



**Seattle
Public
Utilities**



Seattle Design Commission Presentation: October 7, 2021

Ballard Pump Station

5425 Shilshole Avenue Northwest

SDCI Building Permit No. 6715316



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

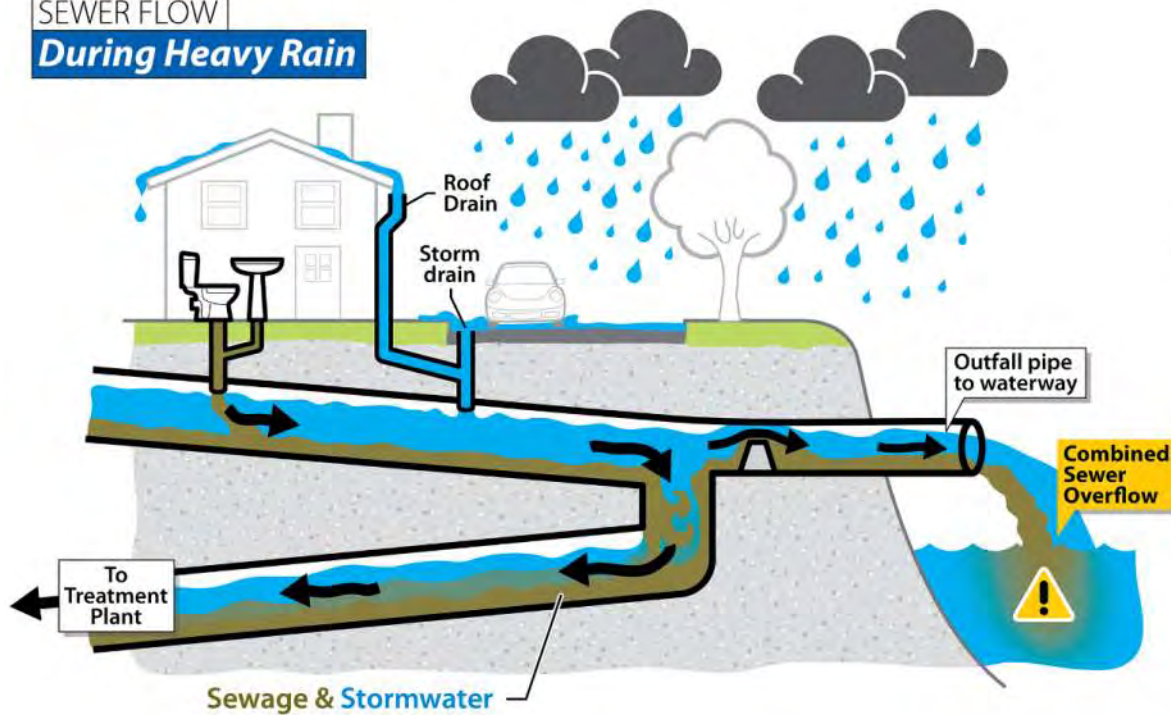


Agenda

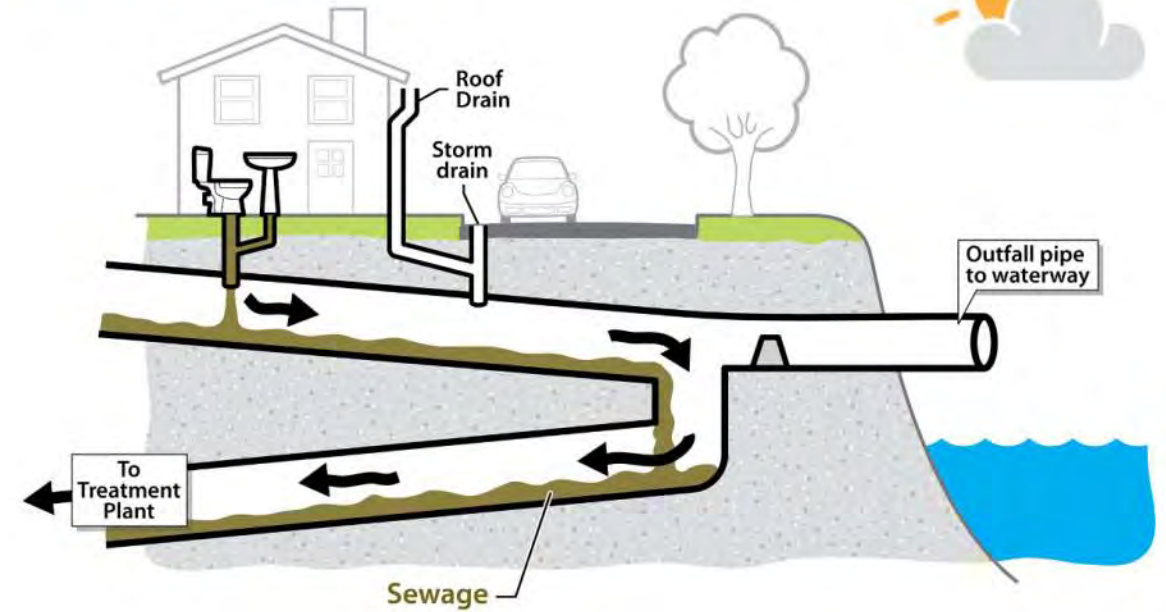
- Program overview
 - Project purpose and status
 - Engagement and equity
 - Sustainability
- Design presentation with schematic design recommendation responses

Combined Sewer Overflows

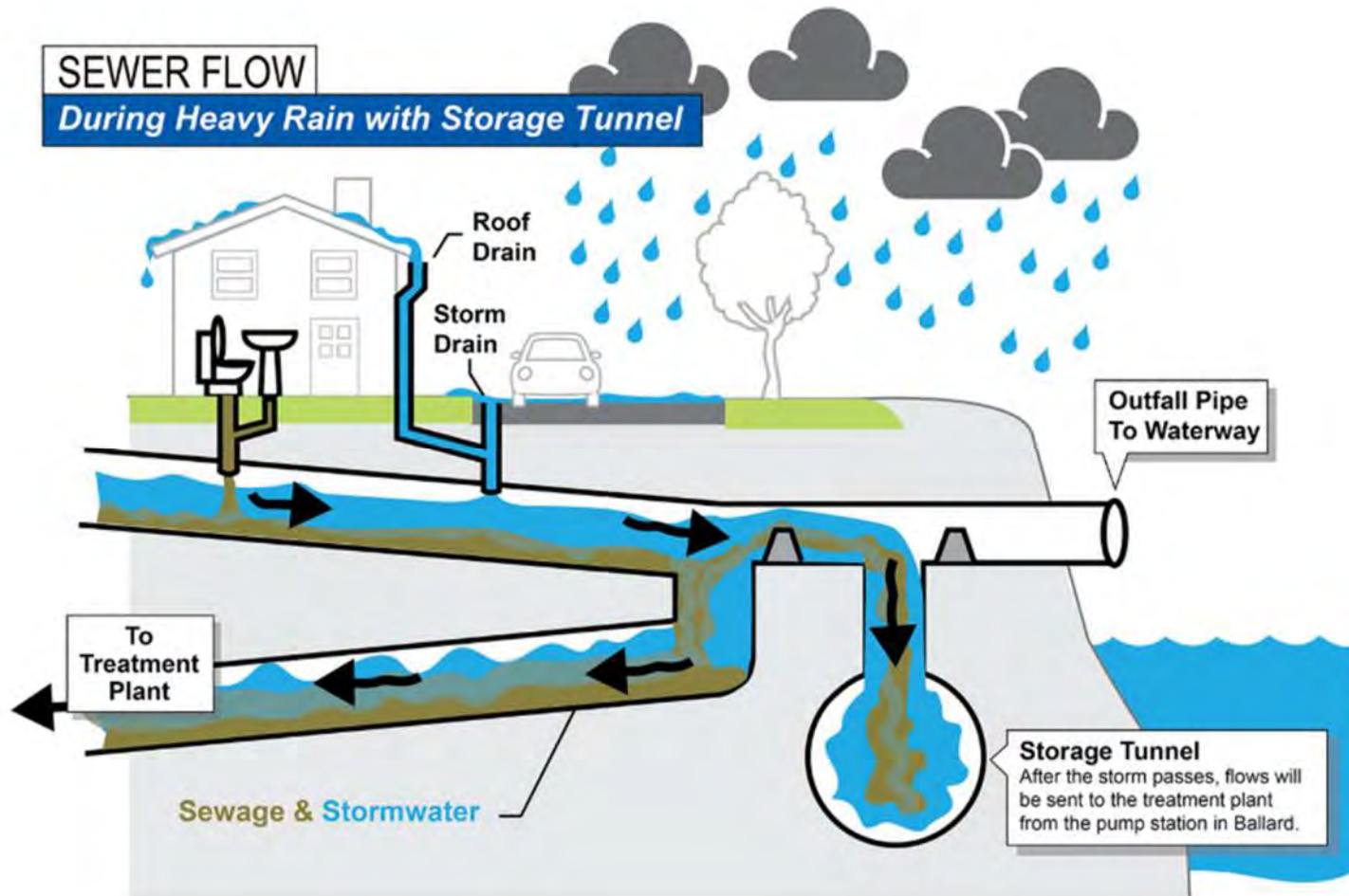
SEWER FLOW
During Heavy Rain

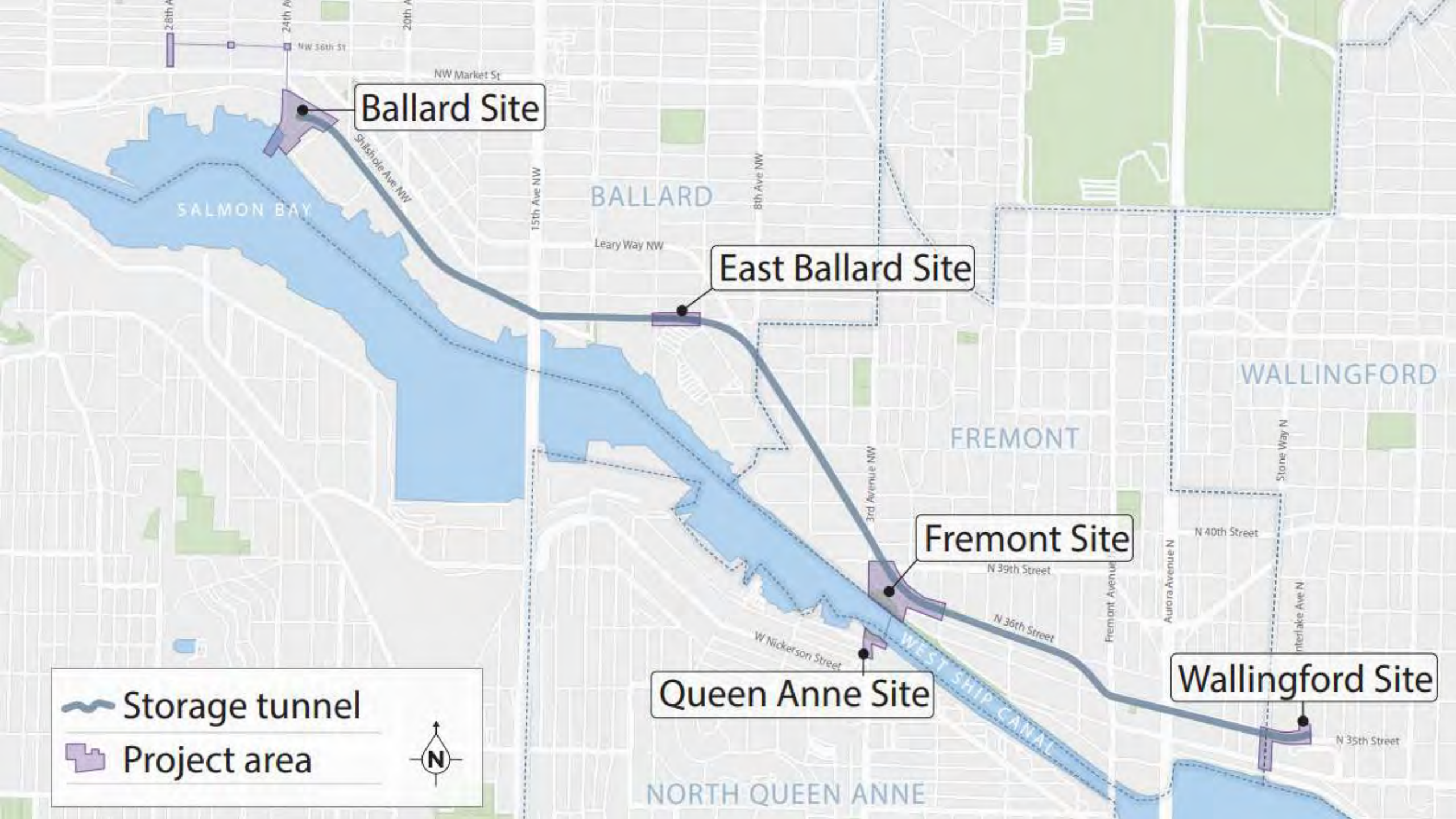


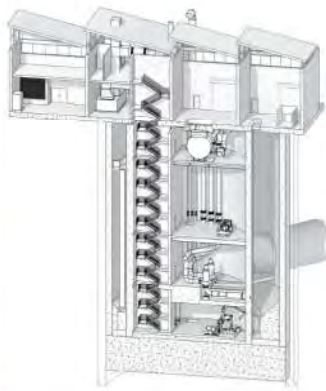
SEWER FLOW
During Dry Weather



How a tunnel helps







2015

PROJECT
START

2017

30% DESIGN
SDC MTG

2019

30% DESIGN
SDC MTG

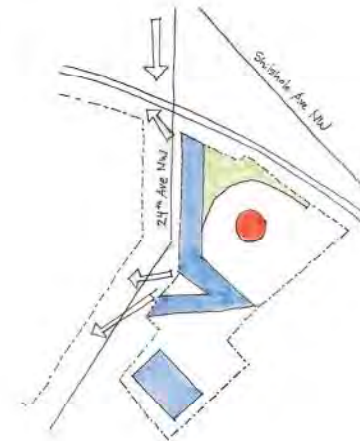
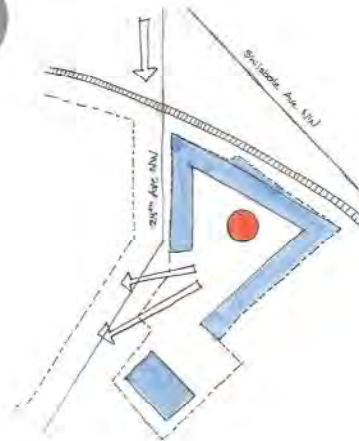
2020

60% DESIGN
SDC MTG

MASTER
PLANNING

2018

2019





90% DESIGN
SDC MTG

2021

DESIGN
COMPLETE

2022

CONSTRUCTION
START

2023

2023

SPU WORKFORCE
FACILITIES
MASTER PLAN

2024

POTENTIAL
BALLARD SITE
PLANNING

CONSTRUCTION
COMPLETE

2025

2026-
2030

POTENTIAL
BALLARD SITE
CONSTRUCTION

Outreach and Engagement

- Regional approach
 - MudHoney naming contest
 - Regular listserv and social media updates
 - Fairs and festivals
- Partner & Outreach
 - Ballard District Council
 - Maritime businesses
 - Friends of Street Ends
 - Groundswell NW
 - North Seattle Industrial Assoc.
 - Friends of Ballard Waterfront Park



Equity

- Interpretive services available as needed
- WMBE firms – 29% average
- Homelessness support
- FLOW temporary art installation- Elevation of BIPOC artists
- Permanent art-
 - Coast Salish artwork honors Shilshole village
 - 4 installations on Ship Canal celebrate Native Americans place in Seattle



Sustainability

- Envision Platinum certification
- Sizing for resiliency
- Design elements
 - Heat: switched from natural gas-powered to electric
 - Green stormwater infrastructure
 - Shoreline restoration
 - Temporary elements: Phytoremediation, Urban tree farm



Schematic design recommendations: SPU responses

- Received nine recommendations
- Grouped recommendations for response

1. Provide more information about **schedule for development** of Yankee Diner site.
2. **Update Master Plan**, integrate with design, continue to engage with public during plan development.
3. **Maximize public access** to the water, especially for underserved communities, as soon as possible.
4. Consider **relocating the fence eastward** and/or **lowering it** to allow more public interaction (visible or physical) with the tree farm.
5. Thoroughly consider **parking needs** and maximize **pedestrian and recreational use** of the shoreline right of way. Provide for **temporary community programming**.
6. Consider providing more **amenities** that support full use of what will be a busy access point to the water, including bike parking, locking stations for kayaks / paddle boards, and sufficient trash and recycling areas.
7. Provide enough **seating with backs** and side rails to meet the needs of the older people in this community.
8. Consider **ambient light**, the multitiered and sided characteristic of the art, and the pedestrian perspective. Concern lighting might be **too bright for the surroundings** and *could distract immensely from the art*.
9. Consider a more **permeable, transparent material** for the fence.

Schematic Design Recommendations

1. Provide more information about **schedule for development** of Yankee Diner site.
2. **Update Master Plan**, integrate with design, continue to engage with public during plan development.
3. **Maximize public access** to the water, especially for underserved communities, as soon as possible.
4. Consider **relocating the fence eastward** and/or **lowering it** to allow more public interaction (visible or physical) with the tree farm.

1

Design for the **whole site**.

