

SR 520
'Rest of the West'
2016 Project Involvement

Seattle
Design
Commission

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December 12, 2016

Julie Meredith, SR 520 Program Administrator
Washington State Department of Transportation
999 Third Avenue, Suite 2300
Seattle, WA 98104
Re: Seattle Design Commission report – SR 520 segment

Dear Julie:

The following report summarizes the 2016 consultation between the Seattle Design Commission (SDC) and the Washington State Department of Transportation (WSDOT) to refine urban design concepts for the Seattle Segment of State Route (SR) 520, specifically the Montlake Lid, land bridge, and related improvements.

The SDC enthusiastically supports WSDOT's efforts to embed urban design values throughout all phases of the Seattle Segment of SR 520. The elevation of urban design values in the design and implementation of key project elements in this phase – including the Montlake Lid and Landbridge – is the next step in fulfilling WSDOT's commitment to create a signature urban transportation project for Seattle. As WSDOT proceeds with the process to award a contract to construct and build this phase of SR 520, we believe that this report will help the successful award winner understand why the SDC supported this project.

This report is divided into four sections:

1. Background summary of SDC involvement in SR 520 urban design options P. 4
2. 2016 SDC review process for Montlake Lid and related investments P. 4-5
3. Key urban design project elements supported by the SDC P. 5-24
4. Next steps towards successful implementation P. 25



City of Seattle
Edward B. Murray, Mayor

Office of Planning & Community Development
Samuel Assefa, Director

1. [Background – SDC review of SR 520 urban design options](#)

In 2010, the SDC began its consultation process with WSDOT on concept designs for the Seattle Segment of SR 520. The SDC provided WSDOT with their initial recommendations during WSDOT's environmental review process. The SDC's consultation with WSDOT continued into 2012 during the Seattle Community Design process. Following this, the SDC provided urban design recommendations to WSDOT on the Montlake Lid that included:

- Maximizing the quality and function of the lid space;
- Prioritizing non-motorized connections;
- Providing activated open spaces;
- Enhancing the user experience; and
- Better integrating the program within the neighborhood and its context.

The SDC also encouraged WSDOT and the City to explore urban design options for the Montlake Lid that:

- Promoted quality of open space over quantity;
- Reduced the reliance on disruptive mechanical equipment related to required ventilation shafts;
- Increased benefits to all users (transit, autos, pedestrians, etc.) and neighbors; and
- Provided better pedestrian and bicycle connectivity and more investments to reduce impacts on surrounding properties.

In 2014, the SDC continued their consultation with WSDOT, shifting their focus to the Montlake Lid and its related investments. The key element in the 2014 designs featured WSDOT's refinement of the Montlake Lid, specifically WSDOT's 'smarter lid' approach. WSDOT's 'smarter lid' concept signaled a rethinking of the design concept for the Montlake Lid. Through a design framework that emphasized the concept of 'Nature meets City', WSDOT and its team refined the design concept to create a reduced lid with a curved land bridge. These redesigns accomplished significant gains for the project including:

- A lid design that provided greater connectivity to neighborhoods by responding to local conditions, including road networks, the natural environment and related topography;
- Creating a land bridge that provided essential connections to and between local and regional pedestrian and bicycle facilities;
- Reduced materials costs due to a significant reduction in the size, shape and dimensions of the lid;
- Eliminating 4 ventilation stacks proposed for the main part of the proposed Montlake Lid due to its reduced size;

- Significant reduction in operation and maintenance costs due to the elimination of the operation and maintenance facility for ventilation systems, and;
- A reduced lid that purportedly caused no significant increase in environmental impacts (noise, aesthetics, air quality, etc.);

In its support of the 'smarter lid' concept, the SDC developed a report (Attachment A) to Mayor Edward B. Murray and the Seattle City Council about the Montlake Lid and other investments in the SR 520 Seattle segment. This September 2014 report highlighted the SDC's support for the 'smarter lid' concept, as it achieved a number of urban design goals including:

- Enhanced regional connectivity through direct north/south local connections that intersect with key east/west connections provided in the SR 520 system;
- Improved open space designs that provide for meaningful activity for all users while providing key connections that would not have been possible with the larger lid concept;
- Enhanced view corridors at key locations on the Montlake Lid and land bridge;
- Improved transit, bicycle, and pedestrian experiences through designs that responds to grade changes, neighborhood connections, pedestrian and bicycle investments; and
- A reduced lid that better integrates the Montlake and Shelby/Hamlin neighborhoods.

2. [2016 SDC consultation with WSDOT related to Request for Proposals for the Montlake Lid and related investments](#)

In 2016, WSDOT again consulted with the SDC on refinements to the Montlake Lid and related investments. This review was to support WSDOT's goal to embed urban design values and goals into the Request for Proposals (RFP) process.

Working with WSDOT, the SDC conducted a series of public meetings to evaluate how the project concept and design details had been advanced since their 2014 review. The meetings were open to the public, following the City's requirements under the Open Public Meeting Act. Attachment B to this report is a copy of all presentation materials and meeting minutes of these meetings. The following is a summary of the topics discussed at these meetings:

[Public meeting #1 - February 4, 2016](#)

- Design and project themes related to continuity, circulation, and overall connectivity

- Areas of distinction within the project and designs
- The overall context established by the surrounding urban environment
- The proposed land bridge
- Work plan for commission review

Public meeting #2 - April 7, 2016

- The integration of the land bridge with the surrounding corridor
- The continuity of lighting types on the lid and pedestrian routes
- How terraced landscaping is used to reduce vehicle noise
- Continued ways to combine landscaping with concrete walls that soften those features and support plant growth

Public meeting #3 - June 2, 2016

- The overall project vision and how it is implemented
- The various forms of circulation (pedestrians, bicycles, transit, and automobiles) through, to and around the site
- The role of landscape and programming
- Key nodes
- How materials are used to enhance the overall experience and identity of the project
- Sustainability, including operations and maintenance
- RFP and Unknowns

Public meeting #4 - July 7, 2016

The focus of this meeting was to evaluate the RFP process and ways for the SDC to participate following the award of the contract and through construction.

In addition, the SDC also held a number of focused subcommittee meetings. These subcommittee meetings were attended by City staff, WSDOT staff and consultants, and a select number of SDC commissioners. These meetings were designed to preview ideas to be presented at subsequent commission meetings, provide technical details around key project features, test ideas, validate commissioner or staff concerns about project details and review draft presentation materials. Attachment C includes presentation materials for each of these meetings.

Subcommittee meeting #1 - February 25, 2016

1. Elements of continuity including:

- Pathways
- Walls
- Signage

2. Endorsement of key features, including:

- Lid as gateway to City, and its features
- Path and trail system, including a hierarchy
- Connections to and through site

Subcommittee meeting #2 - March 15, 2016

1. Elements of Continuity including:

- Sustainability
- Art and community aesthetics
- Pathways
- Walls
- Lighting
- Corridor signage

2. Elements of Distinction, including:

- Land bridge
- Lid development

3. Endorsement of:

- Development of elements of continuity
- Development of elements of distinction

3. SDC recommendations on key project features, based on design intent communicated during validation and verification process

A fundamental step in the 2016 SDC and WSDOT consultation process was the development and verification of 8 design goals for this phase of the project. These design goals provided an important baseline for WSDOT and SDC as they evaluated and refined project designs for the Montlake Lid and related investments. These design goals are found in Page 11 and 92 of WSDOT's June 2, 2016 presentation to the SDC (Attachment B) and are listed here:

- Improve regional and neighborhood nonmotorized connections;
- Enhance transit experience and clarifies vehicular functionality;
- Create a practical solution to multiple needs;
- Restore and improve ecological systems and connectivity;
- Improve air quality and reduces noise;
- Produce safe and functional space for neighborhood and regional use;
- Bring human scale and community character to create distinctive spaces; and
- Form a memorable and layered gateway experience

The SDC supports these design goals, both in context

with this review and as a baseline for any project designs developed or refined following the RFP award. To be consistent with the SDC's recommendations and community expectations, any design refinements, updates or changes must be evaluated against these design goals. The successful implementation of these design goals ultimately benefit the variety of people that will interact, support and utilize these investments, including

- Nearby residents
- Transit riders
- Pedestrians/cyclists
- Recreational activates
- Drivers
- Regional users

Working with WSDOT, the SDC focused their review, deliberation and recommendations on advancing and refining the designs for these key project features:

- Designs for the West Approach Bridge South, or **WABS**, that mirrors and replicates key design features in the West Approach Bridge North or WABN;
- The **landbridge**, and its design features, that implements the Smarter Lid concept to create a gateway for Seattle and linkages in the City and regions pedestrian network;
- **Trail and path connections** linking the land bridge, the **local and regional trail** systems, and the Montlake Lid;
- **Edge treatments** between the **Montlake Lid**, the landbridge and adjacent residential neighborhoods, that buffers SR 520 impacts, while providing features that reknit neighborhoods divided by SR 520;
- **Edge treatments** between the Montlake Lid and **SR 520 drive lanes**, using landscaping and architectural features, to provide transitions between SR 520 and City streets;
- **Nodes** for recreation, transit and multi-modal connections that provide place making features for all users;
- The inclusion of **historic and cultural elements** that reflect the unique qualities of the place and its role at the intersection of residential communities, commerce and transportation;
- The quality and characteristics of **retaining walls** through the project, designed to reflect the 'nature meets city' concept in the use of texture, patterning, variation of forms, and as a platform for incorporating landscape features;
- Design of **guardrails** that enhance the user experience by responding to their location, and in their integration of features like lighting and natural materials; and
- **Lighting** that addresses a variety of user groups that is responsive to local conditions, including residents, recreation users and the travelling public.

The following provides specific details about the SDC

recommendations for these project features. These recommendations detail the basis for SDC support, both in their specific design intent and in design details that support the design concepts. Details and case studies that support the SDC recommendations can be found in Attachment B.

1. WABS

The Seattle Segment of SR 520 will complete the replacement of the existing SR 520 floating bridge systems. In 2014, WSDOT began construction of the first phase of this replacement program starting with the West Approach Bridge North, or WABN. The West Approach Bridge South, or WABS, is the second phase of this program. (See page 78 – February 4 SDC presentation in attachment B)

The SDC supports the completion of the WABS with the same design and design features included in the WABN, most notably in the use of the horizontal cross beam with base isolation bearing design for structural supports. This approach was developed for the WABN, in response to SDC consultations in 2012, and resulted in at least 40% reduction in costs due to decreased use of concrete. (Page 80 – February 4 presentation). While the SDC review of the WABS did not include pedestrian or bicycle features, it will have a four foot sound wall similar to that provided for the WABN. Designs for this sound wall should balance the needs of WSDOT top that address noise mitigation requirements while providing an opportunity to include design features that provide visual interest without creating driver distractions.

The SDC also evaluated an important design detail for the WABS – the inclusion of downspout pipes. The designs were important to the SDC, to make sure that the downspout designs contributed to the overall design aesthetic of the WABS. This included creating a boxed downspout that were placed and designed in a manner that provided visual continuity with the bridge piers. (See page 83 – February 4 SDC presentation in attachment B)

2. Land bridge and related details as a key element of nature meeting City

The importance of the land bridge as a defining feature of this project cannot be overstated. The SDC voiced its support for the overall 'smarter lid' concept in 2014 due to this key project element. The land bridge fulfills fundamental design principles of the 'smarter lid' concept that include:

- Nature meets city (*see figure 1*)
- Montlake Lid and related investments as part of a sequential gateway to the City; (*see figure 1*)
- A fundamental link between City nonmotorized paths and the regional trail system; and (*see figure*



Figure 1: 2014 site plan 'Nature meets City' (above), renderings of landbridge (below)

2 on page 8)

- A place that provides key views through the site to the west and towards Lake Washington to the east. (see figure 3 on page 9)

The key design characteristic of the land bridge is its curved form. This curved form is a direct response to WSDOT's development of the 'smarter lid' approach – a reduced lid that better responds to topography, restores north/south linkages, and reduces maintenance and operation costs without increasing environmental impacts. (see figure 1)

The curved form provides a fundamental gateway feature for people entering and leaving Seattle. The sense of gateway is established both in the horizontal expression of the curve as drivers enter the City and its supporting

structure. This requires that cohesive designs be instituted into all portions of the landbridge (the support columns, the undercarriage (soffit) of the land bridge, connections between the landbridge and structural supports, design features of edges facing westbound traffic, its appearance from the Montlake Lid, etc.) along with the land bridge itself. This will result in a unique and cohesive design statement that fulfills WSDOT's commitment to use the landbridge as a gateway experience for Seattle. (see figure 1)

The curved form responds to the form and design of the local and regional path and trail network, making key connections to and between these facilities that intersect on either side of the land bridge. The curved form also reflects, but is respectful to, the Olmsted Park system that

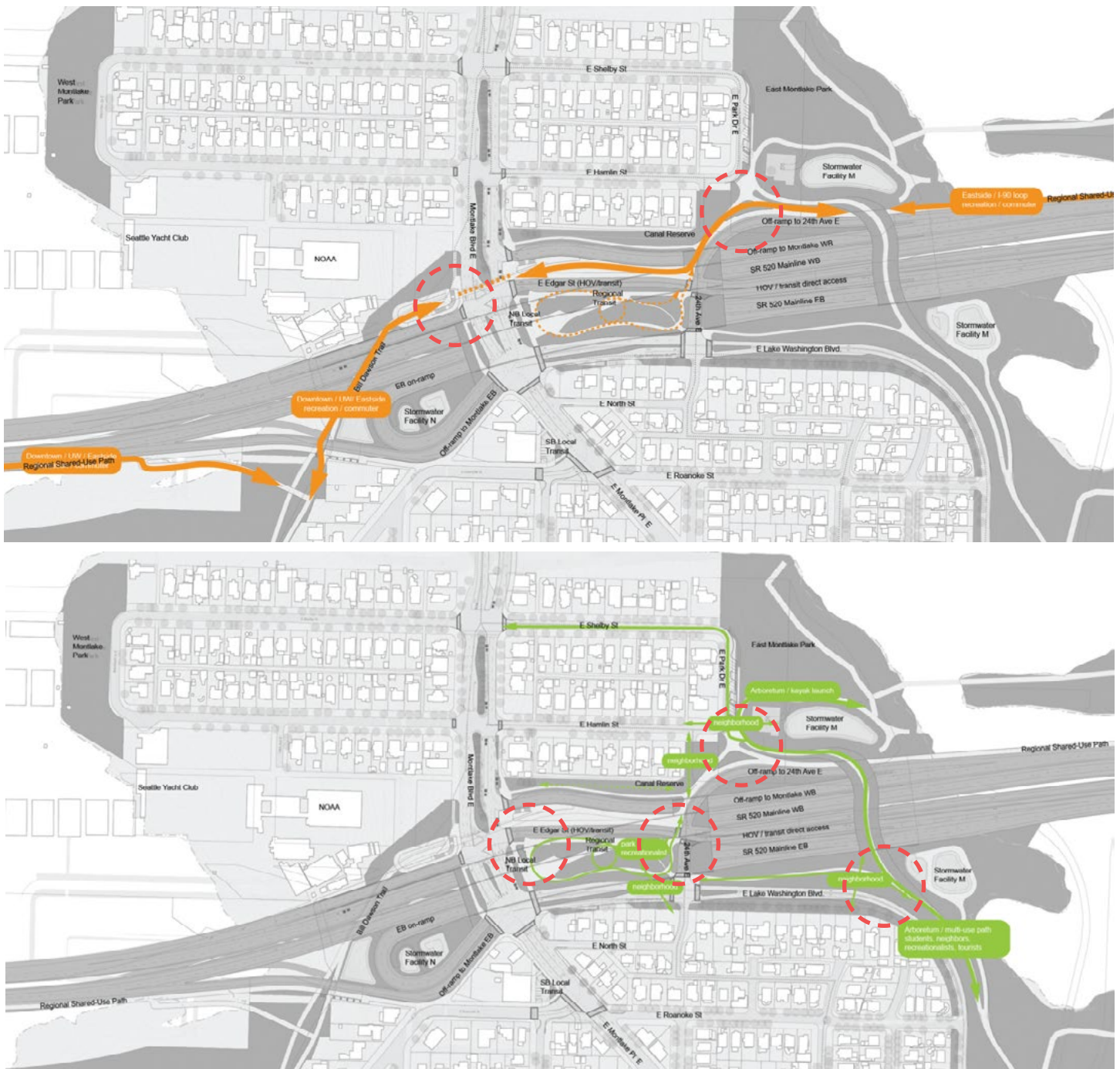


Figure 2: Regional (above) and local neighborhood (below) connections

it abuts. Specific design features that were integral to the SDC's support of this feature includes:

- A land bridge designed for current and future demand by pedestrians and bicycles;
- Incorporation of landscape throughout the land bridge including the exterior façades;
- A curved design that emphasizes its importance as a unique to the City as opposed to a piece of traditional highway infrastructure ;
- A hard surface pedestrian/bicycle path, following the curve of the landbridge, that accommodates users in a manner that does not result in conflicts between the two user groups, and is wide enough to

accommodate future growth in these user groups; (see figure 4)

- An outlook at the NE corner of the land bridge, at or near its apex, that provides a place for seating, views, landscaping, interpretive signage, and wayfinding. Paving materials in this area should be distinct from those used in the main pedestrian/bicycle pathways and use materials in a way that is reflective of the nature of the space, i.e. for people sitting, relaxing, or otherwise using the space as a respite from the adjacent pathway; (see figure 3 and figure 8 on page 10)
- Landscaped buffers on either side of the pedestrian/ bicycle path that provides screening, visual interest



Figure 3: Views from the landbridge looking west (above) and east (below)

to both people seeing the land bridge as a gateway as well as those using the land bridge. Native plantings should be highly utilized and prominent, including planting appropriate for its location and climate features in the immediate area (wind from the lake, sun exposure, etc.); (see figure 4)

- Material use that is designed with durability and longevity in mind, responds to demands from pedestrians and bicyclists and anticipates relative ease of maintenance and, when needed, ease of replacement; and
- Furniture (lighting, seating, safety features, etc.) integrated with the overall design of the land bridge that reflects the needs of all likely users, and includes sustainable materials and practice in their design, execution and maintenance.

3. Trail/path intersections on either side of land bridge

The land bridge provides important connections to the local trail system and the regional Shared Use Path (RSUP) system.(see figure 9 on page 11). The project designs reviewed and supported by the SDC focused on features that help user groups clearly identify and distinguish

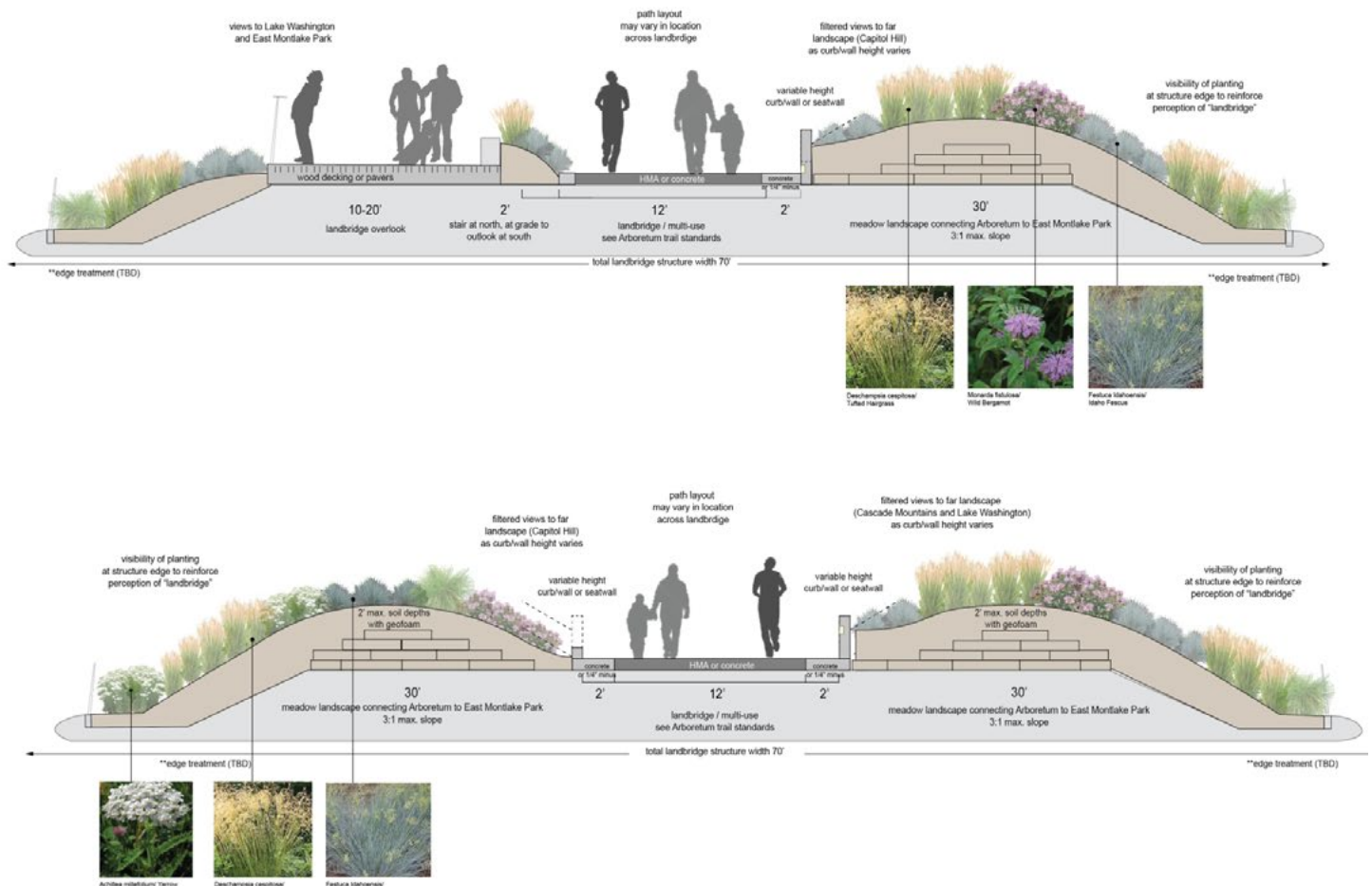


Figure 4: Proposed design of landbridge

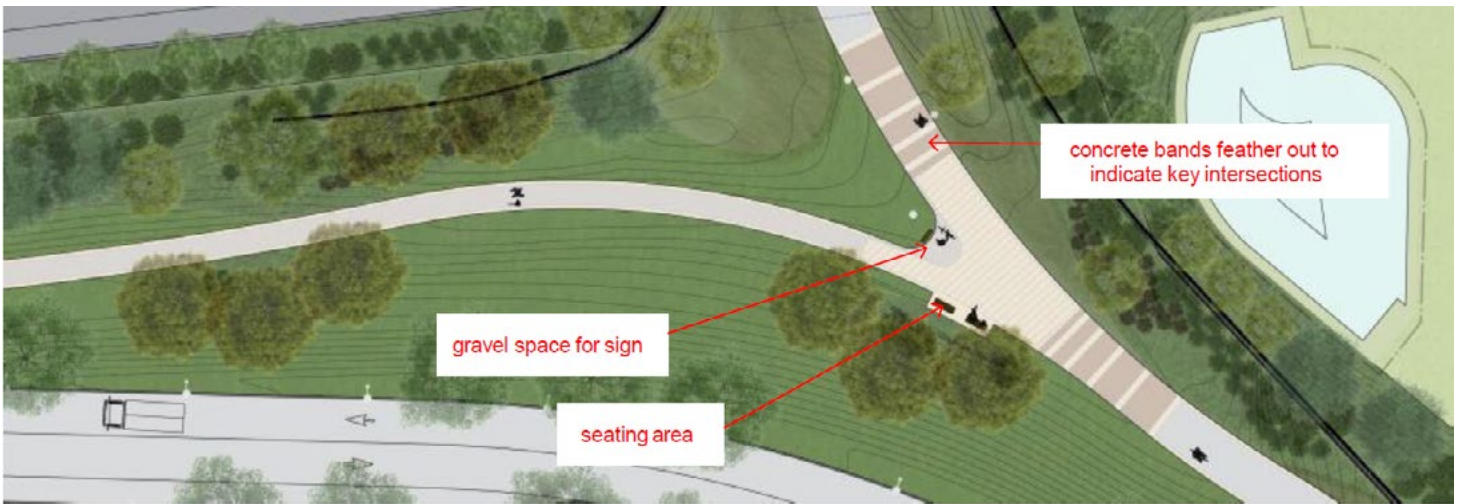


Figure 5: Olmsted bend and landbridge intersection

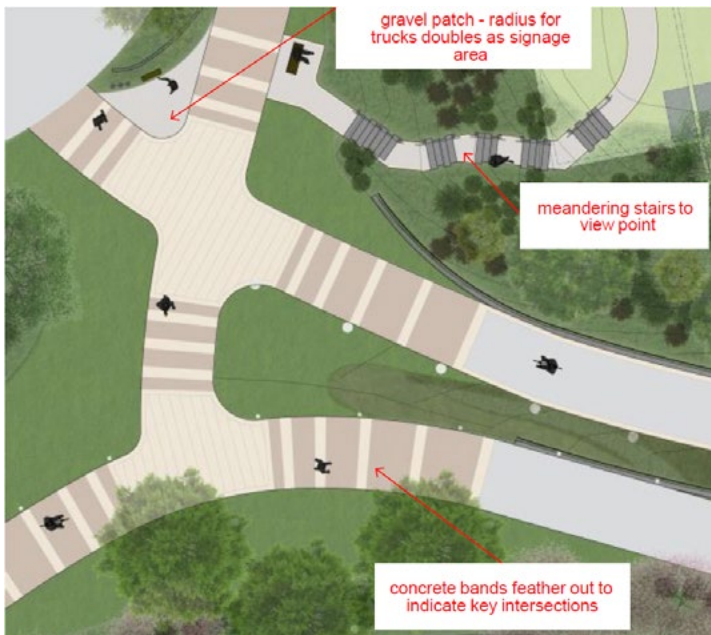


Figure 6: Regional pathway and landbridge intersection



Figure 7: Olmsted bend and landbridge intersection

between these two trail systems as people proceed to and from the land bridge. Design details must be implemented in a manner that provides clear wayfinding for all users – pedestrian, cyclists and recreational uses. Successful implementation also includes the use of paving materials, signage, landscaping that marks and not distracts from the change in pathways, signage, lighting, or a combination of these features. (see figures 5-7)

Of particular concern is the connection of the landbridge at its northern approach. At the northern end of the landbridge is a node that provides an intersection between regional and local trails, the adjacent neighborhoods, and the Lake Washington shoreline. As the landbridge curves from its apex down to the west, there is a significant change in grade as it meets this node. Developing a clear mixing zone that provides sufficient areas for wayfinding between the local and regional path is important, in particular where conflicts may occur between bicyclists and pedestrians arriving from either the landbridge or from connections to the north (see figures 1 on page 7 and figure 6).

4. Linkages to regional trail

As part of the overall vision for SR 520, WSDOT has

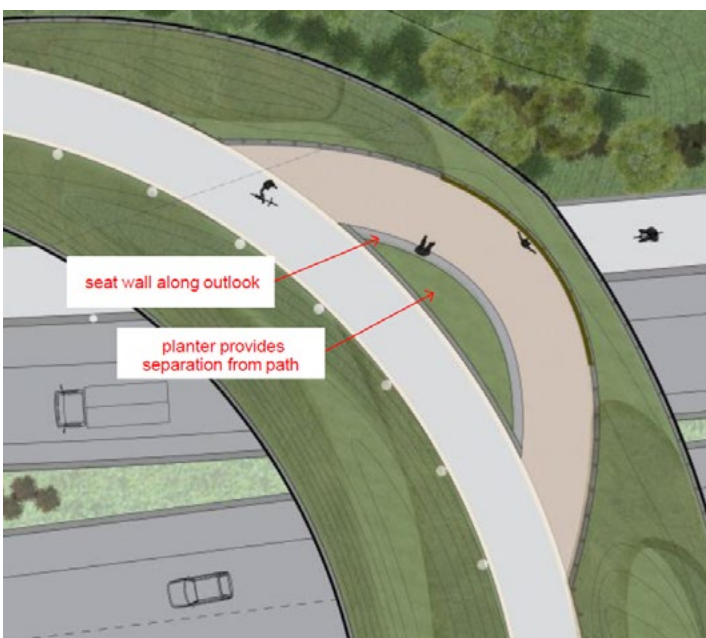


Figure 8: Gathering space and seating along landbridge

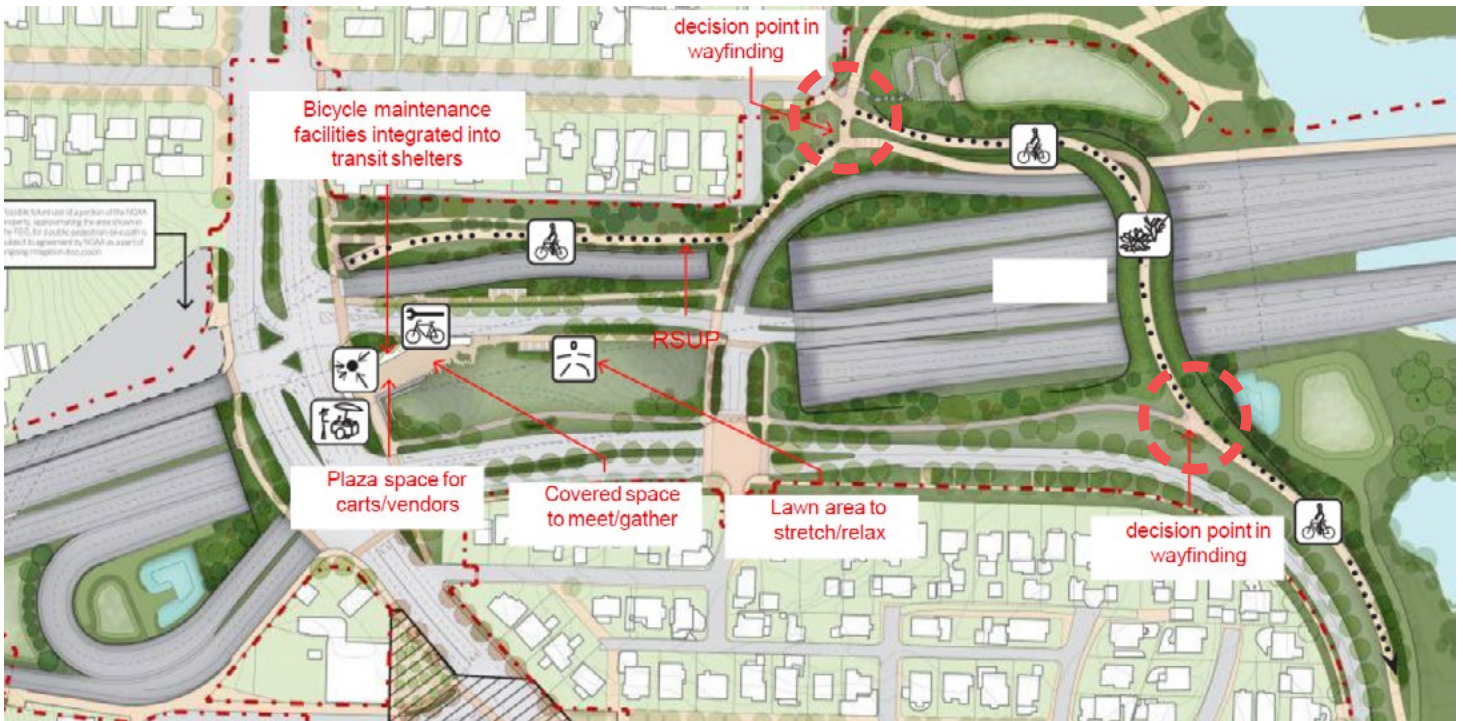


Figure 9: RSUP and local trail system intersections

committed to enhancements and upgrades to the Regional Shared Use Path (RSUP) system (see figure 2 on page 8). That system is being refined as part of this project, building on past investments in the first phase of the SR 520 floating bridge replacement (WABN). The Montlake Lid and the land bridge provide a crucial link to this system. The SDC supports the connections to the RSUP including connections at the intersection of E. Hamlin and Park Ave E in the Shelby Hamlin neighborhood, as well as its relationship to the Bill Dawson Trail at and under Montlake Blvd.

These connections link the RSUP to the local street system, the local trail and path system that runs north south and the land bridge (see figure 10 on page 12). To be successful, the RSUP connections must be executed in a manner that provides clear wayfinding for each user group (local users, regional users, etc.), includes design details that promote and enhance wayfinding to and between these systems, and creates clear mixing zones for pedestrians and bicyclists to transition between each trail system. The intersections and linkage to the RSUP should be enhanced with distinct paving materials, signage and landscaping to reinforce this place as distinct from other nodes or intersections at or near the Montlake lid. Landscaping, street furniture, lighting, signage, and amenities should be designed to enhance the intersection as a place to transfer between systems and to provide for people choosing to wait or otherwise locate at this intersection.

5. Extension of local trail through site

The Montlake Lid and land bridge sit at the intersection of an extensive local and regional trail system. In addition

to the investments related to the RSUP, the Montlake Lid and land bridge provides a crucial link to and through a variety of local paths and trail systems including:

- Lake Washington/Burke Gilman Loop;
- Arboretum multiuse path;
- Pedestrian networks on and surrounding the site, including the Olmsted system;
- Pedestrian networks through the site that extend to the various local trail and path systems;
- Connections to the Bill Dawson Trail to the west of the site; (see figure 11 on page 12)
- Pedestrian connections related to transit investments to the north and south; and
- Intersections at each place where key connections occur between each trail system and local streets

Design details that support linkages from the Montlake Lid and land to local trails will bolster the success of these investments. This includes:

- Pathways to and through the site designed for future growth of pedestrians and bicyclists;
- Pathway design details that mirror those on adjacent City pathways and trails;
- Durable materials that provide longer term assurance of lower maintenance costs; and
- Wayfinding consistent with local City trail standards that highlight the use of the lid or landbridge as a means to connect to other places

6. Edge treatments between neighborhood and lid

The Montlake Lid provides an opportunity to link two neighborhoods – Montlake to the south and the Shelby/

Regional Shared Use Path

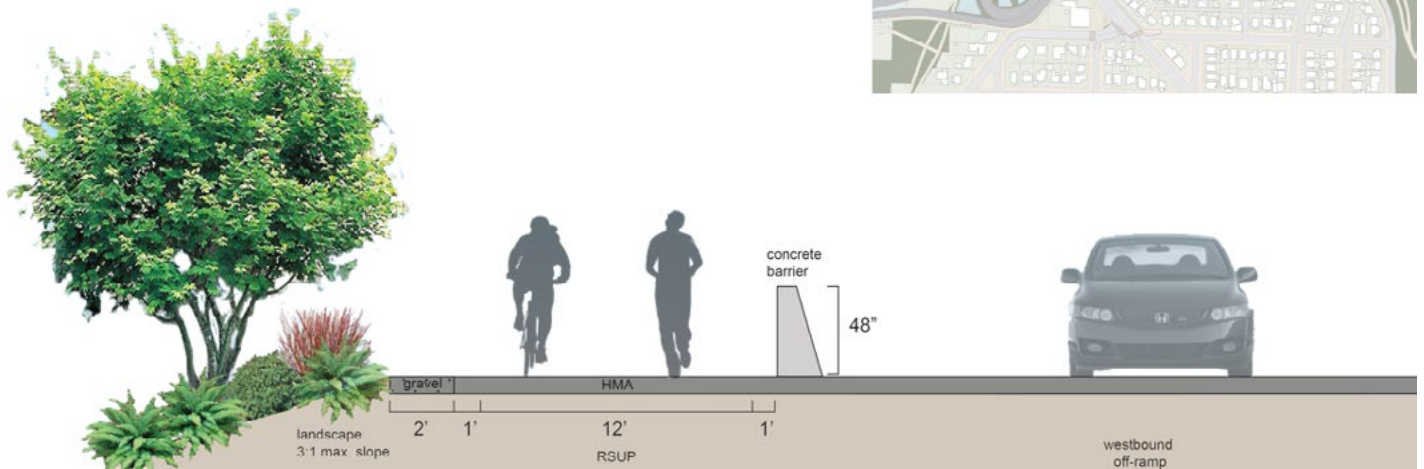


Figure 10: Regional shared use path along northside of SR520

Regional Shared Use Path Looking west



Figure 11: Regional shared use path north of Montlake lid; looking west

Hamlin neighborhood to the north – that were severed when the original SR 520 system was created. The edges of the Montlake Lid provide an important transition between the recreational opportunities provided by the lid and the residential character and quality of neighborhoods. The following is a more detailed discussion about two important edges – Lake Washington Blvd and the open spaces separating the Montlake Lid from the Shelby/Hamlin neighborhood.

a. Lake Washington Blvd.

Lake Washington Blvd has a unique place and role as a transportation link between Montlake and the SR

520 system and to neighborhoods to the south and east. It is also plays a fundamental role in the Olmsted legacy system. While much of the character and design treatment along Lake Washington Blvd will be subject to State and Federal historic preservation requirements, it is important to document key considerations and design treatments supported by the SDC. Three such important edges are discussed here.

- LWB from Montlake to 24th Avenue East

The segment between Montlake and 24th Avenue East is relatively flat; the elevation changes for the lid and land bridge begin east of 24th Avenue East.

E Lake Washington Blvd

Looking West near 24th Street



Figure 12: E Lake Washington Blvd lookg west

E Lake Washington Blvd

Looking West at open space



Figure 13: E Lake Washington Blvd at the Montlake lid; looking west

This segment of Lake Washington Blvd also includes a median with mounding and tree planting. Pedestrian paths will be located on either side of each roadway, that will include a berm between the road surface and the sidewalk. Accordingly, there are opportunities for views from the south side of Lake Washington Blvd through to the Montlake Lid. Plantings should reflect the historic character of the place and be designed to allow for views across and through the main portion of the Montlake Lid and its recreation areas. (see figure 13)

- LWB east from 24th Avenue east to its curve
There are significant grade changes along this segment of Lake Washington Blvd as it curves to the east and south of its intersection with 24th Avenue E. Grade changes rise away from the eastern edge of the Montlake Lid as it approaches the southern landing of the land bridge near the curve of Lake Washington Blvd. Tools to mitigate the visual and noise impacts of SR 520 are crucial as traffic emerges from under the lid to adjacent residential areas. The use of grade changes, berming, and vegetation will be important in reducing these impacts. Wayfinding, lighting, and vegetation will be important here. This is also an



Figure 14: Area between SR 520 and west bound exit ramp

obvious spot for street furniture that can be designed as a resting spot for people using either the trail, land bridge or transitioning between these systems. (see figure 12 on page 13)

b. Shelby/Hamlin neighborhood

North of the Montlake Lid is an open space area that abuts the Shelby/Hamlin neighborhood. This area is divided from the Montlake Lid by the entrance and exit ramps from SR 520 (see figure 14). This open space area is primarily available to pedestrians using either local trails or the RSUP, however some limited access is available to people through City streets to the north. In addition to providing open space, these areas act as a buffer between SR 520 ramps and the Shelby Hamlin neighborhood, and provides a key node between the RSUP/ land bridge and City Streets. This open space area also provides access to the East Montlake Park area east of the Shelby Hamlin neighborhood.

Design considerations important to this area include:

- Landscaping that balances the need for privacy and mitigating noise and visual impacts while allowing for views for enhanced safety and security;
- Retain and protect existing landscaping as part of any landscape buffers;
- Landscape and design treatments that reflect the various grade changes between City streets, the RSUP and City trails, with the goal of improving wayfinding and access through this area;
- Landscape and design treatments that address the relationship between the entrance and exit ramps from SR 520 as they abut the RSUP and City trails;
- Wayfinding and design cues that provide clear information for people transferring from the RSUP and trail system to City streets both within the Shelby Hamlin neighborhood as well as Montlake Blvd;
- Designs that take into consideration future investments in a second Montlake Cut crossing, including paving materials, signage, landscaping and other wayfinding tools; and
- Pedestrian improvements that provide clear linkages to the 24th Avenue right of way improvements to the south.

7. Edge treatments between the Montlake Lid and SR 520

The Montlake Lid provides an essential tool in mitigating many adverse impacts related to SR 520 including noise, air quality, and aesthetics. However, the 'smarter lid' approach resulted in a lid design that does not cover all portions of the SR 520, in particular portions to the east of 24th Avenue. In addition, the SR 520 entrance and exit lanes expose impacts of SR 520 on adjacent neighborhoods. Tools that the SDC supports in addressing edge treatments between the lid and the freeway include:

- Along Lake Washington Blvd, landscaping that buffers edges with exposed sections of SR 520 including trees and, where needed, landscape and

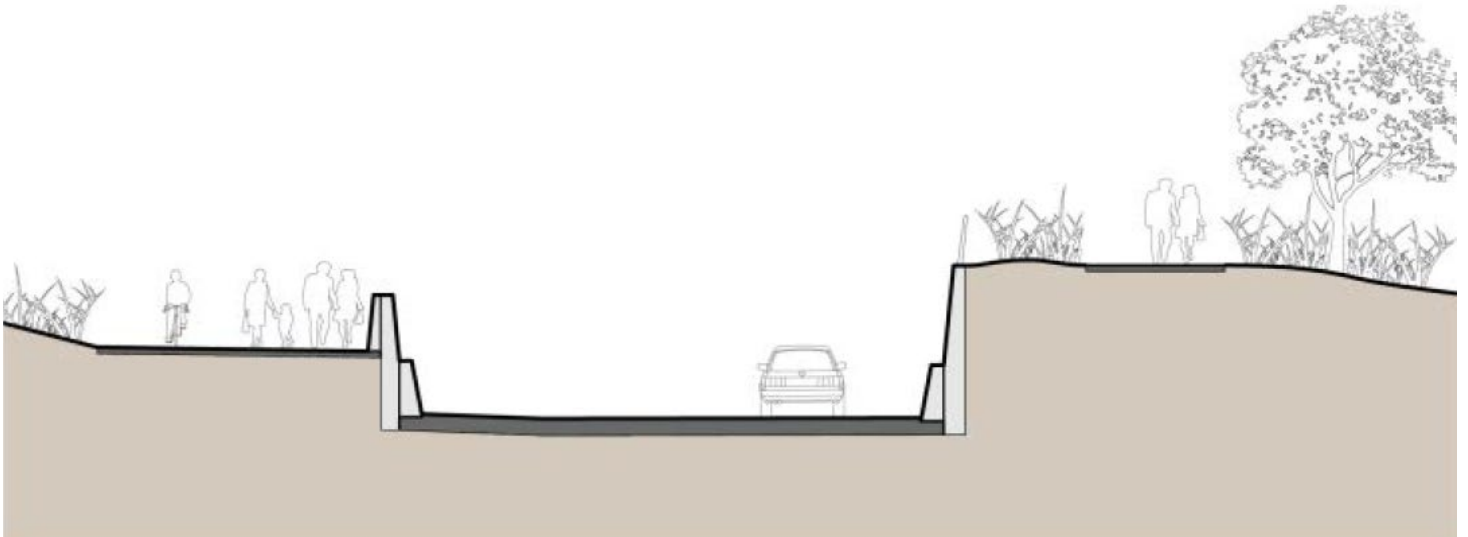


Figure 15: Section of west bound exit ramp onto Montlake Blvd

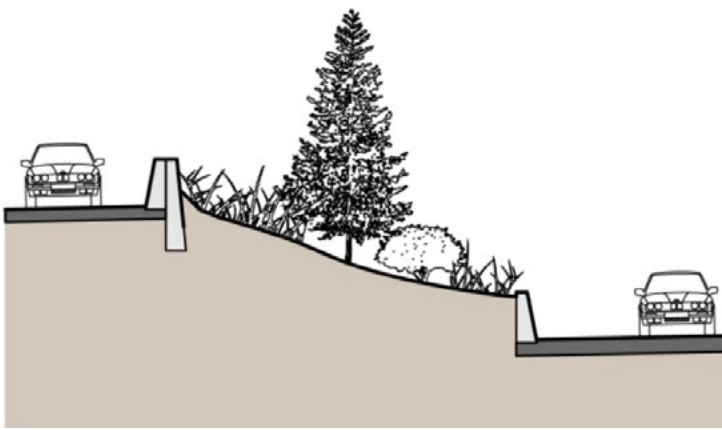


Figure 16: Section between SR 520 and west bound exit ramp

- furniture reflecting Olmsted legacy;
- Landscaping that takes into account grade changes between Lake Washington Blvd and the SR 520 mainline;
- Where SR 520 exit and entrance ramps abut open space or trail systems, landscape and wall treatments that provide visual cues to both drivers and pedestrian about potential conflicts when transitioning to City streets; (see figure 15)
- Landscaping and wall treatments along the SR 520 roadway that provide visual interest without creating visual distractions for drivers (see figure 16);
- Design treatments that blend the SR 520 investments with the character of local streets abutting the Montlake Lid and landbridge;
- Landscaping in median areas between exit and entrance ramps that provide additional screening and that are responsive to grade changes; and
- In areas with steep grade changes, in particular areas abutting neighborhoods to the north, using terracing through variation in wall size and materials and variation in landscaping materials (see figures 36 & 37 on page 23).

