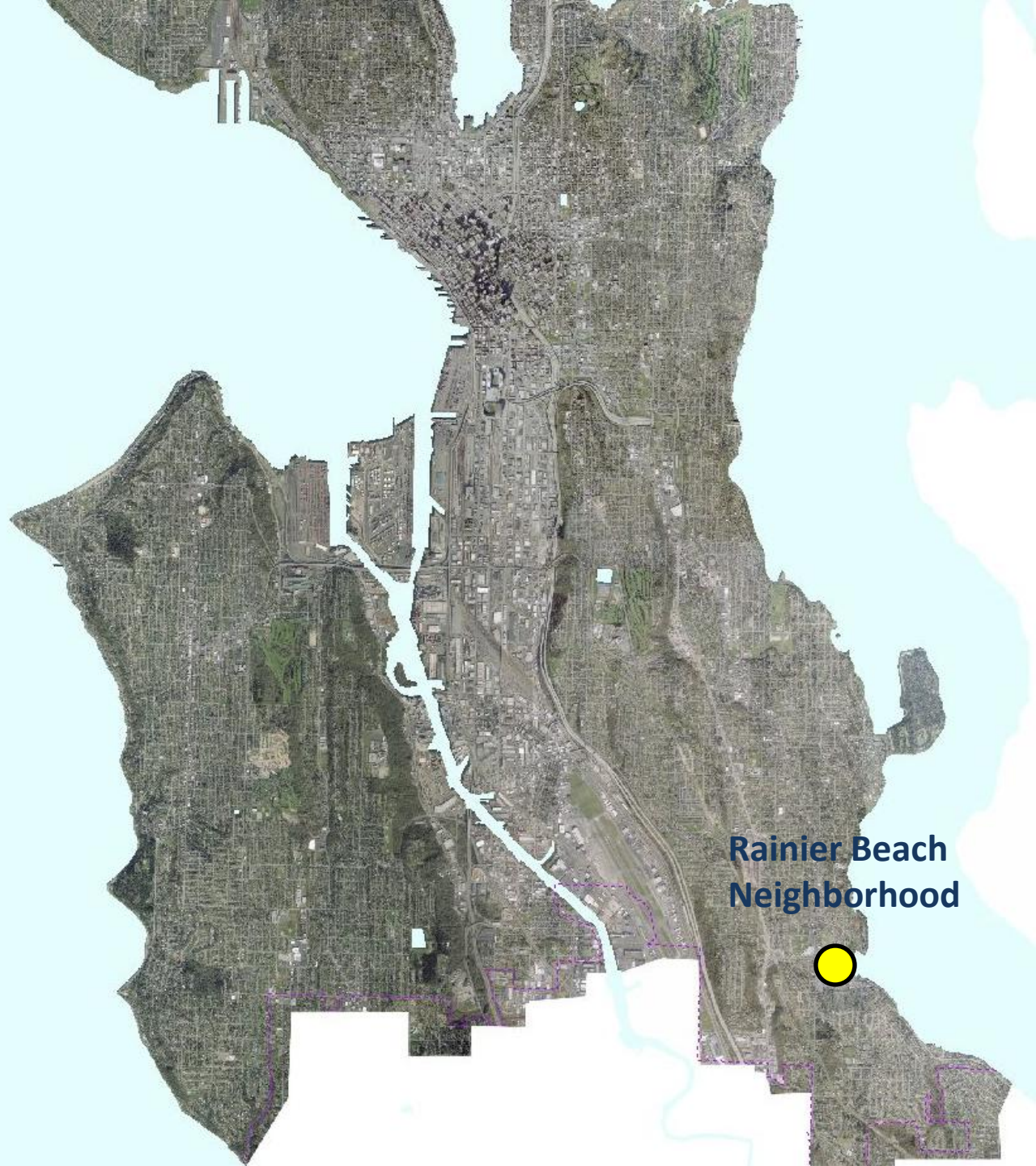


# Lower Mapes Creek Restoration and 52<sup>nd</sup> Ave CSO Conveyance Projects 60% Design Stage



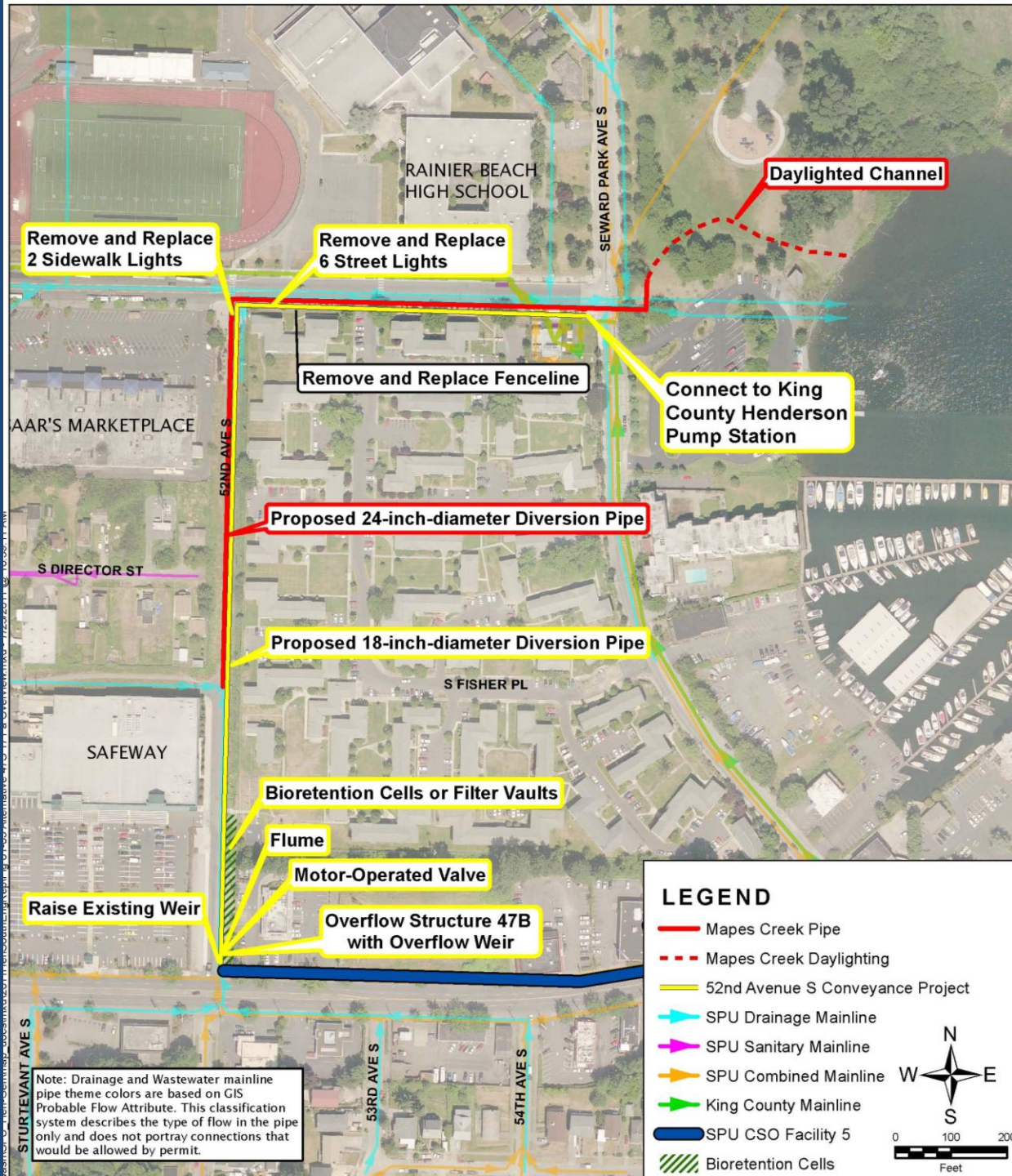
# Project Location



**Rainier Beach  
Neighborhood**

# Project Objectives

- 52<sup>nd</sup> Ave CSO Reduction
  - Reduce combined sewer overflows by building new conveyance line to meet regulatory requirements and Level of Service goals.
- Mapes Creek
  - Improve aquatic habitat through reconnecting Mapes Creek to Lake Washington.
  - Increase juvenile Chinook salmon rearing and migration habitat.
  - Provide an accessible environmental amenity in the Rainier Beach neighborhood.
- 1% for the Arts – in Beer Sheva Park



Remove and Replace  
2 Sidewalk Lights

Remove and Replace  
6 Street Lights

Daylighted Channel

Remove and Replace Fenceline

Connect to King  
County Henderson  
Pump Station

Proposed 24-inch-diameter Diversion Pipe

Proposed 18-inch-diameter Diversion Pipe

Bioretention Cells or Filter Vaults

Flume

Motor-Operated Valve

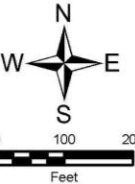
Raise Existing Weir

Overflow Structure 47B  
with Overflow Weir

Note: Drainage and Wastewater mainline pipe theme colors are based on GIS Probable Flow Attribute. This classification system describes the type of flow in the pipe only and does not portray connections that would be allowed by permit.

