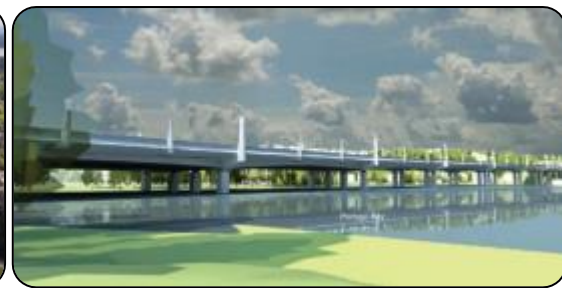


SR 520 Program

Seattle Design Commission



SR 520 Rest of the West Design Team

April 7, 2016

Design Presentation Overview

Program Overview

- Program update
- Rest of the West delivery
- Sustainability/Vision

Elements of Continuity

- Walls/Edges/Gateways
- Pathways
- Lighting
- Highway Signage

Today, seeking endorsement of:

- Approach to elements of continuity and distinction



Purpose and Need

Safety and Mobility Improvements

The SR 520 Bridge Replacement and HOV Program is a \$4.56 billion investment in the regional transportation system. The program is enhancing a vital connection from Seattle to the Eastside via Lake Washington, resulting in major improvements for drivers, transit riders, bicyclists and pedestrians.

Replacing vulnerable structures



The SR 520 program is improving safety by:

- Replacing aging and vulnerable bridge structures currently at risk of failure
- Adding full outside shoulders
- Adding safer, smoother merges and sightlines
- Improving bicycle and pedestrian connectivity

Enhancing mobility

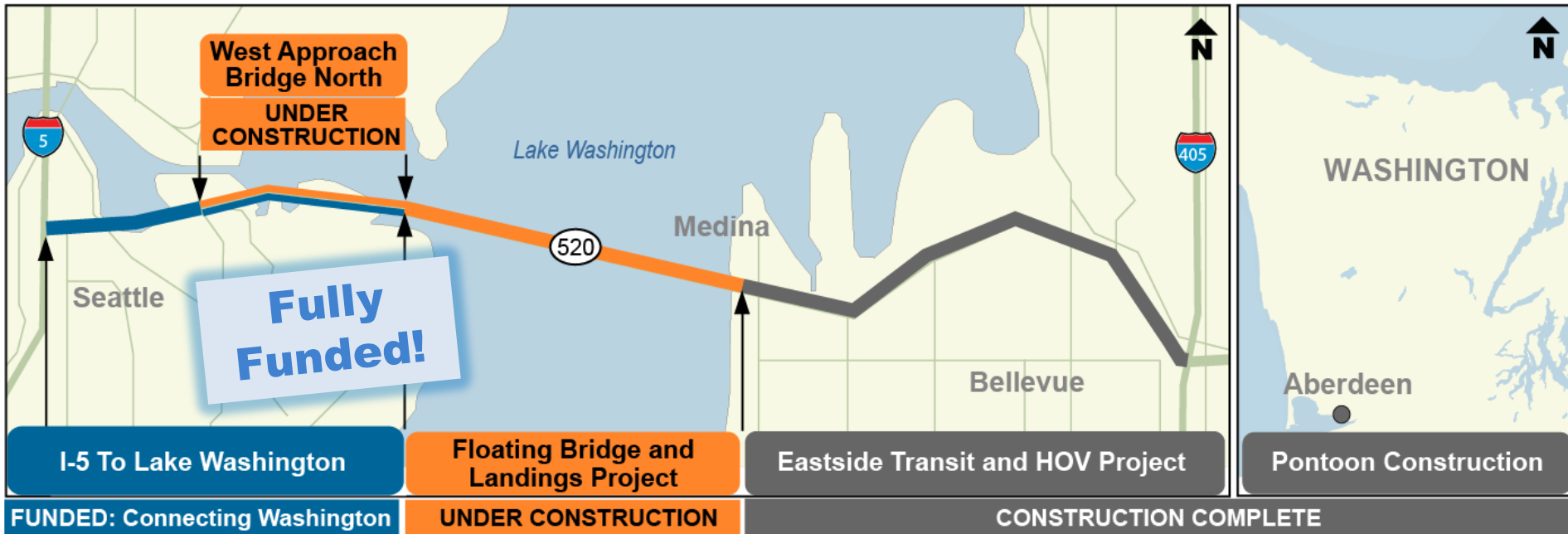


The SR 520 program is enhancing mobility by:

- Adding new transit/HOV lanes for better bus and carpool trip reliability
- Building a new 14-foot-wide bicycle and pedestrian path
- Adding new median transit stops and direct-access ramps along the corridor

SR 520 Program Overview and Timeline

Program map



Program schedule

- Eastside Transit and HOV Project: Opened 2014
- Pontoon Construction Project (Aberdeen): Completed 2015
- New floating bridge: Opening April 2016
- West Approach Bridge North: Construction began fall 2014; opening summer 2017
- Remaining west side corridor: Fully funded

GO Long!

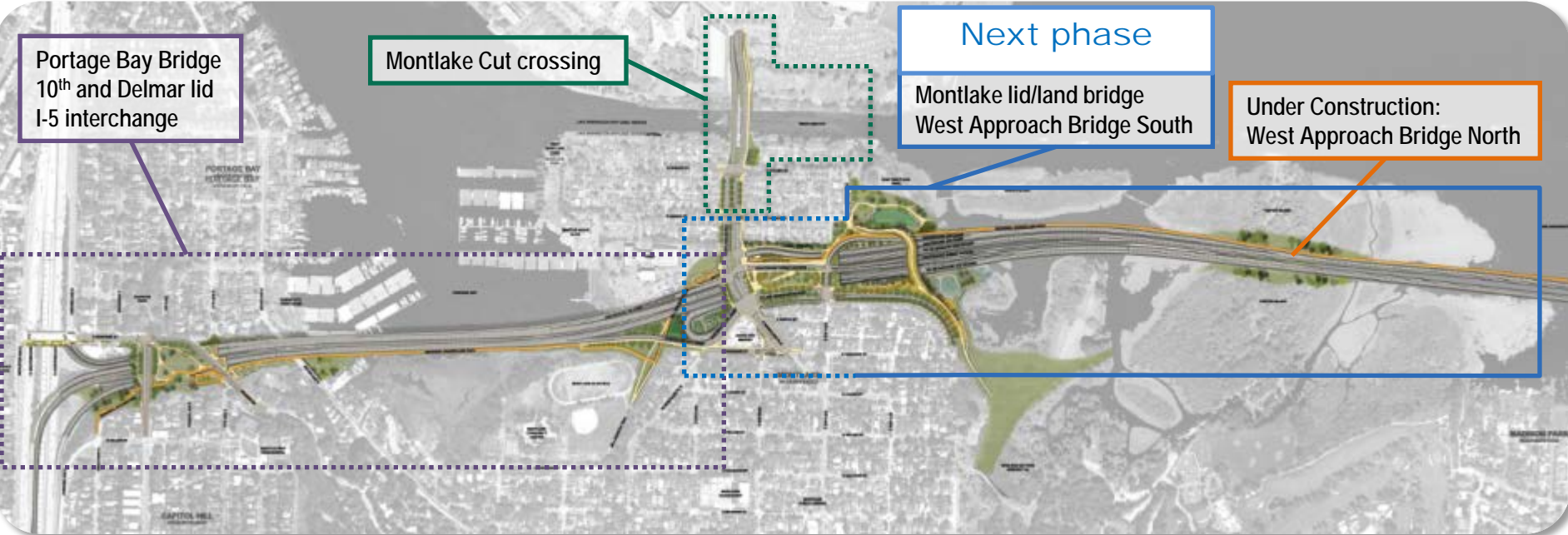
Grand Opening of the Floating Bridge and Landings



Rest of the West project overview

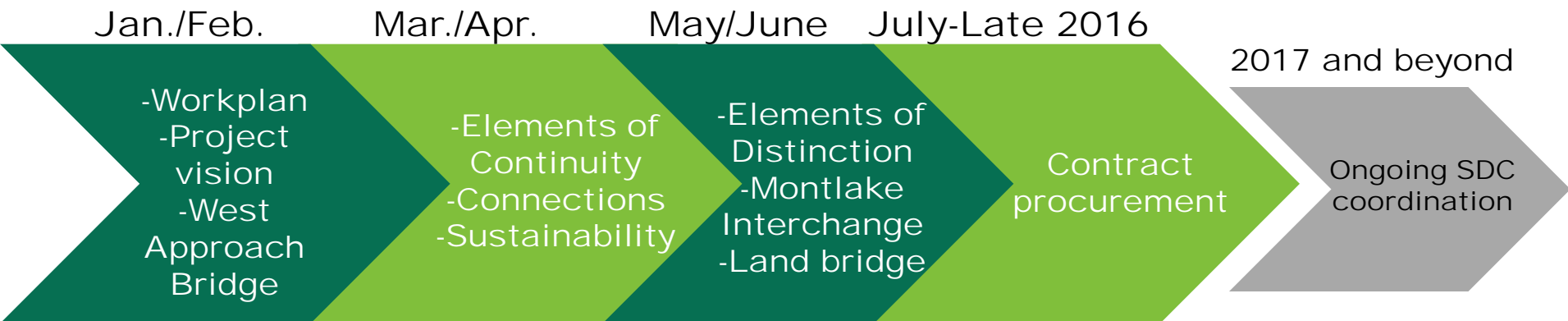


Final design of Bill Dawson Trail connection pending coordination with neighboring property owners

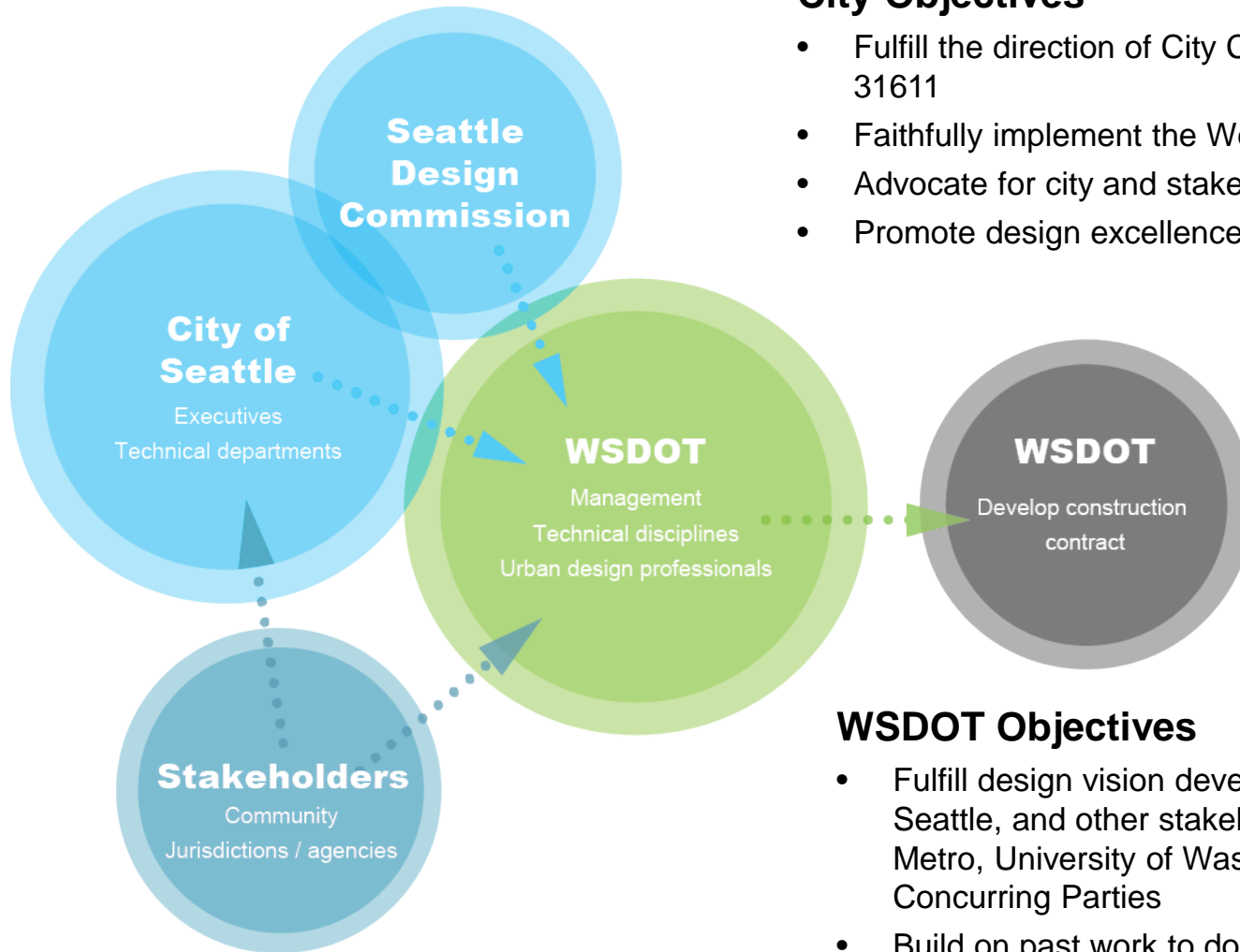


Timeline

- **Jan. – June 2016: Design Focus**
 - Ongoing coordination with SDC Subcommittee
 - Briefings with full SDC
- **Summer – Late 2016: Contract Procurement Focus**
 - Participation in contract procurement process



Key Priorities for WSDOT and City of Seattle



City Objectives

- Fulfill the direction of City Council Resolutions 31427 and 31611
- Faithfully implement the West Side Final Concept Design
- Advocate for city and stakeholder interests
- Promote design excellence

WSDOT Objectives

- Fulfill design vision developed with the SDC, City of Seattle, and other stakeholders including King County Metro, University of Washington, Section 106 Concurring Parties
- Build on past work to document urban design criteria for future construction contracts

SR 520 Program Vision – “Nature meets City”

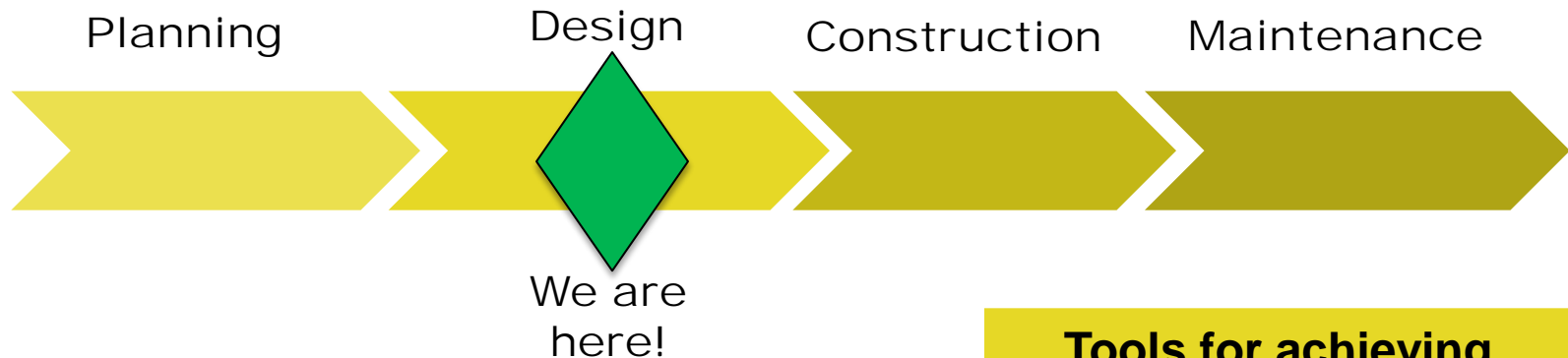
Our vision for the SR 520 corridor is to become a sequence of gateways for the City of Seattle by **reconnecting to the Seattle vision of Nature meets City.**

We intend to implement our Program in a manner that yields **practical solutions** and fosters **sustainability** practices that support regional and local connectivity, ecology and the use of low-carbon materials. Further, the design of the corridor will **balance aesthetics, functionality, proportion and sense of speed** along the SR 520 facility to provide a **memorable experience** for all users.

