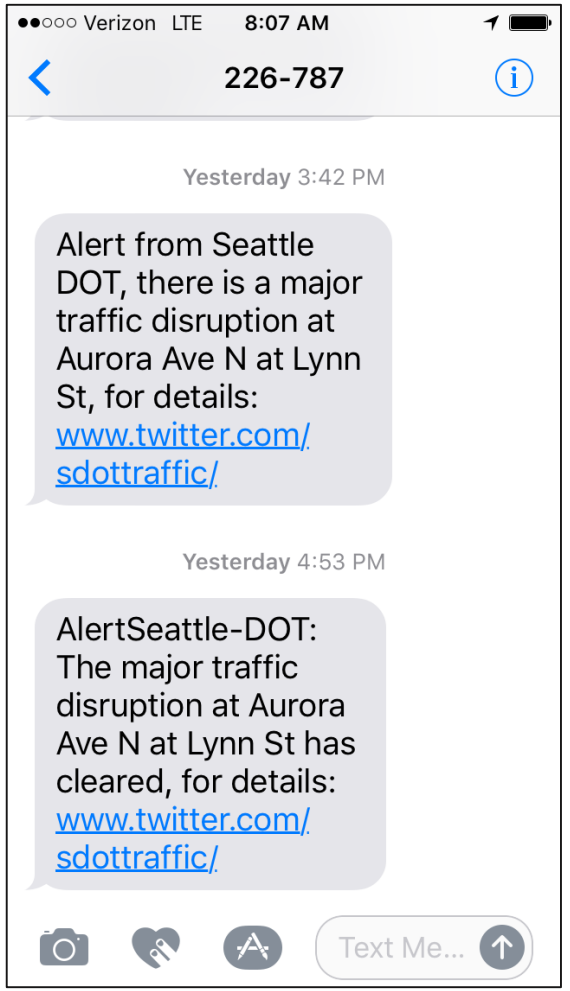
EMERGENCY ALERTS AND NOTIFICATIONS

How Does It Work?

EMERGENCY OCCURS → CITY SENDS ALERT TO AFFECTED AREA → RECEIVE ALERT BY TEXT MESSAGE, E-MAIL OR VOICE MESSAGE → STAY INFORMED!







Lessons Learned – After Action Reports

Community Outreach & Education

Seattle.gov
Mayor Jenny A. Durkan

Search Menu

- Prepare yourself
- Prepare your family
- Prepare your home
- Prepare your Neighborhood
- Prepare your workplace
- Prepare your school
- Prepare your child care center
- Training and workshops
- Access & Functional Needs
- Multi-language Resources

Prepare yourself

Being prepared for any emergency is as simple as planning ahead. This begins with thinking about your daily activities, the people you care for or who rely on you, and how a disaster would change the way you get things done. Use the information in this section to learn how to plan for your own safety and needs, along with those of your family and pets. If someone in your family relies on special equipment or medications make sure your planning includes how to make sure those special needs will be dealt with.

Learn how to get prepared for disasters by viewing the infographic below. You can also print a fillable disaster plan template.

Translated Infographics:

- English
- Amharic
- Arabic
- Chinese Simplified
- Chinese Traditional
- Khmer-Cambodian
- Korean
- Laotian
- Moldavian
- Romanian
- Russian
- Somali
- Spanish
- Thai
- Tigrinya
- Vietnamese

Skill specific training

Skills Specific Training

OEM offers and supports a series of courses that provide more in depth instruction on specific preparedness and response topics. The trainings listed below are offered throughout the year at various locations throughout the city as scheduled by OEM.

Earthquake Home Retrofit Classes

Introductory class provides information for do-it-yourselfers or those who want to become educated consumers on how to seismically secure your home (especially if built before 1980) to its foundation. Experienced home retrofit instructors share their insight on tools needed, building techniques, the city's free plan set and the permit process. View the upcoming trainings page to see when the next class is offered.

Home Retrofit Contractor Training Seminar

The Washington Association of Building Officials (WABO) hosts a one day seminar for contractors on how to complete a seismic retrofit based on the city's standard plan set. This seminar is scheduled based on demand. If you are a contractor interested in taking this class, contact WABO at tjenkins@wabo.org. Once they have established sufficient interest, they will work to schedule a class.

