Ship Canal WATER QUALITY PROJECT

Seattle Public Utilities

King County

McMILLEN JACOBS ASSOCIATES | HDR | JA Johnston Architects | HBB | VERF GGE

- **Seattle Design Commission - Ballard Pump Station**
- 5425 Shilshole Avenue Northwest
- SDCI Building Permit No. 6715316
- November 19, 2020

This project is funded in part by the Washington State Department of Ecology and Environmental Protection Agency through State Revolving Fund and Water Infrastructure Finance and Innovation Act loans

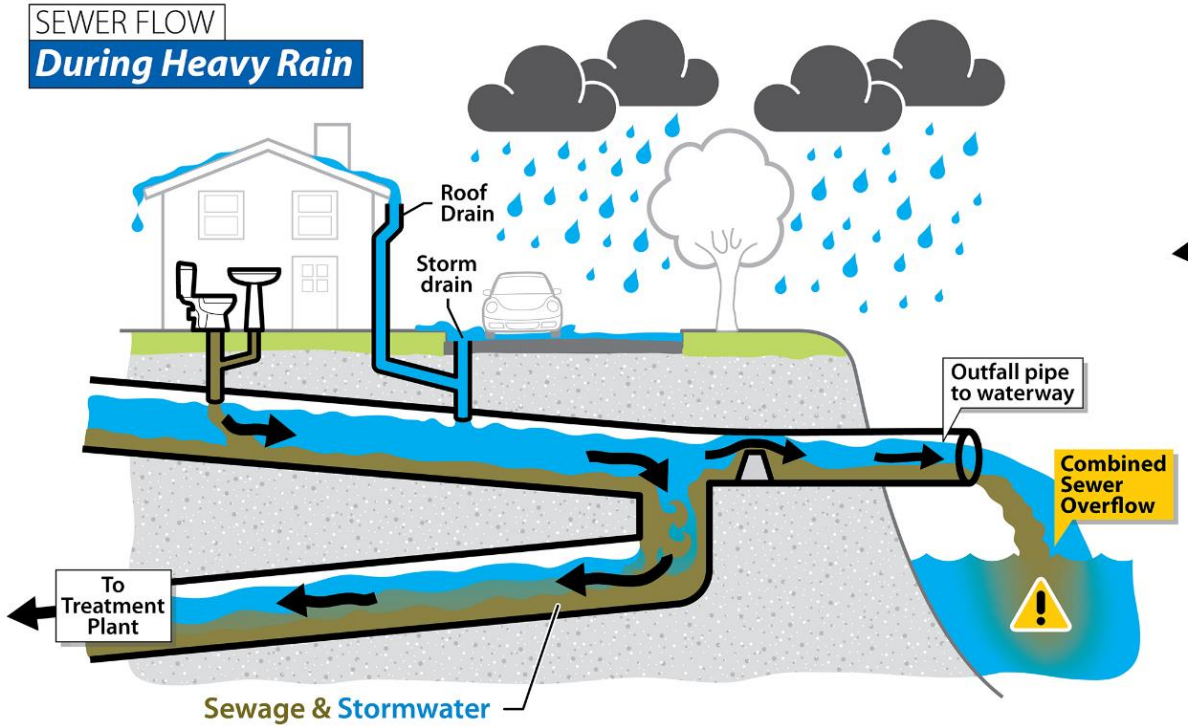
EPA United States Environmental Protection Agency

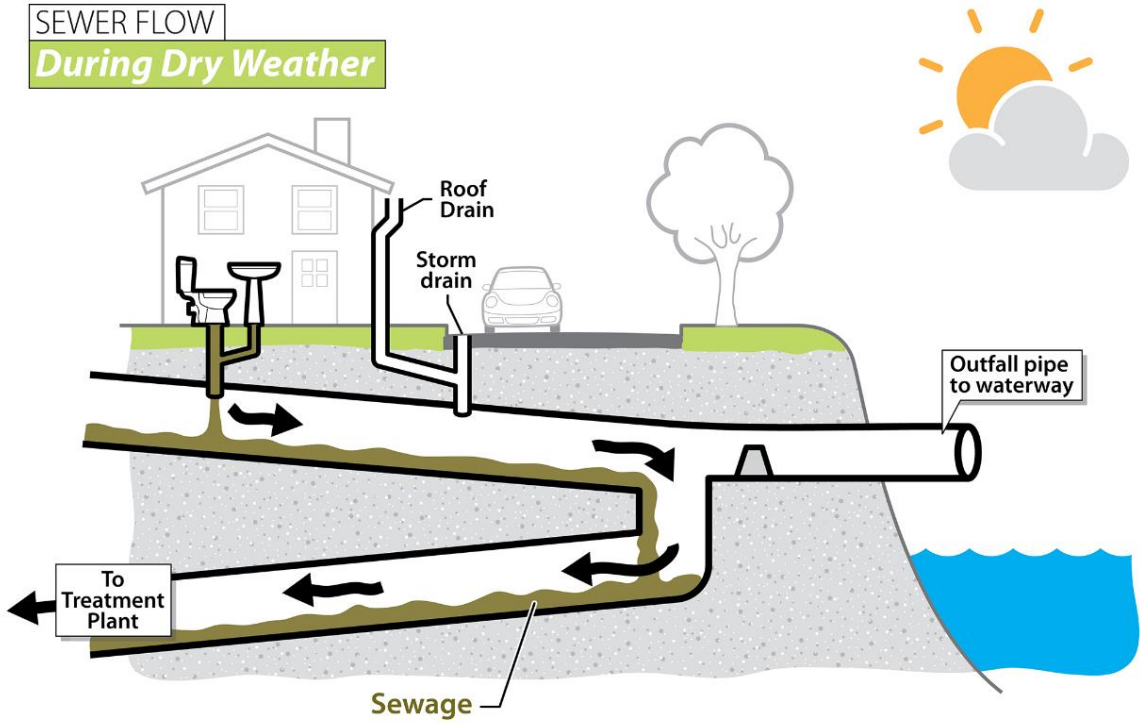
DEPARTMENT OF ECOLOGY State of Washington

Agenda

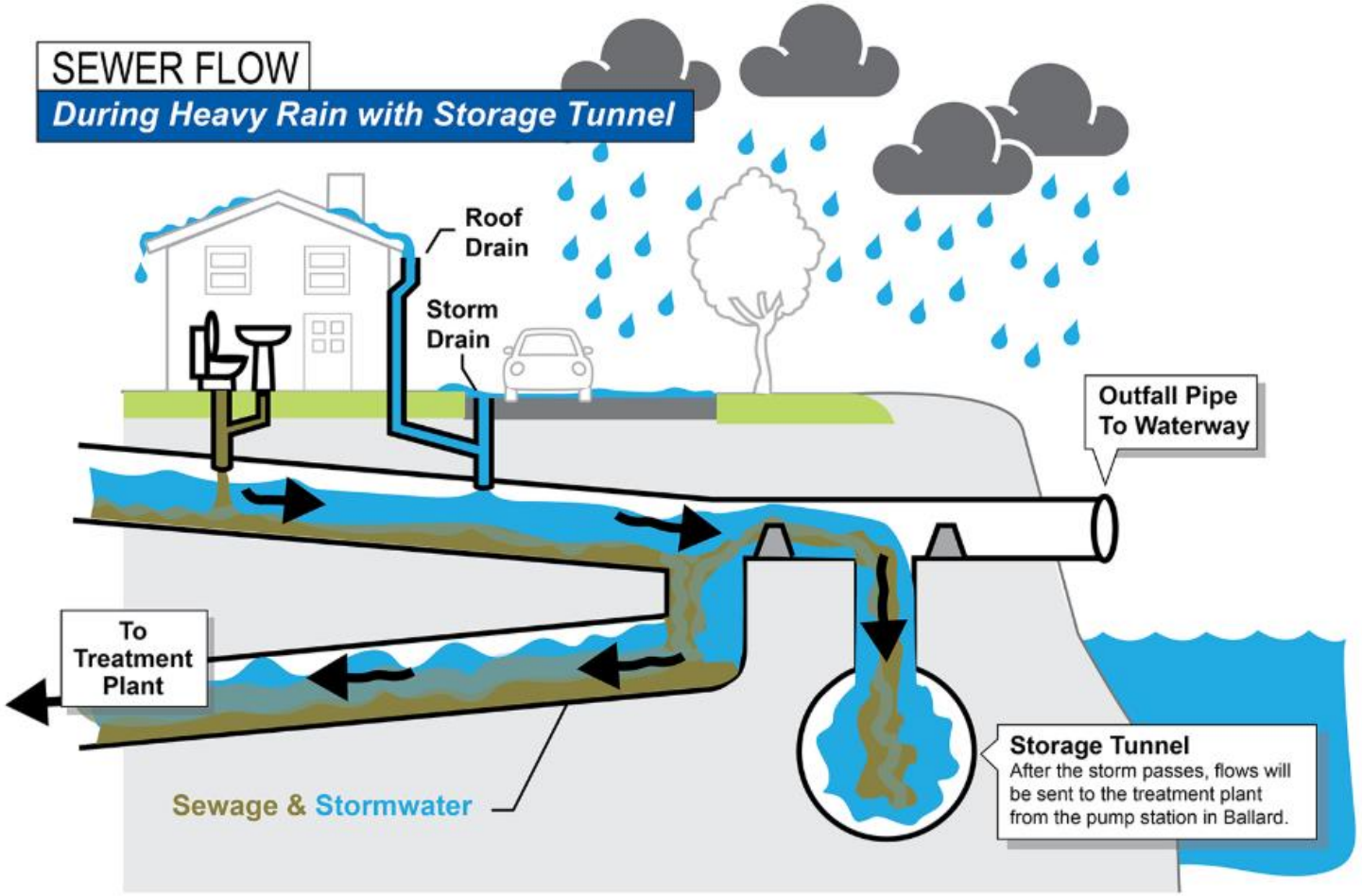
- Program overview
- Outreach and engagement
- Equity
- Site and Landscape design
- Public Art

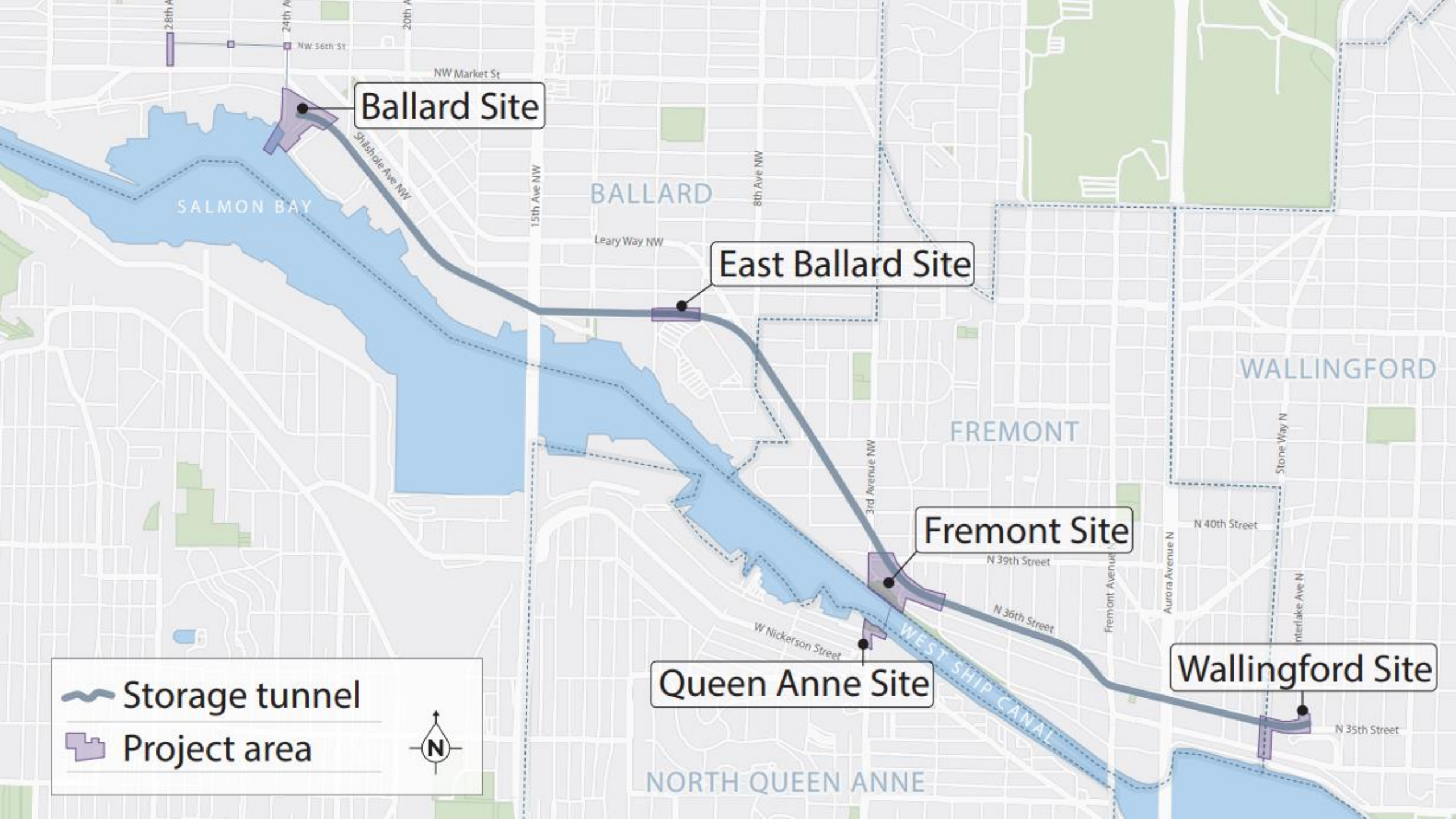
Combined Sewer Overflows



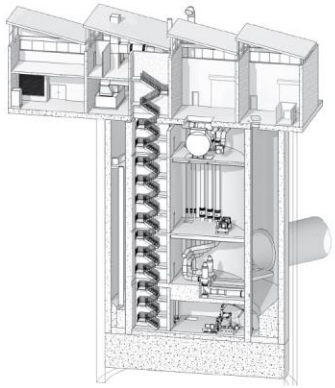


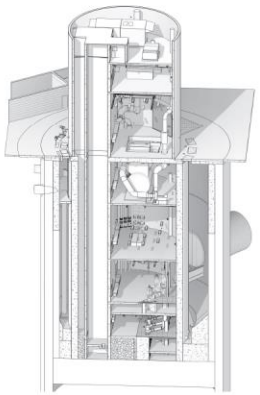
How a tunnel helps




Ballard Site
East Ballard Site
Fremont Site
Queen Anne Site
Wallingford Site
SALMON BAY
BALLARD
FREMONT
WALLINGFORD
NORTH QUEEN ANNE
WEST SHIP CANAL
NW Market St
Leary Way NW
15th Ave NW
8th Ave NW
3rd Avenue NW
Shilshole Ave NW
N 39th Street
N 36th Street
N 40th Street
N 35th Street
W Nickerson Street
Aurora Avenue N
Stone Way N
Storage tunnel
Project area
N

BALLARD PUMP STATION





2015 PROJECT START

2017 30% DESIGN SDC MTG

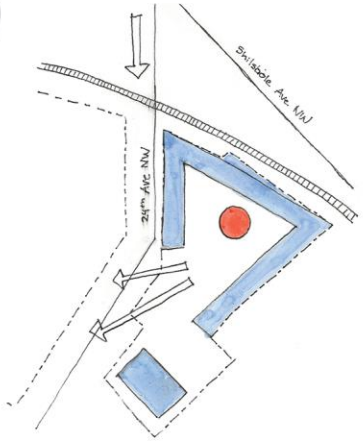
2019 30% DESIGN SDC MTG

2020 DESIGN CONTINUES

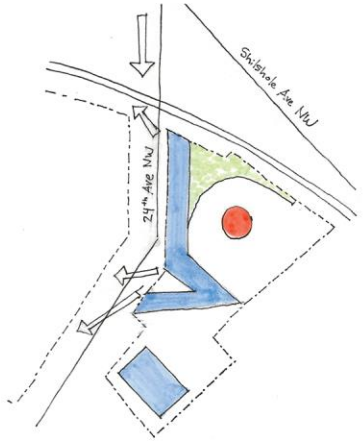
BALLARD SITE

MASTER PLANNING

2018



2019



BALLARD PUMP STATION

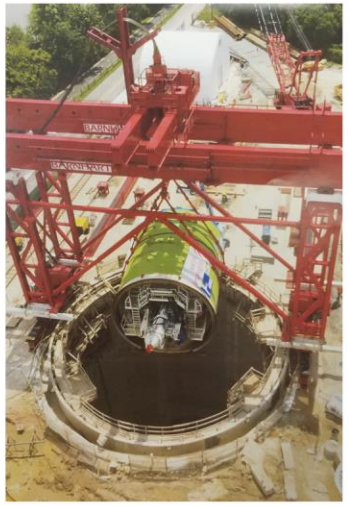
DESIGN COMPLETE

CONSENT DECREE DEADLINE

2021

CONSTRUCTION START

2022



CONSTRUCTION COMPLETE

CONSENT DECREE DEADLINE

2025

BALLARD SITE

2022

POTENTIAL OVERALL BALLARD SITE DESIGN

2026-2030

POTENTIAL OVERALL BALLARD SITE CONSTRUCTION

Outreach and Engagement

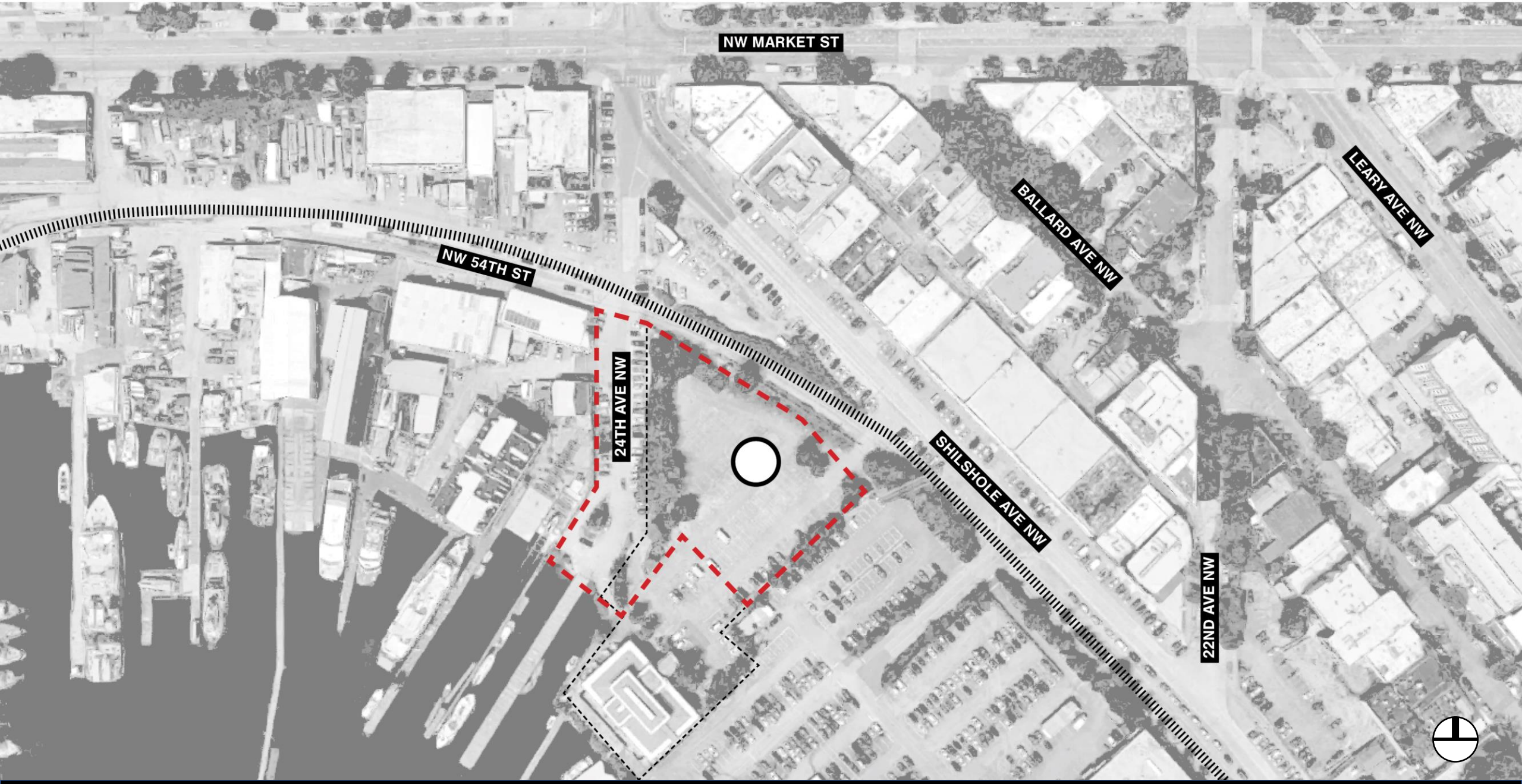
- 24th Avenue survey + drop in session
- Ballard District Council
- Maritime businesses
- Friends of Street Ends
- Groundswell NW
- Friends of Ballard Waterfront Park
- Future outreach
  - Street end
  - Interpretive elements
  - Lighting