8. Nodes

Throughout the Montlake Lid and related investments, a series of distinct places will be created. In addition to the Montlake Lid as a place onto itself, these nodes are also located at the confluence of people and modes of transportation. The following highlights the SDC support and concern for the design of 5 such nodes:

- The NW corner of the Montlake Lid, at the intersection of Montlake Blvd and the westbound HOV lanes exiting SR 520;
- The SE corner of Montlake Blvd and Lake Washington Blvd;
- An outlook along the east side of Montlake Blvd, overlooking SR 520 lanes;
- The Montlake Lid, as a distinct place for programming and activities; and

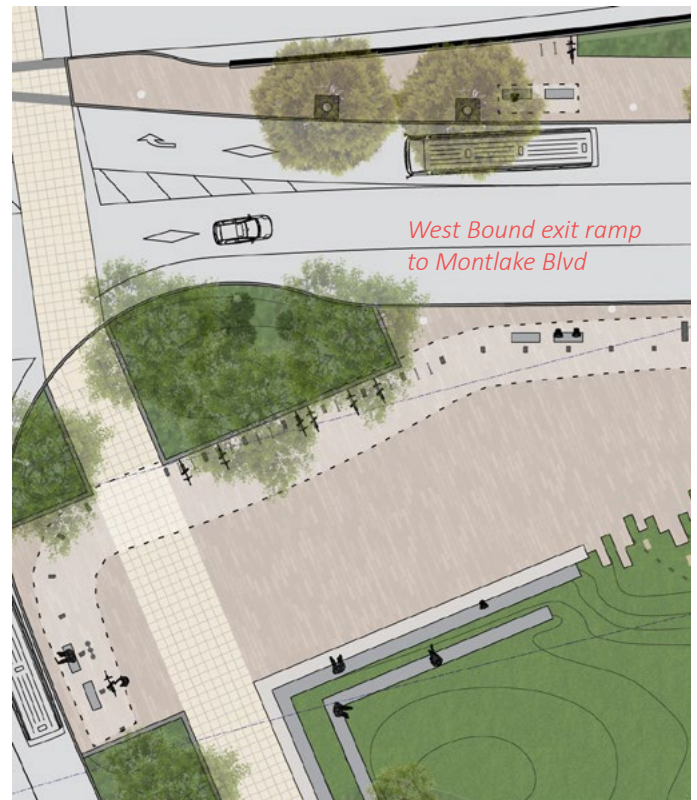


Figure 17: Urban trailhead plaza detail

- Small open spaces areas between 24th Avenue East and the eastern edge of the Montlake Lid

The following is a detailed discussion of each such node.

a. NW corner at Montlake Blvd and Westbound SR 520 lanes

The NW corner of the Montlake Lid, at the intersection of Montlake and the SR 520 HOV ramps, is an important gathering spot for the Montlake Lid. (see figure 17). This corner provides a transfer spot for local and regional transit routes to, from, and through Seattle. It also provides a key transfer point for those that switch to and between various transportation modes (non-motorized, transit and automobiles). Design features and treatments that respond to the needs of these user groups will be fundamental in the success of the place, as well as its role in creating a distinct place for neighbors, recreation users and the myriad of people who will interact with the space. Key features of this location includes:

- A multifunctional shelter that is designed and sited for transit riders while accommodating various programming (community events, farmers' markets, small scale retail, information kiosks, pedestrian gathering, viewings, etc.) that will be naturally attracted to this corner (see figure 18 on page 16);
- A shelter that is designed to link both sides of the plaza, connecting transit riders transferring between the bus connections at Montlake to



Figure 18: Urban trailhead plaza

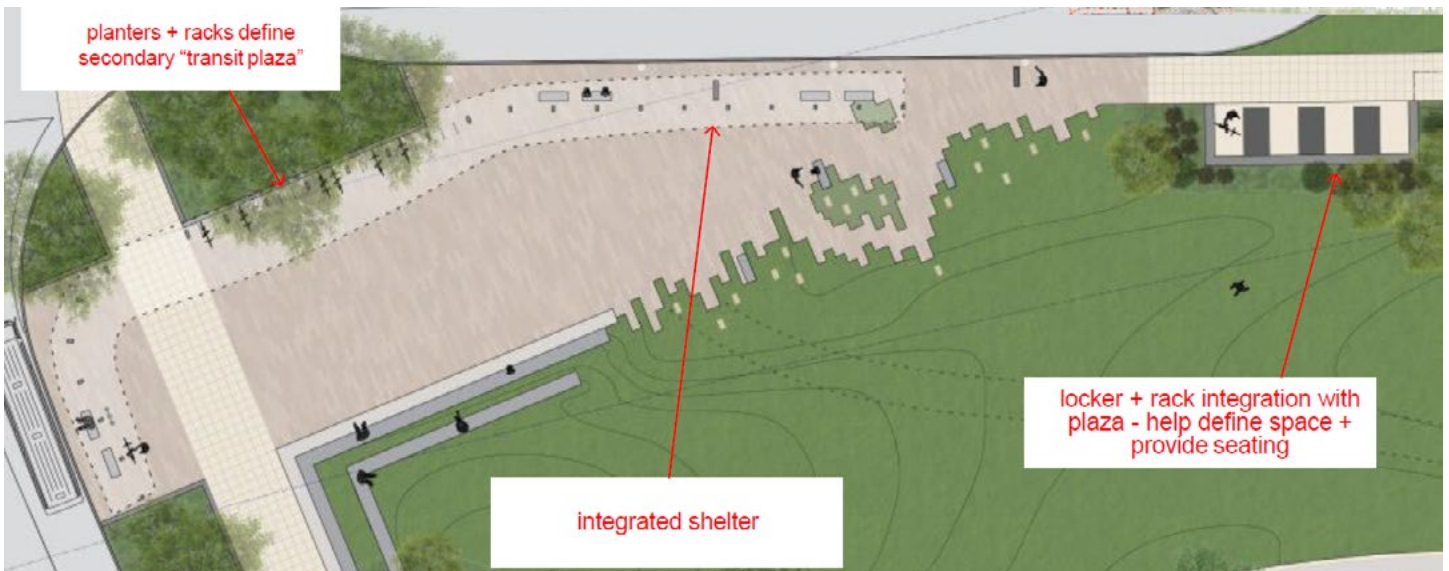


Figure 19: Urban trailhead plaza site plan

those connecting to HOV onramps

- Design and wayfinding features that facilitate transfers between transit routes;
- Landscaping, including plantings and hardscape surfaces, that provides an opportunity to implement 'nature meets city' concept through blending of materials and plantings (see figure 19);
- Lighting that is scaled for pedestrians and transit riders that is balanced against the need to light the areas as a major intersection between City streets and the SR 520 system (see figure 40-43 on page 24);
- Bicycle storage that is functional, compact, and designed for bicycle users, including bicycle maintenance activities; and
- Street furniture (seating, lighting, garbage receptacles, tree grating, fencing, etc.) that take into account user groups, transit activities, landscape features and other site activities. Integration of artistic or cultural references into these features will enhance their role in place making at this important node.

b. SE corner at Montlake and LWB

The corner of Montlake Blvd and Lake Washington Blvd provides a unique opportunity to provide a distinct place and identity as part of this project. At the intersection of two Olmsted-designed boulevards, it provides an important node for people interacting with the Montlake Lid, transferring to and from transit, and as a gateway to the Olmsted open space system (see figure 20). Its identity and function is also an important part of the local neighborhoods identity, evidenced by landscape details that are historic in nature and character. (see figure 21)

Key features at this node include:

- Retention of any existing historic features designed for the Olmsted system;
- Wayfinding features that enhance the historic character of the intersection;
- Paving treatments that connect the corners of the intersection and provide key wayfinding features for transit facilities to the southwest of the Montlake Lid; and



Figure 20: Montlake Blvd - Northbound



Figure 21: SE corner of Montlake Blvd and Lake Washington Blvd

- Retention of landscape features that provide distinction through species choices and their placement. and;
- Installation of new landscape features that enhance the overall identity of the Montlake Lid investments while respecting the Olmsted legacy.

c. Outlook at Montlake Lid looking west

As part of the SR 520 project, Montlake Blvd will be redesigned to clarify and improve movement through the corridor and in its connections to SR 520. As part of this work, an outlook has been proposed west on Montlake Blvd, across from the Montlake Lid and between SR 520 access ramps. This gathering place and viewing area provides a key resting place for pedestrians, transit riders, and people using the local and regional trail system. To enhance this place, important design features include:

- A plaza area that is aligned to take advantage of territorial views of Portage Bay; (see figure 22)
- Opportunities for visual connections across the Montlake Lid to the outlook area on the landbridge



Figure 22: Looking west on Montlake Blvd overlook

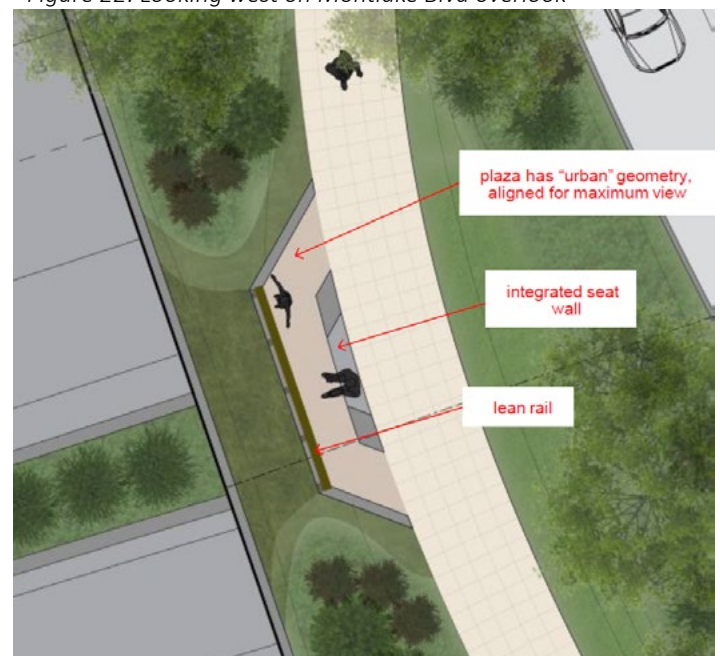


Figure 23: Western edge of Montlake lid overlook

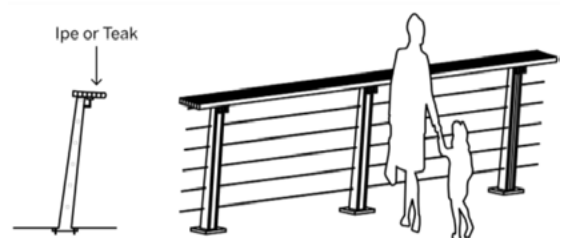


Figure 24: Lean rail detail

• A

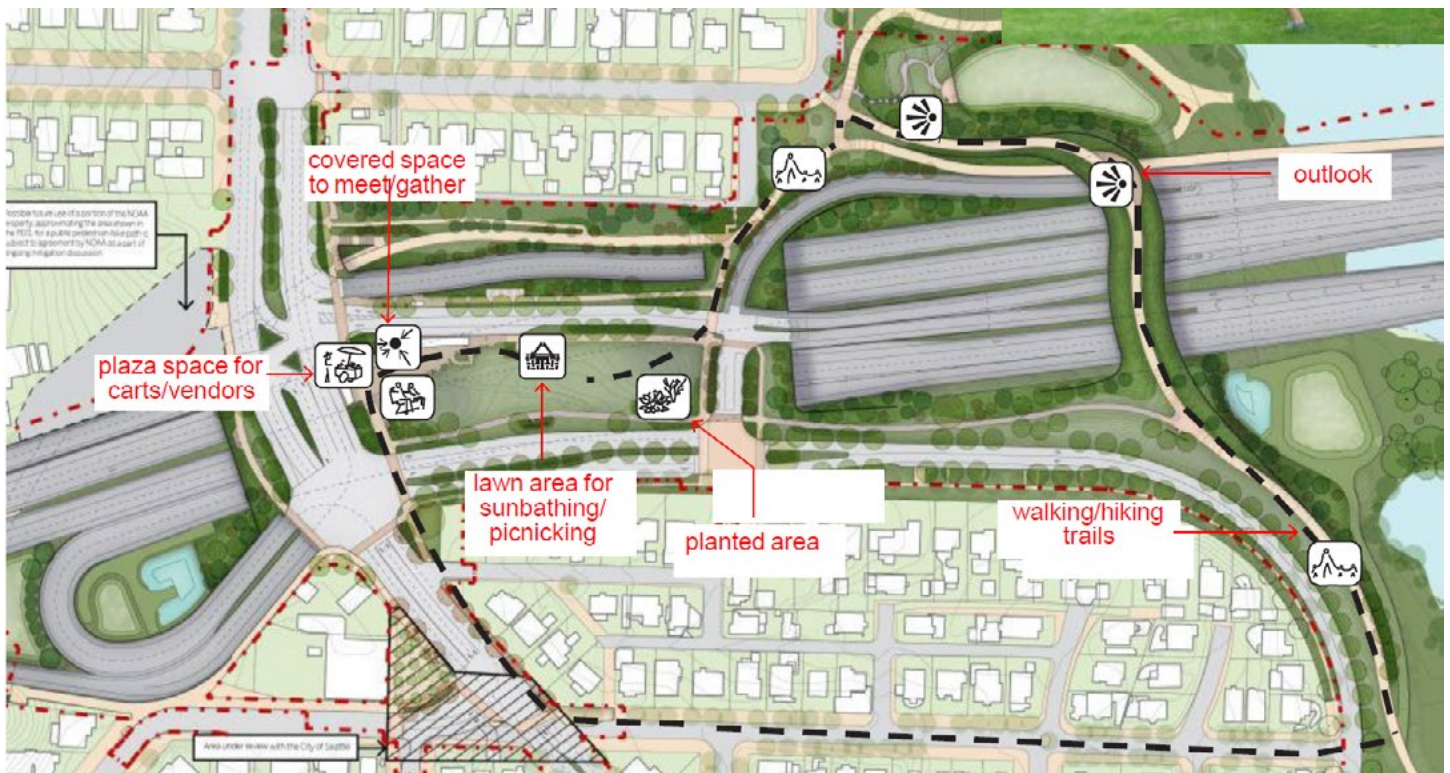


Figure 25: Proposed programming for Montlake lid

- plaza area that is distinguished from the sidewalk system through integrated furniture, lighting, hardscape features and other place making design features and tools; and (see figure 23 on page 17)
- Street furniture (railing, seating, etc.) that support the use of the place for territorial view of Portage Bay. (see figure 24 on page 17)

d. Lid with a variety of programming

The Montlake Lid provides a unique opportunity to provide a variety of programming opportunities and open spaces. The Montlake Lid will serve a variety of users (neighborhood residents, transit riders, pedestrians/cyclists, recreational activities, automobile drivers, regional users, etc.) and must be designed and improved to support those user groups. The SDC supported concept designs that demonstrated programming opportunities for a variety of users and events. The designs for the lid and its implementation must be done in a manner that supports a variety of user groups and the activities associated with their use of the space.

1. For neighborhood groups, design features that include:
 - A large lawn designed to take into account topography, environmental conditions (sun, wind, etc.) and view opportunities; (see figures 25-27)
 - Planting details that support its role in the City's Olmsted network;
 - A covered plaza area, at or near the NW corner

of the lid, that provides opportunity for events for neighborhood residents or other user groups;

- Hardscape areas that provide seating and programming opportunities; and (see figure 19 on page 16)
- Street furniture (seating, lighting, etc.) that are integrated into the landscape designs

2. For transit riders, design features that include

- A shelter area, as described in subsection a. above, for transfers and waiting; (see figure 18 on page 16)
- State of the art transit ride information, including real time tracking of bus arrival and departures;
- Wayfinding information to link to other transit facilities, including Sound Transit rail and offsite transit connections; and
- Areas dedicated to needs of transit riders that include short-term or small scale retail spaces for kiosks, carts and related infrastructure. (see figure 19 on page 16)

3. For bicycle riders and those using the space for recreational activities, design features that include:

- Infrastructure that includes bicycle storage and repair areas; (see figure 28 on page 20)
- Wayfinding to and between local and regional trails;
- Street furniture that support short term bicycle stands or other similar features; and
- Storage areas that provide access to onsite

Neighborhood Open Space

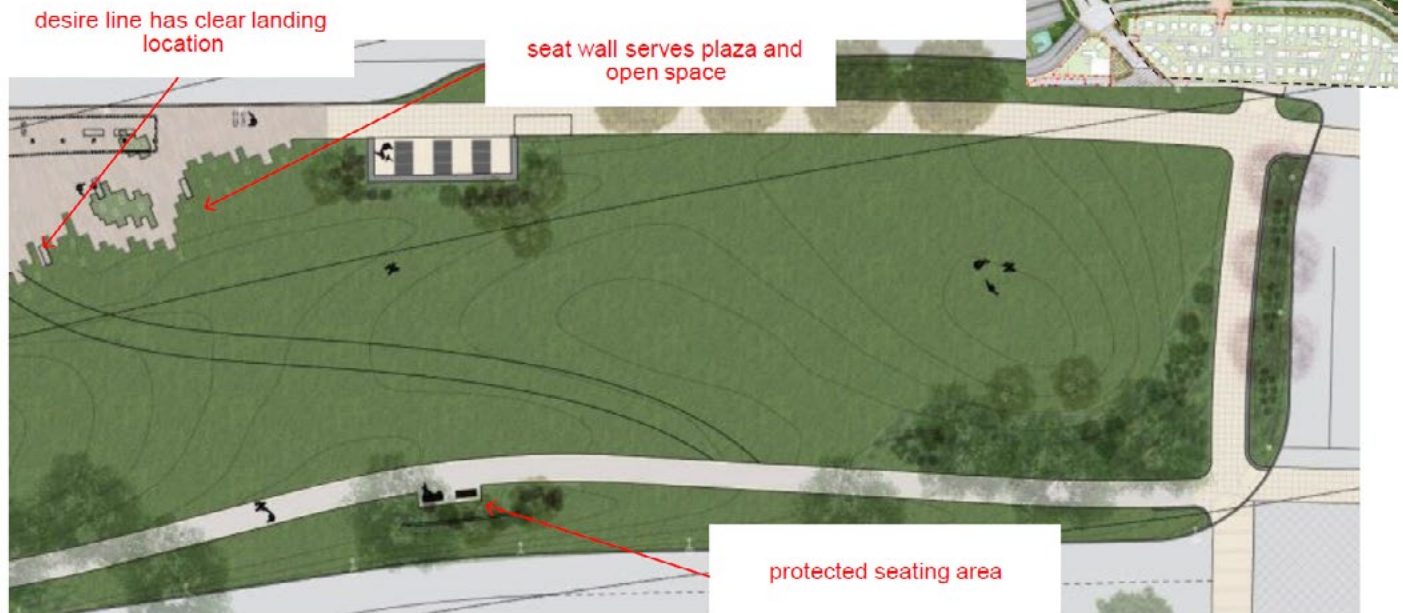


Figure 26: Neighborhood open space



Figure 27: View looking east from Montlake Blvd
recreation activities.

the land bridge, this area has a unique opportunity as a distinct place within the overall project. Design features to enhance this place as part of the larger Montlake Lid include:

- Developing and continuing the local path system through the space;
- Using street furniture (seating, lighting, etc.) to attract users;
- Evaluating the potential as an off-leash area; (see figure 29 on page 20)
- A place to include historical or cultural programming; and
- Designs that promote or enhance its role as a gateway to and from the City

4. For automobile drivers, design features that include:

- Drop off areas related to transit stops
- Where feasible, on street parking that allow for people to drive to the lid to use the open space areas; and
- Wayfinding that is designed to reduce potential automobile/pedestrian conflicts

e. Area between 24th Ave and eastern edge of lid

East of the 24th Avenue/SR 520 off ramp is a small open space area created by the orientation of 24th Avenue East, Lake Washington Blvd to the south, and the east edge of the Montlake Lid. In 2014 the SDC supported designs that enhanced the size, visibility and function of this open space. While much of the SDC review of the proposal looked at the overall Montlake Lid and

9. Inclusion of, or reference to, historic and cultural elements in place making as well as in selection of materials and street furniture

The project site and its adjacent areas have historically sat at the intersection of transportation, landscape and commerce. Indigenous people used the area around the Montlake Lid as a transportation route between Lake Washington and Portage Bay and surrounding settlements. European settlers also realized its value as a means to transport goods between Lake Washington, Portage Bay and Elliott Bay. This area and its role in commerce and transportation increased through technical advances including the Montlake Cut, Montlake Bridge, the Olmsted Plan, and in land use development to the north and south including University of Washington and the adjacent residential neighborhoods.

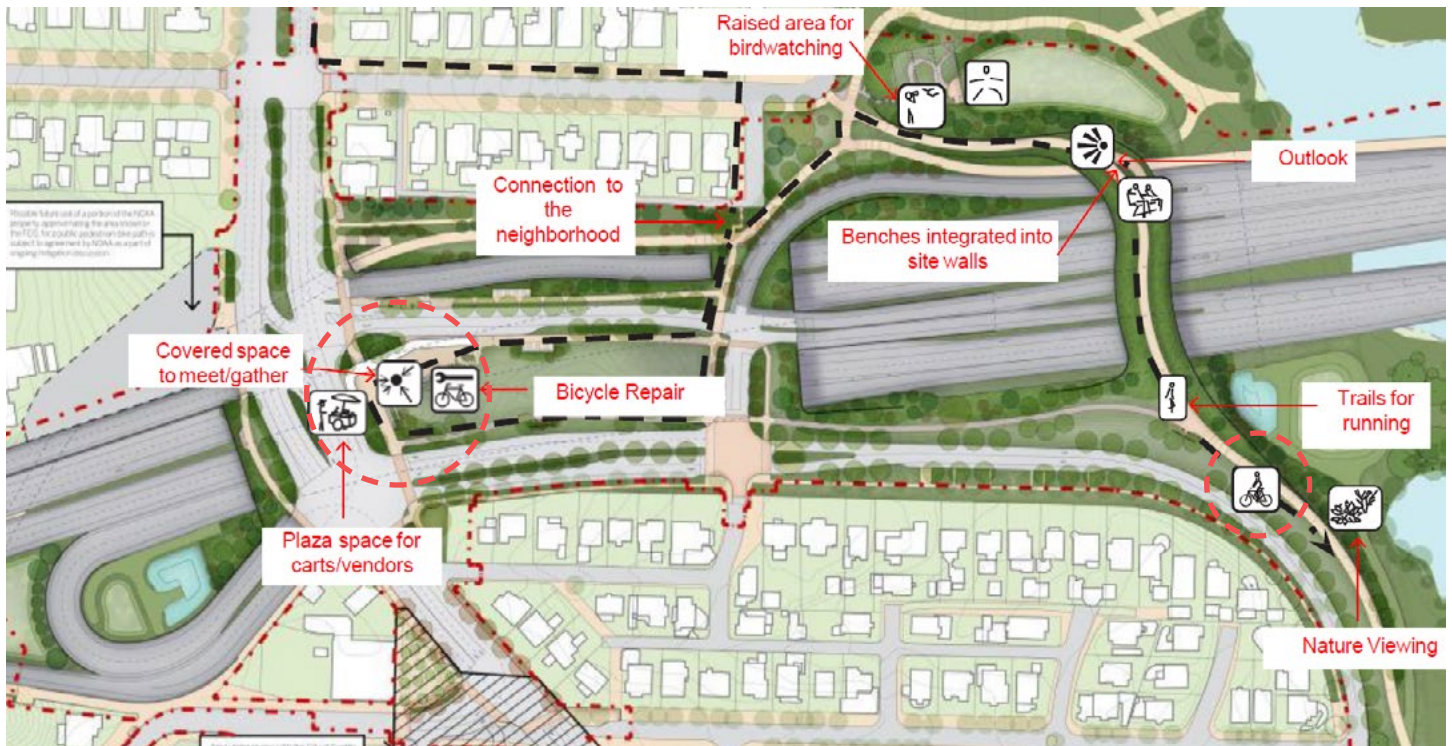


Figure 28: Proposed active programming



Figure 29: Proposed off-leash area

This area and its role in transportation and commerce intensified with the creation of the current SR 520 floating bridge. This intensification created many opportunities but also created the fractured conditions that separated the Montlake and Shelby/Hamlin neighborhoods.

The SR 520 project has a unique opportunity to infuse historical and cultural references that are unique to this area, including references to the cultural and activities of both indigenous people and later settlers. Following consultation with historical advisors from both Indigenous

cultures and European institutions, include:

- Incorporation of interpretive signage that highlights Indigenous and European settlement history;
- Use of natural occurring geography for wayfinding, street furniture or other placemaking features; (see figure 30)
- Reuse and repurposing of existing manufactured materials for street furniture, retaining or screening walls, paving materials, etc., along with accompanying interpretive information on its



GEOLOGIC HISTORY/ REMNANTS: erratics and other stone elements



CULTURAL: hand-crafted texture adzed patterns elements, refined Pacific NW crafts, craftsman



RECENT-HEROIC: urban erratics cut pieces of the hollow columns and 520 structure



CULTURAL: oars marker pole shapes, pattern element



RECENT-HEROIC: urban erratics 520 structure repurposed concrete

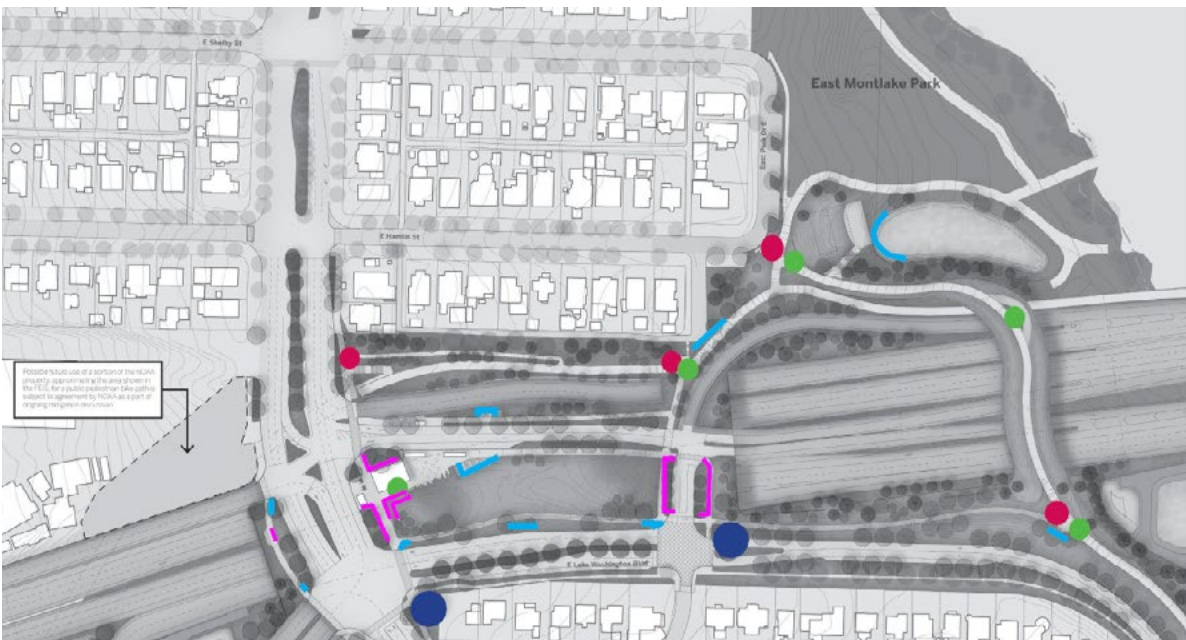


CULTURAL: urban erratics Montlake neighborhood history - stair/ porch detail recalled on site, other small residential architectural "details"



Interpretive Signage Complementary to Arboretum system

Figure 30: Examples of historic and cultural elements



- System Map/Interpretive Signs
- Urban Erratics: Cultural History
- Lake Washington Boulevard Stone transition features
- Site Wall Repurposed concrete from 520 demo
- Site Wall Repurposed concrete from 520 demo

Figure 31: Interpretive elements concept plan

former use;

- Incorporation of Indigenous or European cultural symbols or references into street furniture, wayfinding, paving materials, gateways, art features and in key nodes for recreation or transit; and (see figure 31)
- Replication of domestic architecture details (stoops, stairs, lighting, materials, roof features, etc.) into

landscape or structures.

10. Character and surface of retaining walls, including terracing

Retaining walls will figure prominently through the project and will be used in a variety of places including:

- Adjacent to sidewalks due to grade changes

associated with the Montlake lid and the land bridge;

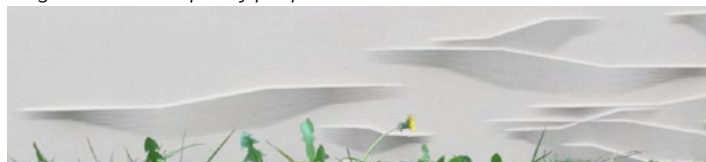
- Between the main SR 520 drive lanes and adjacent streets and open spaces that are above the SR 520 road surface; and
- As a way to buffer noise and other environmental impact;

The retaining walls for the project will be a visible and prominent architectural element. The retaining wall systems are a logical location to implement the 'nature meets city' concept due to their visual prominence, locations in relationship to adjacent neighborhoods, and the design opportunities they offer to those driving in this corridor. Design details should be applied to enhance the quality and characteristics of retaining walls through:

- Incorporating tactile forms (scoring, patterning, repetition of forms, etc.), with attention paid to how users (pedestrians, transit, autos, etc.) interact or experience features (from a distance, through close vision or touch, at high speeds, at walking or biking speeds, etc.); (see figures 32-35)
- Integrating vegetation with retaining walls to enhance the quality and character of the walls, in support of the 'nature meets city' concept, and to provide screening;(see figure 36)
- Inclusion of a design techniques to create distinction between various retaining wall systems, in particular visual cues when transitioning between the SR 520 mainline up to City streets (see figure 37); and
- Innovation in form and design through the use of
 - gabion walls (see figure 38),
 - artistic features,
 - the reuse of materials,
 - incorporation of historical and cultural references, or
 - incorporation of natural materials in fabricated



Figure 32: Example of proposed wall texture

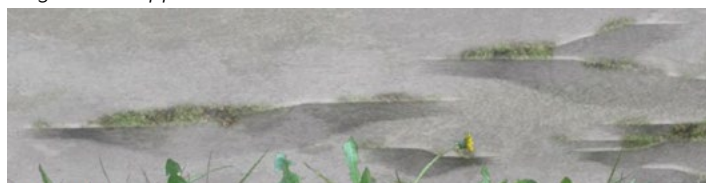


Detail Elevation



Full Height Wall Elevation

Figure 33: Upper wall texture detail



Detail Elevation



Full Height Wall Elevation

Figure 34: Upper wall landscaping detail

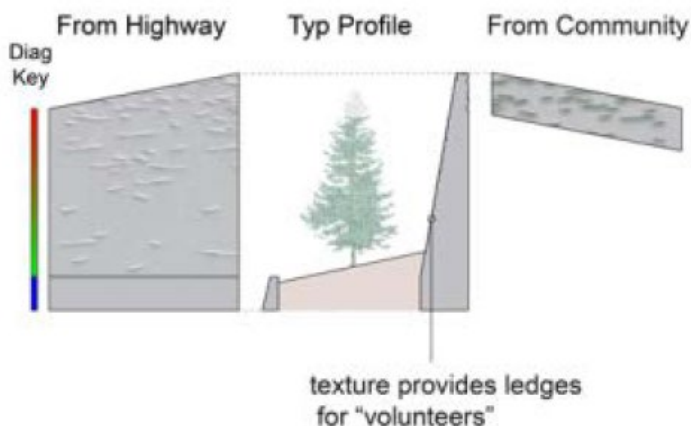
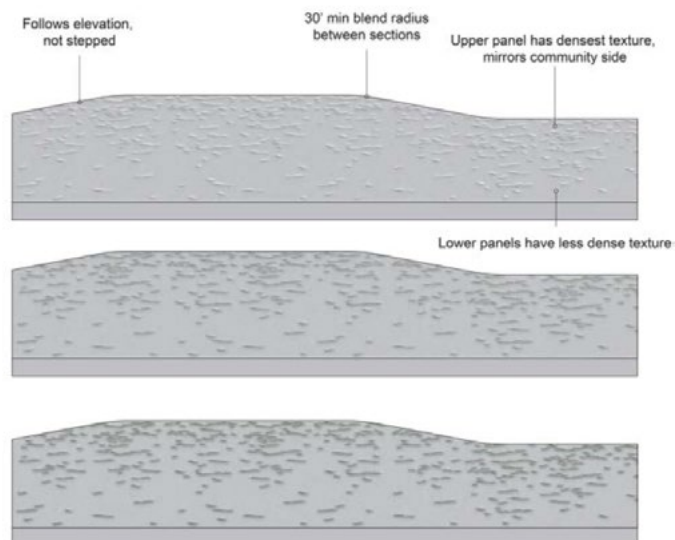


Figure 35: Wall texture diagram (bottom left) and detail (bottom right)

systems

11. Guardrail design

Guardrail designs continue to be an important element to the success of the project designs. As the SDC observed in their previous reviews, they are used extensively throughout the project. Issues to consider when designing and installing guardrails include:

- Including lean rails in locations at viewing areas; (see *figure 39 on page 24*)
- Designs that reinforce unique attributes of any space where they are located (over water, near traffic, adjacent to resting areas, etc.);
- Designs that protect people at edges of transportation network;
- Designs that reflect needs of user group (pedestrians, bicycles, etc.); (see *figure 39 on page 24*)
- Integration, where feasible, of lighting, seating, etc.;
- Integration of natural materials where feasible and where maintenance is not an issue;
- Customized designs based on unique user groups; and
- Inclusion of artistic or cultural reference or interpretive elements.

12. Lighting

Lighting for this project poses several challenges. Lighting must serve a variety of functions (safety, security, wayfinding), be responsive to local conditions (residential neighborhoods, historic character), reflect needs of various user groups (residents, transit riders, recreational activities) while meeting City and state technical standards. Lighting concepts of particular importance for this project includes:



Figure 36: Example of terraced landscaping

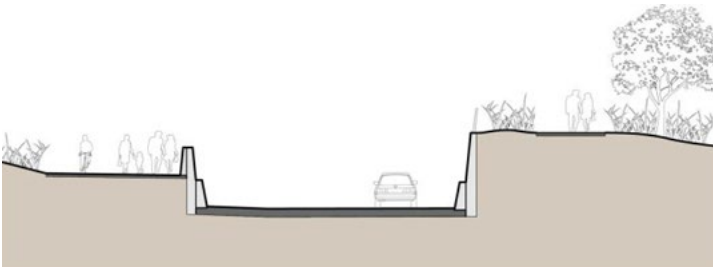


Figure 37: Section of west bound exit ramp onto Montlake Blvd



Figure 38: Location of gabion walls

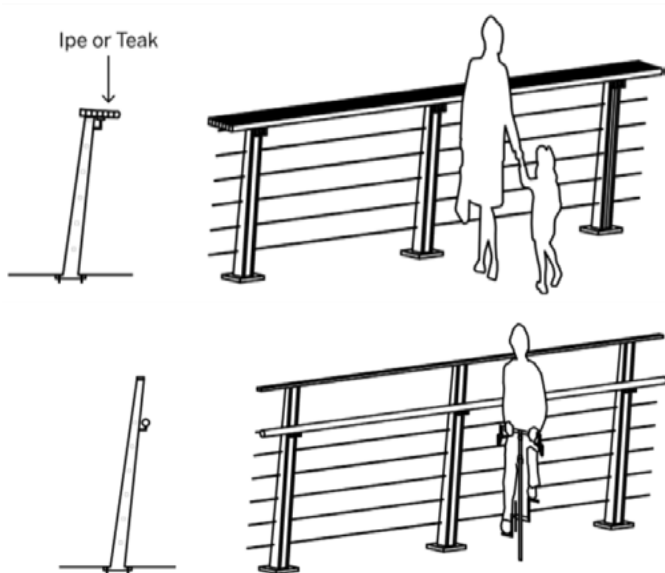


Figure 39: Lean (above) and bike (below) rail detailing

Lighting Family

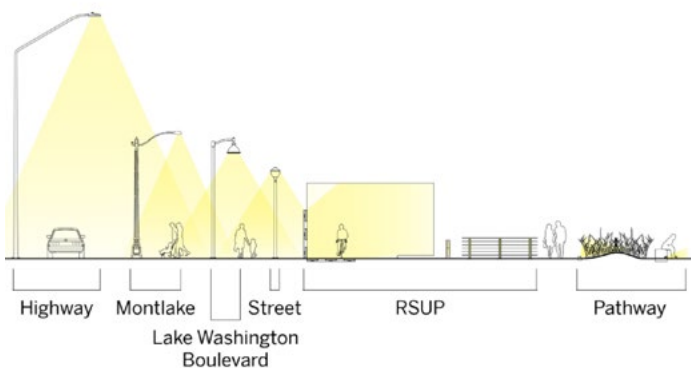
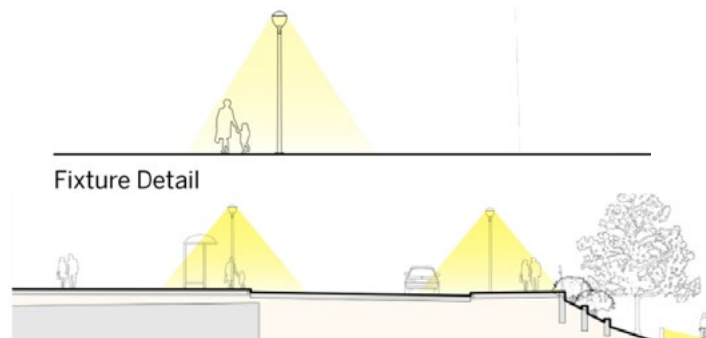
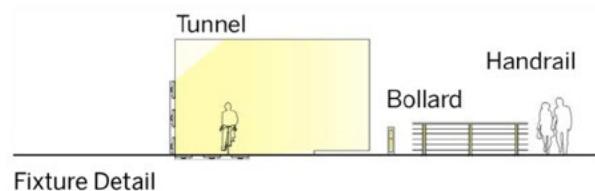


Figure 40: Proposed lighting hierarchy



HOV/Transit Access Section

Figure 41: Proposed street lighting



Bollard Lighting on the Bill Dawson Trail

Figure 42: Proposed lighting along RSUP

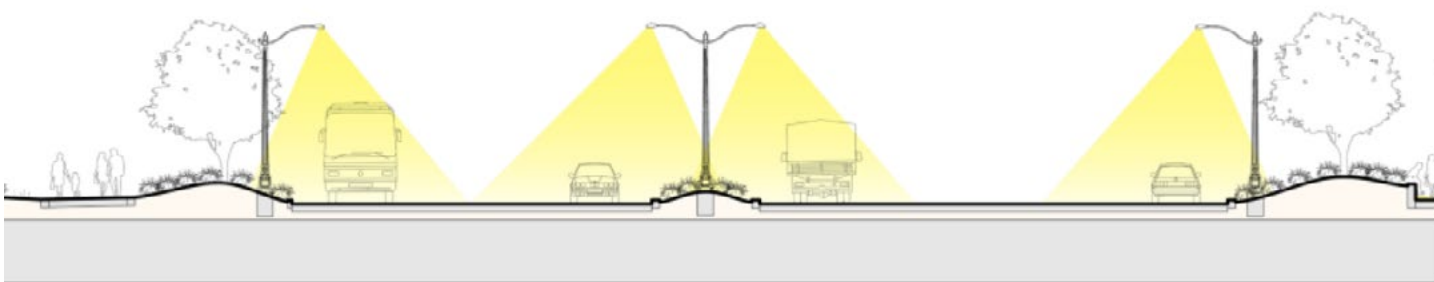


Figure 43: Lighting along Montlake Blvd

- Hierarchy of lighting based on mode of travel, community considerations, needs of user groups and reduction of negative impacts on residential uses; (see figure 40)
- Lighting at intersections between local streets and SR 520 interchanges that minimizes impacts on surrounding uses;
- Lighting that distinguishes and addresses needs for pedestrians, bicyclists, transit riders and those that use the space; (see figure 41)
- Lighting that addresses potential safety and security concerns in areas of reduced visibility, at intersections or modes or in locations that reflect community desires (see figure 42)
- Lighting that reflects community interest in their design, height and placement; and
- Lighting that reflects historic considerations related to streets and structures; (see figure 43)

4. Next Steps

Moving forward, the SDC anticipates ongoing and fruitful communications with WSDOT throughout the RFP selection process. The SDC can be a valuable resource in WSDOT through interview panels and the actual selection process. Following the award of the design/build contract, the SDC looks to create a collaborative relationship with the successful bidder to ensure that the design intent and details developed for this phase of the project are successfully implemented.

Sincerely,

Michael Jenkins
Director, Seattle Design Commission

Attachment A



Ed Murray
Mayor

Diane Sugimura
Director, DPD

Marshall Foster
Planning Director, DPD

Osama Quotah, Chair

Shannon Loew, Vice Chair

Bernie Alonzo

Brodie Bain

Lee Copeland

Thaddeus Egging

Megan Groth

Martin Regge

Ellen Sollod

Ross Tilghman

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MEMORANDUM

To: Honorable Mayor Ed Murray
Seattle City Councilmembers

From: Seattle Design Commission

Date: September 17, 2014

Subject: Seattle Design Commission recommendations
for the Portage Bay Bridge and Montlake Lid
components of the SR 520 Replacement Project

Dear Mayor Ed Murray and Councilmembers:

The Seattle Design Commission (SDC) is pleased to provide our comments on the conceptual design development and urban integration of two key elements of the State Route (SR) 520 project: replacement of the **Portage Bay Bridge** and the creation of a structure over portions of SR 520 near Montlake Blvd E (**Montlake Lid**). This memo provides the Mayor and City Council with the SDC's recommendations on questions of urban design for these two critical components of the SR 520 project.

The Seattle City Council requested the SDC's review of these project elements as part of their 2012 Resolution (Resolution 31427) concerning this key transportation corridor. This resolution included a request that SDC review these two project elements before the Washington State Department of Transportation (WSDOT) proceeds with funding requests to the Washington State Legislature. WSDOT has indicated that they are ready to proceed with funding for these project elements in the 2015 legislative session.



September 17, 2014

SDC recommendations for the Portage Bay Bridge and Montlake Lid

To facilitate the SDC's review, WSDOT and City staff provided three briefings to the full SDC and five additional workshops with an SDC subcommittee. To support this work, WSDOT engaged a roster of consultants in urban planning, urban design, landscape design, and bridge design to illustrate and explain design options for both project elements. At the presentations to the full SDC, interested agencies and citizens also provided comments for the SDC to consider during our deliberations.

We understand that WSDOT has adopted the Legislature's *Least Cost Planning* approach for infrastructure funding. The SDC's composition of design, architecture, and engineering professionals allowed for a unique forum to balance conceptual decisions that promote quality design with fiscal analysis of each design alternative.

Endorsement of the Project Vision and Goals

In 2012, WSDOT developed a framework outlining their vision and goals for the SR 520 corridor in Seattle. That framework, also supported by the SDC, established a broader urban design framework beyond SR 520's role as a key regional transportation corridor. In 2014, WSDOT engaged the SDC to further define a vision and goals that specifically address the Portage Bay Bridge and Montlake Lid. The SDC continues to support WSDOT's visions and goals for this corridor. Given the complexity of these projects, their impacts at both the neighborhood and regional scale, and the importance of interdepartmental collaboration to achieve success, WSDOT's vision and goals should be the reference point for evaluating and proceeding with funding options for both the Portage Bay Bridge and the Montlake Lid.

Endorsement of and Recommendations for the Design Process

The SDC greatly appreciates WSDOT staff and their consultants for their focused design process, highly collaborative engagement, and extensive reviews with the SDC. The quality of WSDOT's presentations added much depth to the process. The SDC also appreciates the opportunity to have been part of the consultant selection for key projects within the SR 520 corridor. This collaborative approach will continue to benefit the project and is invaluable for our support of this important transportation infrastructure. We look forward to WSDOT's continued consultation with the SDC as it develops future RFPs, selects designers, and contracts projects in the corridor.

We particularly appreciate WSDOT's commitment to extend the regional multi-use trail across Portage Bay. The SDC advocated strongly for this important feature during the 2012 Seattle Community Design Process. As we revisit the Portage Bay segment of the corridor, we again thank WSDOT for their earlier work on reducing lane widths and providing flexible lanes to minimize the overall width of the bridge.

Moving forward, we hope that WSDOT will continue to engage the City of Seattle. With DPD and SDOT actively involved in design explorations, superior solutions can emerge that stitch the

September 17, 2014

SDC recommendations for the Portage Bay Bridge and Montlake Lid

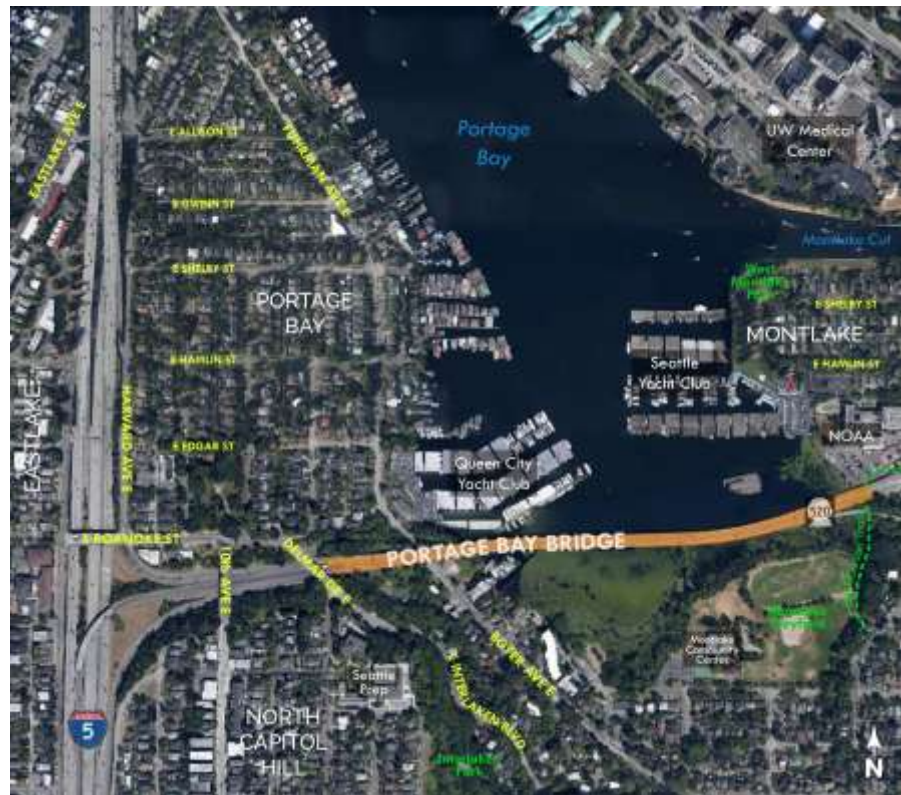
freeway corridor into the urban fabric and modal networks of our city. The SDC believes that the project will suffer if WSDOT terminates its design efforts at the edge of its right-of-way. We hope the City will remain a proactive partner in order to build on the momentum of change for the benefit of the communities along the corridor.

The SDC also recommends that WSDOT continue its integrative approach towards project design, with urban design at the center of design development. We recognize the time and resources WSDOT has spent to facilitate such a comprehensive, multidisciplinary, and interagency design process. This innovative and collaborative approach has produced context-sensitive infrastructure that is functional and reflects the needs, concerns, and voices of diverse and complex users, stakeholders, and community groups. We are hopeful that WSDOT will continue to implement this process on this and other projects.

Portage Bay Bridge

Context

Portage Bay and the surrounding neighborhoods form a unique environment within Seattle. The arrangement of hills, water, and wetlands forms a curved bowl that is intimate in scale. The surrounding built environment includes large institutional uses like the University of Washington, smaller institutional and water-dependent uses in Portage Bay, and fine-grained residential



development on the hillsides and in floating residences to the north. As is the case in other locations within Seattle, SR 520 passes through and touches residential neighborhoods without the buffer of large-scale commercial or industrial uses. Sensitivity to designs that buffer the freeway from the adjacent neighborhoods is thus essential to successful integration.

The Portage Bay Bridge is one of a series of bridges interspersed throughout the city. These bridges provide fundamental connections among Seattle's neighborhoods. A diversity of bridge types surrounds Portage Bay, including the high, double-deck, steel truss Ship Canal Bridge; the

ornate and historic University and Montlake Bridges; and the low-profile Evergreen Point Floating Bridge. Any new bridge at Portage Bay will (and should) acquire an equally unique identity.

Overall Recommendations

The new Portage Bay Bridge must be both a distinctive and context-sensitive element within the family of SR 520 bridges. Given its context, the bridge should appear elegant and light and enhance the unique character of Portage Bay. Bridge elements such as piers, abutments, and vertical lighting poles should complement the context without mimicking the natural, historical, or built environments. With the addition of a shared-use path, the Portage Bay Bridge helps complete regional connectivity for all modes of users from SR 202 in Redmond to I-5 in Seattle and beyond.