2

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

3

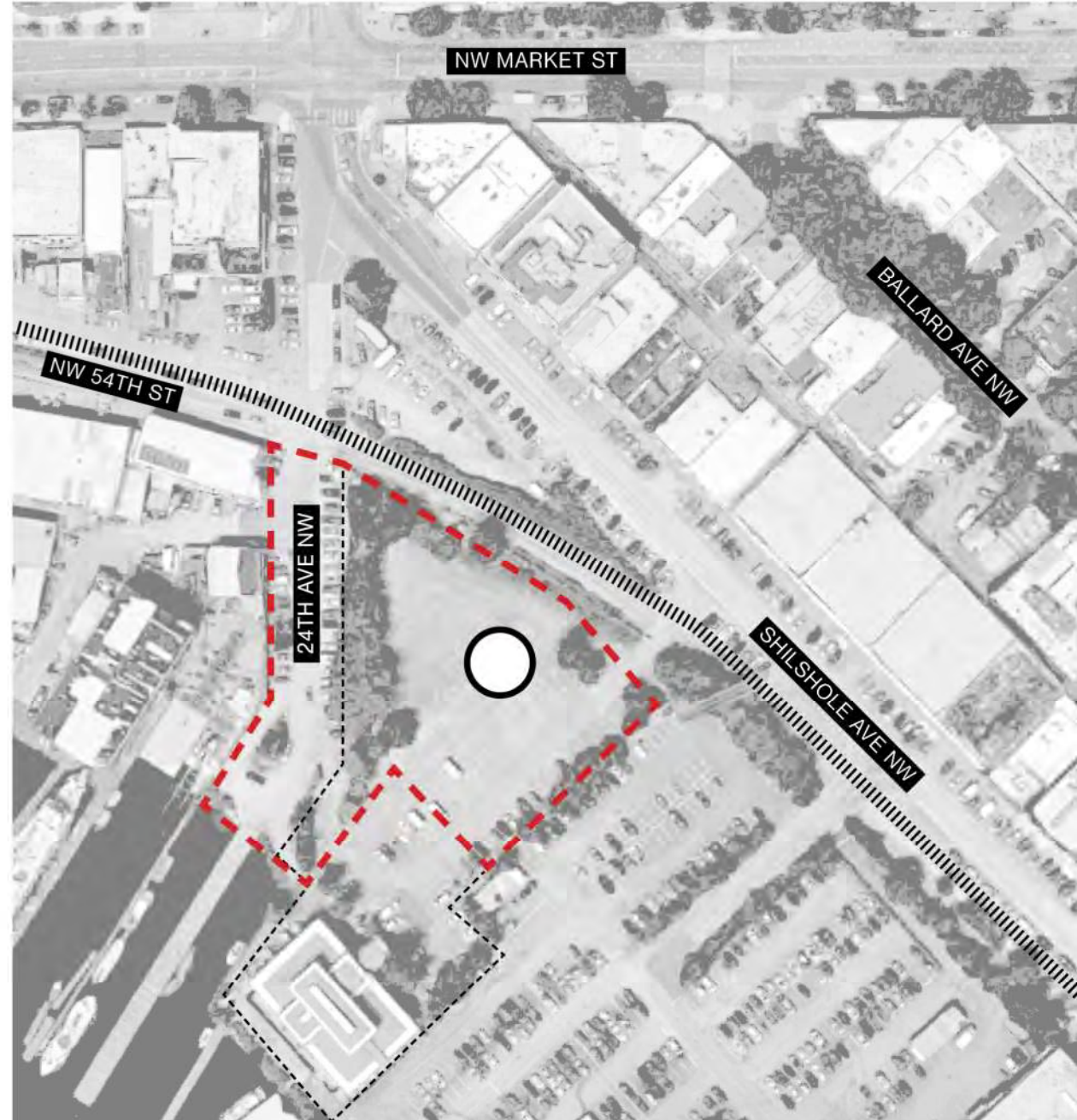
Define and **derive benefits** for the Seattle community and SPU

4

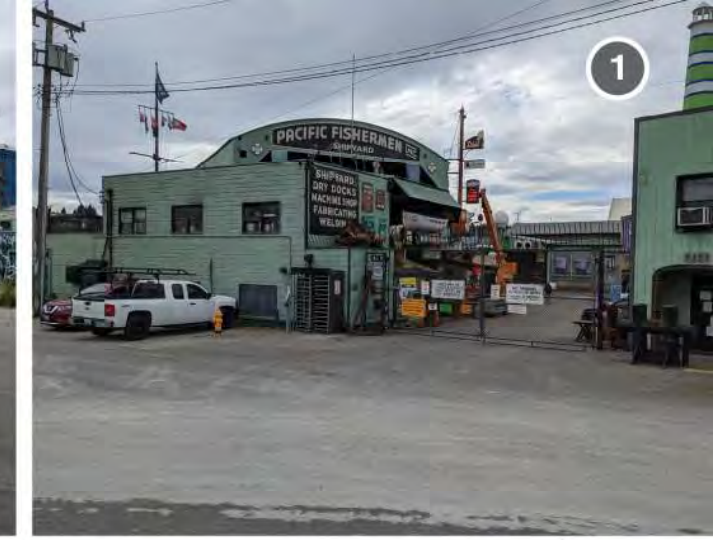
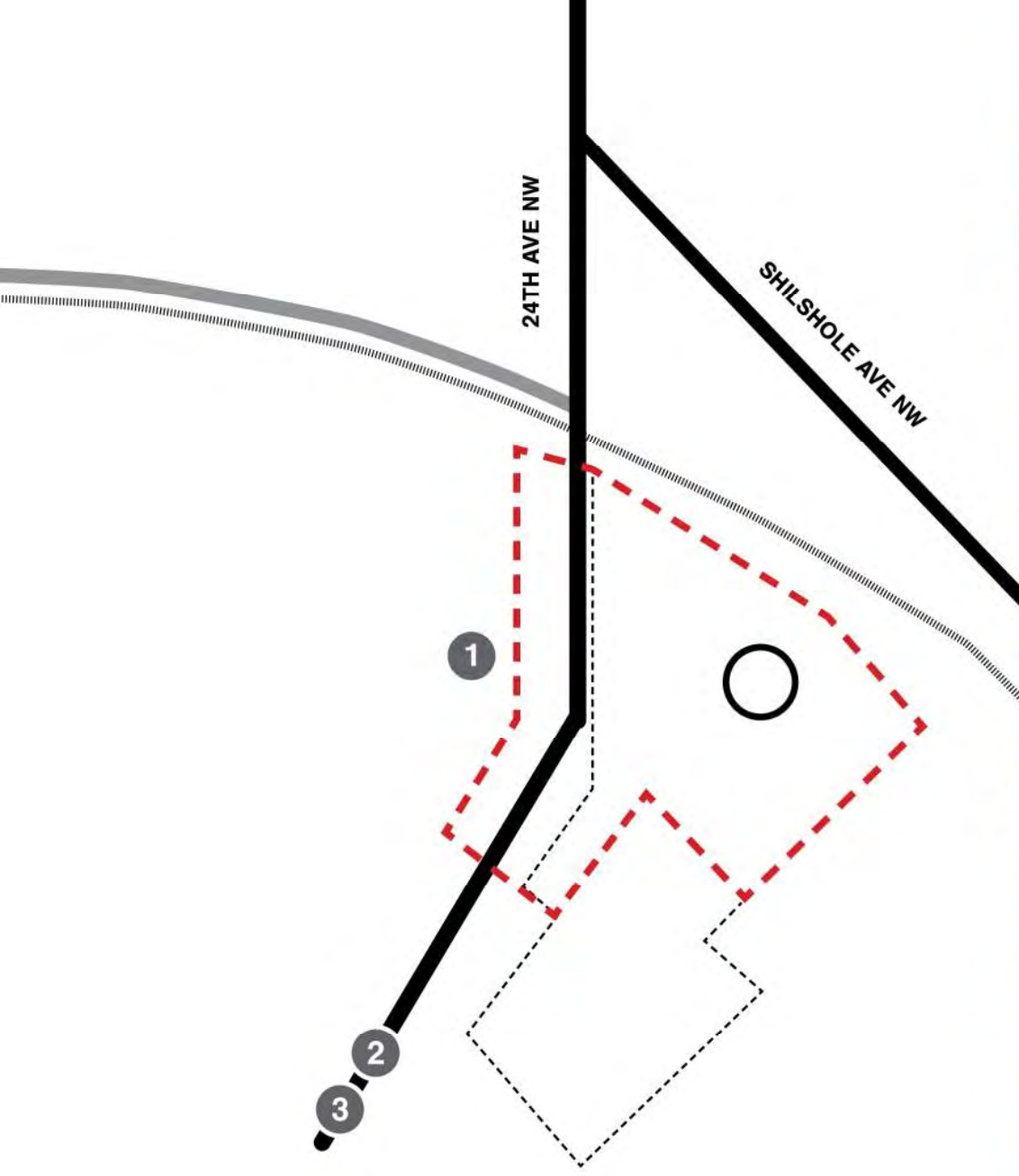
Contribute to and **recognize the place** and role of the waterfront in Ballard

5

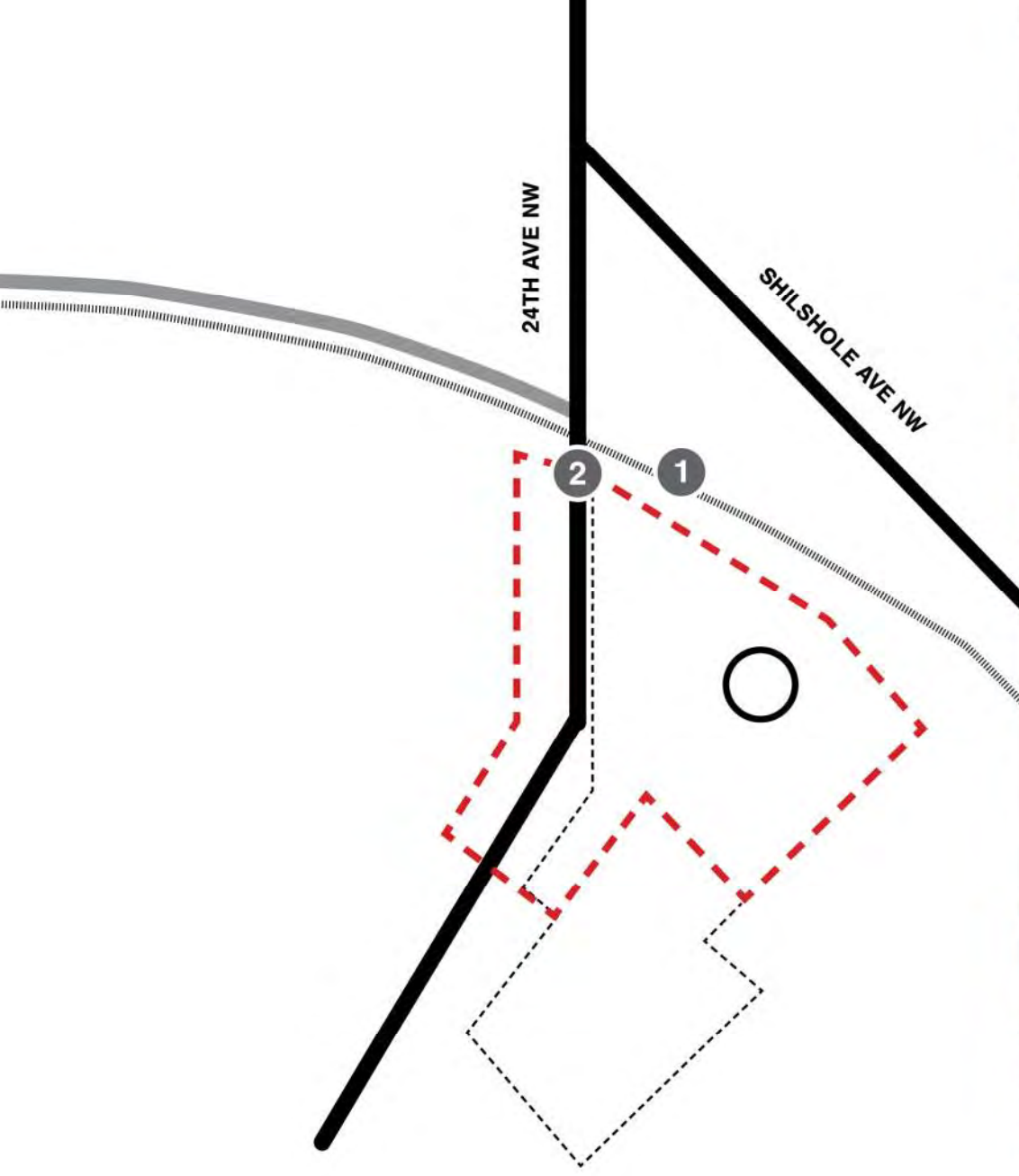
Connect the neighborhood to the waterfront allowing the site to become part of Ballard and the city