Equity

- Interpretive services available as needed
- WMBE firms – 23.4%
- Localized construction outreach
  - Beyond single family residences
  - Community coordination with people experiencing homelessness
- SPU property hosted RV community prior to SCWQP
- Elevation of BIPOC artists through FLOW temporary art installation
- Coast Salish artwork honors Shilshole village and celebrates Native Americans place in Seattle
- Regional engagement (beyond project area) on public relations work

Sustainability

- Envision certification
- Sizing for resiliency
- Design elements
  - Switched from natural gas-powered to electric
  - Temporary elements
  - Urban tree farm
  - Phytoremediation
  - Green stormwater infrastructure



THE BALLARD SITE

SDC 60% | 11/19/2020

City of Seattle
Seattle Public Utilities

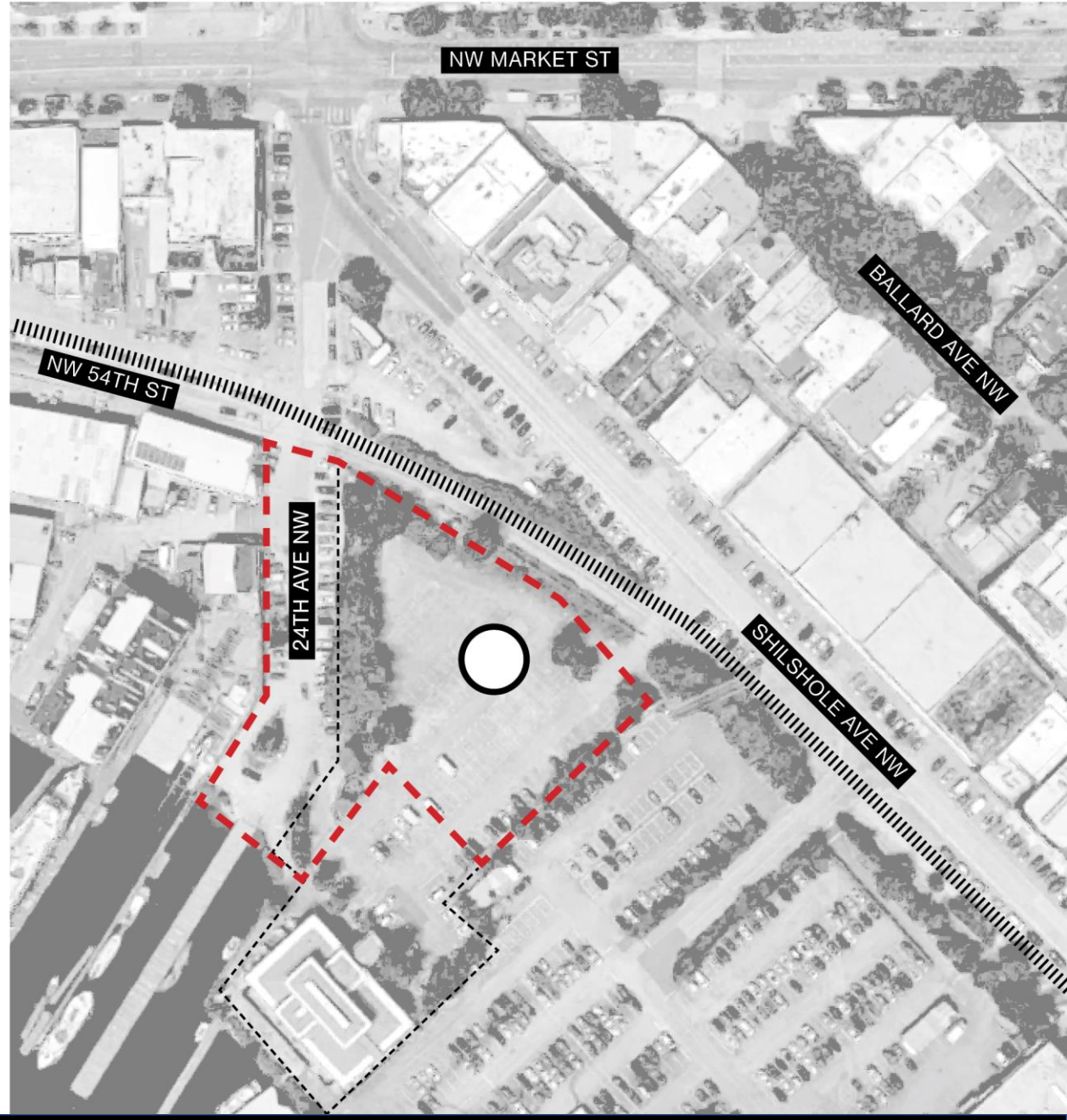
1. Design for the **whole site.**

2. **Express function** of the Ballard Pump Station locally and role of SPU citywide

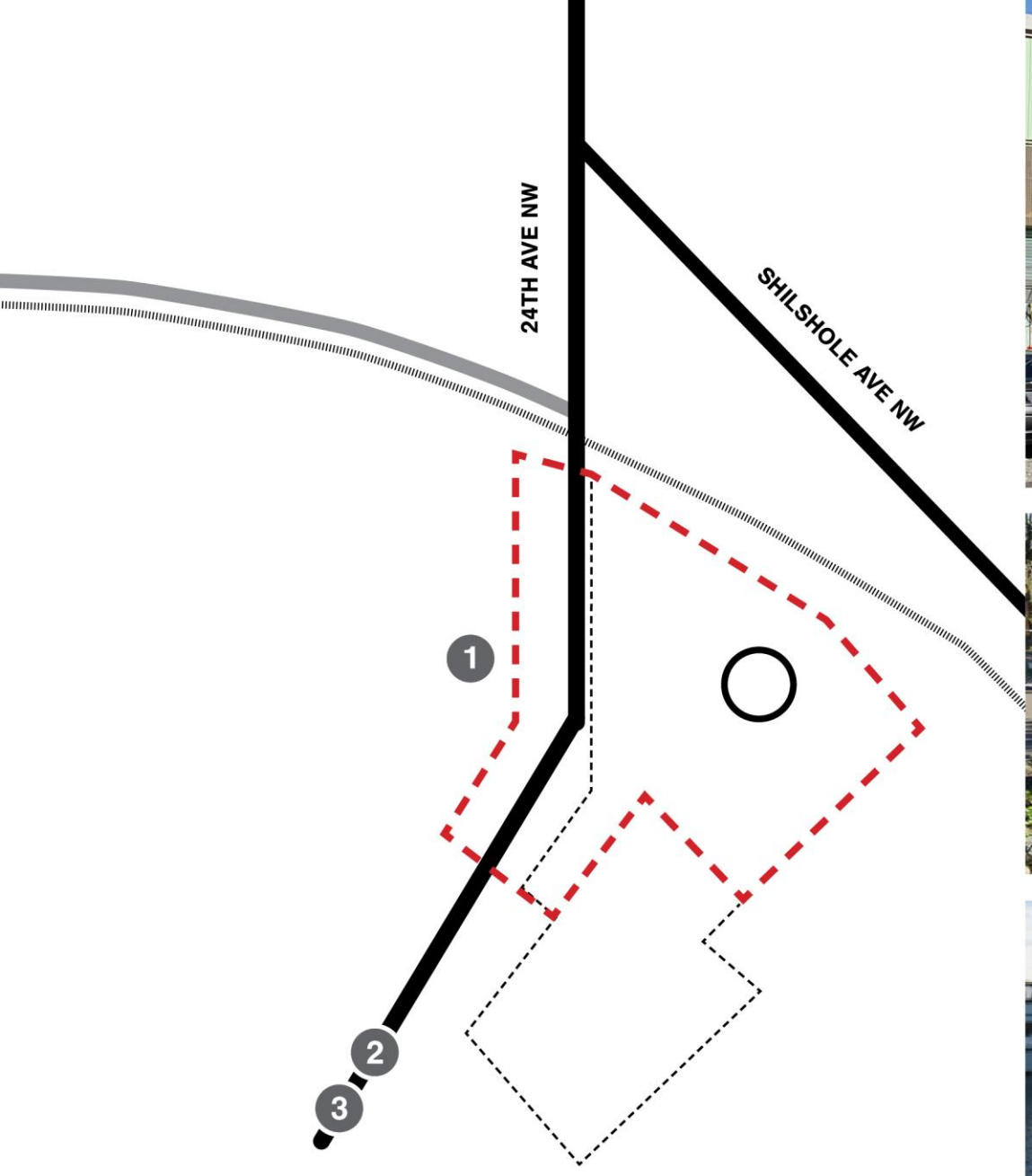
3. Define and **derive benefits** for the Seattle community and SPU

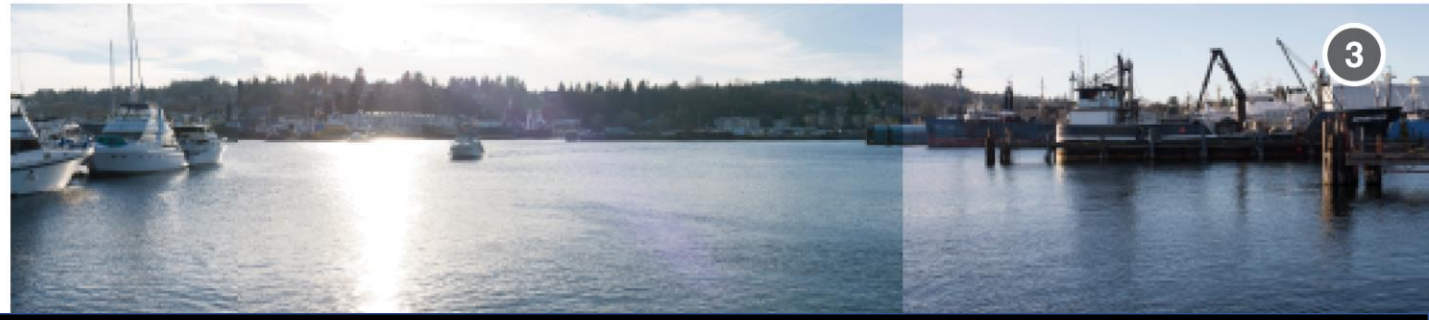
4. Contribute to and **recognize the place** and role of the waterfront in Ballard

5. **Connect the neighborhood to the waterfront** allowing the site to become part of Ballard and the city



SITE DESIGN GOALS





SITE PHOTOS - NEIGHBORHOOD CONTEXT

SDC 60% | 11/19/2020

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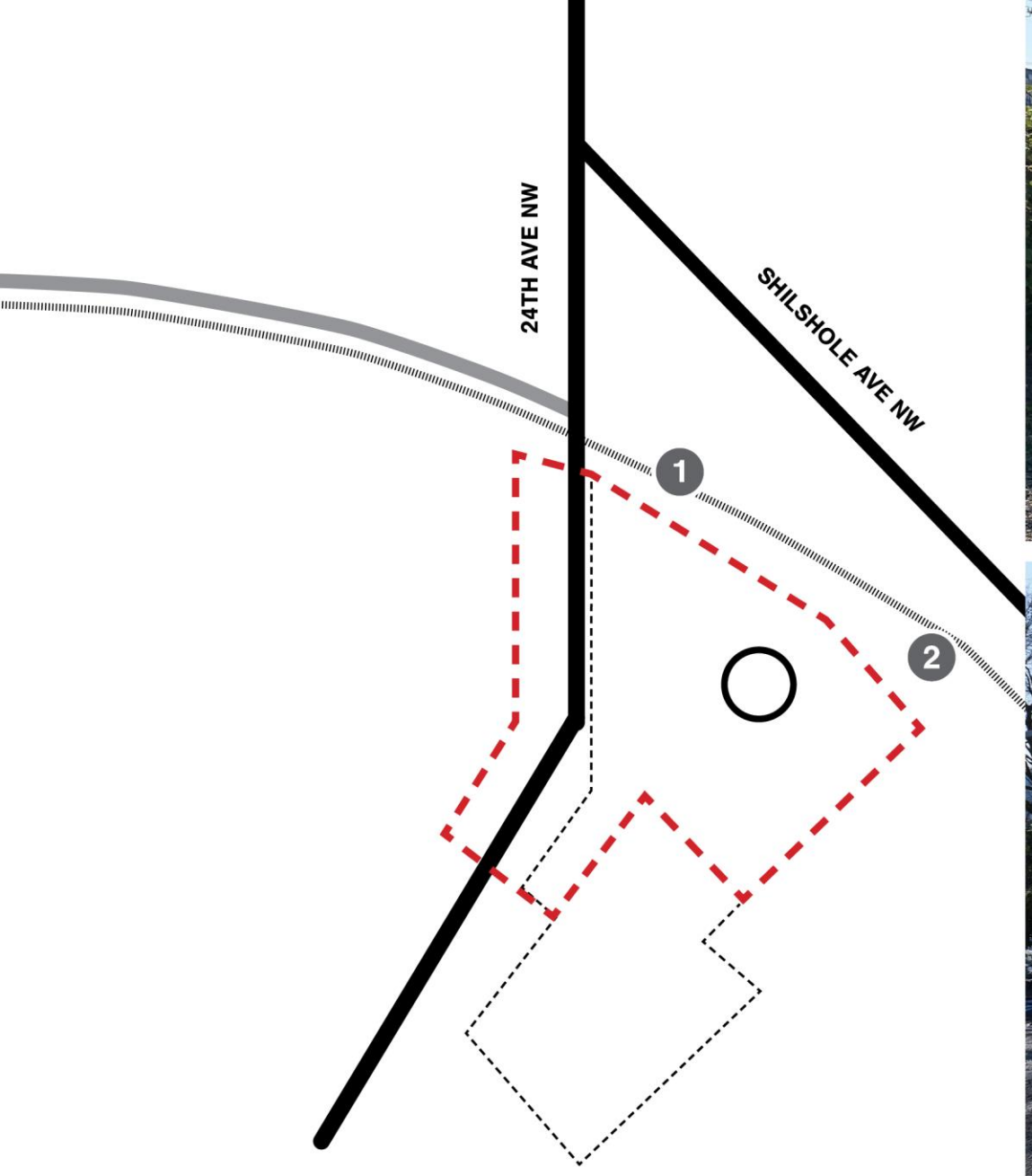
Seattle Public Utilities



SITE PHOTOS – NORTH EDGE

SDC 60% | 11/19/2020

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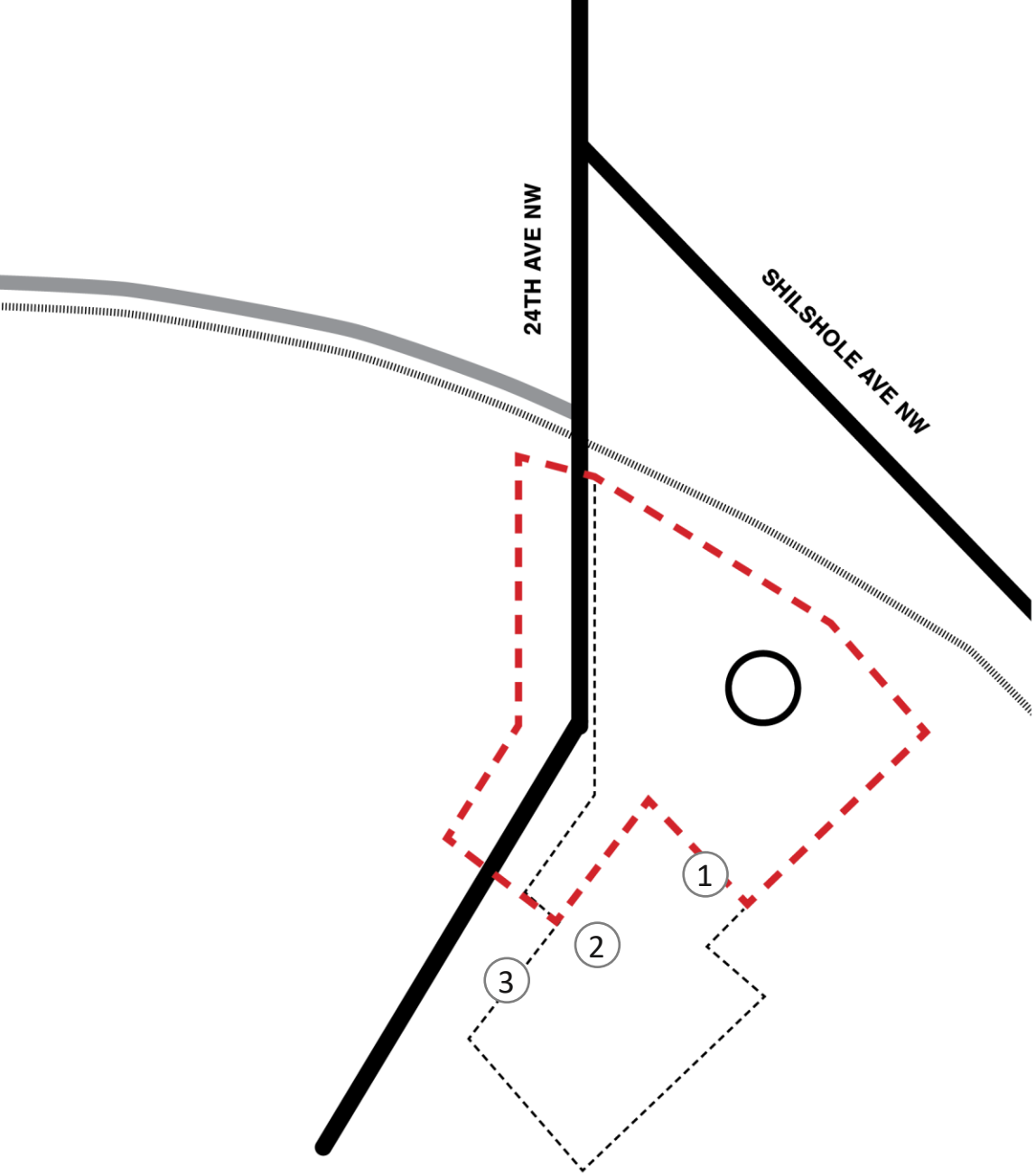
Seattle Public Utilities