SR 520 Golden Thread of Sustainability

Golden Thread sustainability goals are carried through each project phase

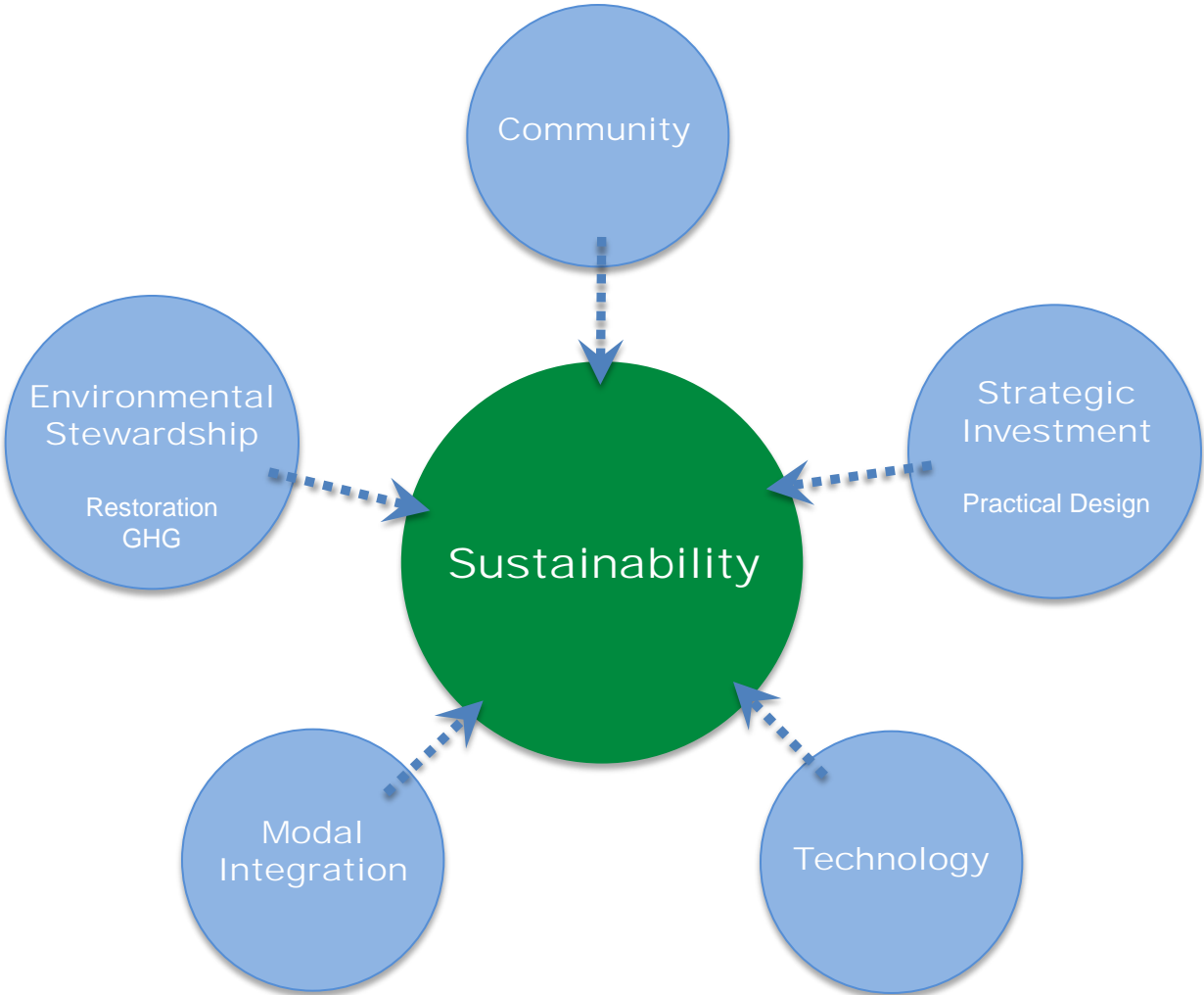
- Reduce, reuse or recycle
- Reclaim existing sites and facilities
- Reduce greenhouse gases
- Improve access



Tools for achieving Golden Thread goals

- Practical design
- Design intent decisions
- Contract requirements

WSDOT Sustainability Values



Reconnect Nature and City... with a Smarter Lid



1. Better regional connections
 2. More useable open space
 3. Buffered views of the roadway
 4. Improved pedestrian experience
 5. Better undercrossings
- AND comparable improvements in noise & air quality

What We Heard

- ✓ Community Aesthetic Design Consultant
- ✓ Column folly
- ✓ ***User experience along pathways****
- ✓ ***Gateway design – unique multimodal experience****
- ✓ Autonomous cars
- ✓ ***Land bridge****
- ✓ Viewpoint opportunities
- ✓ Lid character and program
- ✓ Montlake Cut crossing
- ✓ Process delivery overview

* ***Items we're discussing today***

- ✓ Items we continue to discuss with the SDC subgroup

Design Goals Checklist

- ✓ Improves regional and neighborhood non-motorized connections
- ✓ Enhances transit experience and vehicular functionality
- ✓ Creates a practical solution to multiple needs
- ✓ Restores and improves ecological systems and connectivity
- ✓ Improves air quality and reduces noise
- ✓ Produces safe and functional space for neighborhood and regional use
- ✓ Brings human scale and community character to create distinctive spaces
- ✓ Forms a memorable and layered gateway experience

Design Discussion

Vision

- Intent
- Elements of continuity and distinction

Elements of Continuity

- User Experience
- Systems
 - Pathways
 - Lighting
 - Highway Signage
 - Walls and Edges
- Land bridge

Summary of Experience: Integrated Systems

Entire 520 Corridor



Floating Bridge



Eastside



Rest of the West 520 Corridor



Vision:

Nature meets City



- Practical solutions
- Sustainability
- Balance aesthetics, functionality and sense of speed
- Memorable Experience

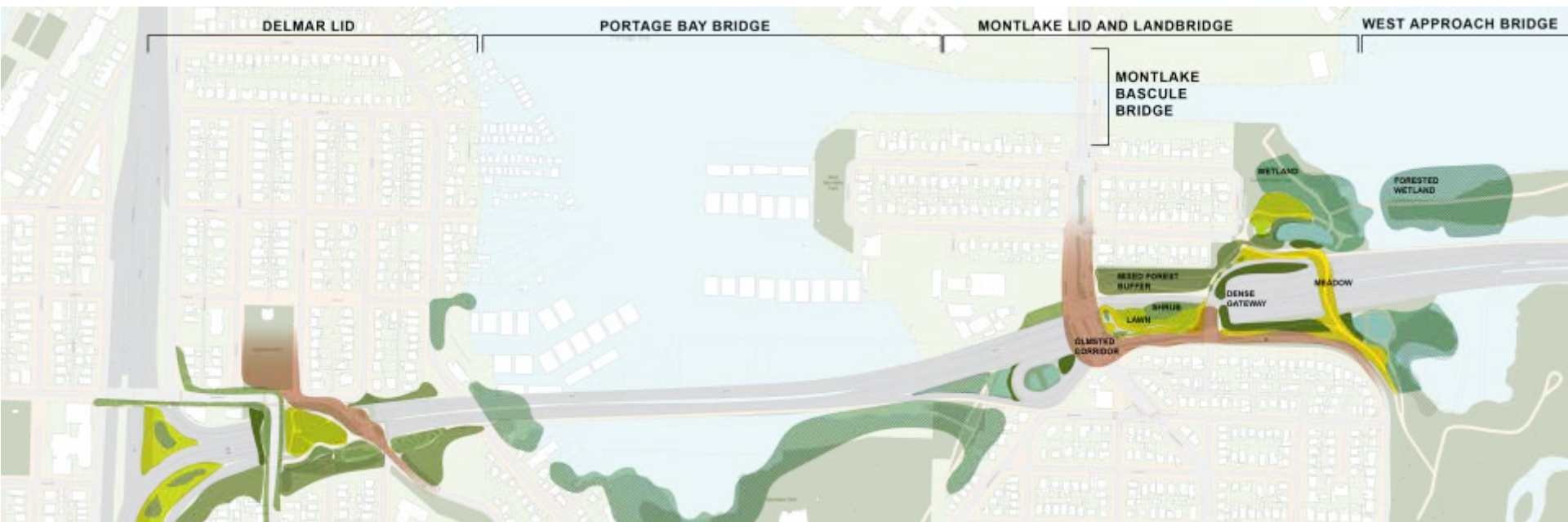
Integrated Green Space Network



Vision:

Rest of the West Corridor

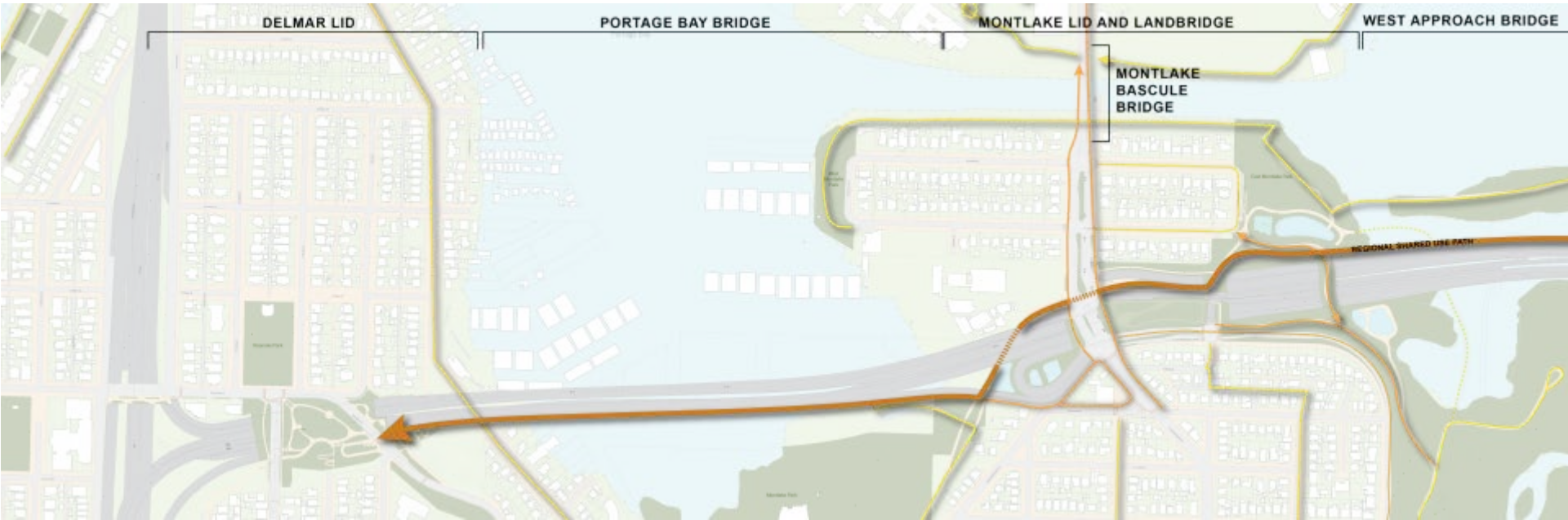
Planting and Ecology



Vision:

Rest of the West Corridor

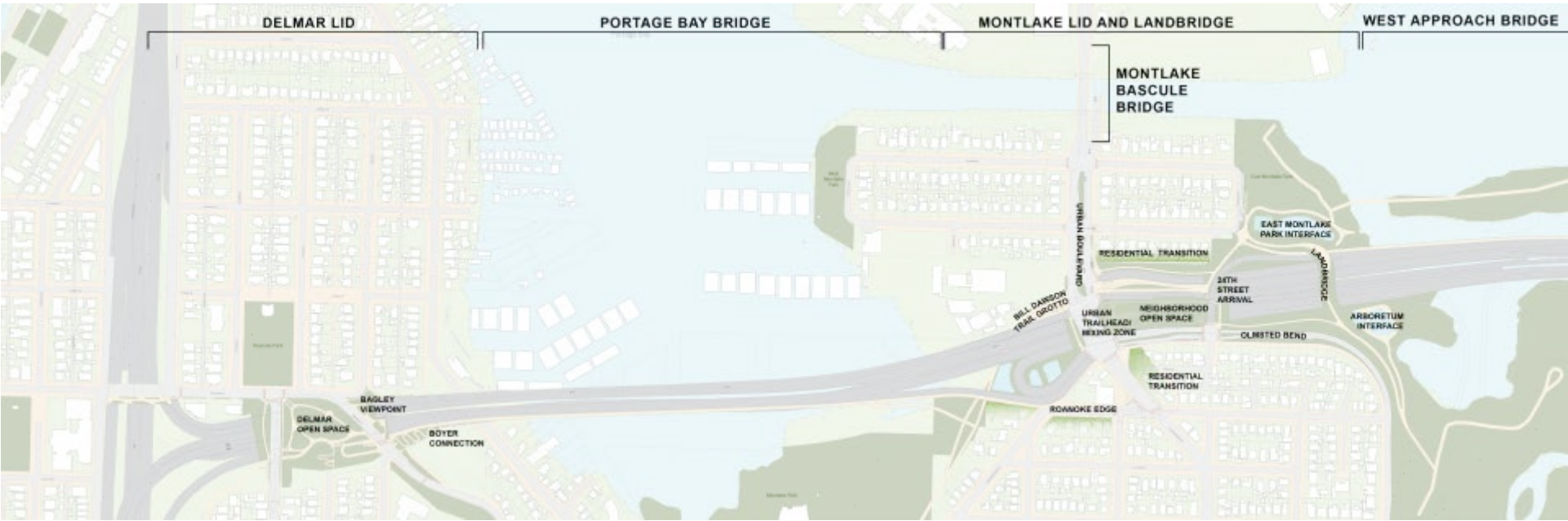
Pathways and Networks



Vision:

Rest of the West Corridor

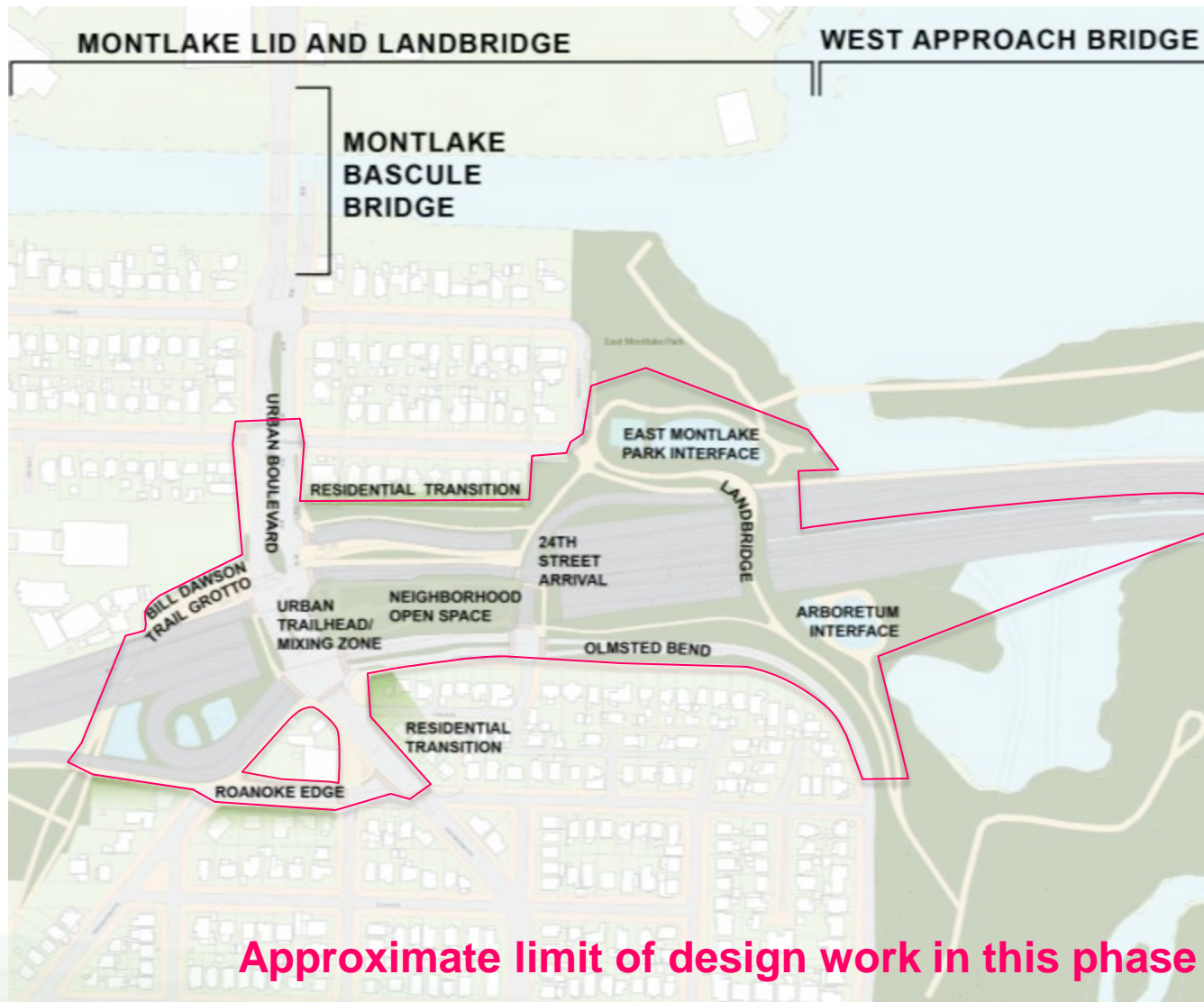
Places



Vision:

Rest of the West Corridor

Places



Elements of Continuity

Corridor/City Scale



Overview



Elements of Distinction

Neighborhood/Local Scale



Overview

Concept Development Pathways



Elements of Continuity



Highway Signage

Elements of Continuity



Lighting

Elements of Continuity



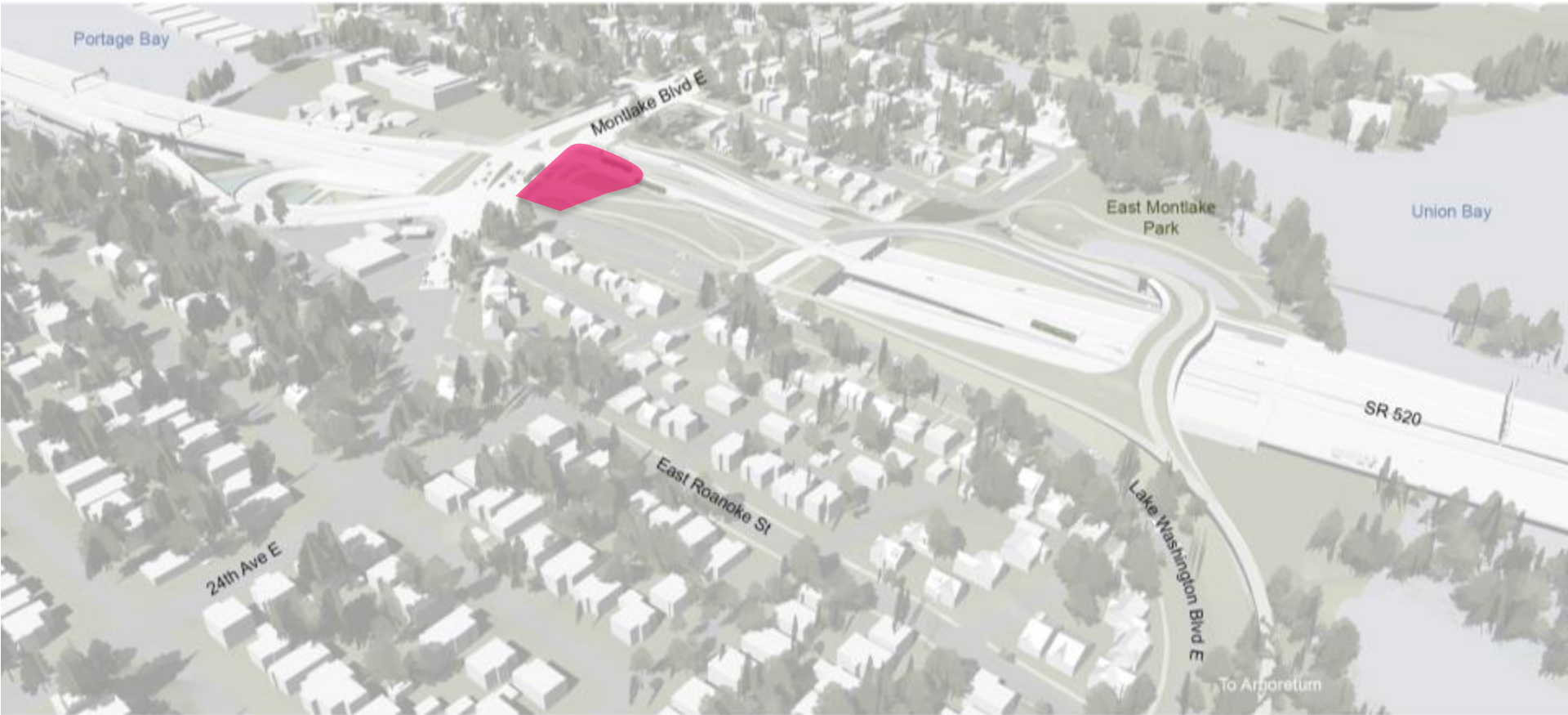
Gateways, Edges, & Walls

Elements of Continuity



Composite

Elements of Distinction



Urban Trailhead/ Mixing Zone



Elements of Distinction



Neighborhood Open Space



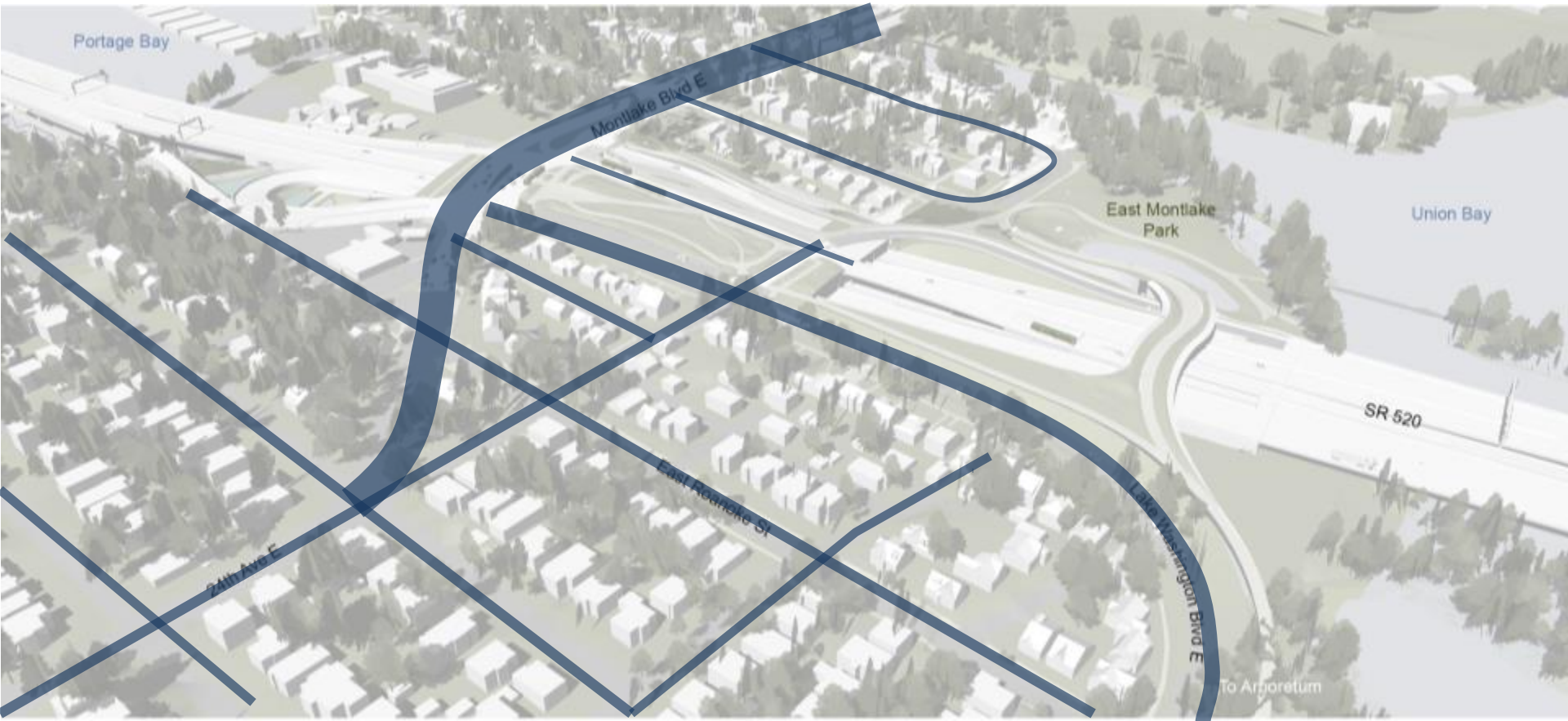
Elements of Distinction



Land bridge



Elements of Distinction



City Streets



Elements of Distinction



Interfaces and Transitions



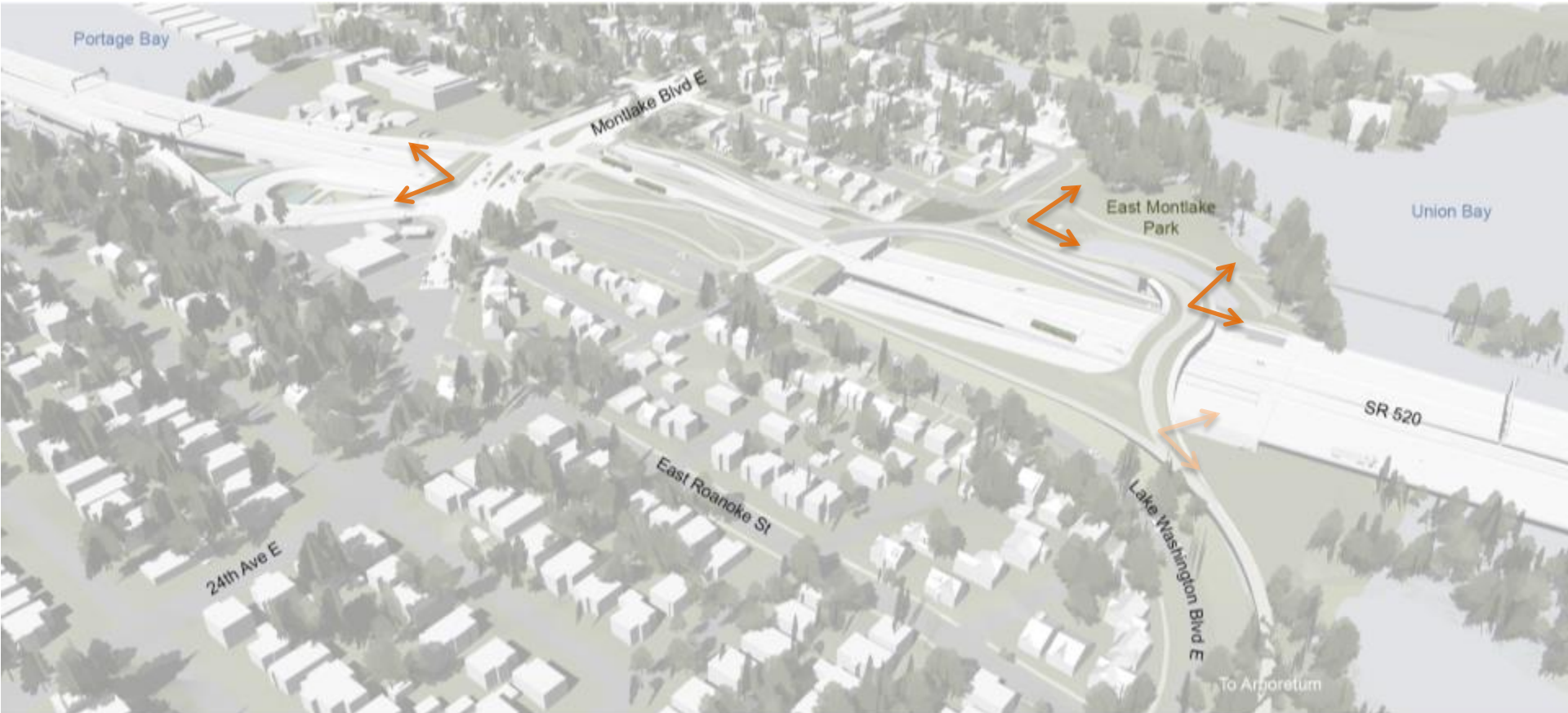
Elements of Distinction



Wayfinding and Interpretive Signage



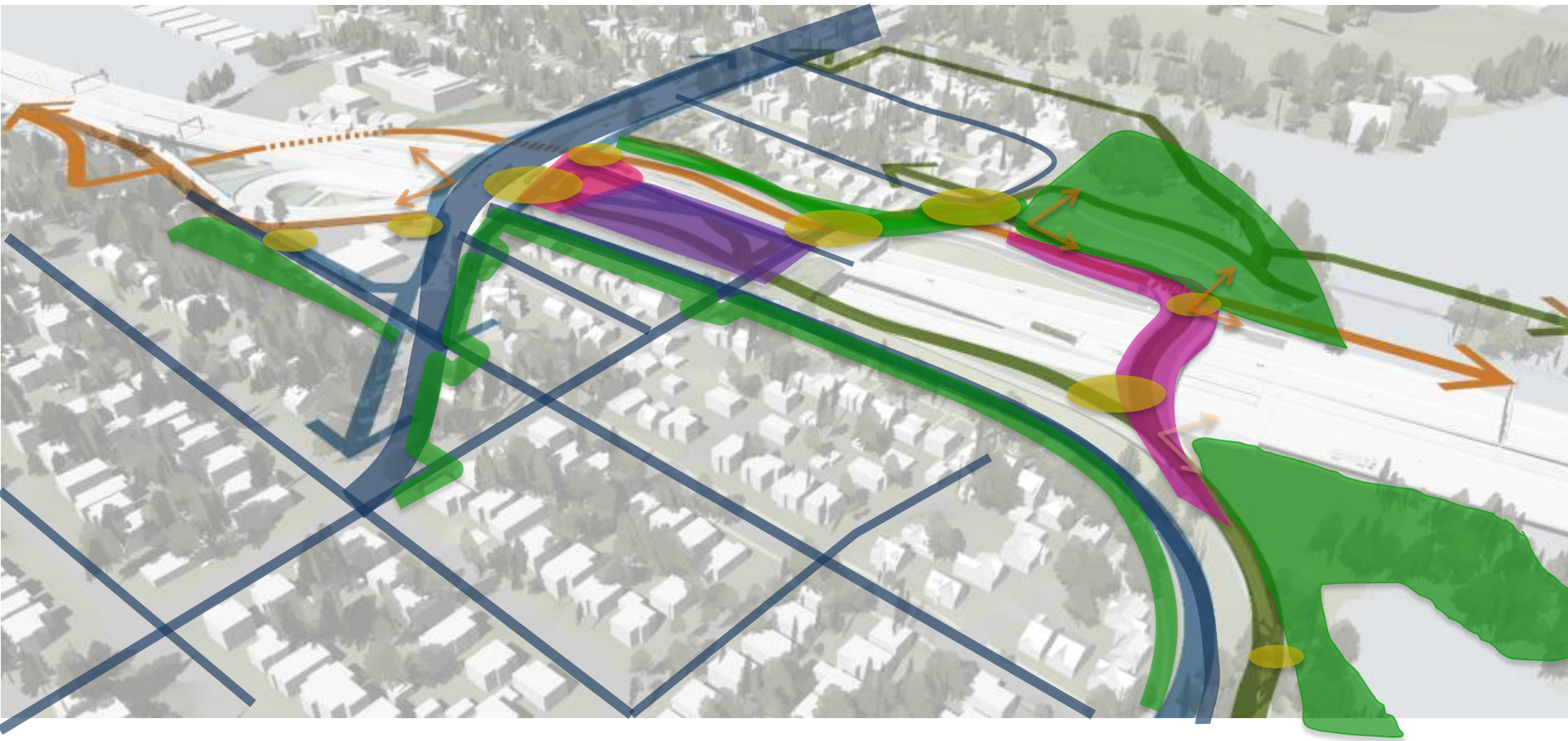
Elements of Distinction



Outlooks



Elements of Distinction



Integrated Connections

Elements of Continuity

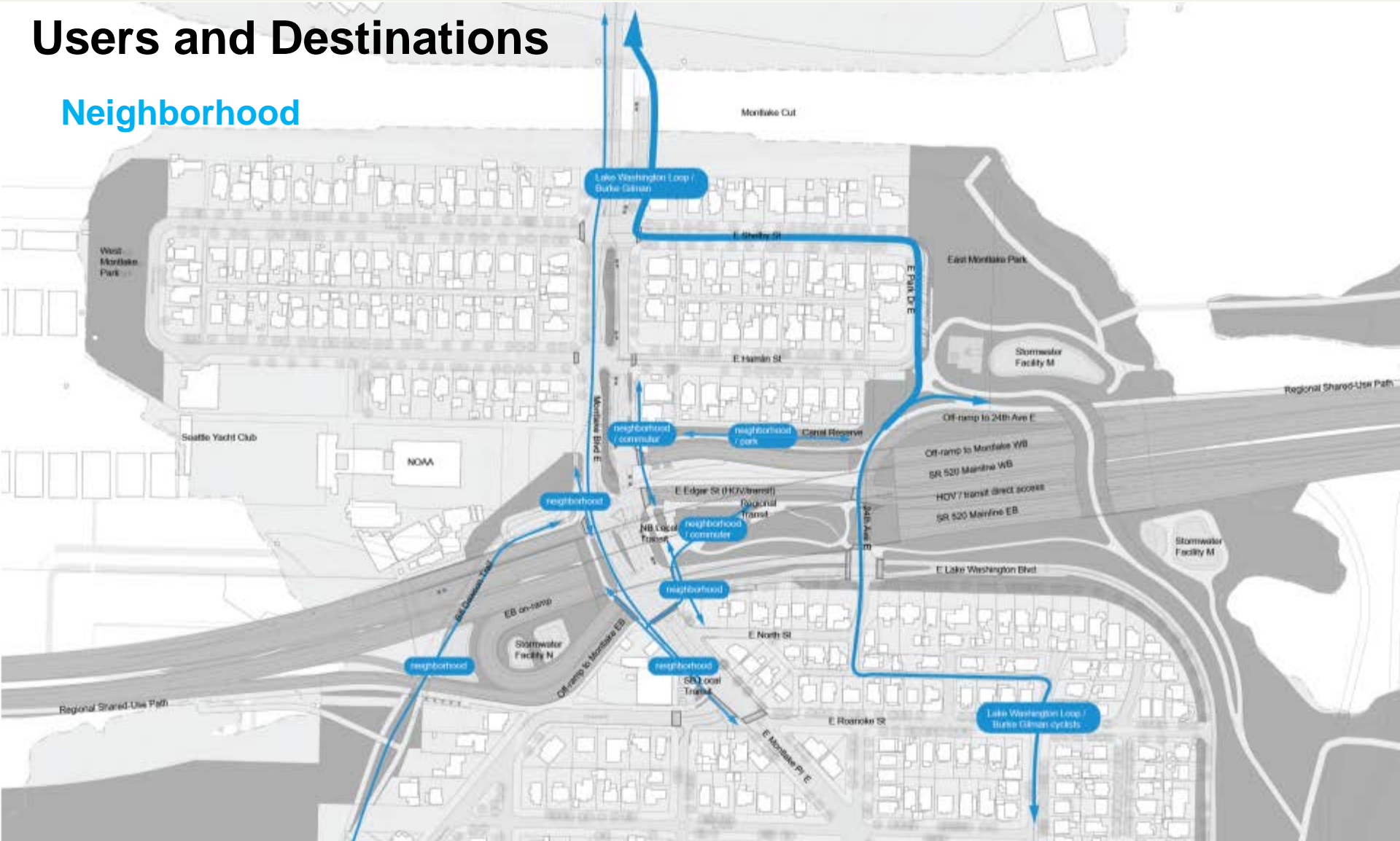
Users and Destinations



Elements of Continuity

Users and Destinations

Nearby



Elements of Continuity

Users and Destinations

Student



Elements of Continuity

Users and Destinations

Local Recreation



Elements of Continuity

Users and Destinations

- Regional Commuter/Recreation
- Neighborhood
- Local Recreation
- Student



Concept Development Pathways



Elements of Continuity