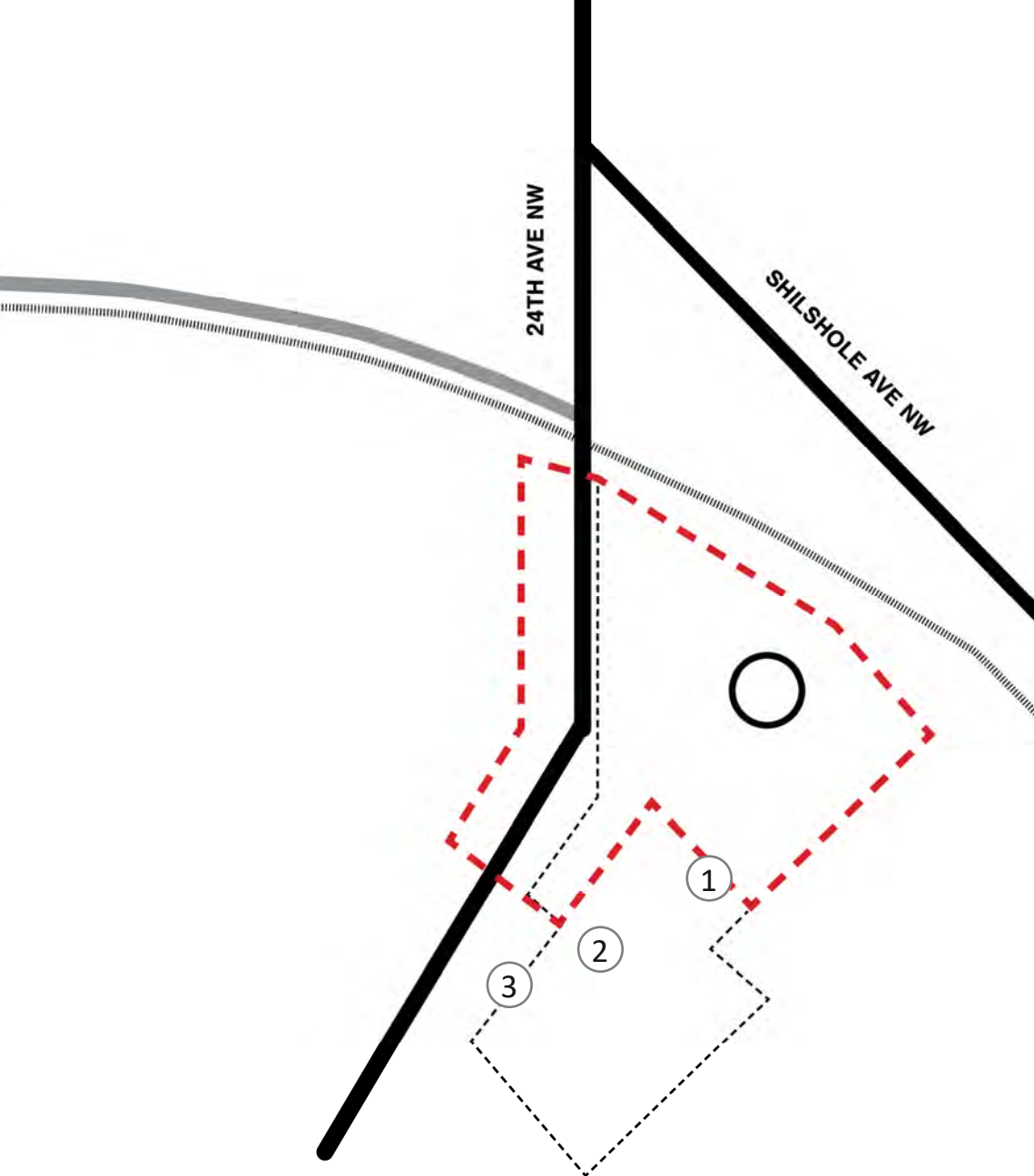


SITE DESIGN GOALS

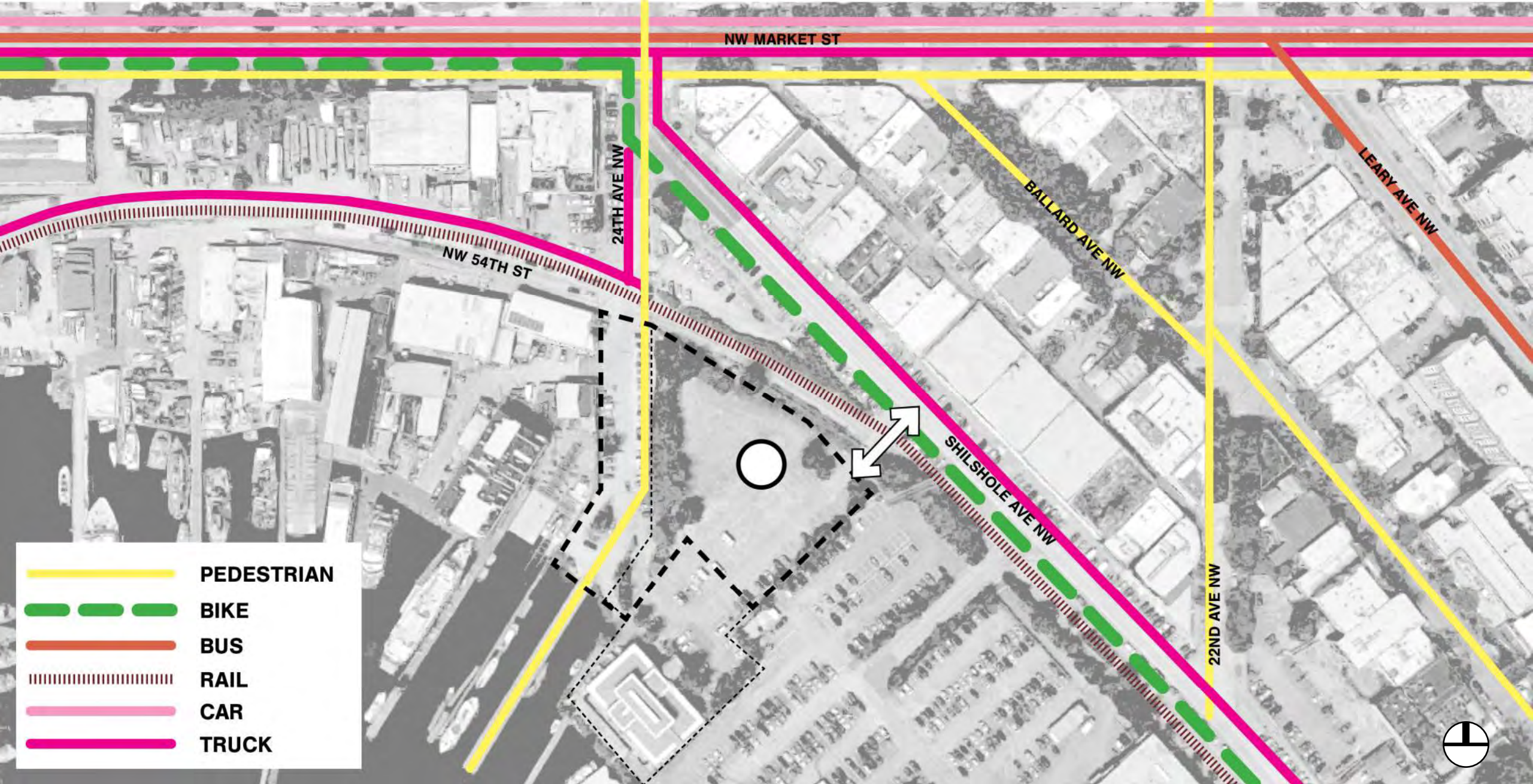


NEIGHBORHOOD CONTEXT

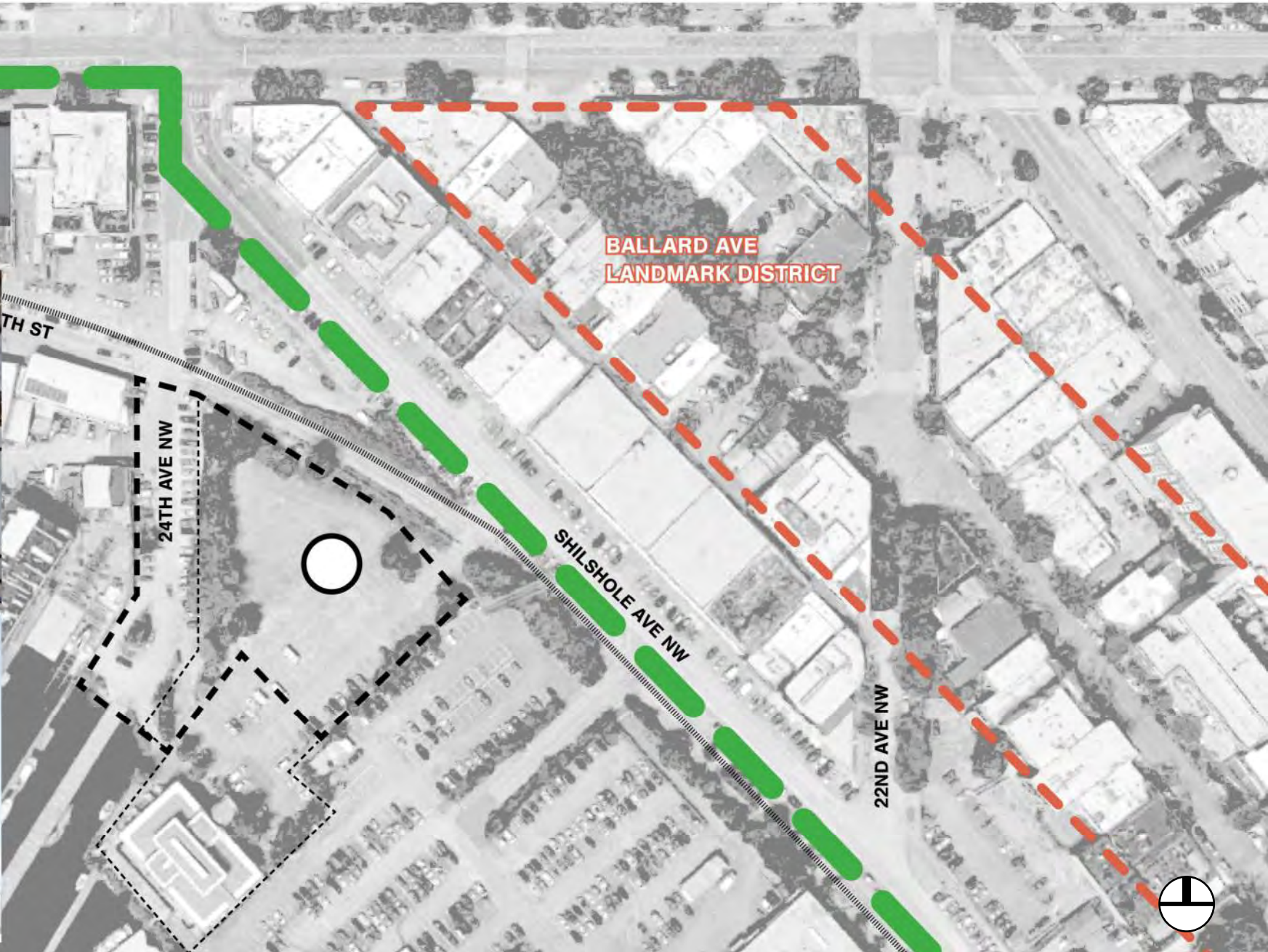








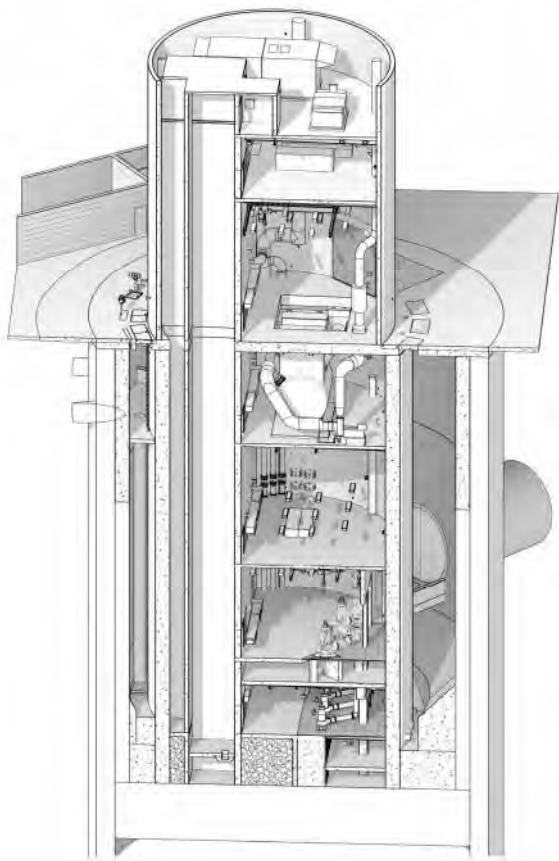
- PEDESTRIAN
- BIKE
- BUS
- RAIL
- CAR
- TRUCK



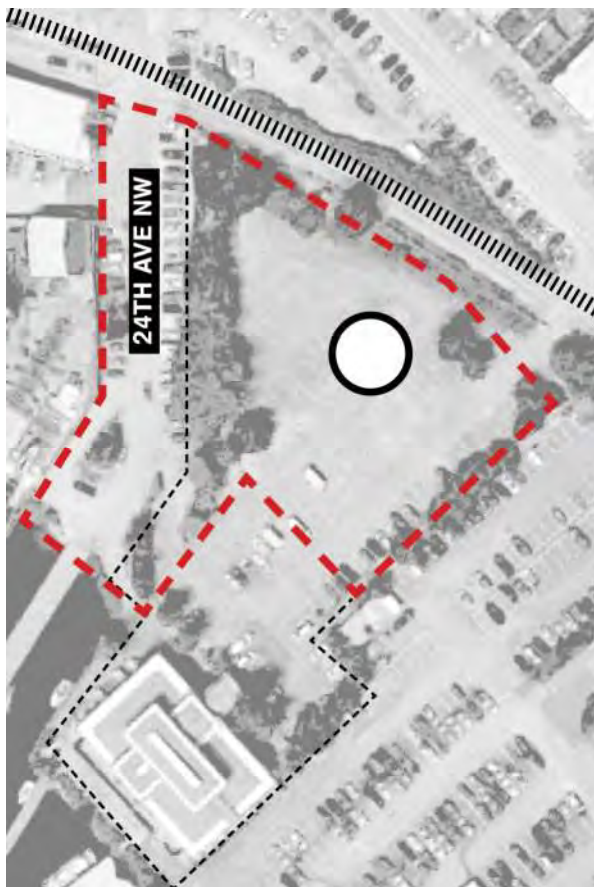
ADJACENT DEVELOPMENT



SDC Design Development Meeting | 10/7/2021



+



+

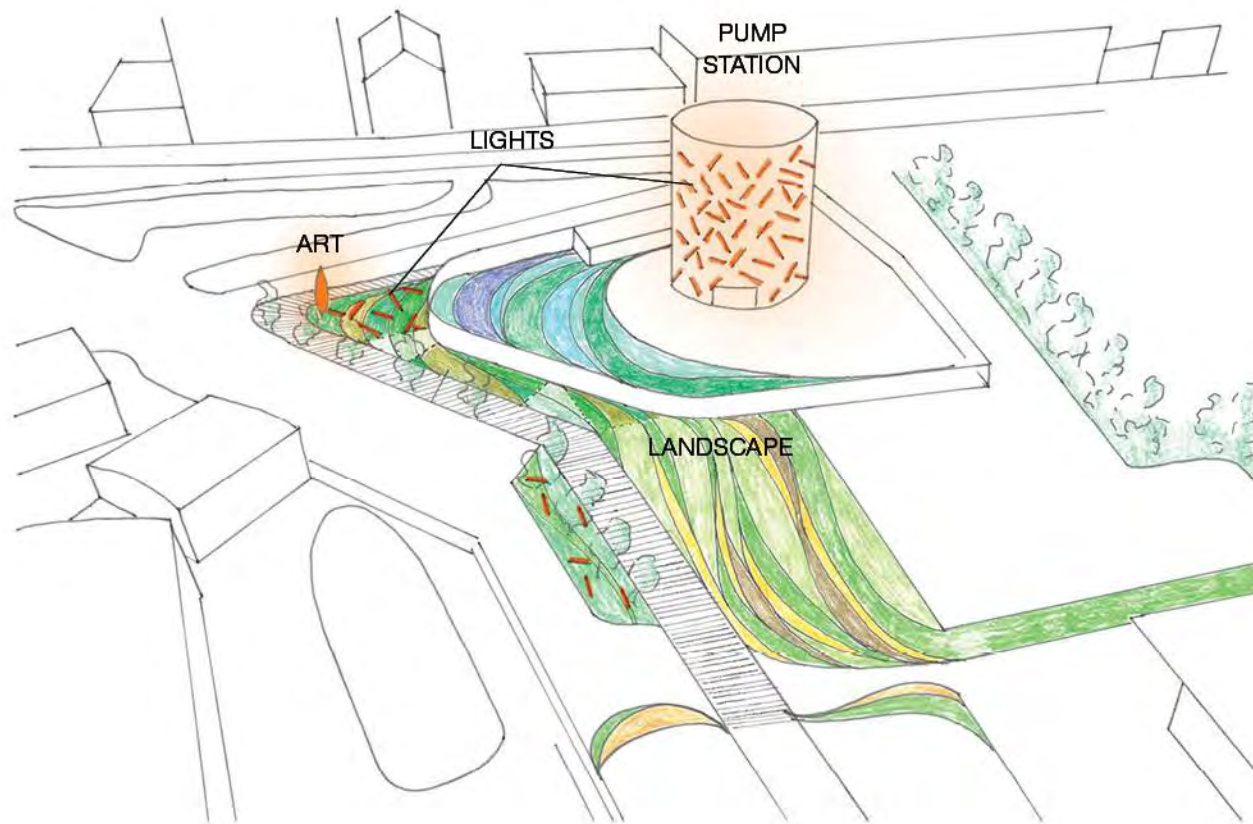
- 1
- 2
- 3
- 4
- 5



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.



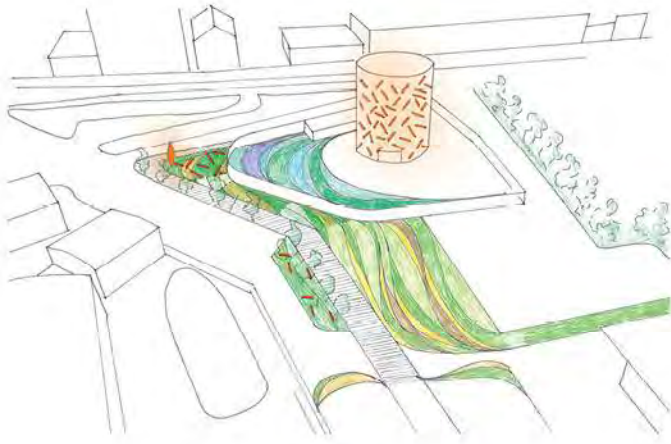


The lights on the tower and in the landscape suggest bioluminescence

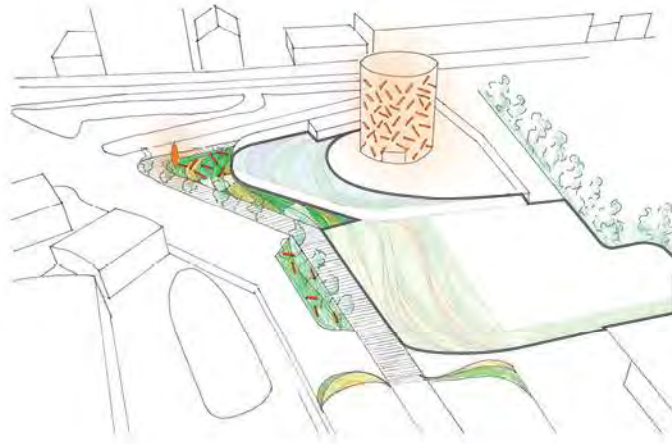


They relate to the story behind the Octopus Woman sculpture at the NW corner of the site

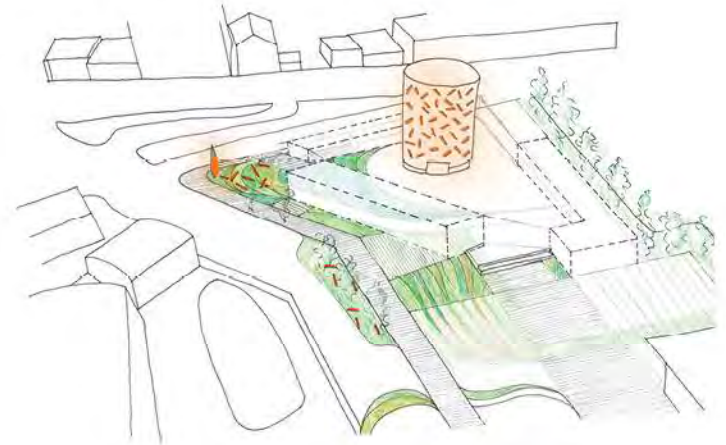
Octopus woman, a queen of the salish sea would go out each night and dance while gathering food for herself under the light of the Moon. Watching her graceful movements, a beautiful ballet of seduction, the Moon became smitten with Octopus Woman. Every night while he shown brightly, she would playfully dance around his reflection to show her love and gratitude for helping her hunt before she would return back to the murky depths of her home.