SITE PHOTOS - SOUTH & BOB

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ZONING

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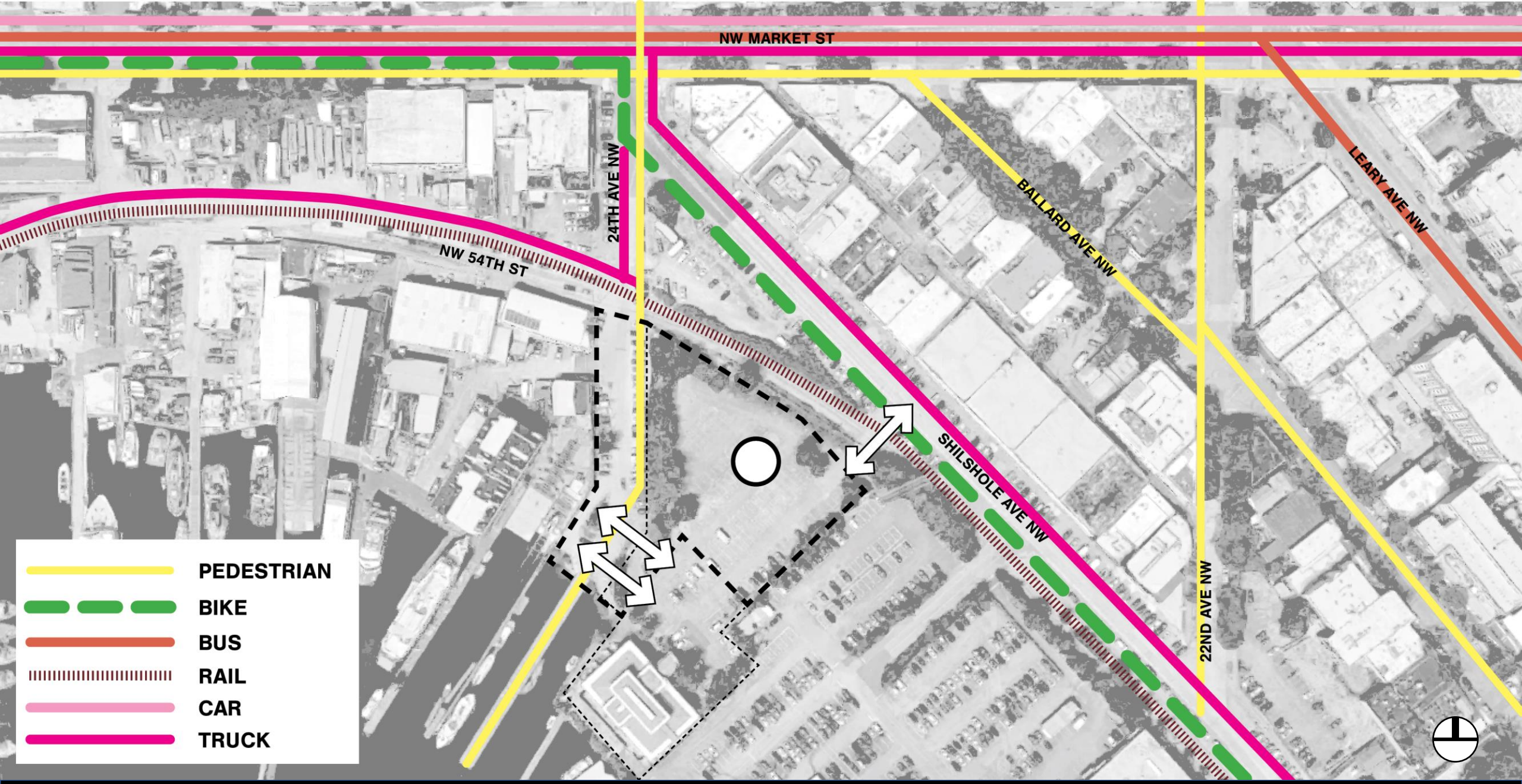
Seattle Public Utilities



ACCESS

SDC 60% | 11/19/2020

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Seattle Public Utilities

BALLARD MULTIMODAL CORRIDOR

1

BALLARD AVE
LANDMARK DISTRICT

NW 54TH ST

24TH AVE NW

SOLD

SHILSHOLE AVE NW

22ND AVE NW

2

3

1 BALLARD YARDS

2 STIMSON PROPERTY

3 24TH AVE PUBLIC PIER

ADJACENT DEVELOPMENT

SDC 60% | 11/19/2020

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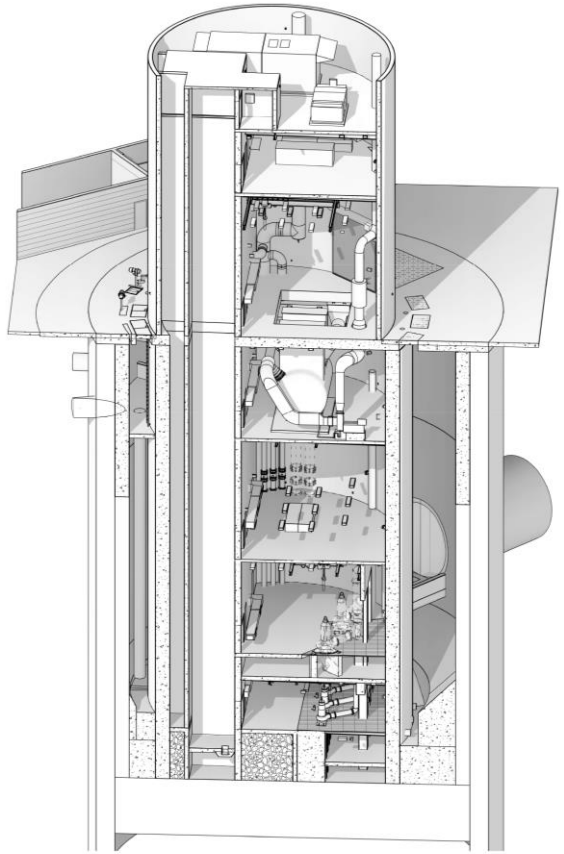
Seattle Public Utilities



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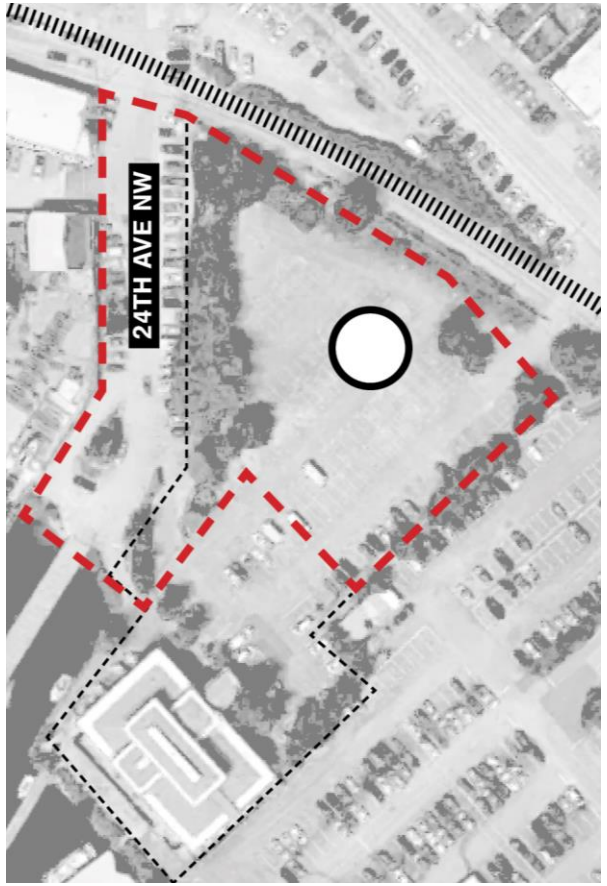


+

1

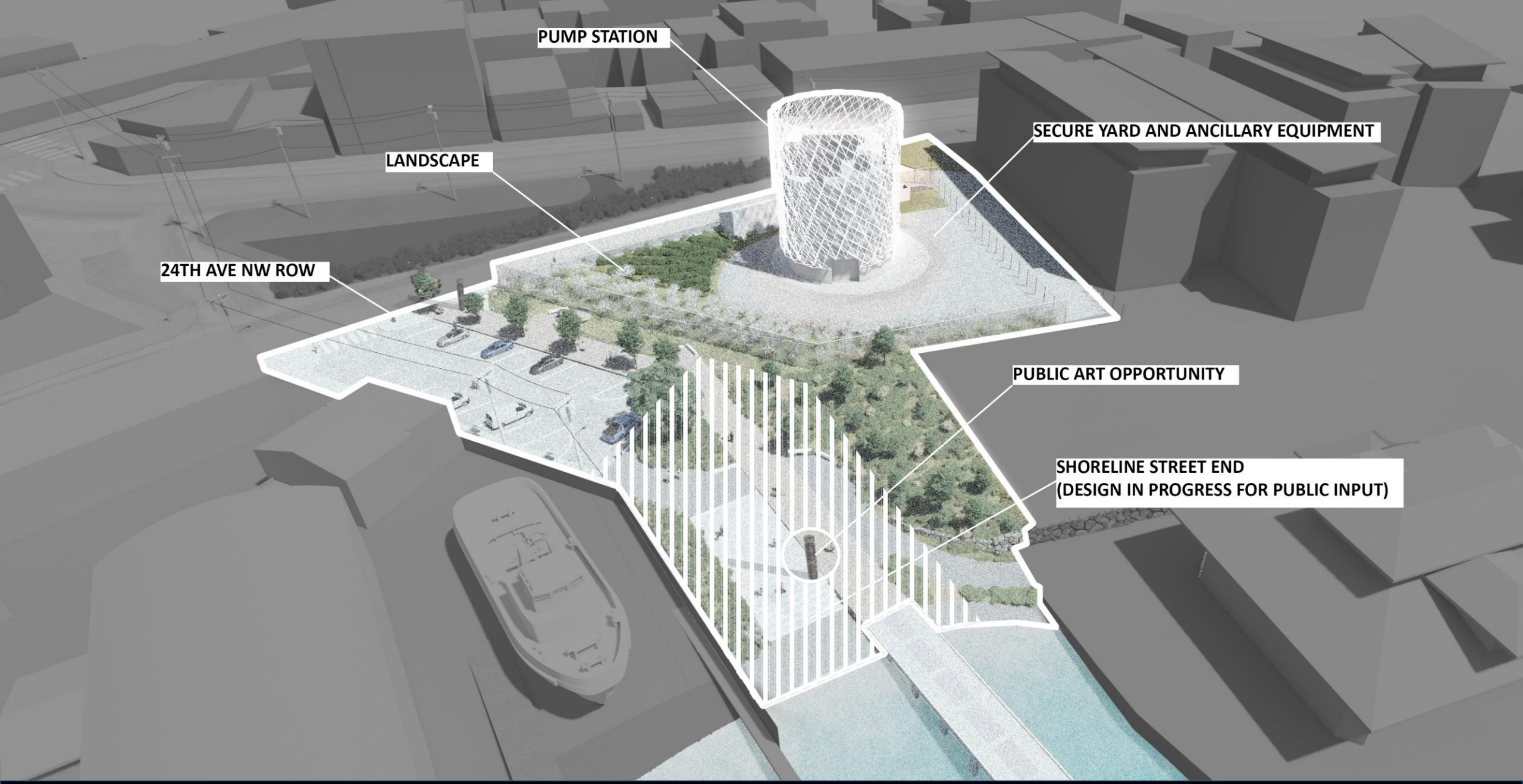
2

3

4

5

DESIGN EQUATION



WHAT WE PRESENTED AT 30% SDC

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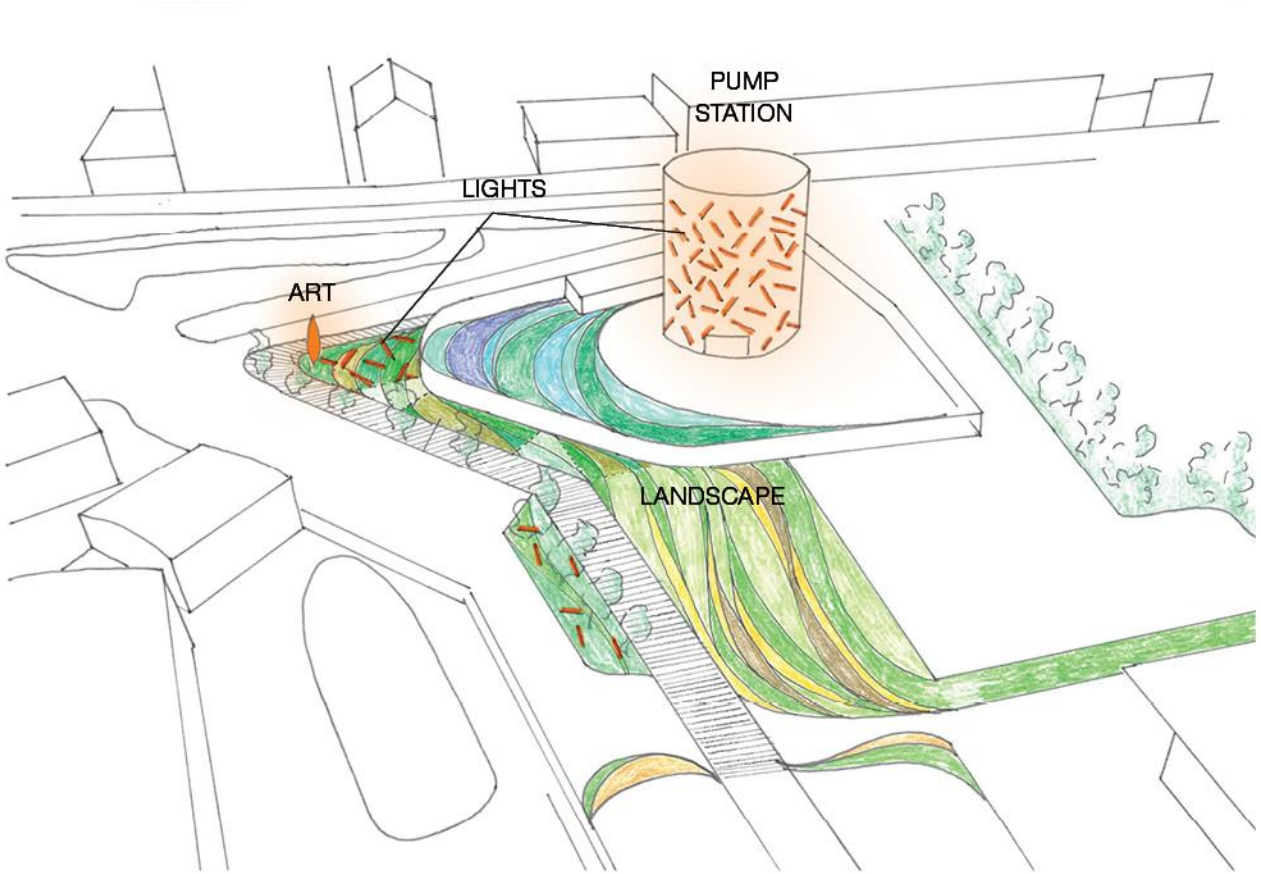
Seattle Public Utilities

Design-Focused Feedback from 30% SDC Presentation:

- Better integrate the three components of the project: **Pump Station, 24th Ave Shoreline Street End, Future Development Parcel.**
- Provide clearer solutions for **circulation** to and through the site for the various phases of development.
- Provide a cohesive strategy for **storytelling and interpretive elements** across the entire project site
- Provide proposed **materials options** and a long term maintenance plan for the pump station structure
- Balance **urban nature efforts** in the interim condition as well as the long term development of the site
- Use **lighting** to bridge between contrasting design elements

Fluid dynamics of water

The Pump Station exerts a pull similar to that of a whirlpool on the landscape. The landscape is pulled toward and around the pump station on its way to the ship canal. The paved urban environment floats lightly on top of this seemingly fluid surface as a series of boardwalks and platforms.