- To accommodate different users within the corridor, whose use varies based on speed, skill, and field of vision, consider any bridge design from all perspectives including on, above, and below the bridge and from various vantage points.
- Emphasize minimizing the appearance of the bridge deck and related infrastructure for recreational users and nearby residents.
- Consider the bridge within the context of the larger SR 520 network, particularly its role as a gateway experience both entering and leaving Seattle.
- Closely examine where each bridge section lands near Montlake Blvd E to the east and 10th Avenue E and Delmar Drive E to the west in order to integrate the project within the urban fabric of each neighborhood. Pay special attention to how the design affects deck heights at both ends and the experience and networks of cyclists and pedestrians. Connect the shared-use path up to and over the Delmar Lid as directly as possible.
- The slope of the bridge should both enhance its contextual relationship to Portage Bay and consider the needs of cyclists and pedestrians. While we recommend that WSDOT continue to study retaining the elegance of hugging the natural grade, this should not come at the expense of a consistent design for the entire Portage Bay span.
- Any bridge design should emphasize lightness in appearance and scale and complement its location within Portage Bay. This is particularly important given the size and number of columns below the deck, which should be reduced as much as possible in number and prominence.
- Integrate architectural elements within the overall design of the bridge to provide aesthetic interest and follow a structural logic.
- Design the bridge to relate to the horizon line in a logical and compelling fashion.
- Maximize the amount of natural light that reaches the water and land. To accomplish this, pursue greater horizontal separation between the east- and westbound bridge segments.

Option 1: Cable Stay Bridge

Background

WSDOT presented the SDC with three separate versions of a cable stay bridge over Portage Bay. Our initial review began with the two-tower version evaluated in the Final Environmental Impact Statement (FEIS). During our review, WSDOT refined the cable stay concept to include two additional bridge types—one with a single tall tower and the other with three towers of various heights. In all versions, the eastern portion of the bridge nearest Montlake is a beam bridge; this secondary bridge type reduces construction costs. Attachment A shows the cable stay designs we considered.

Analysis

Cable stay bridges offer the opportunity to reduce the amount of structure below the bridge deck. Spans can be wider, columns fewer, and the bridge deck thinner. These characteristics create a positive environment for portions of Portage Bay used for recreation purposes at or near the water and improve the overall experiential quality of the bridge. The distinctive character of cable stay bridges and their vertical elements attracts the eye and commands attention. When properly designed and sited, these elements can enhance and define their settings. However, the concept alternatives the SDC reviewed overpowered Portage Bay and its unique context. The visual impacts of these vertical elements detracted from the desirable horizontal character and lightness inherent in cable stay bridges.



Recommendations

After careful analysis, the SDC believes a cable stay bridge is not the most compelling option for Portage Bay. A small number of Commissioners felt that the time allotted for the study did not allow for a full exploration of cable stay options and that a concerted effort here could result in an appropriate design. However, weighted against other bridge types and project considerations, the majority of Commissioners believe a cable stay bridge to be the least appropriate of those presented in this study.



If WSDOT proceeds with a cable stay bridge, the SDC recommends the following:

- Maximize the cable stay technology to significantly reduce the profile of the bridge deck, size of vertical elements, and number and girth of columns in the water. The bridge should be as thin and light on the water as possible. Take great care not to create a structure that overwhelms the scale of the Portage Bay bowl.
- Leverage the bridge technology to create a dynamic and elegant formal solution to the design.
- Design the bridge lighting with consideration for the residents in the area and with the aim of elegance rather than drama.

Option 2: Box Girder Bridge

Background

The SDC evaluated a box girder bridge and had the opportunity to help refine the design as part of our explorations. The initial renderings presented to the SDC from the 2010 FEIS showed a bridge with a varied slope and up to 14 columns, 11 of them in the water:

As our review progressed, WSDOT refined the design to have a uniform slope, which enhances the non-motorized experience. The refined design also reduced the number of columns, resulting in reduced environmental impacts. Attachment B shows the box girder designs we considered.



Analysis

A box girder bridge is a utilitarian solution that places function above form and aesthetics. It is commonly seen as part of the American highway bridge vernacular. The box girder is bulkier and heavier at and below the bridge deck than the cable stay bridge. More columns are necessary, adding to the innate heaviness of this bridge type. Because it does not have above-deck structural elements, the box girder is horizontally oriented. While it lacks the presence of more structurally expressive bridge types, the width of the deck and location within Portage Bay will nevertheless have a visual impact that warrants careful consideration.

There are many examples of designs that have pushed the limits of this typology to achieve a higher aesthetic and contextual standard. The work of the design consultants and our experience reviewing the West Approach Bridge North make us confident that the box girder can provide an elegant, distinctive solution. The design effort should focus on maximizing the thinness and lightness of the bridge. The WSDOT team has already started to investigate reducing the number of columns and adjusting the profile of the structure to minimize the visual impacts of the bridge deck.

Recommendations

Given the analysis to date, the SDC believes that the box girder bridge has the greatest potential for success in Portage Bay. However, to fully meet the vision and goals of this project, the box girder bridge must be well funded in order to be designed *for this place and its context*.

September 17, 2014

SDC recommendations for the Portage Bay Bridge and Montlake Lid

If the budget is spare, the result will be a boxy, heavy highway bridge. Furthermore, architects and urban designers must continue to play leading roles on the project team. WSDOT's project engineers and agency leadership must continue to explore solutions that push the boundaries of standard design. An integrated team can develop and refine the box girder to be distinctive and contextual.

Additional SDC design recommendations include:

- Allocate funding commensurate to the project's unique, dense location in order to produce an exceptional bridge.
- Stretch the bounds of the box girder design to create an elegant bridge that enhances its unique location, while achieving lightness and a contemporary appearance.
- Refine the strategy for the vertical elements to add visual interest and rhythm. However, do not detract from the horizontal character and contemporary expression of the bridge.
- While the bridge should enhance the context without mimicking its historical and natural elements, do not strip the bridge of all enhancements and leave a bare box girder bridge in an effort to be contemporary.

Montlake Lid

Context

Prior to the construction of SR 520, the Montlake neighborhood was a connected community of single-family homes bounded by the Montlake Cut and Portage Bay to the north and west and the Washington Park Arboretum to the south.

Today, SR 520 isolates the Shelby-Hamlin neighborhood and former MOHAI site on the north from the rest of Montlake neighborhood to the south. The junction of SR 520 and Montlake Blvd E effectively places a freeway interchange in the middle of this residential neighborhood, interfering with bicycle and pedestrian traffic across the Montlake Cut to the University of Washington and the future light rail station.



Past SDC Input

The SDC provided recommendations on the Montlake Lid concept during the 2010 EIS process and 2012 Seattle Community Design process. In 2012, the SDC recommendations to WSDOT included:

- Maximize the qualitative and functionality of the lid space.
- Prioritize non-motorized connections.
- Provide activated open spaces.
- Enhance the user experience.
- Better integrate the program within the neighborhood and its context.

To achieve these recommendations, the SDC encouraged WSDOT and the City to explore diverse design options and scales that would focus on quality over quantity, reduce the reliance on disruptive mechanical equipment, increase benefits to users and neighbors, and provide better connectivity and impact mitigation.



Endorsement of the Montlake Lid Design Refinements

The SDC endorses WSDOT's refined concept design for a "smarter" lid. This approach identifies the desired goals that the lid should achieve and then, through thoughtful moves, maximizes the planning, engineering, and design of the project to meet or exceed these goals with an emphasis on quality over quantity. Through these investigations, WSDOT balanced the SR 520 tunnel size with project goals, eliminating the need for ventilation infrastructure and operations

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SDC recommendations for the Portage Bay Bridge and Montlake Lid

and maintenance facilities. This resulted in a thinner, less invasive lid that could effectively be lowered by 15 feet.

Above all, the smarter lid concept achieves the following key benefits:

1. *Enhanced regional connectivity*

The smarter lid does not merely become a destination; the reductions in grade improve multimodal connections along the SR 520 corridor, across the Montlake Cut, and through the neighborhood. The primary north–south pedestrian and bicycle connection takes on a more direct alignment *above* rather than *beneath* the highway, at a lower slope, and with greater visual connection to the University of Washington. This allows the shoreline trail under SR 520 to become an overwater boardwalk with better visibility and connections to the Arboretum and Foster Island. Finally, the refined design improves on the previous east–west connections to, from, and across the lid.

2. *More useable open space*

The design and programming of open space in the refined concept focuses on quality usable spaces over quantity. The goal is to provide meaningful activity and not promote unintended uses. Spaces are functional, safe, and thoughtfully placed within the context of the neighborhood and the network of paths and trails. Lowering the lid height improves visibility and physical access and eliminates the need for large ventilation stacks that break up the open space and decrease its functionality.

The refined design goes beyond the lid and thoughtfully integrates the stormwater facility at the former MOHAI site as additional green space within East Montlake Park. This capitalizes on stormwater infrastructure and captures it as an element of the open space network that will extend north from the Arboretum toward the Montlake Triangle and Burke-Gilman Trail.

3. *Enhanced view corridors*

The project team studied grades and landscape elements to buffer views of the highway and control roadway noise. Lowering the overall height of the lid maintains visual connectivity throughout the neighborhood and from Lake Washington Blvd E.

4. *Improved transit, bicycle, and pedestrian experiences*

The design refinements improve the experience of pedestrians, cyclists, and transit users through better undercrossings, enhanced site design, and greater connectivity. The project team enhanced the pedestrian experience along Montlake Blvd E by expanding the lid to the west to create a larger vegetated buffer between pedestrians and SR 520 and shortening pedestrian crossings in this area.

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SDC recommendations for the Portage Bay Bridge and Montlake Lid

Pathways across the lid were aligned to create convergence zones at two critical points: near Montlake Blvd E in the form of urban trailhead and where the landbridge meets 24th Ave E. This enhances non-motorized connections, improves transit access, and activates open space.

In addition, the concept refinements enhance the safety, functionality, and overall character of the Bill Dawson trail by easing the grades, adjusting the trail alignment, improving sightlines, and providing alternative routes.



5. Improved integration within the Montlake neighborhood fabric.

The reduced height, buffering of SR 520, and enhanced physical and visual connectivity of the smarter lid create more seamless connections with the neighborhood. The landbridge connection replaces the large retaining wall along the north side of SR 520 and creates an enhanced landscaped edge.

Moving east to west along the SR 520 corridor, the landbridge and lid create a series of thresholds that transition from the large landscape of Lake Washington to the urban fabric of the city.

Recommendations for Further Design Development

While the SDC is very encouraged by the changes resulting from the smarter lid approach, this approach also creates design challenges. As the SDC evaluated this updated approach, we also provided a number of key recommendations to guide WSDOT and the City in further development of the project.

1. *Environment*

- Strengthen the sustainability strategy for the project as a whole, particularly as it relates to stormwater, materiality, constructability and the integration of the project into our larger network of open space and habitat.

2. *Enhance the Sequential Gateway Experience*

- Consider the SR 520 as a succession of elements—the floating bridge, West Approach Bridge North, landbridge, Montlake Lid, Portage Bay Bridge, Delmar Lid—that together create a larger gateway experience as one moves into or out of our City. Consider the Montlake Lid as part of this series of thresholds and clarify how it fits within that context. The sequence of the landbridge and tunnel should work together to create this threshold experience. Consider materiality, movement through the tunnel, and the moment of emerging from under a structure to see Foster Island or Portage Bay.
- In addition to east–west movement, consider the experience of thresholds moving north to south along Montlake Blvd E and throughout the network of paths on the lid and landbridge.

3. *Strengthen Connectivity and Wayfinding*

- Develop a clear hierarchy for the paths and trails that transect the lid. This hierarchy should be weighted to clearly indicate how paths connect to nearby and regional destinations. Consider how people will connect to the Burke-Gilman Trail, Arboretum, and future transit hub at the Montlake Triangle.
- Continue to study grades, visual connections, desire lines, and buffers between bicyclists, pedestrians, and vehicular traffic. Pay particular attention to the pinch points where 24th Ave E crosses Lake Washington Blvd E and where the Bill Dawson Trail connects to E Roanoke St.

4. *Landbridge*

- Continue to study the landbridge typology. The bridge profile should be unique and expressive without resembling typical highway infrastructure. Topography and vegetation should provide a unique experience from all angles.
- Resolve where the landbridge connects to the land at both ends and how it emerges from the landscape. On the deck of the landbridge, explore widening the east edge to provide adequate width for generous landforms and vegetation. Continue to develop moments for pause and views, and provide opportunities to look eastward towards Lake Washington.

5. *West Lid*

- The “urban trailhead” area works as a strong placemaking gesture. Its success, however, is crucial to the function of the lid as a hub within the city. It will be important to proactively develop the kiosks and program the space to activate it and achieve the desired civic outcomes.
- Continue to focus on developing quality public space, especially at the west end of the lid. Provide a good experience for non-motorized users moving across the lid and along 24th Ave E. To that end, consider increasing the amount of lid on the east side of Montlake Blvd E at 24th Ave E.

6. *Montlake Boulevard*

- Give as much attention to the design articulation of the west side of Montlake Blvd E as to the east side. This is a major non-motorized route that links transit to the north with the heart of Montlake to the south. It is also a desire line between Capitol Hill and the UW.
- Work with the property owner of the gas station site at Montlake Blvd E and Lake Washington Blvd E to win space for transit users, cyclists, and pedestrians.
- Continue to explore the idea of providing a bike and pedestrian bridge over the Montlake Cut at a point close to where 24th Ave E would transect the waterway. This would strengthen the connective function of the landbridge within the larger north–south continuum between the Arboretum and the University of Washington. The SDC has not thoroughly analyzed the question of a second bascule bridge, but in 2010 we recommended that, if constructed, the second bascule bridge be limited to pedestrian, cyclist, and transit use. A separate pedestrian/bicycle bridge over the Cut further east would help alleviate pressure for a crossing close to the existing historic bridge. It would also relieve pressure on Montlake Blvd E between SR 520 and the Montlake Triangle.

7. *Ramps to Nowhere*

Though not part of this review or our review of the West Approach Bridge North, the SDC supports the idea of retaining a part of the “ramps to nowhere” at the Arboretum that are slated for removal.

The ramps to nowhere are existing structures that relate to former plans to extend a freeway through the Arboretum and the successful fight to stop those plans. The ramps represent an important time in Seattle’s history and express a key personality trait of our city. Furthermore, their presence has created unique experiences from the “unauthorized” pedestrian access to the ramps, providing elevated views of the lake and opportunities to jump into the water. This attracts spectators regularly. The structures provide an interesting sense of scale and a unique contrast between the softness of nature and hardness of infrastructure. The ramps to nowhere offer thought-provoking irony and ties to our history that, with further public art interventions

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SDC recommendations for the Portage Bay Bridge and Montlake Lid

and safety and access improvements, could preserve and strengthen this extraordinary place in the history of our city.

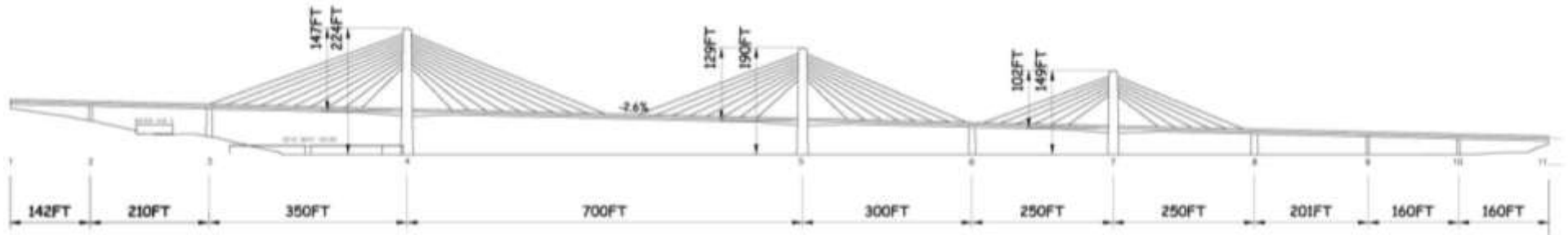
We recommend that the State and City explore the idea of retaining part of the ramps to nowhere. They are located where plans are underway to expand recreational use as part of the Arboretum North Entry project. There is an important opportunity to enrich that design of that project with these socially significant relics of the past.

In closing, the SDC greatly appreciates the time and commitment that WSDOT and the City have made in presenting this project. As the project proceeds, we look forward to continued involvement.

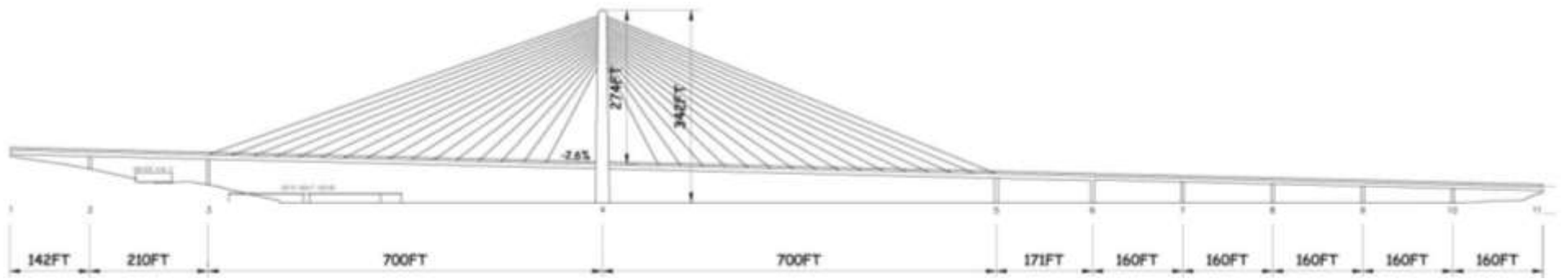
CC: Diane Sugimura, DPD Director
Scott Kubly, SDOT Director
Nathan Torgelson, DPD Deputy Director
Lyle Bicknell, DPD
Bernard Van De Kamp, SDOT
Kerry Pihlstrom, WSDOT

Attachment A

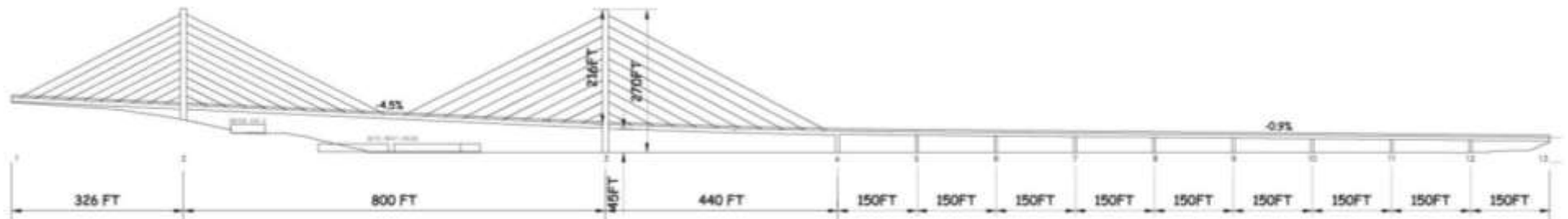
Cable stay bridge designs presented to the SDC



July 8, 2014 – three towers of varied heights (102, 129, and 147 feet above bridge deck) and uniform 2.6% grade



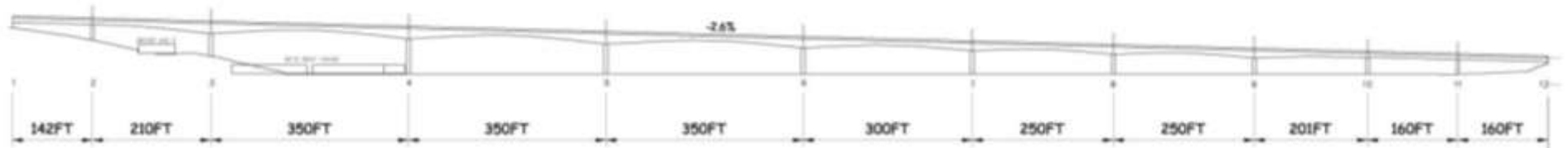
June 17, 2014 – one tall tower (274 feet above bridge deck) and uniform 2.6% grade



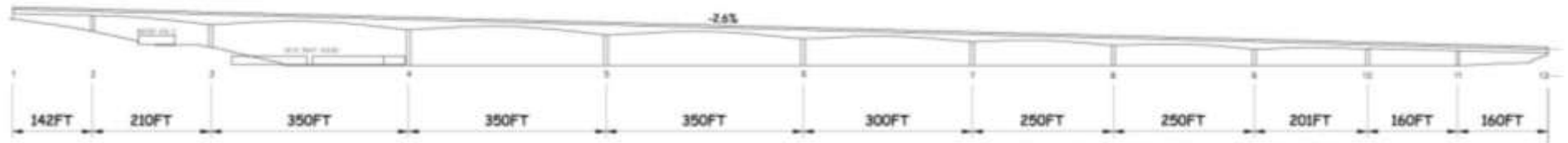
FEIS Baseline Design – two towers of equal height (each 216 feet above bridge deck)

Attachment B

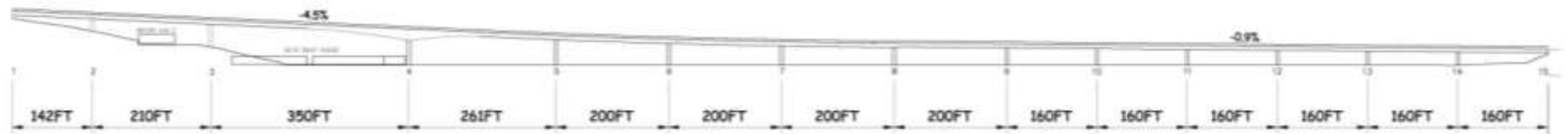
Box girder bridge designs presented to the SDC



July 8, 2014



June 17, 2014



FEIS Baseline Design

Attachment B

SR 520 'Rest of the West'

Edward B. Murray
Mayor

Diane Sugimura
Interim Director, OPCD

Shannon Loew, Chair

Ellen Sollod, Vice Chair

Brodie Bain

Lee Copeland

Thaddeus Egging

Rachel Gleeson

Theo Lim

Martin Regge

John Savo

Ross Tilghman

Michael Jenkins
Director

Valerie Kinast
Coordinator

Aaron Hursey
Planner

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Commissioners Present

Shannon Loew, Chair
Ellen Sollod, Vice Chair
Lee Copeland
Rachel Gleeson
Theo Lim
John Savo
Ross Tilghman

Commissioners Excused

Brodie Bain
Thaddeus Egging
Martin Regge

Project Description

The Washington State Department of Transportation (WSDOT) is redeveloping the Seattle segment of the State Route (SR) 520 corridor between I-5 and Lake Washington. The redevelopment will include new bridges that meet current seismic standards, HOV capacity, updated roadways, new pedestrian and bicycle facilities, improved transit connections, open spaces, and enhanced non-motorized connections. Although the entire project is fully funded, funding for design and construction is spread across several biennia, and construction is anticipated to occur in three phases:

- Phase I – Includes the corridor spanning from Lake Washington to Montlake Blvd. This phase will include the design and construction of the Montlake lid, land bridge, and West Approach Bridge South (WABS).
- Phase II – Includes the planning, design, and construction of the Portage Bay Bridge, 10th and Delmar lid, and I-5 interchange.
- Phase III – Includes a second bascule bridge over the Montlake Cut.

The Seattle Design Commission (SDC) is providing advice to WSDOT on final design concepts related to Phase I of the corridor. This final design work will assist WSDOT in developing the Request for Proposals (RFP) for construction of Phase 1.

Meeting Summary

On February 4, 2016, the SDC received an overview and update on the SR 520 Program, focusing on the Rest of the West, and a work plan for the next round of coordination with the SDC. . Because the SDC is providing WSDOT with advice on the extent to which design features are articulated and required in their RFP for this segment, the SDC did not take a formal action. These minutes document the review, discussion and recommendations to WSDOT.

Recusals and Disclosures

There were no recusals or disclosures.

February 4, 2016

2:00 - 4:30 pm

Type

Major Project

Phase

Concept Design

Previous Reviews

None

Project Team Present

Lyle Bicknell

OPCD

Brianna Holan

LMN Architects

Kerry Pihlstrom

WSDOT

Osama Quotah

LMN Architects

Elizabeth Umbanhowar

Parametrix

Attendees

Joe Basile

WSDOT Consultant

Daniele Dunjic

WSDOT

Candace Goodrich

WSDOT Consultant

Todd Harrison

WSDOT Consultant

Ron Melnikoff

Seattle PBRP Resident

February 4, 2016

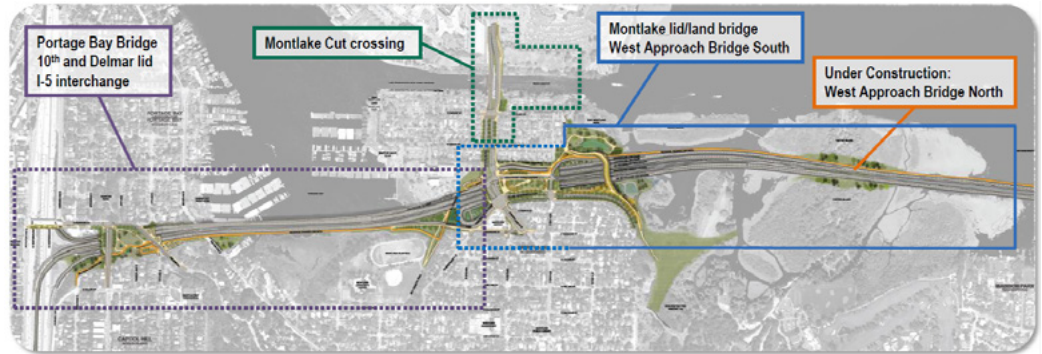


Figure 1: SR 520 'Rest of the West' Corridor

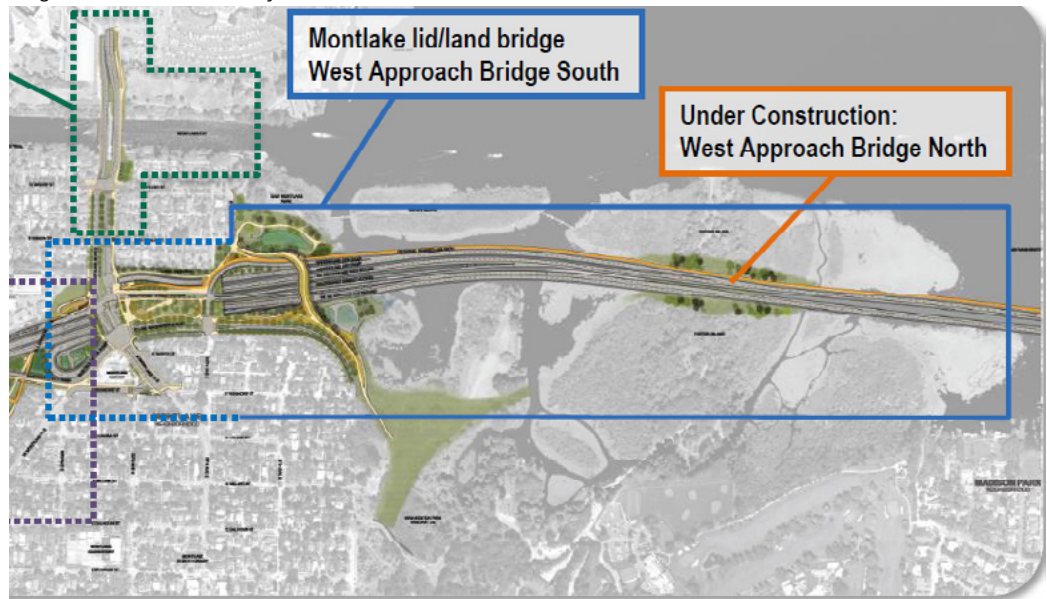


Figure 2: Phase I - outlined in blue

Summary of Presentation

The project was presented by Kerry Pihlstrom, of WSDOT, Elizabeth Umbanhowar, of Parametrix, and Osama Quotah and Brianna Holan, of LMN Architects. Ms. Pihlstrom provided an overview of the planning and design of the corridor. The project will provide safety and mobility improvements to the State Route (SR) 520 corridor from Lake Washington to Interstate 5 (see figure 1). Although it has received full funding from the Washington State Legislature, funding will occur incrementally over a several biennia, through 2029. As a result, the project is currently planned to be constructed in three phases. Today's presentation focused on the work plan for establishing a design criteria for the Seattle segment of the SR 520 corridor and an overview of the application of the work plan to date (relating to Phase 1), and specific design elements of WABS (see figure 2). Phase I of the project, includes:

- The south segment of the West Approach Bridge;
- A lid covering portions of the freeway east of Montlake Blvd;
- a proposed north-south land bridge providing pedestrian and bicycle linkages between Lake Washington Blvd and the Shelby-Hamlin neighborhood, and
- East-west pedestrian and bicycle facilities.

The SR 520 Seattle segment passes through a variety of different neighborhoods, transportation networks, and ecology zones. The phase I proposal includes the design and construction of a lid and pedestrian land bridge over SR 520. The lid will connect to Montlake Ave E, running approximately 800 feet to the east. The lid will include bicycle/pedestrian paths, open space and transit facilities. Both the lid and land bridge will provide a network of multi-modal pathways, open spaces, sidewalks, wayfinding, and landscape elements that will enhance transportation connections



Figure 3: Proposed landbridge, open space, and mixing zone

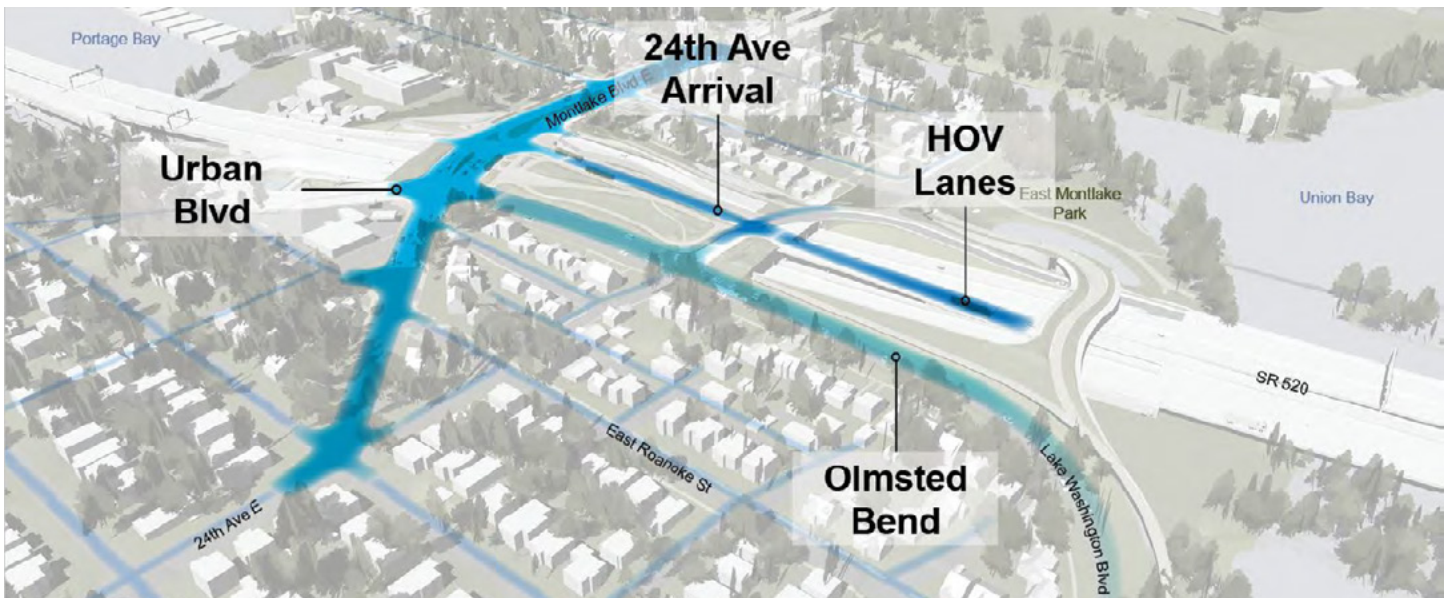


Figure 4: Street connections

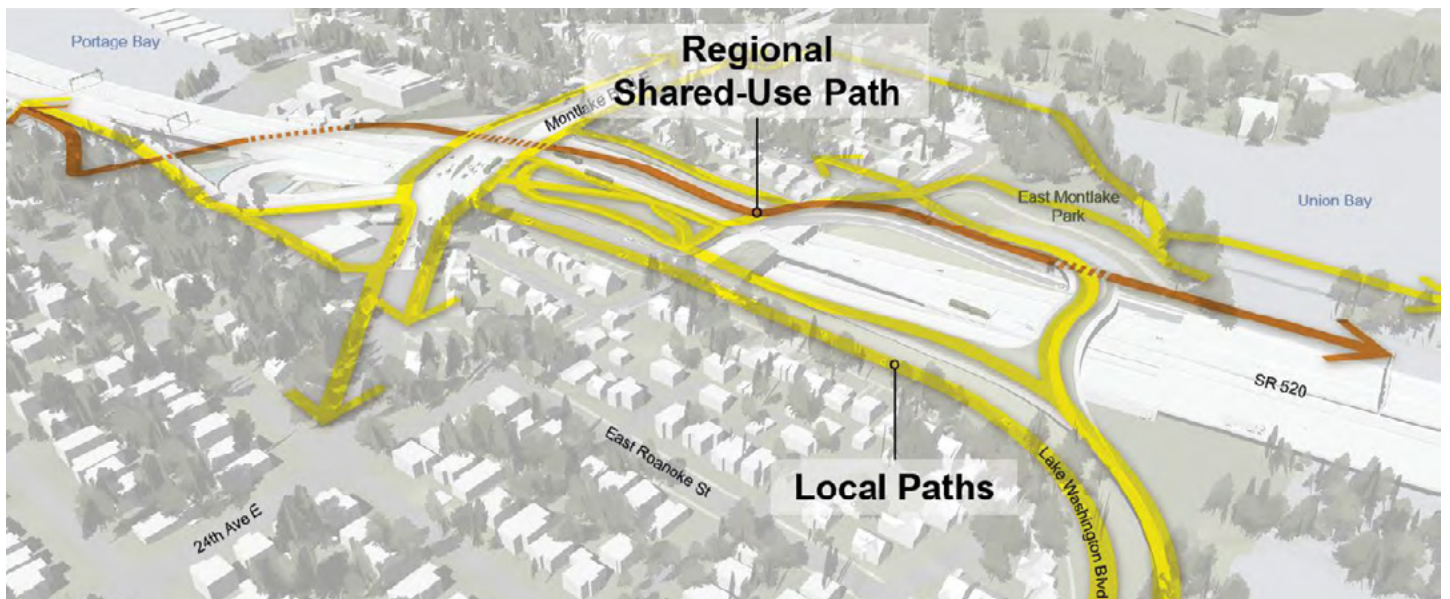


Figure 5: Pedestrian and cyclist connections

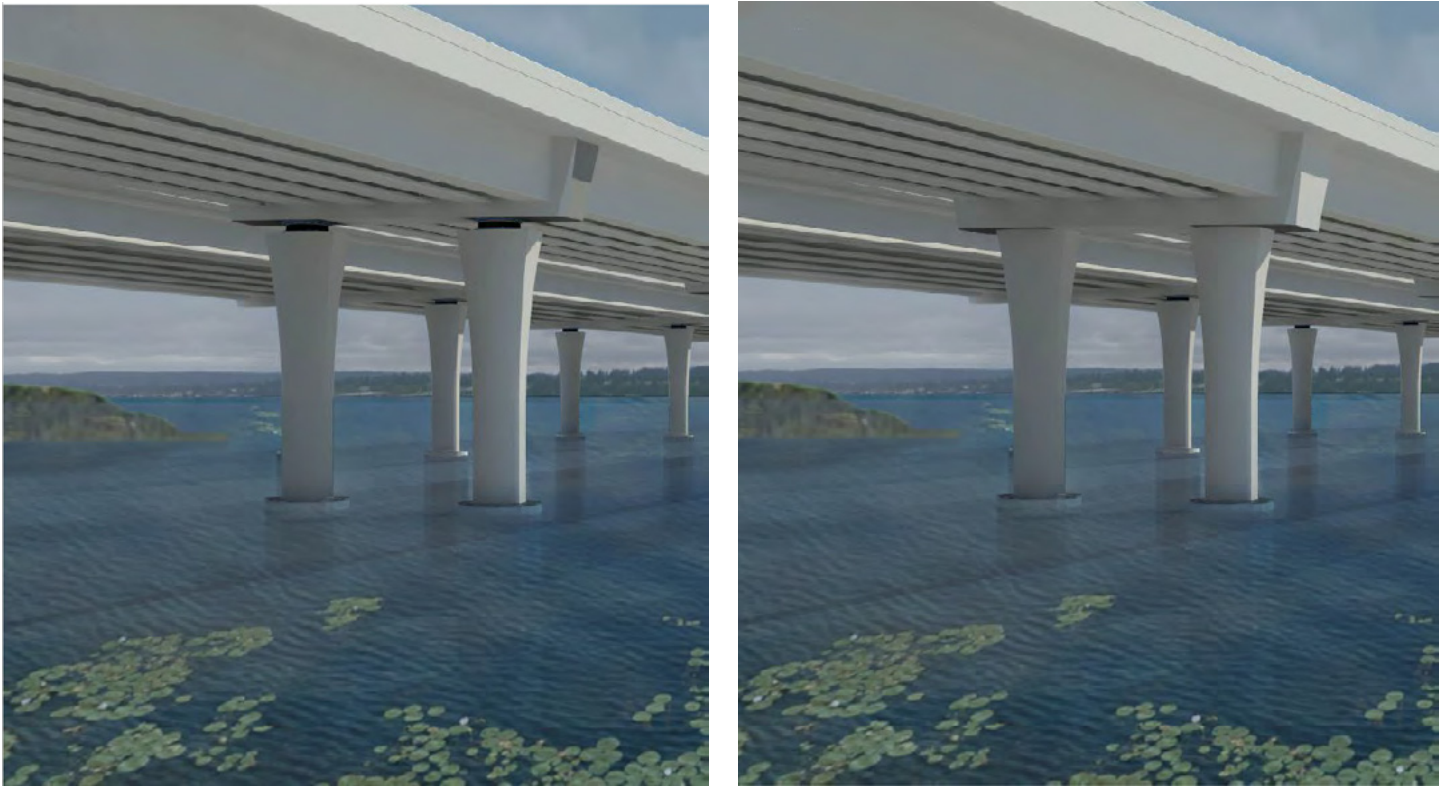


Figure 6: Base isolation bearing design (left) and non base isolation beam design (right)

while reconnecting adjacent neighborhoods severed as a result of the existing SR 520 corridor. The lid will also provide transit facilities and vehicle access to and from 520 corridor. Montlake Blvd E and 24th Ave will cross at the east and west end of the lid, connecting the Montlake Neighborhood with UW. The proposed land bridge will include areas for respite, overlooks, and pathways for pedestrians and cyclists that connect the UW arboretum with East Montlake Park. See *figure 3-5 for more detail*.

Due to constraints, the WABS continues to implement the vision set forth in the Seattle Community Design Process while continuing to consider refinements that allow flexibility in for the next construction contract. The design team has reintroduced using horizontal crossbeams for structural support between the pier (vertical columns used to support the bridge) and the supporting roadway. This design adjustment allows flexibility for the contractor in method of construction while also incorporating the vision by integrating the cross beam in to the superstructure. The updated bridge design includes a series of catch basins located on the southern face of the bridge, midway between each pier. The catch basins include an exposed pipe to drain excess runoff into Lake Washington during an emergency event. The bridge design will include a series of boxed downspouts and architectural features in order to conceal the drainage basin pipes from view and continue the conceptual design architectural treatments. See *figure 6 for more detail*.

Agency Comments

None

Public Comments

Ron Melnikoff, PBRP resident, stated that the proposed pedestrian path on the Portage Bay Bridge was added after the EIS statement. Because the project is being constructed in phases, Mr. Melnikoff assumes the design precedents established during phase I will be used in phases II & III of the project. Mr. Melnikoff is concerned because design decisions are being made for phase I, which will set a precedent for later designs, before communities located near phases II & II were asked to provide input. As a result, he is worried that communities located near Delmar Park and Portage Bay will have little to no opportunity to provide input.

Rainier Metzger, Seattle ARCH, Stated to have followed the project for a number of years and thinks it is headed in a great direction. Mr. Metzger said that the values of people who participated in the Seattle freeway revolts of the 1960's were symbolized in the "ramps to nowhere." He further said that these same values are being symbolized in the project proposal seen today. Mr. Metzger stated that Seattle ARCH is in favor of keeping a fragment of the ramps to nowhere along the WABS bridge.

Summary of Discussion

The Commission organized its discussion around the following issues:

- Continuity, circulation, overall connectivity
- Areas of distinction
- Urban environment
- Bridge
- Work plan

Continuity, circulation, connectivity

The SDC commended the project team for focusing on pedestrian circulation. Commissioners appreciated the ongoing commitment to the land bridge proposal, which will serve as an important connector for pedestrians and cyclists crossing SR 520. Commissioners encouraged the project team to continue discussing the idea of including a shoreline pedestrian pathway. The commission recommended the project team continue to design circulation and connectivity in a way that will enhance the pedestrian experience.

Areas of distinction

The SDC appreciated how the land bridge provides areas for movement through a sequence of spaces and overlooks. Commissioners encouraged the design team to further develop the project in a way that reflects the landscape of the surrounding urban neighborhoods, specifically as it relates to the Olmstead legacy. The SDC found the proposal to potentially retain a portion of the "ramps to nowhere" interesting. They recommended the project team consider the potential of retaining a portion of the ramps in a manner that complements the surrounding environment and the overall design of the project.

Urban environment

There were no specific comments on this topic.

Bridge

The SDC encouraged the design team to continue thinking about ways to minimize the appearance of the WABS. While they understand the difficulty in procuring specific construction materials, Commissioners recommended the project team continue to consider using a base isolation bearing design for structural support, similar to WABN. The Commission agreed the boxed downspout provides a positive alternative rather than exposing the downspout pipes. The SDC recommended the project team continue to work with the geometry of the boxed downspouts in a way that will provide continuity with the bridge piers.

Work plan

The SDC greatly appreciates WSDOT's willingness to collaborate with SDC as well as other city agencies, especially as it looks for ways to enhance the overall urban design elements of the project. The SDC commended the project team for providing extensive outreach opportunities and encouraged them to continue collaborating throughout the design process.

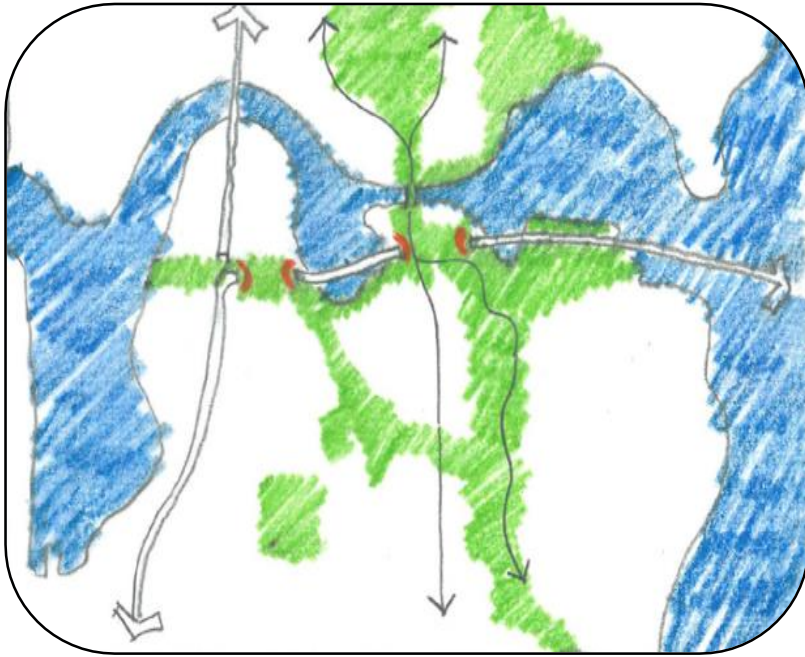
Action

The SDC did not take an action at this meeting and expressed support for WSDOT's work plan. The Commission provided feedback for initial design concepts related to phase I. WSDOT will continue working with the SDC past June during the procurement process.

