ORIGINAL SEAWALL

- Voids and Gribble damage to timber seawall elements
- Major Utilities in Alaskan Way
- 1934 fill
- Liquefiable soils
- Non-Liquefiable soils
- Deteriorating sheet pile wall
Seattle's waterfront park comes into focus

The basic outlines of the ambitious park, really four big parks connected by a promenade, are now emerging. There are very sensible design decisions being made, but can the city pull off such a spectacular plan?

By David Brewster

After all the battles over the Viaduct and the deep-bore tunnel, are we going to manage to create a splendid waterfront park for Seattle? The desire is there, and the setting is certainly spectacular. But it won't be easy, particularly given Seattle's way of building and bungling major projects.

It's now possible to get a better idea of what might happen. After the successful vote for the tunnel last month, the guardedness has been relaxed. Additionally, more details are being filled in, so the design is moving from a generic 26-block esplanade into something far more tailored to the conditions of the spaces. What follows are some of the things I learned from tagging along on a tour put together by the Seattle Parks Foundation and guided by the two principal city officials in charge, city planner Marshall Foster and...
WATERFRONT SEATTLE
A NEW DESTINATION PARK

LEGEND
- SEATTLE PARKS
- DESTINATION PARKS
STRATEGIC PLAN

• Built on public input on Framework Plan and Concept Design

• Engaged broader business/philanthropic community in “how we get it done”

• Established public/private funding plan:
  – State and City funding
  – Philanthropy
  – Property owner assessment (LID)
WATERFRONT SEATTLE

CONSTRUCTION SCHEDULE

2017
PIKE PLACE MARKETFRONT
SEAWALL REBUILD

2018
PIER 62/63 REBUILD & HABITAT IMPROVEMENTS

2019
EARLY WORKS
Utility relocations

2020
ALASKAN WAY VIADUCT DEMOLITION
SR 99 tunnel open*

MAIN CORRIDOR
Alaskan Way, Elliott Way, Columbia St, Seneca St, Lenora St and Promenade

EAST/WEST CONNECTIONS
Bell St, Union St, Pioneer Square Street Improvements and Pike and Pine Streetscape Improvements

OVERLOOK WALK

WATERFRONT PARK

2021
MARION STREET BRIDGE
Joint project between City and State; construction schedule is approximate

AQUARIUM OCEAN PAVILION
Potential early work

2022

2023

2024

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
*Dependent on Seattle Tunnel Partners contractor schedule
SEAWALL
SEAWALL
SEAWALL
NEW SEAWALL
TYPICAL CROSS SECTION
HABITAT BEACH
HABITAT BEACH
ALASKAN WAY TODAY (AT MARION)
ALASKAN WAY EAST SIDE (AT MARION)
HISTORIC PIERS TODAY
HISTORIC PIERS PROMENADE
MARION STREET BRIDGE TODAY
NEW MARION STREET BRIDGE
OVERLOOK WALK, PIERS, ELLIOTT WAY
CENTRAL PUBLIC SPACE
PIKE PLACE MARKET - MARKET FRONT
OVERLOOK WALK

PLACES

PIKE PLACE MARKET
MARKETFRONT
BLUFF WALK
WATERFRONT LANDING CONDOS
PROMENADE LANDING
PIER 52/53
NORTH STAIR
BAY STEPS
WEST OVERLOOK
SO
TH OVERLOOK
BRIDGE
AQUARIUM ROOF
SEATTLE AQUARIUM
PROMENADE
PIKE HILL CLIMB
PIKE HILL
FIX/MADORE
OVERLOOK WALK
OVERLOOK WALK

CAFE & CANOPY
LOOKING NORTHEAST
ENGINEERING CHALLENGES
NOTES:

1. ALL DRAINAGE STRUCTURES STATION AND OFFSETS ARE FROM NORTHBOUND ALASKAN WAY ALIGNMENT AND UNLESS OTHERWISE NOTED, MEASURED TO THE CENTER OF DRAINS AT THE FACE OF CURB. PER STD PLAN 260A AND 211, STREETS AT LOCATIONS WHERE DRAINS DO NOT ENCROACH ON BUTTONS SHALL BE SET 3 FT AT CURB LINE.

2. REFER TO PROFILE SHEETS FOR ELEVATION INFORMATION FOR ALL MAINLINE STRUCTURES AND SC CONNECTIONS AT LEAST ONE UTILITY CROSSING.