The lights on the tower and in the landscape suggest biolumenesence

They relate to the story behind the Octopus Woman sculpture at the NW corner of the site

SITE CONCEPT IN THE LIGHTS/TOWER/ART

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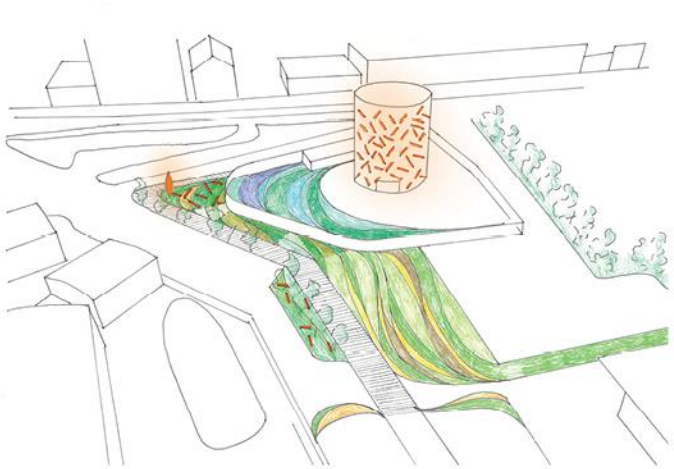
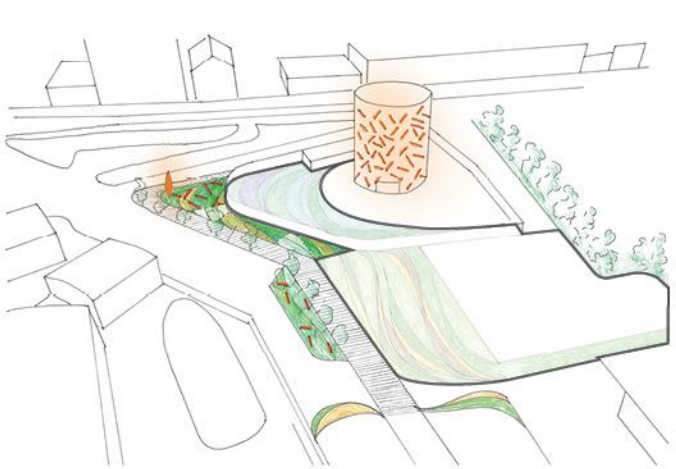
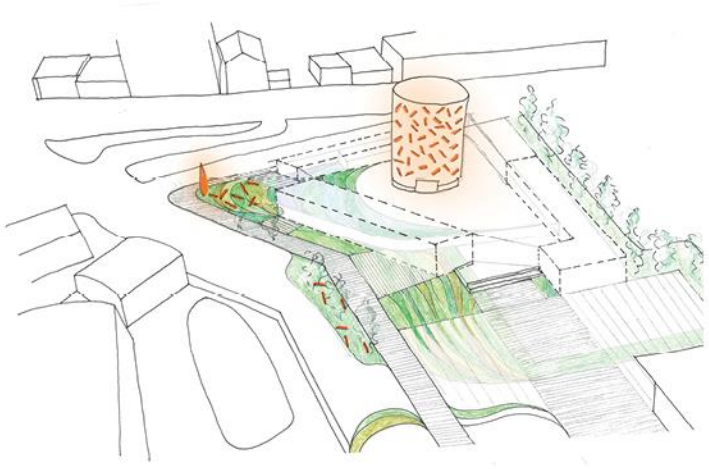


TEMPORARY CONDITION



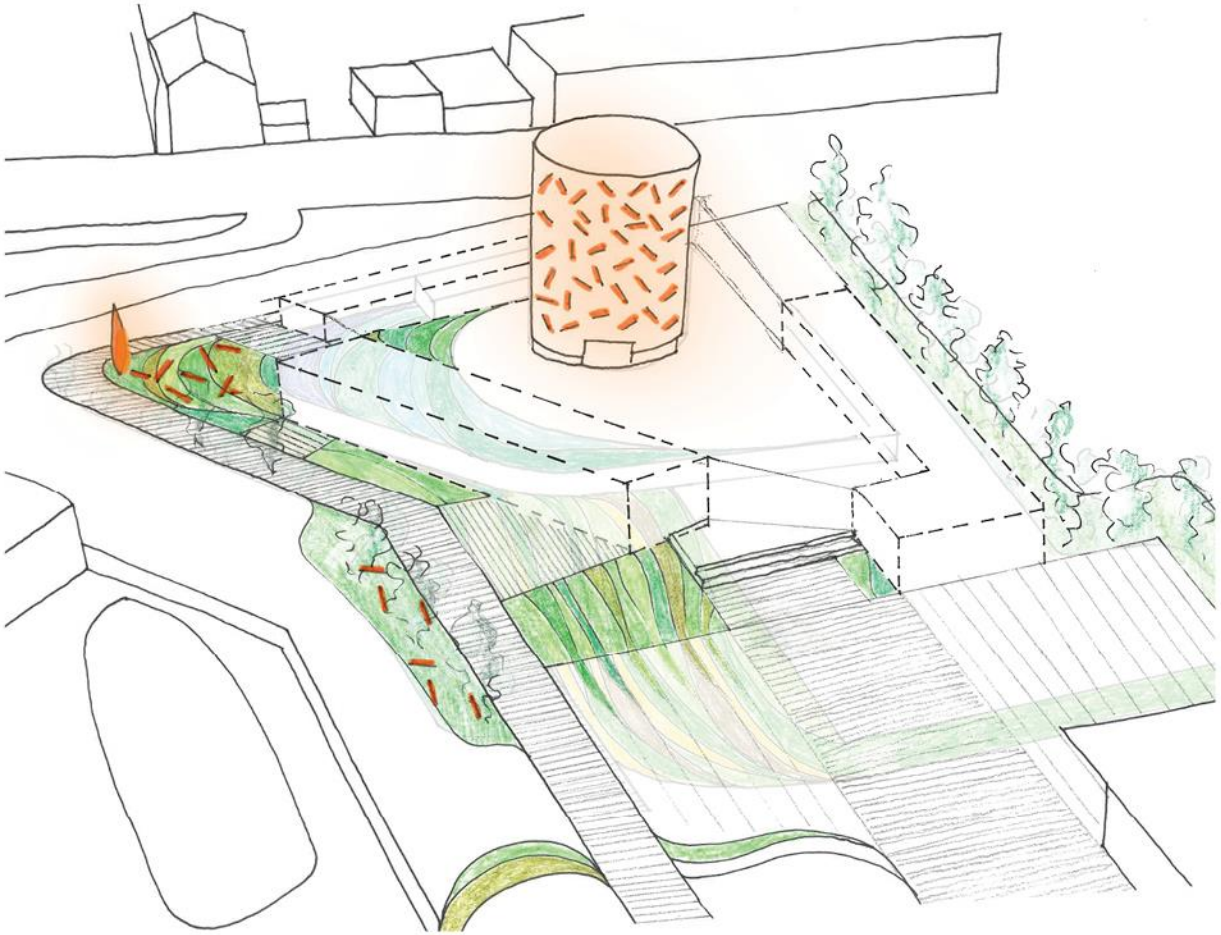
AREA RESERVED FOR
FUTURE DEVELOPMENT

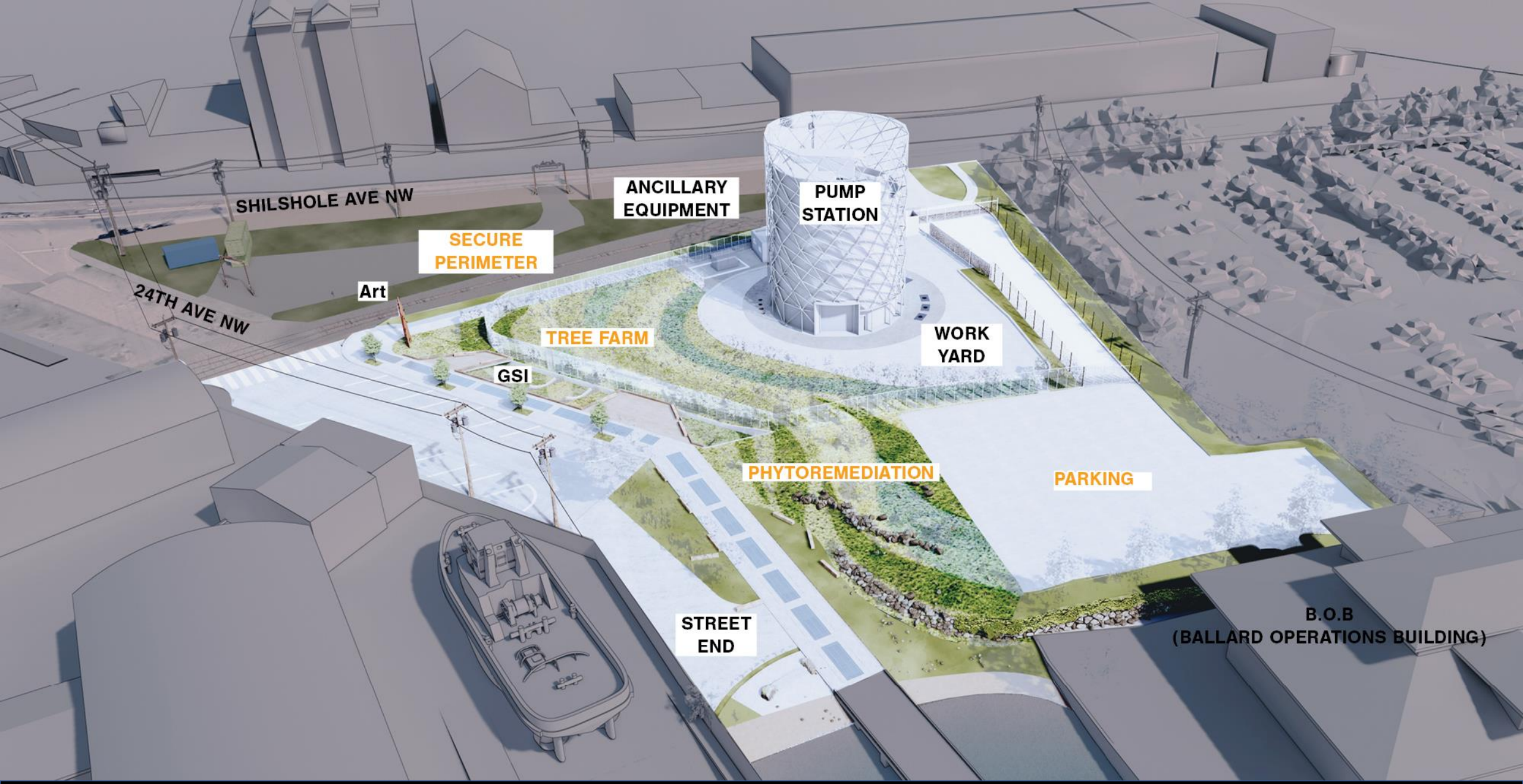


FUTURE DEVELOPMENT

FUTURE DEVELOPMENT WILL:

- WORK WITH THE SITE CONCEPT
- MAINTAIN A BALANCE BETWEEN LANDSCAPE AND BUILT AREA
- AND HIGHLIGHT ART/TOWER





OVERALL SITE

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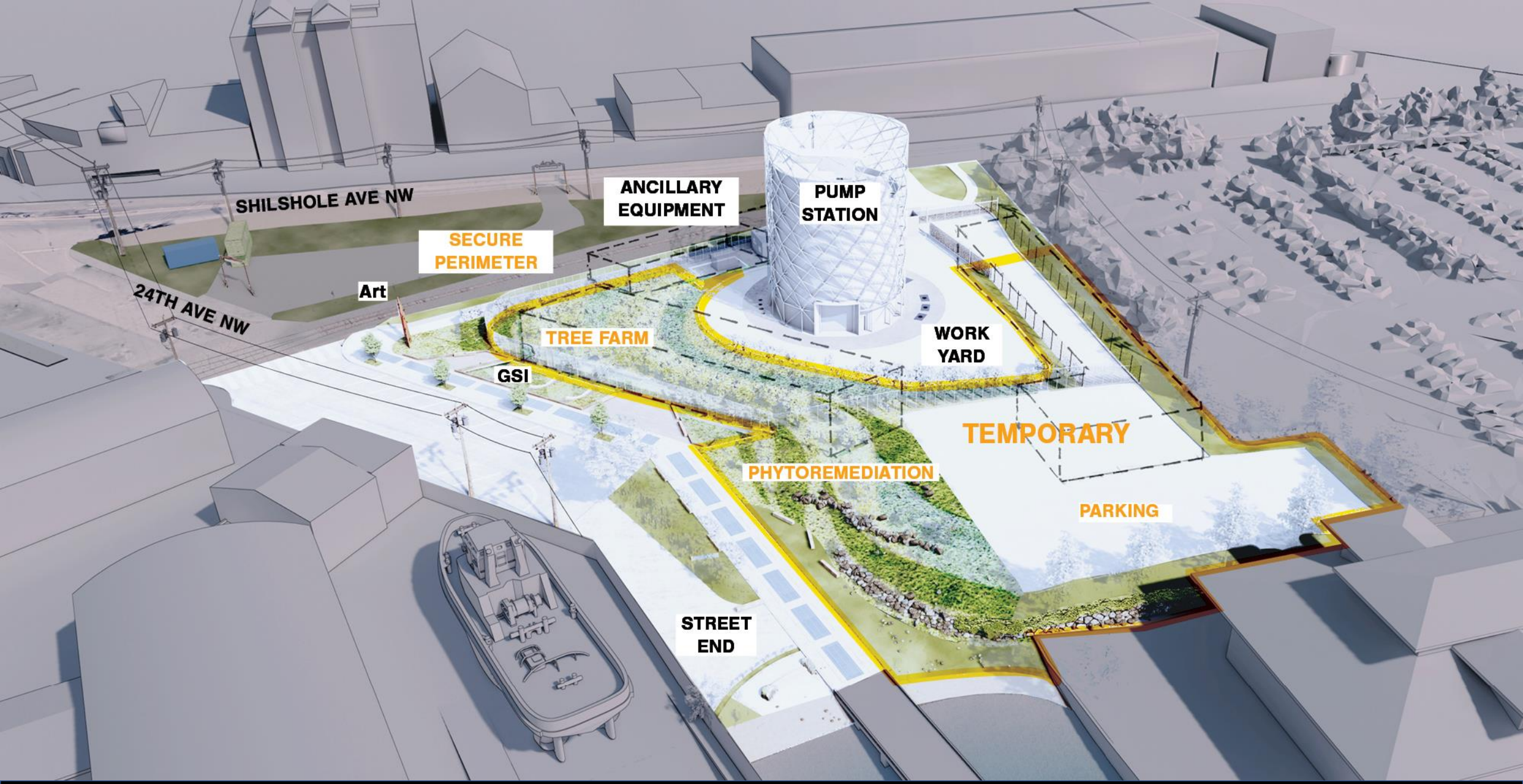
Seattle Public Utilities



TEMPORARY VS PERMANENT

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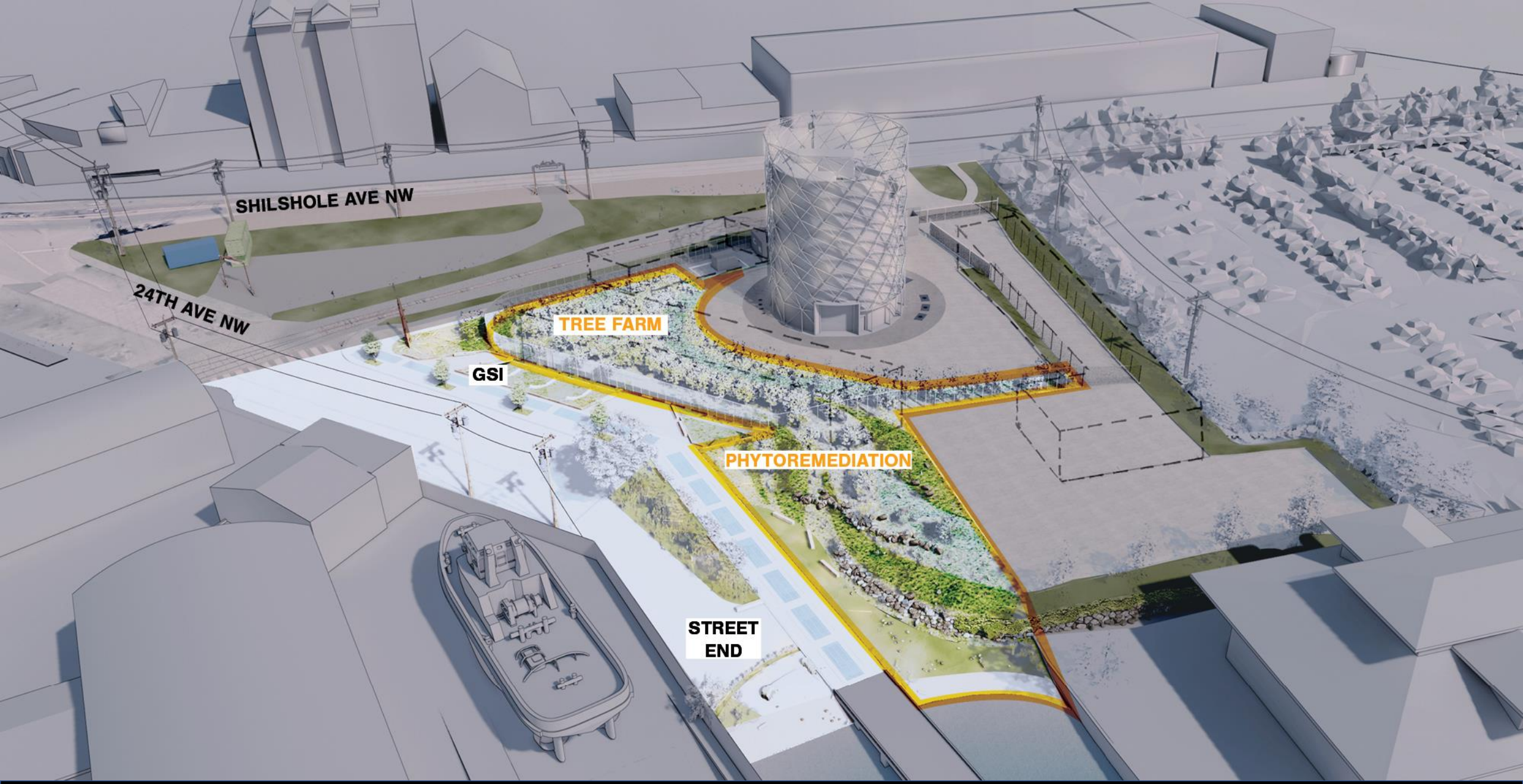
Seattle Public Utilities