**LEGEND**

- Mapes Creek Pipe
- - - Mapes Creek Daylighting
- 52nd Avenue S Conveyance Project
- SPU Drainage Mainline
- SPU Sanitary Mainline
- SPU Combined Mainline
- King County Mainline
- SPU CSO Facility 5
- ▨ Bioretention Cells



# SDC Comments on 30% Design

- **Optimize pipe location under the 52<sup>nd</sup> Ave S Walkway – allow for wider walkway and facilitate future improvements.**
- **Tie full length of project corridor together visually, make the story of the watershed, stormwater, and the stream visible.**
- **Consider the ROWs community's civic space and take advantages of opportunities to improve the public realm.**
- **Refine the design where the pipe enters the park.**
- **Create visual connection down Henderson into stream area.**
- **Create places where people can touch water/ kid-friendly.**
- **Refine design of bridge to make it look less heavy and bulky.**
- **Work with SDOT, Parks, and non-profit partners to identify funding to enhance area in tandem with the CSO and daylighting project.**

# Additional Comments: Community Meeting August 14, 2012

- **Integrate art with the neighborhood plan goals.**
- **Can the creek flow through the wetlands to the north?**
- **What can you do to get the people off the light rail to explore the community?**
- **Many other comments related to specific ideas for art (e.g., gazebo in the park)**