TEMPORARY CONDITION



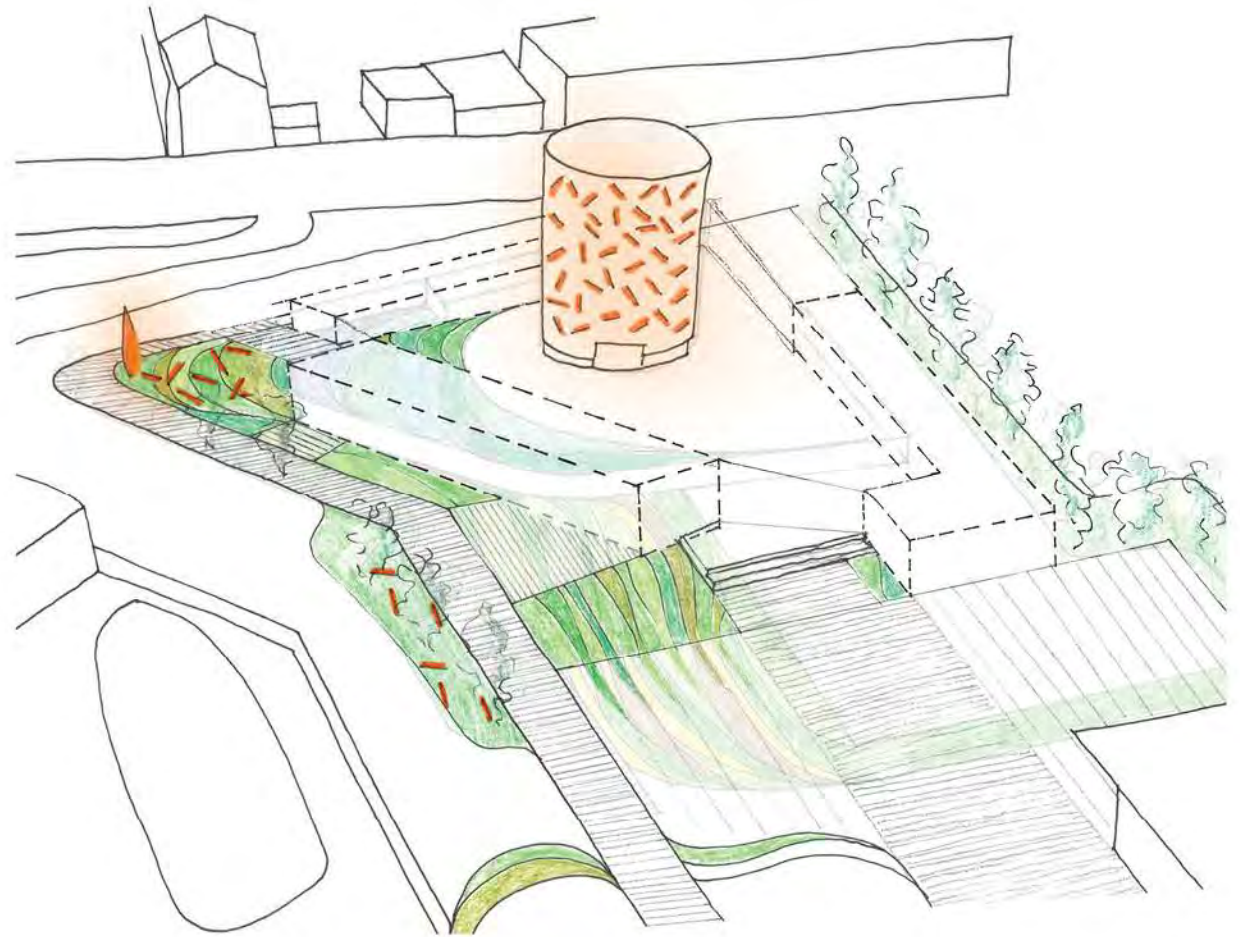
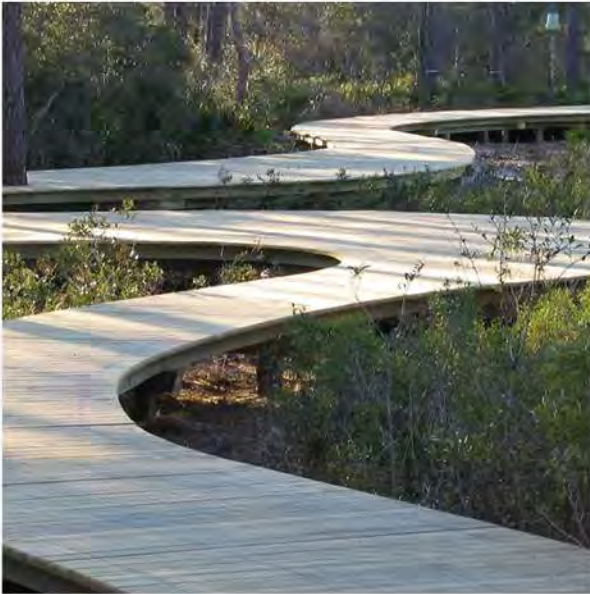
AREA RESERVED FOR
FUTURE DEVELOPMENT

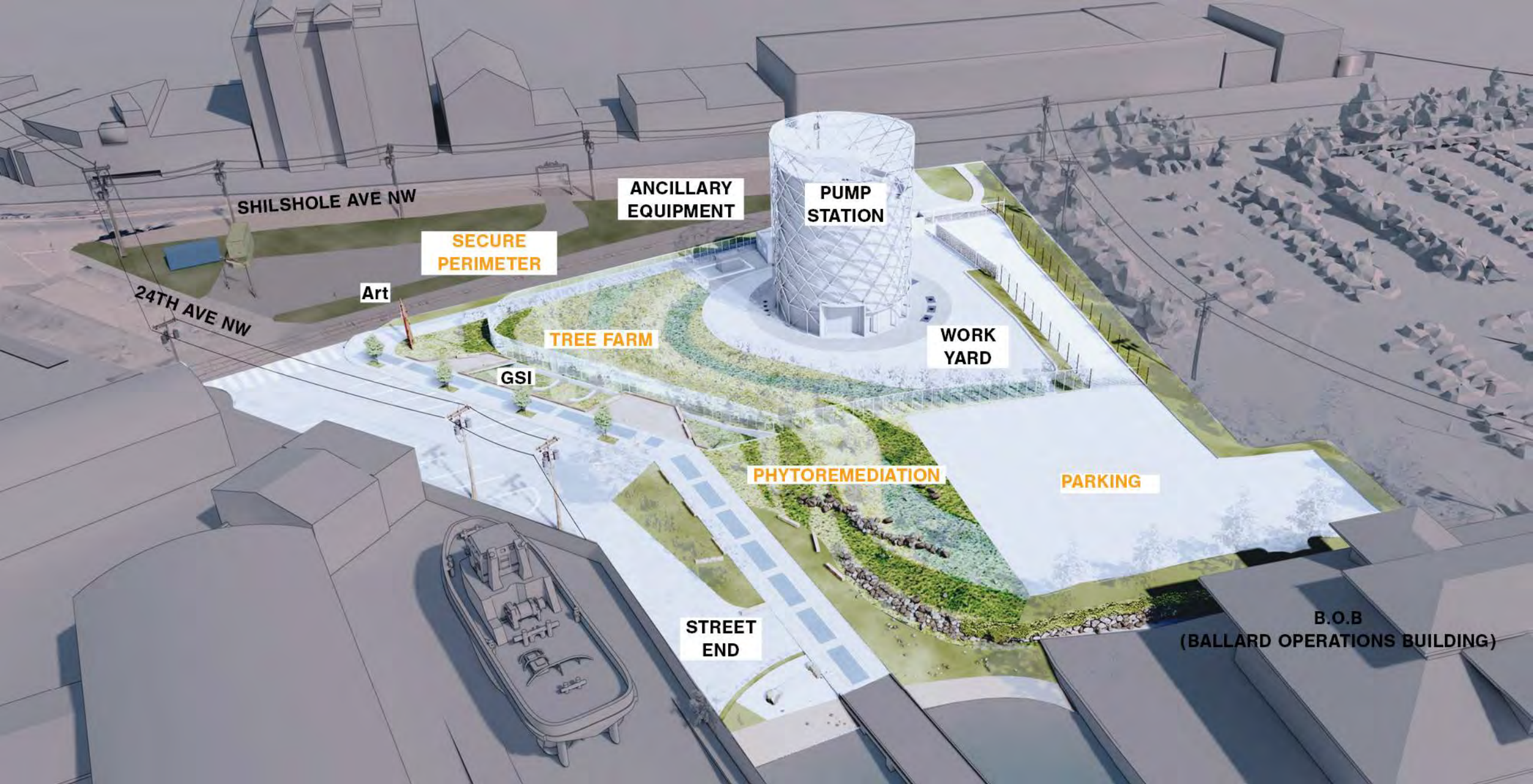


FUTURE DEVELOPMENT

FUTURE DEVELOPMENT WILL:

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





SHILSHOLE AVE NW

ANCILLARY
EQUIPMENT

PUMP
STATION

SECURE
PERIMETER

Art

24TH AVE NW

TREE FARM

GSI

WORK
YARD

PHYTOREMEDIATION

PARKING

STREET
END

B.O.B
(BALLARD OPERATIONS BUILDING)



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

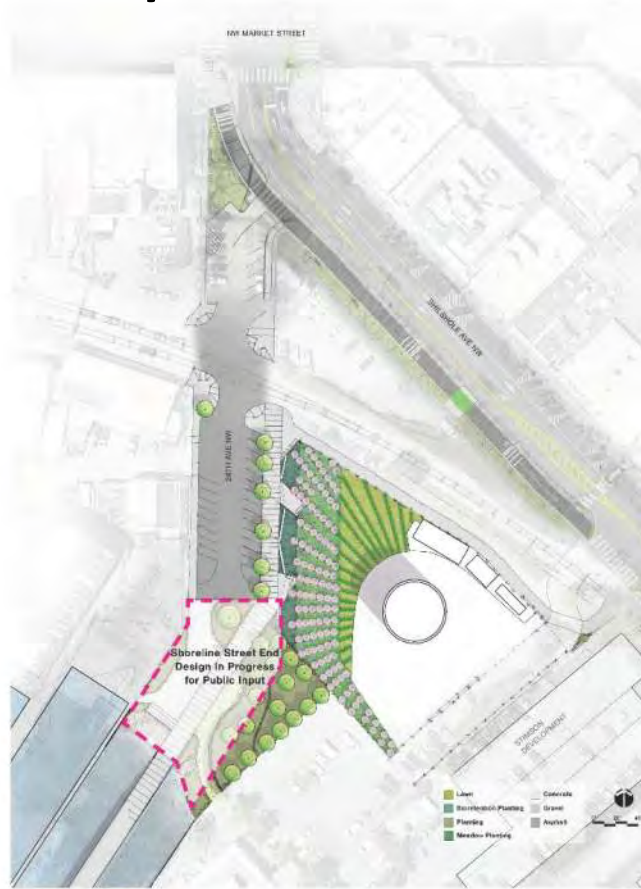


Stormwater Treatment



Phytoremediation

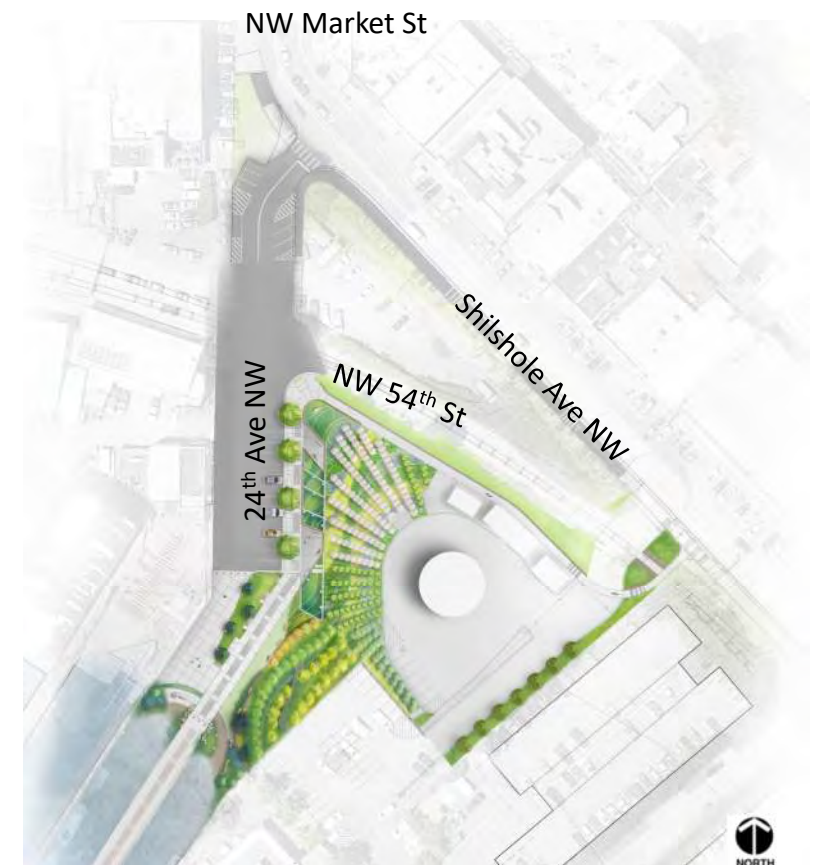
Concept Site Plan



Schematic Site Plan



Design Development Plan



Updates:

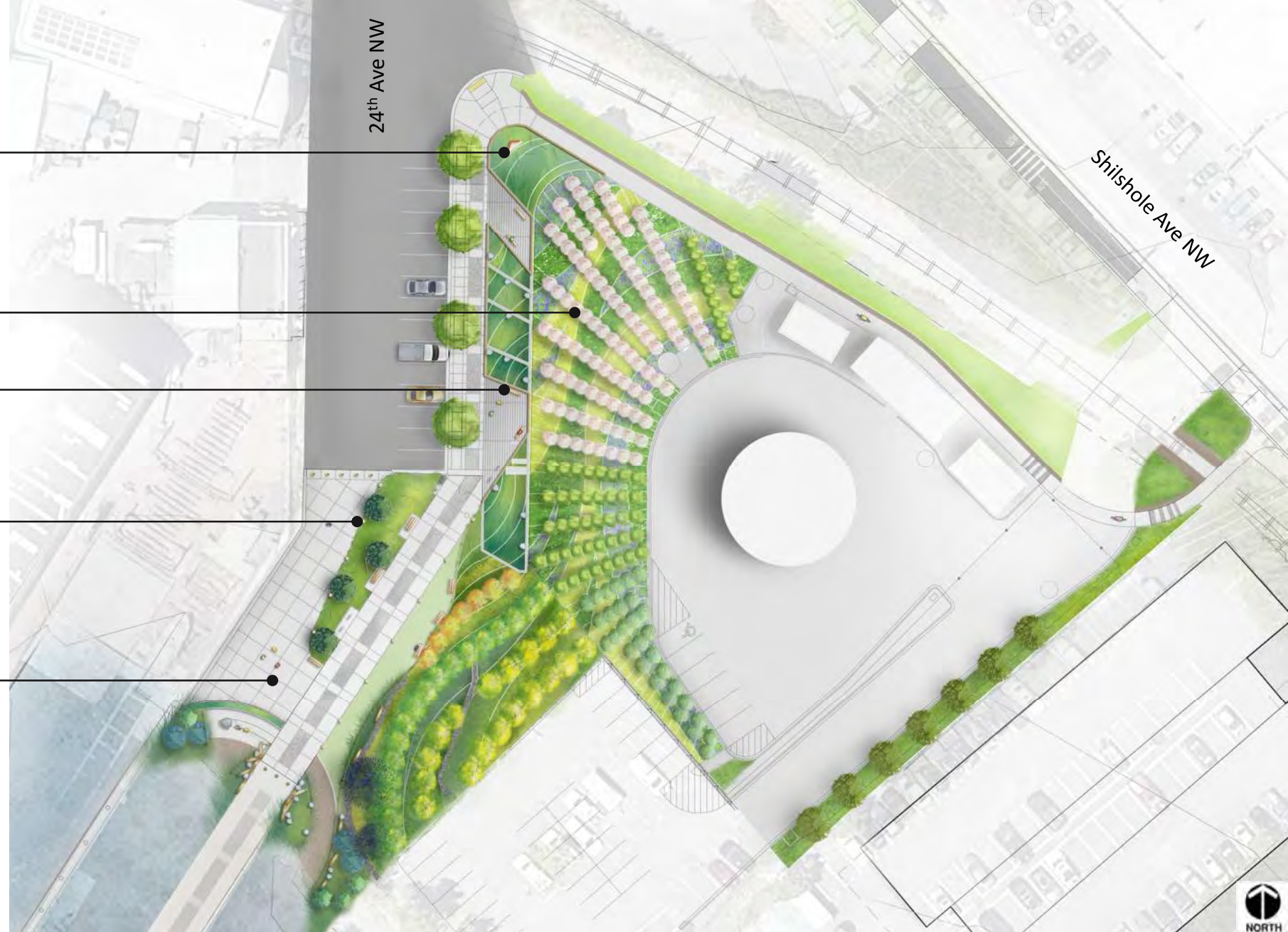
Public art coordination

Urban tree farm tree species

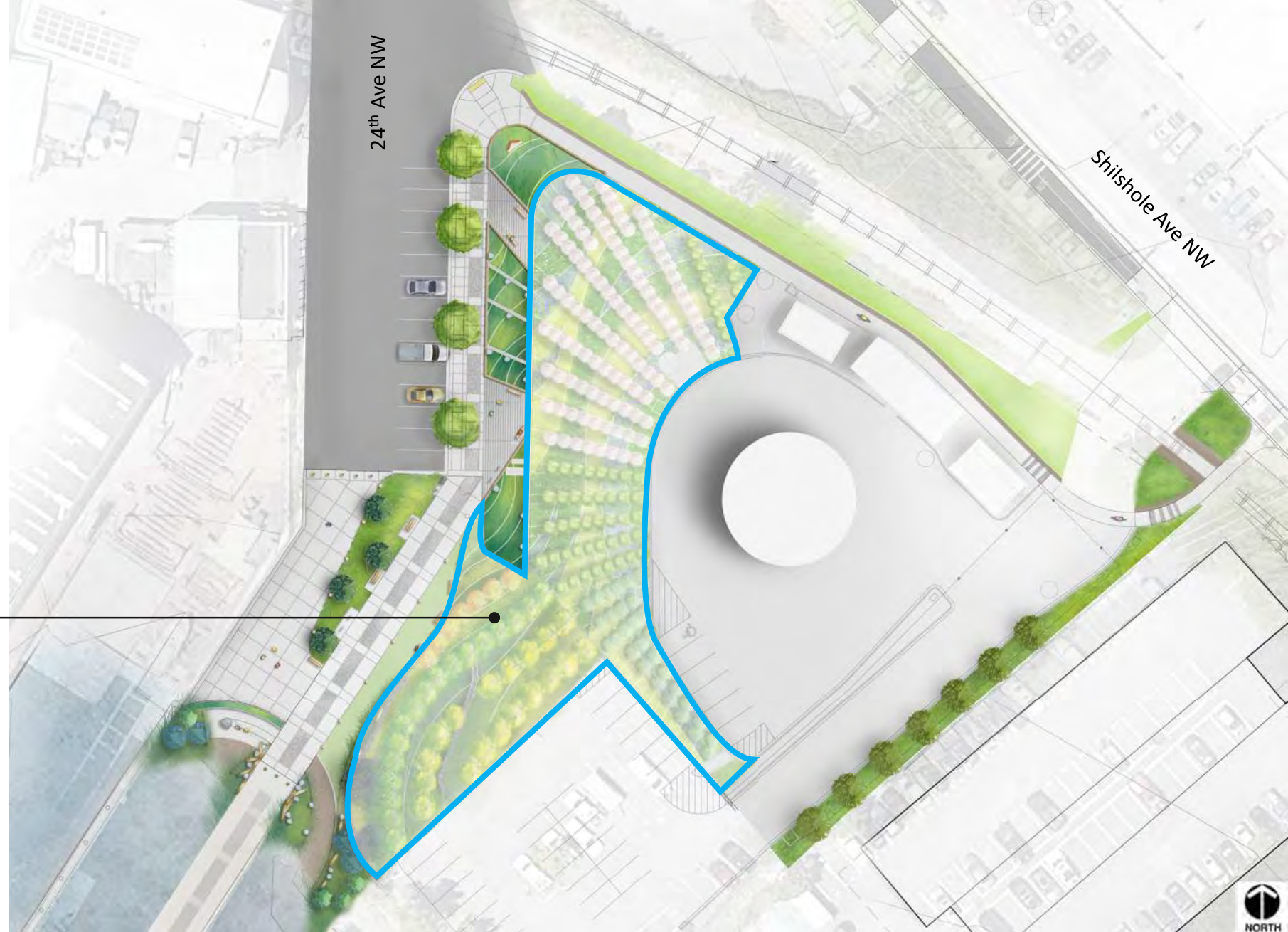
Site furnishings

Site lighting

Street end refinements

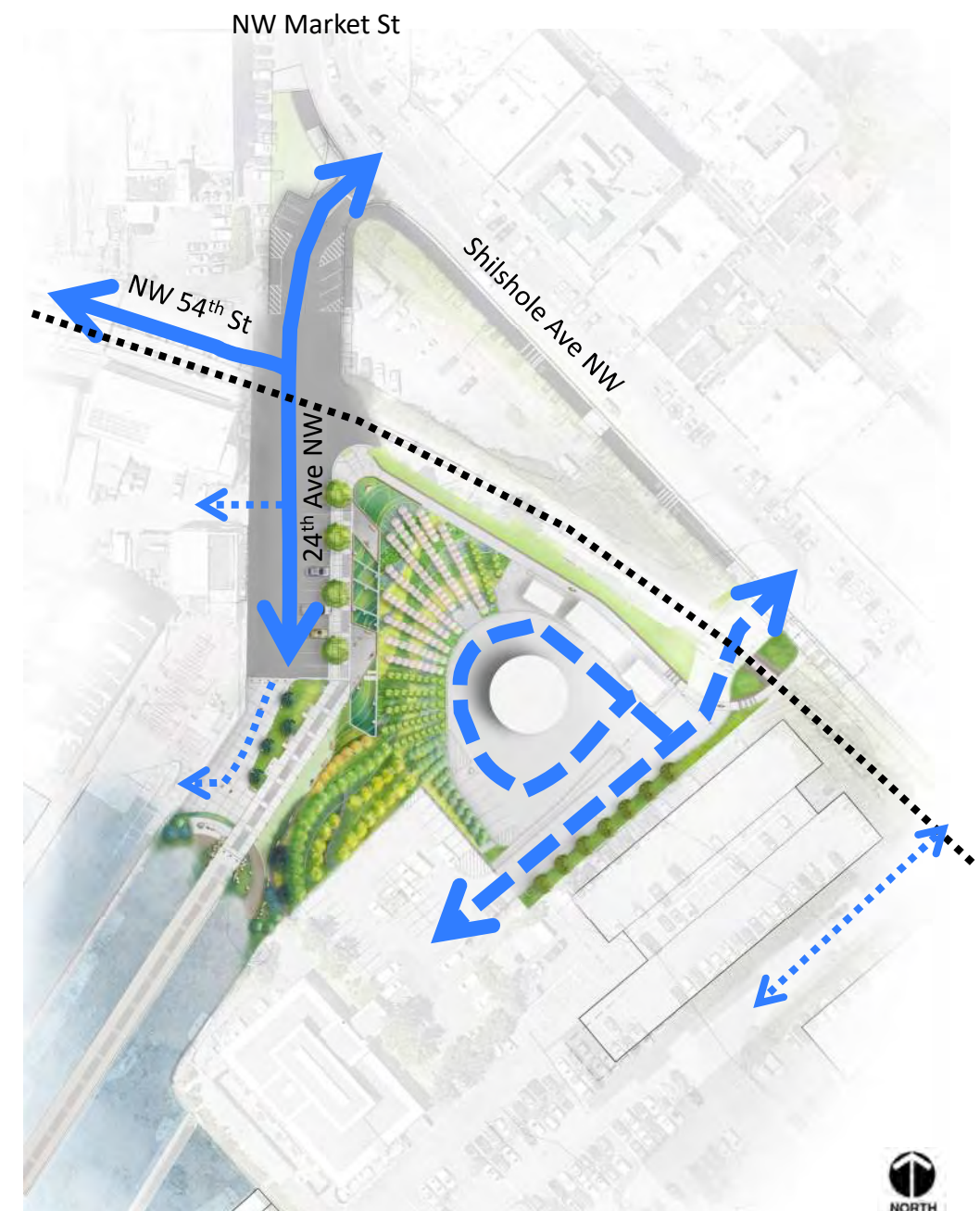


Interim landscaped area



Vehicle Circulation

- Railroad
- ↔ Vehicles
- ↔ SPU vehicles
- ↔ Other vehicular access

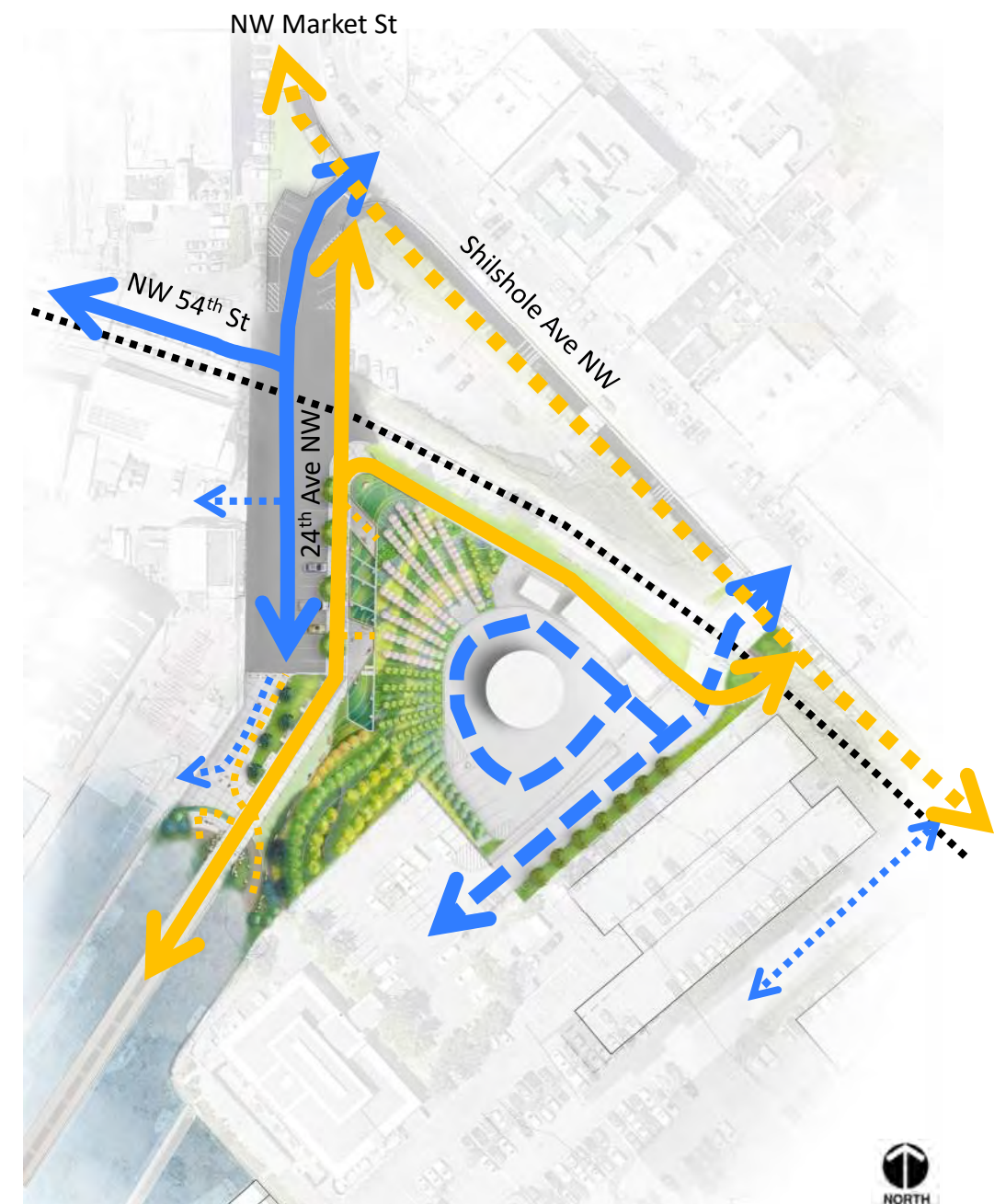


Vehicle Circulation

- Railroad
- ↔ Vehicles
- ↔ SPU vehicles
- ↔ Other vehicular access

Pedestrian & Bike Circulation

- ↔ Ballard Multimodal Corridor (pending)
- ↔ Primary access
- Secondary access



Pedestrian access for SPU staff

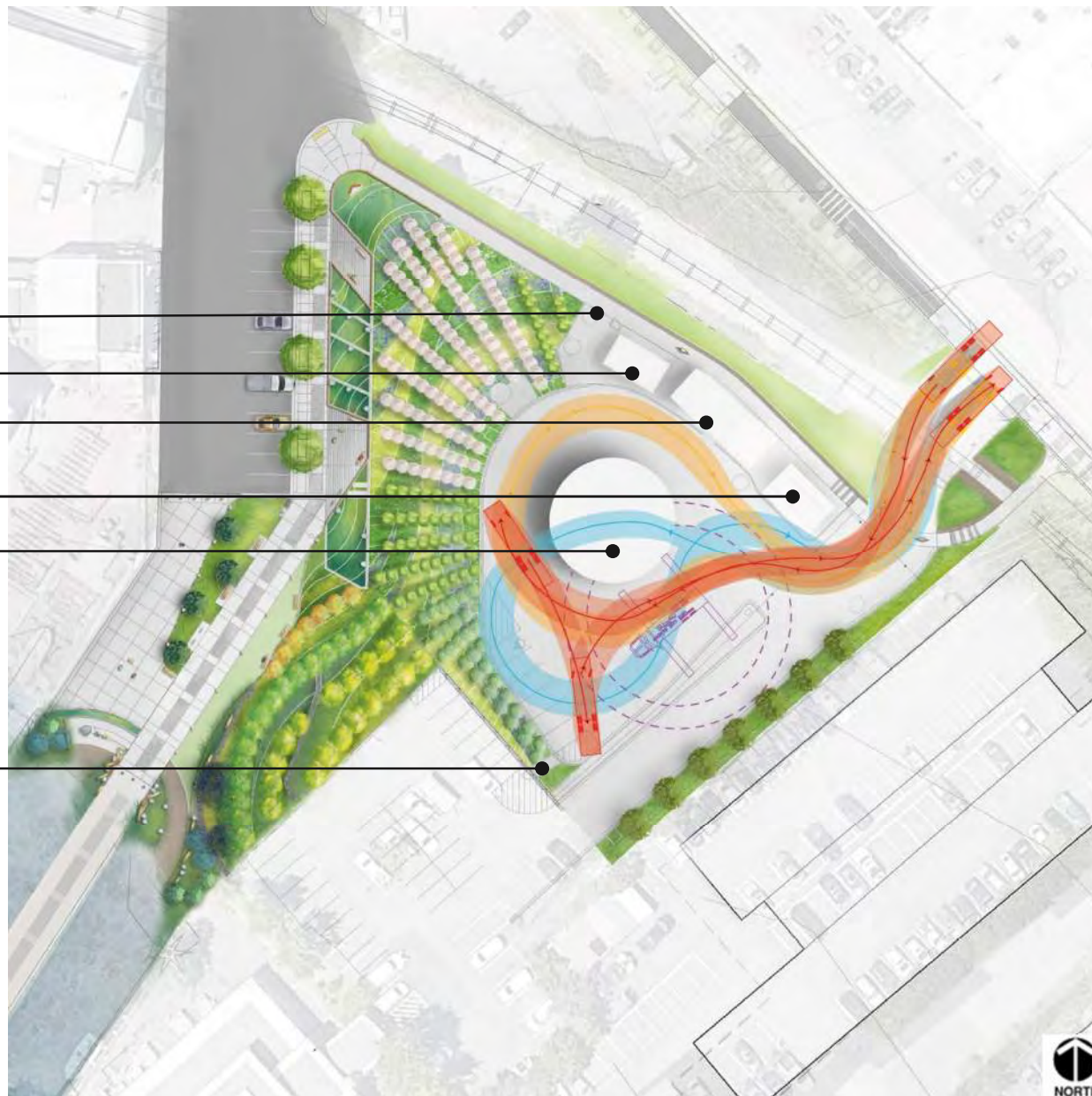
Transformer

Electrical Building

Generator

Pump Station

Pedestrian access for SPU staff



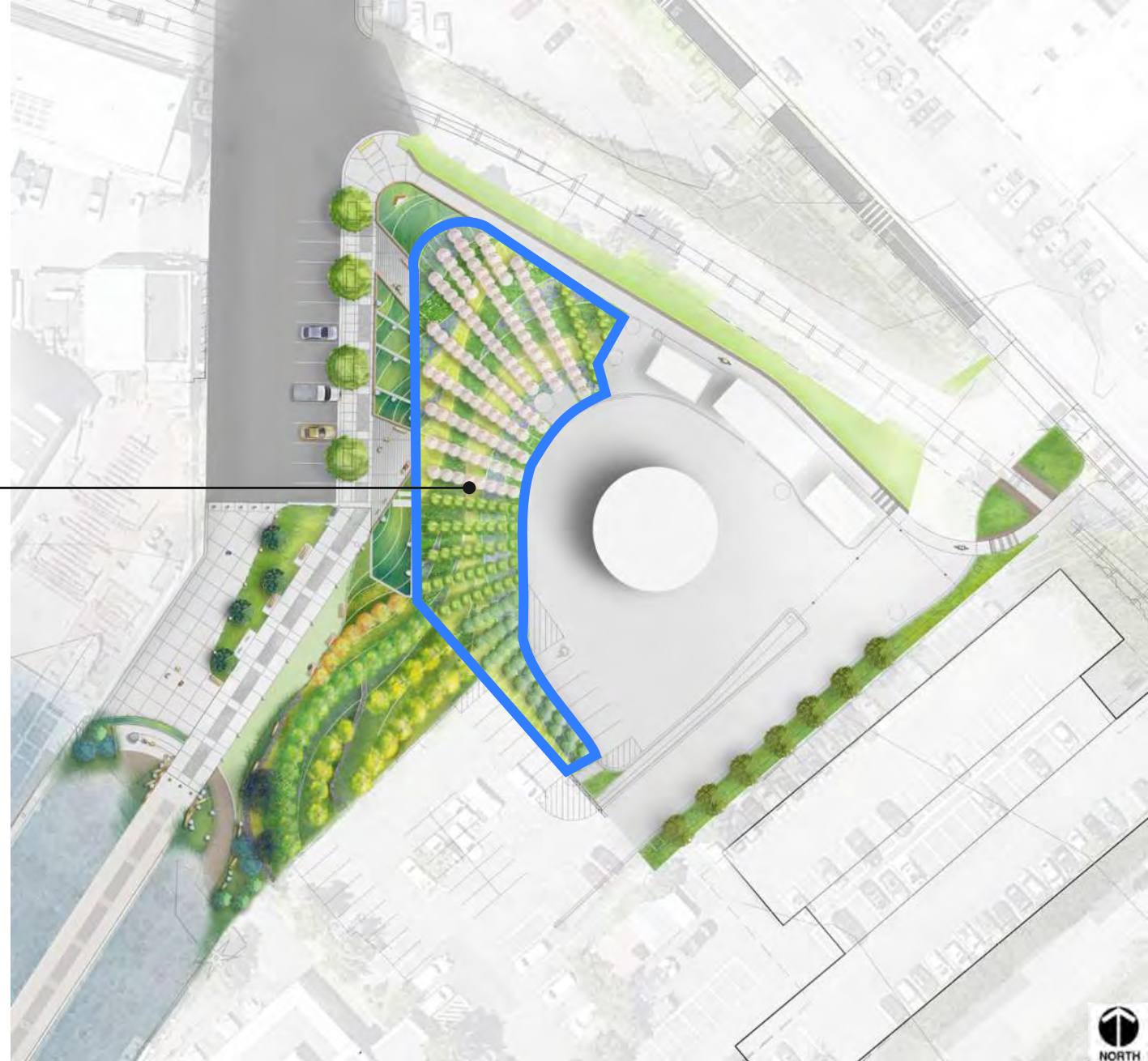
PUMP STATION YARD CIRCULATION

SDC Design Development Meeting | 10/07/2021

Urban Tree Farm

Updates:

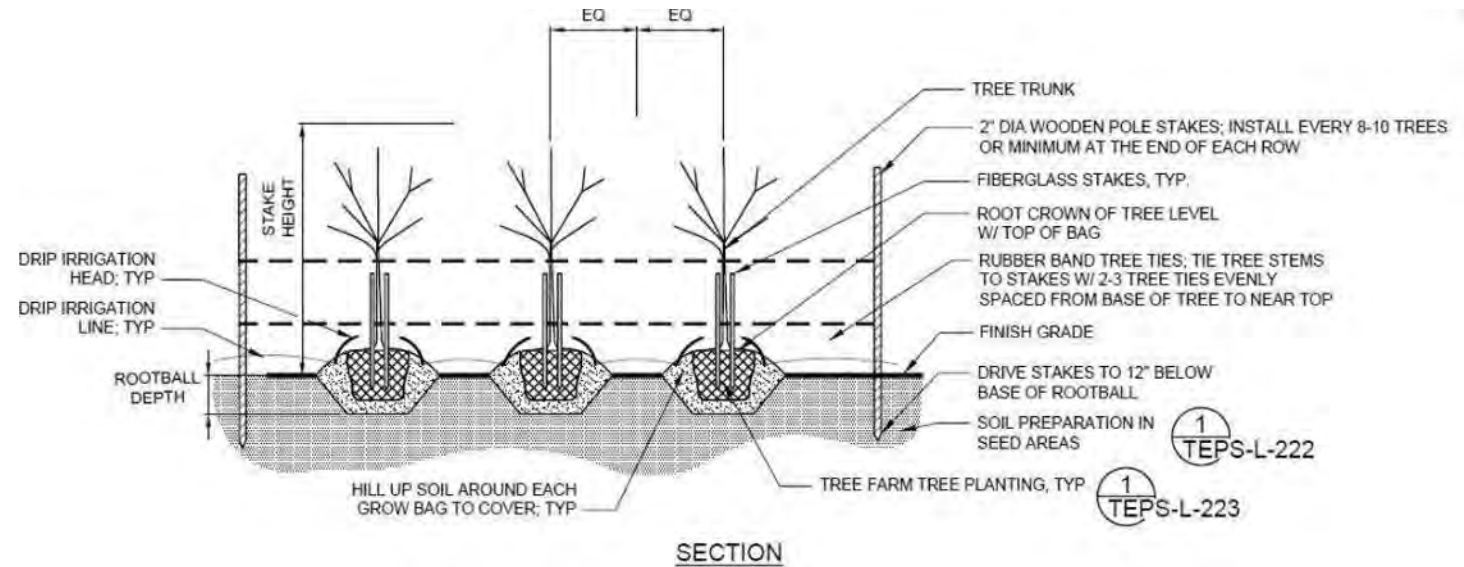
- Coordinated with SDOT Urban Forestry on species
- Narrowed down to 7 tree species selected for diversity of size, urban tolerance, and aesthetics
- O&M manual developed for contractor use



Urban Tree Farm

Details:

- Maintained by a contractor for 4-5 years
- Approximately 200 trees!
- 3'-4' height at planting, spacing varies between trees 4' to 5' on center
- Minimum 3'-6" room for riding lawn mowers or small 4-wheel vehicles for maintenance, increases in width to 12' wide



Urban Tree Farm



June Snow Giant Dogwood
(*Cornus controversa* 'June Snow')



Muskogee Crape Myrtle
(*Lagerstoemia* 'Muskogee')



Amur Maackia
(*Maackia amurensis*)



Urban Tree Farm



Ruby Vase Parrotia
(*Parrotia persica* 'Ruby Vase')



Green Gables Nyssa
(*Nyssa sylvatica* 'Green Gables')



Forest Green Oak
(*Quercus frainetto* 'Schmidt')



Willow Oak
(*Quercus phellos*)

Schematic Design Recommendations

5. Thoroughly consider **parking needs** and maximize **pedestrian and recreational use** of the shoreline right of way. Provide for **temporary community programming**.
6. Consider providing more **amenities** that support full use of what will be a busy access point to the water, including bike parking, locking stations for kayaks / paddle boards, and sufficient trash and recycling areas.
7. Provide enough **seating with backs** and side rails to meet the needs of the older people in this community.