LANDSCAPE

City of Seattle
Seattle Public Utilities

1905 Home of Hwehlchtid and Chilohleet'sa, south side of Salmon Bay
(UW Digital Collections)

Stimson Mill

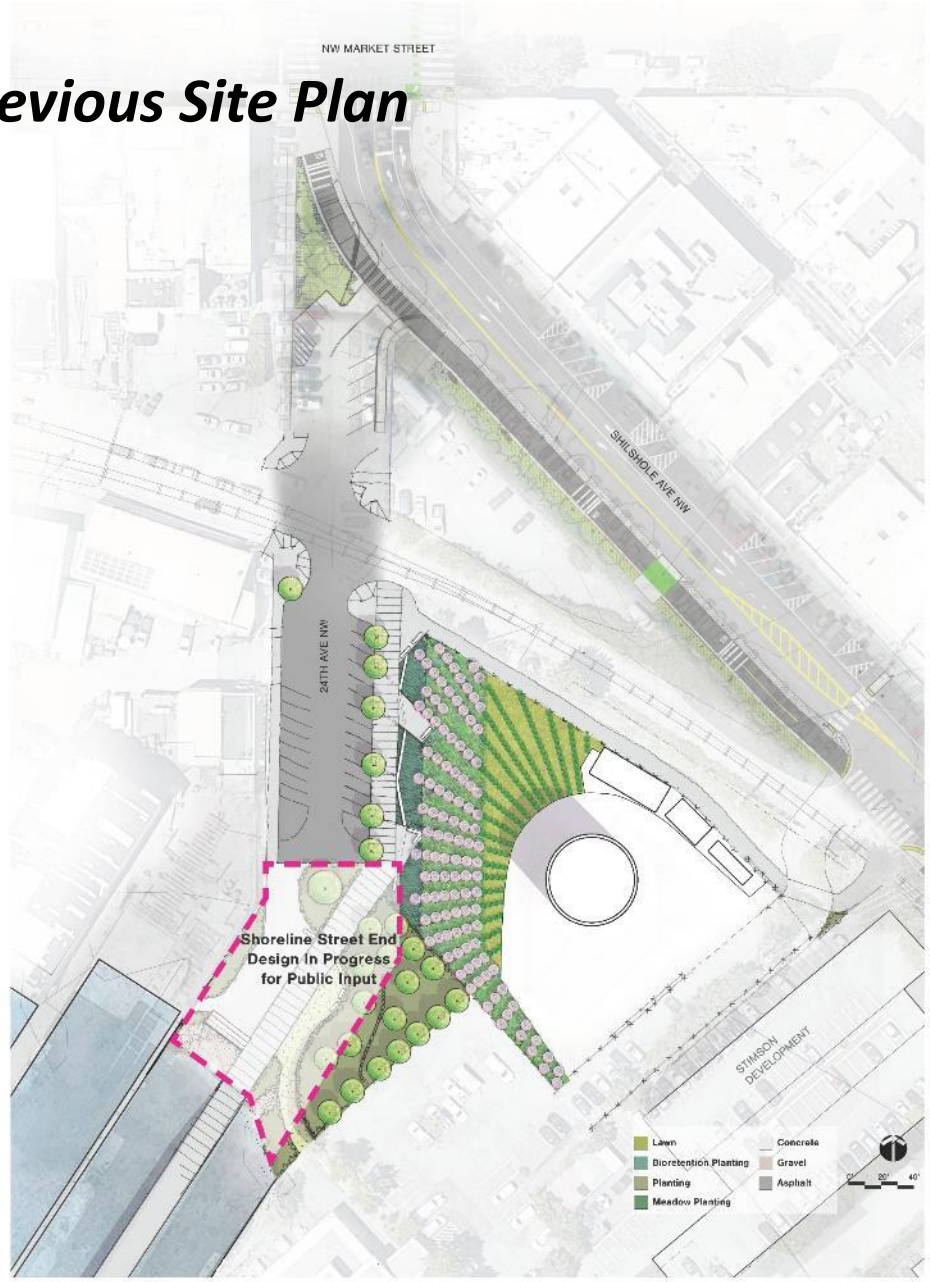
Existing Salmon Bay Marine Industries

Urban Tree Farm

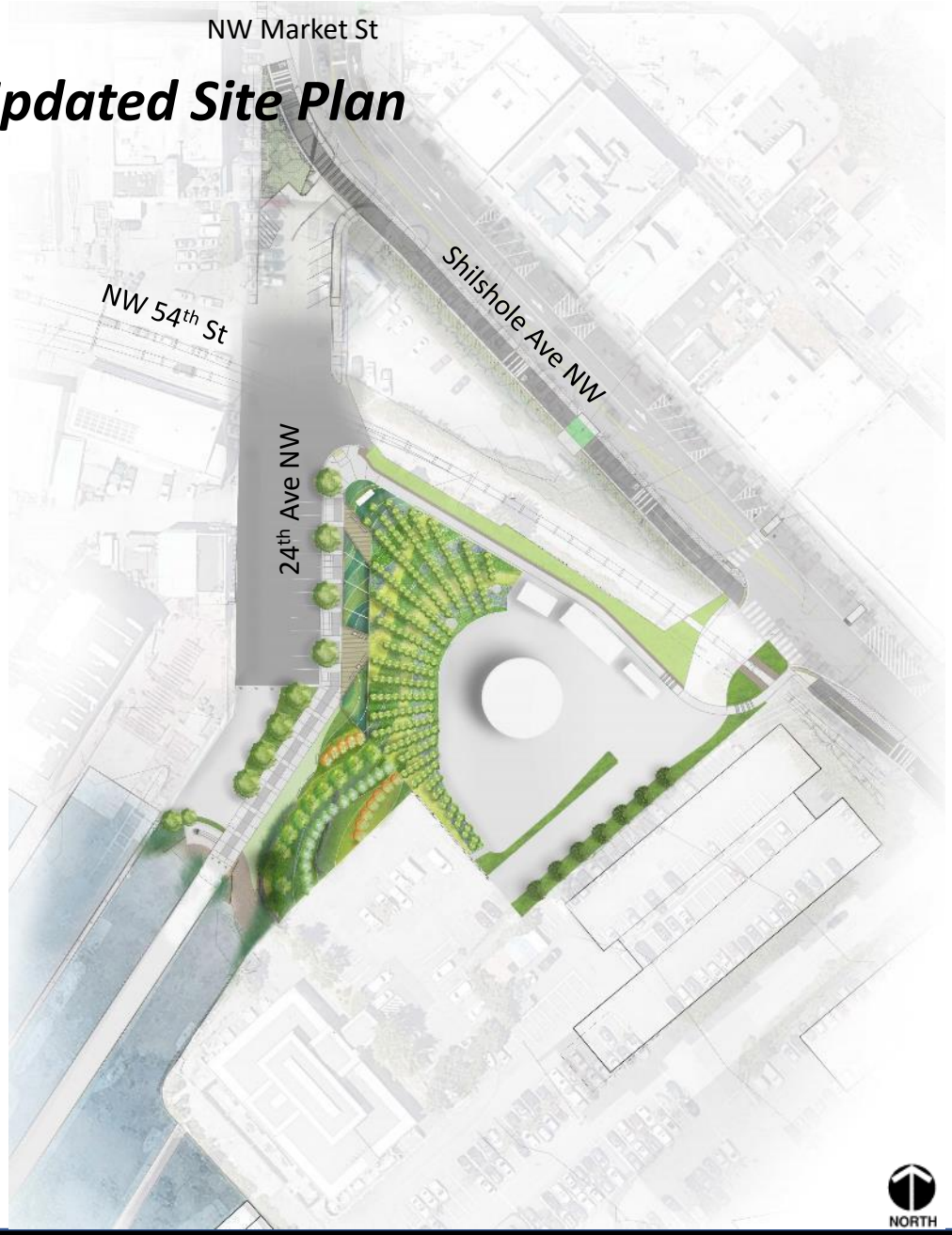
Stormwater Treatment

Phytoremediation

Previous Site Plan



Updated Site Plan



LANDSCAPE SITE PLAN

City of Seattle
Seattle Public Utilities

Updates:

Public art & corner

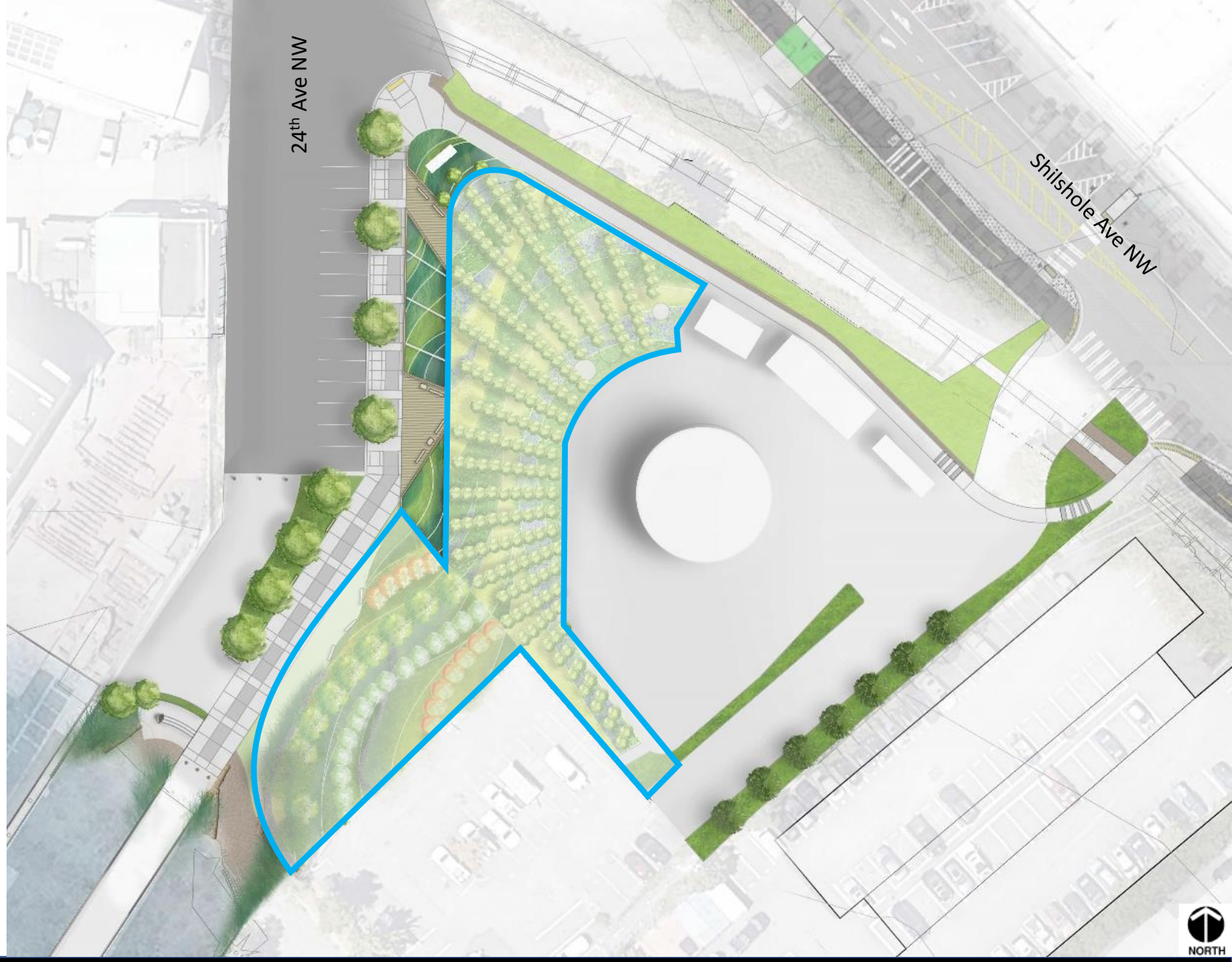
24th ROW & GSI features

Urban tree farm

Street end

Phytoremediation

LANDSCAPE SITE PLAN



LANDSCAPE SITE PLAN

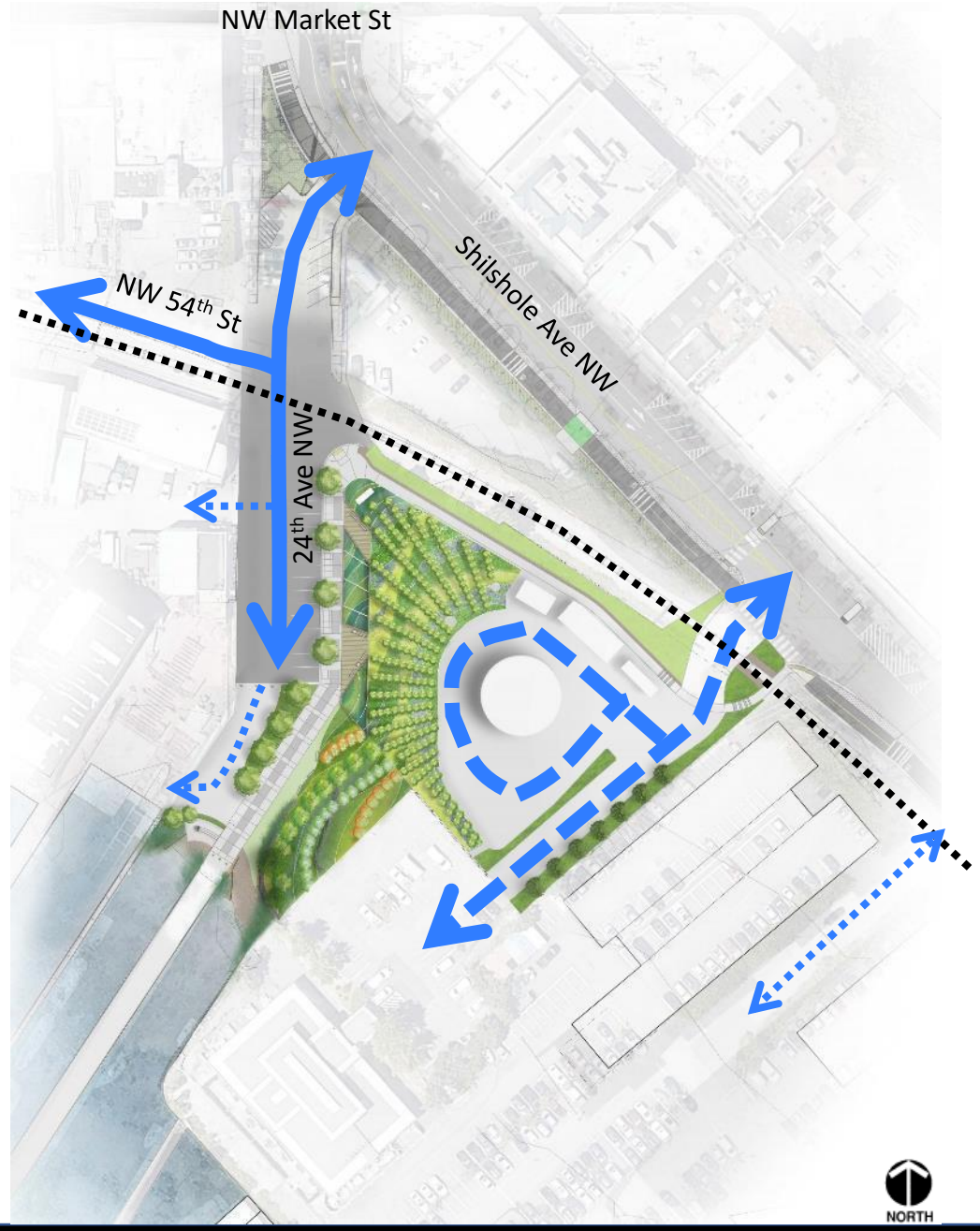
Vehicle Circulation

Railroad

Vehicles

SPU vehicles

Other vehicular access



Vehicle Circulation

Railroad

Vehicles

SPU vehicles

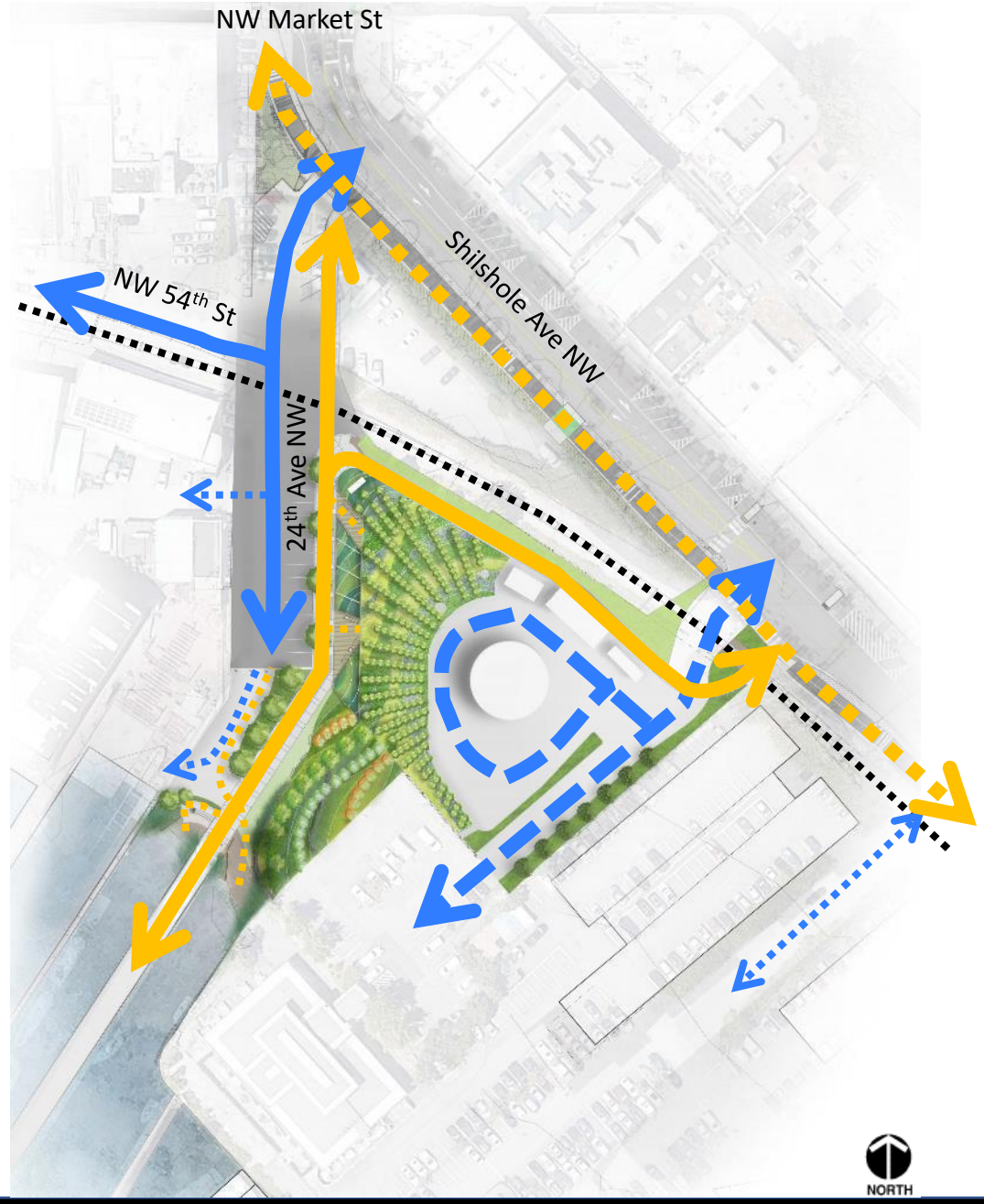
Other vehicular access

Pedestrian & Bike Circulation

Ballard Multimodal Corridor (pending)