# Rainier Beach Neighborhood Plan

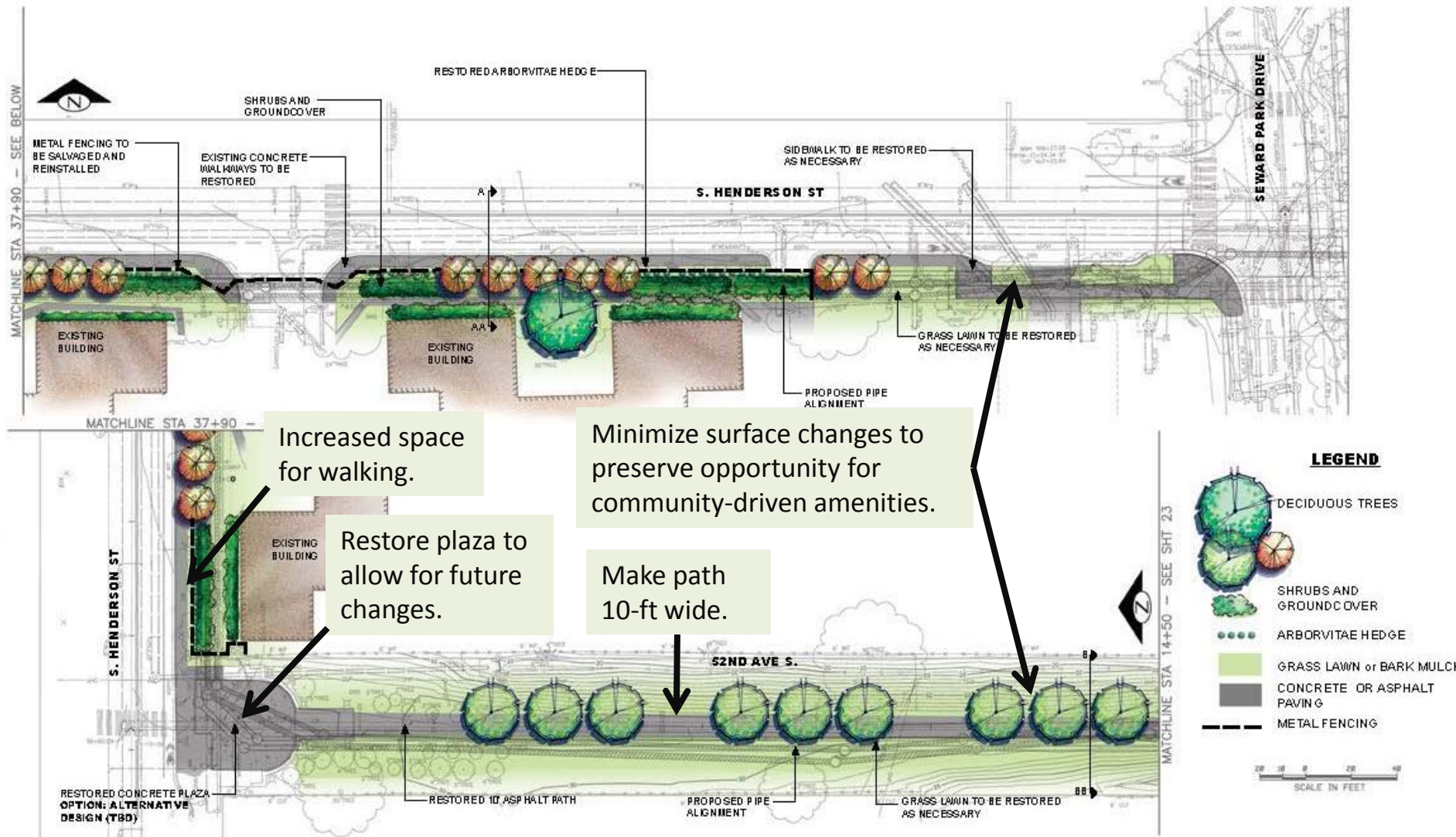
- **Goals**

- Strong communities & organizations
- Healthy people & families
- Great places that support the community

- **Priorities**

- Improve public safety, primarily in Rainier Ave. S / S Henderson St area, through focused/comprehensive effort.
- Complete urban farm/wetland link to the entire community.
- Stimulate development.
- Create streetscape plan for art, wayfinding, touchstones, kiosks, etc.; include these elements in street projects.
- Extend #7 Metro bus to light rail station and relocate bus layover.

# Pipeline Design Improvements



Increased space for walking.

Restore plaza to allow for future changes.

Minimize surface changes to preserve opportunity for community-driven amenities.

Make path 10-ft wide.