3. DURING TRENCHING AND EXCAVATION FOR STORM DRAIN PIPE AND DRAINAGE STRUCTURES THE CONTRACTOR IS ENCOURAGED TO ABDANDON THE BUCKETS AND SHORING PILES CONSTRUCTED DURING THE ALASKAN WAY EXTEND XL PCS 4-18" (SEE SHEET ED02) CURB DRAIN (CD) (SEE DETAIL 1 ON...
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 BNSF, Port cruise ships, and ferry operations
• Maintain major utilities service and reliability
• Provide short-term off-street low-rate parking
• Ensure construction sequencing balances the needs of all projects in the waterfront area
• Coordinate work zones and detour routes with all projects
PROPOSED ALASKAN WAY
AT UNIVERSITY STREET
ALASKAN WAY: STRUCTURAL ELEMENTS

Retaining Walls:

- **RW-1A** – Structural Earth Wall (SEW) (540’ long, 20’ max height). 2 wall types: full height overlapping precast panels and 5’ square precast panels.

- **RW-1B** – Cast-in-place concrete wall (290’ long, 8’ max height). Located on the south side of Pine St.


- **RW-3** – Geosynthetic wall (20’ long, 10’ max height). Temp. wall to support driveway to Pike Market parking garage.

- **RW-4** – Two wall types: Structural Earth Wall (SEW) (230’ long, 16’ max height) and soldier pile tieback wall (610’ long, 45’ max height). Steep hillside, adjacent to BNSF RR tracks.

- **RW-6** – Cast-in-place concrete wall (64’ long, 3’ max height). Located along building near Lenora St.

- **RW-7** – Cast-in-place concrete wall (100’ long, 5’ max height). Located at Fix-Madore Plaza.

ALASKAN WAY: STRUCTURAL ELEMENTS

Bridges:

• **Elliott Way Over BNSF RR Approach Bridge**: 170’ long x 40’ wide reinforced concrete slab bridge supported by shafts and soldier piles.

• **Elliott Way Over BNSF RR Bridge** – 2-span, 245’ long x 80’ wide prestressed girder bridge with large skews (34 degrees to 62 degrees) at piers supported by large diameter shafts.

• **Lenora Street Bridge** – Structural modifications and seismic retrofit of existing 3-span, 170-ft long reinforced concrete pedestrian bridge built in 1930’s.

• **Marion Street Pedestrian Bridge** – Single span, 110’ long x 16’ wide pedestrian bridge spanning over Alaskan Way to replace the existing walkway from 1st Avenue to the Colman Dock Ferry Terminal.

• **Union Street Pedestrian Bridge** – 3-span, 150’ long x 17’ wide reinforced concrete box girder bridge with integral stairway and elevator.
CENTRAL WATERFRONT CONSTRUCTION: 2018-2023

SR 99 Connections and Surface Street Connections projects (WSDOT, 2018-2020)
Viaduct and ramp demolition (WSDOT, 2019)
Colman Dock (WSDOT/WSF, 2017-2023)
Waterfront Seattle (2017-2023)
Future site of Aquarium Ocean Pavilion
Pier 66 (Port of Seattle, 2017-2018)

Two-Way Columbia (SDOT, 2017-2018)
RapidRide G (SDOT, 2019-2021)
Center City Connector (SDOT, 2017-2019)

Dates of work subject to change pending: a) Tunnel & JNIV Demolition completion dates and, b)igioning evaluation of sequencing and packaging assumptions for all projects. Private-development not shown; coordination is ongoing.

Last updated: 03/16/18
WORK THROUGH LATE-2018

RELOCATE UTILITIES TO PREPARE FOR VIADUCT DEMOLITION

TIMELINE

SR 99 Connections (WSDOT)

Columbia Street Areaway Improvements

Colman Dock (WSDOT/WSF)

Electrical utility connections

Private utility relocation (for viaduct removal)

Building demolition

Pier 62 Rebuild (construction began in 2017)
PIER 62 SITE PLAN

LEGEND

1. INSTALL TEXTURED CONCRETE DECK
2. INSTALL NEW RAILING
3. INSTALL FLOATING BOAT DOCK
4. PROVIDE LIGHT PENETRATION NEAR SHORE
5. BUILD SHALLOW-WATER MARINE HABITAT
6. REDUCE OVERWATER COVERAGE
7. REPLACE AGING SUPPORT PILEs
8. INSTALL UTILITIES AND SOLAR-POWERED LED LIGHTS

EXISTING PIER 63
CONSTRUCTION PROGRESS
FUNDING SOURCES

Philanthropy
$100M

Local Improvement District (LID)
est. $200M

Public funding
$388M
  State funding - $193M
  City funding - $195M

TOTAL = $688M

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