Primary access

Secondary access



Pedestrian access for SPU staff

Transformer

Electrical Building

Generator

Pump Station

Pedestrian access for SPU staff

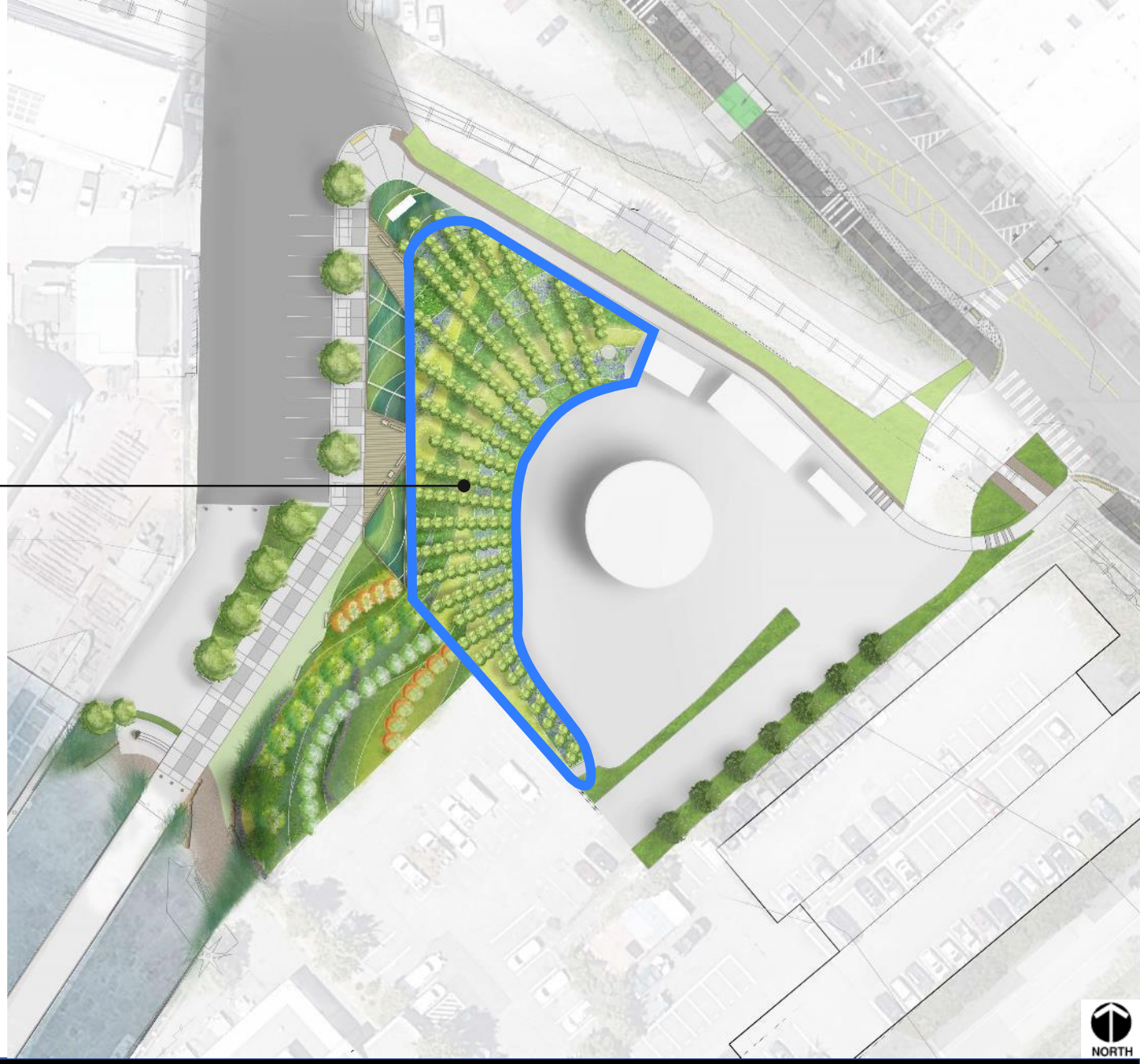
PUMP STATION YARD CIRCULATION

City of Seattle
Seattle Public Utilities

Urban Tree Farm

Updates:

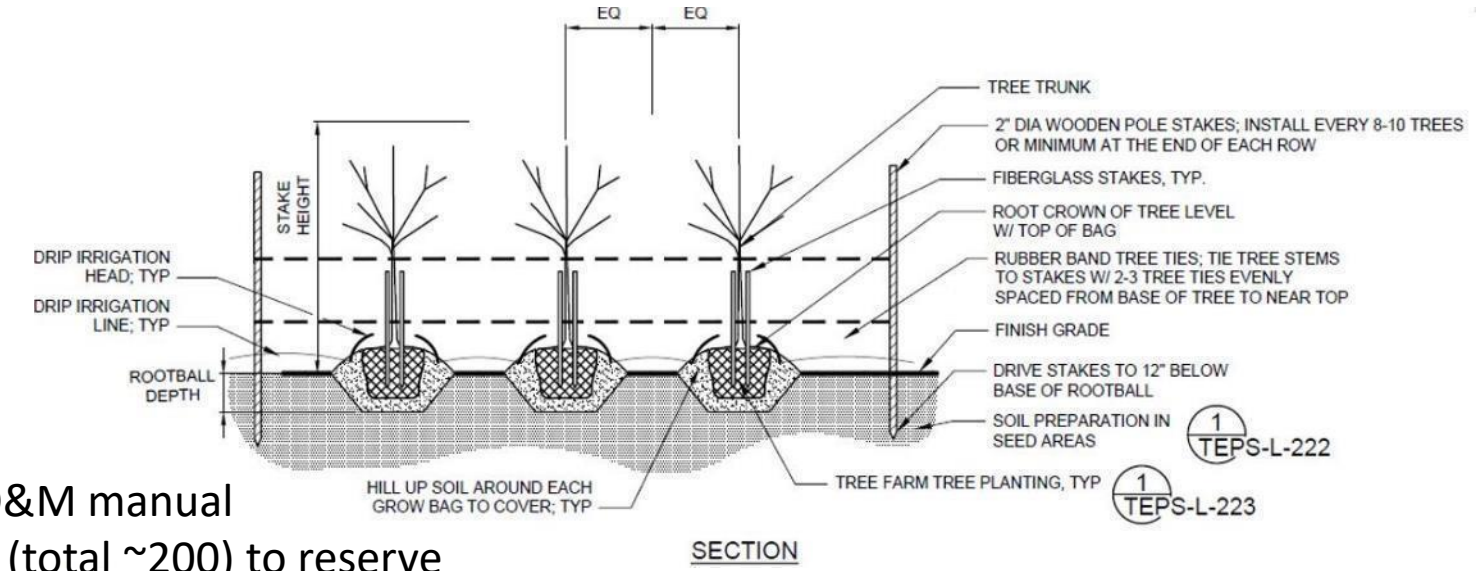
- Replaced blueberries with additional trees
- Reinforcing water concept with flowing lines with groundcover and seed mixes
- O&M manual, and coordination with City agencies



Urban Tree Farm

Possible City Partnerships:

- SPU restoration projects
- SDOT Urban Forestry
- Trees for Seattle
- Trees for Neighborhoods



- Maintained by a contractor for 4-5 years with O&M manual
- Coordinating tree type selection and quantities (total ~200) to reserve
- Locate trees within Ship Canal Water Quality Project area basins

Urban Tree Farm (current selected species)

- 3’-4’ height at planting
- 5’ on center spacing
- Minimum 3’-6” room for riding lawn mowers or small 4-wheel vehicles for maintenance, increases in width to 12’ wide

Snowcone Snowbell *(Styrax japonica ‘Snowcone’)*

Vanessa Parrotia *(Parrotia persiana ‘Vanessa’)*

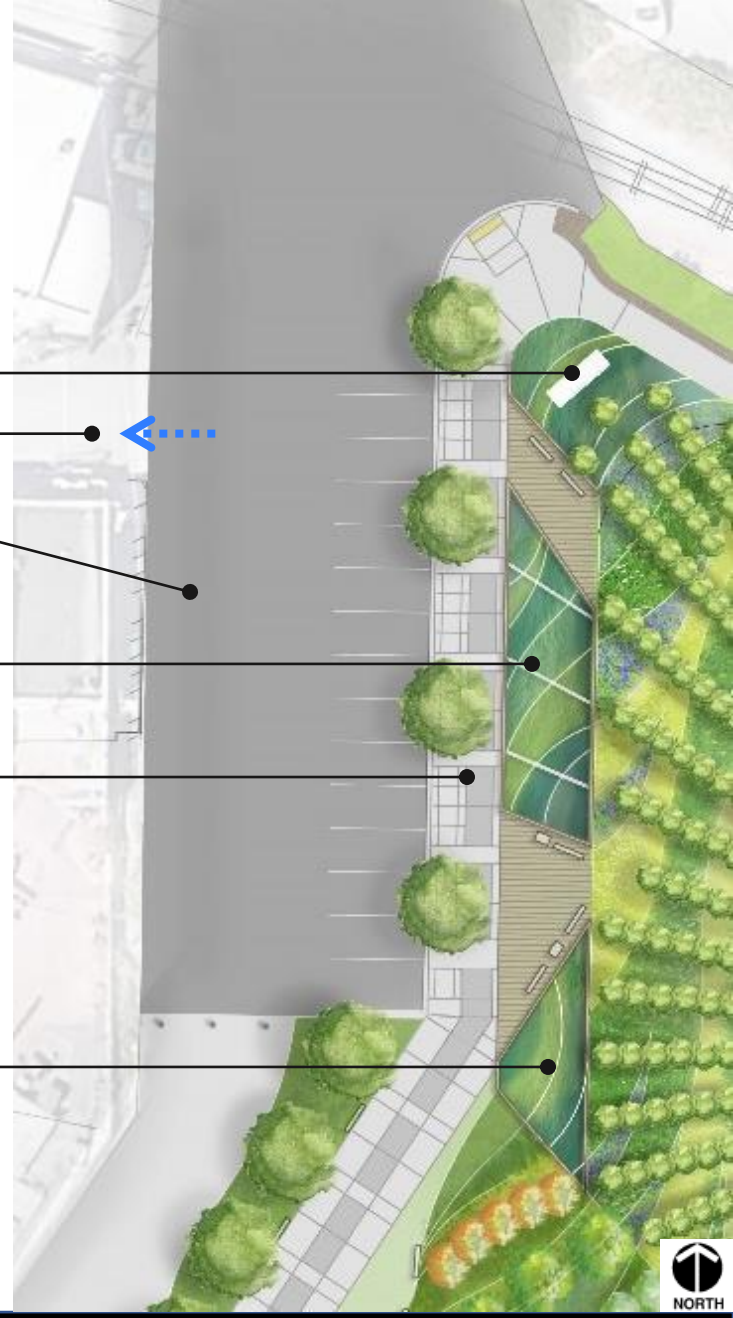
Rising Fire American Hornbeam *(Carpinus caroliniana ‘Uxbridge’)*

Firestarter Tupelo *(Nyssa sylvatica ‘Firestarter’)*

24th ROW & GSI

Updates:

- Refined NW corner around Public Art
- Minimal improvements on west side of 24th in coordination with SDOT and adjacent businesses
- Removed elevated metal runnel & added weirs
- Replaced trench grates with pipes and paving treatments
- Planting layout



24th ROW & GSI Design Details

Public art

Benches

Fence

Bull rails with low lighting

24th ROW & GSI Stormwater Conveyance

Bowels Golden Sedge
(Carex elata aurea)

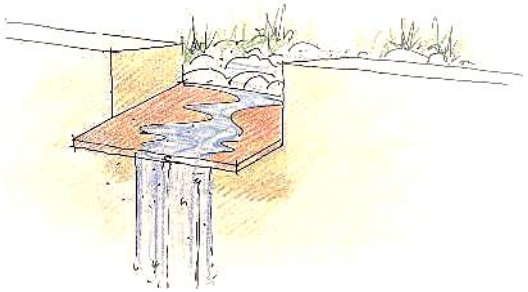
Elk Blue Rush
(Juncus patens elk blue)

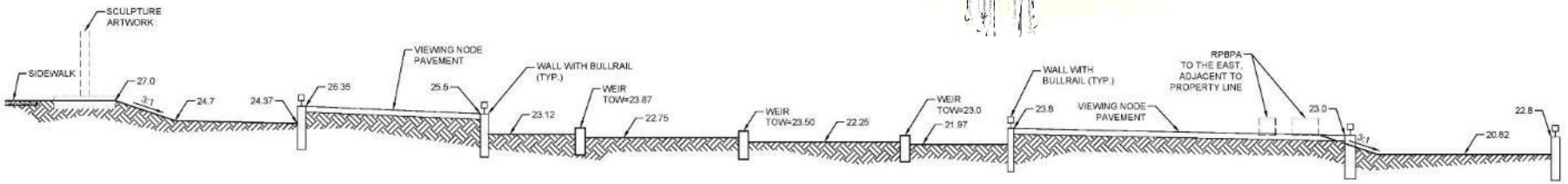
Douglas Iris
(Iris douglasiana)

Common Rush
(Juncus effusus)

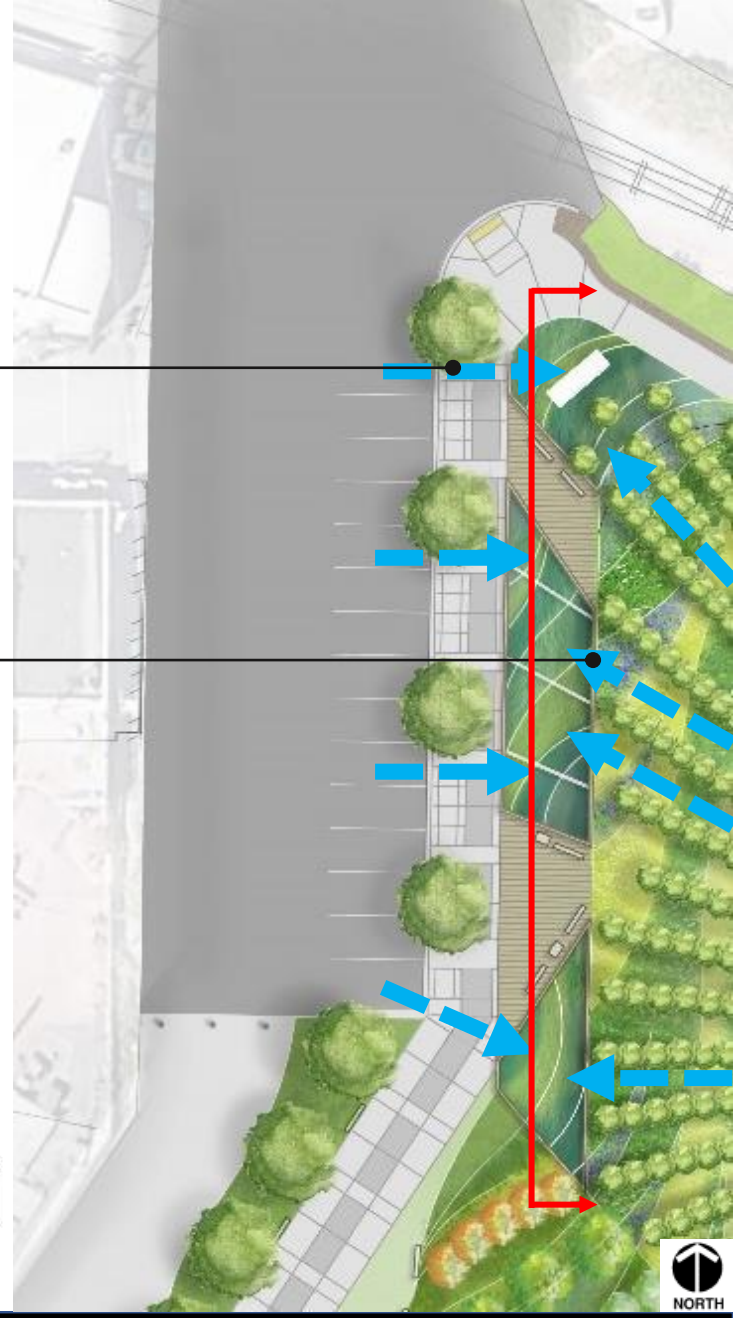
Water from 24th ROW
(piped under sidewalk)

Stormwater from Pump Station yard
(swale & scupper)