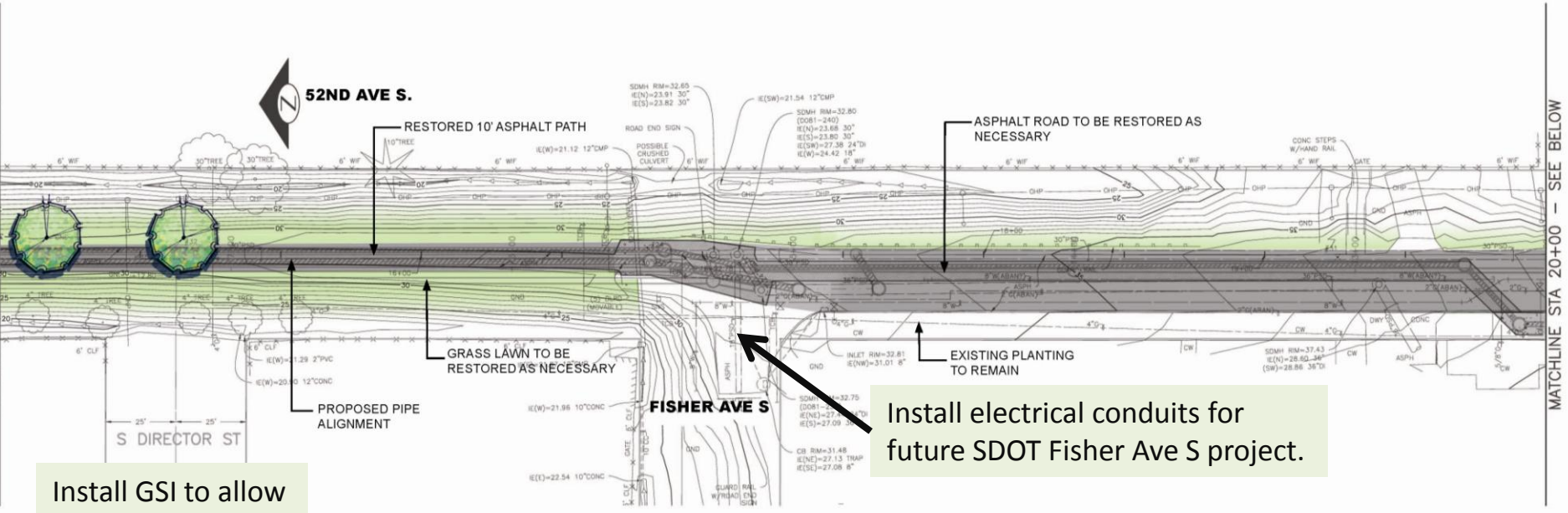




# Pipeline Design Improvements

MATCHLINE STA 14+50 - SEE SHT 19

MATCHLINE STA 20+00 - SEE BELOW

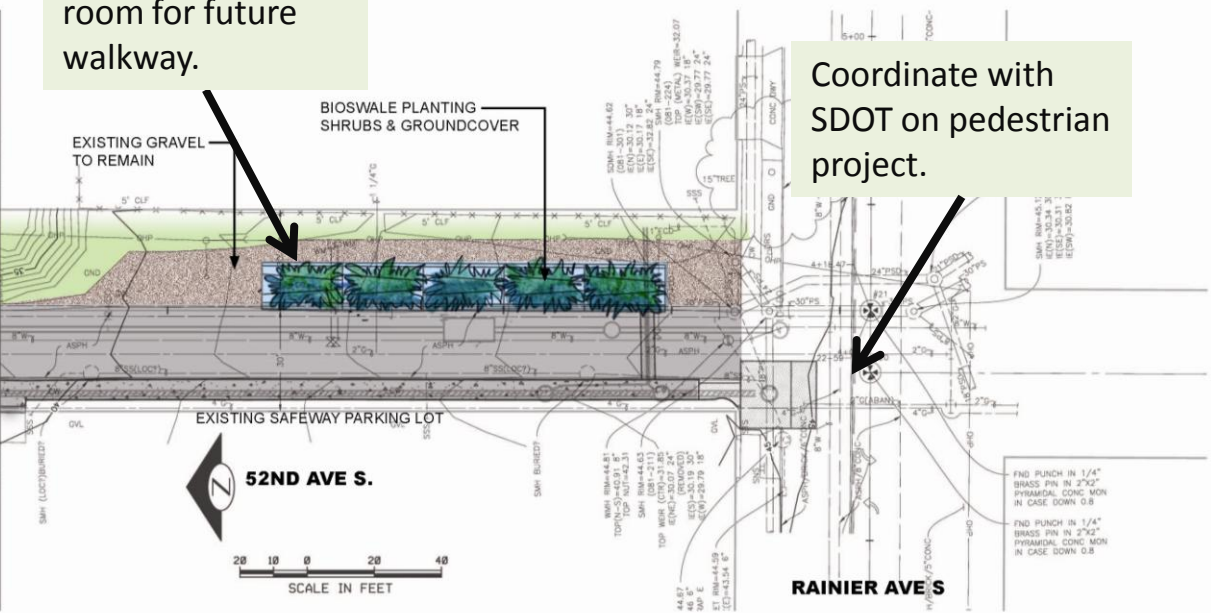


Install GSI to allow room for future walkway.


Install electrical conduits for future SDOT Fisher Ave S project.

Coordinate with SDOT on pedestrian project.