SR 520 – Rest of the West

Seattle Design Commission

February 4, 2016



Julie Meredith
SR 520 Program Director

Lynn Peterson
Secretary of Transportation

Seattle Design Commission
Seattle City Hall
February 4, 2016

Presentation Overview

- SR 520 Program Overview and Update
 - Purpose and need
 - Corridor design history
 - Rest of the West
- SR 520 / SDC Coordination Work Plan
 - Scope and constraints
 - Work plan outcomes
 - Asks of the SDC today
 - Timeline
- Application of Work Plan
 - Project Vision
 - Areas of focus
 - SDC topics of discussion
 - West Approach Bridge
- Today, Seeking Endorsement of:
 - Work plan



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

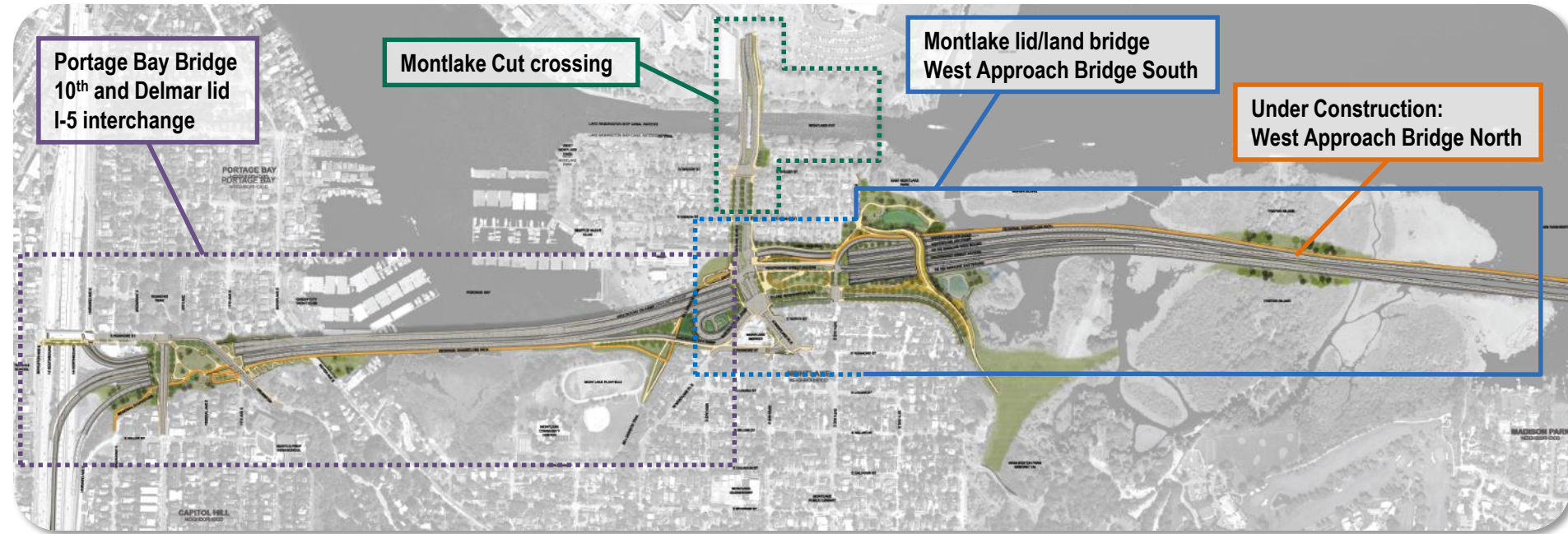
SR 520 Program Overview and Timeline



Program 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 under way; opening summer 2017
- Rest of the West: Funded / In design

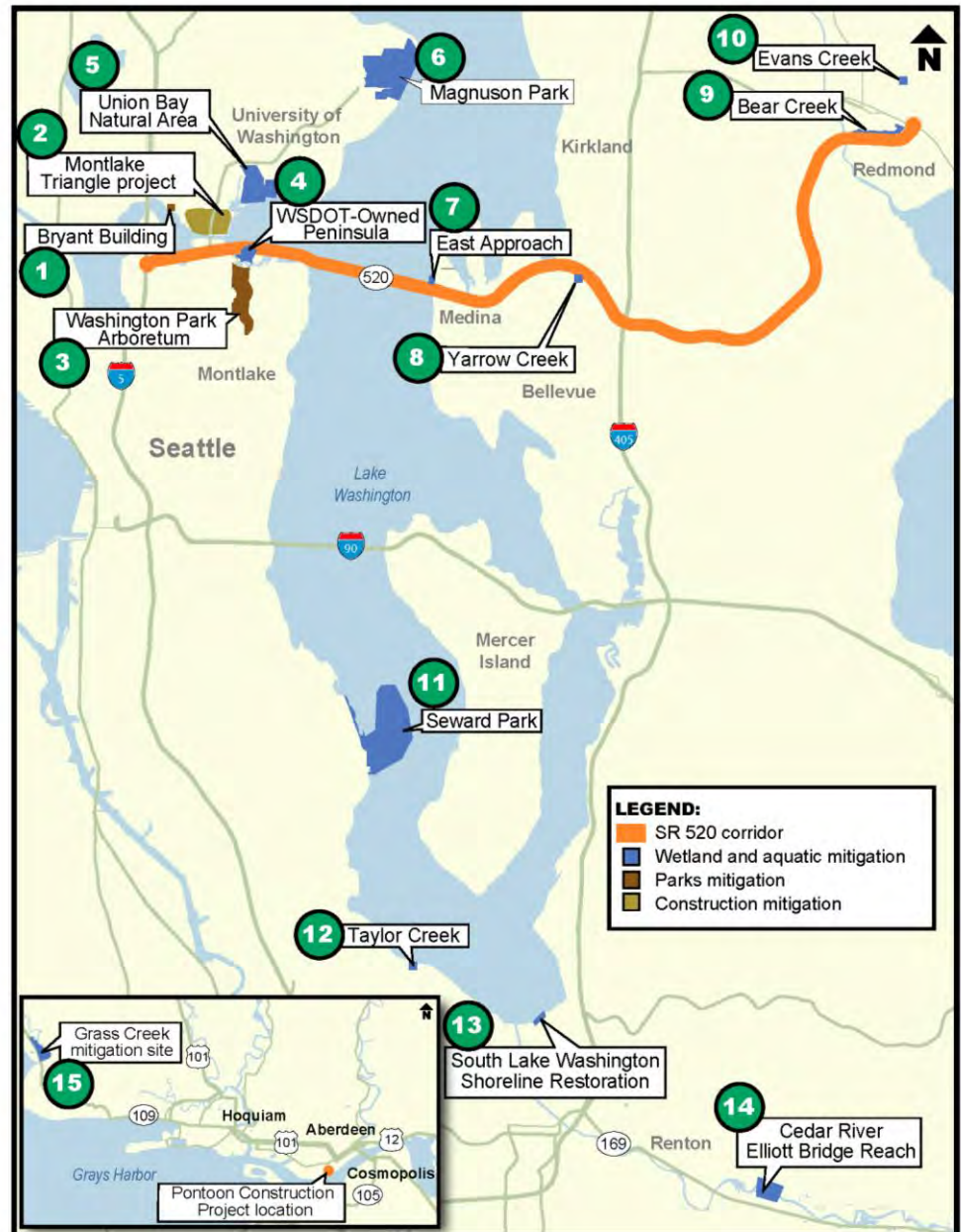
Rest of the West – Baseline Design



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SR 520 Mitigation

- ✓ 1. Byrant Building
- ✓ 2. Montlake Triangle
- ✓ 3. Washington Park Arboretum
- 4. WSDOT Peninsula
- 5. Union Bay Natural Area
- 6. Magnuson Park
- 7. East Approach
- ✓ 8. Yarrow Creek
- ✓ 9. Bear Creek
- ✓ 10. Evans Creek
- 11. Seward Park
- 12. Taylor Creek
- ✓ 13. South Lake Washington shoreline restoration
- ✓ 14. Cedar River Elliott Bridge Reach
- ✓ 15. Grass Creek



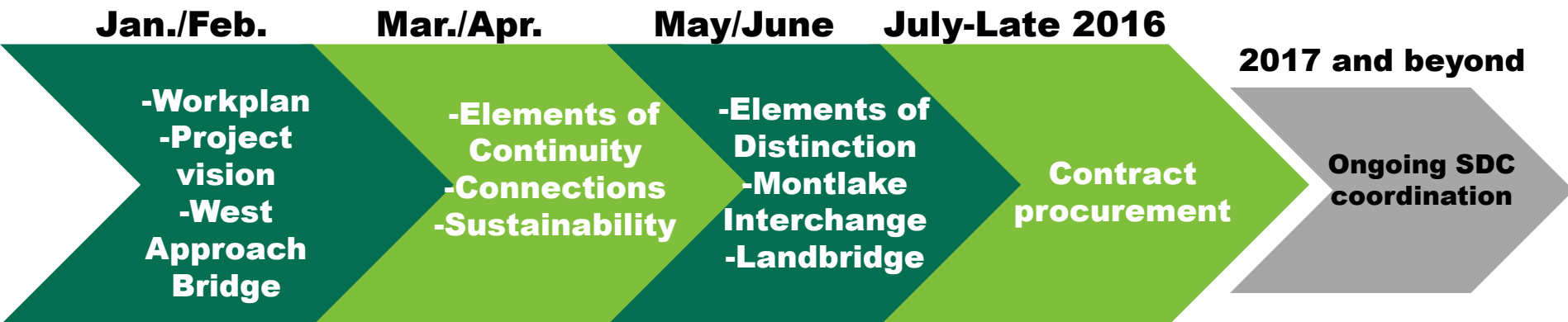
SR 520 Corridor Design History

- **SR 520 Corridor**
 - 1997-2003: Trans-Lake Washington Study
 - 2006: Corridor Aesthetic Handbook
- **SR 520, I-5 to Medina (Westside)**
 - 2008: Health Impact Assessment
 - 2009: ESSB 6099 Westside Mediation
 - 2010: ESHB 2211 Workgroup
 - 2011: Final Environmental Impact Statement
 - 2012: Seattle Community Design Process
 - 2014: Final Concept Design
- **SR 520, Medina to SR 202 (Eastside)**
 - 2009: Eastside Community Design Collaboration Report
 - 2010: Eastside Urban Design Criteria
- **SR 520, Floating Bridge**
 - 2011: Bridge Architecture Design Principles

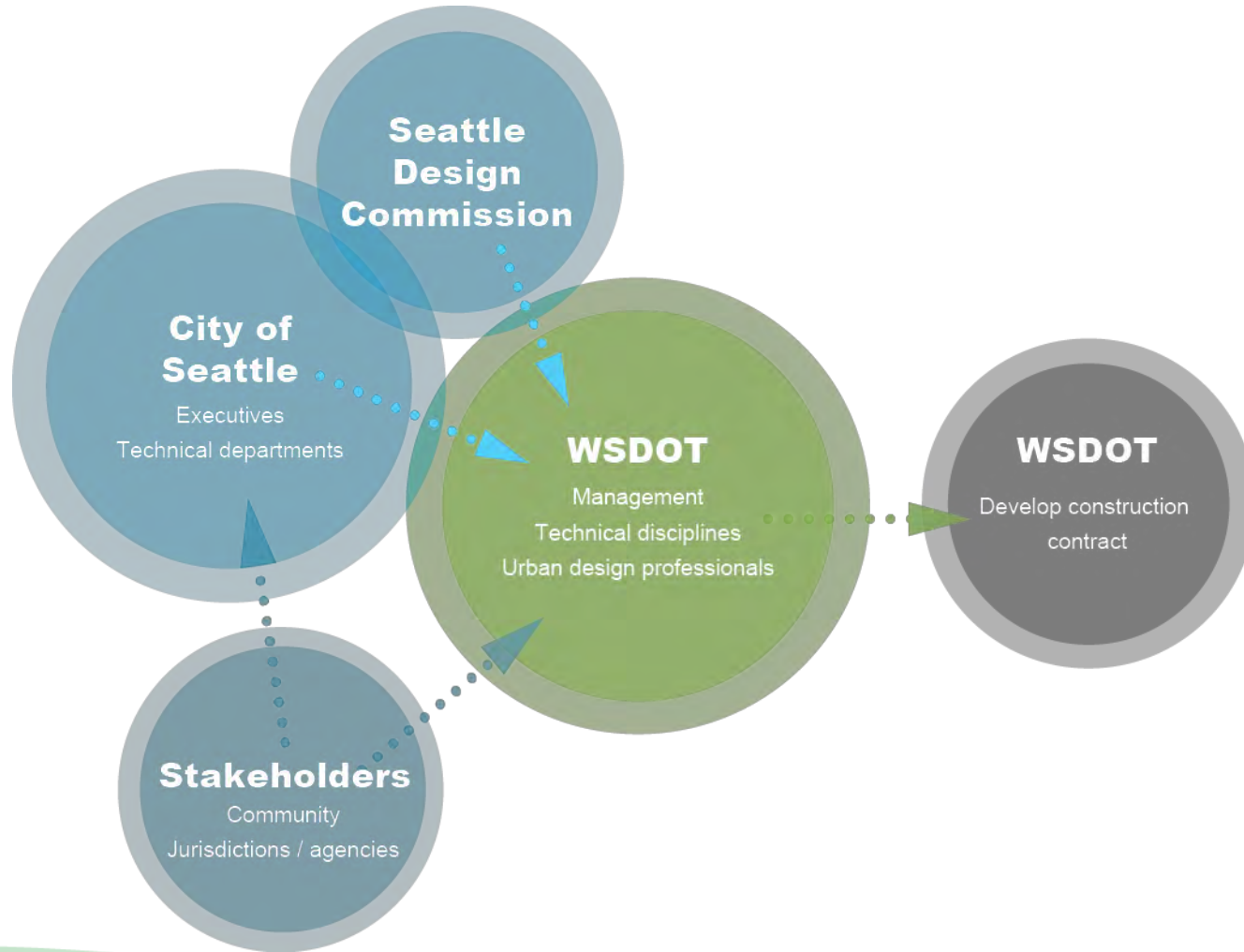


Timeline

- **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



Project Stakeholders and City of Seattle Coordination



SR 520 / SDC Work Plan

- **City's 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



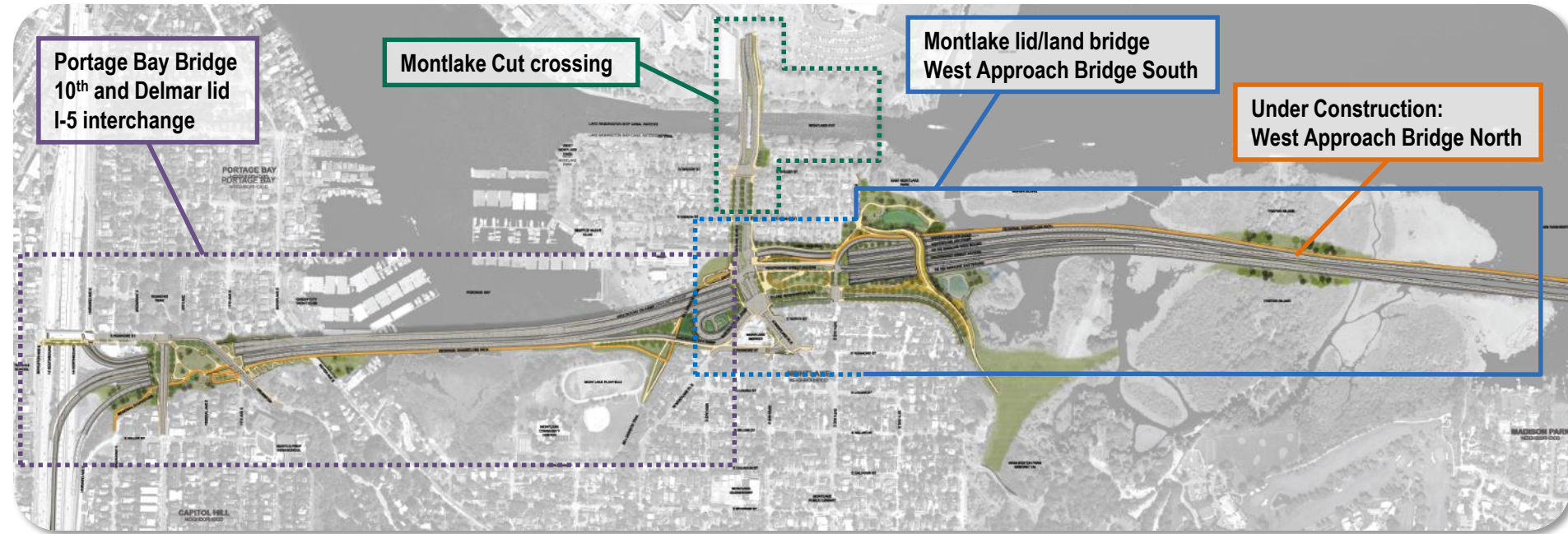
- **WSDOT's objectives**

- Fulfill design Vision developed with the SDC, City of Seattle and broader community
- Address SDC feedback on 2014 Final Concept Design
- Build on past work to document urban design criteria for future construction contracts

- **WSDOT ask for SDC today**

- Endorse Work Plan for:
 - Montlake Lid and interchange
 - Land Bridge
 - Corridor areas of focus

Rest of the West – Baseline Design



DRAFT 2/4/2016

Design Discussion

- Vision
 - Context: Plants, Paths, Places
 - Vision Statement
 - Conceptual Design
- Elements of Focus
 - Elements of Continuity
 - Elements of Distinction
- Initial Observations
 - Open Space
 - Gateways
 - Outlooks
- West Approach Bridge
- Work Plan

Vision and Context



Vision:

Context

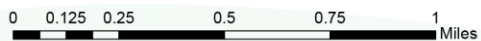


0 0.125 0.25 0.5 0.75 1 Miles

Context



Context



Vision:

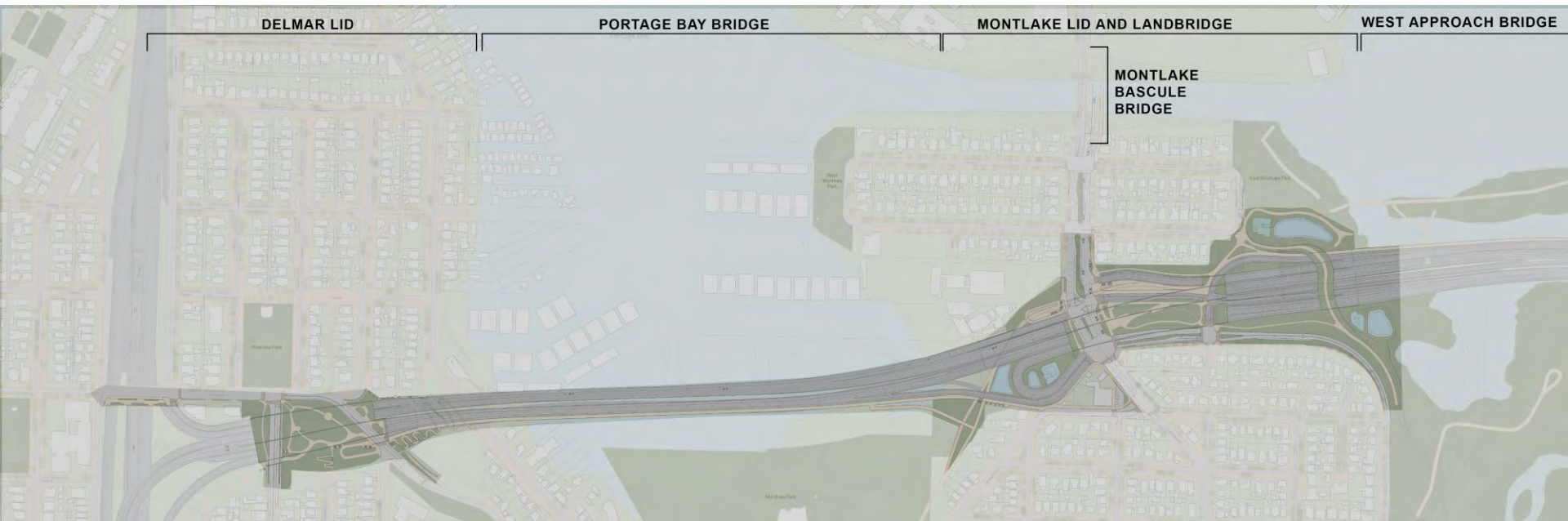
Nature meets City

- Practical Solutions
- Sustainability
- Balance Aesthetics, Functionality and Sense of Speed
- Memorable Experience



Vision:

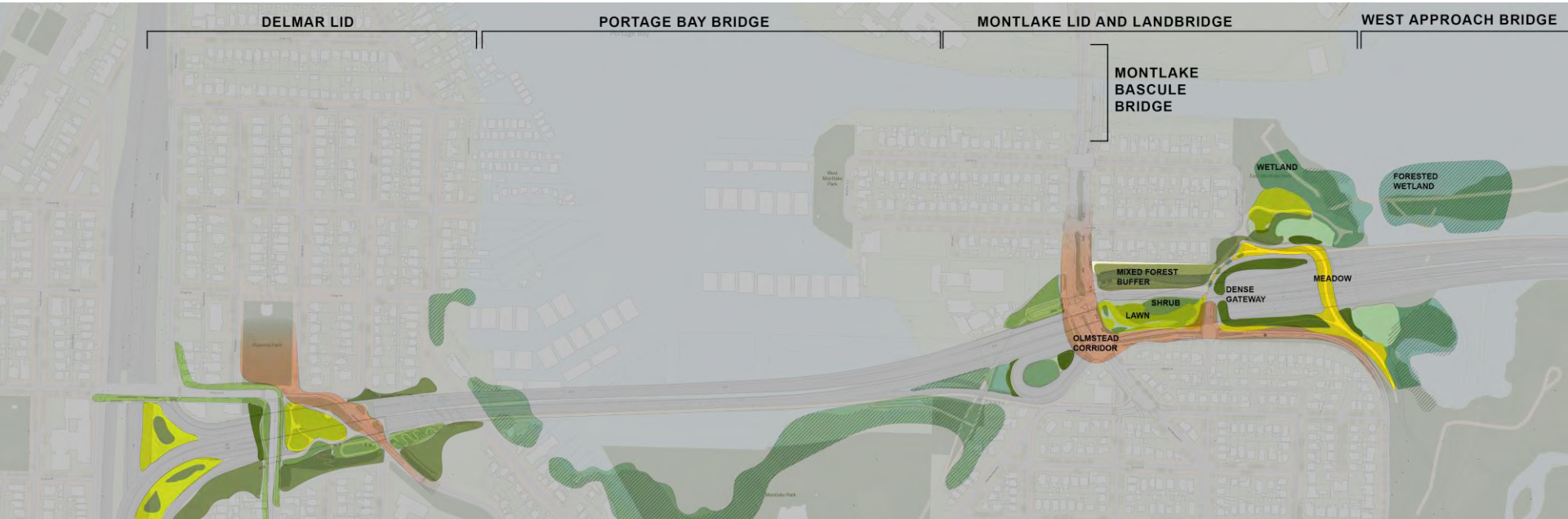
Rest of the West Corridor



Vision:

Rest of the West Corridor

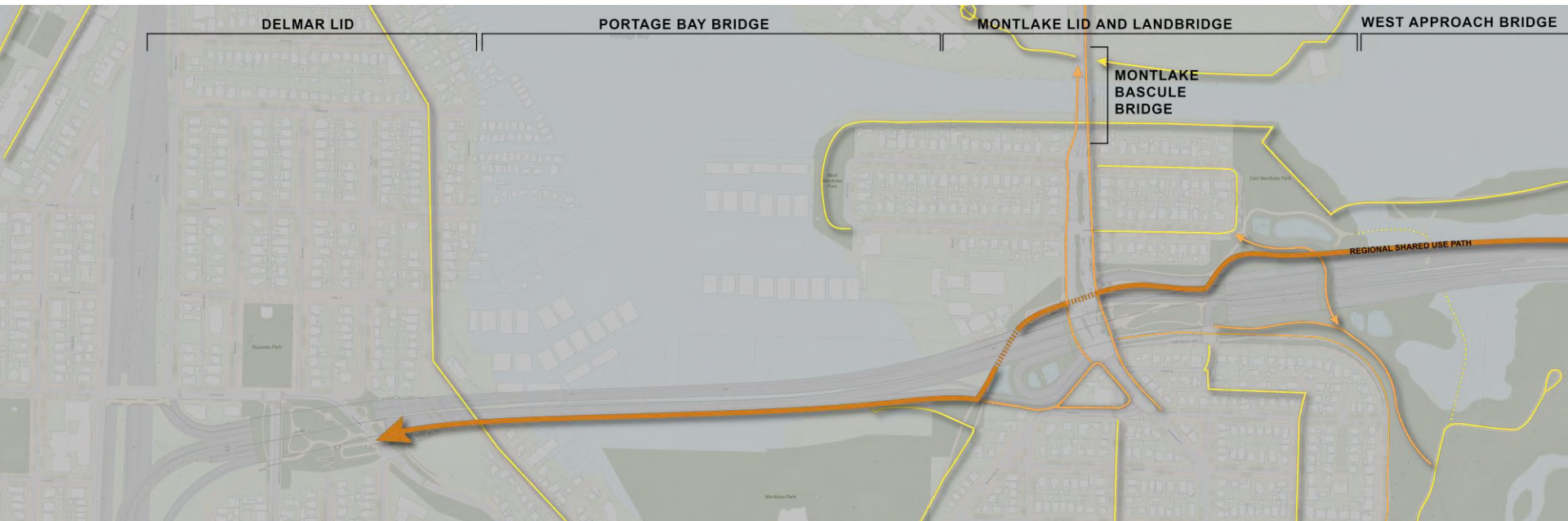
Planting



Vision:

Rest of the West Corridor

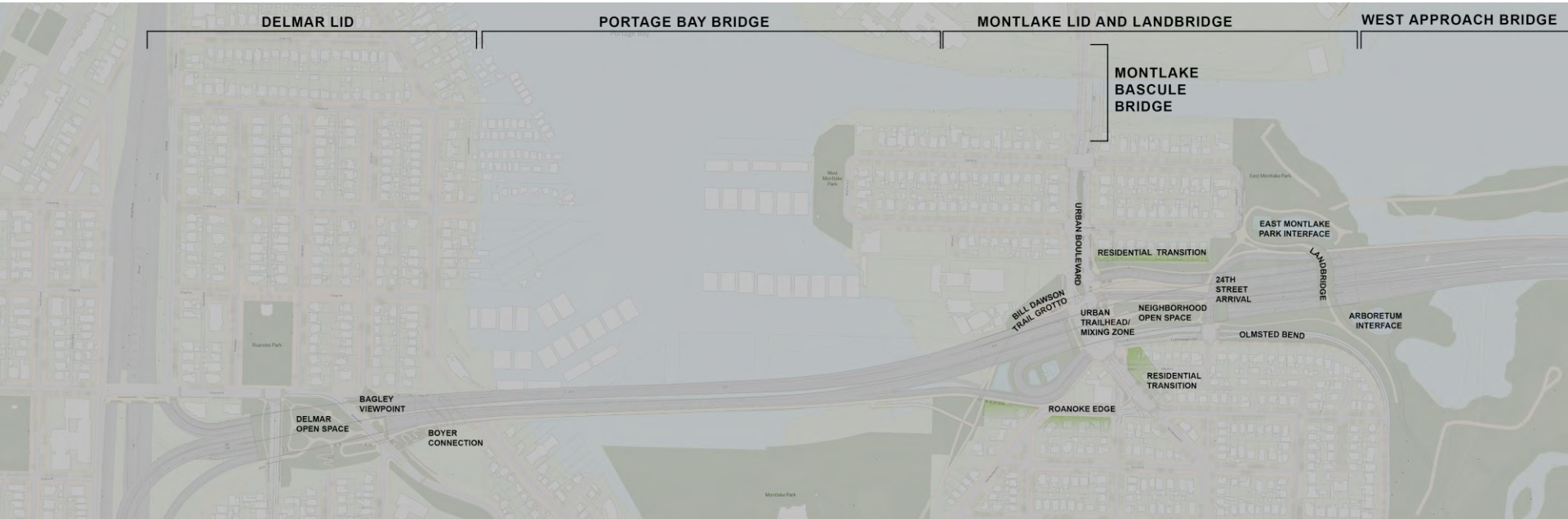
Pathways



Vision:

Rest of the West Corridor

Places



Areas of Focus

Elements of Continuity

Corridor/City Scale



Overview

Areas of Focus

Elements of Distinction

Neighborhood/Local Scale



Overview

Areas of Focus

Elements of Continuity



Transportation Network

Areas of Focus

Networks: Context



Areas of Focus

Elements of Continuity



Signage & Wayfinding

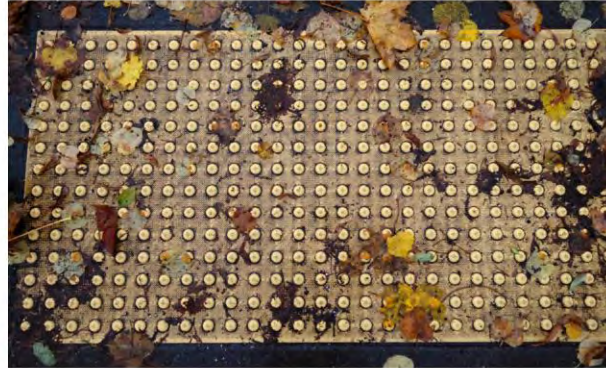
Areas of Focus

Signage: Context



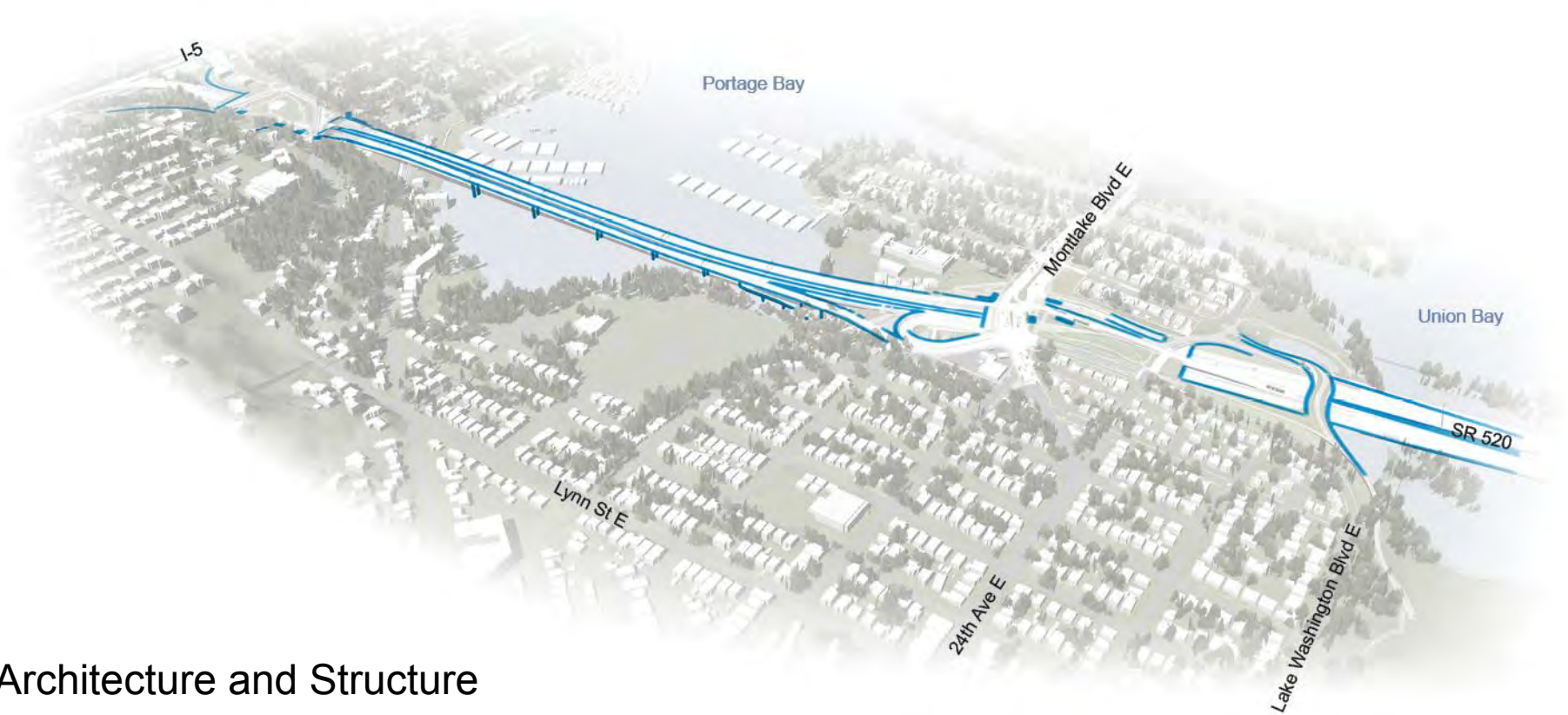
Areas of Focus

Wayfinding: Context



Areas of Focus

Elements of Continuity



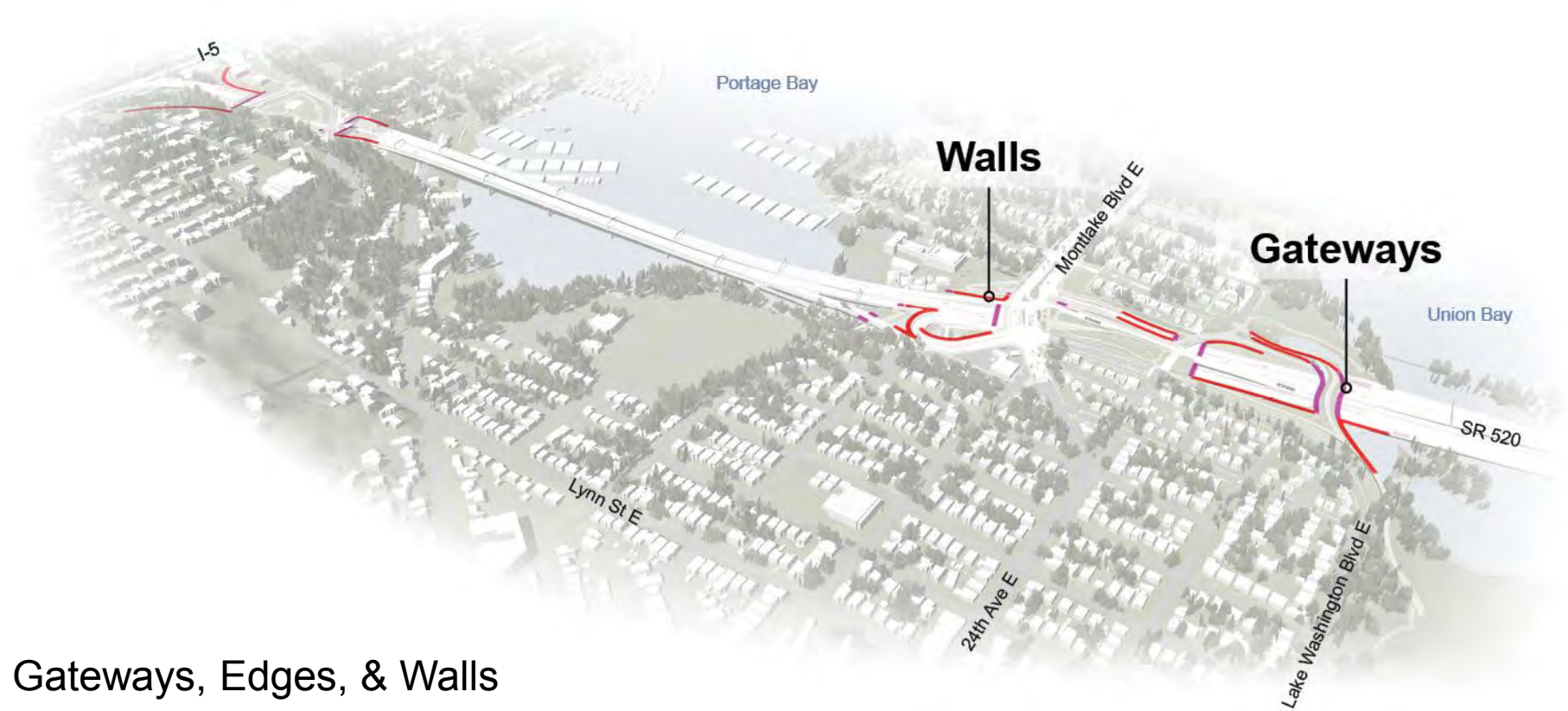
Architecture and Structure

Areas of Focus

Architecture & Structure: Context

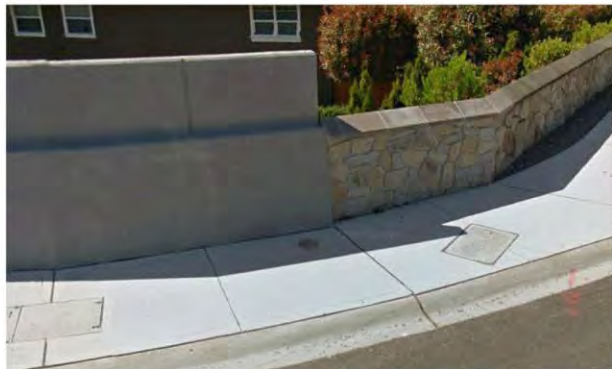
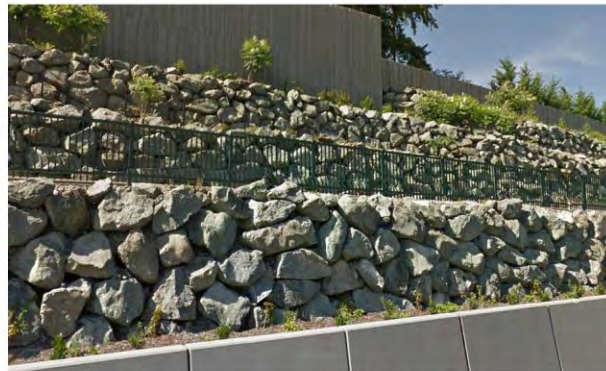
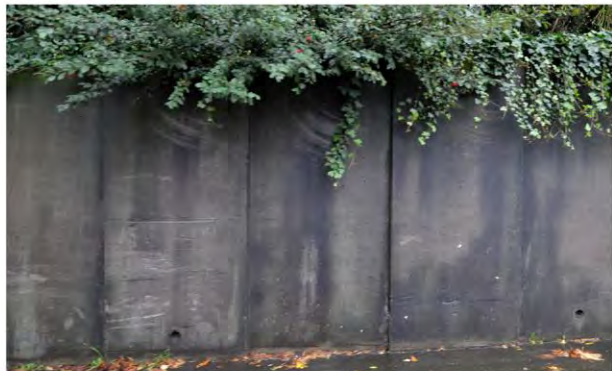