Path Hierarchy

WSDOT Project Montlake Area

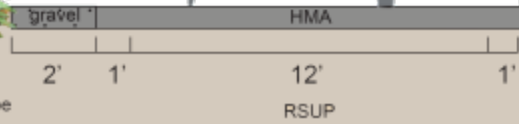


Pathways

Regional Shared Use Path



landscape
3:1 max. slope



westbound
off-ramp

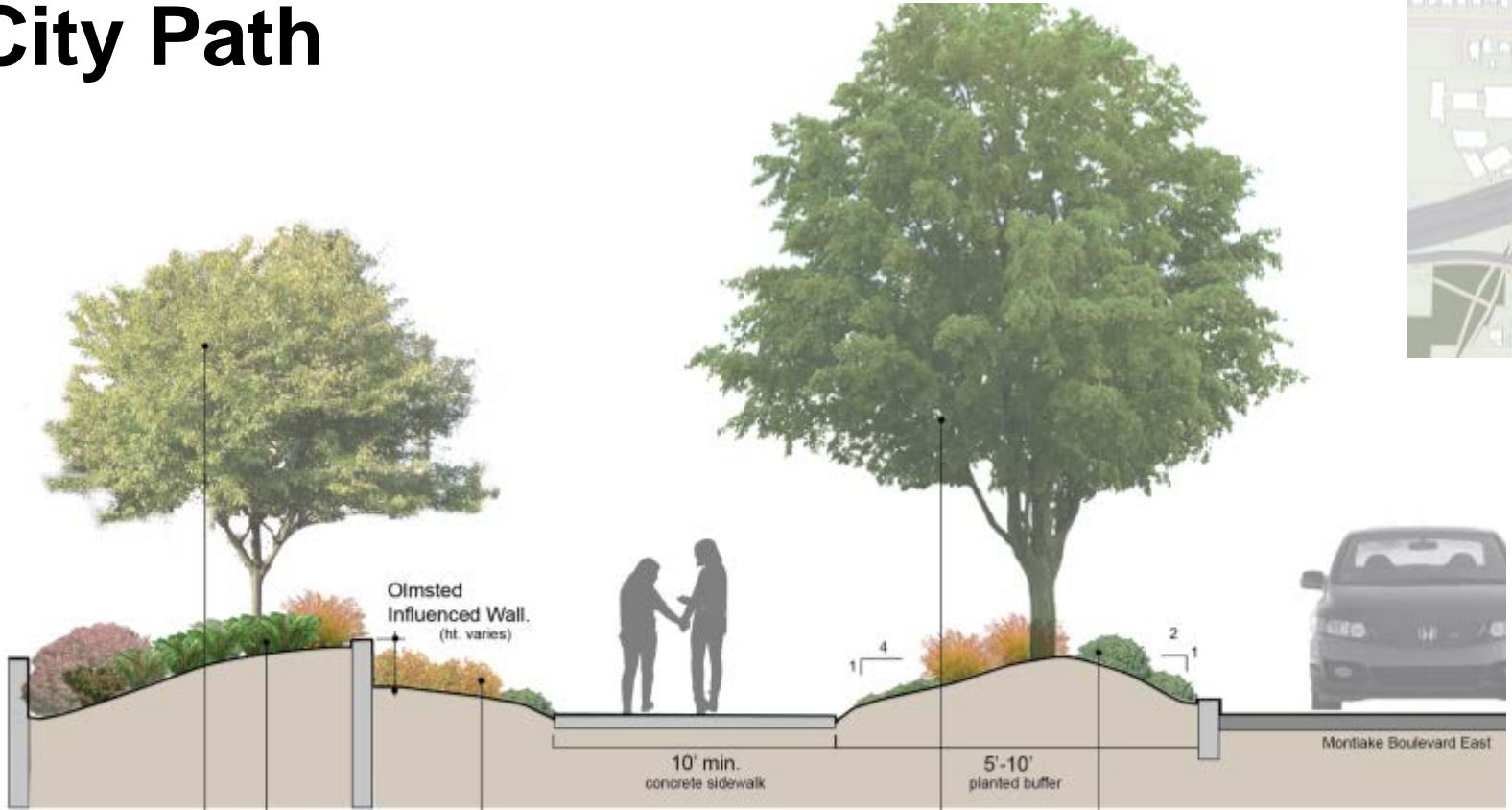
Concept Development Pathways



City Path



City Path



Amelanchier Grandiflora
Blackberry Viburnum



Gaucheria spicata/Sisal



Spiraea betulifolia/Bechleaf Spiraea



smooth concrete sidewalk



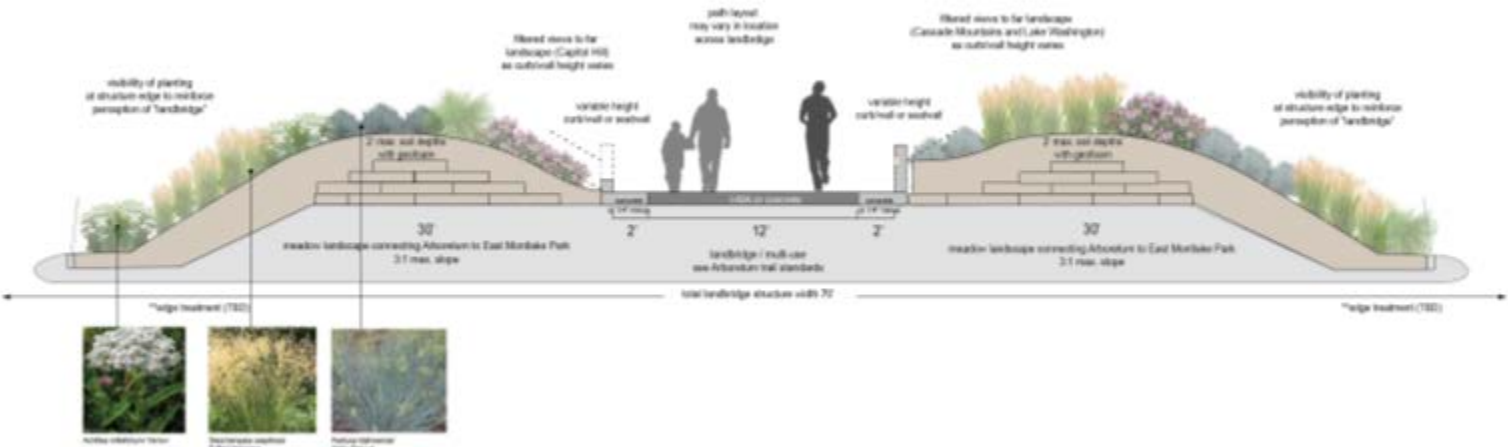
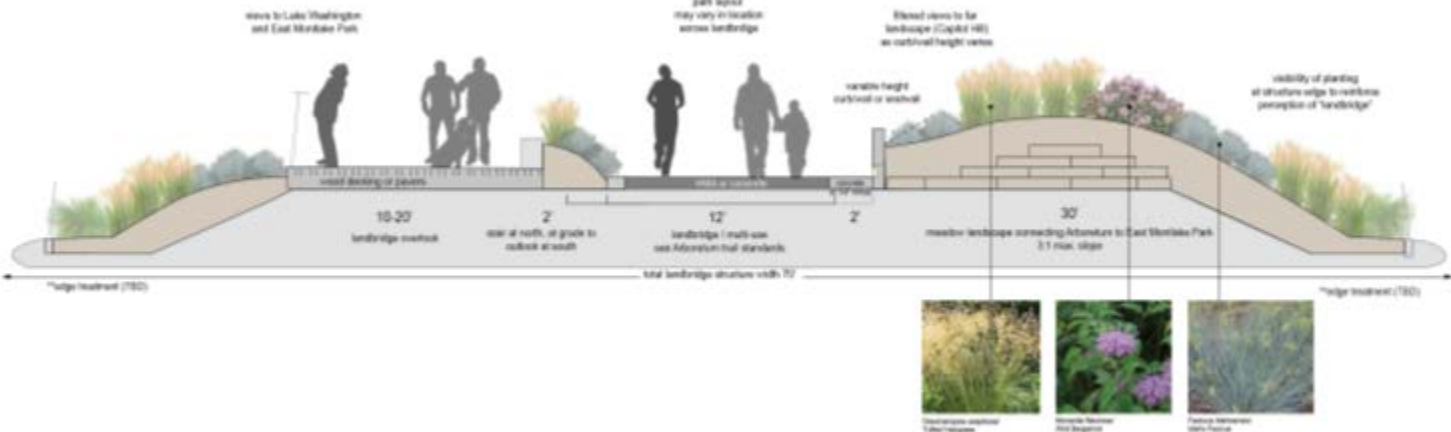
Acer Griseum/Paperbark Maple



Viburnum dentatum/David's Viburnum

Pathways

Land bridge Park Path



Park Stroll Path



planting to provide filtered views;
visual interest; define outdoor "rooms"



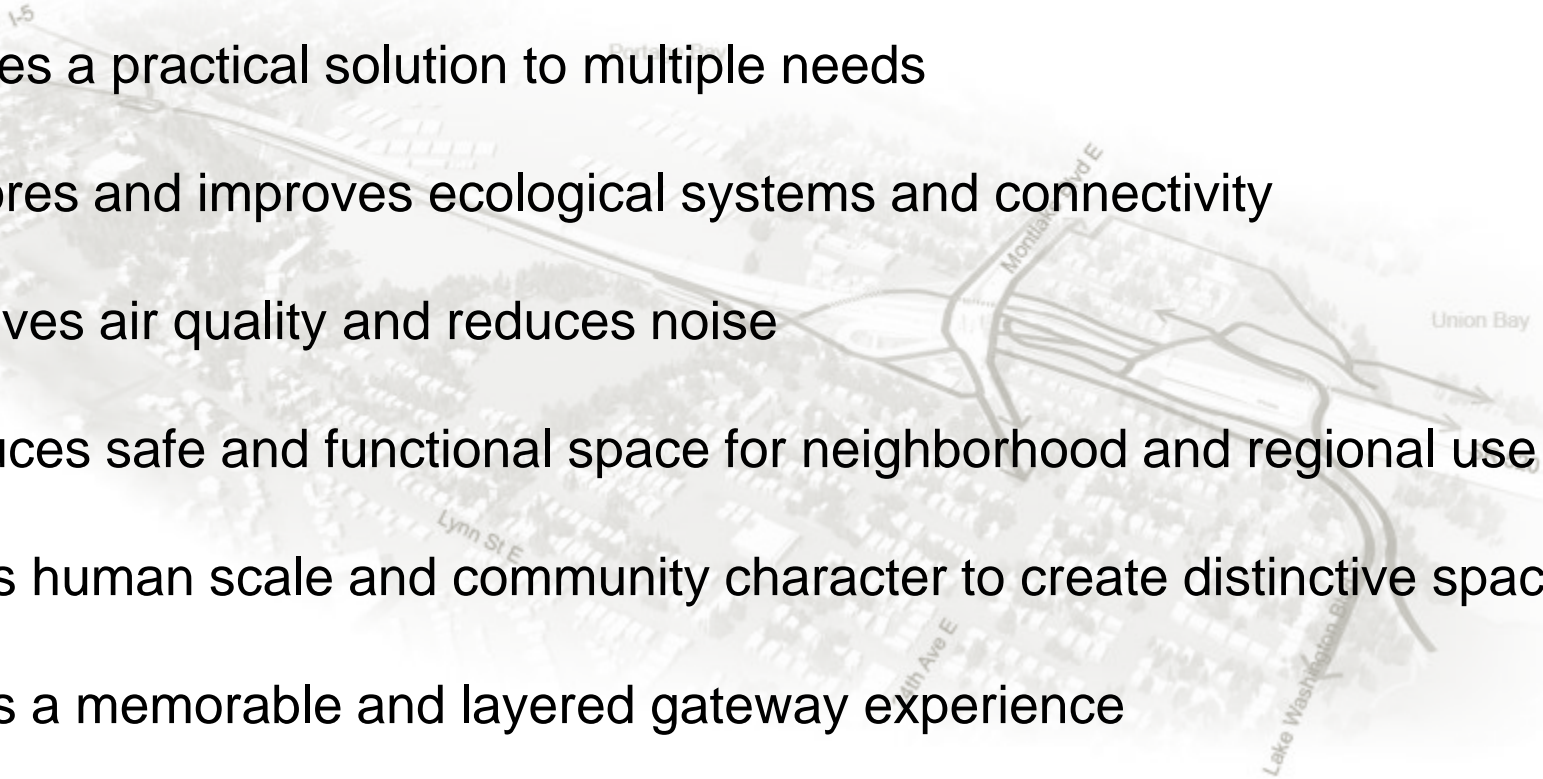
5-8'
decomposed gravel
stroll path



urban play - passive green space
grading to be refined to determine space character

Pathways – Design Goals

- ✓ Improves regional and neighborhood non-motorized connections
- ✓ Enhances transit experience and vehicular functionality
- ✓ Creates a practical solution to multiple needs
- ✓ Restores and improves ecological systems and connectivity
- ✓ Improves air quality and reduces noise
- ✓ Produces safe and functional space for neighborhood and regional use
- ✓ Brings human scale and community character to create distinctive spaces
- ✓ Forms a memorable and layered gateway experience