MATCHLINE STA 20+00 - SEE ABOVE

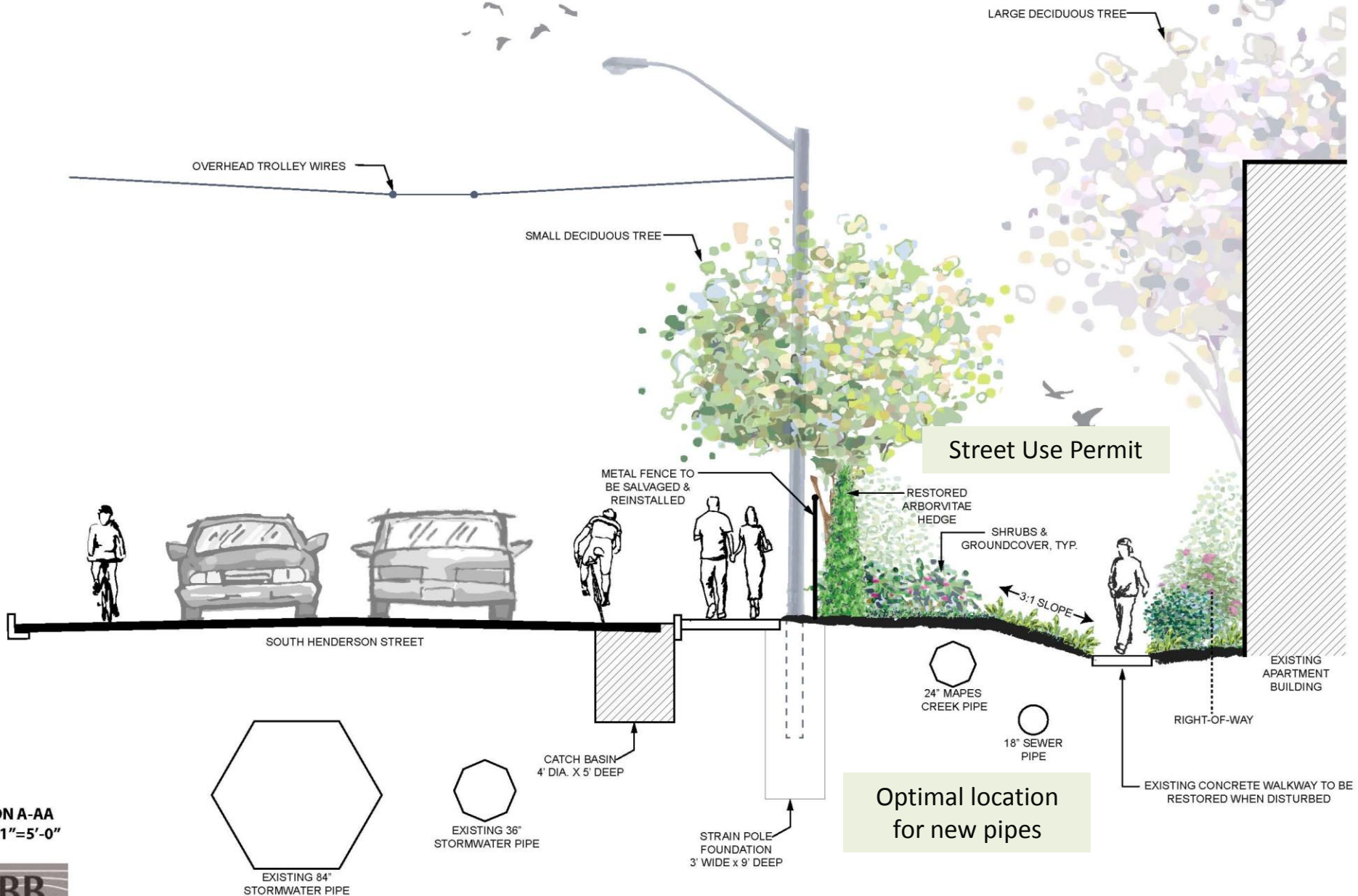


**LEGEND**

-  DECIDUOUS TREE
-  BIOSWALE PLANTING
-  GRAVEL
-  GRASS LAWN
-  CONCRETE OR ASPHALT PAVING



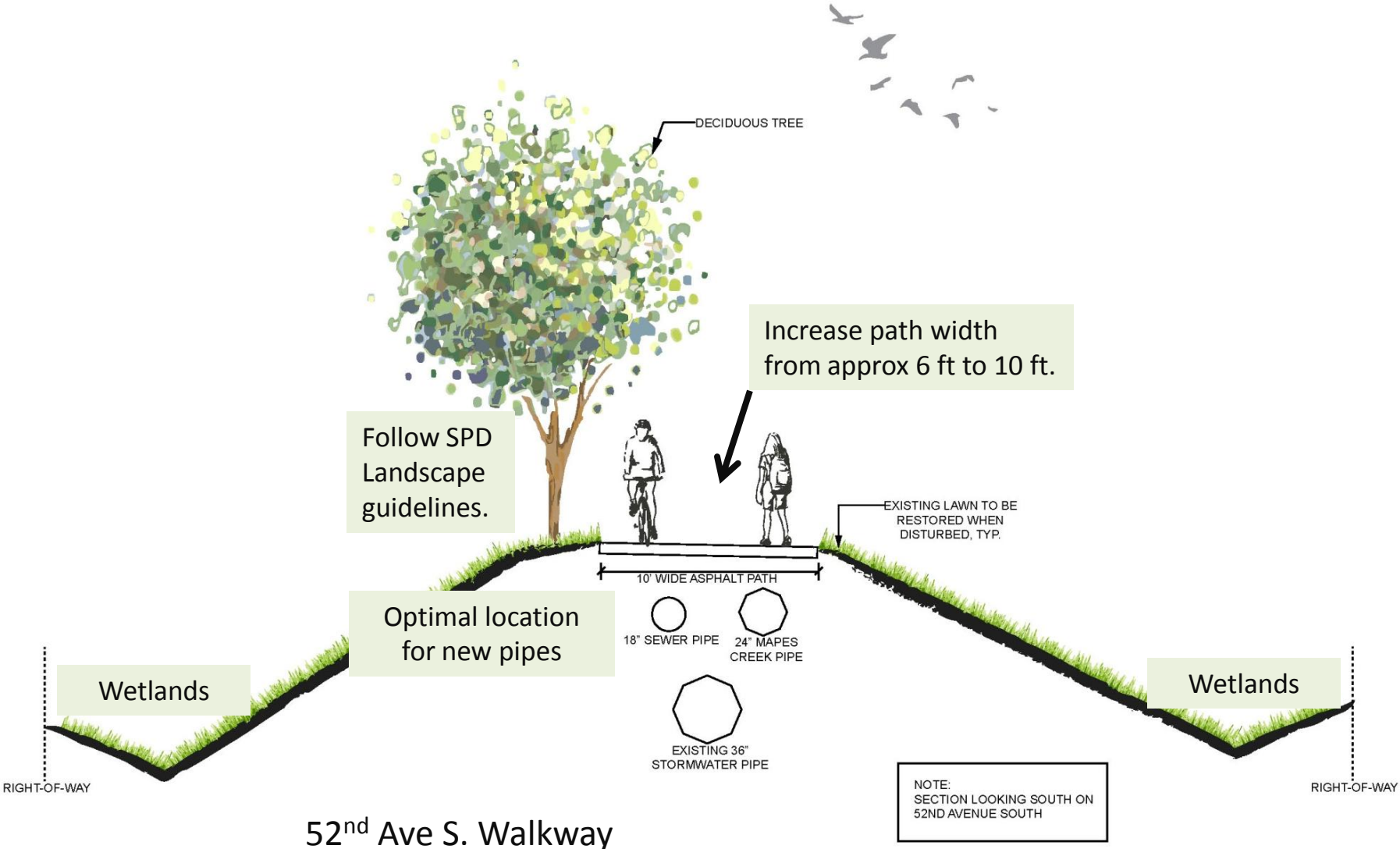
# Pipeline Design Improvements



SECTION A-AA  
SCALE 1"=5'-0"