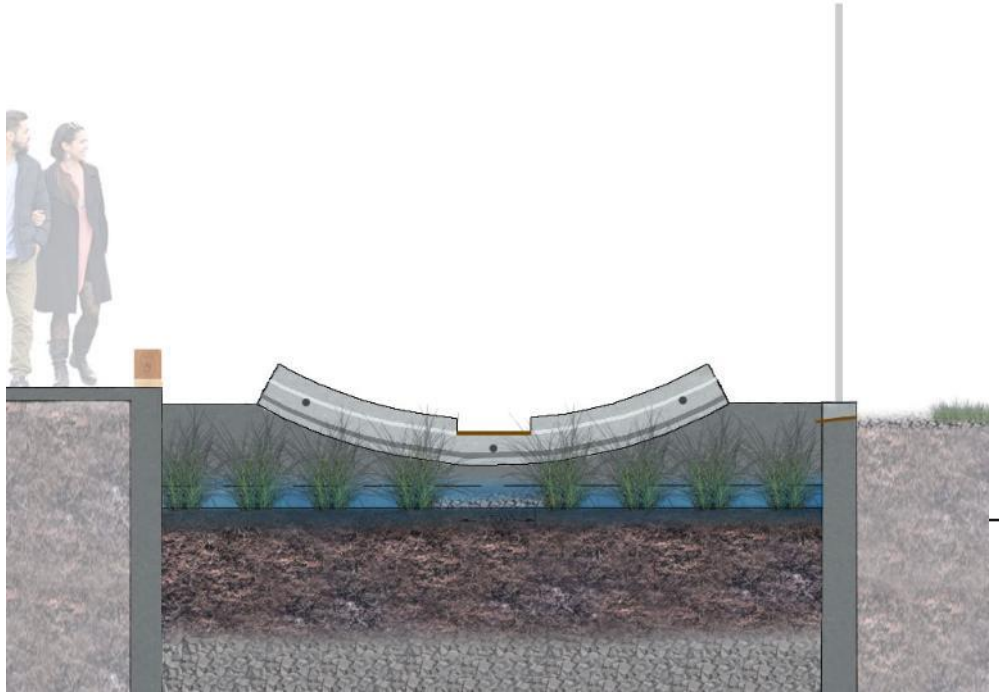


BIORETENTION - GSI FACILITY
NTS
3
TEPS-C-160

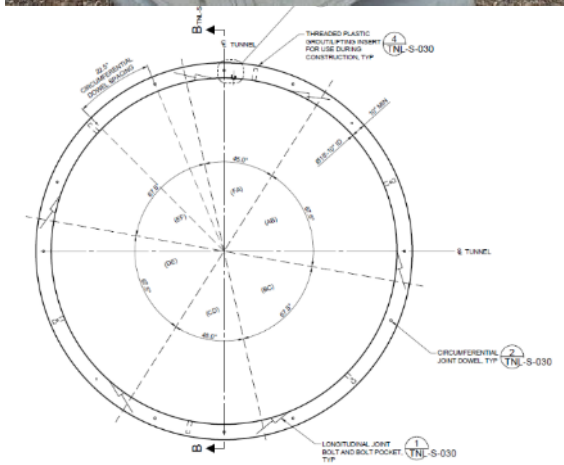


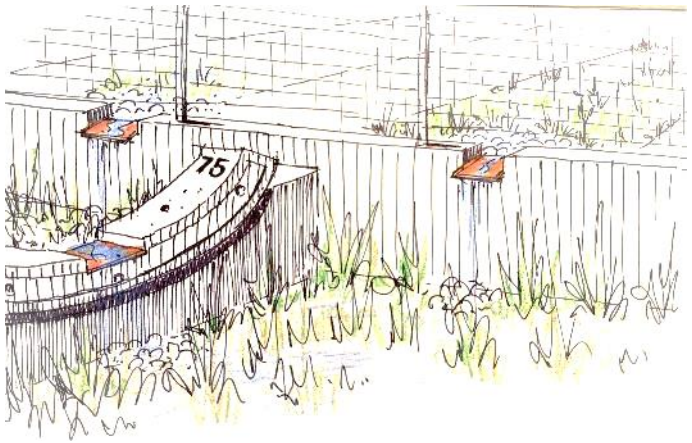
Weirs

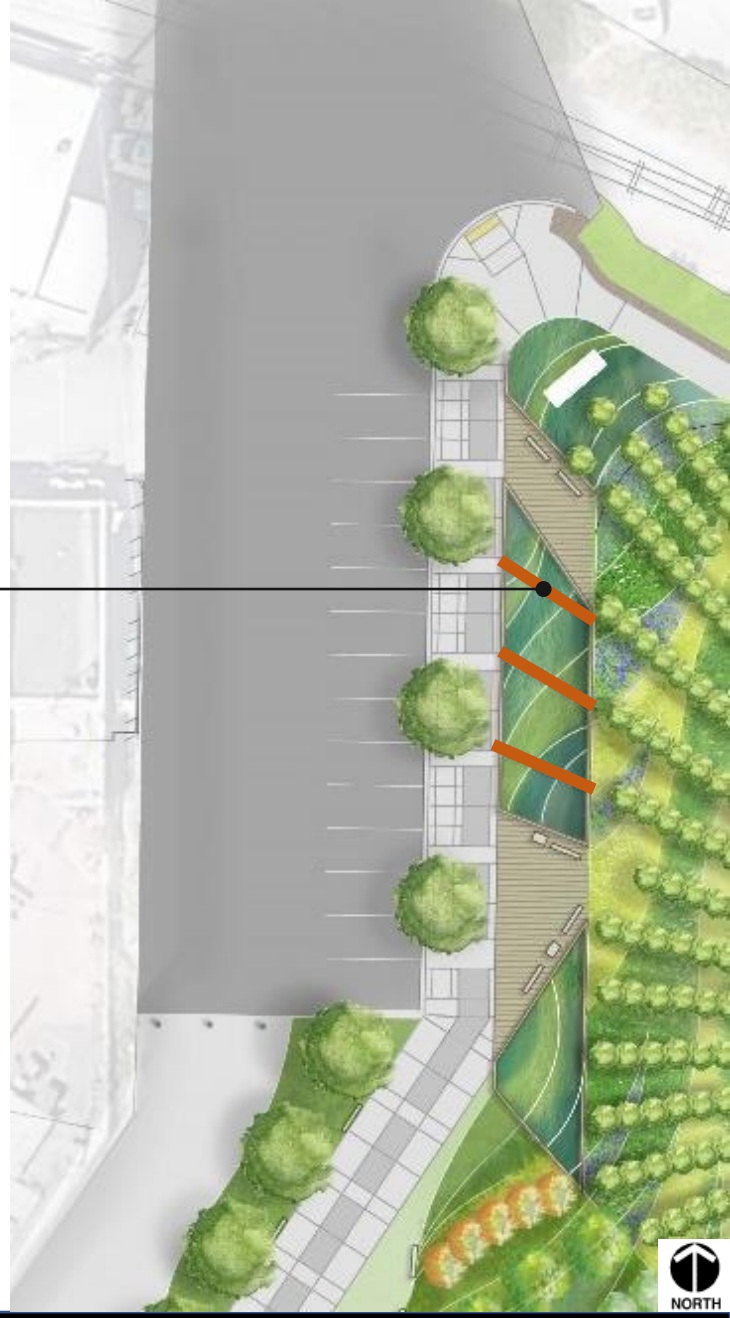
- Simulated tunnel segment
  - Inside diameter 18’-10”
  - Segments 11” thick
  - 5’ wide, 10’ long



Typical Section





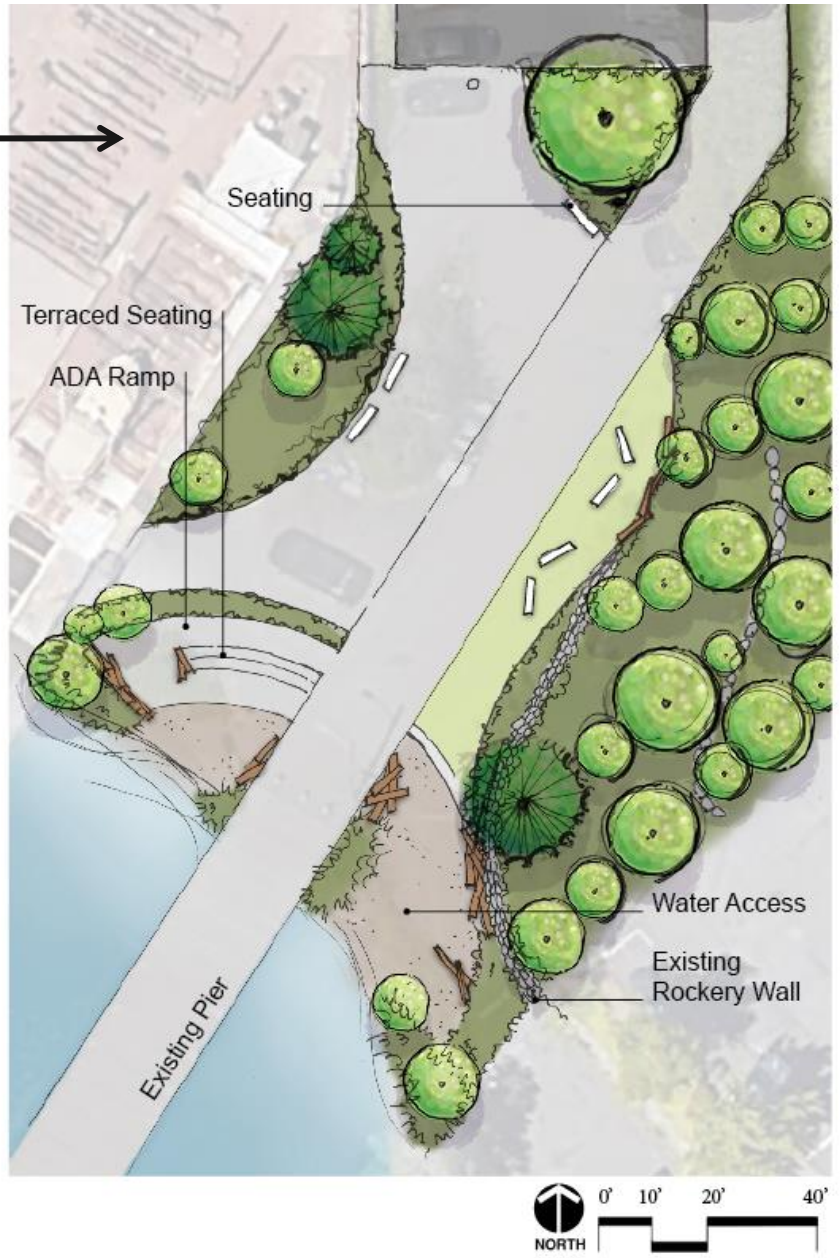


What we heard (SDC Subcommittee meeting on 02/20/2020):

- Design for variety of users
- How does design accommodate future development
- Want to better understand interpretive elements
- Evaluate seating locations, orientation, and views

Outreach

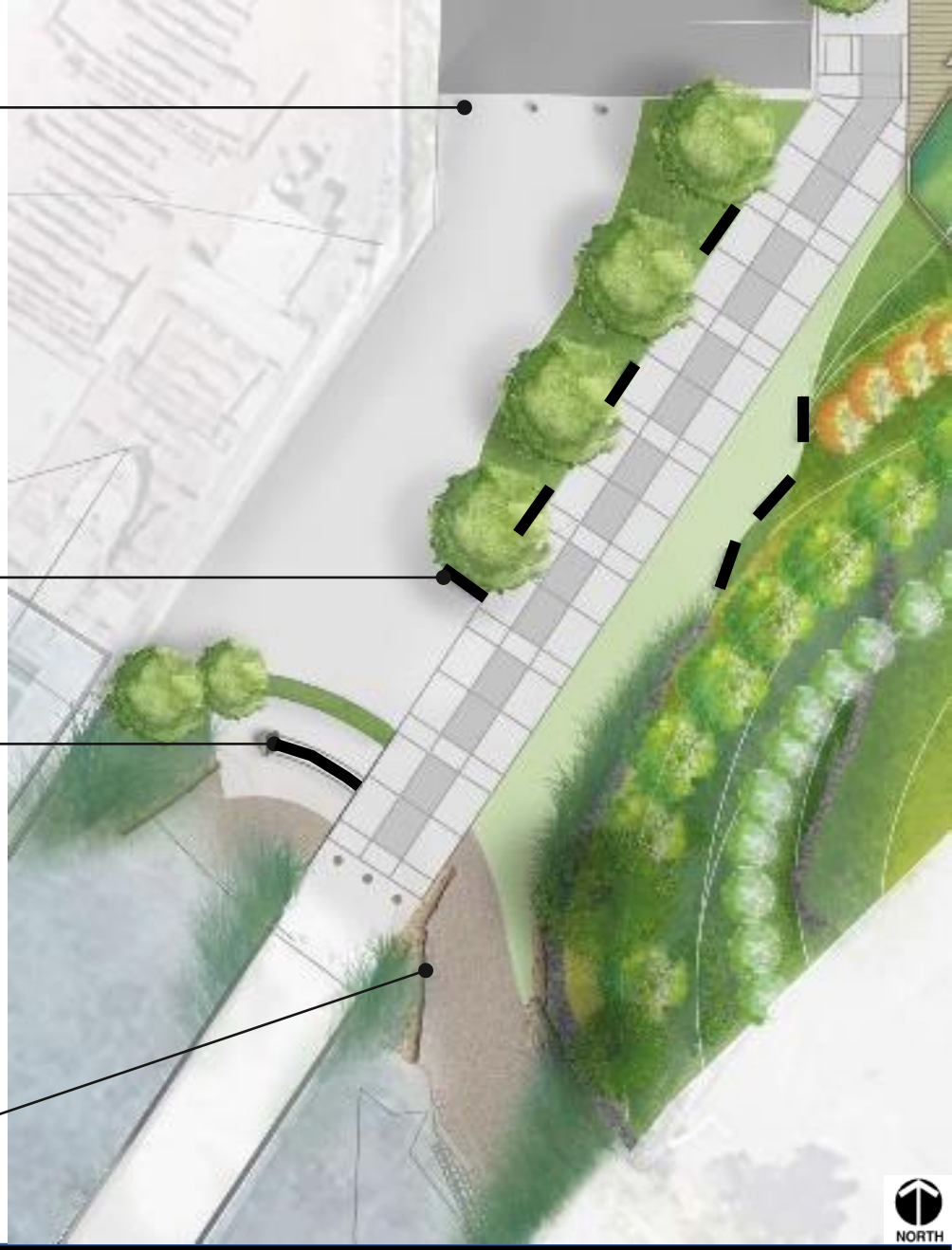
- 4 concepts
- 490 online survey responses



Updates:

- Revised vehicular access in coordination with adjacent property owner to existing gate
- Added additional planting and seating
- Refined design elements

View looking to water & pier



Vehicle Circulation

Vehicles

Other vehicular access

Pedestrian & Bike Circulation

Primary access

Secondary access

Phytoremediation

Updates:

- Layout refinements in more fluid forms

Petroleum Hydrocarbon Degraders

Cercis canadensis
Eastern Redbud

Gleditsia triacanthos var inermis
Thornless Honey Locust

Festuca rubra
Red Fescue

Bouteloua dactyloides
Buffalo Grass

Pascopyrum smithii
Western Wheatgrass

Organic Compound Degraders

Lolium perenne
Ryegrass

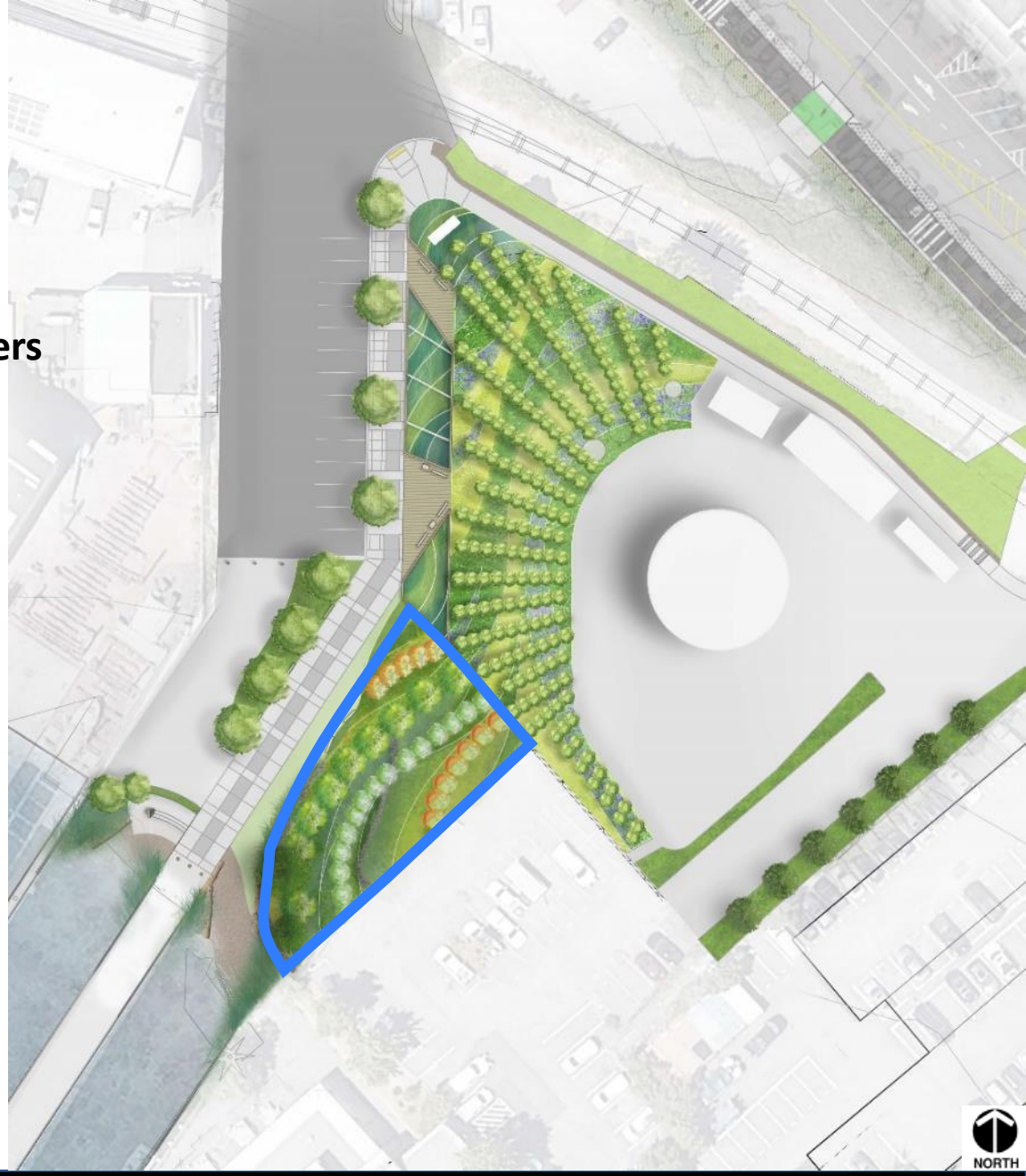
Metal Accumulators

Populus tremuloides
Quaking Aspen

Helianthus annuus
Common Sunflower

Petroleum Tolerant

Cistus x purpureus
Purple Rock Rose



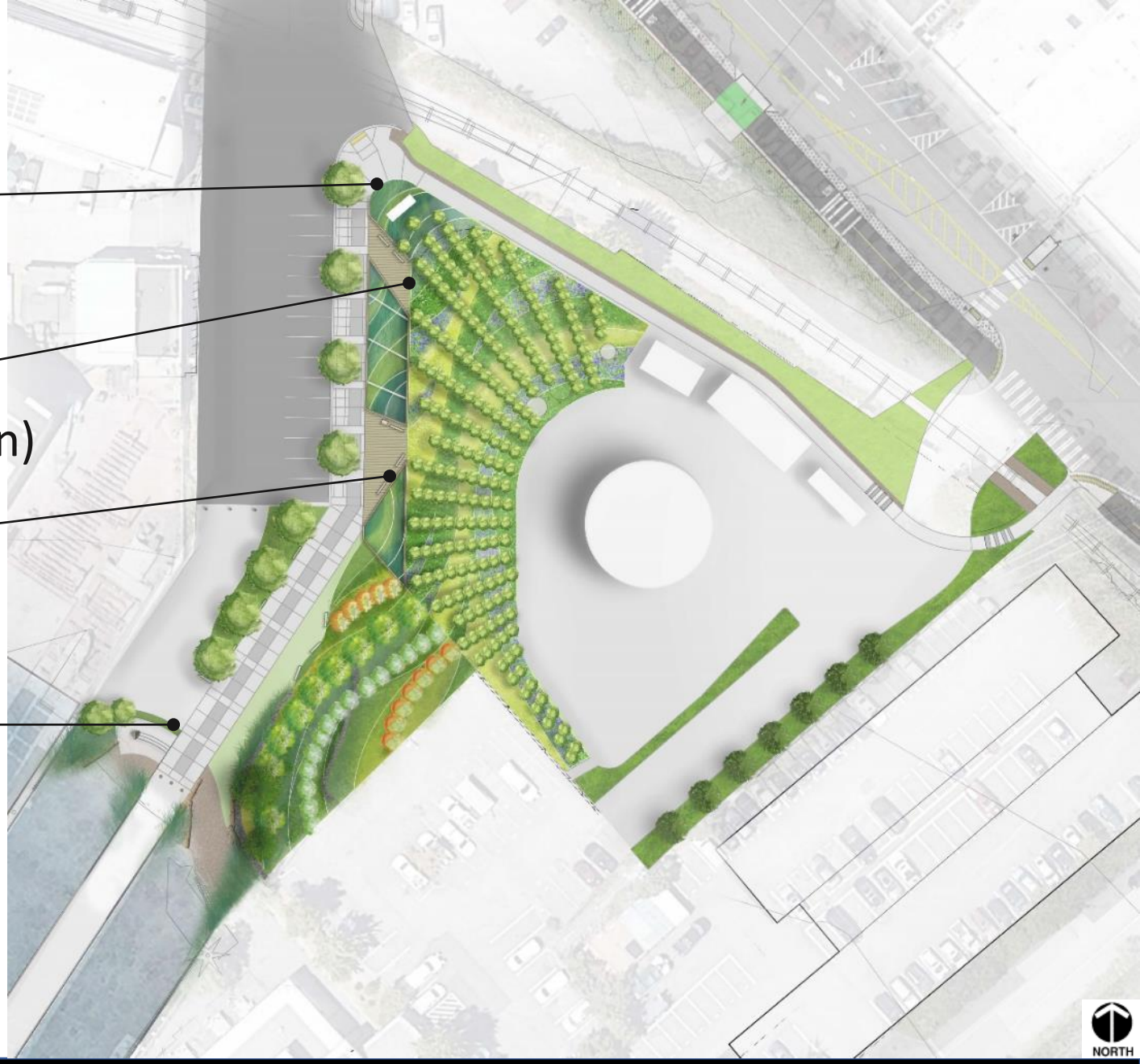
Narratives	Direct Approach	Subtle Approach
Coast Salish	• Narrative story	• Public Art • Plant materials
Timber Industry		• Wood benches, bull rail, logs
Maritime Industry (past & present)		• Tower trellis
SPU Ship Canal Tunnel & Pump Station	• Interpretive sign	• Tower & lighting • Weir tunnel segments
Stormwater aboveground		• Bioretention cells • Conveyance swales & scuppers
Stormwater belowground		• Tower lighting • Paving inlays in sidewalk
Working Landscape	• Interpretive sign	• Urban tree farm • Phytoremediation • GSI • Tower
Collective history of site	• Interpretive sign	