Elements of Continuity



Areas of Focus

Wall & Edges: Context



Areas of Focus

Elements of Continuity



Outlooks

Areas of Focus

Outlooks: Context



Credit: HDR



Credit: HDR

Areas of Focus

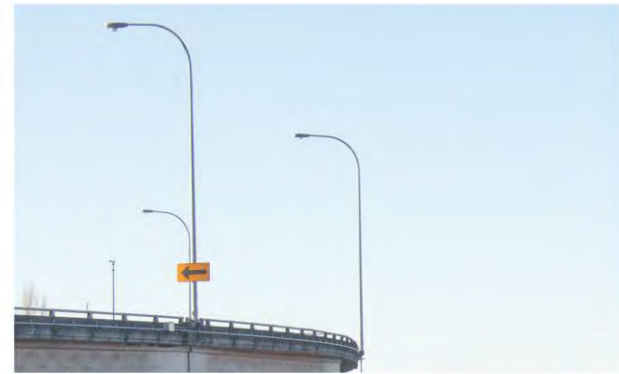
Elements of Continuity



Lighting

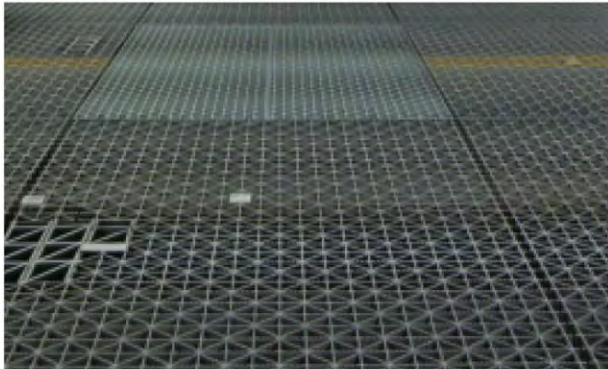
Areas of Focus

Lighting: Context



Areas of Focus

Materials: Context



Areas of Focus

Elements of Distinction



Areas of Focus

Elements of Distinction



Neighborhood Open Space

Areas of Focus

Elements of Distinction



Urban Trailhead/ Mixing Zone

Areas of Focus

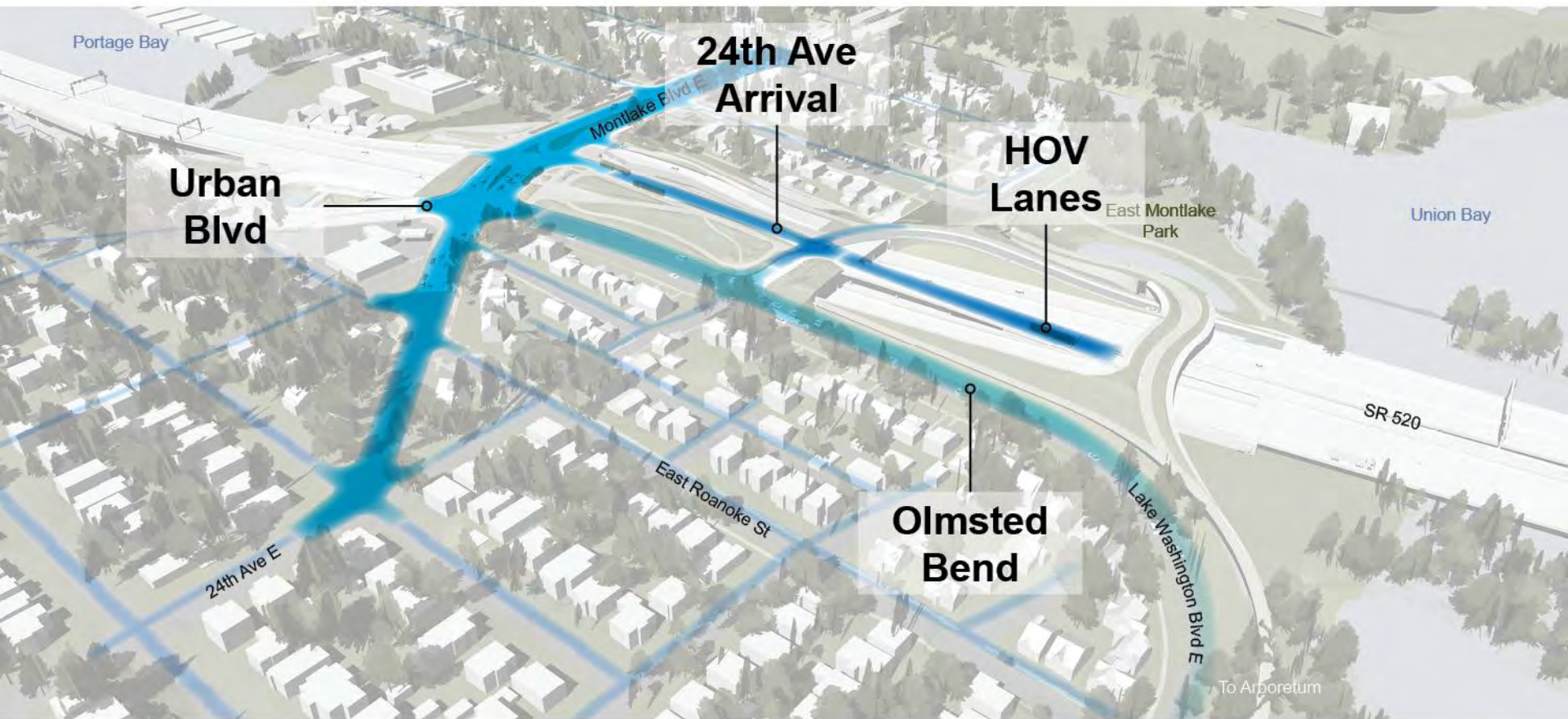
Elements of Distinction



Landbridge

Areas of Focus

Elements of Distinction



City Streets

Areas of Focus

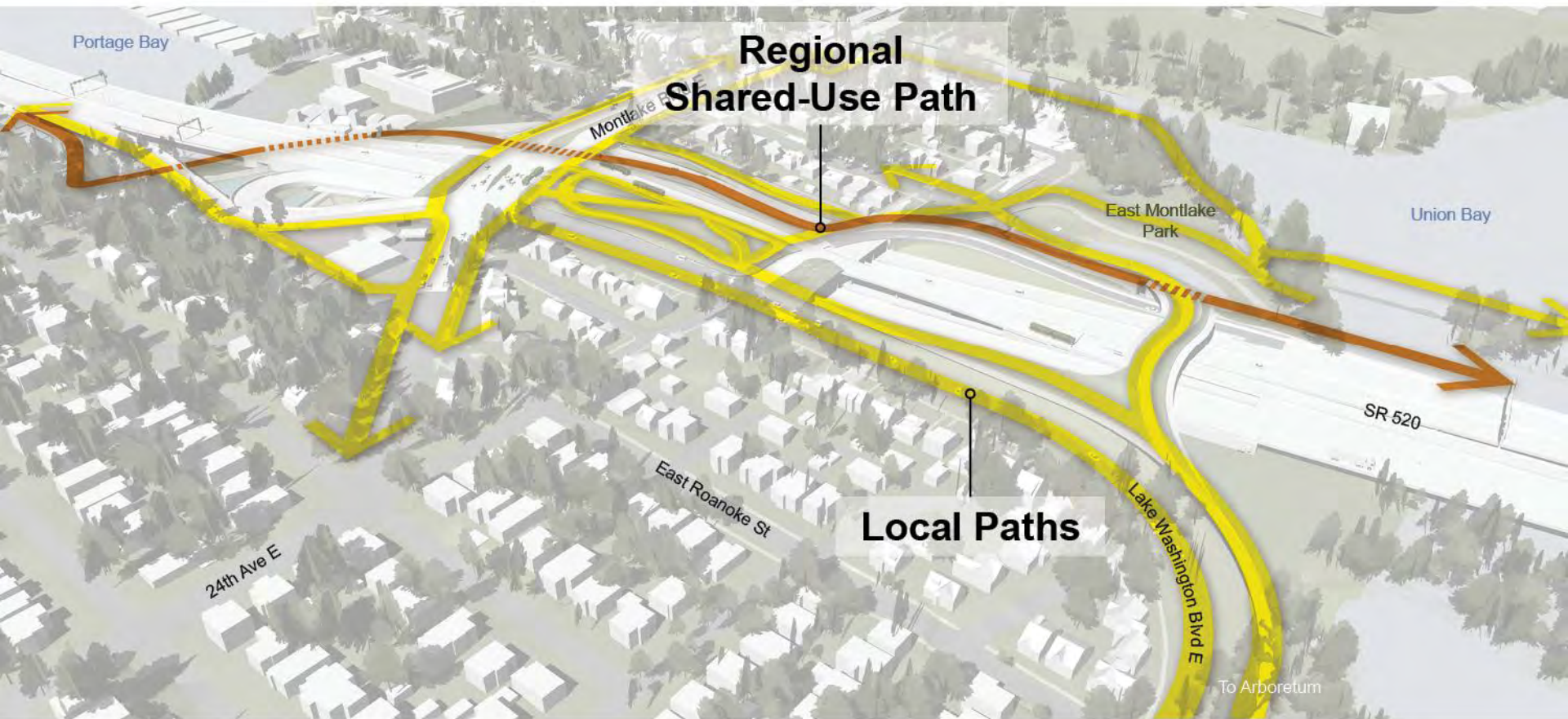
Elements of Distinction



Interfaces and Transitions

Areas of Focus

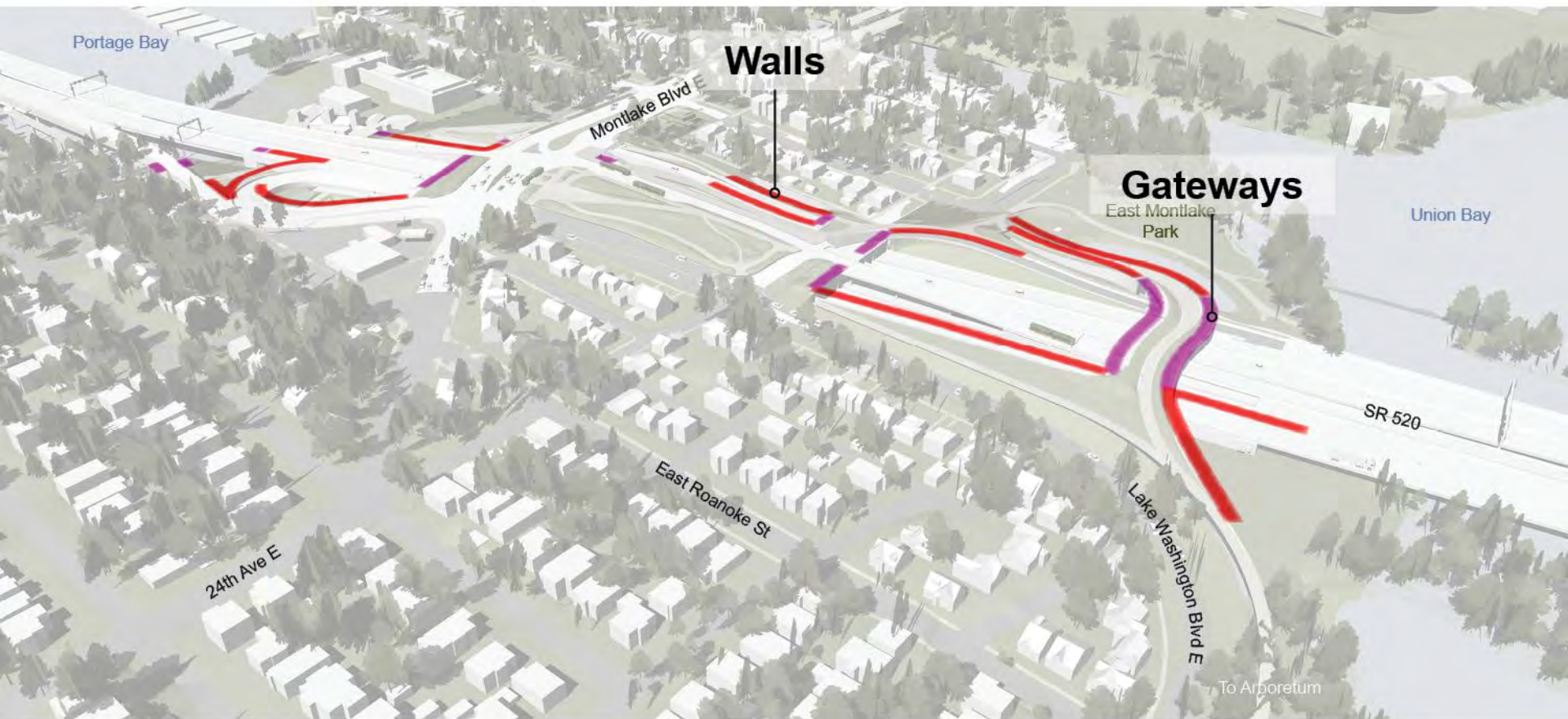
Elements of Distinction



Integrated Connections

Areas of Focus

Elements of Distinction



Gateways, Edges, & Walls

Areas of Focus

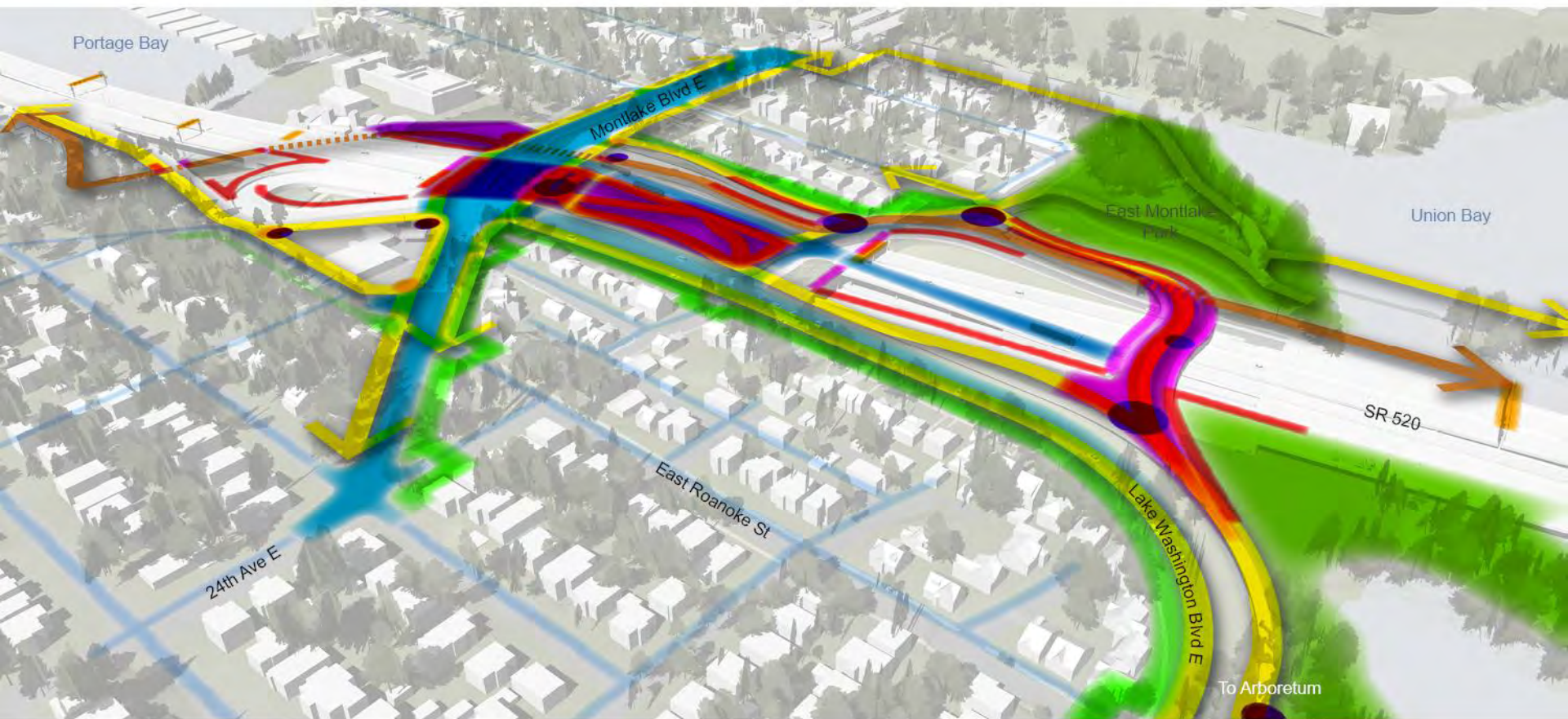
Elements of Distinction



Wayfinding and Interpretive Signage

Areas of Focus

Elements of Distinction



Placemaking

Areas of Focus

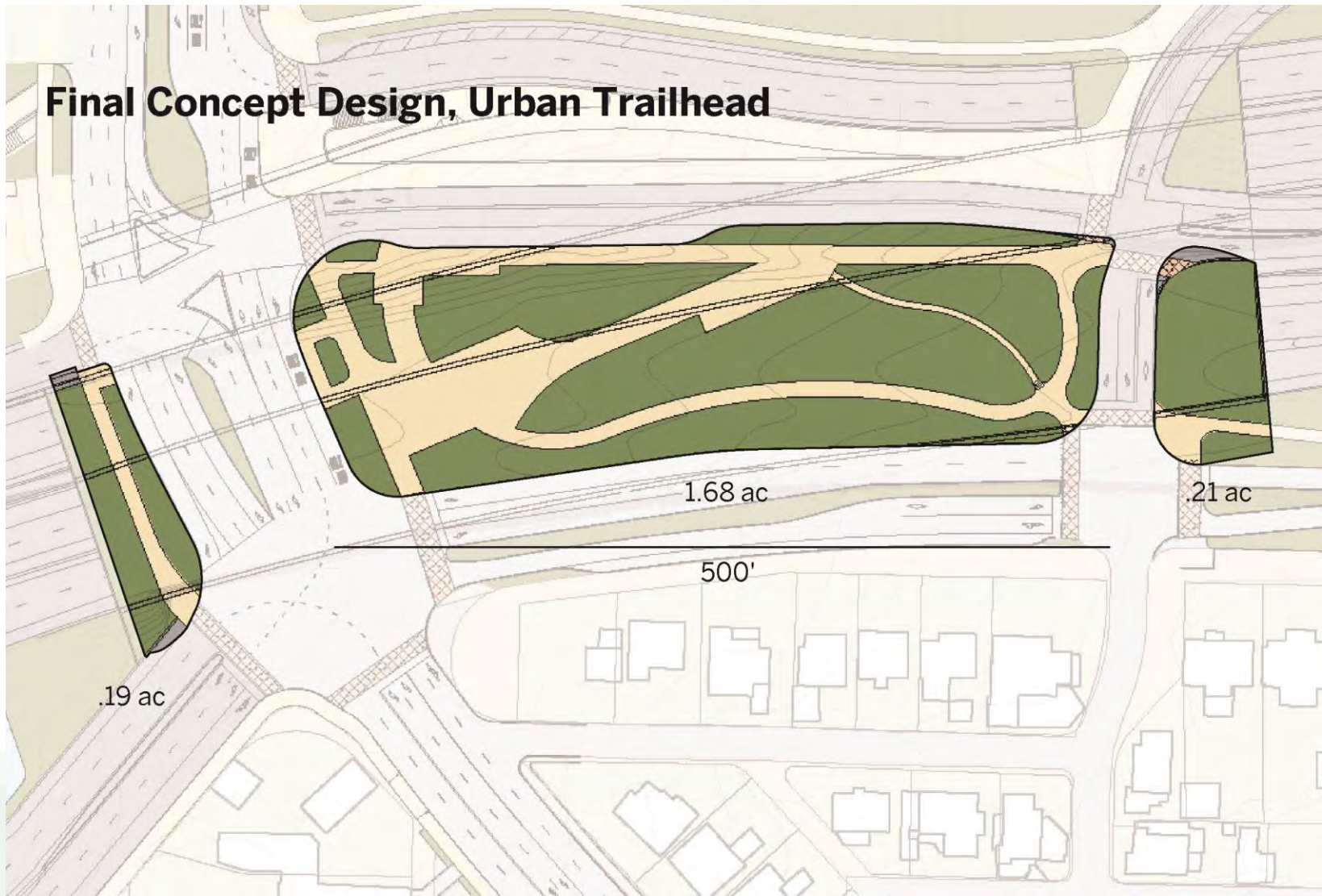
Initial Observations

Open Space

Gateways

Outlooks

Open Space Program



Elements of Distinction

Open Space Program

ACTIVE RECREATION



Montlake Playfield, Seattle



Open Space Program

FOCAL POINT



Elements of Distinction

Open Space Program

MARKET



Piazza Navona, Rome



Open Space Program

GATHERING SPACE



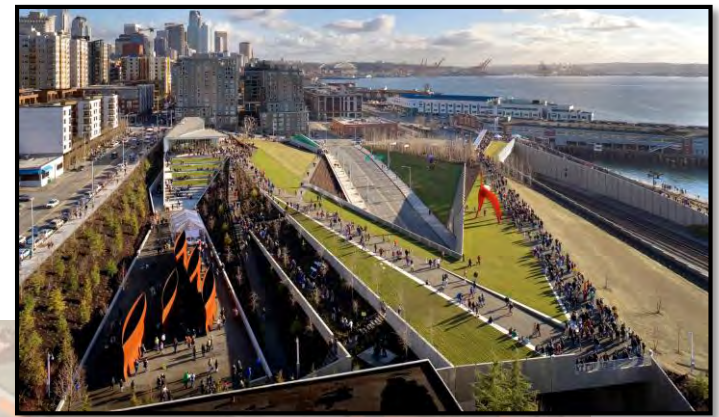
Bryant Park, New York



Elements of Distinction

Open Space Program

TERRACED PROCESSION/AMPHITHEATER



Olympic Sculpture Park, Seattle



Elements of Distinction

Open Space Program

PASSIVE RECREATION

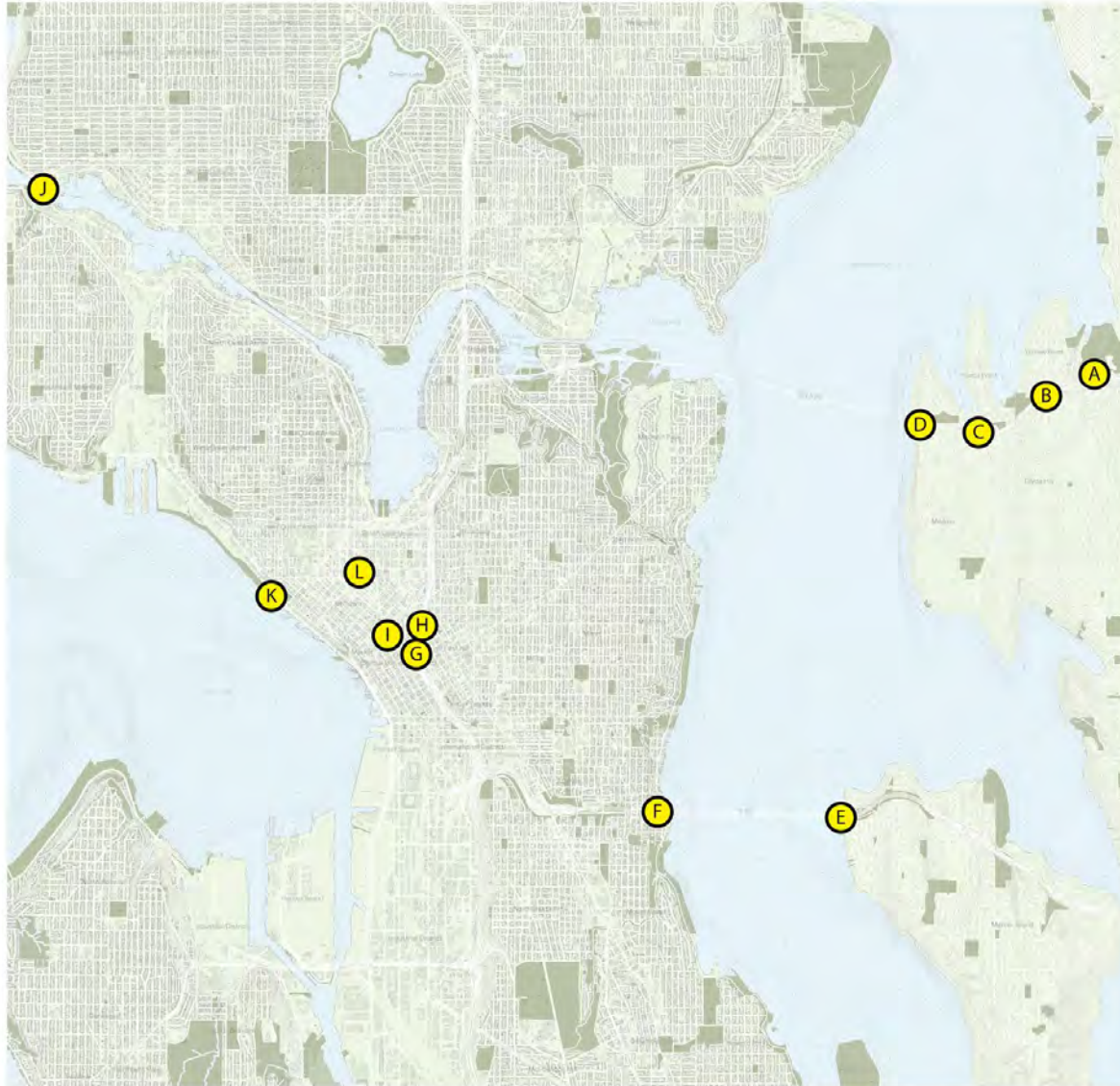


Cal Anderson Park, Seattle



Elements of Continuity

Gateways



REGIONAL GATEWAYS

SR- 520

- A. Bellevue Way Lid
- B. 92nd Interchange
- C. 84th Street
- D. Evergreen Point

I-90

- E. Mercer Island
- F. Mount Baker

I-5

- G. Freeway Park Underpass (Northbound)
- H. Freeway Park Underpass (Southbound)

Other Gateways

- I. Pike Street At Convention Center
- J. Ballard Locks
- K. Olympic Sculpture Park Underpass
- L. Future I-99 Tunnel

Elements of Continuity

Gateways



520 Bellevue Way Interchange

ADT 80,000



REGIONAL GATEWAYS

Elements of Continuity

Gateways

B 520 92nd Street Interchange


ADT 80,000



REGIONAL GATEWAYS

Elements of Continuity

Gateways

 520 84th Street Interchange

ADT 80,000



REGIONAL GATEWAYS

Elements of Continuity

Gateways

D 520 Evergreen Point

ADT 80,000



Credit: HDR

REGIONAL GATEWAYS

Elements of Continuity

Gateways

E I-90 across Mercer Island

147,000 ADT



REGIONAL GATEWAYS

Elements of Continuity

Gateways

F I-90 at Mount Baker

147,000 ADT



REGIONAL GATEWAYS

Elements of Continuity

Gateways

G Freeway Park Underpass (Northbound)


ADT 203,000



REGIONAL GATEWAYS

Elements of Continuity

Gateways

 Freeway Park Underpass (Southbound)

ADT 203,000



REGIONAL GATEWAYS

Elements of Continuity

Gateways



Pike Street at WSCC

ADT 10,600



REGIONAL GATEWAYS

Elements of Continuity

Gateways



Ballard Locks Ship Canal



REGIONAL GATEWAYS

Elements of Continuity

Gateways



Olympic Sculpture Park Underpass

ADT 48,900



REGIONAL GATEWAYS

Elements of Continuity

Gateways

L Future I-99 Tunnel Southbound (Alaska Viaduct Replacement)

ADT 63,000



REGIONAL GATEWAYS

Elements of Distinction

Outlooks

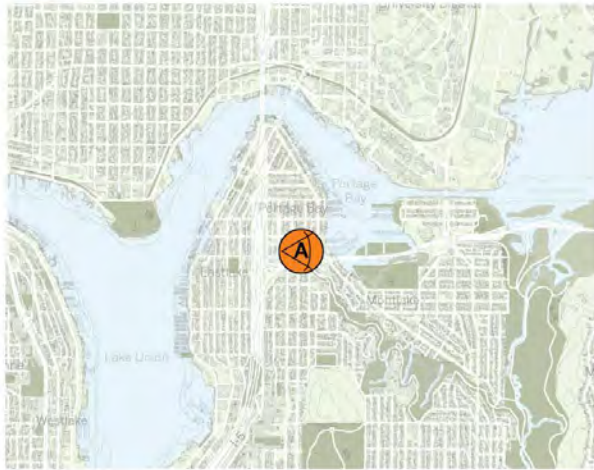


SEATTLE VIEWPOINTS & OVERLOOKS

- A Bagley Viewpoint
- B Fremont Peak Park
- C East Portal Viewpoint
- D Boren Park
- E Mt Baker Ridge Viewpoint

Elements of Distinction

Outlooks

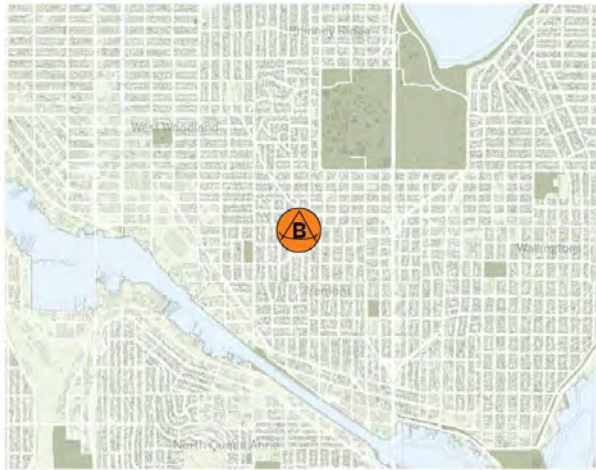
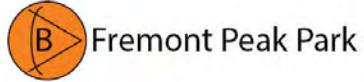


SEATTLE VIEWPOINTS

01.27.2016

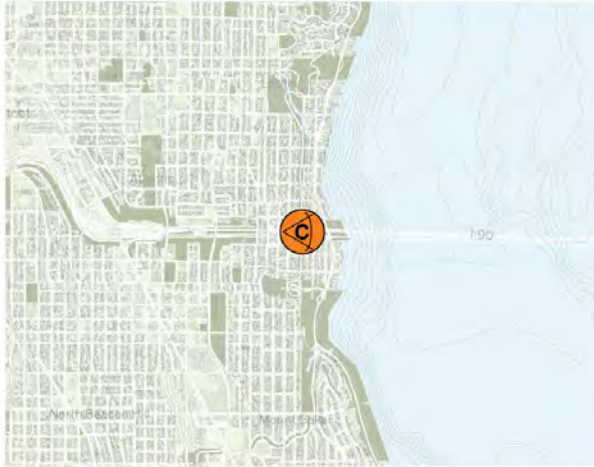
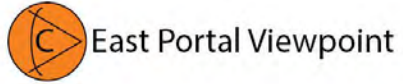
Elements of Distinction

Outlooks



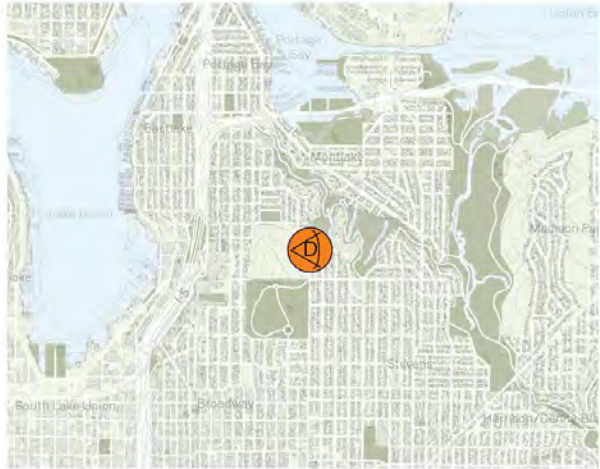
Elements of Distinction

Outlooks



Elements of Distinction

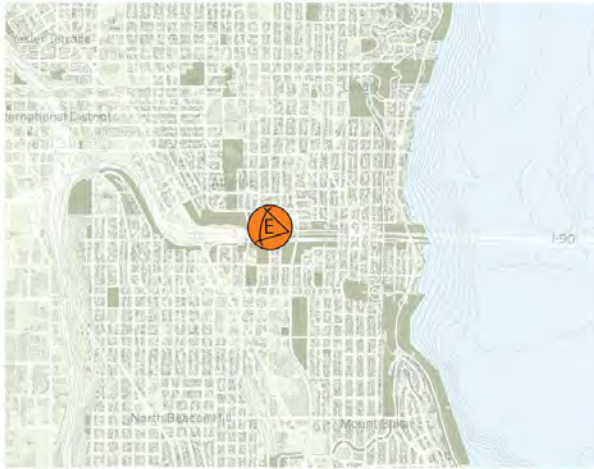
Outlooks



Elements of Distinction

Outlooks

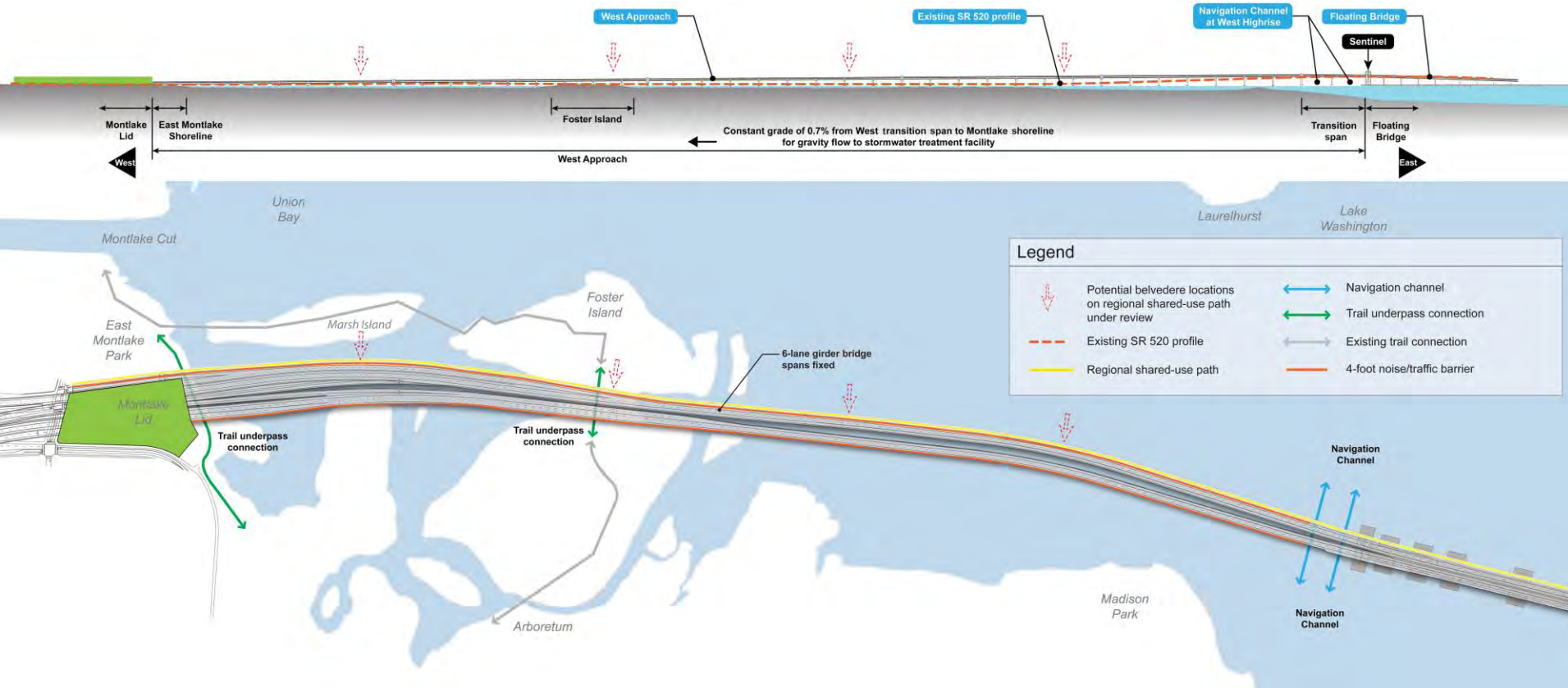
Mt Baker Ridge Viewpoint



West Approach Bridge



West Approach Bridge



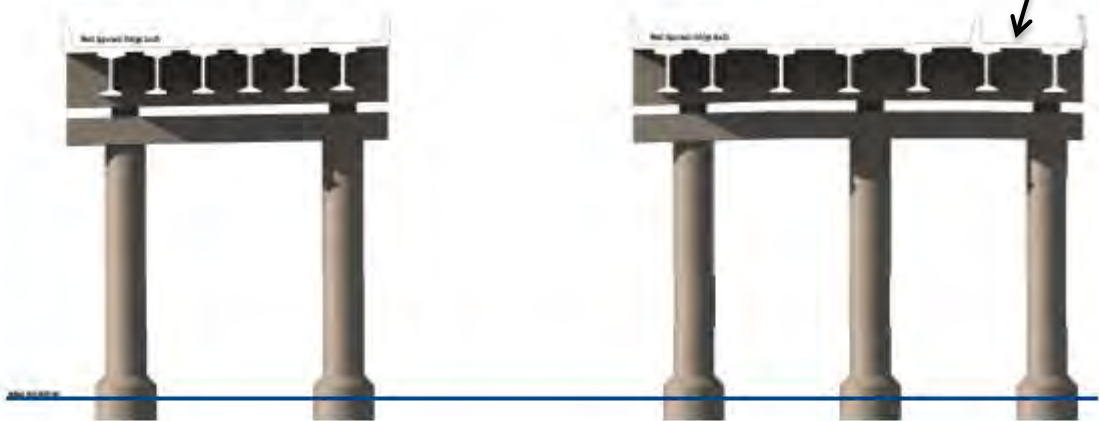
West Approach Bridge



West Approach Bridge

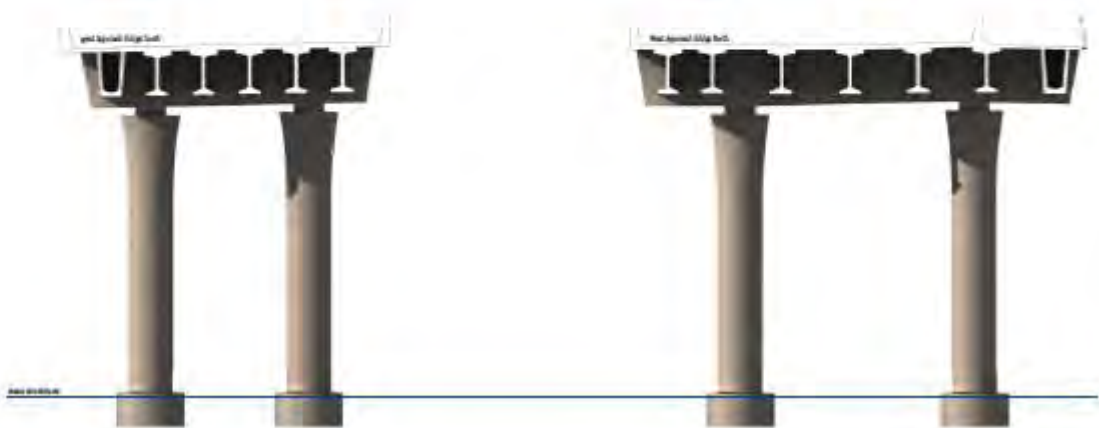
ISOLATION BEAM / NO CROSS BEAM STUDY

Baseline



Regional
Shared Use
Path

Concept
Design



WABS
West Approach Bridge South

WABN
West Approach Bridge North

Section Looking South

West Approach Bridge



West Approach Bridge South (WABS)

BASE ISOLATION



West Approach Bridge South (WABS)

NO BASE ISOLATION



West Approach Bridge South (WABS)

CATCH BASIN BASELINE



West Approach Bridge South (WABS)

CATCH BASIN W/ COVERED DRAIN AT SIDE



West Approach Bridge South (WABS)

NO BASE ISOLATION; CATCH BASIN W/ COVERED DRAIN AT SIDE



Elements of Continuity

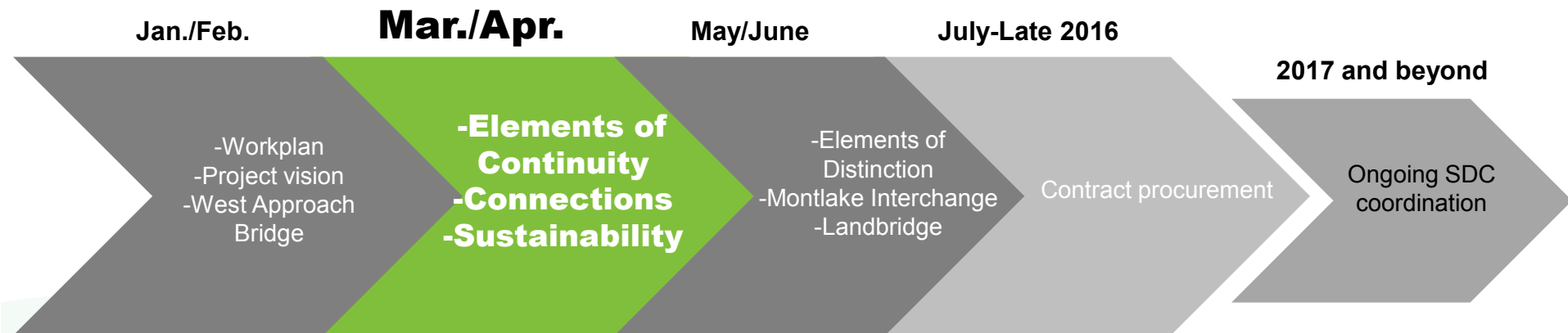
2nd Commission Meeting: April 7

Specific SDC comments:

Environment

Gateway Experience

Connectivity and Wayfinding



Elements of Distinction

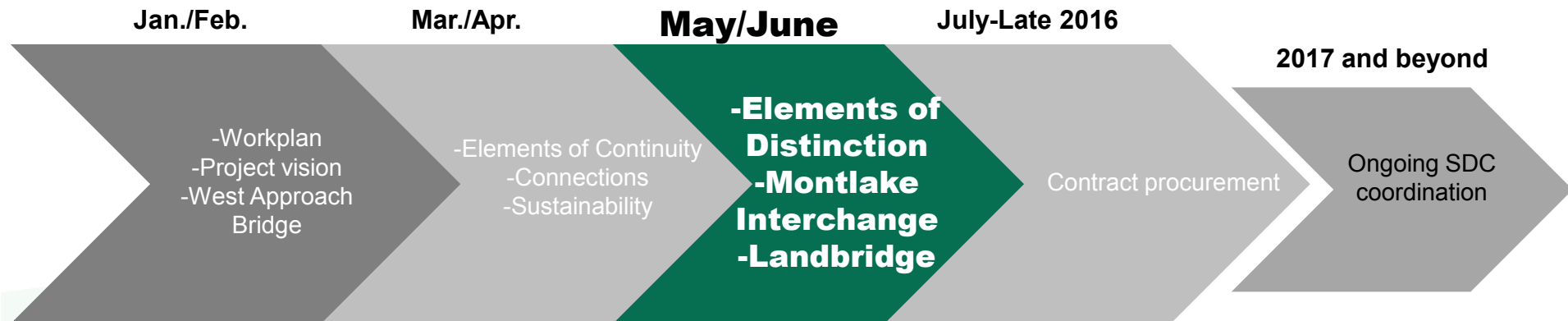
3rd Commission Meeting: June 2

Specific SDC comments:

Montlake Interchange

- Open Space Programming

Landbridge



Contract Procurement

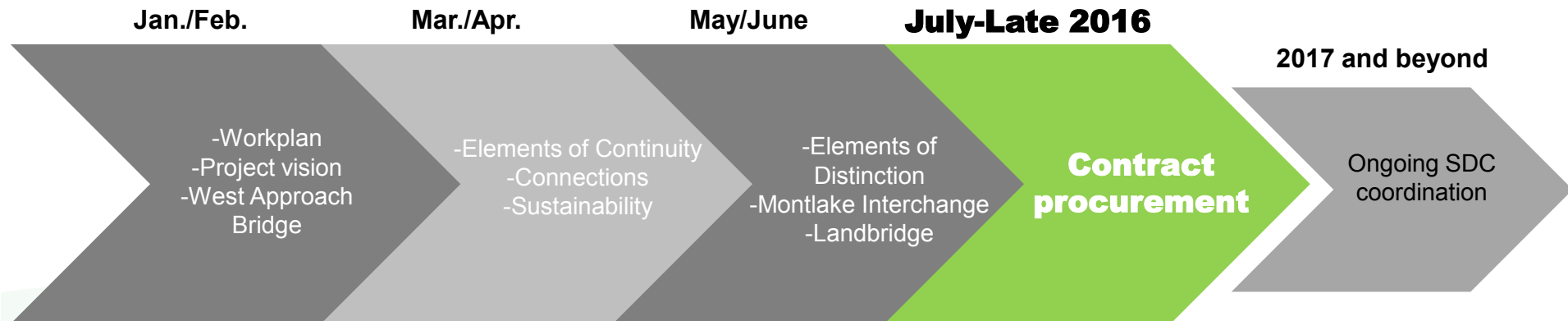
Urban Design Criteria

Scale and Detail

Deliberate and Strategic Priorities

- Practical Solutions

Prescriptive vs. Flexible



SDC Work Plan

Elements of Distinction

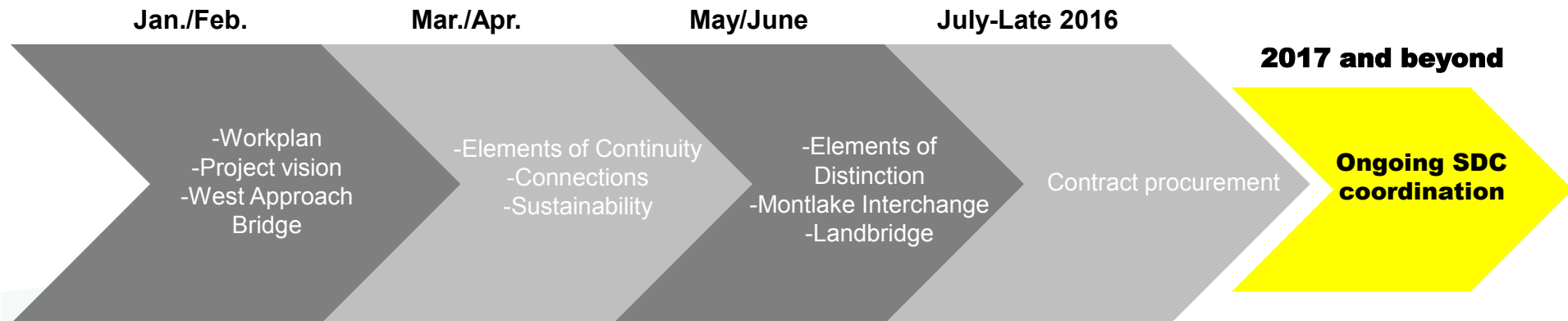
Future

Specific SDC comments:

Montlake Boulevard

Portage Bay

10th and Delmar



SDC Discussion



For questions and comments on the SR 520 program contact us

wsdot.wa.gov/Projects/SR520Bridge

SR520Bridge@wsdot.wa.gov

SR 520 Bridge Replacement and HOV Program
999 3rd Avenue, Suite 2200
Seattle, WA 98104

SR 520 'Rest of the West'

Edward B. Murray
Mayor

Diane Sugimura
Interim Director, OPCD

Shannon Loew, Chair

Ross Tilghman, Vice Chair

Brodie Bain

Lee Copeland

Ben de Rubertis

Thaddeus Egging

Rachel Gleeson

Laura Haddad

Theo Lim

John Savo

Michael Jenkins
Director

Valerie Kinast
Coordinator

Aaron Hursey
Planner

Juliet Acevedo
Administrative Staff

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Community Development**
700 5th Avenue, Suite 2000
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seattle.gov/dpd/cityplanning

Commissioners Present

Shannon Loew, Chair
Ross Tilghman, Vice Chair
Lee Copeland
Ben de Rubertis
Laura Haddad
Theo Lim
John Savo

Commissioners Excused

Brodie Bain
Thaddeus Egging
Rachel Gleeson

Project Description

The Washington State Department of Transportation (WSDOT) is redeveloping the Seattle segment of the State Route (SR) 520 corridor between I-5 and Lake Washington. The redevelopment will include new bridges that meet current seismic standards, HOV capacity, updated roadways, new pedestrian and bicycle facilities, improved transit connections, open spaces, and enhanced non-motorized connections. Although the entire project is fully funded, funding for design and construction is spread across several biennia, and construction is anticipated to occur in three phases:

- Phase I – Includes the corridor spanning from Lake Washington to Montlake Blvd. This phase will include the design and construction of the Montlake lid, land bridge, and West Approach Bridge South (WABS).
- Phase II – Includes the planning, design, and construction of the Portage Bay Bridge, 10th and Delmar lid, and I-5 interchange.
- Phase III – Includes a second bascule bridge over the Montlake Cut.

The Seattle Design Commission (SDC) is providing advice to WSDOT on final design concepts related to Phase I of the corridor. This final design work will assist WSDOT in developing the Request for Proposals (RFP) for construction of Phase 1.

Meeting Summary

At this meeting, the SDC received an overview and update on the SR 520 Program, focusing on specific elements proposed in the phase I program. Following the presentation, comment, and deliberation, the SDC agreed to endorse elements of continuity and distinction proposed within the SR 520 'Rest of the West' program.

Recusals and Disclosures

Thaddeus Egging recused himself. He is an employee of KPFF, the engineering firm working on this project.

April 7, 2016

2:00 - 4:00 pm

Type

Major Project

Phase

Concept Design

Previous Reviews[02/04/16](#)**Project Team Present**

Lyle Bicknell, OPCD

Brianna Holan

LMN Architects

Kerry Pihlstrom, WSDOT

Osama Quotah

LMN Architects

Steven Van Dyck

LMN Architects

Attendees

Joe Basile

WSDOT Consultant

Kenan Block, Seattle Arch

Evan Chakroff

LMN Architects

Linnea Cook

LMN Architects

Bob Corwin, Seattle Arch

Allan Davis, Seattle Arch

Erin Doherty, DON

Candace Goodrich

WSDOT Consultant

David Graves, SPR

Todd Harrison, HDR

Adam Hunter

LMN Architects

David Jackson, COS

Rainer Metzger, Seattle Arch

John O'Neil, Seattle Prep

Norie Sato, WSDOT Consultant

Allan Seidenberg, Seattle Arch

Joan Stewart, Seattle Arch

Carl Sturood, PBRPCC

Kirk Wilcox, WSDOT

Connie Zimmerman, COS

April 7, 2016

Users and Destinations

Figure 1: Example of elements of continuity

Summary of Presentation

Kerry Pihlstrom, of WSDOT, and Osama Quotah and Steven Van Dyck, of LMN Architects, presented the project proposal. Kerry provided an overview of the presentation, which included a timeline, purpose, and description of the 'Rest of the West' project proposal. The project team continues to work with government agencies and community leaders throughout the planning and design processes.

Osama Quotah presented an overall vision for project, including elements of distinction and continuity, followed by conceptual development of pathways and lighting elements throughout located throughout phase I. The overall vision, "where nature meets the City", addresses integrating green spaces, planting, ecology, pathways, places and networks throughout the SR 520 corridor. The project includes elements of distinction such as urban trailheads, wayfinding design, outlooks, vehicular streets, and pathways. These elements are unique in their design in order to reflect the individual character of the surrounding neighborhoods. Elements of continuity are used to integrate, or knit together, connections throughout the entire corridor (see figure 1). These elements, which will vary from regional to neighborhood scale networks, will connect users with a variety of outlooks, trails, and recreational spaces.

Lighting will be integrated throughout the corridor at various scales to address vehicular needs along SR 520 and Montlake Boulevard, as well as pedestrian needs along neighborhood streets, shared pathways and pedestrian only pathways. Lighting elements includes a variety of vehicular and pedestrian poles, bollards, and lighted handrails (see figure 2). The corridor will also include highway signage along SR 520. Signage will provide regulatory, variable, and life safety messaging through a series of electronically controlled and static signs.

Walls will be used throughout the corridor to provide safety measures between vehicular and non-vehicular uses while enhancing the surrounding landscape. The project team has proposed a series of walls that will weather over time, serving as an area for small plants, grasses, and mosses to grow. Heavy landscaping will be used to screen concrete walls used as terraces between pedestrian and vehicular areas, while low-lying walls in pedestrian areas will be constructed out of natural materials such as wood and stone. See figure 3 for more detail.

The landbridge will include shared pathways, pedestrian scaled lighting, outlooks, and heavy landscaping. The design of the land bridge has continued to develop

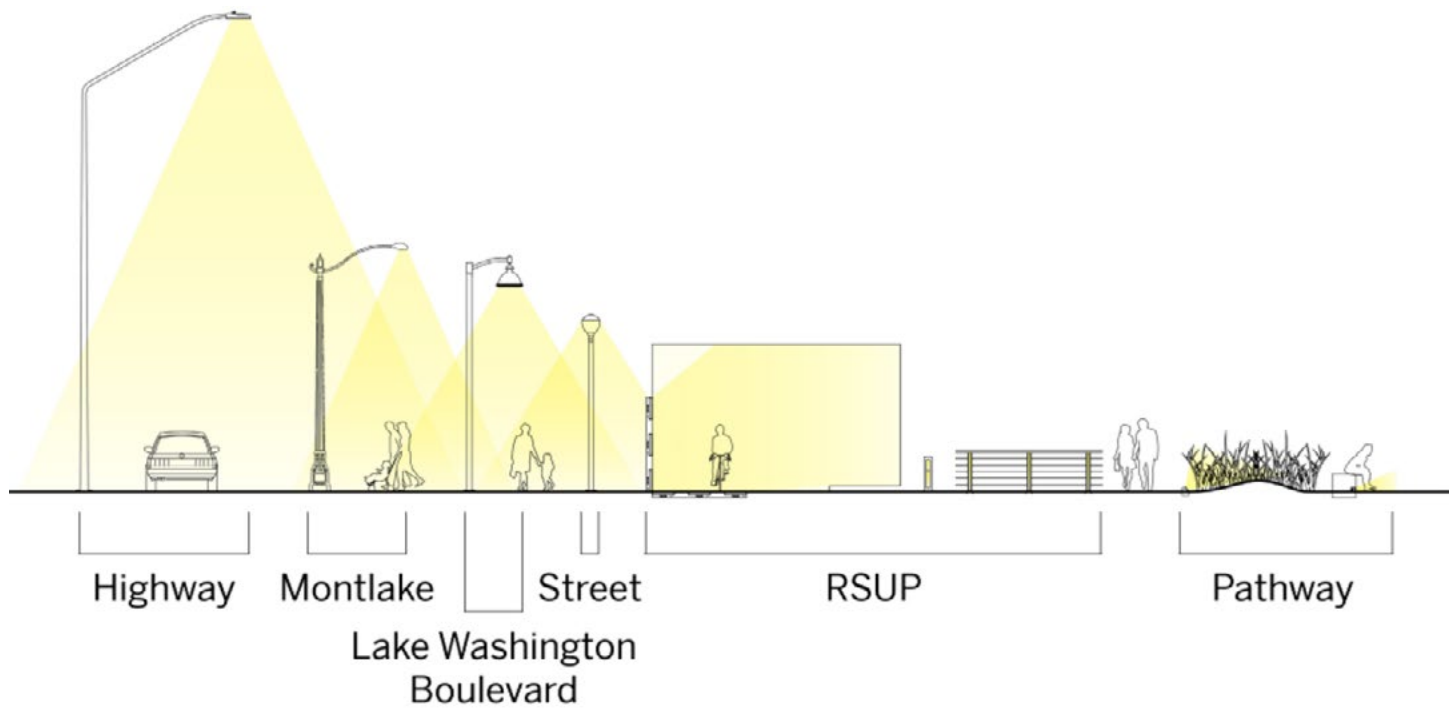


Figure 2: Proposed lighting elements

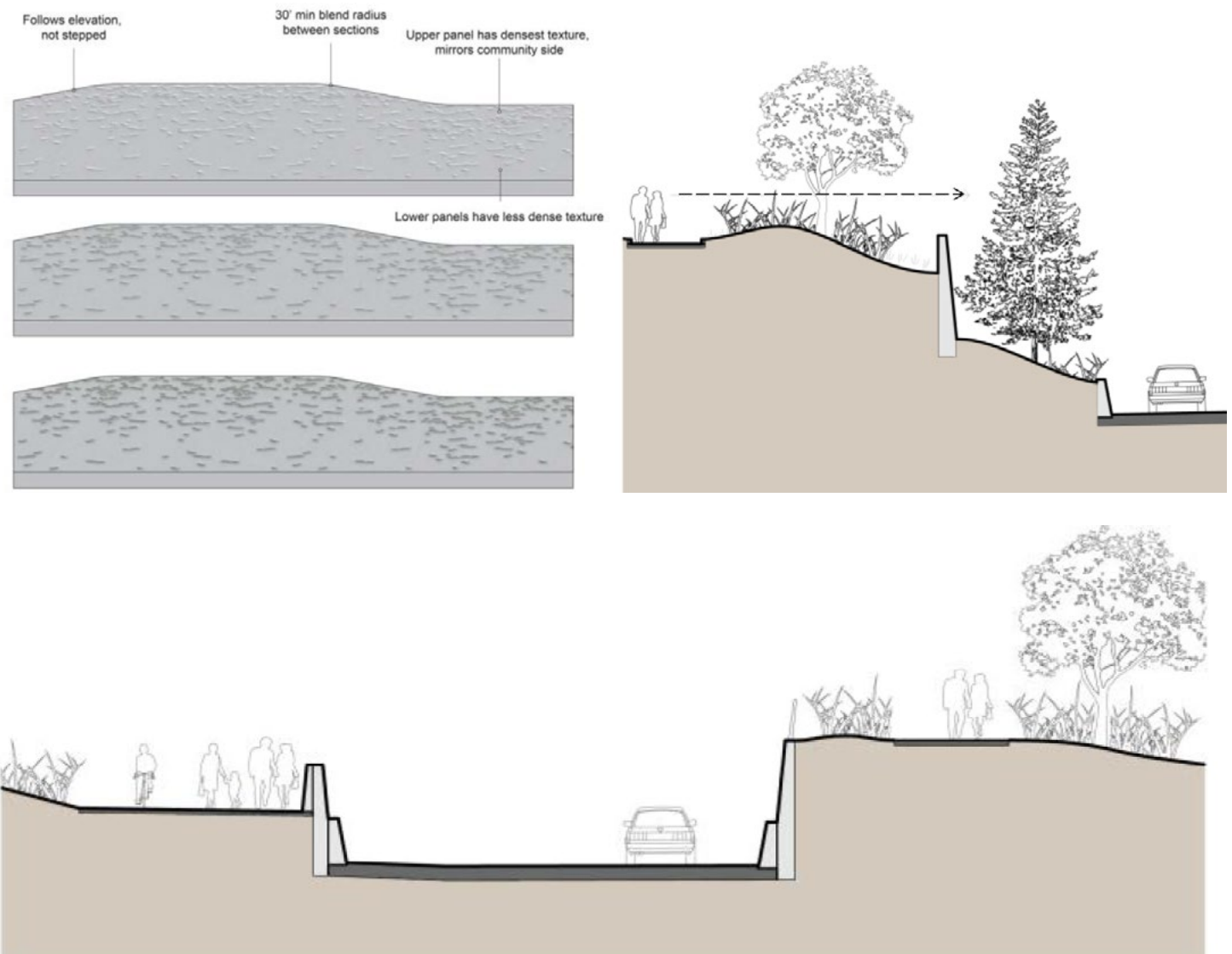


Figure 3: Examples of proposed wall design and placement

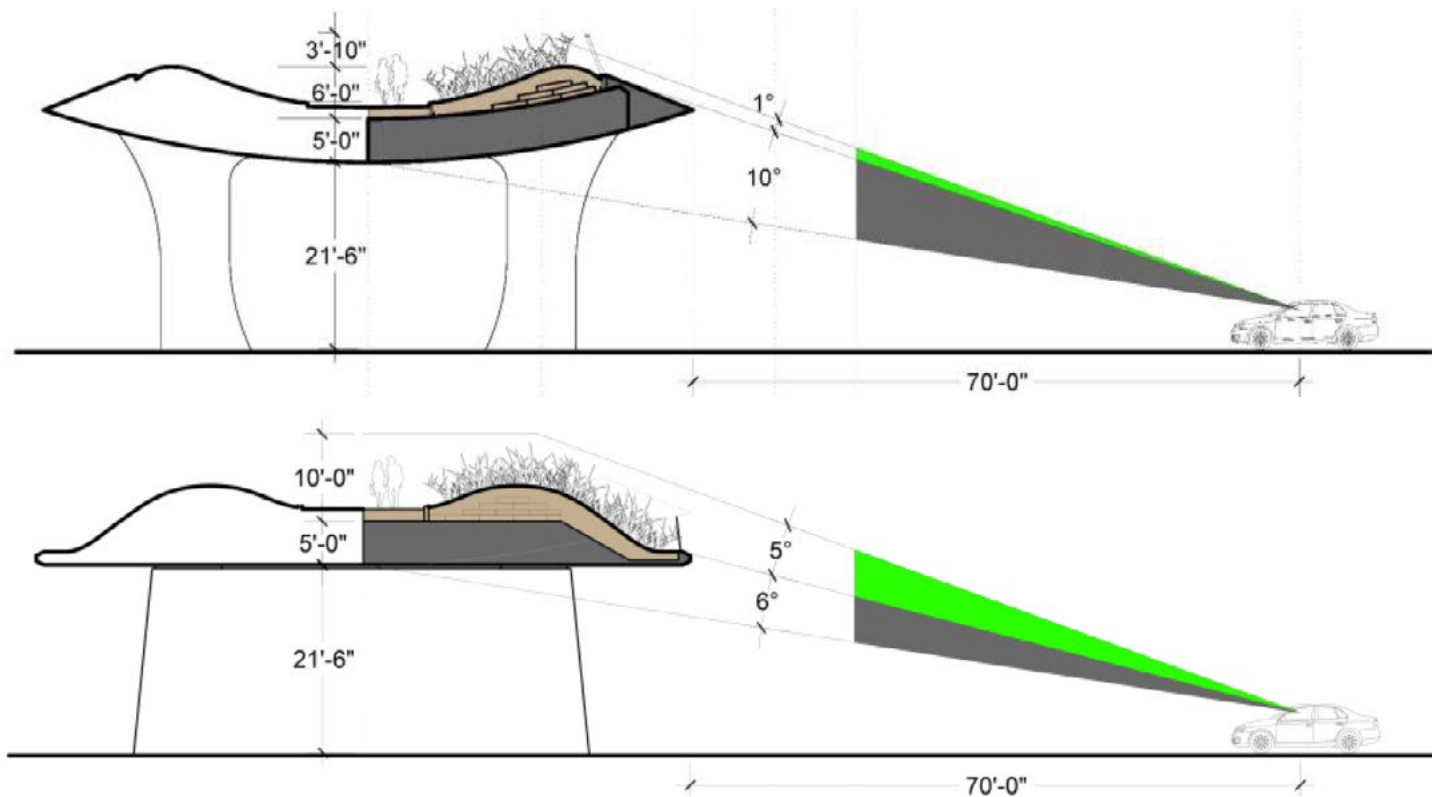


Figure 4: Previous landbridge design (top) and updated landbridge design (bottom)



Figure 5: View of landbridge from SR 520 - westbound

since the previous meeting. The original “saucer shaped” design provided limited views of the landscaping from the highway. The proposed design reversed the saucer design, allowing landscaping to blend into the edge of the landbridge while providing greater views from the highway. See figures 4 and 5 for more detail.