# Pipeline Design Improvements



52<sup>nd</sup> Ave S. Walkway

# Beer Sheva Park & Vicinity



Pritchard Beach

Urban Farm & Wetland

Beer Sheva Park

Atlantic City Boat Ramp

Seward Park Ave S

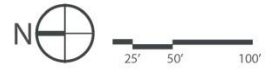
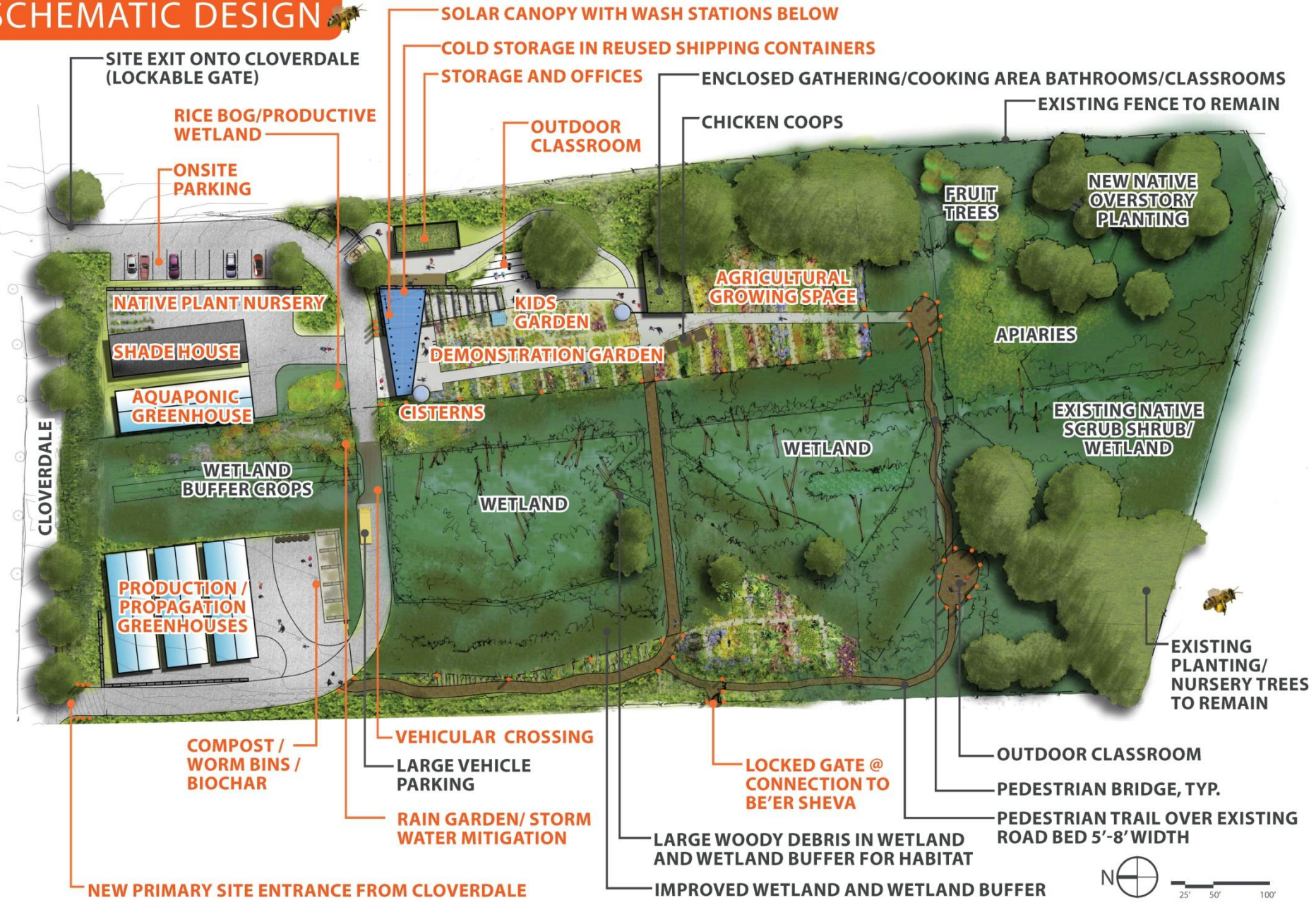
Lake Washington Apts.

RBHS

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# SCHEMATIC DESIGN



CITY OF SEATTLE

**RAINIER BEACH**

URBAN FARM & WETLAND IMPROVEMENTS

# Mapes Creek Channel – 60% Design



### LANDSCAPE NOTES

1. SEE CREEK RESTORATION PLAN (1 OF 2) FOR PLANT SCHEDULE.
2. TREES TO BE PRUNED AND LIMBED UP AS THEY GROW TO PROVIDE SIGHT LINES INTO PARK.
3. TREES ARE SHOWN AT APPROXIMATE 10 YEAR POST PLANTING SIZE.
4. SEE SHEET 36 FOR IRRIGATION DRAFT ZONING PLAN.
5. SEE TESC PLAN FOR TREE REMOVAL AND TRANSPLANTING.

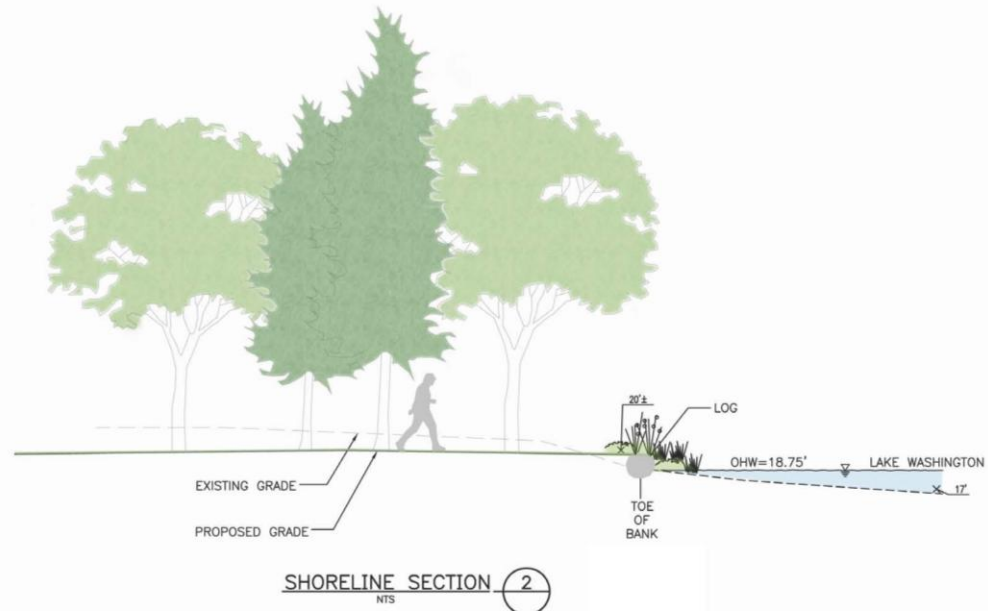
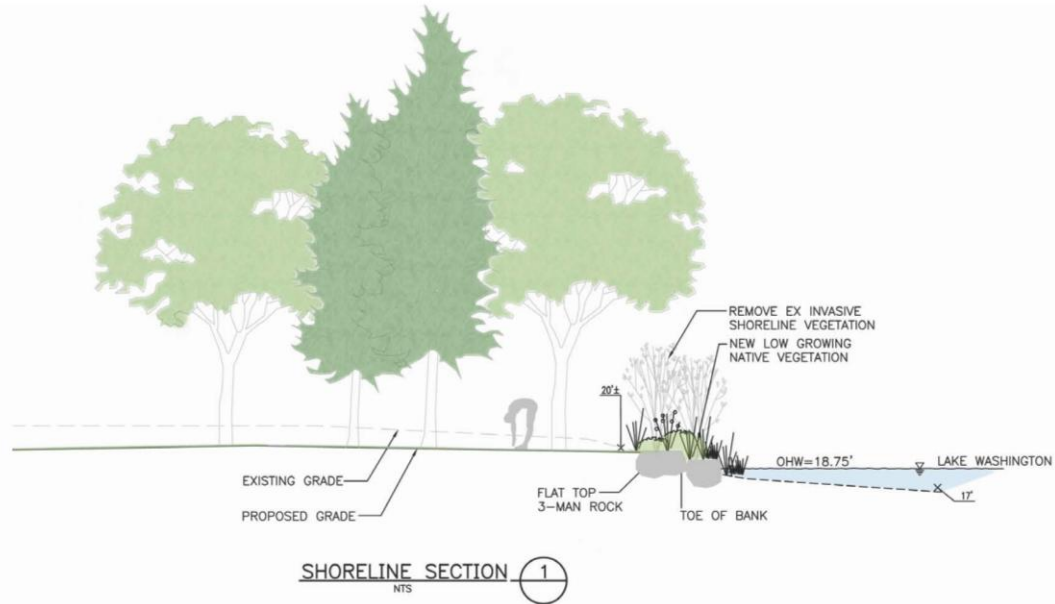
### IRRIGATION NOTES