24th ROW & GSI

Updates:

- Public Art coordination
- Site furnishings
- Site lighting



24th ROW & GSI Design Details

Large wood timber benches
(flexible to sit in all directions)



Fence



Bull rails with low lighting



Bike racks



24th ROW & GSI Stormwater Conveyance



Western Sword Fern
(*Polystichum munitum*)



Slough Sedge
(*Carex obnupta*)



Lilyturf
(*Liriope muscari* 'Big Blue')



Birchleaf Spiraea
(*Spiraea betulifolia* 'Tor')



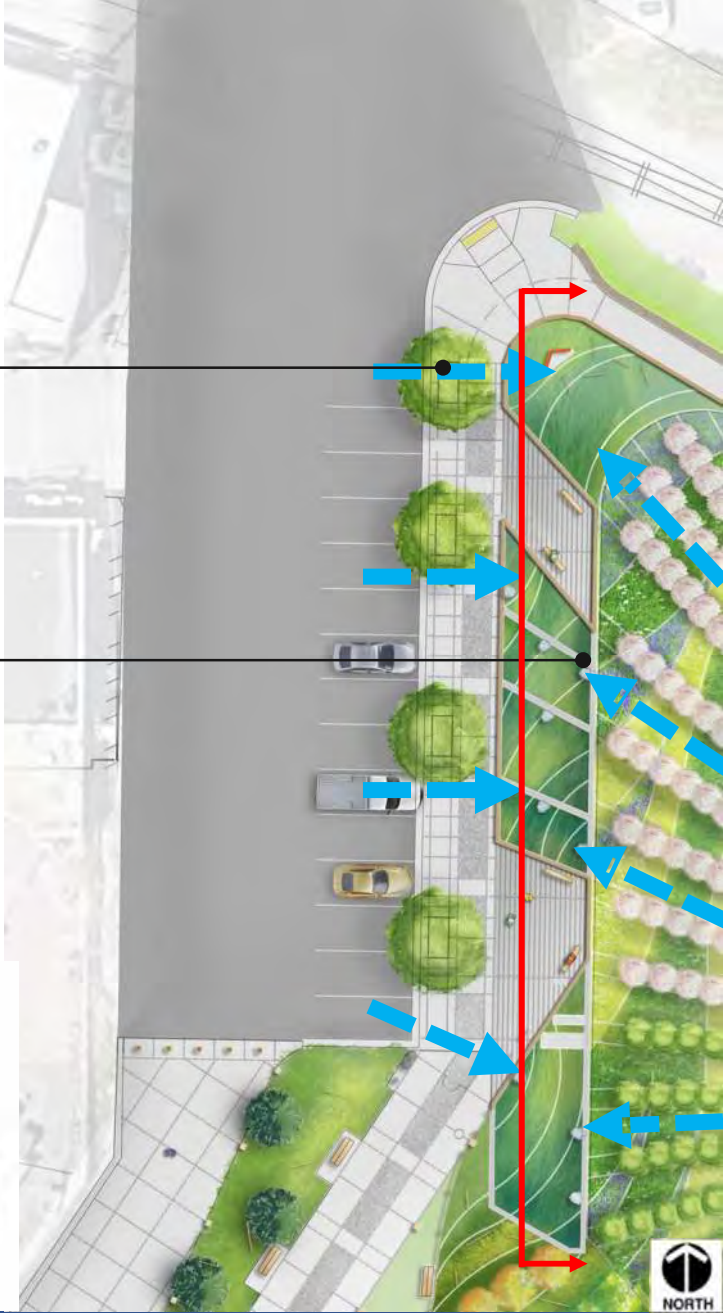
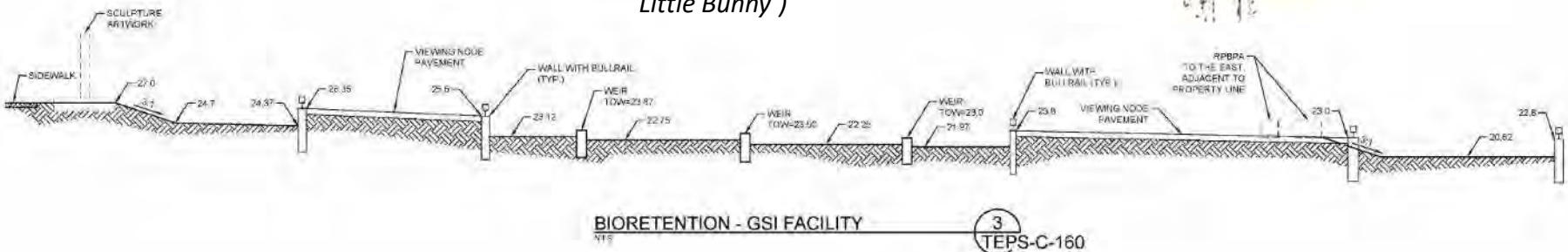
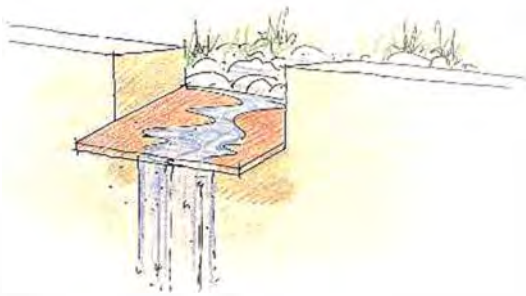
Common Rush
(*Juncus effusus*)



Miscanthus Little Bunny
(*Pennisetum alopecuroides* 'Little Bunny')

Water from
24th ROW
(piped under
sidewalk)

Stormwater from
Pump Station yard
(swale & scupper)



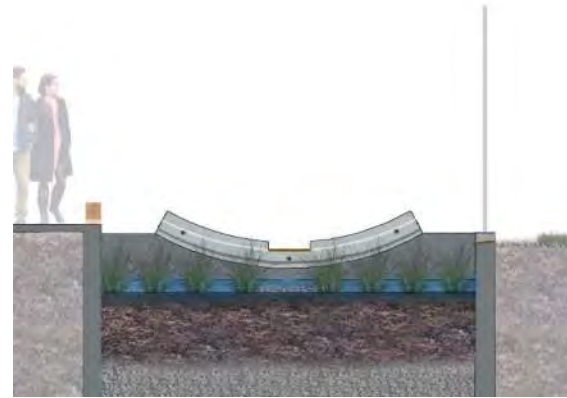
24th ROW & GSI Stormwater Conveyance

Weirs

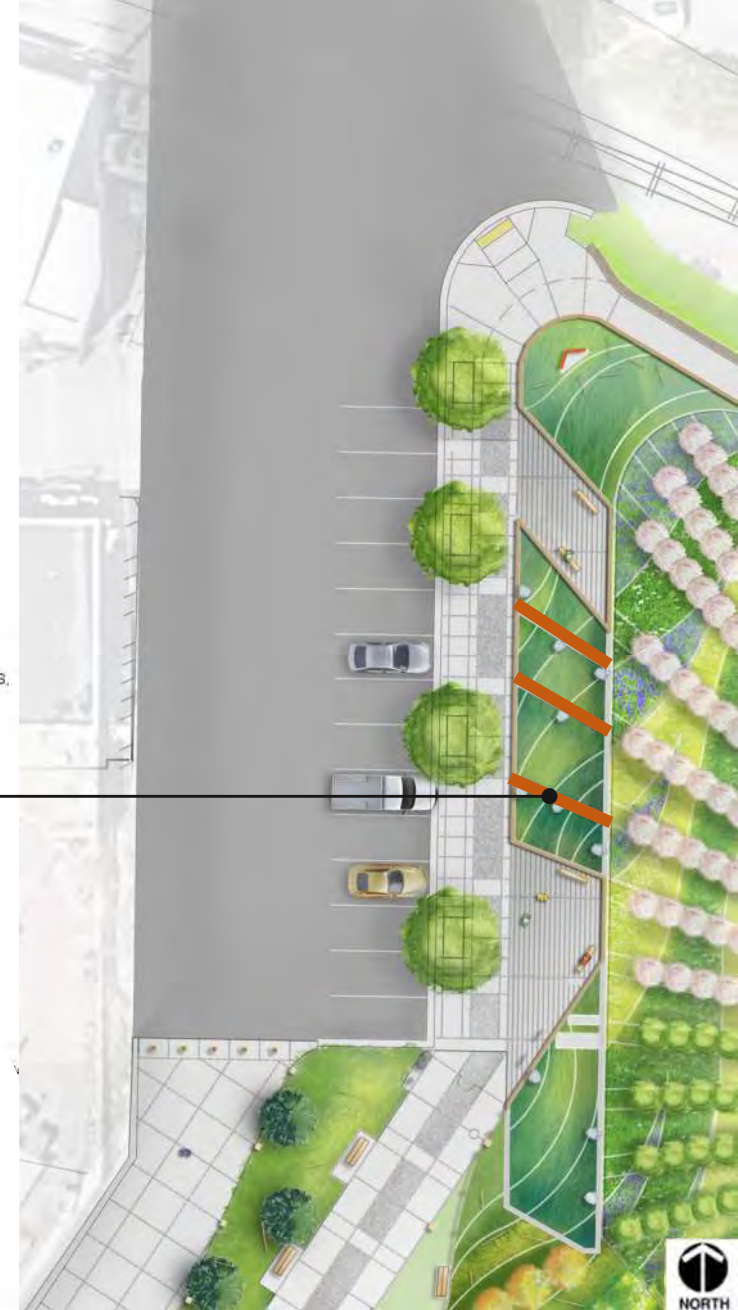
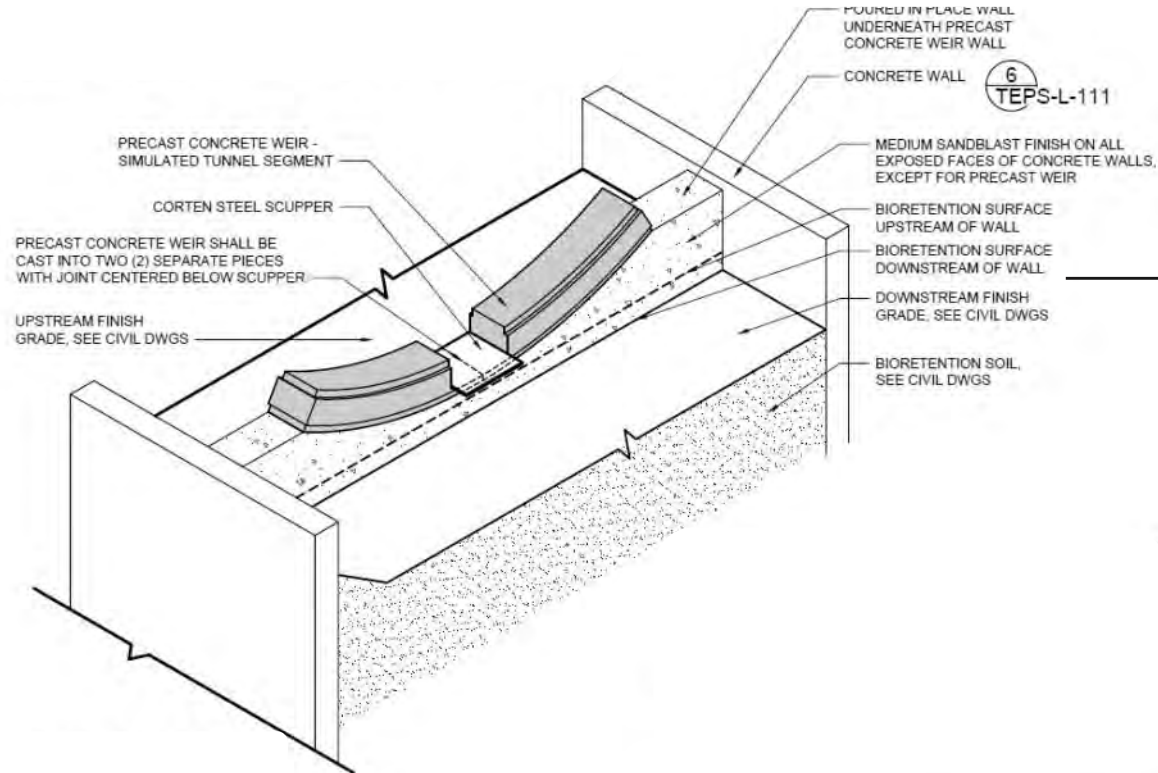
- Simulated tunnel segment
 - Inside diameter 18'-10", segments 11" thick, 5' wide, 10' long



Tunnel segment



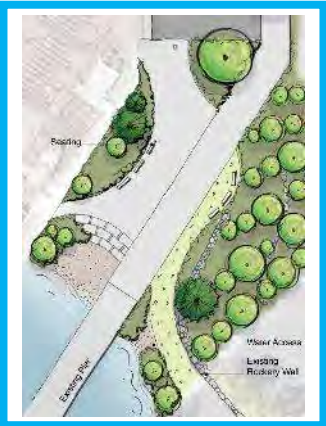
Typical Section



Previous designs

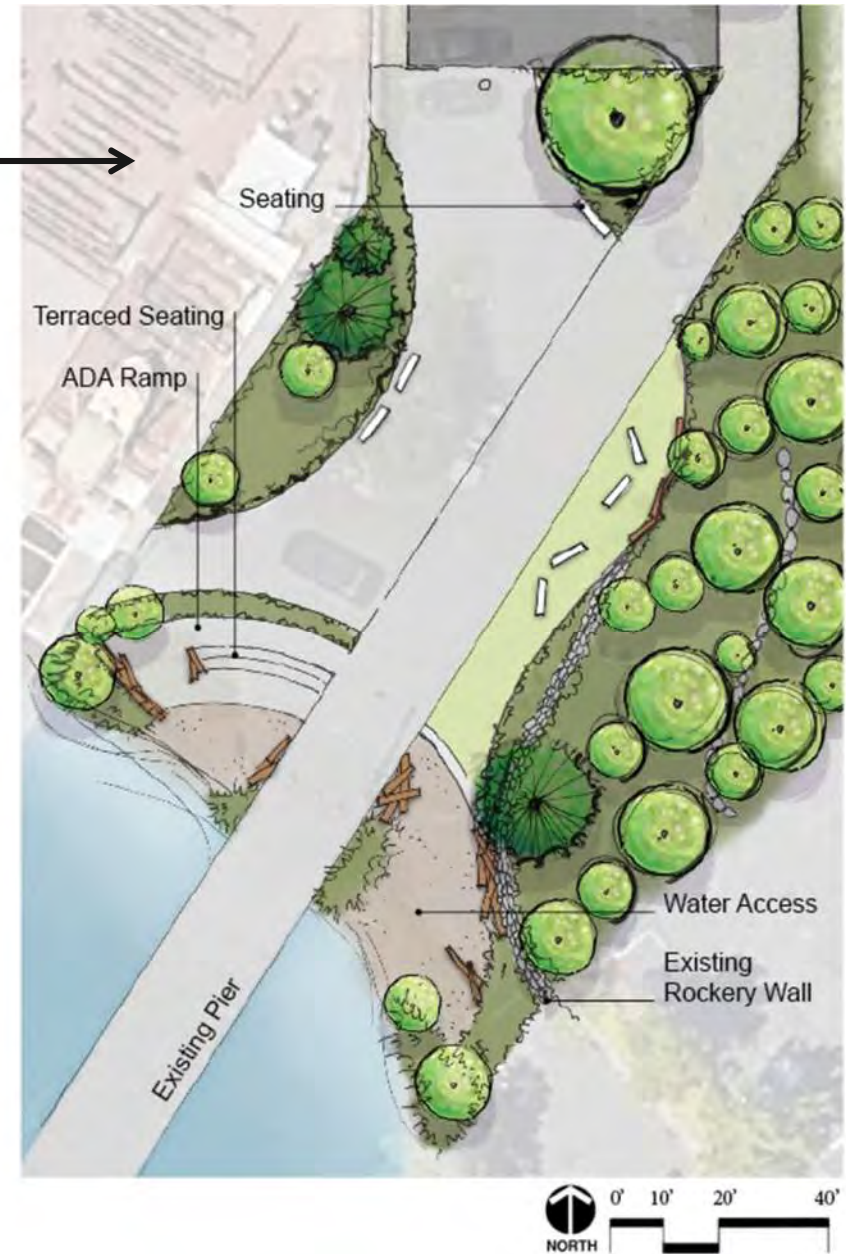
What we heard (SDC Subcommittee meeting on 02/20/2020):