Concept Development

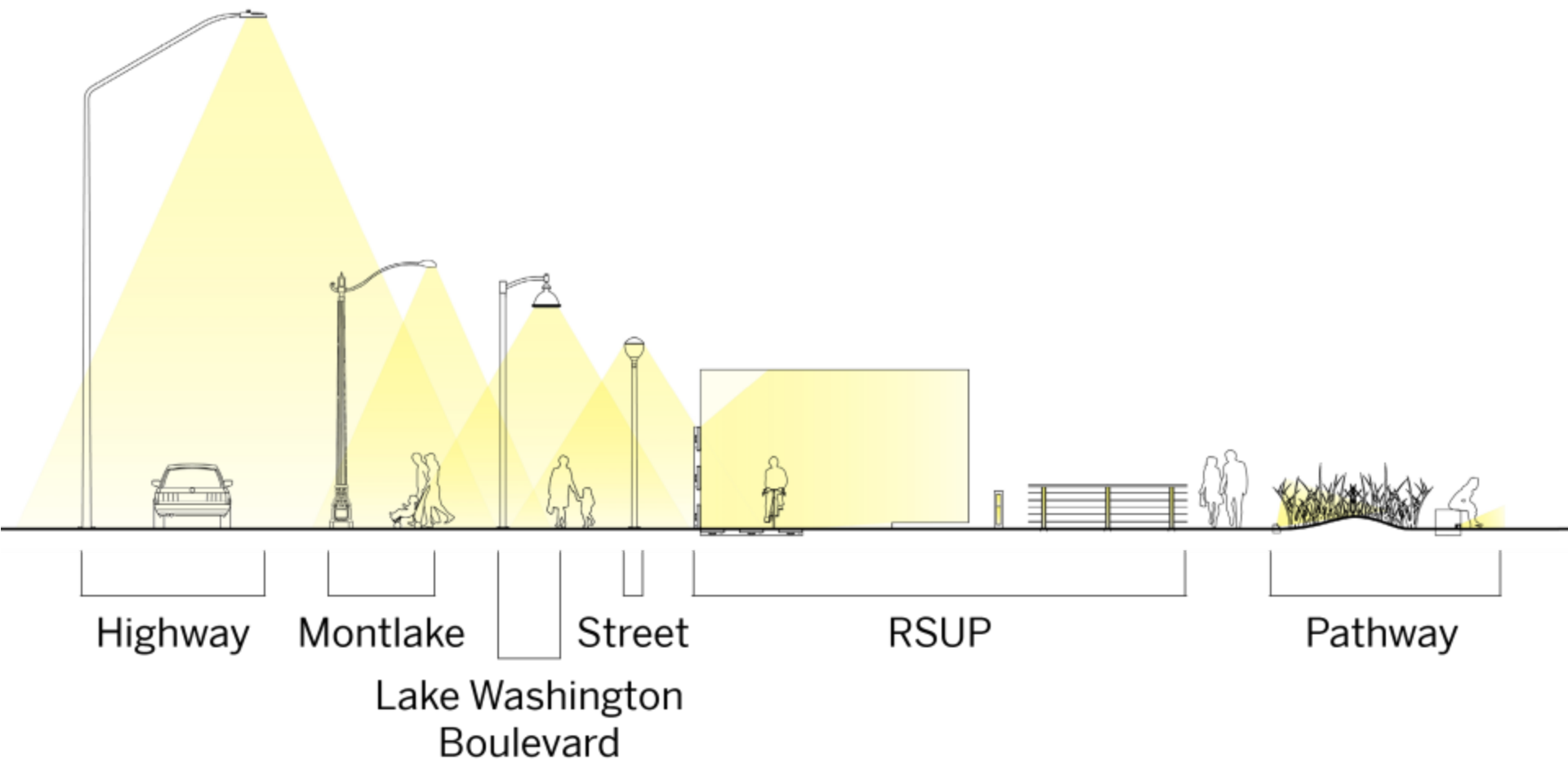
Lighting

- Highway
- Streets
- Pathways and Public Spaces



Lighting

Lighting Family



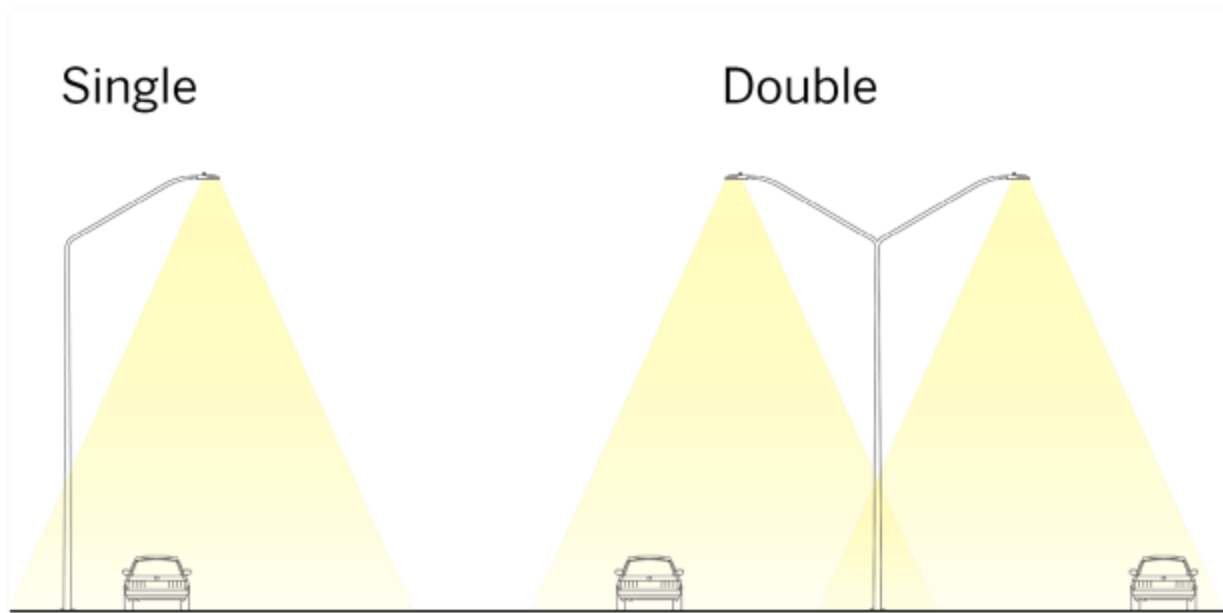
Lighting

Highway Network



Element Locator

- Follow baseline highway lighting standards
- Distinctive and integrated lighting on Portage Bay Bridge



Typical WSDOT Angled Poles with LED Fixtures



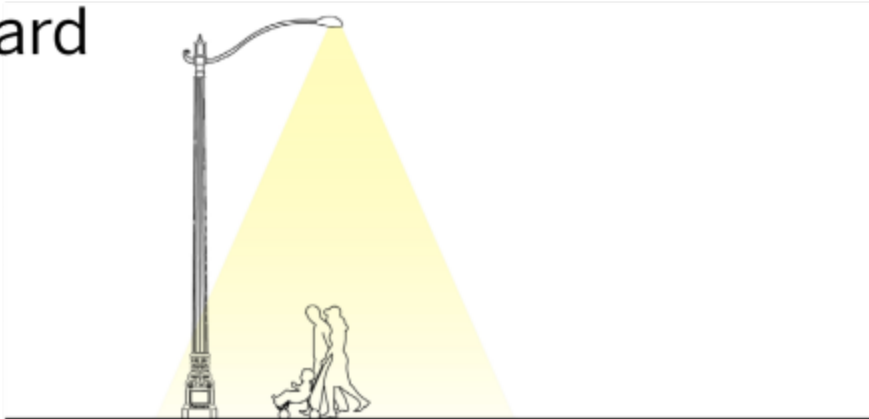
Concept Development

Lighting

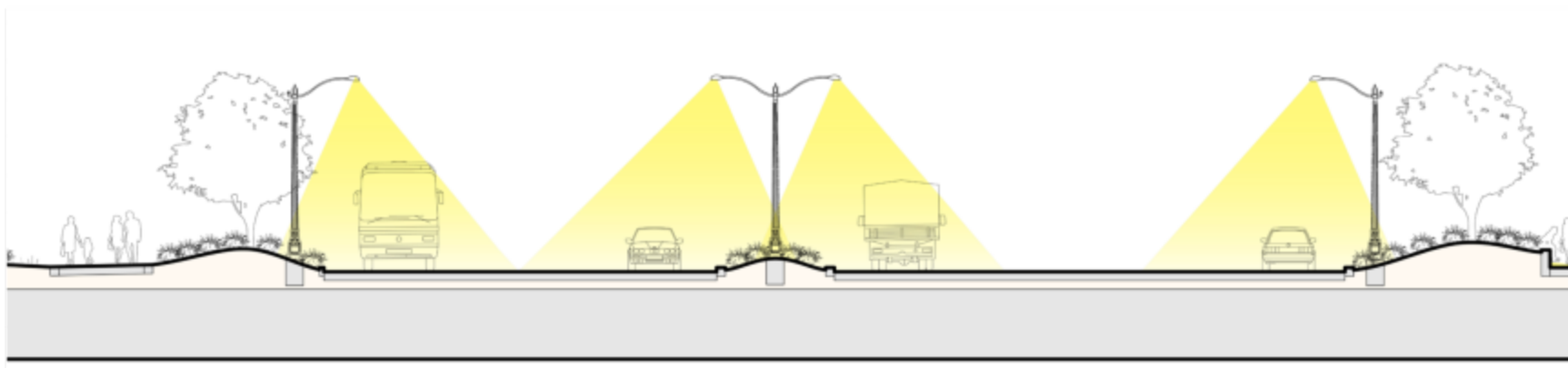
Montlake Boulevard



Element Locator



Fixture Detail



- Chief Seattle base, pole, and luminaire follow City plans for boulevard

Montlake Boulevard Section

Lighting

Lake Washington Boulevard

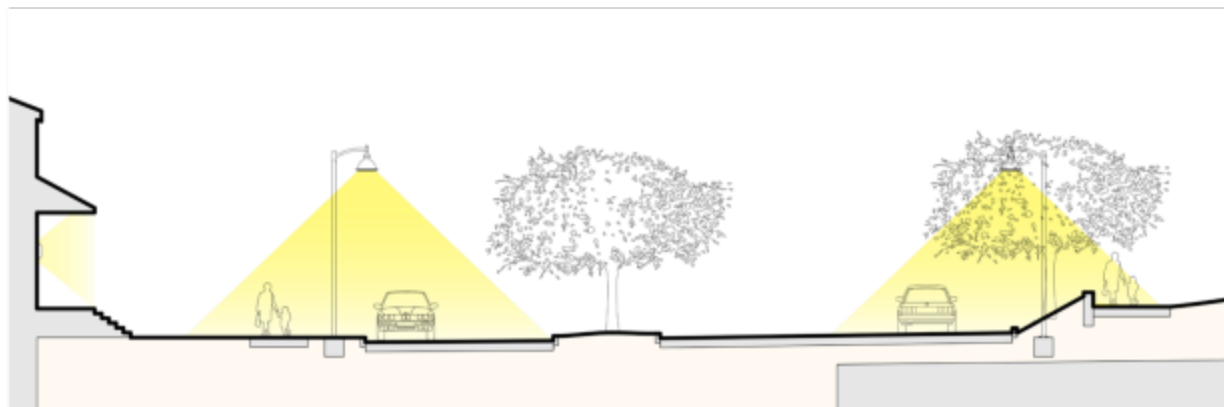


Element Locator

- Continue fixture and pole type from Lake Washington Boulevard Lighting lighting update
- Provide illumination for cars and pedestrians



Fixture Detail

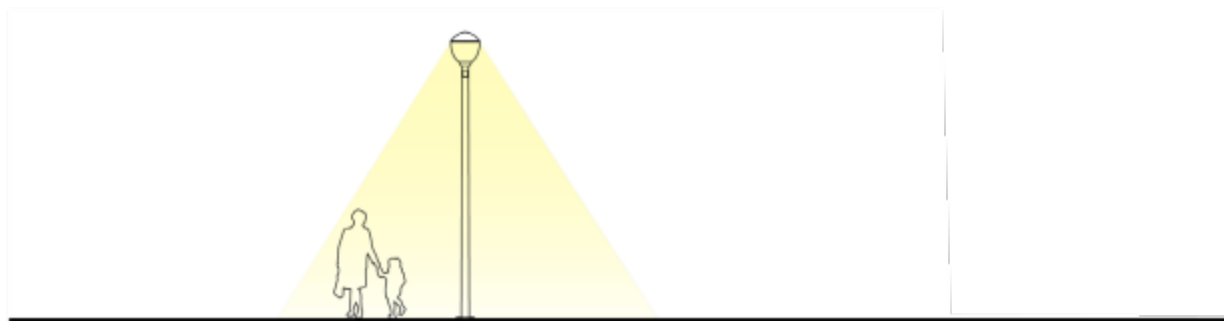


Lake Washington Boulevard Section

Concept Development

Lighting

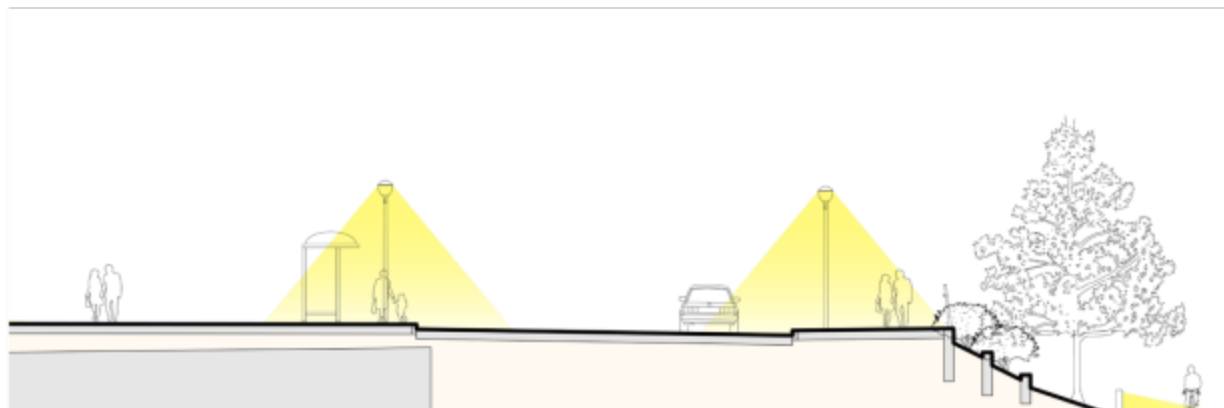
Streets



Element Locator

- Vertical, pole mounted luminaire
- Provide even, pedestrian scaled lighting for cars and people

Fixture Detail

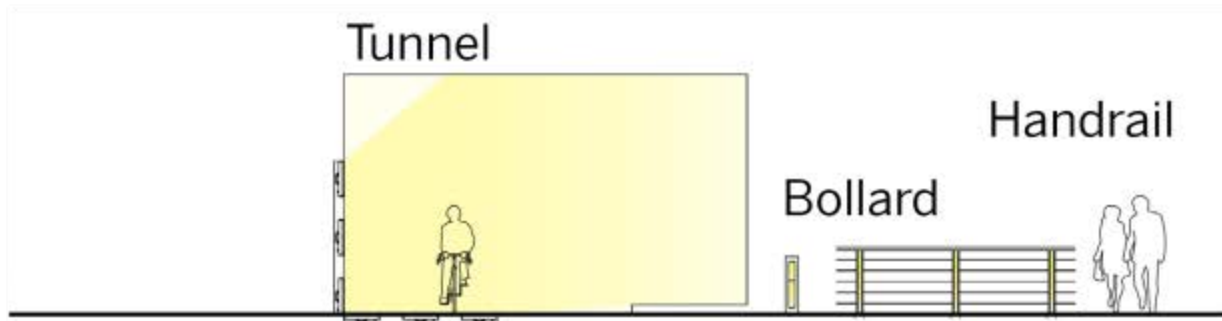


HOV/Transit Access Section

Concept Development

Lighting

Regional Shared-Use Path

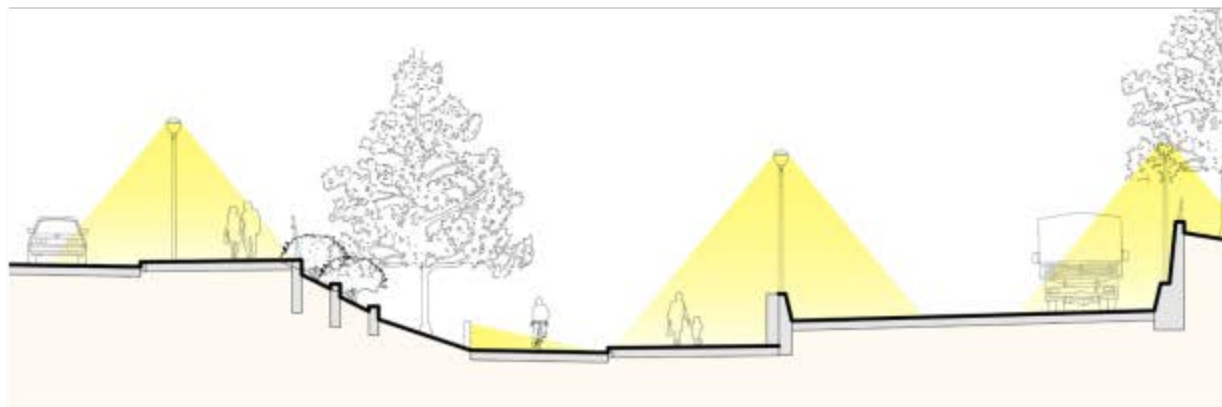


Element Locator

- Similar expression across RSUP to guide users across corridor



Fixture Detail



Bollard Lighting on the Bill Dawson Trail

Concept Development

Lighting

Landbridge and Lid

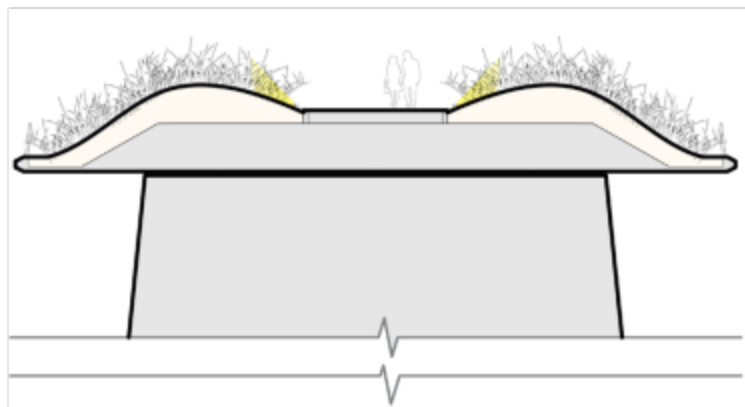


Element Locator

- Features/objects are lit
- Surrounded by streets on all edges, which will provide baseline lighting