1. UPPER AND LOWER CHANNEL PLANTING AREAS WILL BE IRRIGATED WITH A FIXED SPRAY SYSTEM PER SEATTLE PARKS DEPARTMENT STANDARDS.
2. IRRIGATION REQUIREMENTS FOR LAWN AREAS TO BE DETERMINED BY SEATTLE PARKS DEPARTMENT.

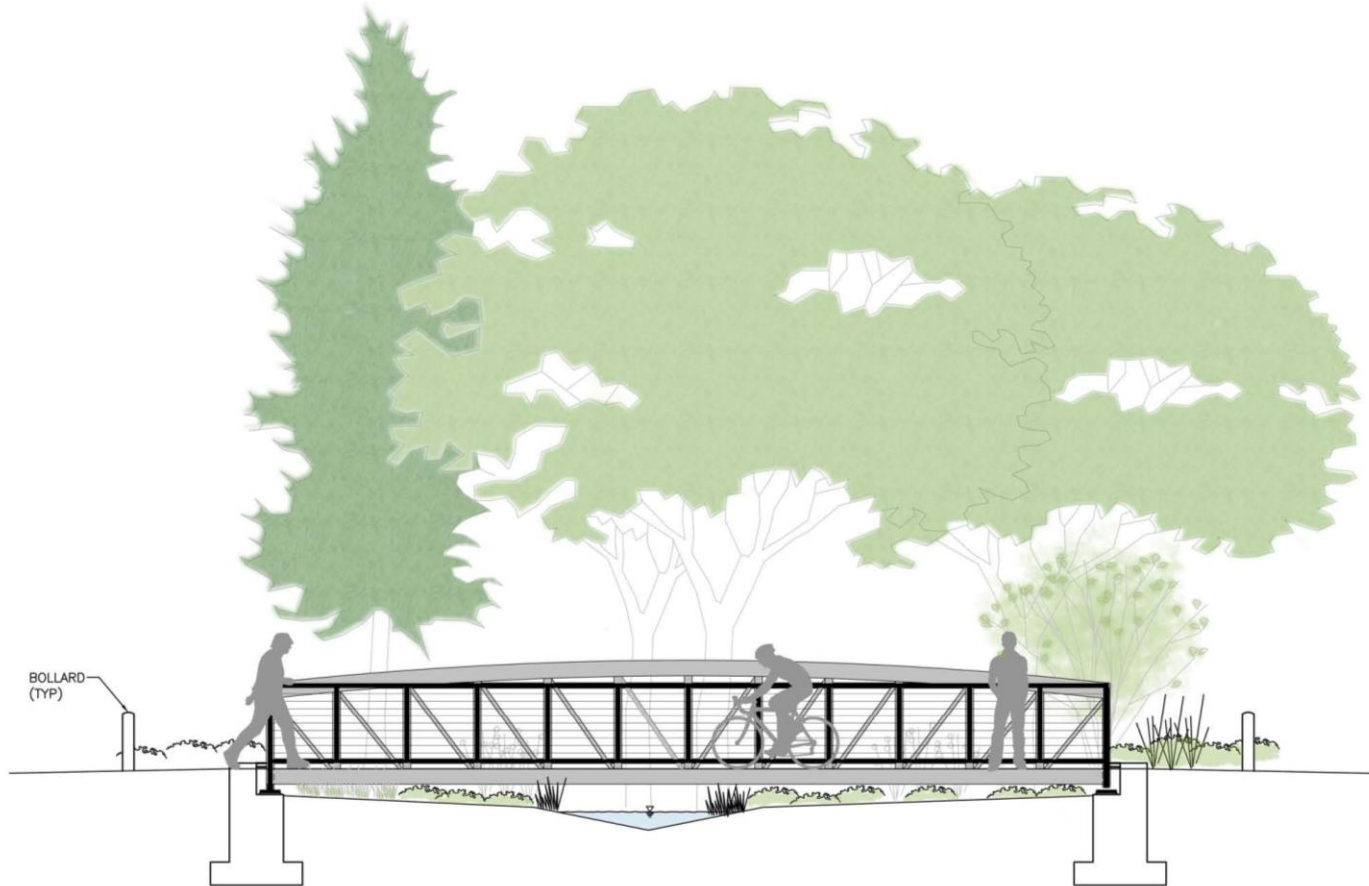
### LEGEND

- 1/2" MINUS CRUSHED ROCK PAVING PER SPR STD. DETAIL 32 15 43
- PRECAST REINFORCED TURF PAVING FILLED WITH 1/2" MINUS CRUSHED ROCK (3/32)
- PRECAST REINFORCED TURF PAVING WITH LAWN (3/32)
- PEDESTRIAN BRIDGE. SEE STRUCTURAL.
- UPLAND WOODY DEBRIS AND BOULDERS TO PROVIDE HABITAT AND NUTRIENT LOADING IN THE UPLAND AREAS.
- CHANNEL PLANTING AREA
- REMOVE INVASIVE PLANTS AND RESTORE WITH LOW SHORELINE PLANTING (ZONE 1 PLANTS - SEE PLANT SCHEDULE)
- RESTORED PLANTING BED
- RESTORED LAWN
- 60' WETLAND BUFFER
- 100' SHORELINE HABITAT ECA LIMIT
- 200' SHORELINE DISTRICT ECA LIMIT
- LIMITS OF WORK
- TREE PROTECTION FENCE PER PARKS STANDARD PLANS
- TOP OF CHANNEL
- FIXED BOLLARD PER SPR STD DETAIL 12 93 63,26
- SPECIAL GRADING ACTIVITY AROUND EXISTING TREES