Agency Comments

None

Public Comments

Rainier Metzger, of Seattle Arch, stated that Seattle Arch presented a proposal for retaining a piece of the ramps to nowhere during a previous meeting. He then described a concept design for the proposal. Mr. Metzger mentioned that this ramp is literally the end of the road and is profound in the history of Seattle because it was a place where people came together in order to stand against the creation and expansion of a freeway system through several vulnerable neighborhoods. Mr. Metzger stated that the ramps are important history to leave behind, as a physical

remnant in order for this history remain present. Speaking for Seattle Arch, Mr. Metzger asked WSDOT and city staff to work with others in preserving this piece of history.

John O'Neil, of Seattle Prep, is concerned with pedestrian safety during the construction of phase of the project. He stated that although many issues regarding pedestrian safety are only temporary, they should not be brushed aside.

Summary of Discussion

Overall, the SDC supports WSDOT's concept of "nature meets city" for this segment of SR 520. The SDC supports this concept based, in part, on the variety of ways that WSDOT is implementing this concept through features like the landbridge (as a gateway and a regional connector), the lid, the transit hub and other key elements.

The SDC supports how the overall concept is being implemented into project details. The SDC appreciates and supports the design features and details, but also sees the need for additional design work to refine the "nature meets city" concept, including:

1. The integration of the landbridge with the surrounding corridor
2. The continuity of lighting types in the lid and pedestrian routes
3. How terraced landscaping is used to reduce vehicle noise
4. Continued ways to combine landscaping with concrete walls that soften those features and support plant growth

The SDC expressed agreement with design elements such as using terraced landscaping as a way to reduce vehicular acoustics, creating a garden experience along the land bridge, providing continuity in lighting types, and providing a tactile experience by combining the natural landscape with walls throughout the corridor.

The Commission encouraged the project team to begin thinking about creating bid documents. Specifically, commissioners want the team to clarify which elements will be explicitly defined within the documents. The SDC recommends the project team continue collaborating with the commission while drafting bid documents.

Action

The SDC endorses proposed elements of continuity and distinction presented during today's meeting. The Commission will continue to provide feedback to WSDOT throughout the planning and design of phase I.

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

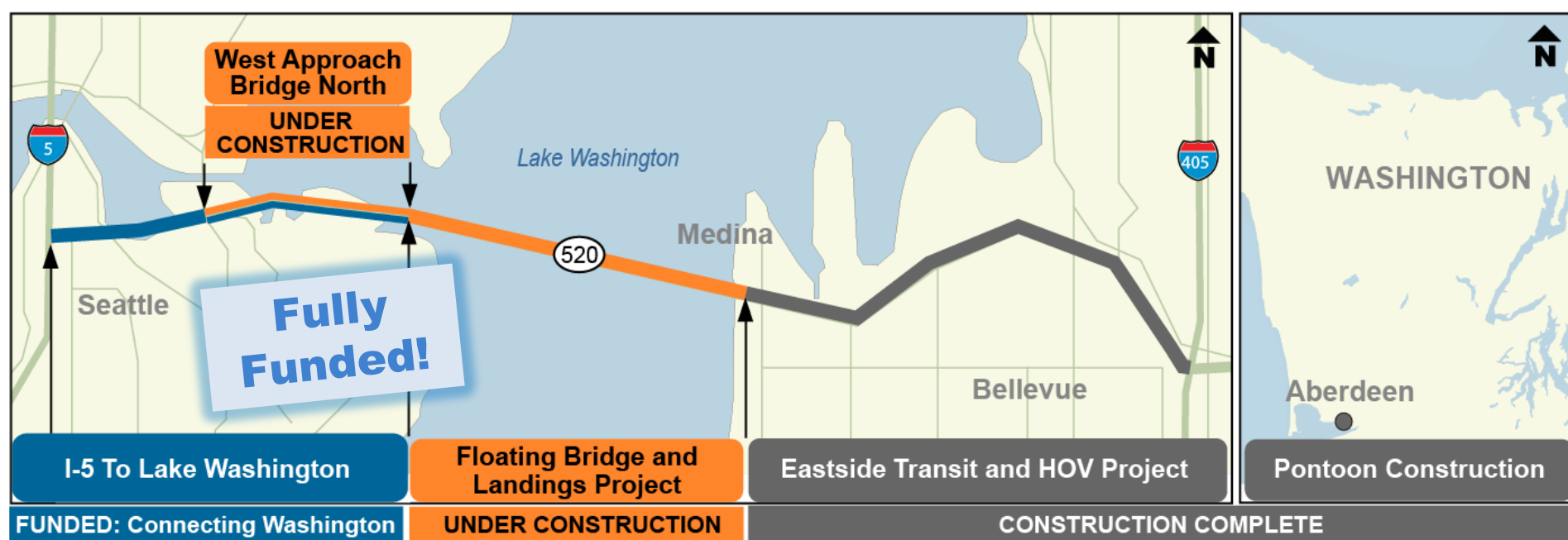


The SR 520 program is enhancing mobility by:

- 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!

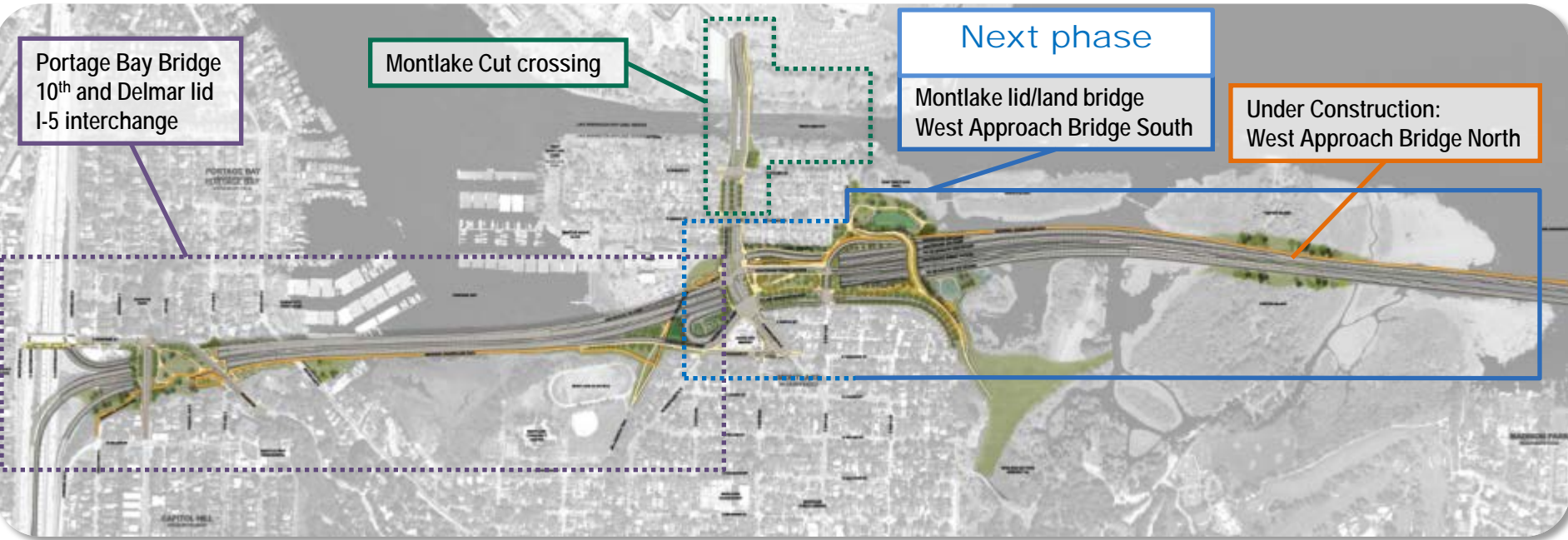
Grand Opening of the Floating Bridge and Landings



Rest of the West project overview

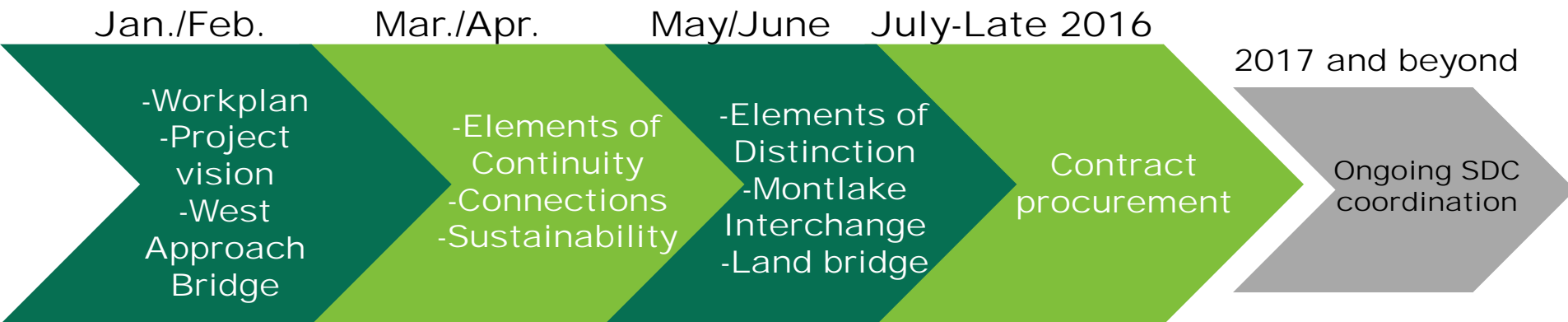


Final design of Bill Dawson Trail connection pending coordination with neighboring property owners

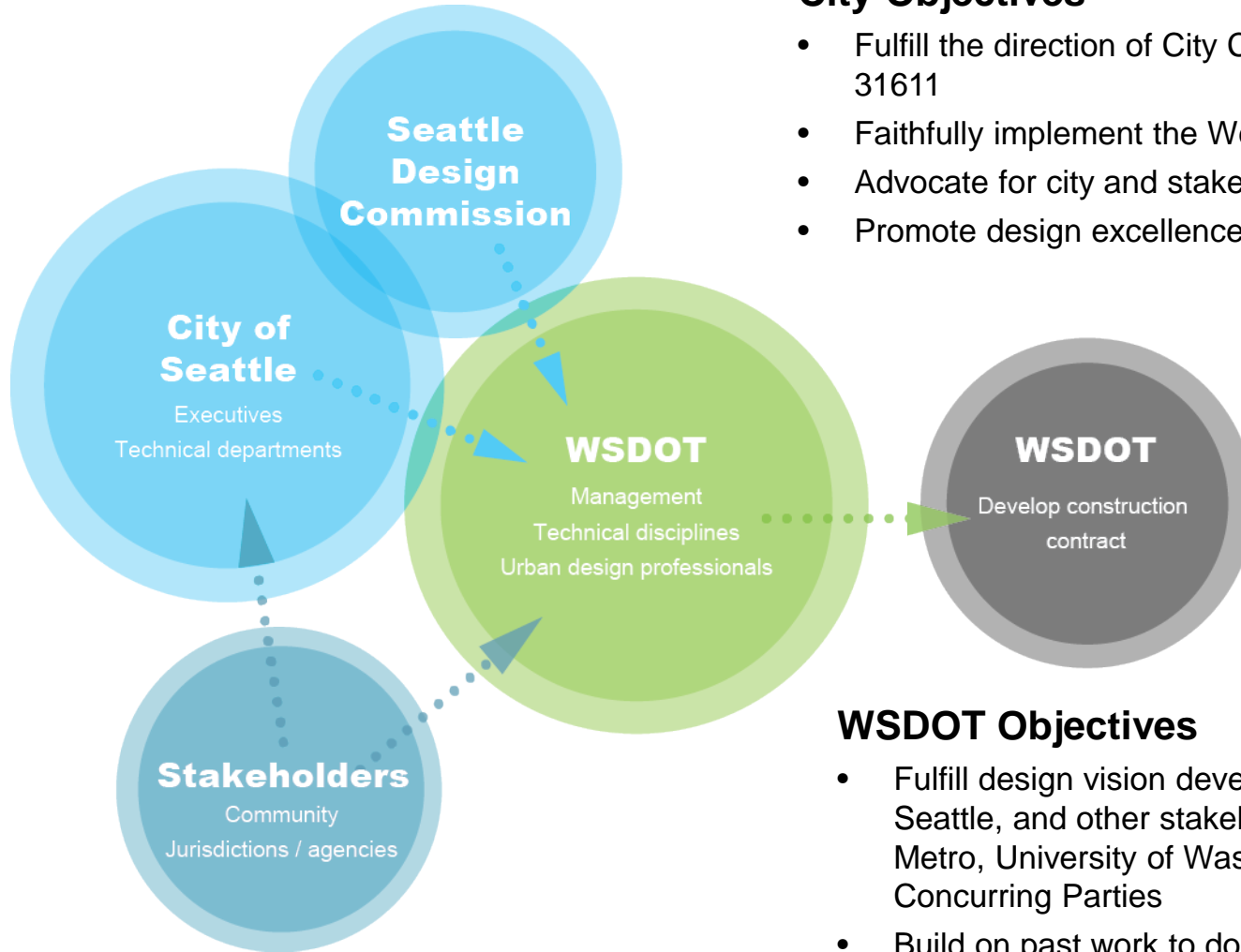


Timeline

- **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”

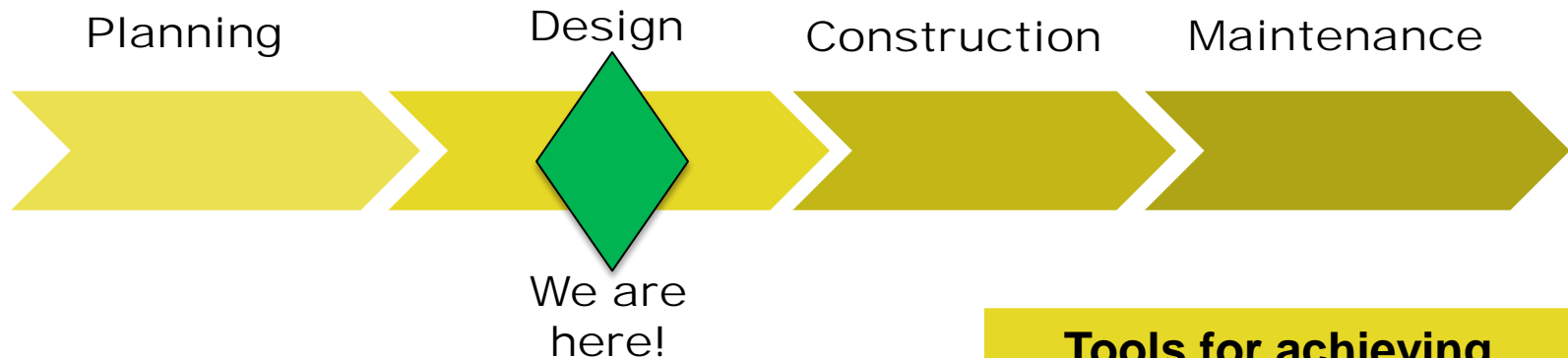
Our vision for the SR 520 corridor is to become a sequence of gateways for the City of Seattle by **reconnecting to the Seattle vision of Nature meets City**.

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

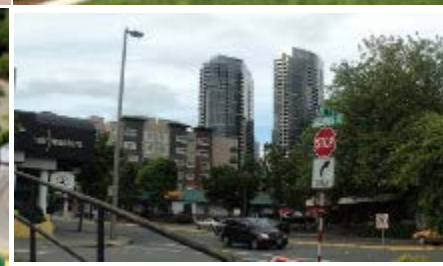
Entire 520 Corridor



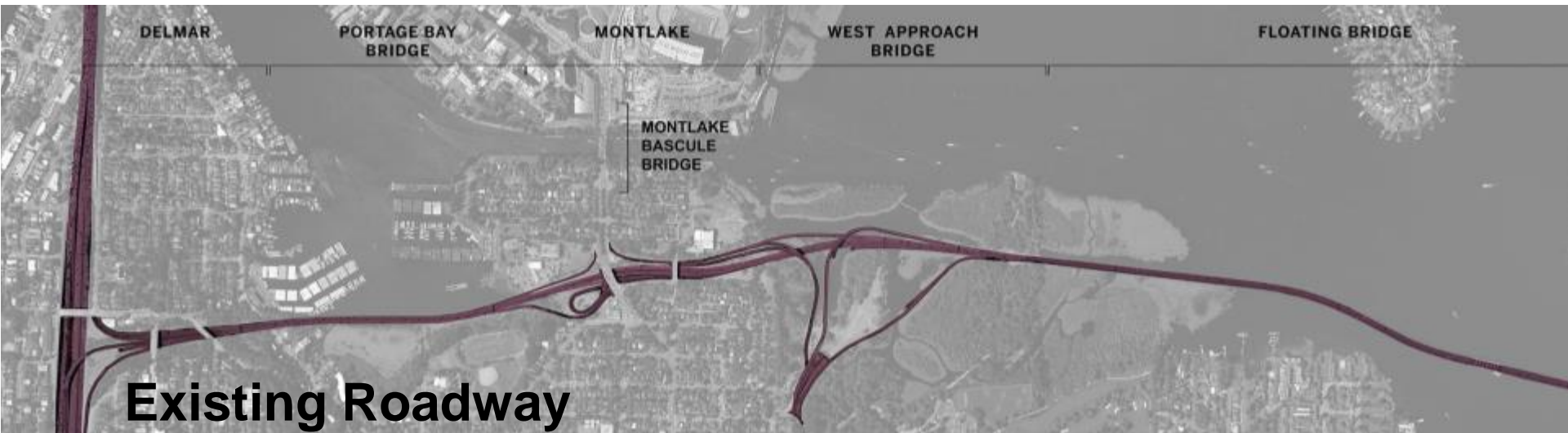
Floating Bridge



Eastside



Rest of the West 520 Corridor



Vision:

Nature meets City



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

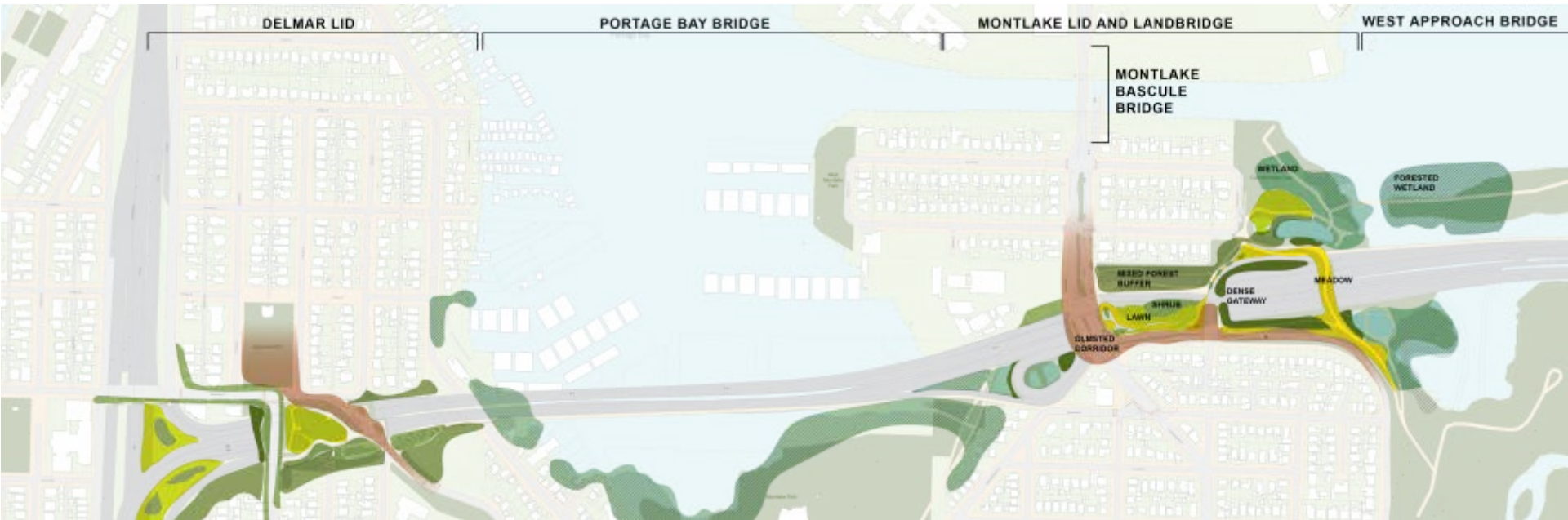
Integrated Green Space Network



Vision:

Rest of the West Corridor

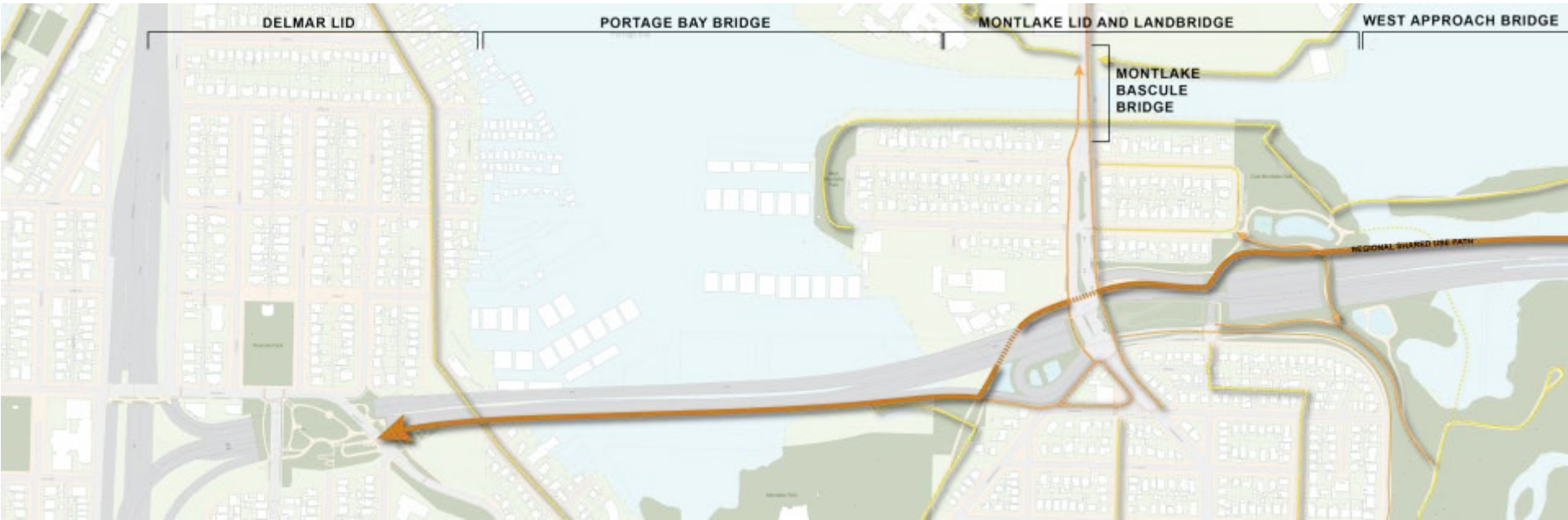
Planting and Ecology



Vision:

Rest of the West Corridor

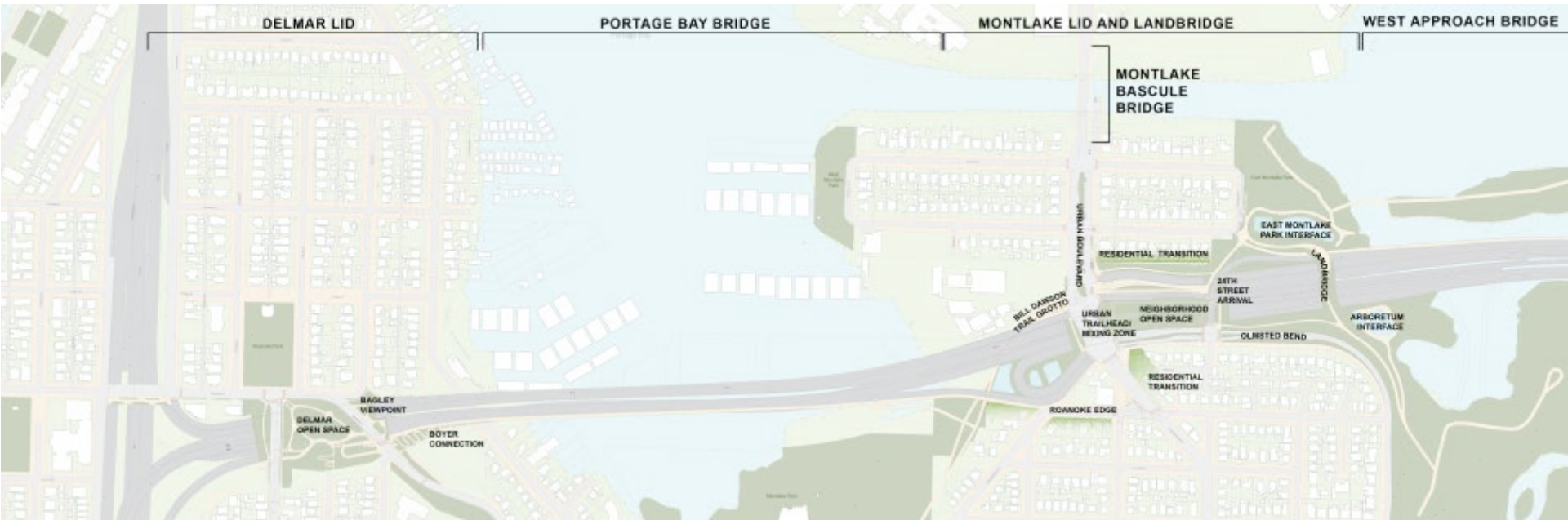
Pathways and Networks



Vision:

Rest of the West Corridor

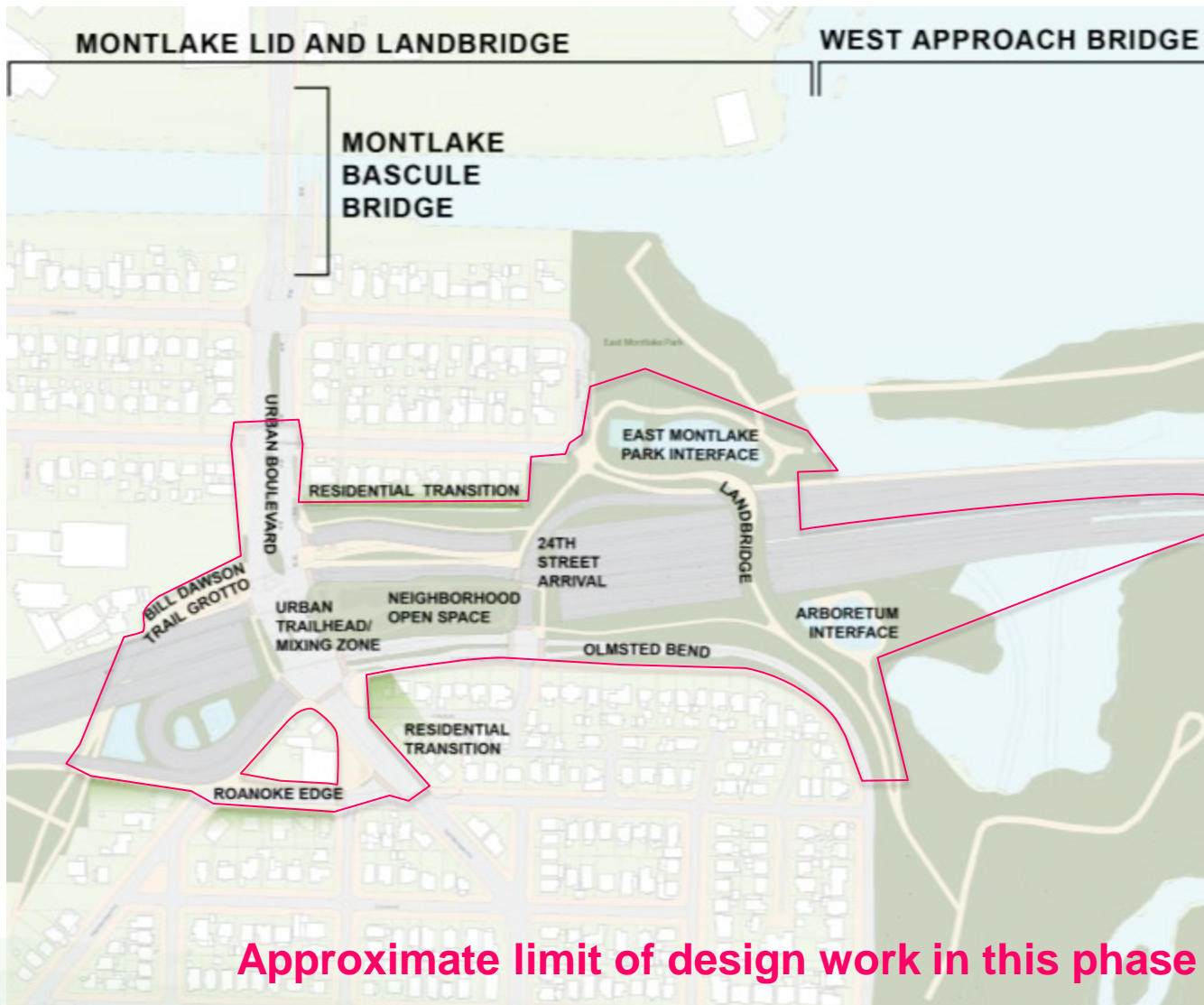
Places



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



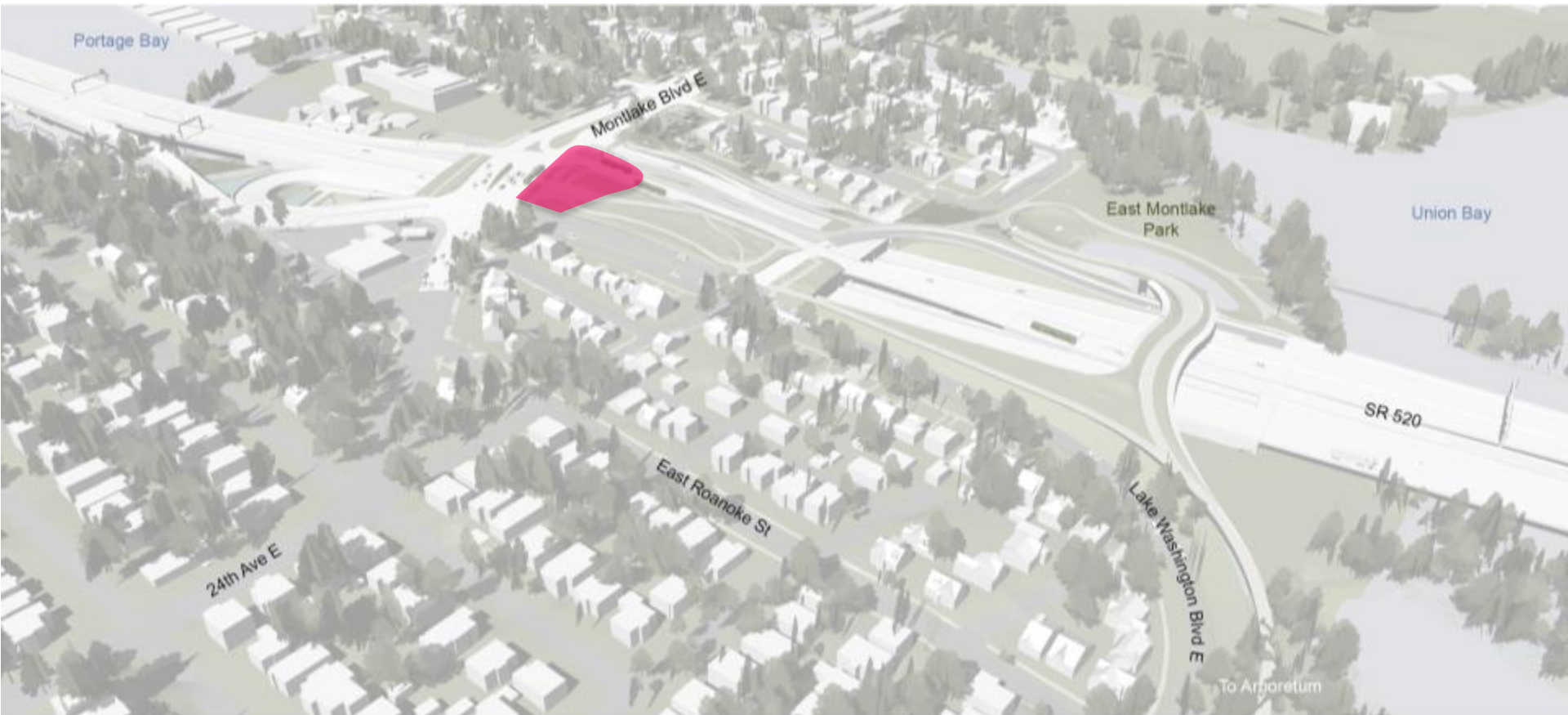
Gateways, Edges, & Walls

Elements of Continuity



Composite

Elements of Distinction



Urban Trailhead/ Mixing Zone



Elements of Distinction



Neighborhood Open Space



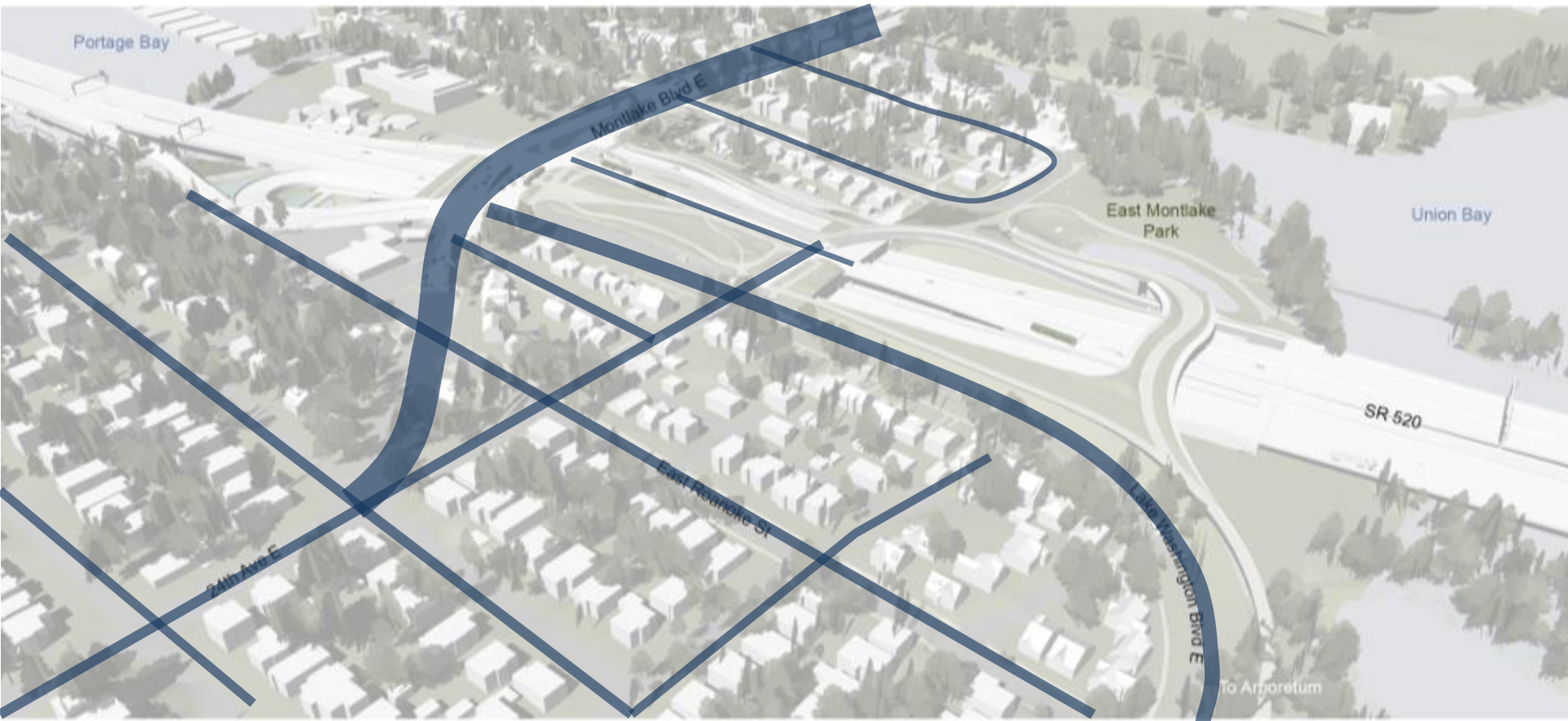
Elements of Distinction



Land bridge



Elements of Distinction



City Streets



Elements of Distinction



Interfaces and Transitions



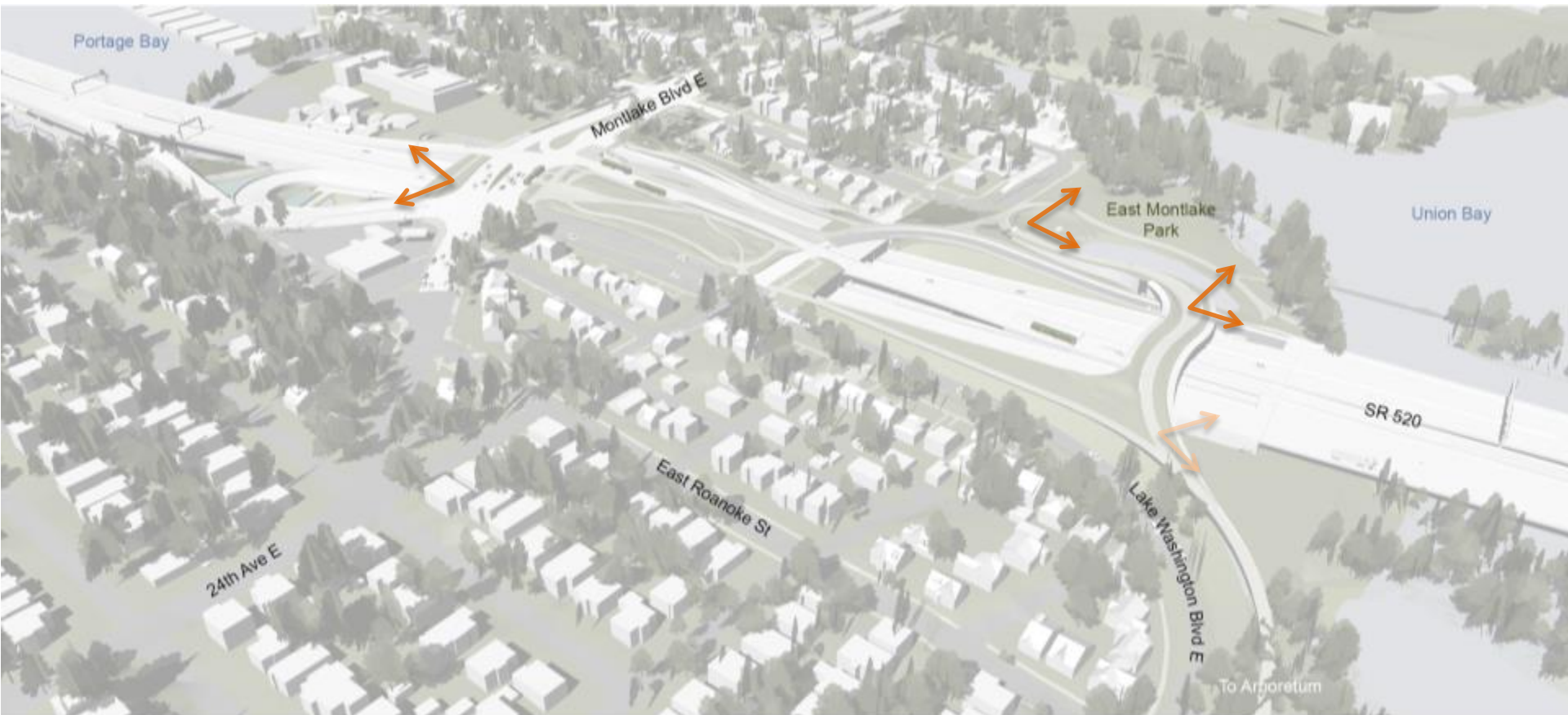
Elements of Distinction



Wayfinding and Interpretive Signage



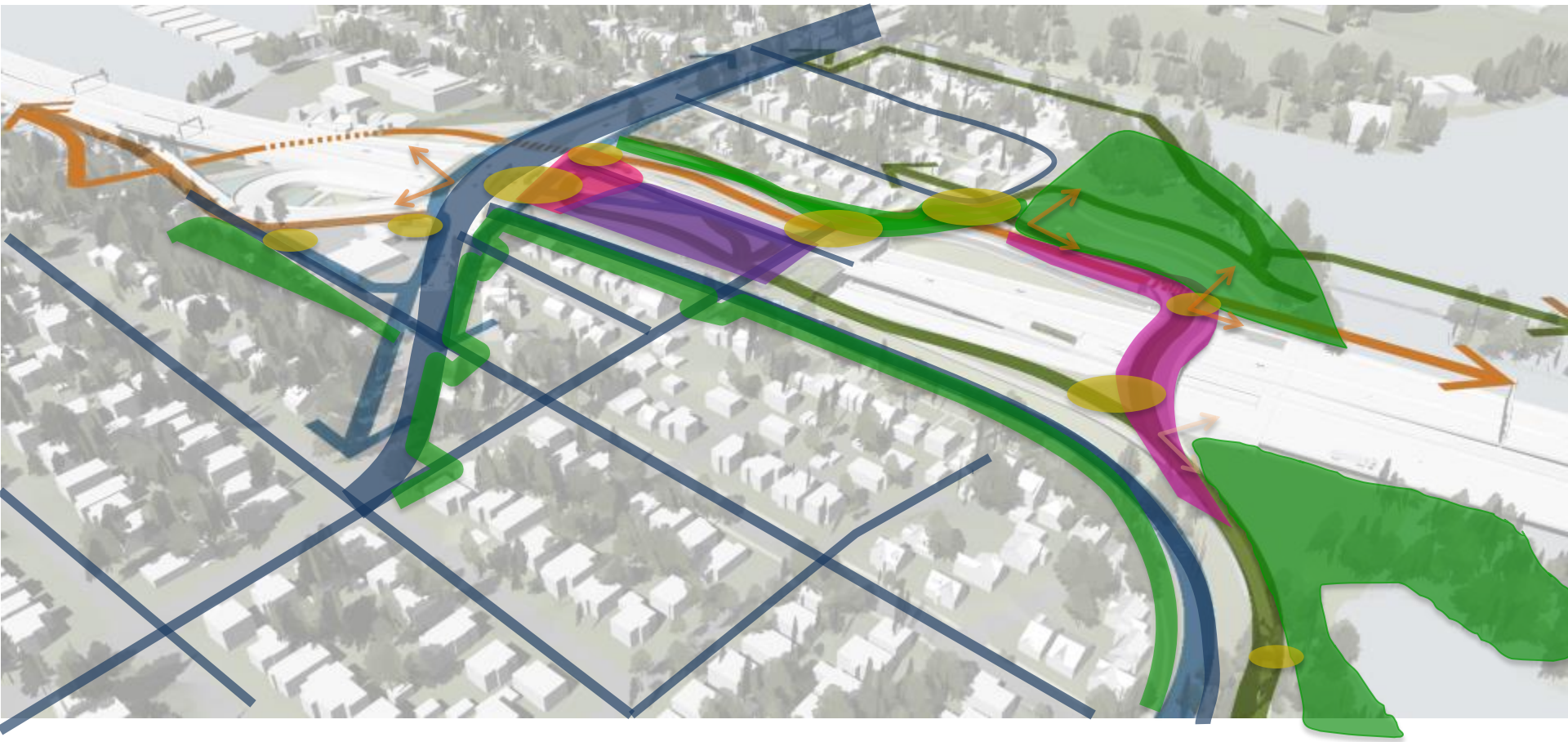
Elements of Distinction



Outlooks



Elements of Distinction



Integrated Connections

Elements of Continuity

Users and Destinations



Users and Destinations

Users and Destinations

Regional Commuter/Recreation

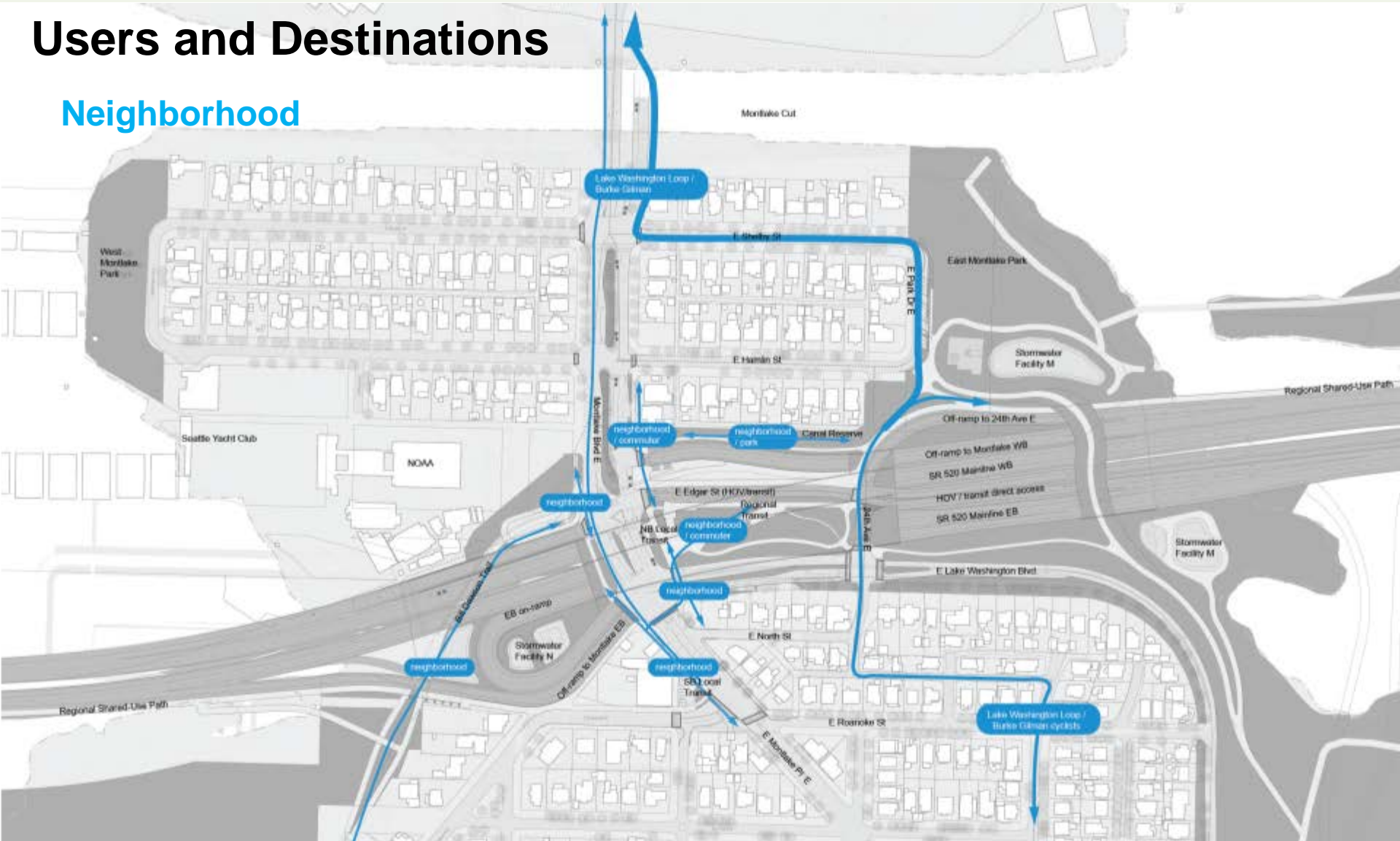
The map illustrates the Montlake area, showing streets, parks, and facilities. Key features include:

- Streets:** E Shilby St, E Harmon St, E Edge St (HOV/transit), E North St, E Roanoke St, E Montlake Pl E, Montlake Blvd E, E Lake Washington Blvd, SR 520 Mainline WS, SR 520 Mainline EB.
- Landmarks and Facilities:** West Montlake Park, Seattle Yacht Club, NOAA, Stormwater Facility M, Stormwater Facility N, Canal Reserve.
- Travel Routes (Orange Arrows):**
 - Downtown / UW / Eastside recreation / commuter:** A route starting from the bottom left, passing through the SR 520 on-ramp, and heading towards the downtown area.
 - SR 520 Mainline WS:** A route heading west on SR 520.
 - HOV / transit direct access:** A route heading east on SR 520.
 - SR 520 Mainline EB:** A route heading east on SR 520.
 - Regional Shared-Use Path:** A route along the waterfront, passing through the SR 520 on-ramp and heading towards the downtown area.