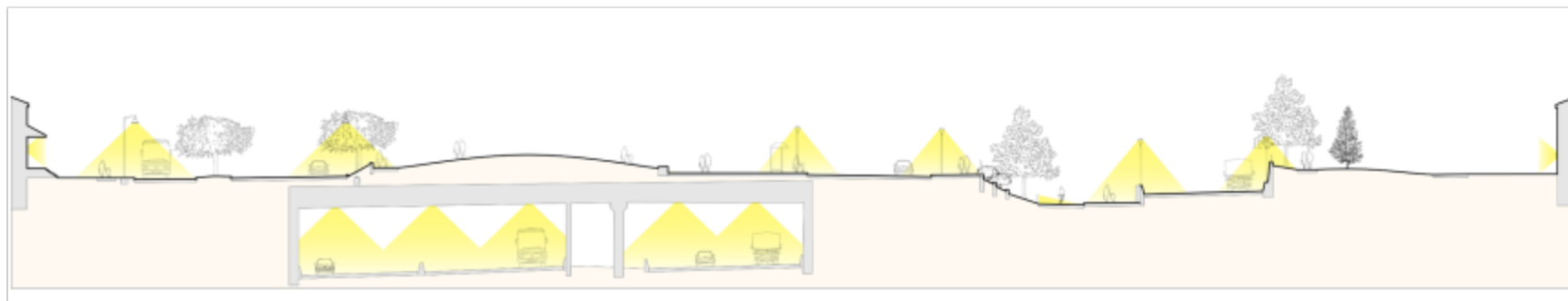
Fixture Detail



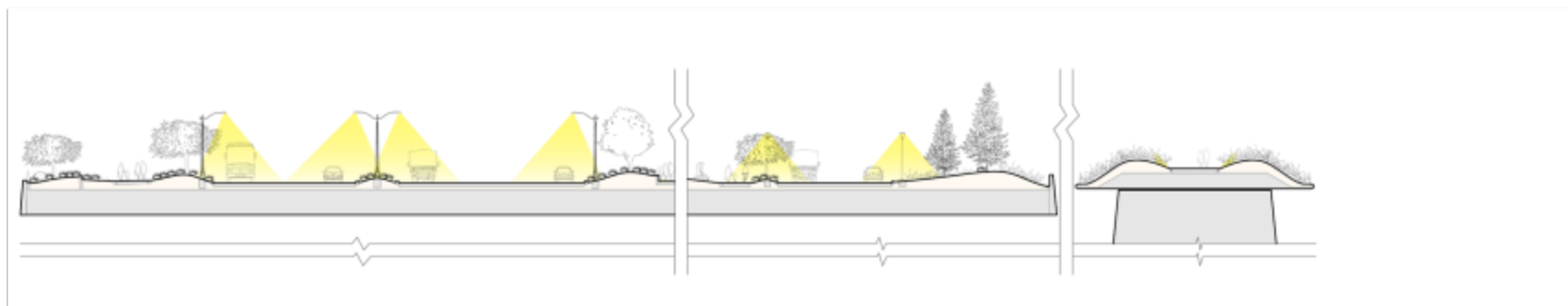
Feature Lighting on the Landbridge

Lighting

Montlake Area Lighting



Section Looking West Through Montlake Boulevard and Lid



Section Looking North Through Lid and Landbridge

Lighting – Design Goals

- ✓ Improves regional and neighborhood non-motorized connections
- ✓ Enhances transit experience and vehicular functionality
- ✓ Creates a practical solution to multiple needs
- ✓ Restores and improves ecological systems and connectivity
- ✓ Improves air quality and reduces noise
- ✓ Produces safe and functional space for neighborhood and regional use
- ✓ Brings human scale and community character to create distinctive spaces
- ✓ Forms a memorable and layered gateway experience

Concept Development

Highway Signage



Highway Signage

Concept Development

Highway Signage



- **Route**
- **Active Traffic Management**
- **Regulatory: Tolling, Speed**

Concept Development

Highway Signage



- Route
- Active Traffic Management
- Regulatory: Tolling, Speed, Managed Shoulder
- Variable Messaging
- Life Safety

Concept Development

Highway Signage



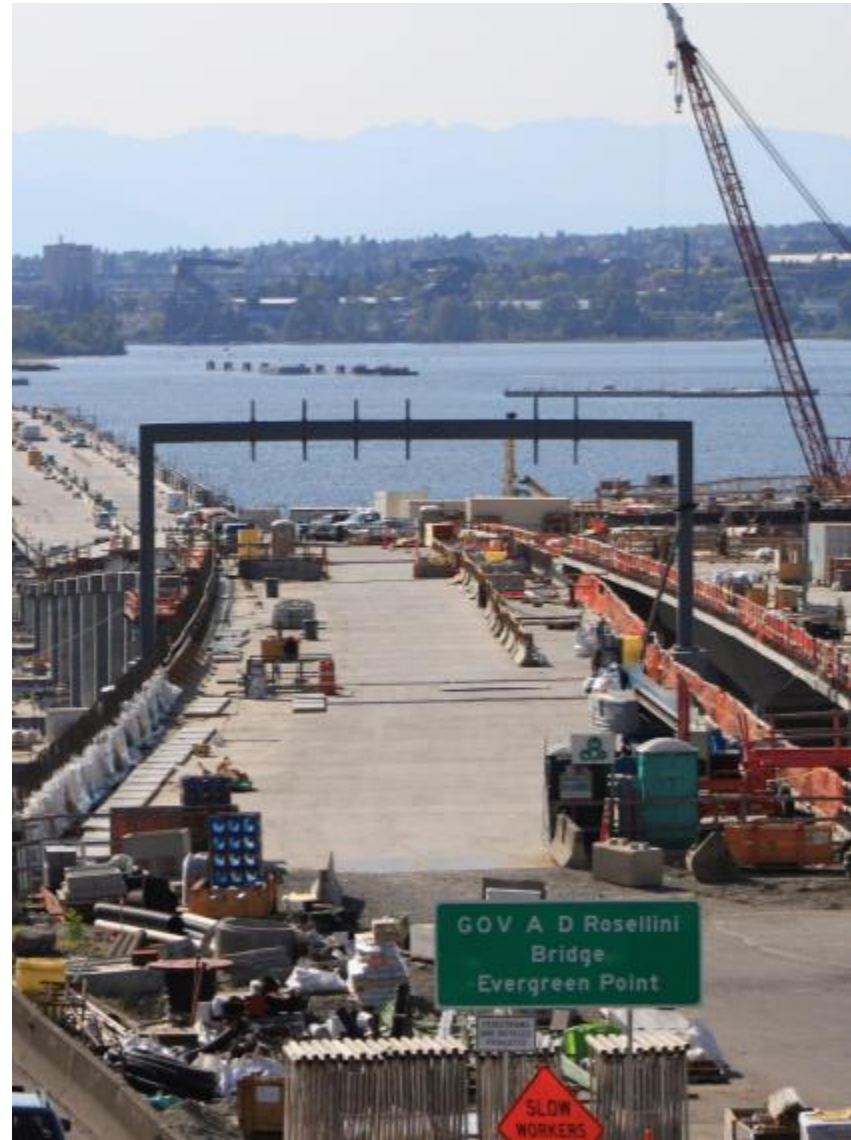
Highway Signage

Strategies

- Minimize
- Rationalize
- Simplify

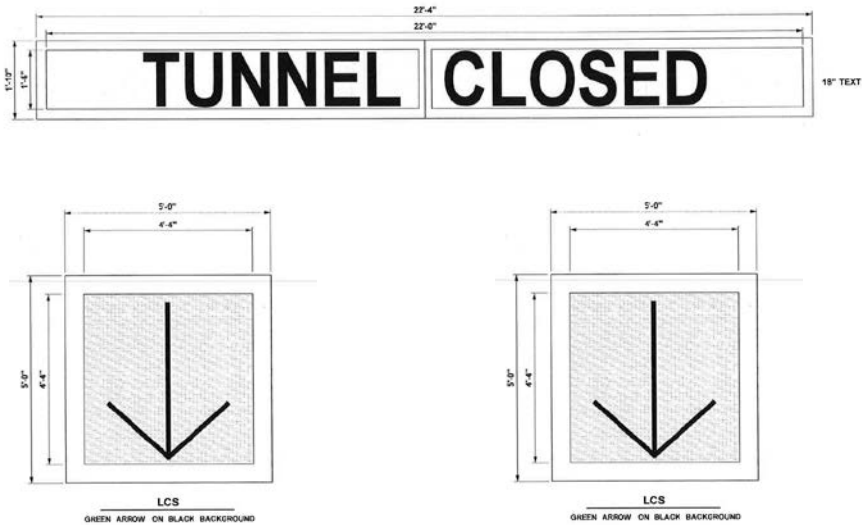
Opportunities:

- Fewer signs within flexible parameters
- Integrate with portals
- Gantry design integration on Portage Bay Bridge



Concept Development

Tunnel Signage



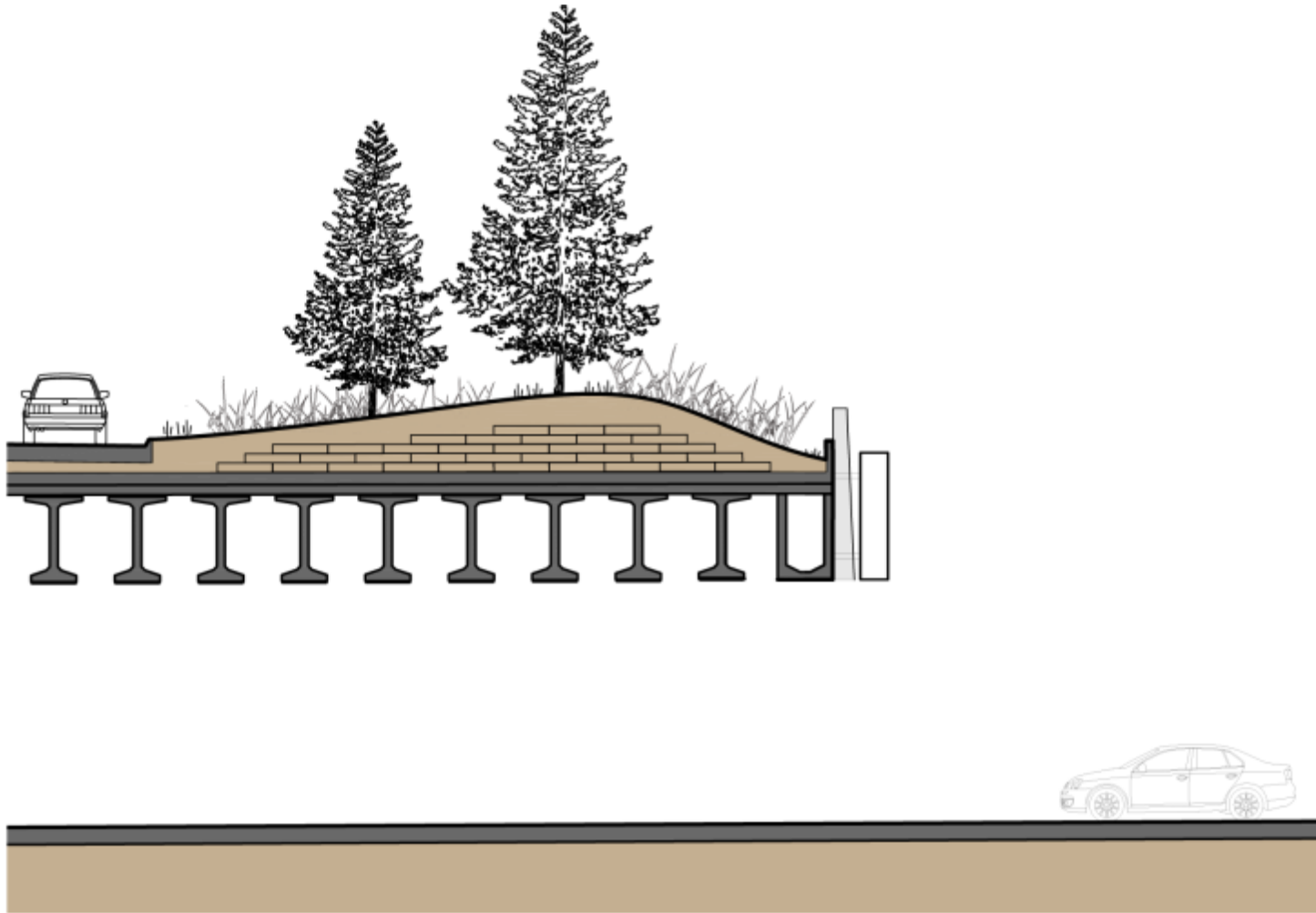
Option 1 Potentially smaller visual impact on Lid edges
Limited use signage



Option 2 Potentially larger visual impact on Lid edges
Greater flexibility of communication

Concept Development

Tunnel Signage



Signage – Design Goals

- ✓ Improves regional and neighborhood non-motorized connections
- ✓ Enhances transit experience and vehicular functionality
- ✓ Creates a practical solution to multiple needs
- ✓ Restores and improves ecological systems and connectivity
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- ✓ Forms a memorable and layered gateway experience

Walls, Edges and Gateways



Walls, Edges and Gateways

Walls, Edges and Gateways

Subordination strives to use all objects and features in the service of the design and its intended effects.