# Mapes Creek Channel Shoreline Sections



# Mapes Creek Channel Cross Section



BRIDGE\_SECTION 3  
NTS



# View into Beer Sheva Park



# Post Construction Rendering



# Beer Sheva Park – Before



Looking from Seward Park Ave  
toward lake

# Seward Park Ave into Beer Sheva Park - After



# Lake Washington toward Seward Park Ave - Before



# Lake Washington toward Seward Park Ave - After

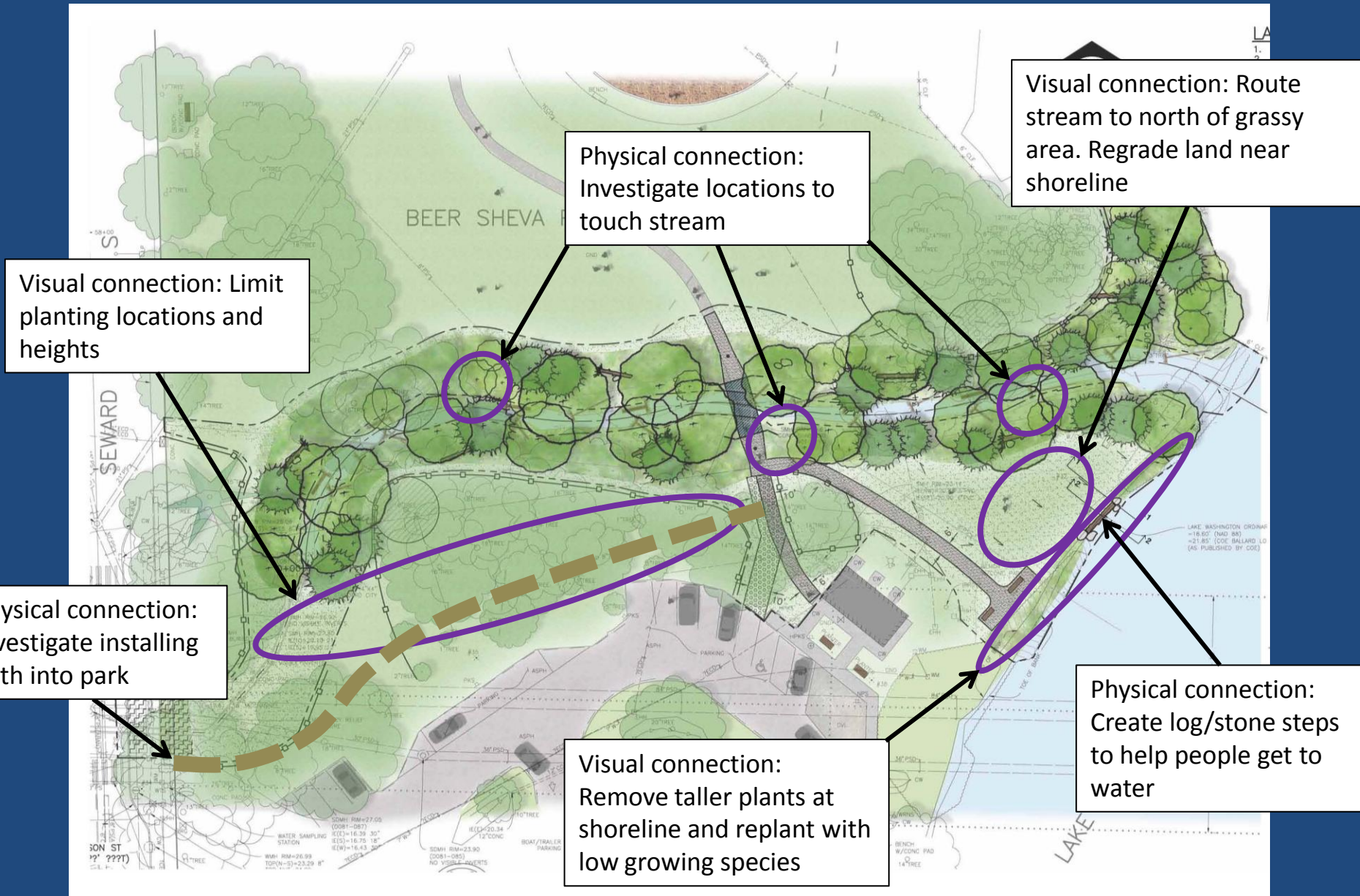


# Bridge Design

- Considerations/coordinate with Proview Tech
  - Views: for users, for police
  - ADA access/code requirements
  - Maintenance/graffiti
  - Match comfort station (galvanized, metallic finish)



# Mapes Creek Design Improvements





# Project Schedule

for Mapes Creek and 52<sup>nd</sup> Ave CSO Conveyance

Phase	Approximate Timeline
Project Design and Permitting	2012-June 2013
Public Meetings	July 2012-July 2013
Construction	August 2013 - November 2014
Plant Establishment and Monitoring	2015-2017

***US EPA Consent Decree Deadline: Must be fully operational by December 31, 2015.***

# Questions & Comments