- 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

- Site lighting
- Site furnishings
- Design refinements



Updates



Flexible scored concrete space
with bollard lights for
community programming

Exposed aggregate pattern
(matches existing pier pattern)



Updates

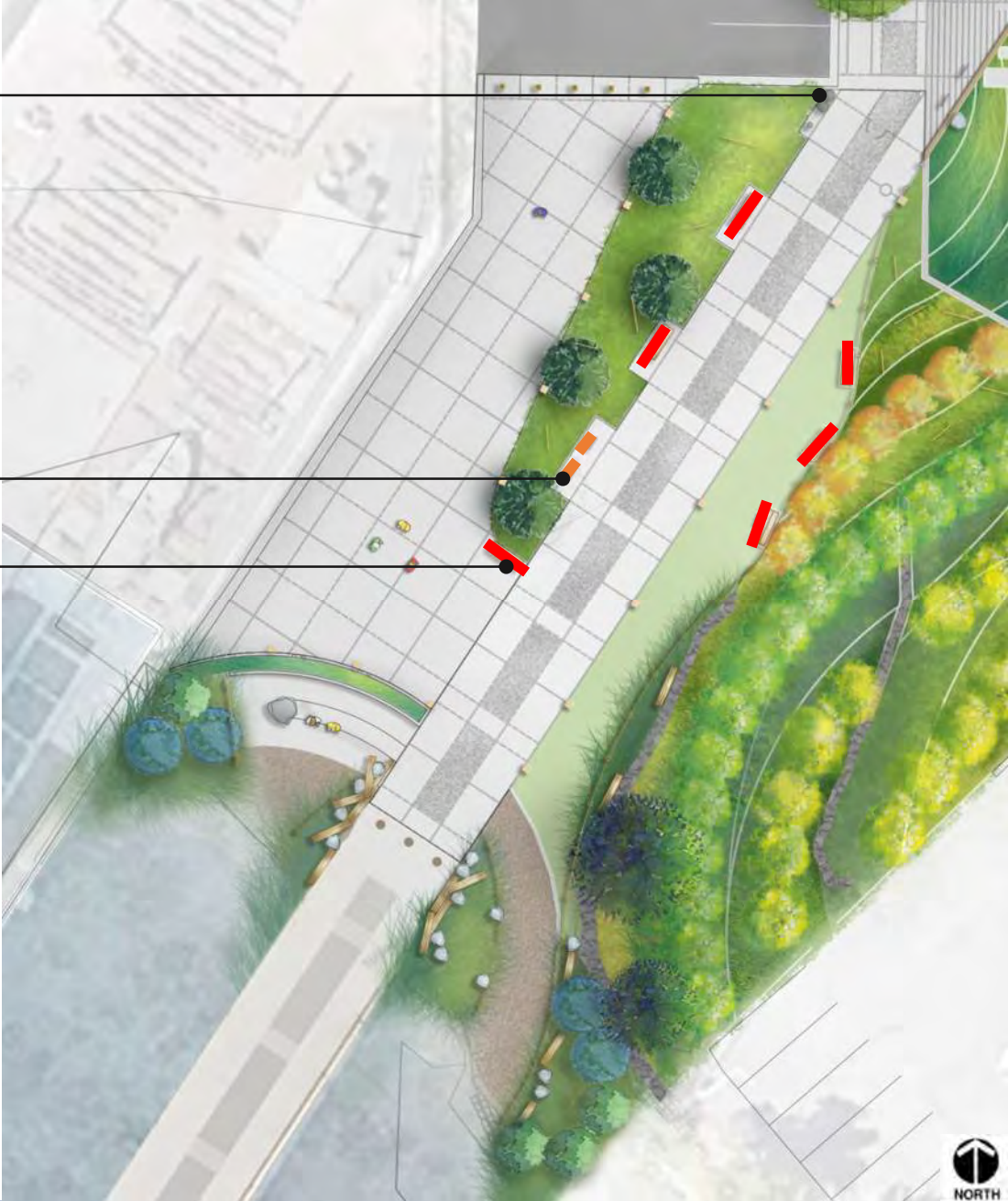
Trash, recycle, and dog waste receptacles



Bike racks



Large wood timber benches (with backs)



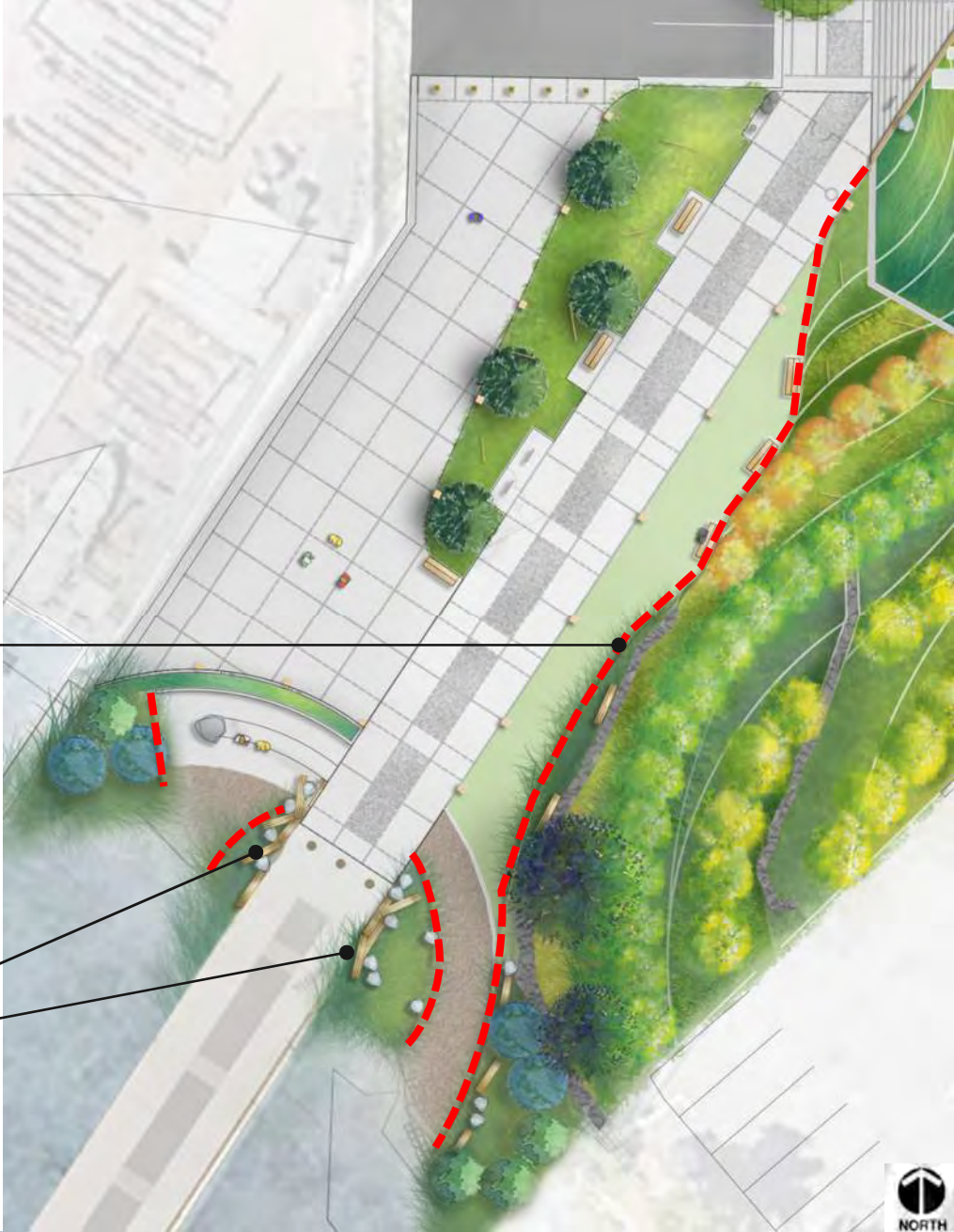
Updates



Split rail wood fencing



Boulders & logs
mixed in with
shoreline planting



Updates



ADA accessible beach with seating





Salvaged granite slabs
(separates beach & lawn)



Street End

Vehicle Circulation

-  Vehicles
-  Other vehicular access (controlled access)

Pedestrian & Bike Circulation

-  Primary access
-  Secondary access

Removable wood bollards



Bioswale

ADA access

Existing removable wood bollards

Hand carry boat launch



Phytoremediation

Updates:

- Refinements in plant species
- Site lighting
- Split rail wood fencing

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



Spiraea fristchiana
Korean Spirea

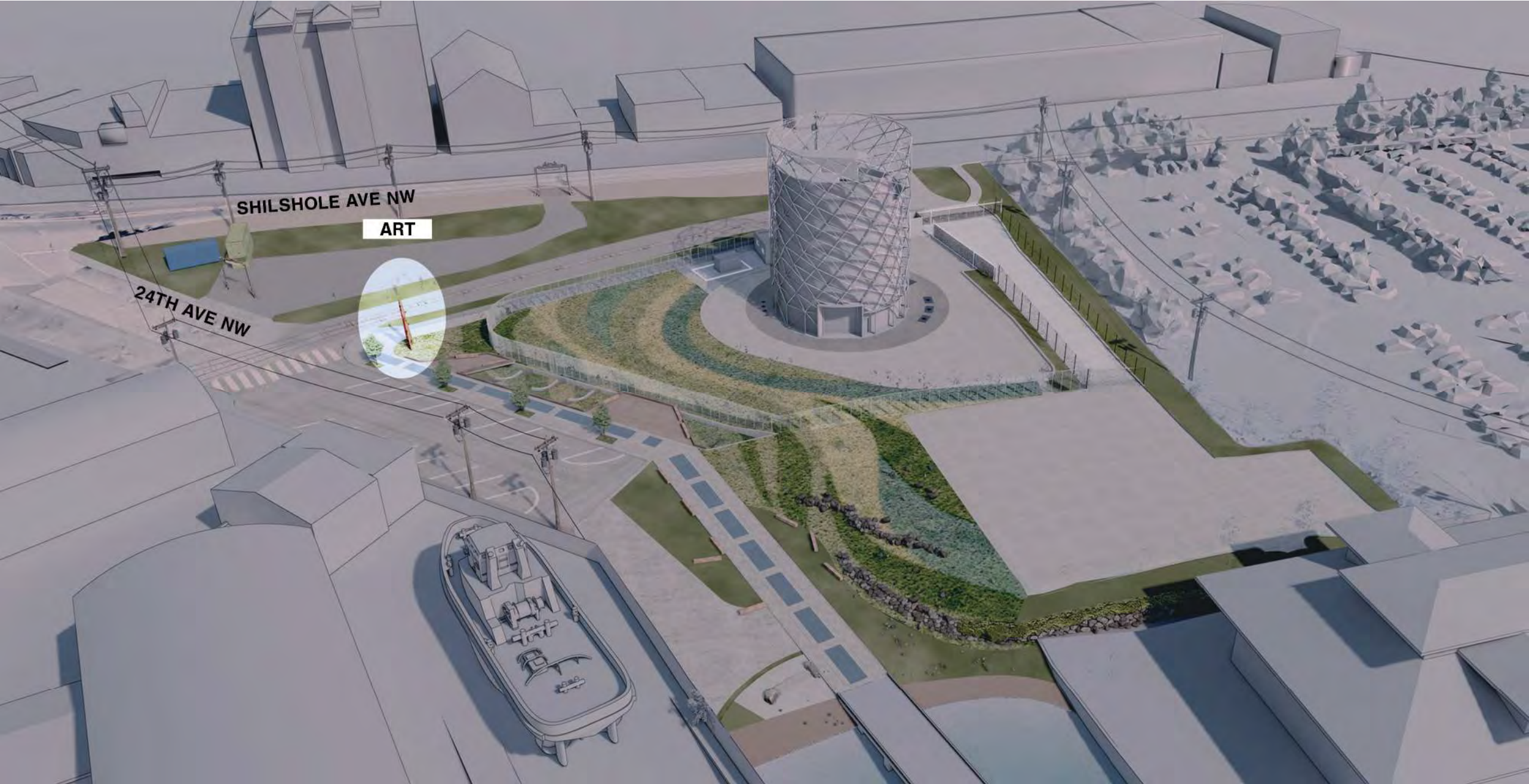
Petroleum Tolerant



Cistus x purpureus
Purple Rock Rose



Narratives	Direct Approach	Subtle Approach
Coast Salish	<div>Updated to be a separate contract</div> <ul style="list-style-type: none"> Requires more time to develop with multiple stakeholders to review information Spaces provided for creative solutions to interpret narratives 	<ul style="list-style-type: none"> Public Art Plant materials
Timber Industry		<ul style="list-style-type: none"> Wood benches, bull rail, logs
Maritime Industry (past & present)		<ul style="list-style-type: none"> Tower trellis
SPU Ship Canal Tunnel & Pump Station		<ul style="list-style-type: none"> Tower & lighting Weir tunnel segments
Stormwater aboveground		<ul style="list-style-type: none"> Bioretention cells Conveyance swales & scuppers
Stormwater belowground		<ul style="list-style-type: none"> Tower lighting Paving inlays in sidewalk
Working Landscape		<ul style="list-style-type: none"> Urban tree farm Phytoremediation GSI Tower



SHILSHOLE AVE NW

ART

24TH AVE NW



Front



VERE
GGE²⁰



Ballard Water Station Concept Round 4

Inspiration/story

A S'KLALLAM TALE: SEDUCTION OF THE MOON

Octopus woman, a queen of the Salish sea would go out each night and dance while gathering food for herself under the light of the Moon.

Every night while The Moon shown brightly, she would playfully dance around his reflection to show her love and gratitude for helping her hunt.

Her movements were a ballet that spoke to directly to the Moon's soul.

For hours she would perform under his light, until she had her fill and then she would sleepily return to her home

Watching her graceful movements, a beautiful seduction of motion, the Moon became smitten with Octopus Woman. He was so enraptured by her dance and beauty that he would blow her countless kisses that would land gently upon the skin of the emerald sea.

However being in love, he did not think of what his kisses might do and didn't realize that some of the sea creatures would absorb the light he sent from his heart, and as a result that is why certain fish and plankton glow at night and in the deep.

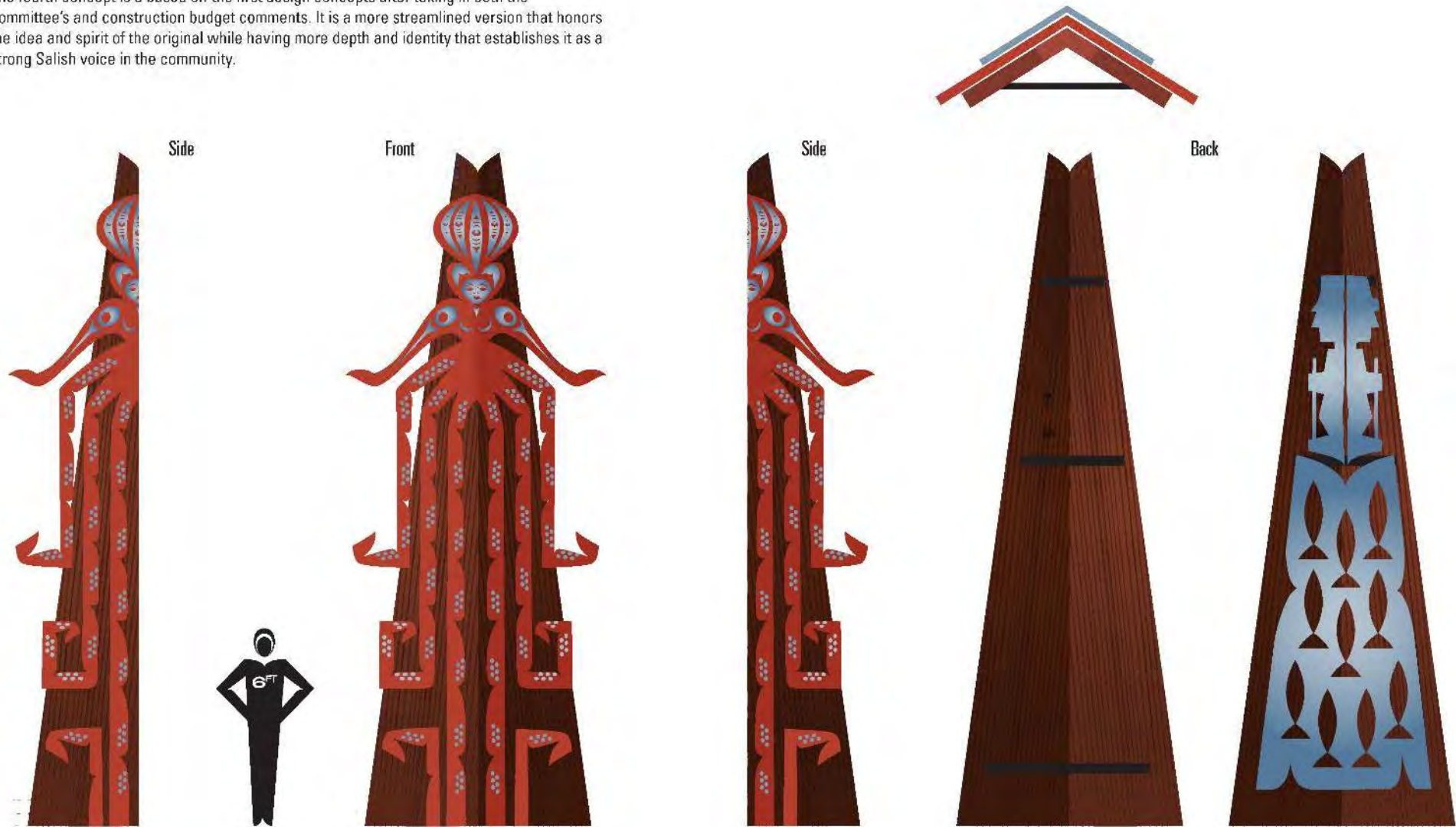


Front



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.