Disaster Skills Series

Disaster Skills Workshop

This workshop provides training on key skills needed after a disaster and more in depth instruction on key preparedness actions. Participants will rotate through four stations, with each lasting 30 minutes. The workshop covers the following topics: (1) Fire Extinguisher Use, (2) Utility Control, (3) Water Storage and Purification and (4) Emergency Sanitation. Registration is required for this session. View the upcoming trainings page to see when the next workshop is offered.

Disaster Skills: Basic Aid

Learn how to care for and respond to injuries after a major disaster when 9-1-1 is overwhelmed or unavailable. This session provides practice on how to recognize and treat life-threatening conditions, how to conduct a patient assessment and how to creatively use household items as first aid materials. **Course does not meet requirements for first aid certification. View the upcoming trainings page to see when the next training is offered.

Disaster Skills: Light Search and Rescue

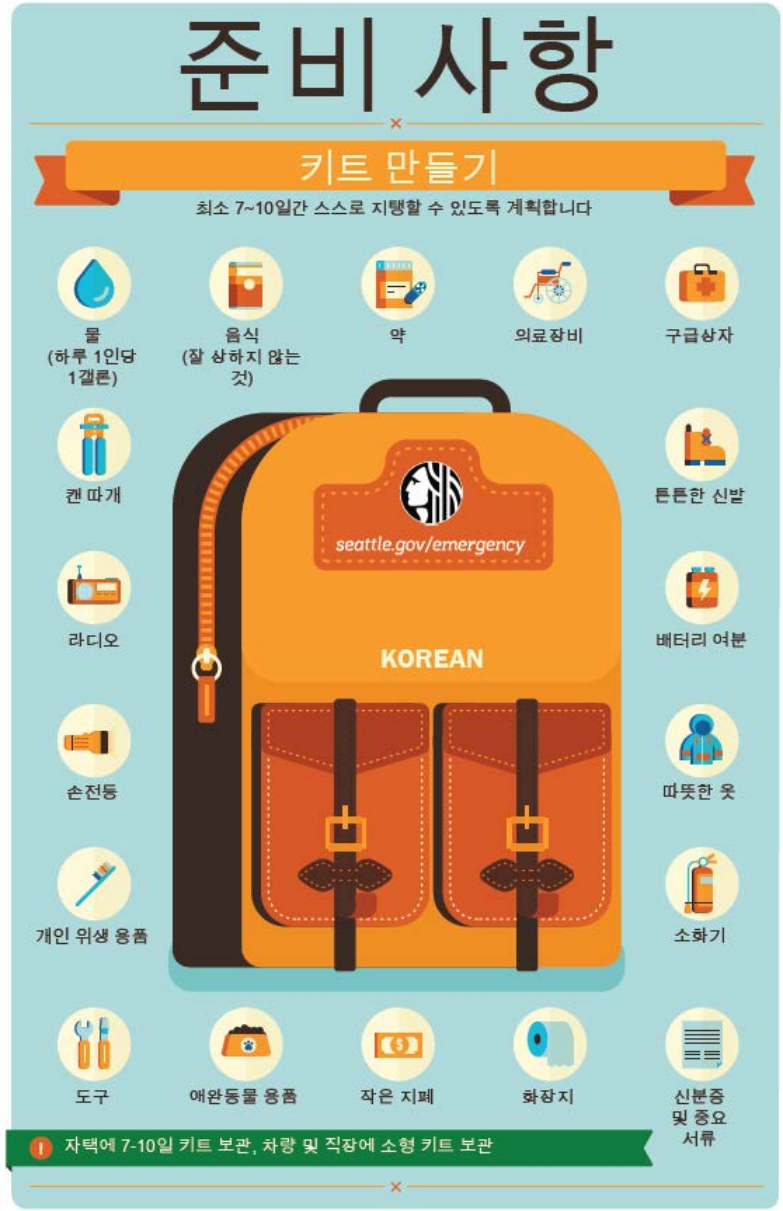
This training provides an overview of light search and rescue skills and basic rescuer safety. When first responders are overwhelmed, residents may apply some of these techniques to help those around them in need. This Workshop covers rescuer safety, basic search techniques and basic rescue techniques (lifts, carries, cribbing). This training includes a lecture portion and hands-on practice of search and rescue techniques. View the upcoming trainings page to see when the next workshop is offered.

COMMUNITY SAFETY AMBASSADORS
Seattle Office of Emergency Management
Communities helping communities prepare

snap
Seattle Neighborhoods Actively Prepare

Laurel Nelson
Deputy Director
Office of Emergency Management

Laurel.nelson@seattle.gov

206-233-5075

www.seattle.gov/emergency-management