Elements of Continuity

Users and Destinations

Nighborhood



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



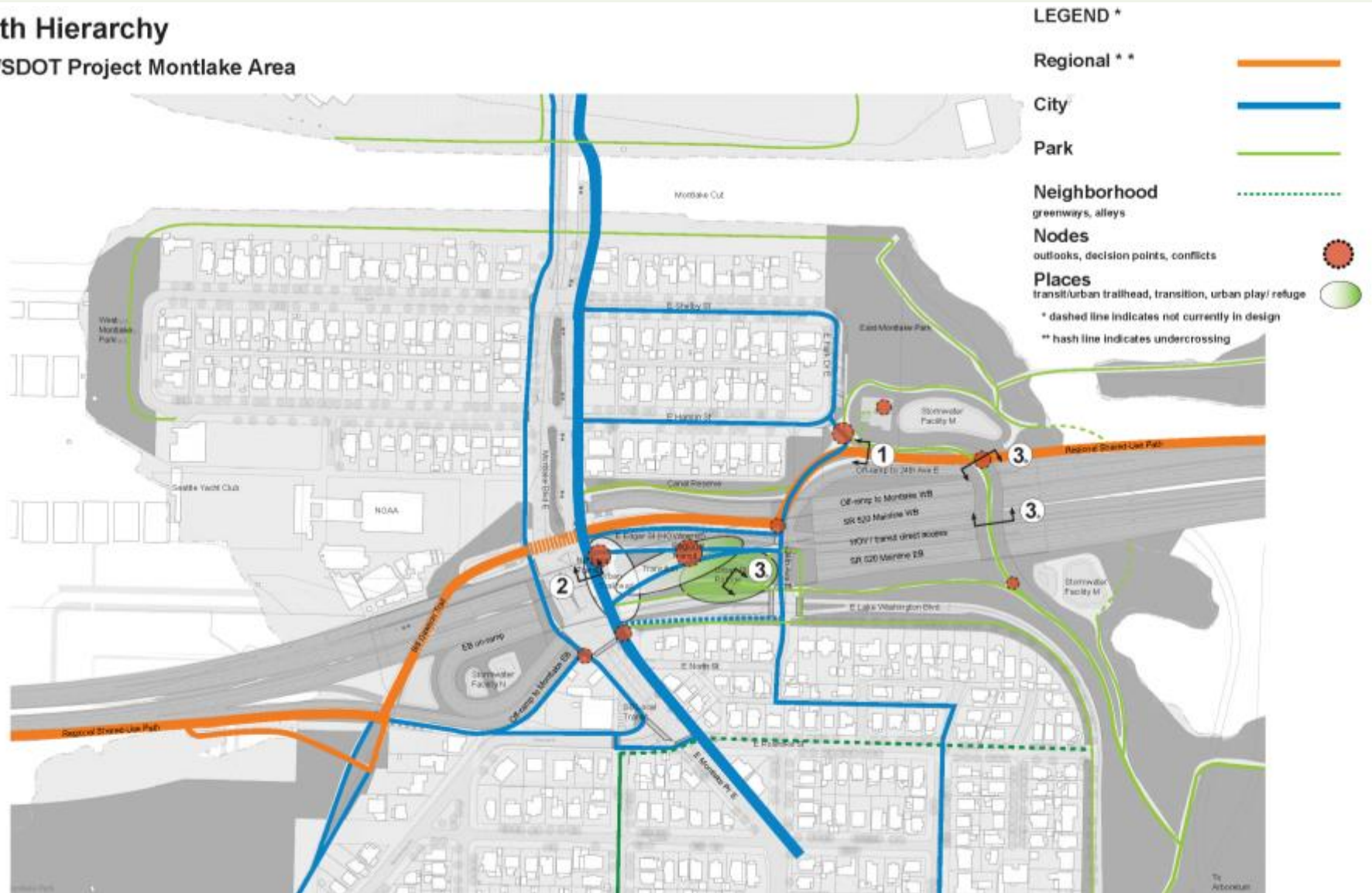
Concept Development Pathways



Elements of Continuity

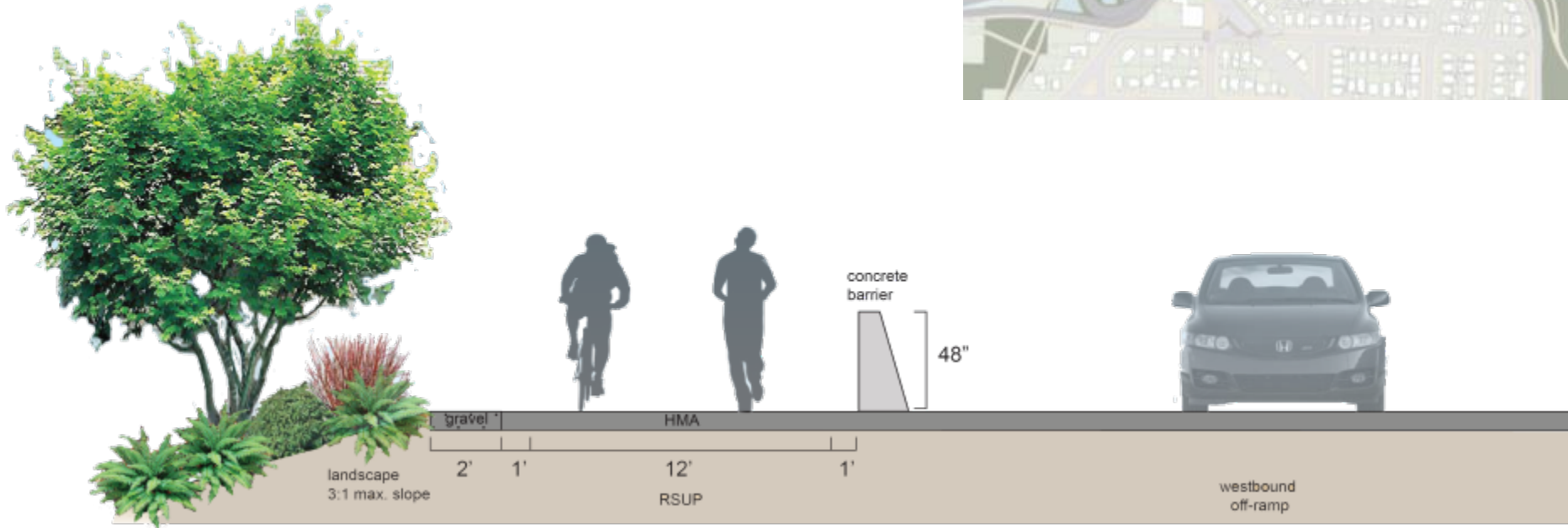
Path Hierarchy

WSDOT Project Montlake Area



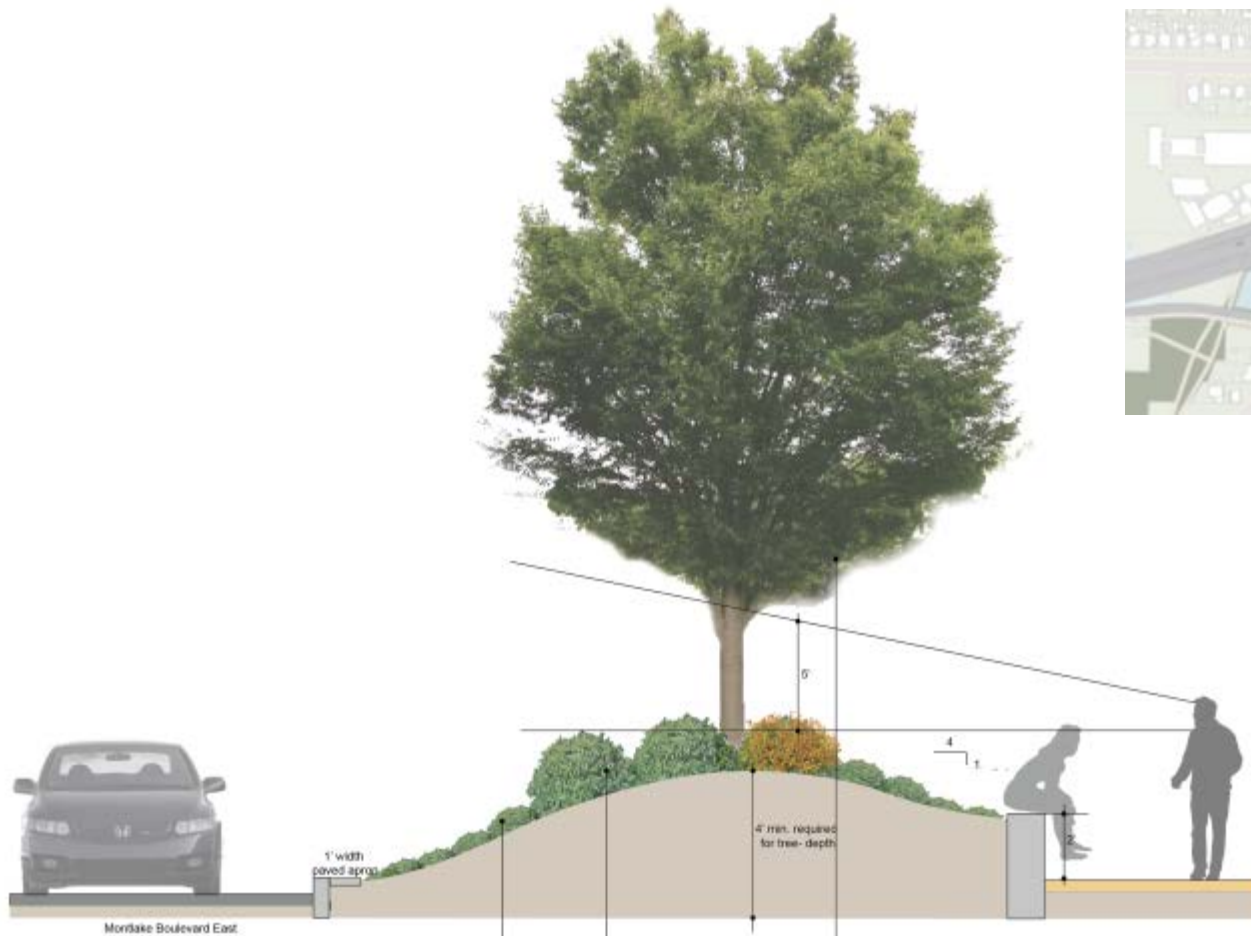
Pathways

Regional Shared Use Path



Concept Development

Pathways



Lonicera plant
Purser Homegardens



Saxifraga plant
Green Island Hilly



Zelkova plant
Japanese Zelkova



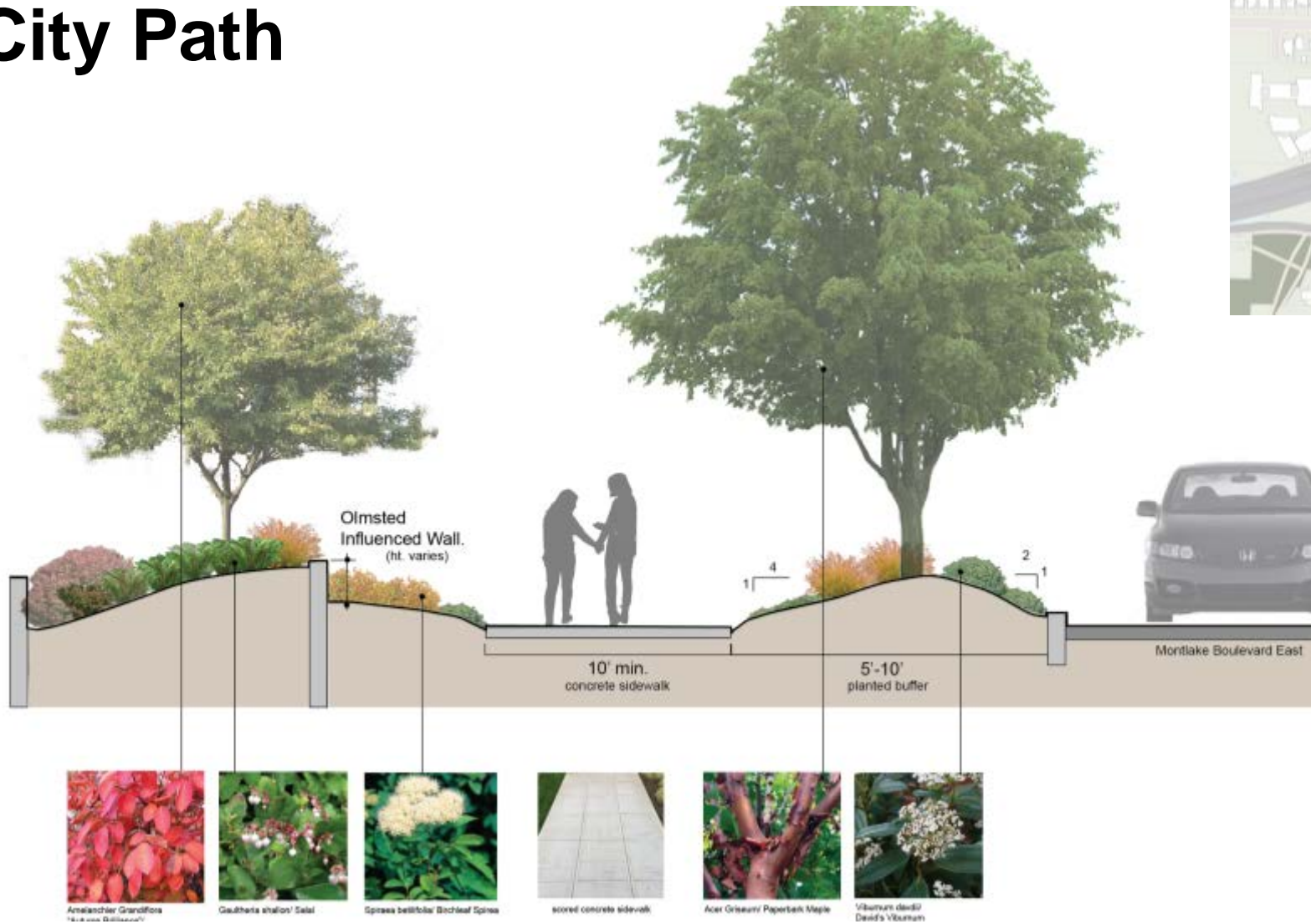
paved concrete sidewalk

City Path

Concept Development

Pathways

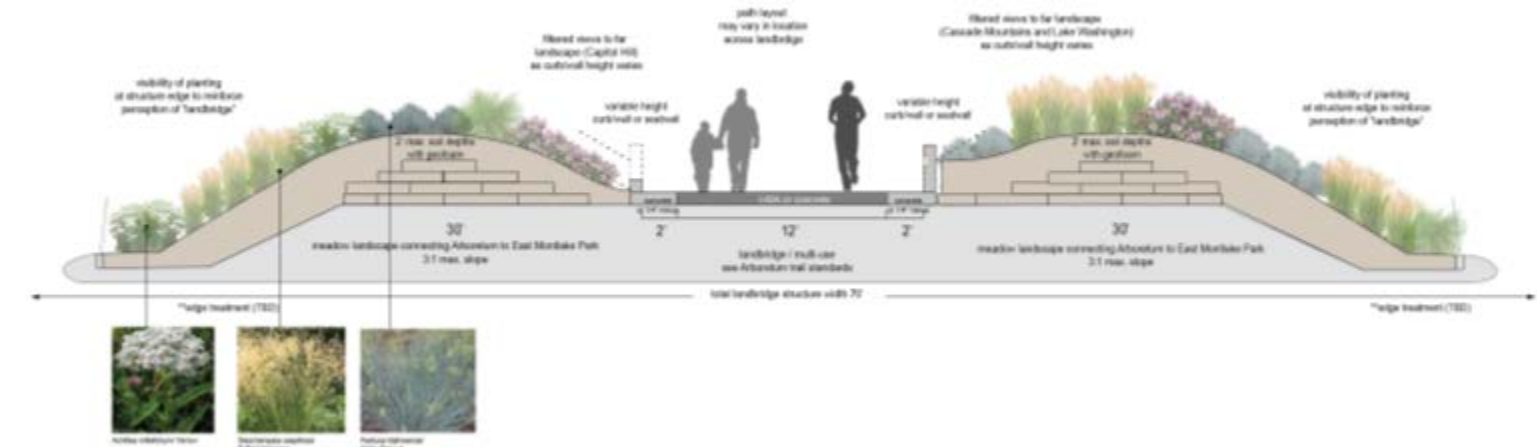
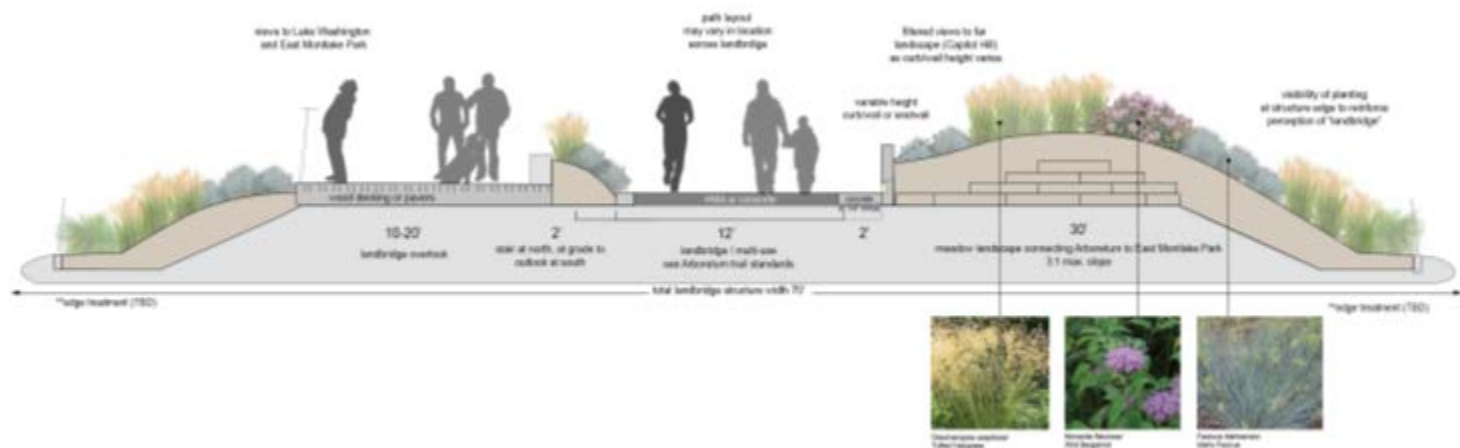
City Path



Concept Development

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

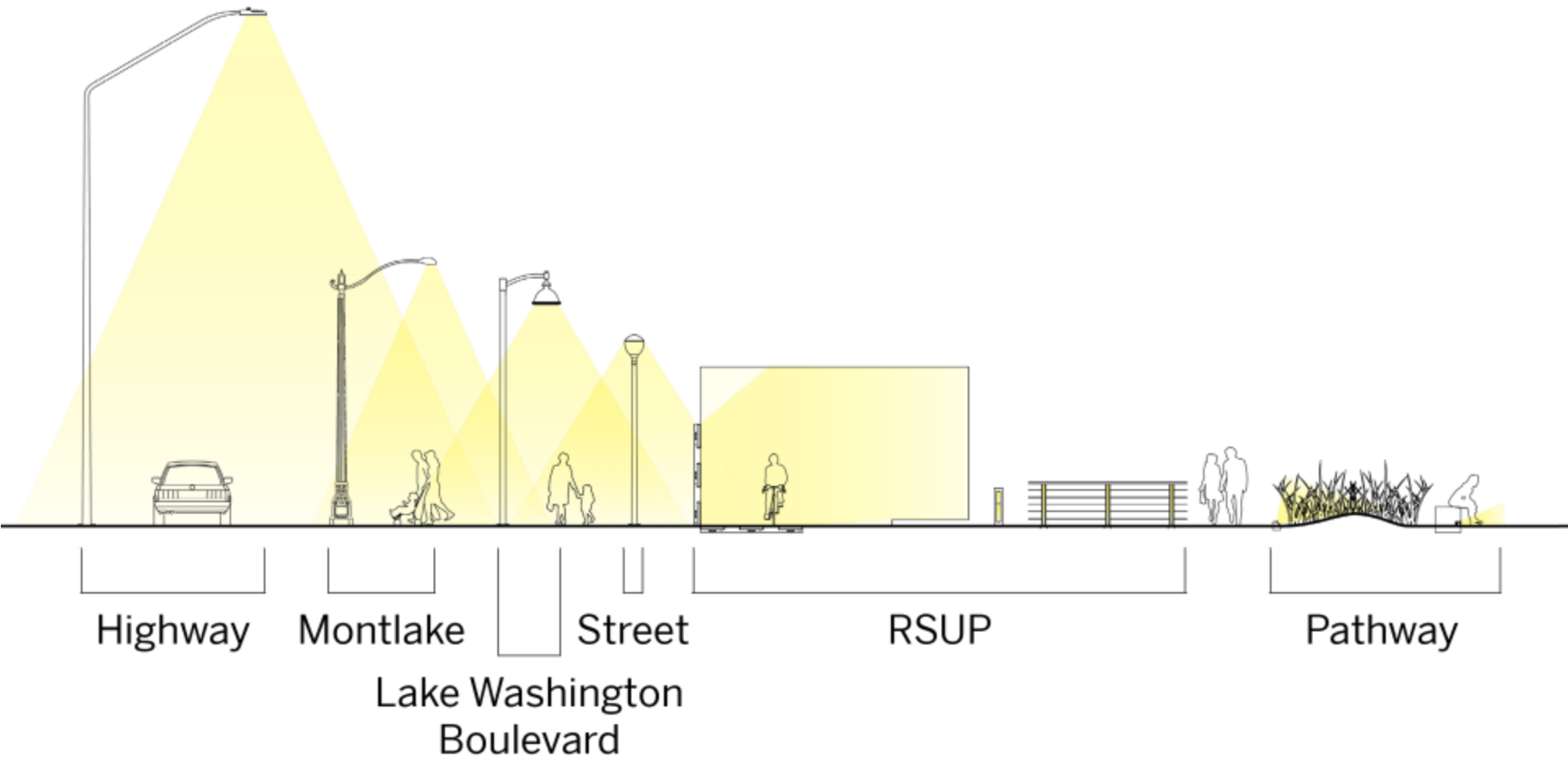
- Highway
- Streets
- Pathways and Public Spaces



Concept Development

Lighting

Lighting Family



Concept Development

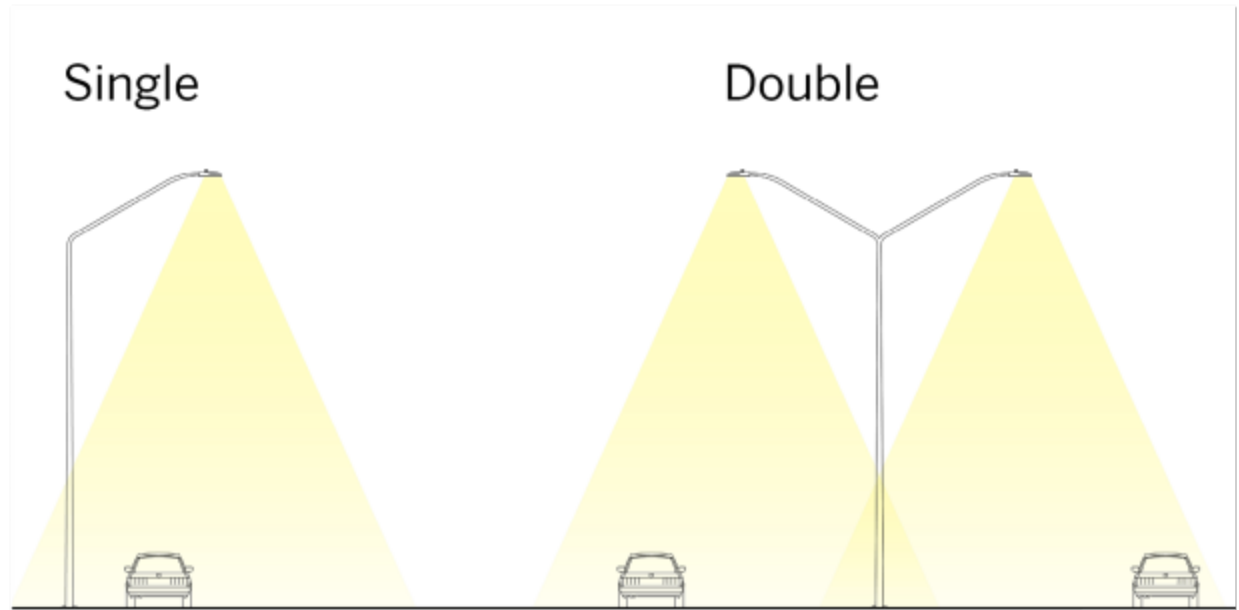
Lighting

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

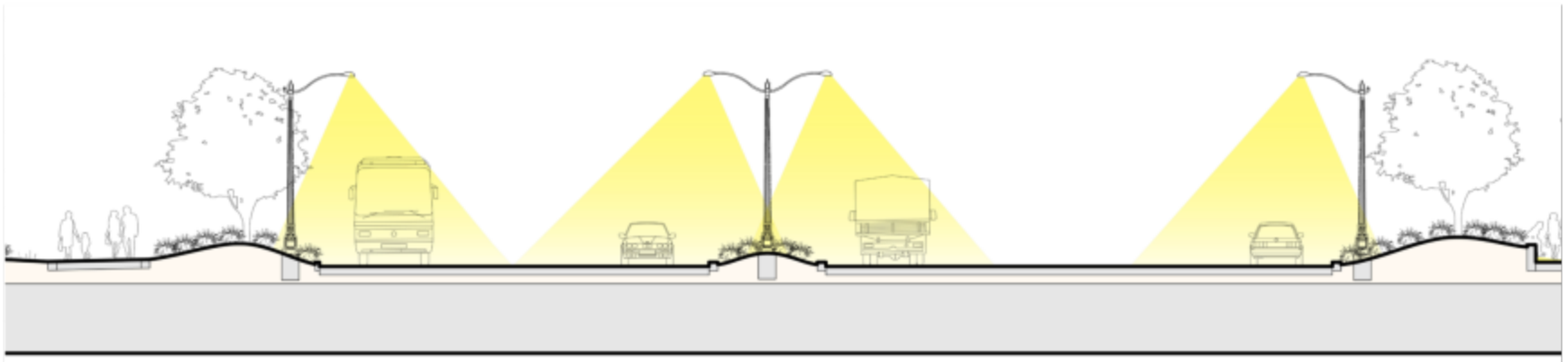
Montlake Boulevard



Element Locator



Fixture Detail



- Chief Seattle base, pole, and luminaire follow City plans for boulevard
- ### Montlake Boulevard Section

Concept Development

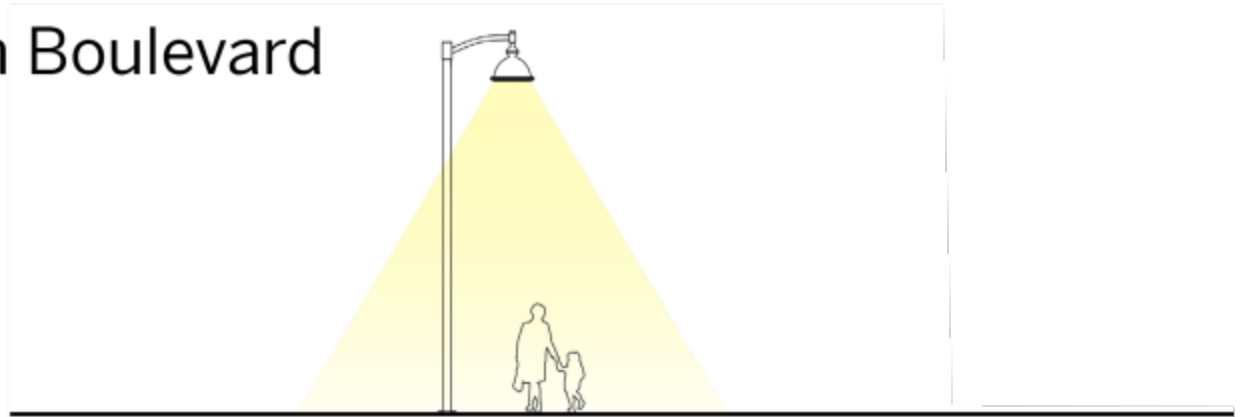
Lighting

Lake Washington Boulevard

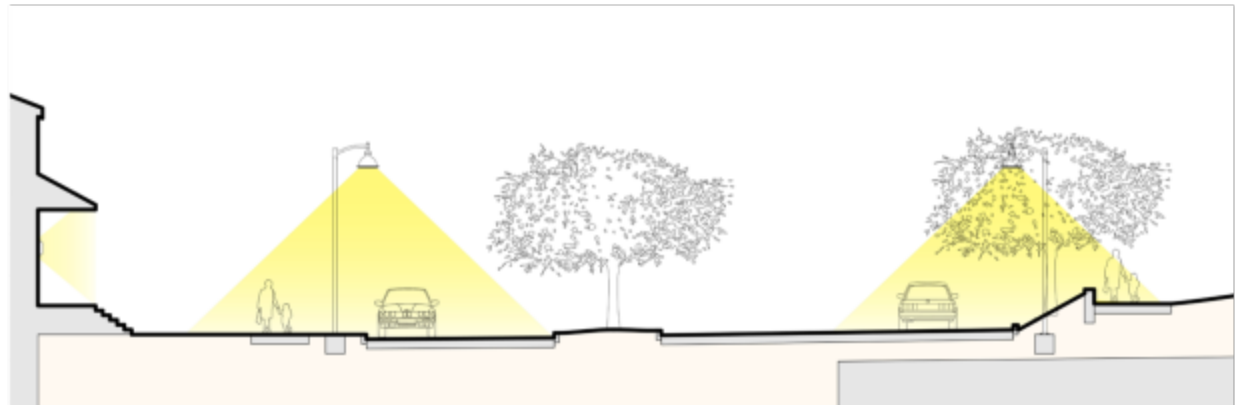


Element Locator

- 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

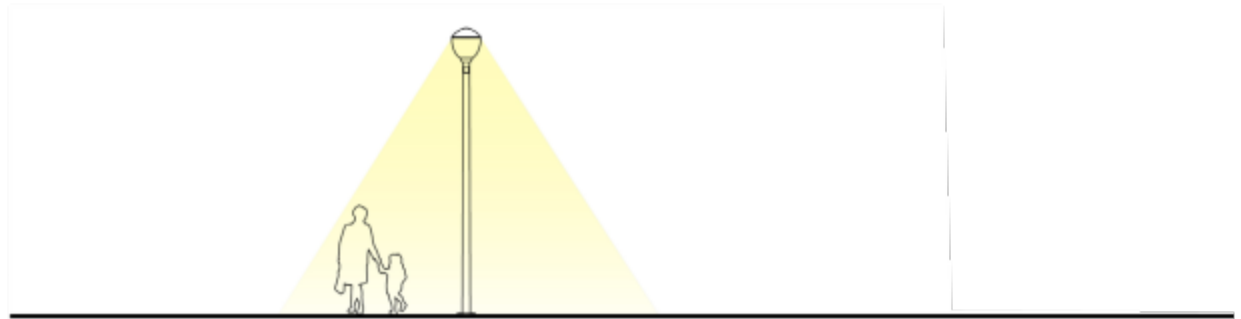
Lighting

Streets

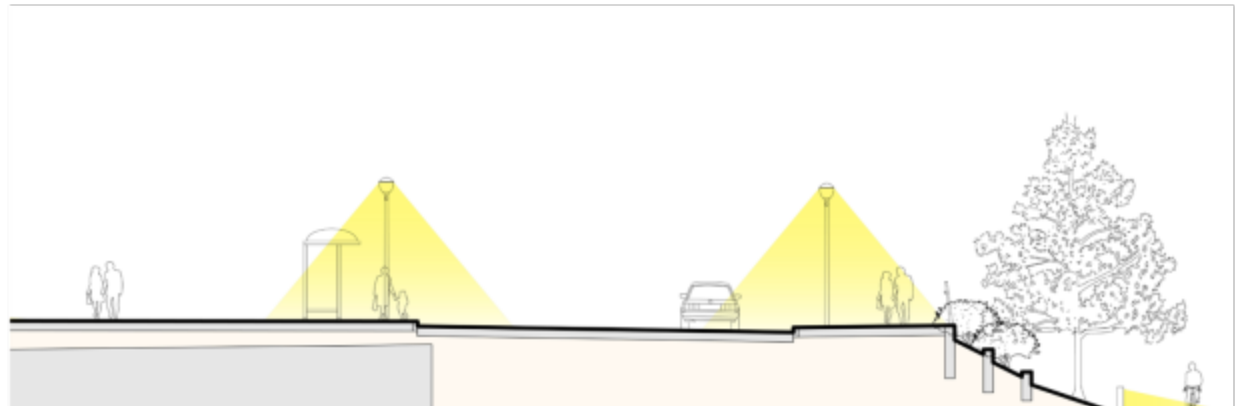


Element Locator

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



Fixture Detail



HOV/Transit Access Section

Concept Development

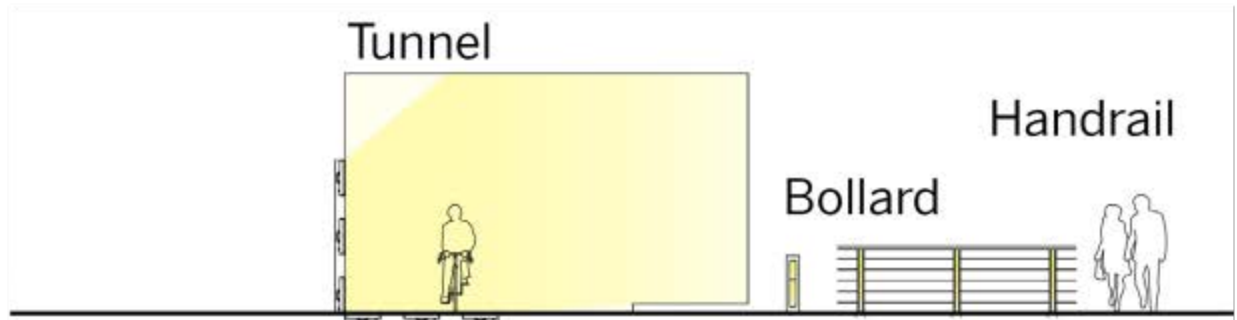
Lighting

Regional Shared-Use Path

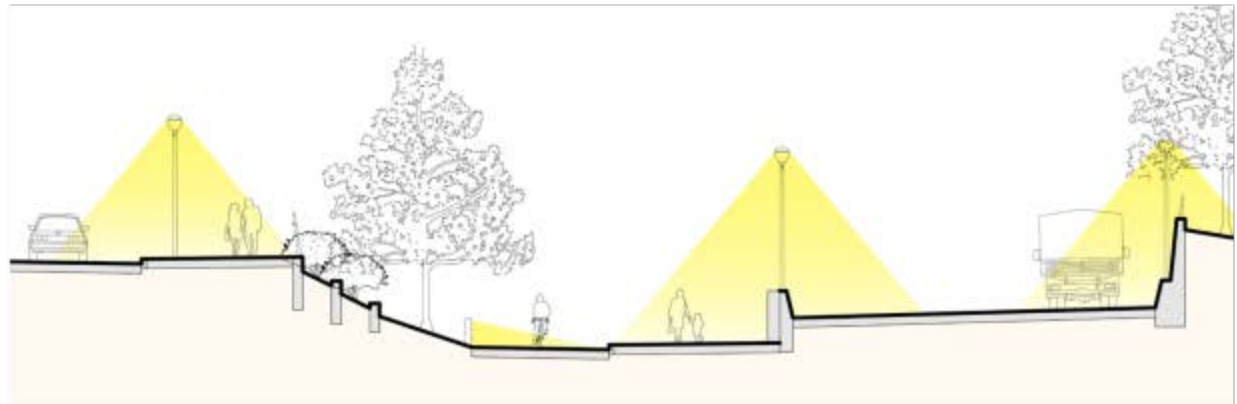


Element Locator

- Similar expression across RSUP to guide users across corridor



Fixture Detail



Bollard Lighting on the Bill Dawson Trail

Concept Development

Lighting

Landbridge and Lid

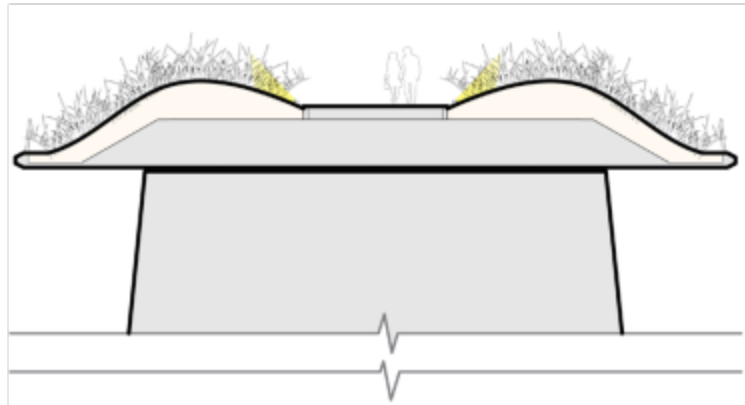


Element Locator

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



Fixture Detail

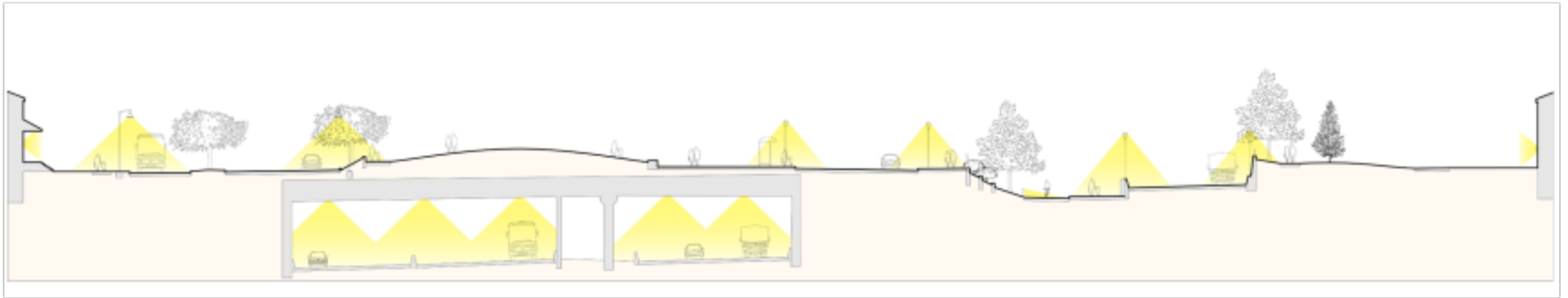


Feature Lighting on the Landbridge

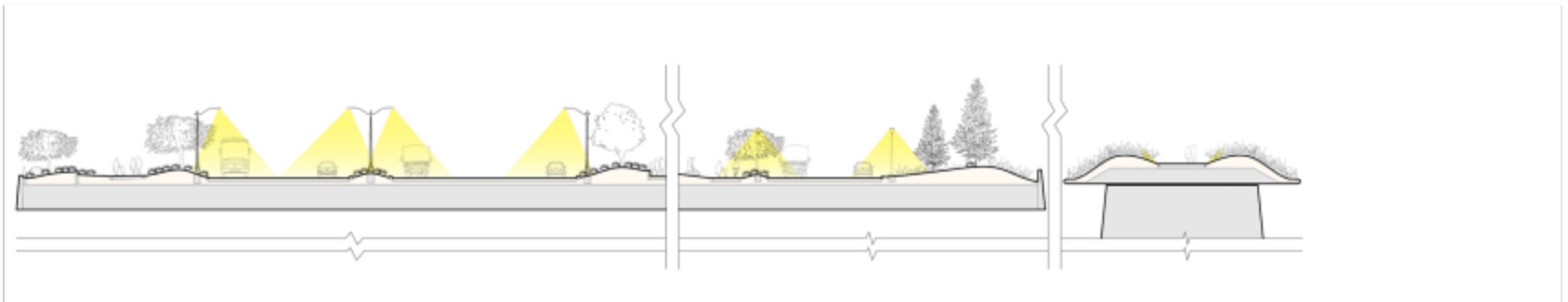
Concept Development

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



Concept Development

Highway Signage

Strategies

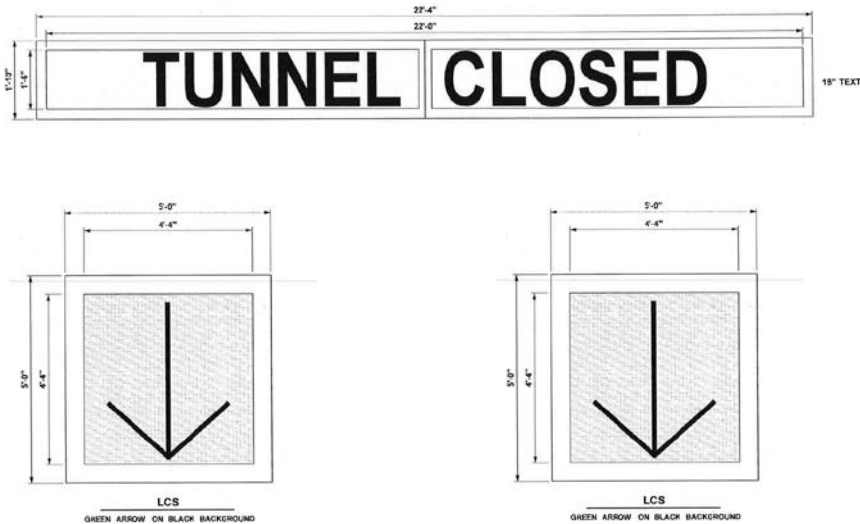
- Minimize
- Rationalize
- Simplify

Opportunities:

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



Tunnel Signage



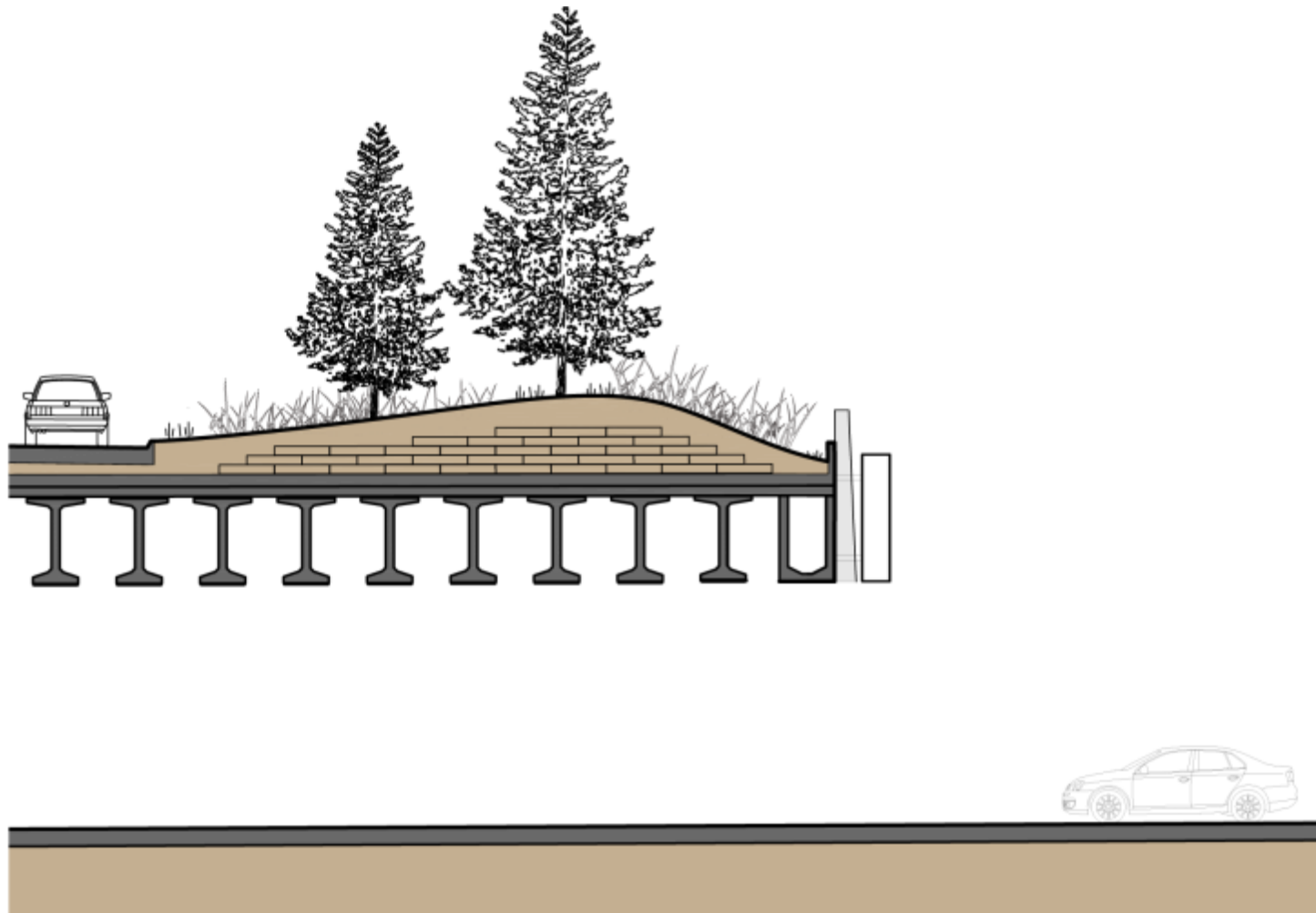
Option 1 Potentially smaller visual impact on Lid edges
Limited use signage



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
- ✓ 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

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.