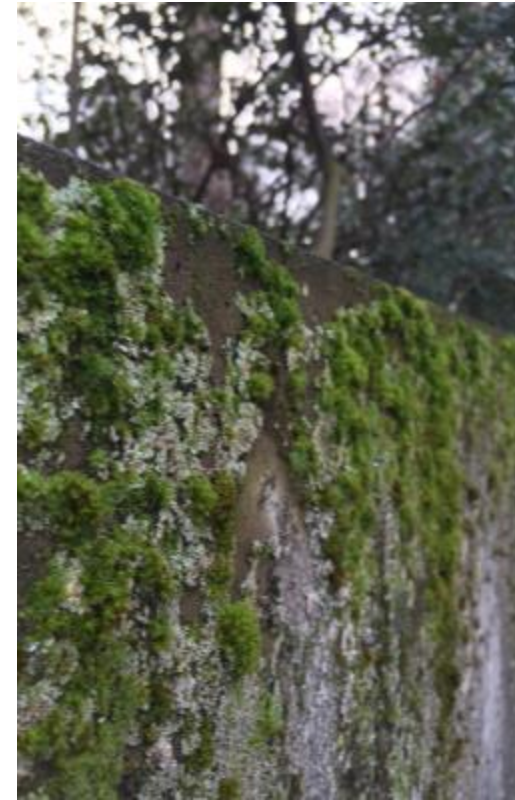
Walls, Edges and Gateways



Walls, Edges and Gateways



Walls, Edges and Gateways



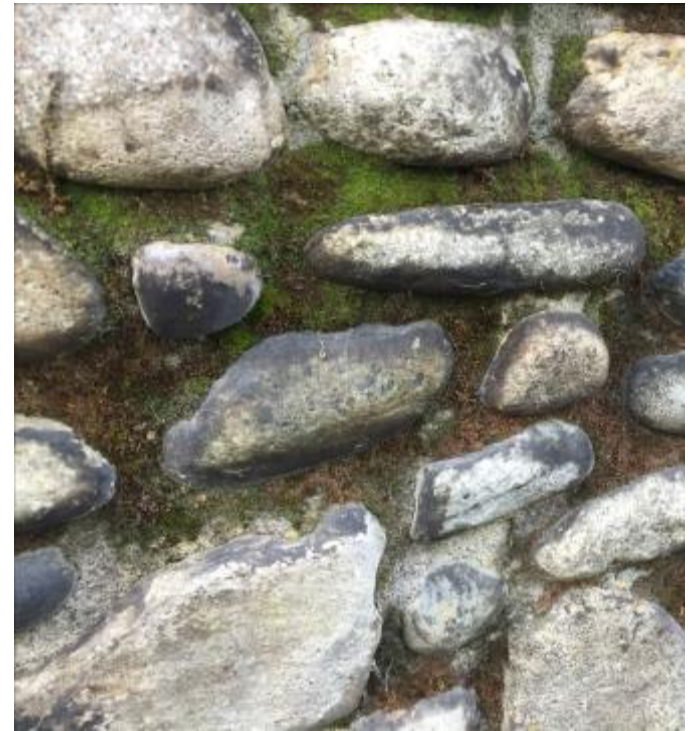
Tactile

Meant to be touched

Verdant

Growing substrate

Walls, Edges and Gateways



Tactile

Meant to be touched

Verdant

Growing substrate

Walls, Edges and Gateways



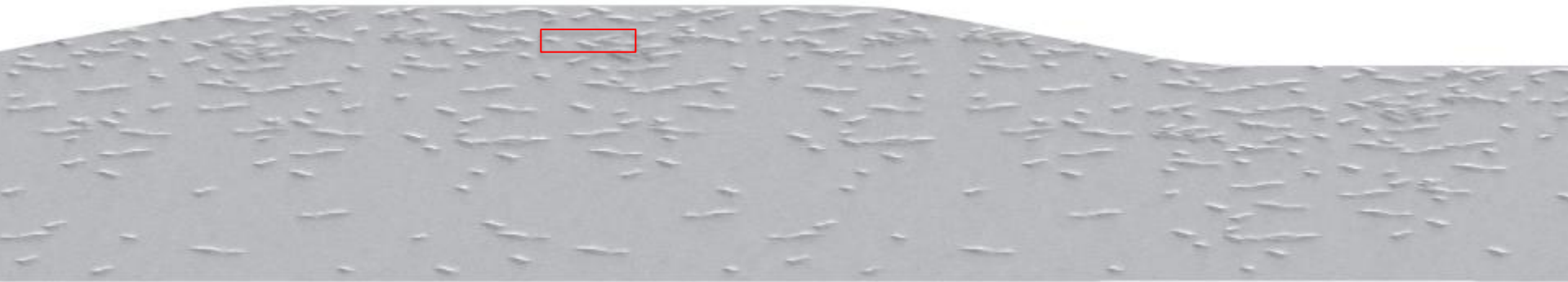
Cast Formal Studies:
Cracks and Ledges

Concept Development

Wall Texture



Detail Elevation



Full Height Wall Elevation

Concept Development

Wall Texture

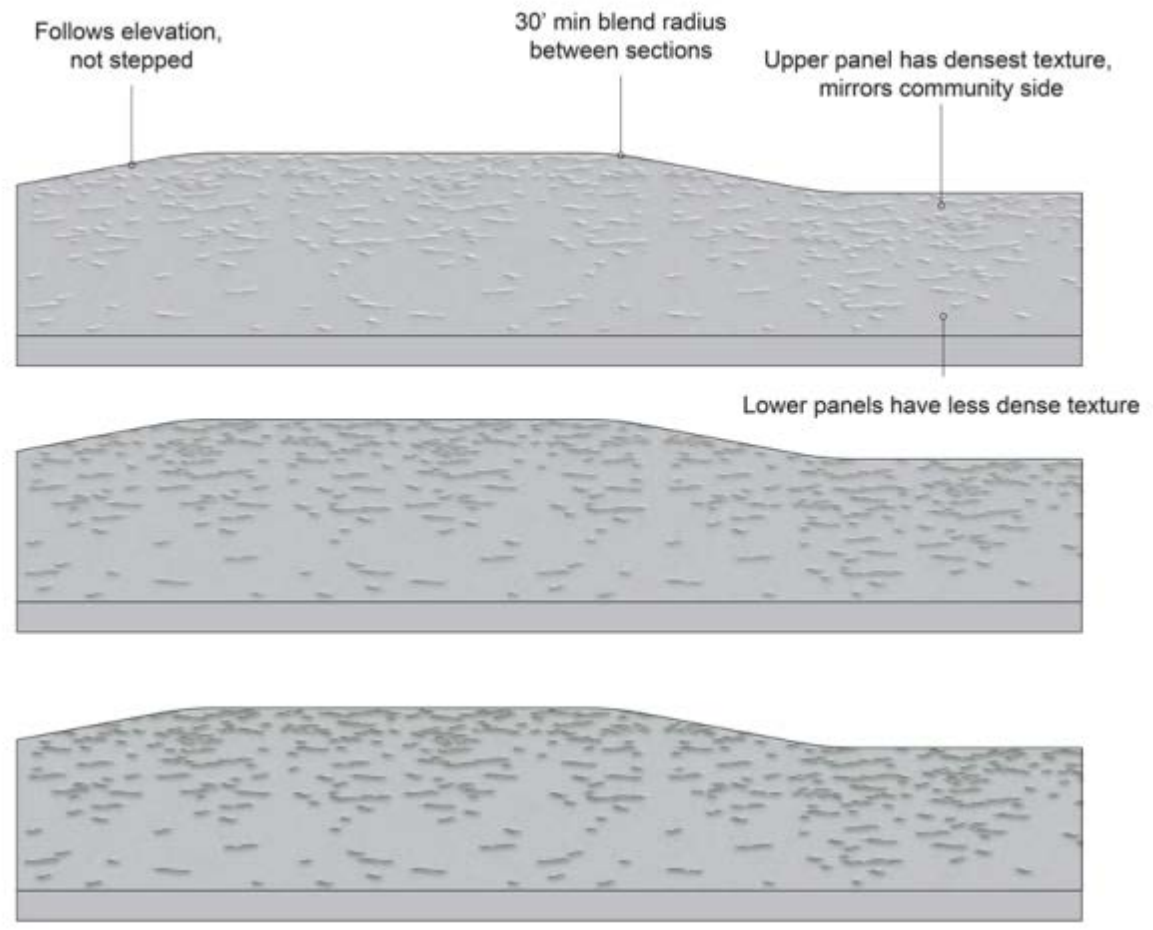
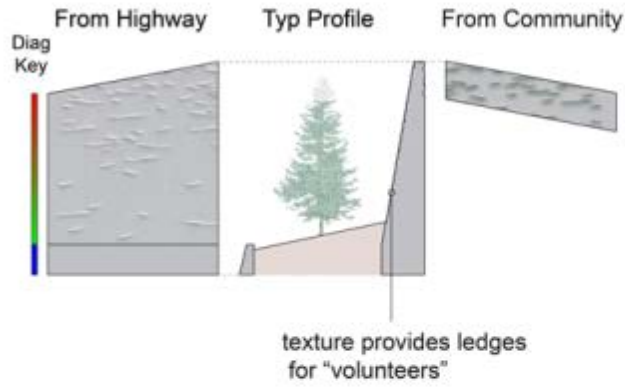


Detail Elevation



Full Height Wall Elevation

Concept Development Wall Texture



Walls, Edges and Gateways

Community Edges

- Distinctive quality related to place
- Tactile form encourages interaction
- Consistent finish across construction types
- Form enriched by weathering and greening



Walls, Edges and Gateways

Earth Walls and Edges

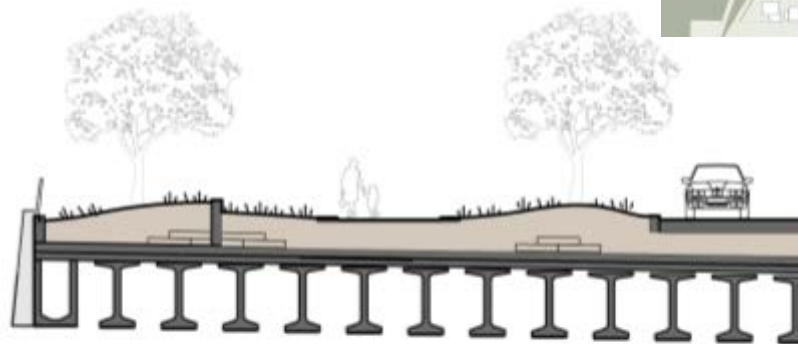
- Soft natural pattern at scale
- Consistent finish across construction types
- Gradated density responsive to occupied edge
- Attractive and distinctive as bare concrete or weathered and greened



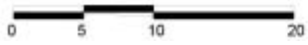
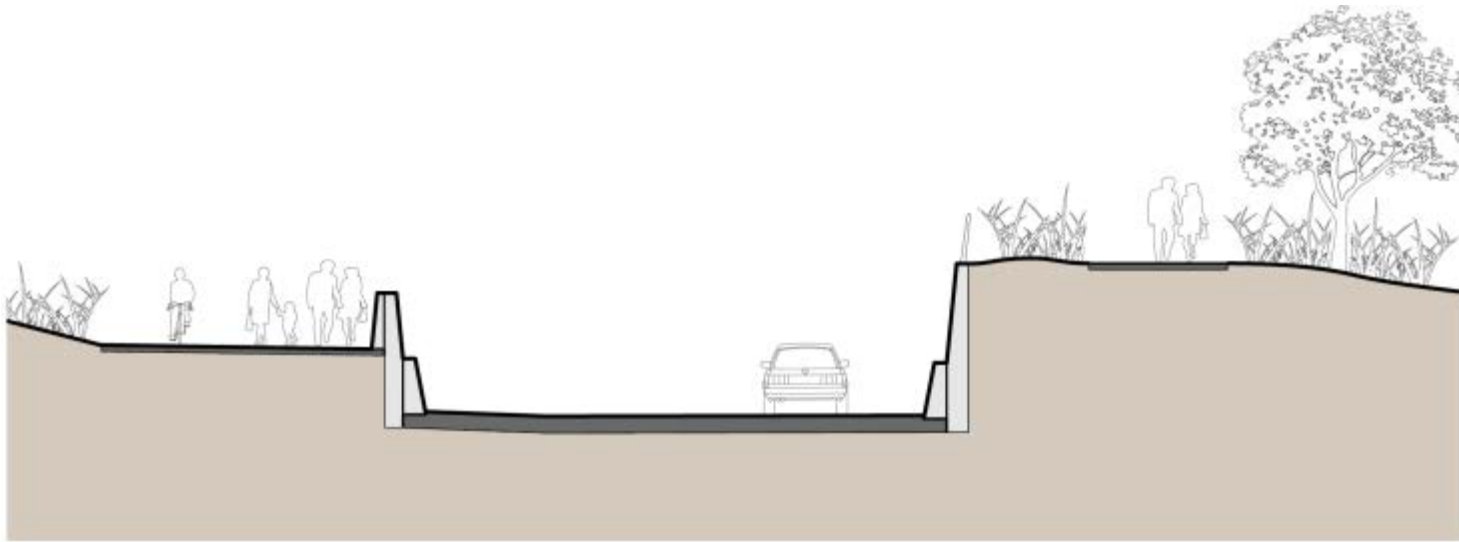
Walls, Edges and Gateways



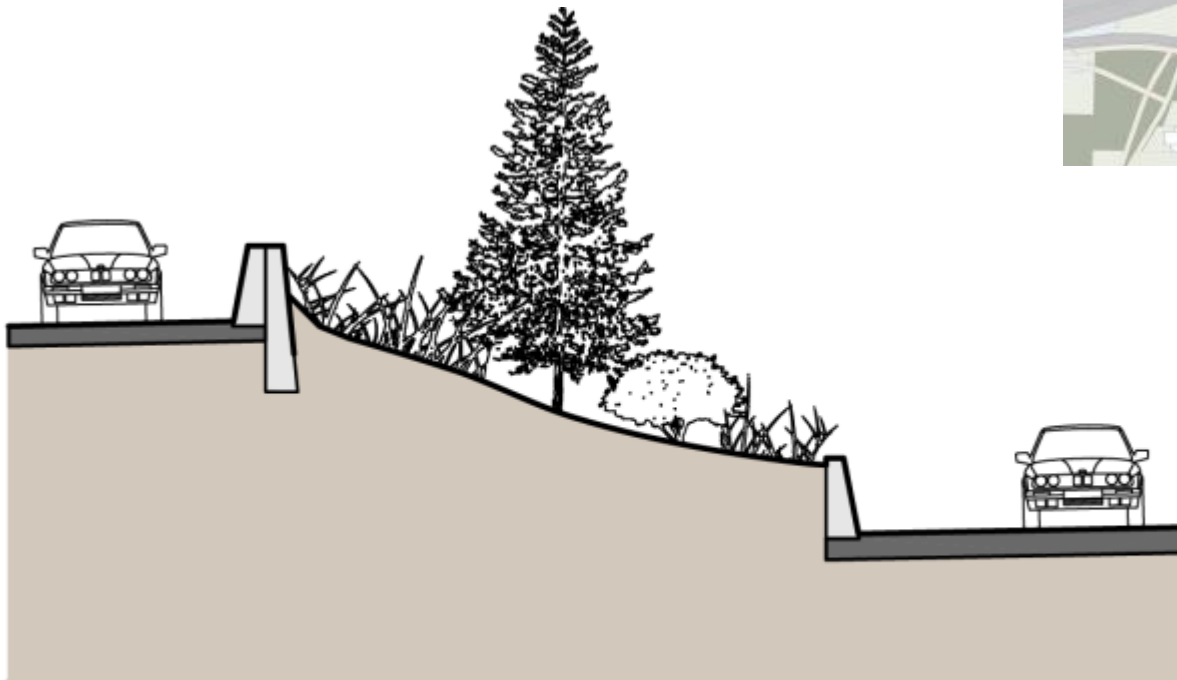
Walls, Edges and Gateways



Walls, Edges and Gateways



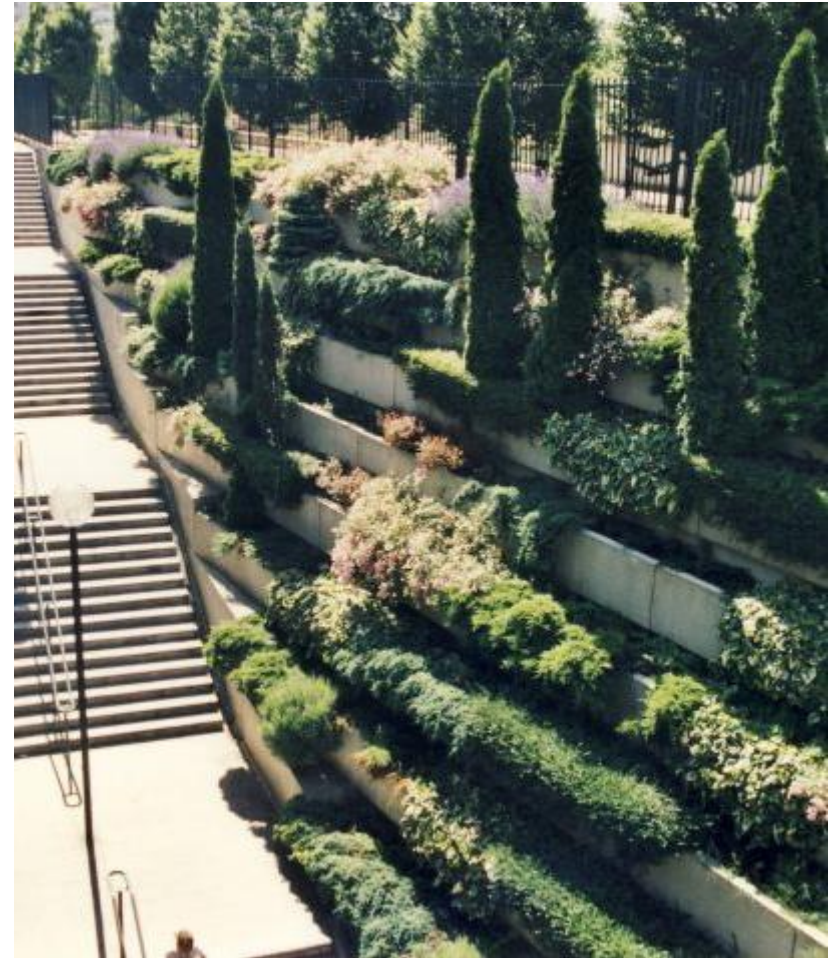
Walls, Edges and Gateways



Walls, Edges and Gateways

Earth Walls - Planted

- In “grotto” condition
- Similar finish as community wall texture



Walls, Edges and Gateways

Site Walls - Stone Gabions

- Used in park settings
- Natural materials : wood, stone
- Tactile



Walls and Gateways – Design Goals

- ✓ Improves regional and neighborhood non-motorized connections
- ✓ Enhances transit experience and vehicular functionality
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- ✓ Produces safe and functional space for neighborhood and regional use
- ✓ Brings human scale and community character to create distinctive spaces
- ✓ Forms a memorable and layered gateway experience