VERE²⁰
GGE

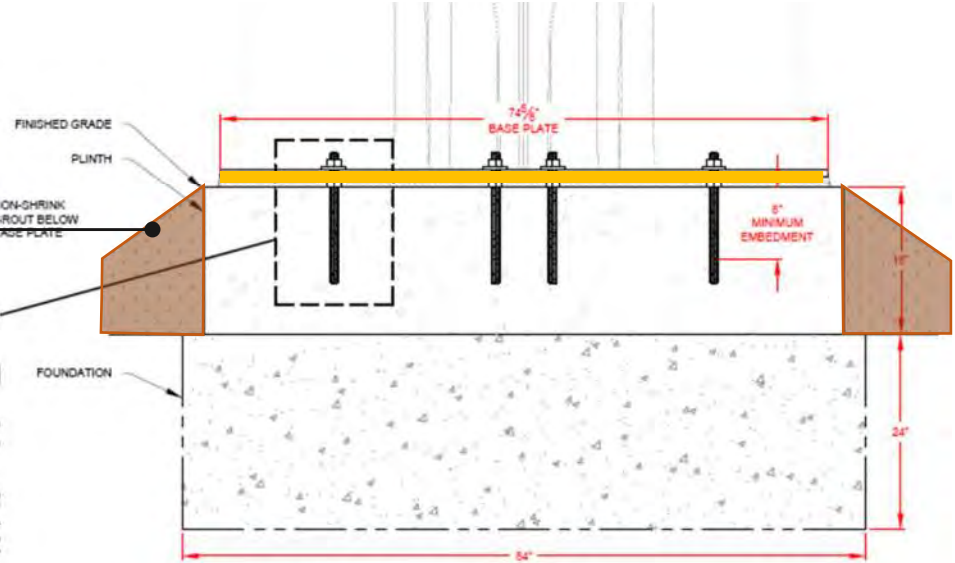


Planting blends with adjacent
bioretention planting

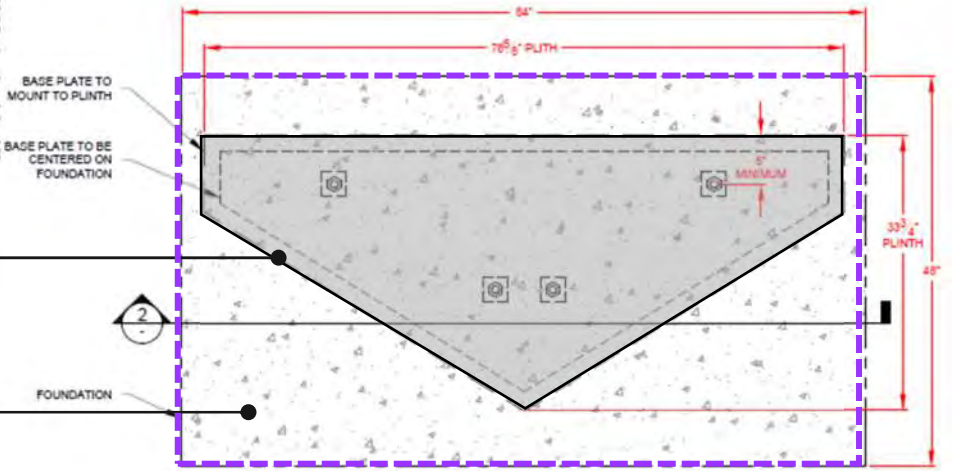


Minimal concrete
seen on surface

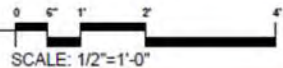
Recessed
foundation



② FOUNDATION SECTION
SCALE: 1/2" = 1'-0"

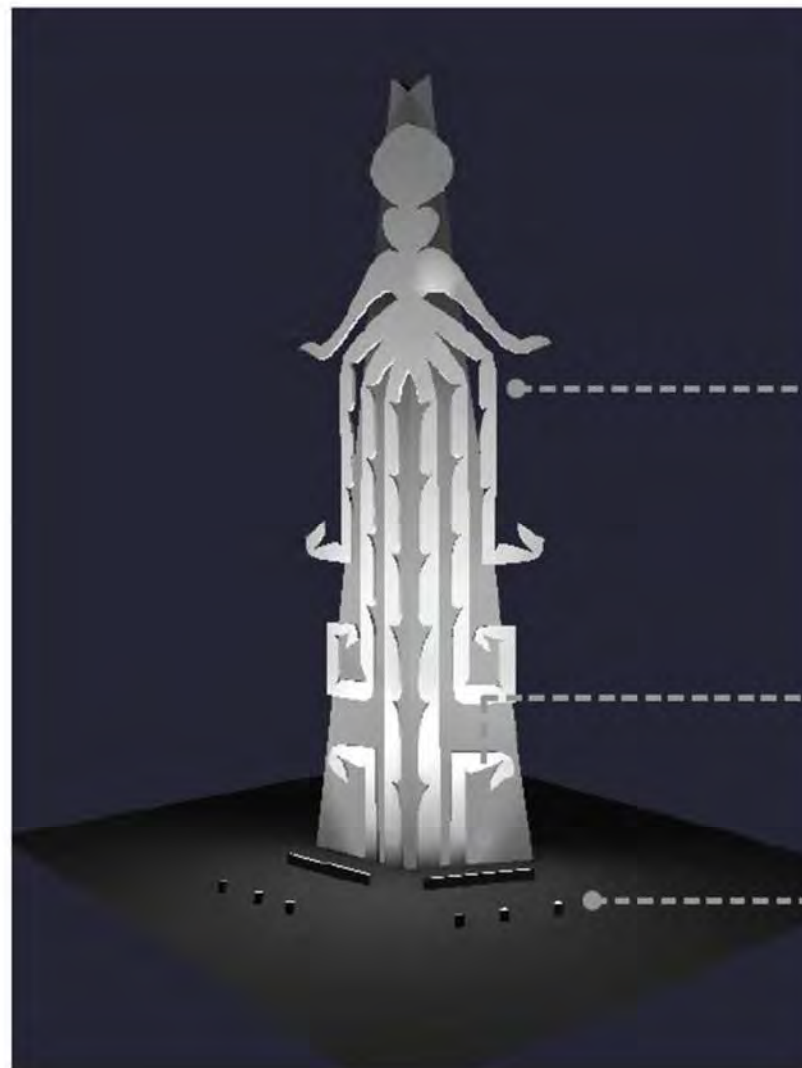
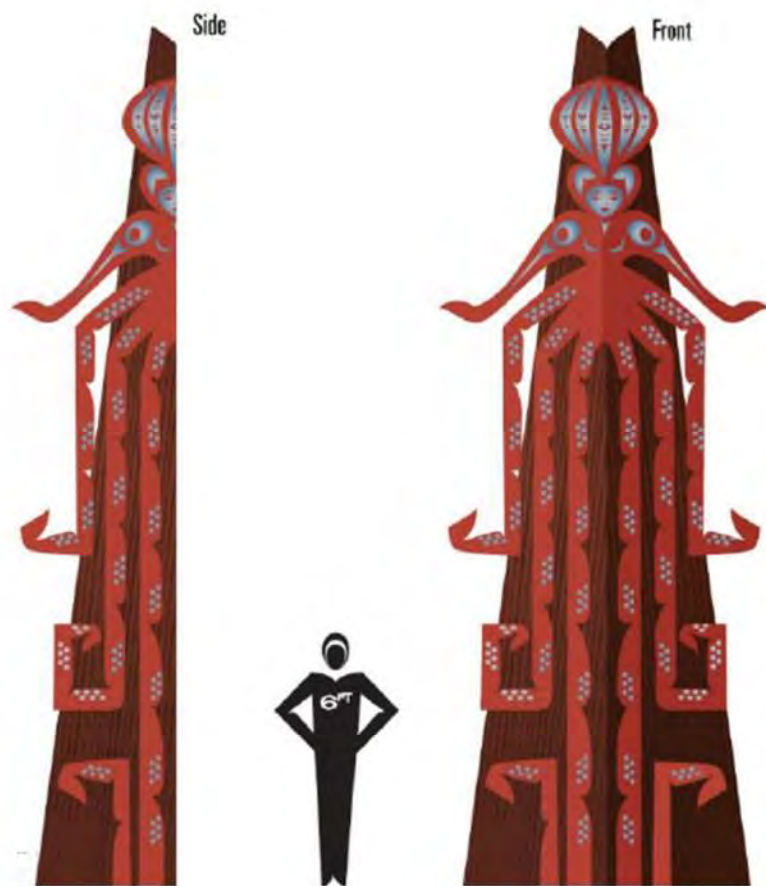


① FOUNDATION - PLAN VIEW
SCALE: 1/2" = 1'-0"



Schematic Design Recommendation

8. Consider **ambient light**, the multitiered and sided characteristic of the art, and the pedestrian perspective. Concern lighting might be **too bright for the surroundings** and could distract immensely from the art.







**Pedestrian
Fixture, 14' Pole**
UrbanScape LED



Bollard
Hess Linea
S 900



Uplight
BK Lighting
HP



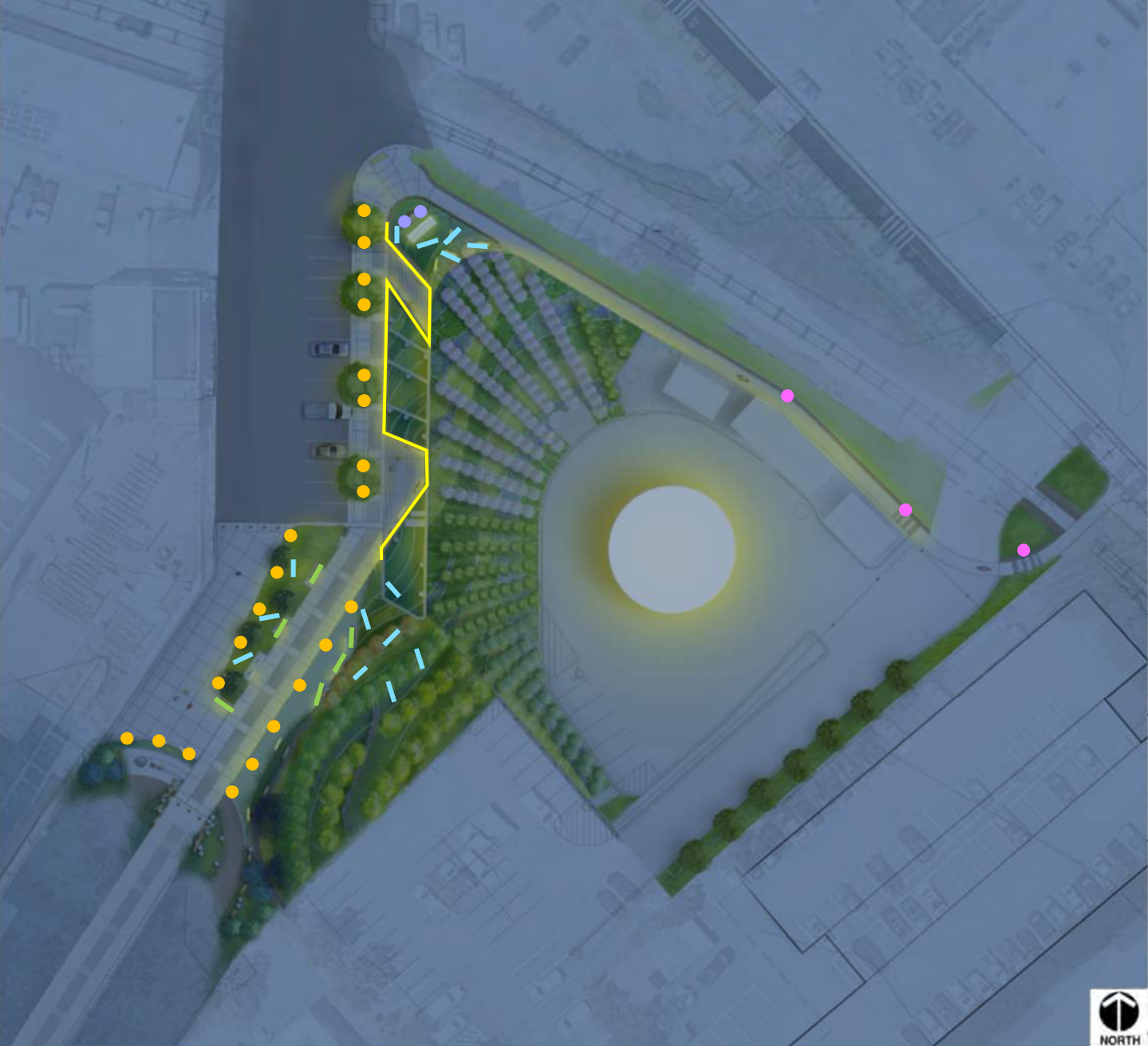
Bench Light
Q-Tran



Linear Light
Q-Tran



"Firefly" Light
Q-Tran







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



Schematic Design Recommendation

9. Consider a more **permeable, transparent material** for the fence.

FENCE AND ANCILLARY EQUIPMENT

X

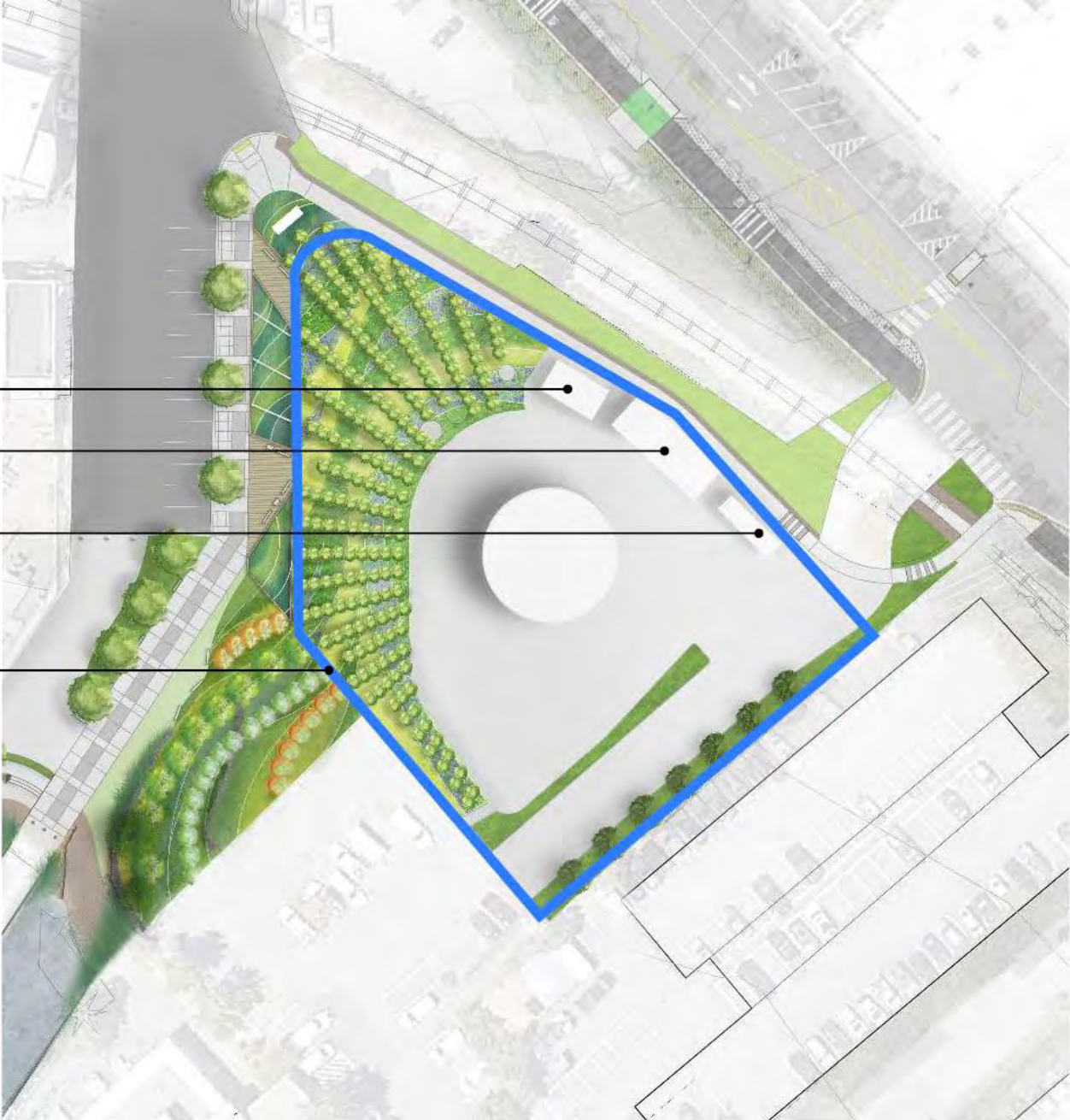


TRANSFORMER

ELECTRICAL
BUILDING

GENERATOR

FENCE





SECURE PERIMETER AND ANCILLARY EQUIP.





VIEW FROM NW CORNER

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THANK YOU

Contact:

Alan Lord

Program Manager, Ship Canal Water Quality Project

alan.lord@seattle.gov