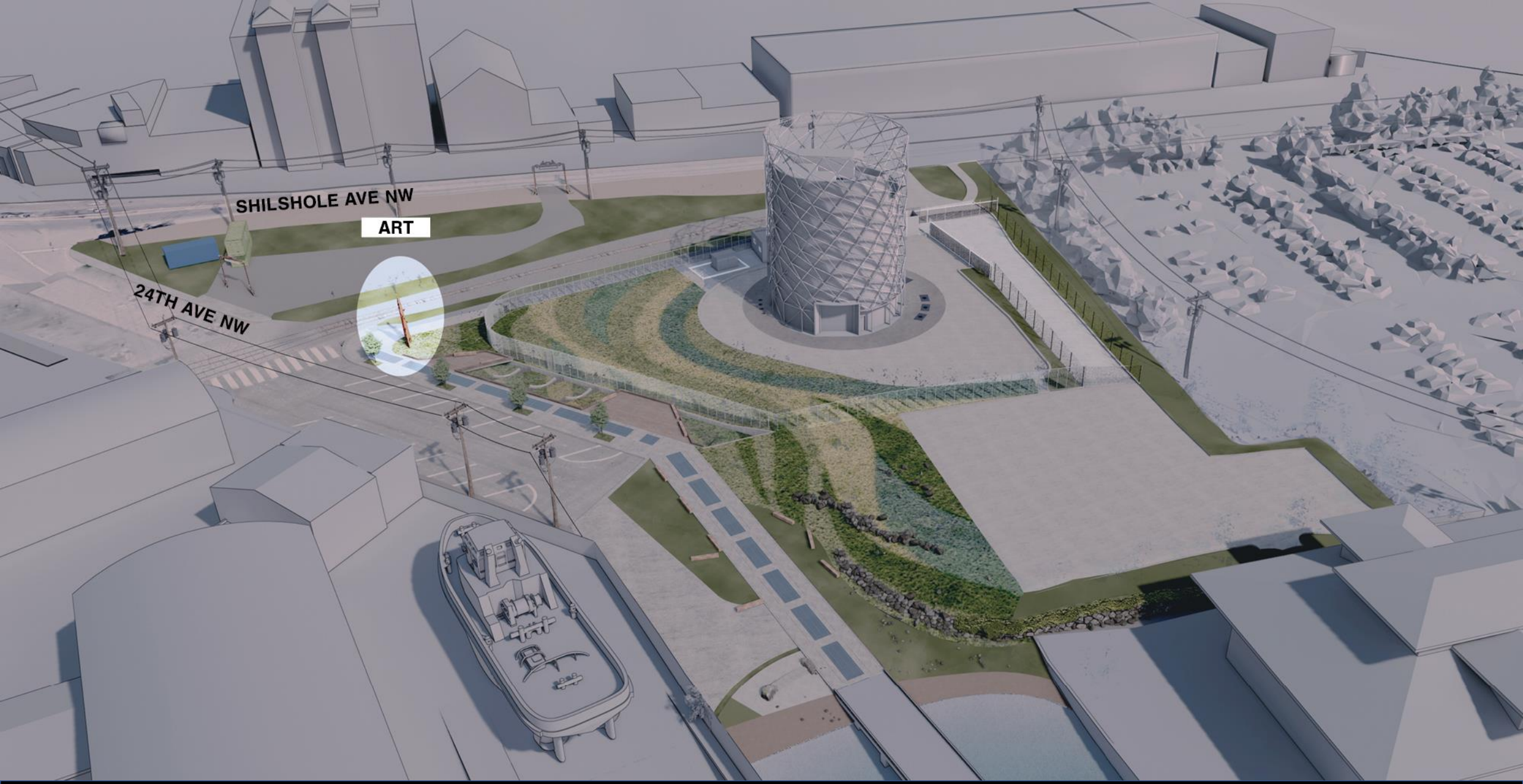
1. Narrative story
   (Public Art)

2. Interpretive sign
   (SPU Ship Canal Tunnel & Pump Station)

3. Interpretive sign
   (Working landscape)

4. Interpretive sign
   (Collective history of site)





PUBLIC ART

PUBLIC ART

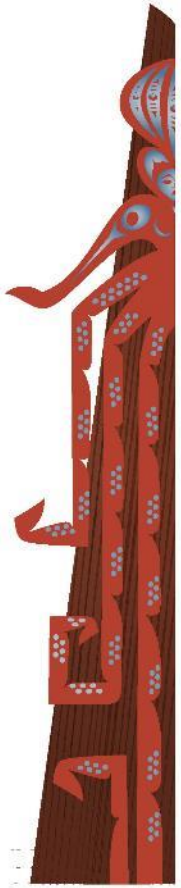

Front
6FT
VERGE 20


NORTH

Ballard Water Station Concept Round 4

The fourth concept is a based off the first design concepts after taking in both the committee's and construction budget comments. It is a more streamlined version that honors the idea and spirit of the original while having more depth and identity that establishes it as a strong Salish voice in the community.

Side

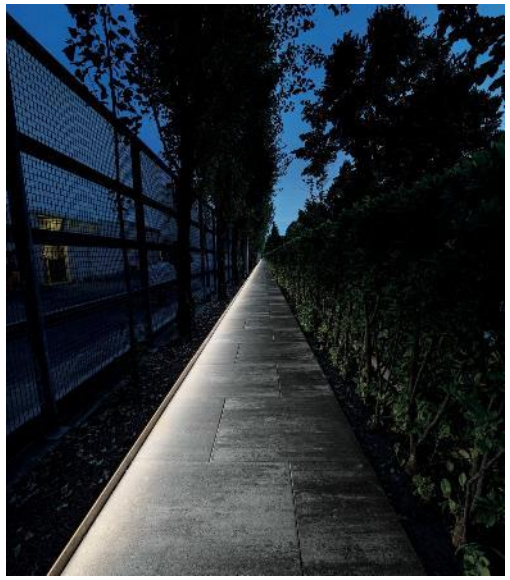


Front

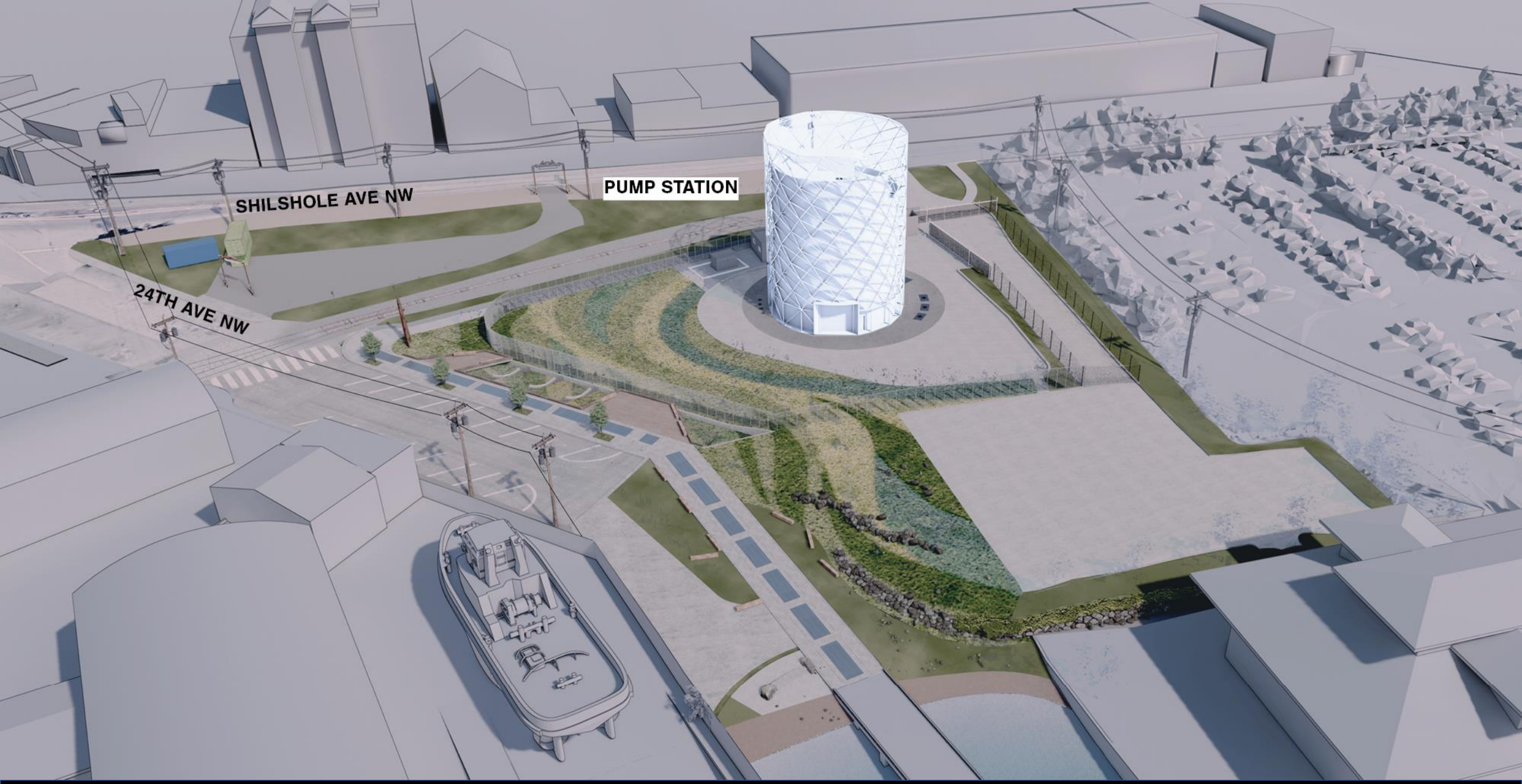
Side

Back

SITE LIGHTING



SITE LIGHTING



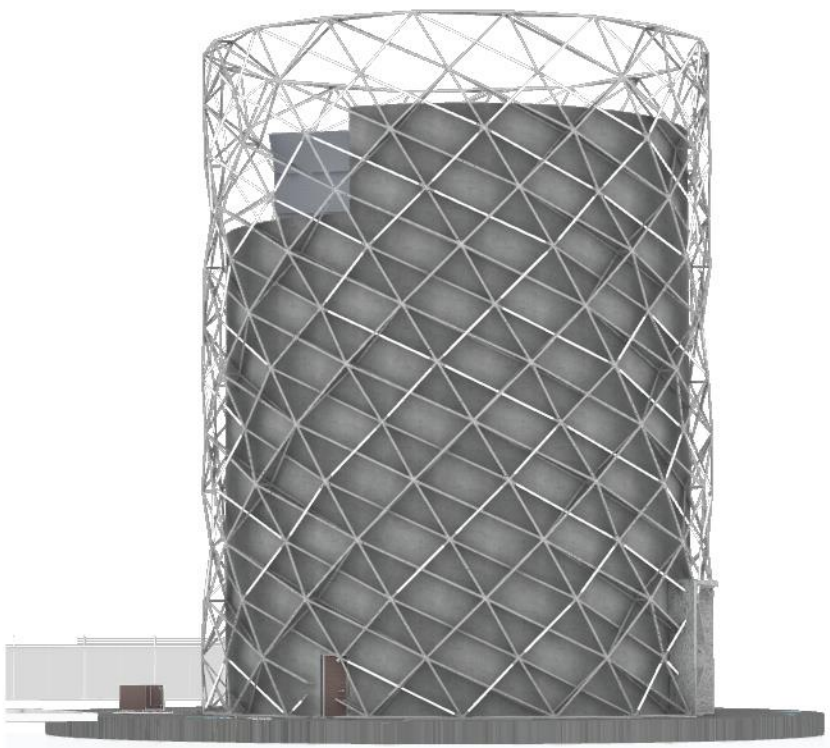
PUMP STATION TOWER

City of Seattle
Seattle Public Utilities

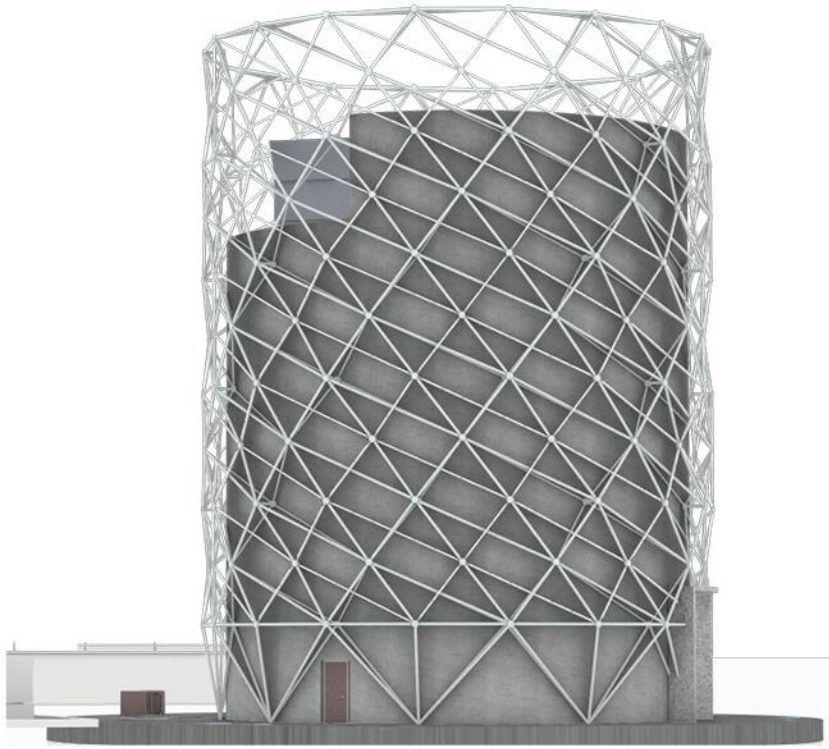
TOWER EVOLUTION

WHAT HAS CHANGED:

- Overall height
- Connections
- Tube sizes
- Staineless steel grade at nodes



AT PREVIOUS SDC PRESENTATION



CURRENT DESIGN

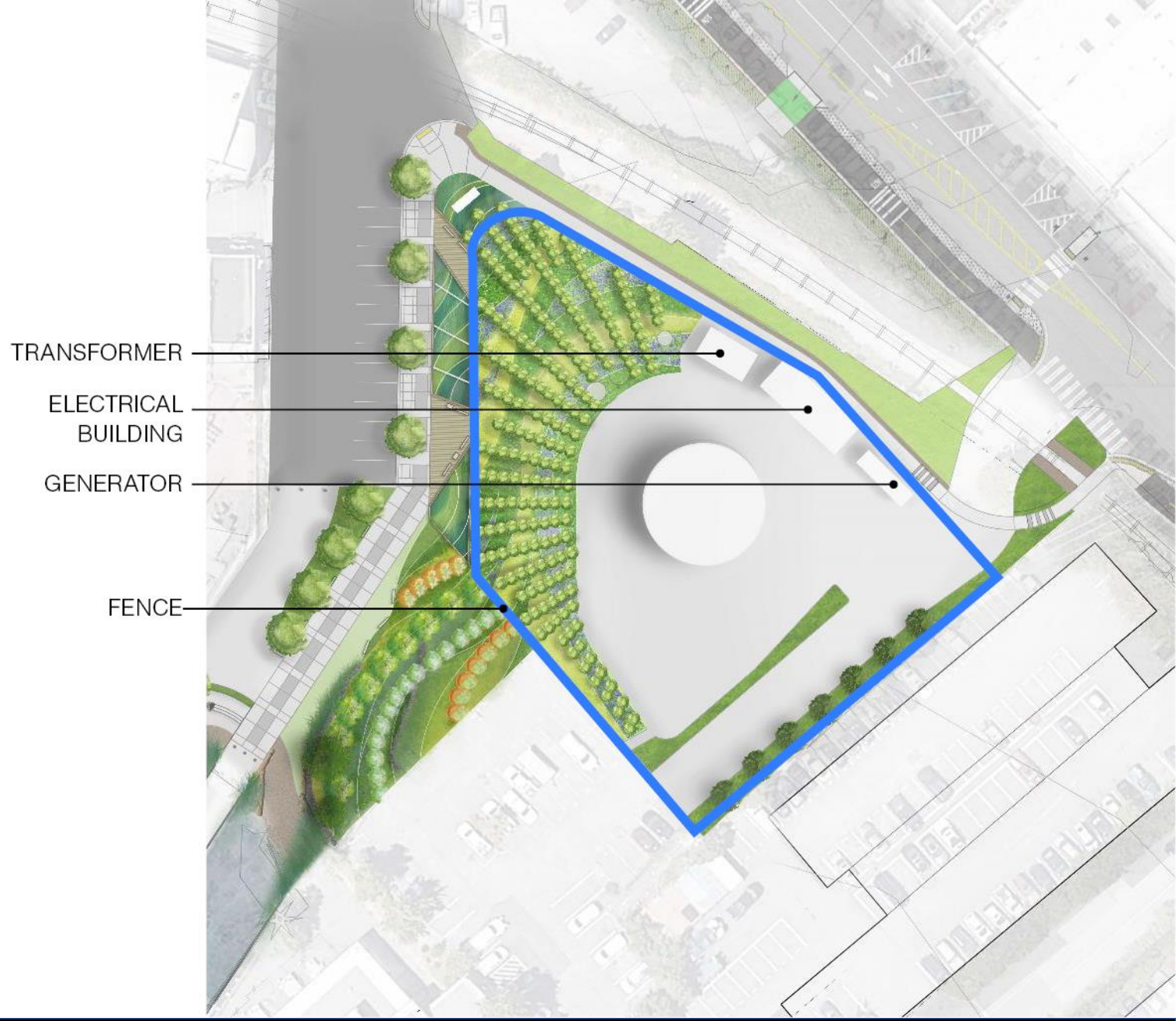
TOWER ANIMATION STUDIES: https://imgur.com/a/YovWVhu

SECURE PERIMETER AND ANCILLARY EQUIP.

City of Seattle
Seattle Public Utilities

FENCE AND ANCILLARY EQUIPMENT

SCRIM AT FENCE



SECURE PERIMETER AND ANCILLARY EQUIP.

SECURE PERIMETER AND ANCILLARY EQUIP.

BOARDWALK

VIEW FROM DOCK

VIEW FROM NW CORNER

City of Seattle
Seattle Public Utilities

THANK YOU

Contact Kelsey Hinsperger Kelsey.Hinsperger@seattle.gov