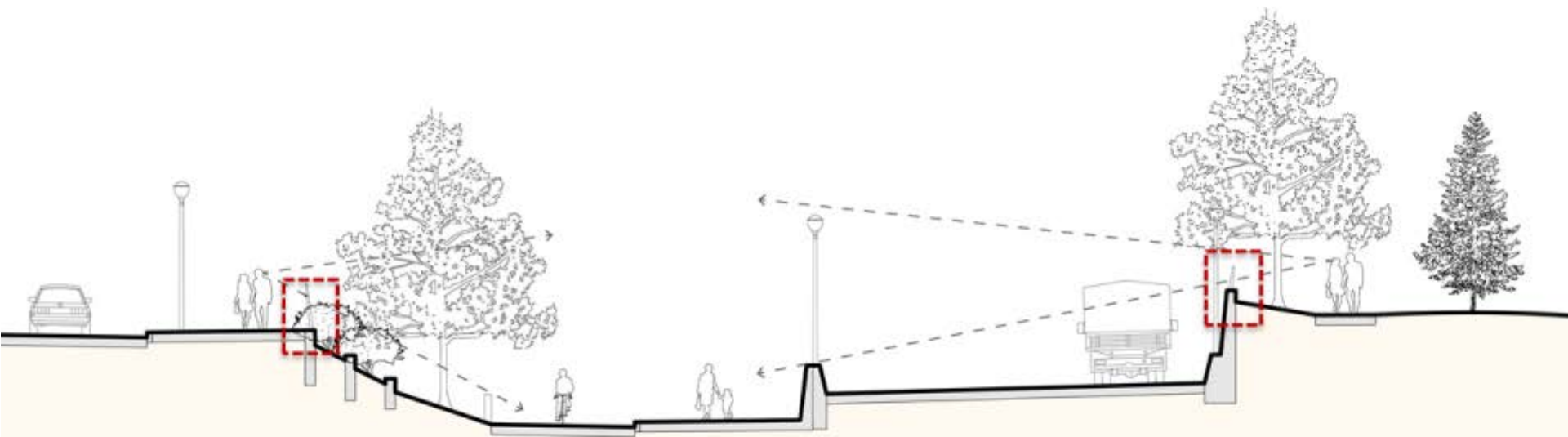
Concept Development

Railings



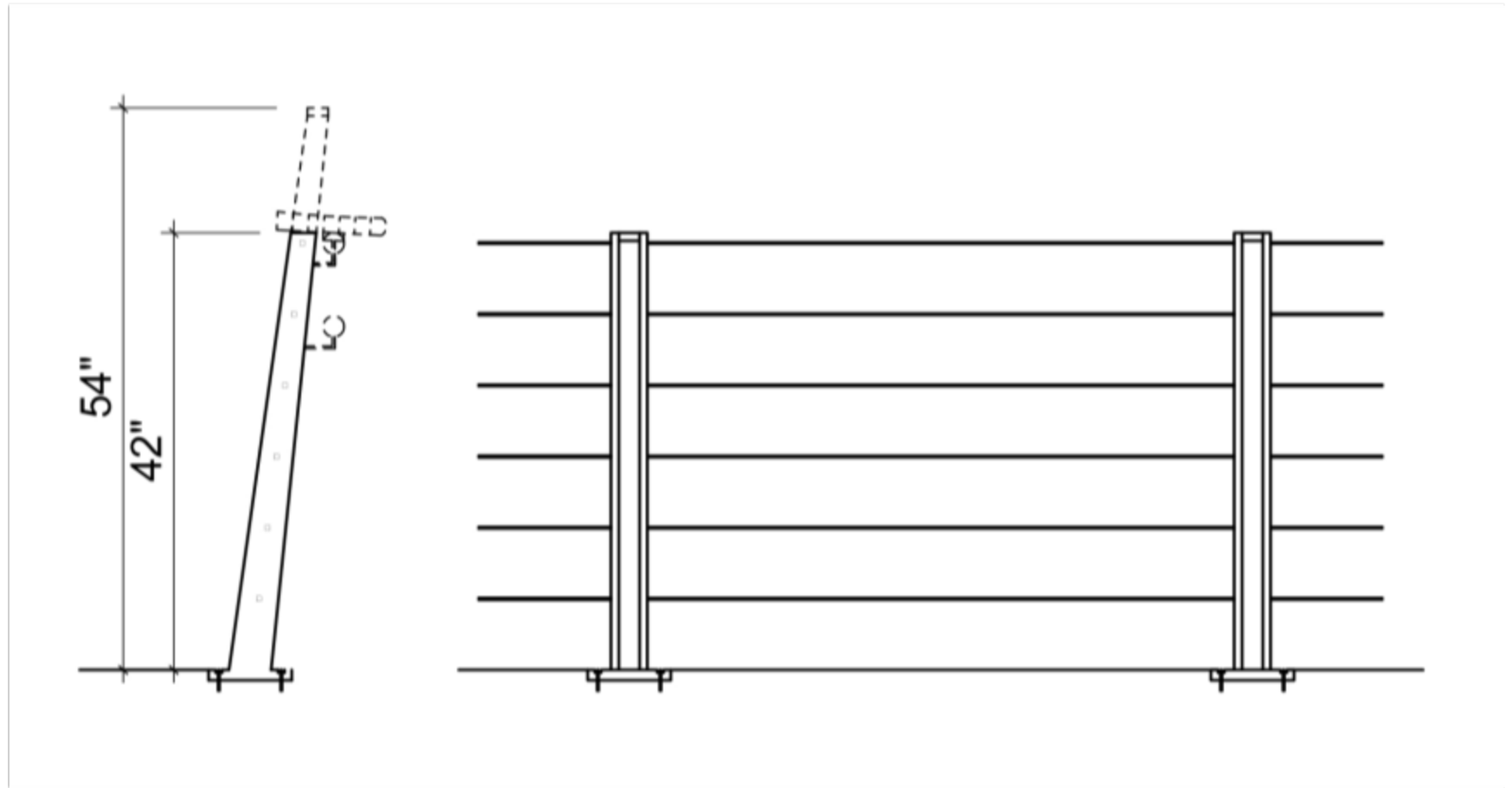
Concept Development

Railings



Railings

Handrail Variations



1 Stanchion, Many Applications

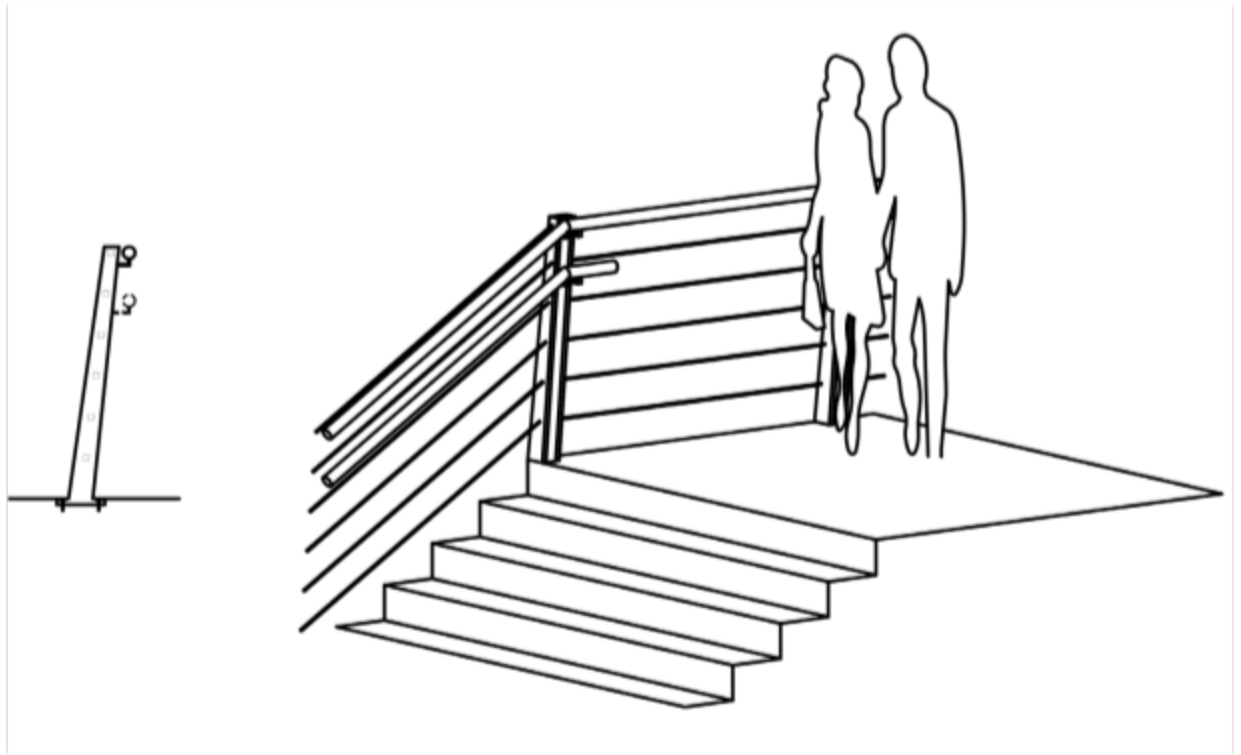
Railings

Hand Rail



Element Locator

- Used in areas with pedestrian access
- Galvanized steel stanchions, gray guardrail, and aircraft cable
- Optional handrail integrated at stair cases and slopes +5%
- Lighting integrated into double stanchions



Rail Detail

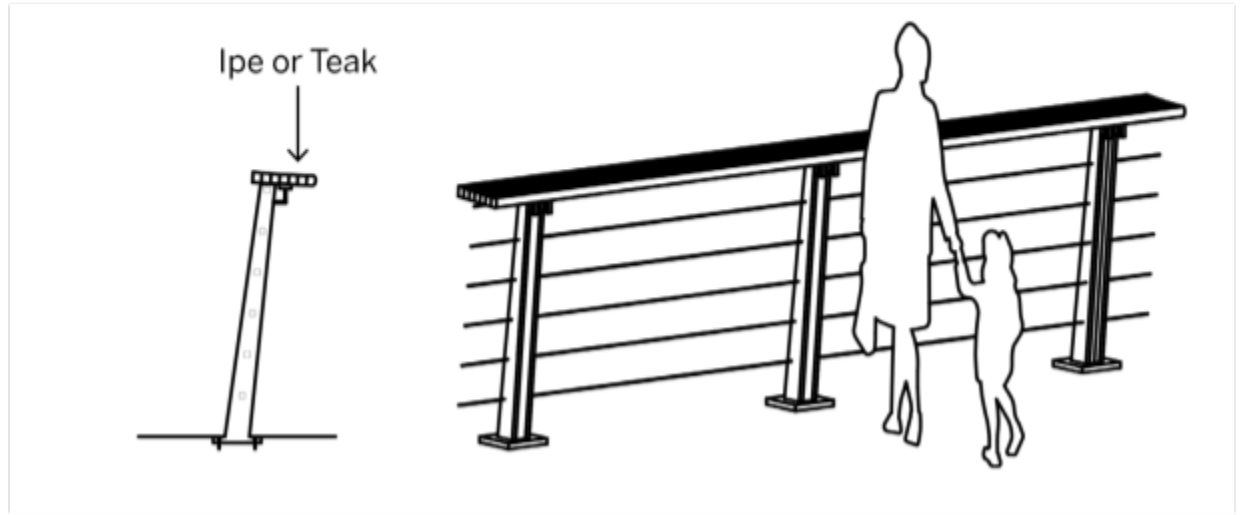
Railings

Lean Rail



Element Locator

- Used at viewpoints
- Galvanized steel stanchions, wood lean rail, and aircraft cable
- Lighting integrated into double stanchions
- Wooden lean rail follows plan curves, shaped for comfort



Rail Detail

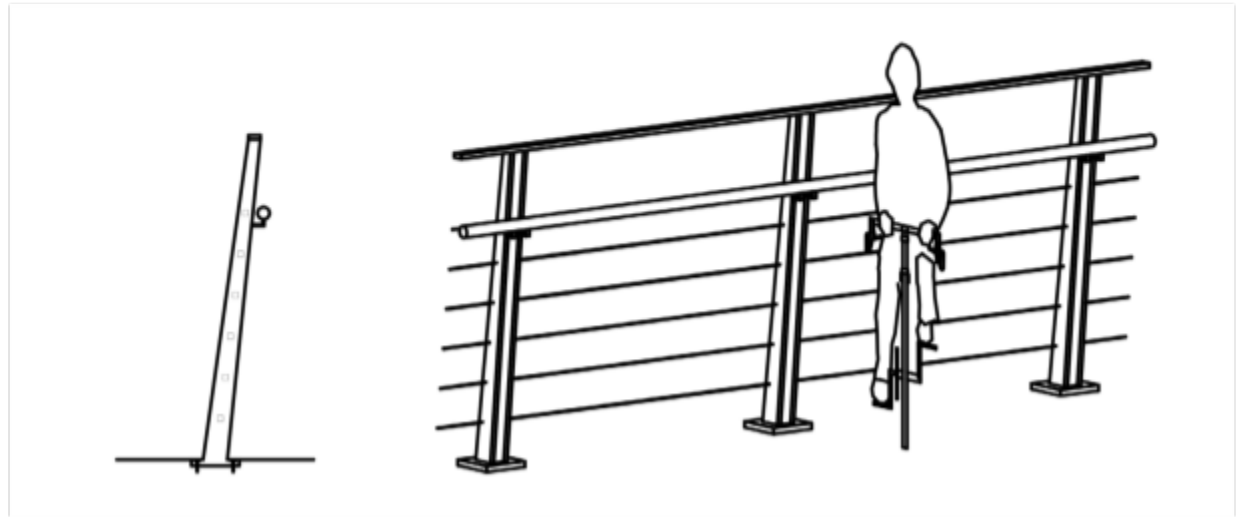
Railings

Bike Rail



Element Locator

- Used in areas with bicycle access
- Galvanized steel stanchions, gray guardrail, top tube, and aircraft cable
- Lighting integrated into double stanchions



Rail Detail

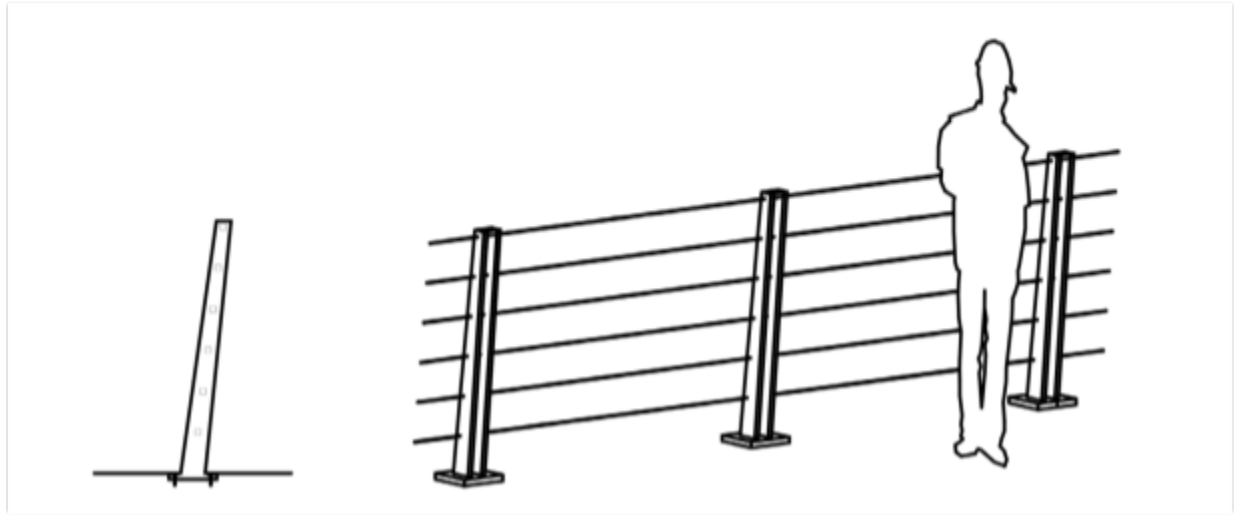
Railings

Maintenance Fall Protection



Element Locator

- Allows maximum transparency to blend into landscape
- Galvanized steel stanchions with aircraft cable



Rail Detail

Railings – Design Goals

- ✓ Improves regional and neighborhood non-motorized connections
- ✓ Enhances transit experience and vehicular functionality
- ✓ Creates a practical solution to multiple needs
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- ✓ Forms a memorable and layered gateway experience

Concept Development Land bridge



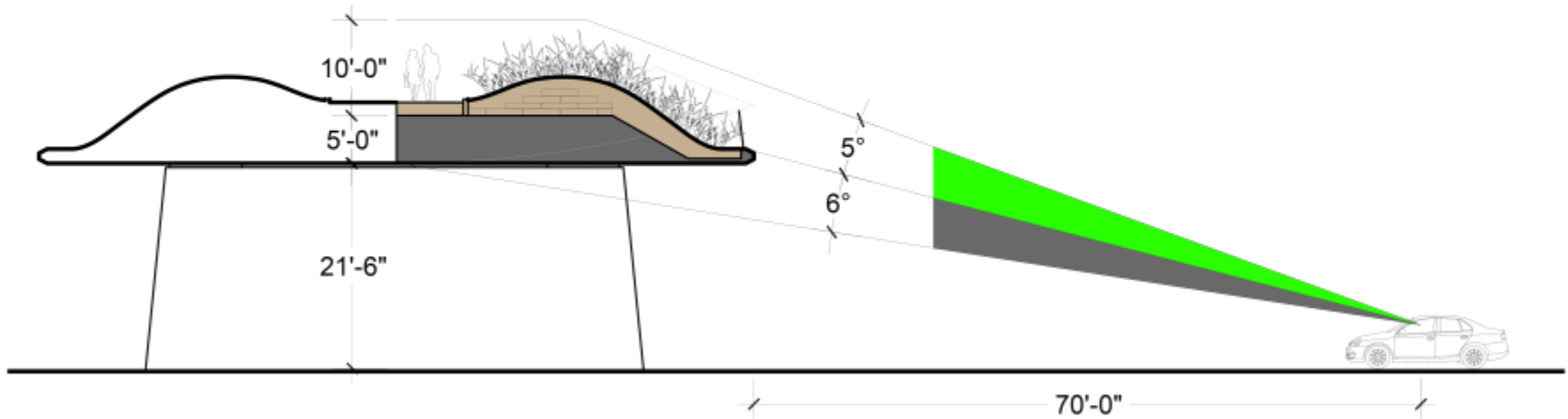
Concept Development

Land bridge



Concept Development

Land bridge



Option 2: Plate

03/14/16

Concept Development

Land bridge



Baseline Design: "Saucer"

Prominent read of fascia and underside of bridge

03/14/16

Concept Development

Land bridge



Option 1: Dish

Looking west from westbound HOV lane SR 520

Prominent read of fascia

03/14/16

Concept Development

Land bridge



Looking west from westbound HOV lane SR 520

Concept Development

Land bridge



Looking east from eastbound mainline SR 520

Regional share use path



Looking west along 24th Street off-ramp

Western Lid Edge



Looking east from eastbound mainline SR 520

Outlook at Land bridge



Looking east from Land bridge outlook

Outlook at Land bridge



Looking east from Land bridge outlook

Land bridge – Design Goals

- ✓ Improves regional and neighborhood non-motorized connections
- ✓ Enhances transit experience and vehicular functionality
- ✓ Creates a practical solution to multiple needs
- ✓ Restores and improves ecological systems and connectivity
- ✓ Improves air quality and reduces noise
- ✓ Produces safe and functional space for neighborhood and regional use
- ✓ Brings human scale and community character to create distinctive spaces
- ✓ Forms a memorable and layered gateway experience

Today, seeking endorsement of:

Approach to elements of continuity and distinction:

- Highway Signage
- Lighting
- Pathways
- Walls/Edges/Gateways
- Land bridge