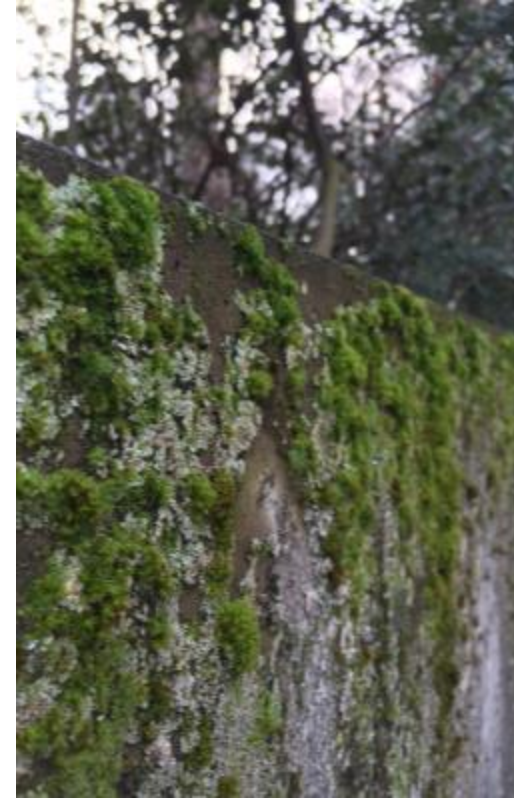
Walls, Edges and Gateways



Walls, Edges and Gateways



Walls, Edges and Gateways



Tactile

Meant to be touched

Verdant

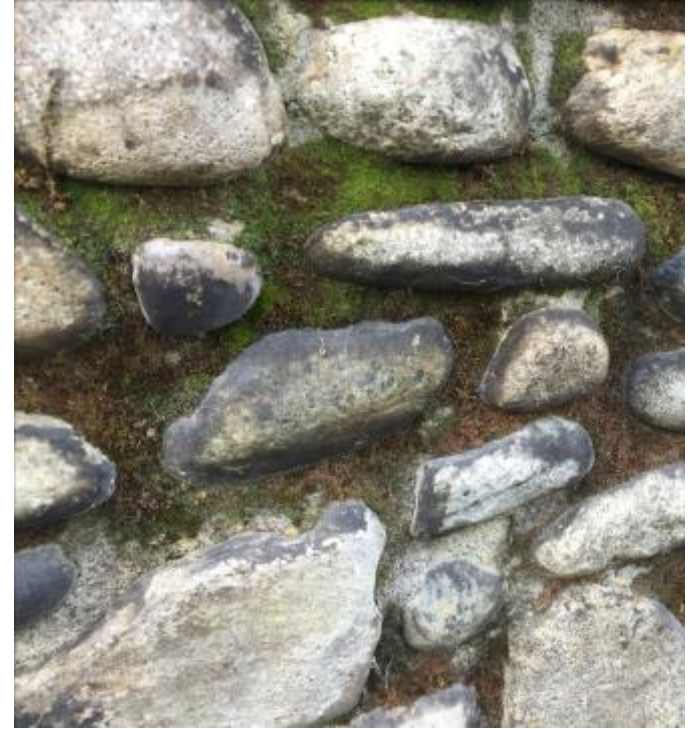
Growing substrate

Walls, Edges and Gateways



Tactile

Meant to be touched



Verdant

Growing substrate

Walls, Edges and Gateways



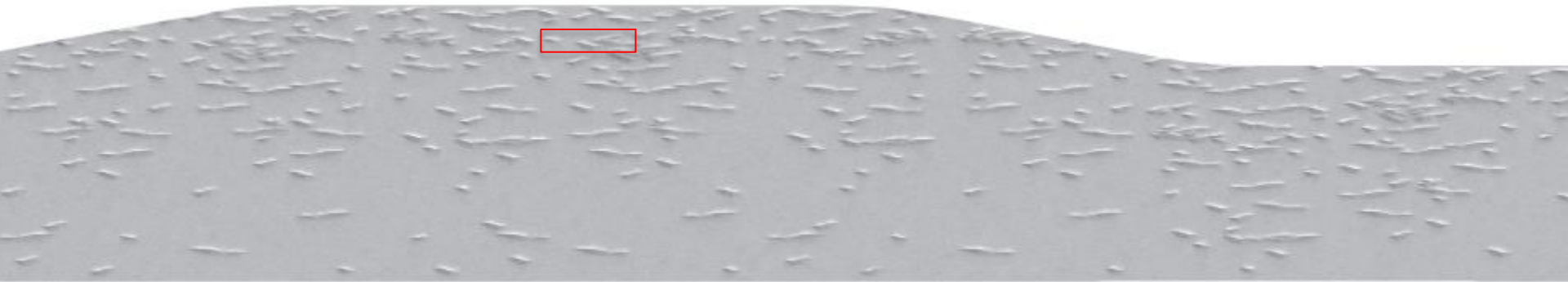
Cast Formal Studies: Cracks and Ledges

Concept Development

Wall Texture



Detail Elevation



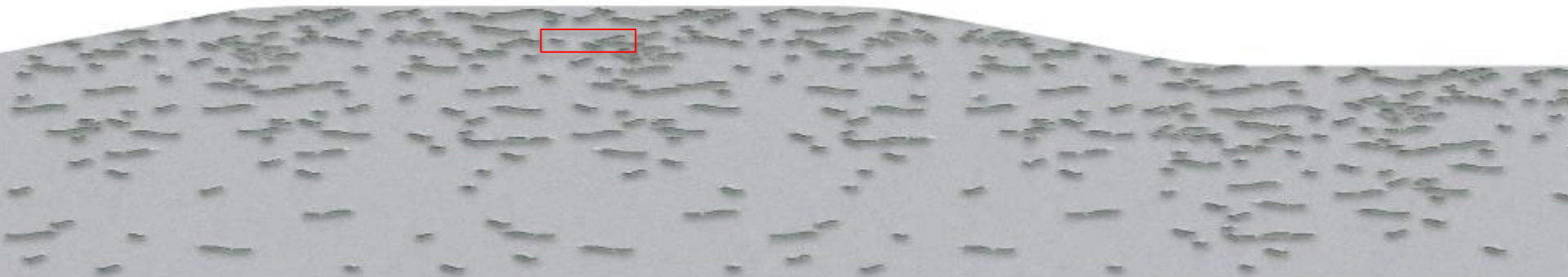
Full Height Wall Elevation

Concept Development

Wall Texture



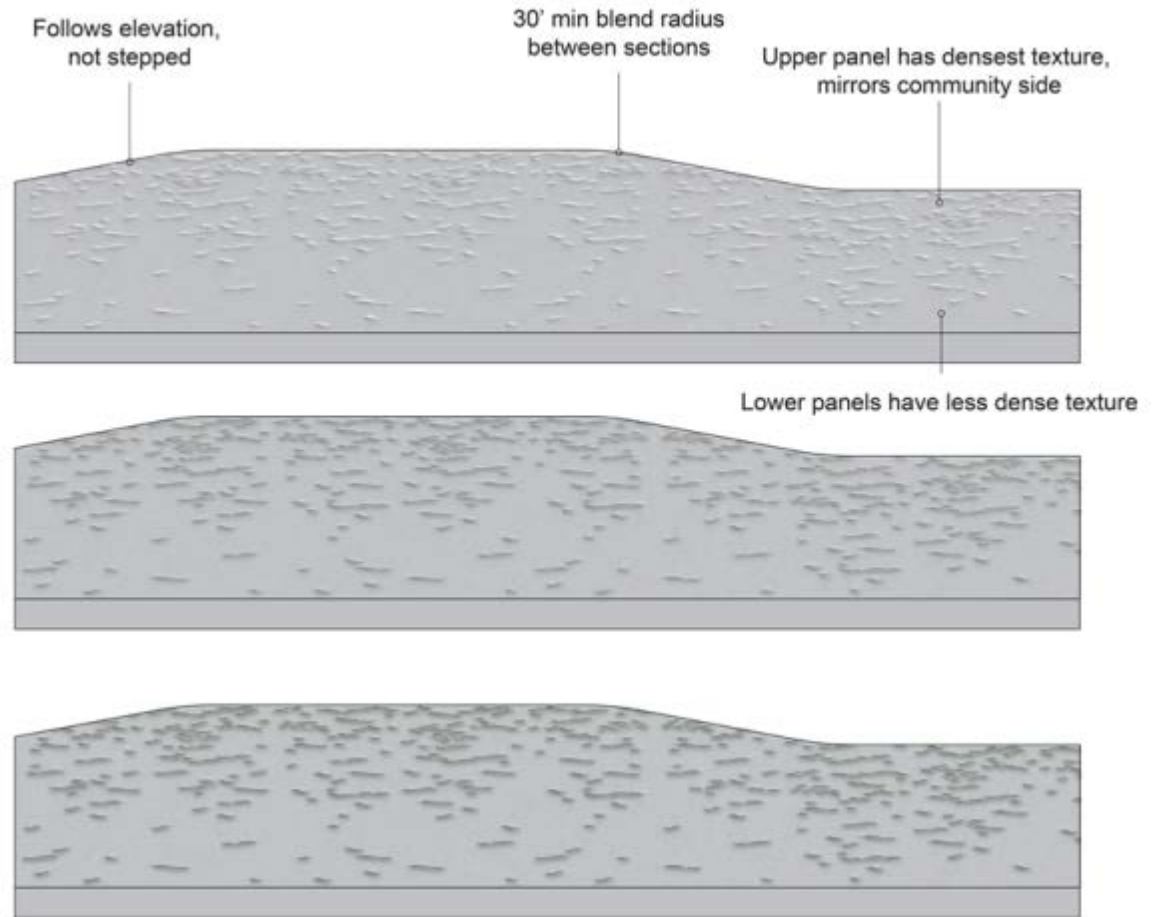
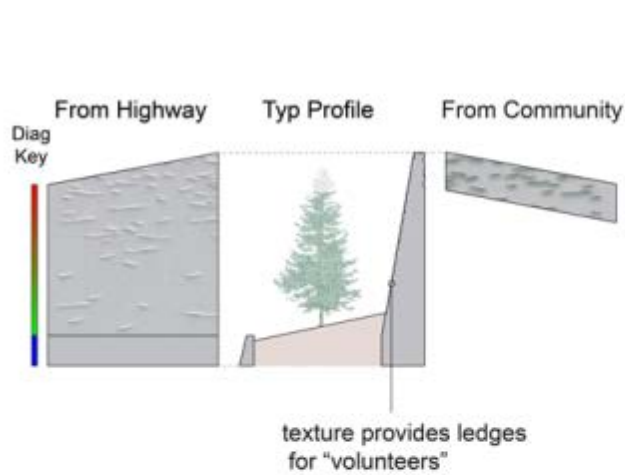
Detail Elevation



Full Height Wall Elevation

Concept Development

Wall Texture



Walls, Edges and Gateways

Community Edges

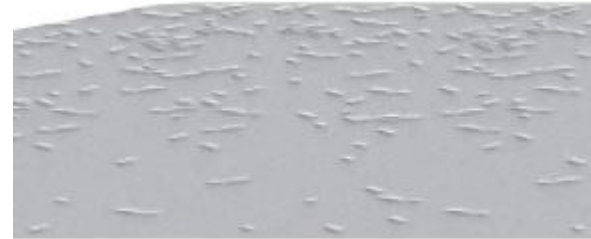
- Distinctive quality related to place
- Tactile form encourages interaction
- Consistent finish across construction types
- Form enriched by weathering and greening



Walls, Edges and Gateways

Earth Walls and Edges

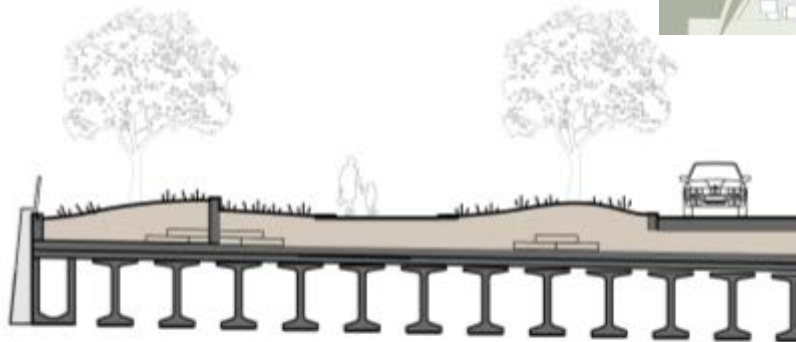
- Soft natural pattern at scale
- Consistent finish across construction types
- Gradated density responsive to occupied edge
- Attractive and distinctive as bare concrete or weathered and greened



Walls, Edges and Gateways

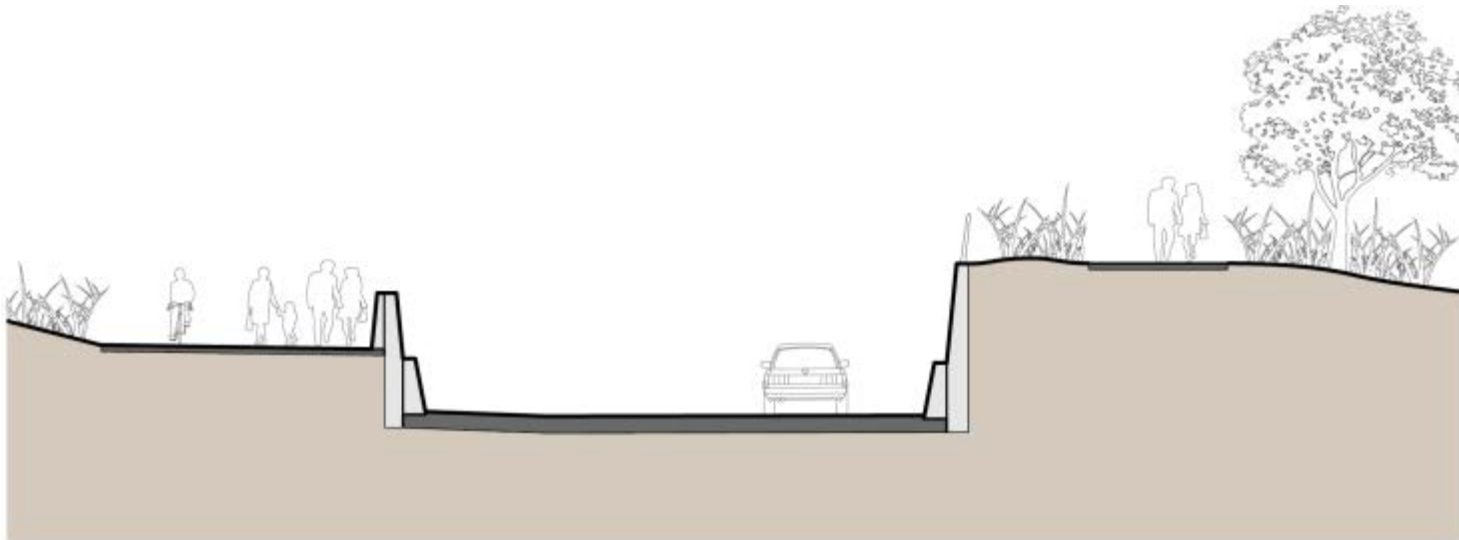


Walls, Edges and Gateways

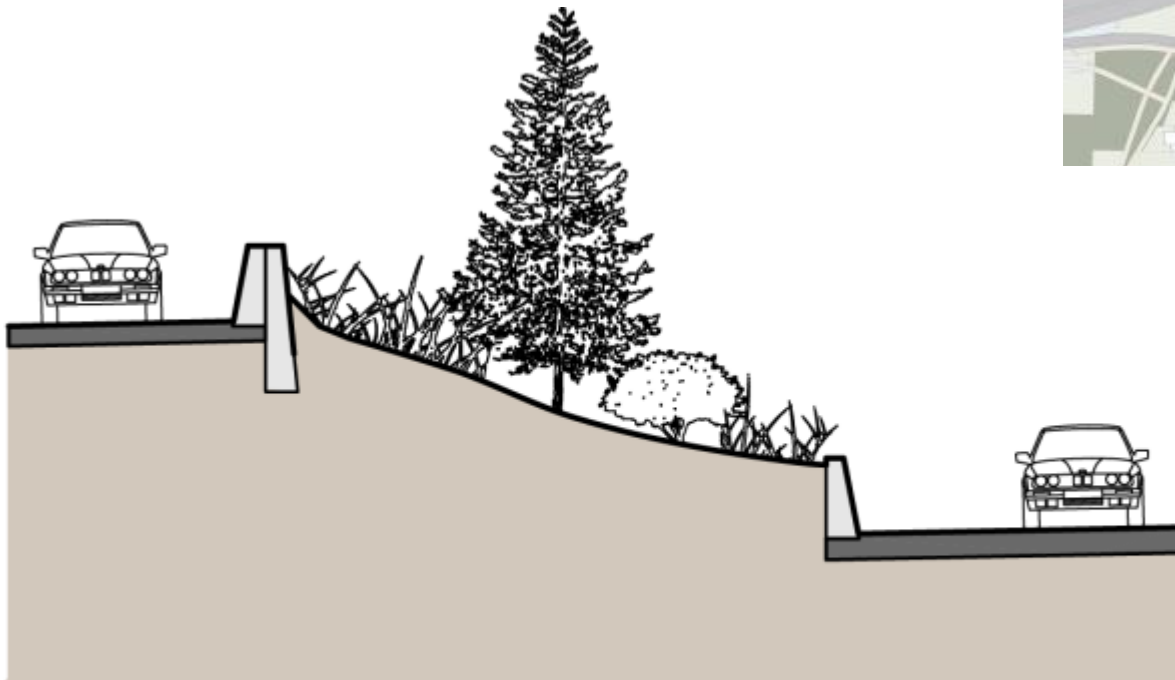


0 5 10 20

Walls, Edges and Gateways



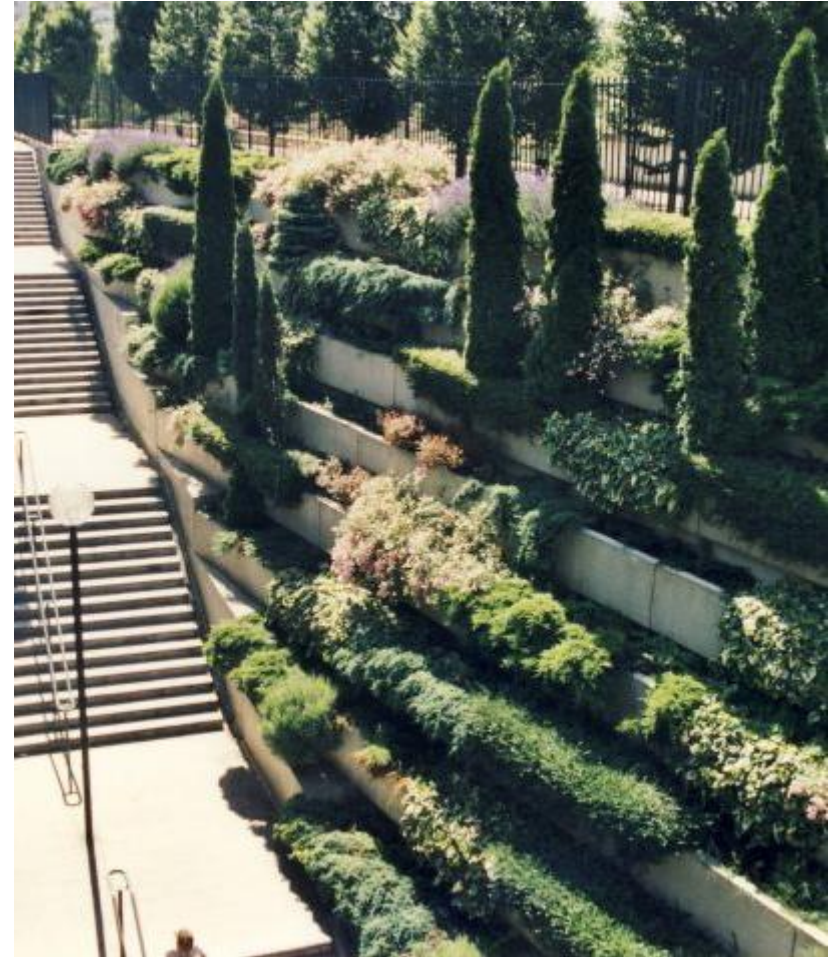
Walls, Edges and Gateways



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
- ✓ 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

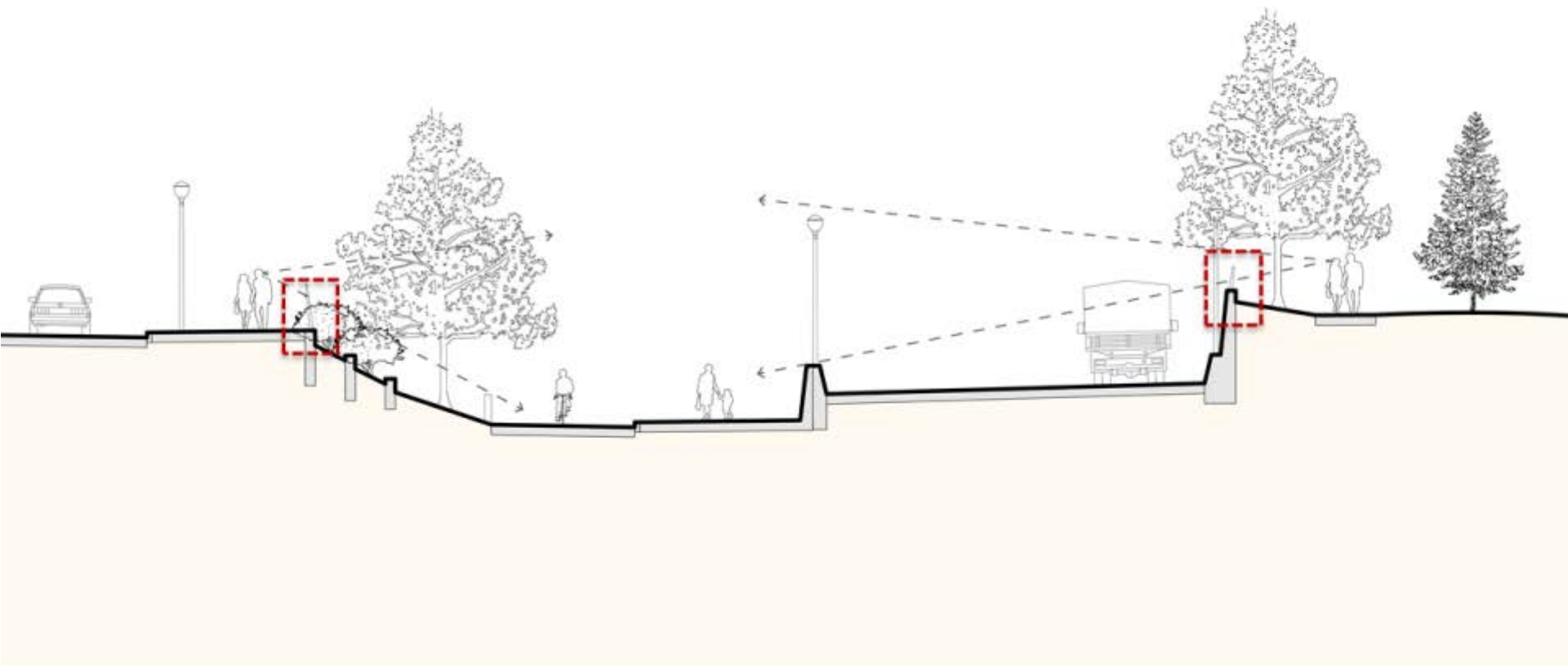
Concept Development

Railings



Concept Development

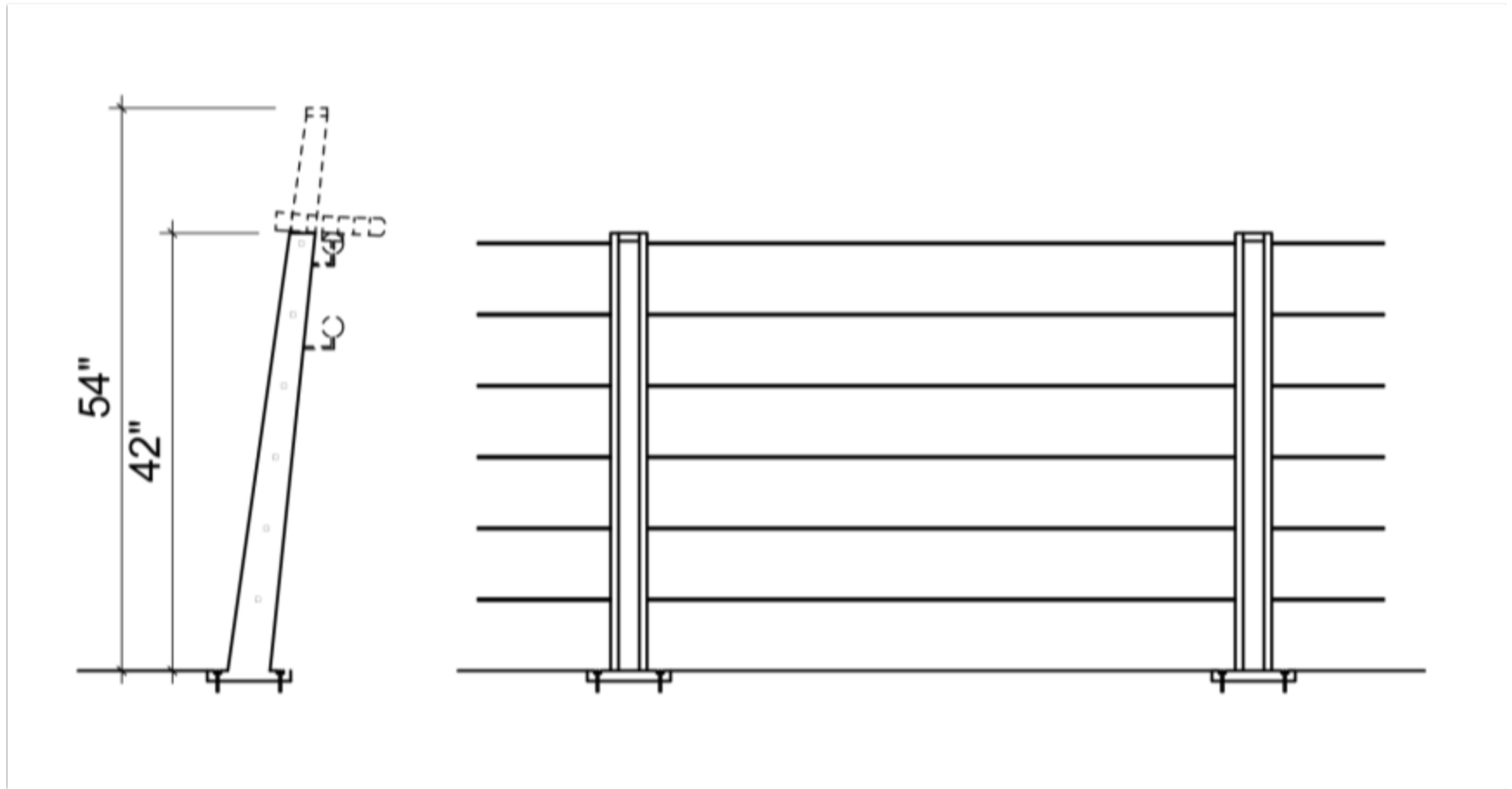
Railings



Concept Development

Railings

Handrail Variations



1 Stanchion, Many Applications

Concept Development

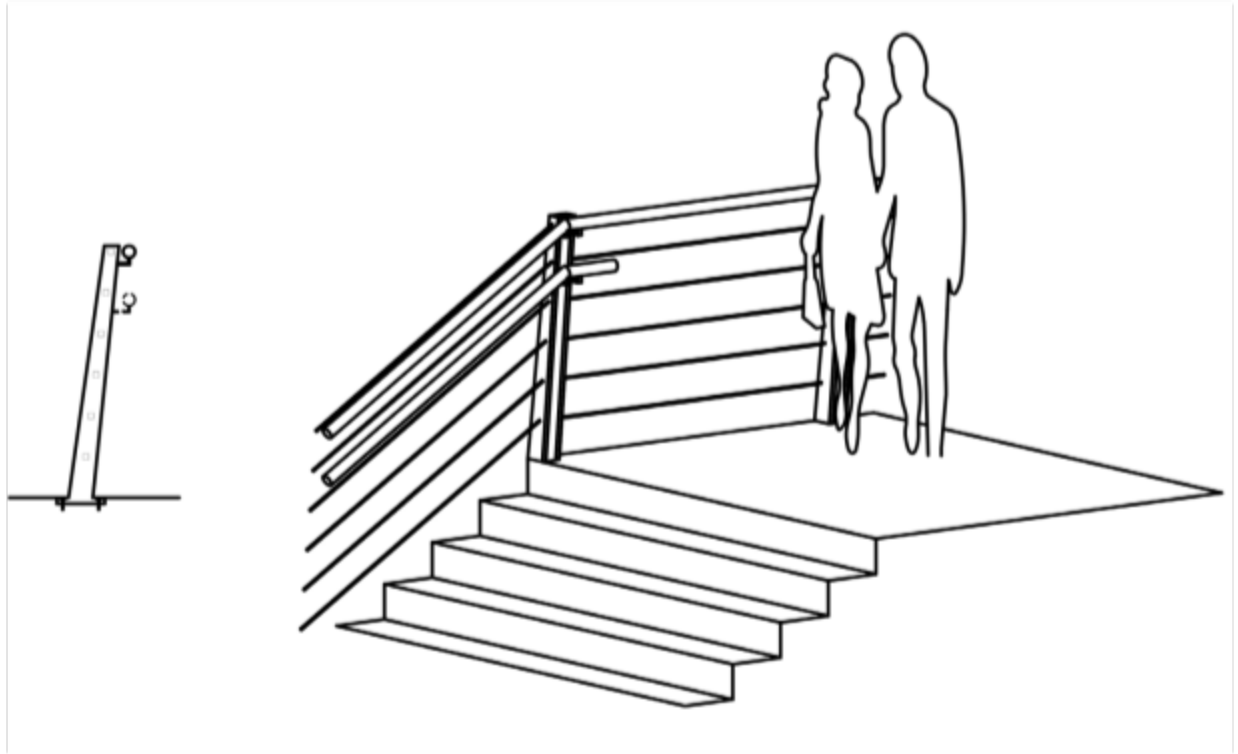
Railings

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

Concept Development

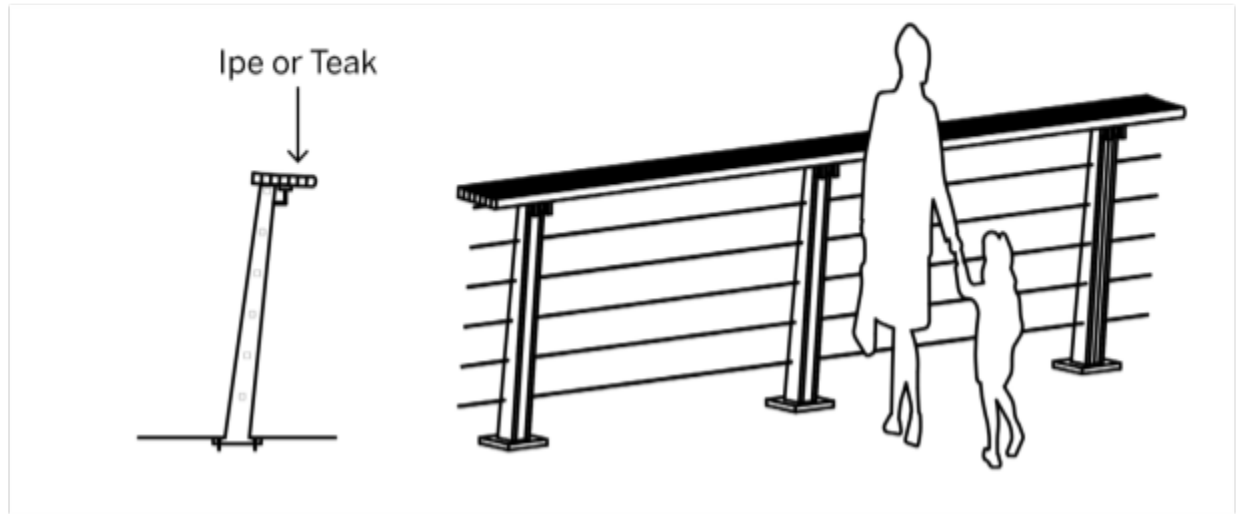
Railings

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

Concept Development

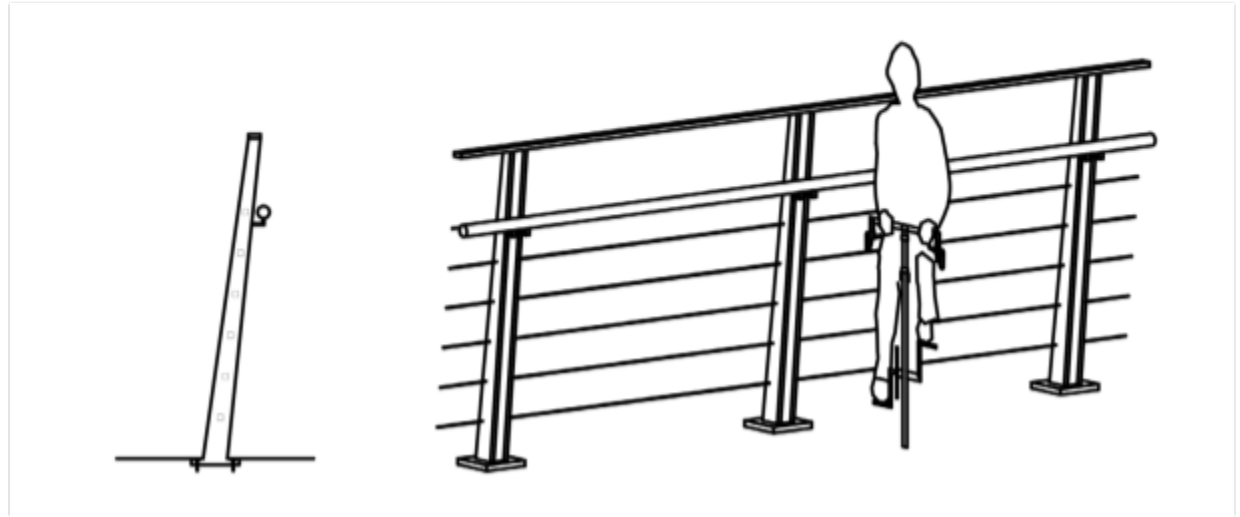
Railings

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

Concept Development

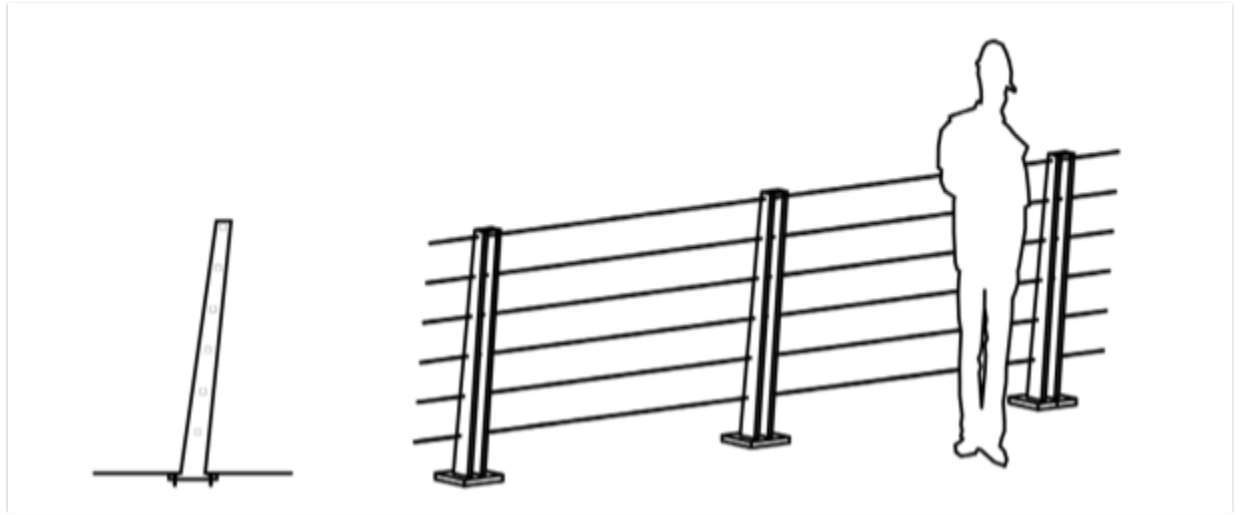
Railings

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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- ✓ Produces safe and functional space for neighborhood and regional use
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Concept Development

Land bridge



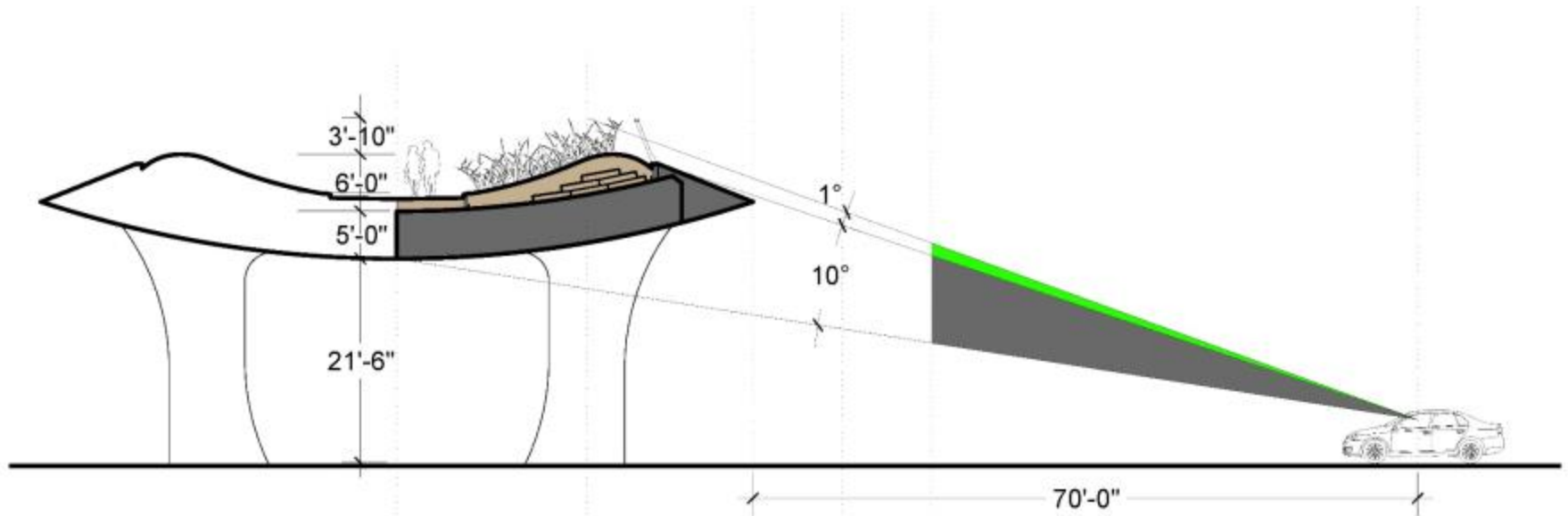
Concept Development

Land bridge



Concept Development

Land bridge

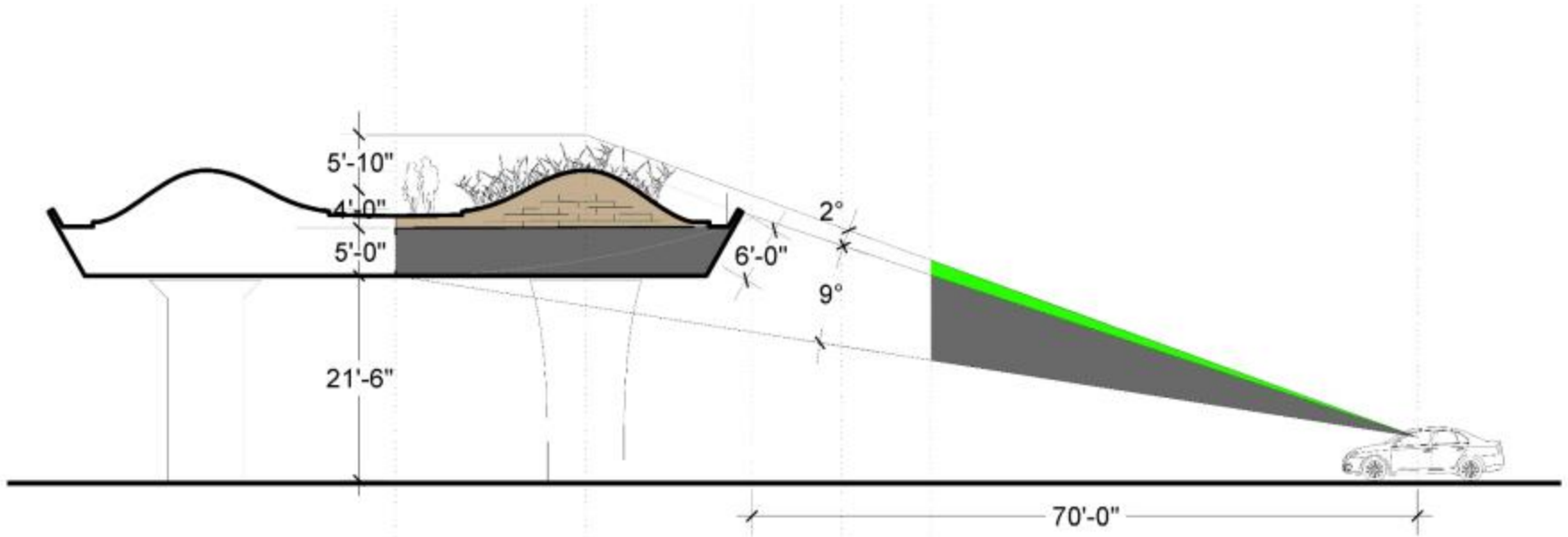


Baseline Design: "Saucer"

03/14/16

Concept Development

Land bridge

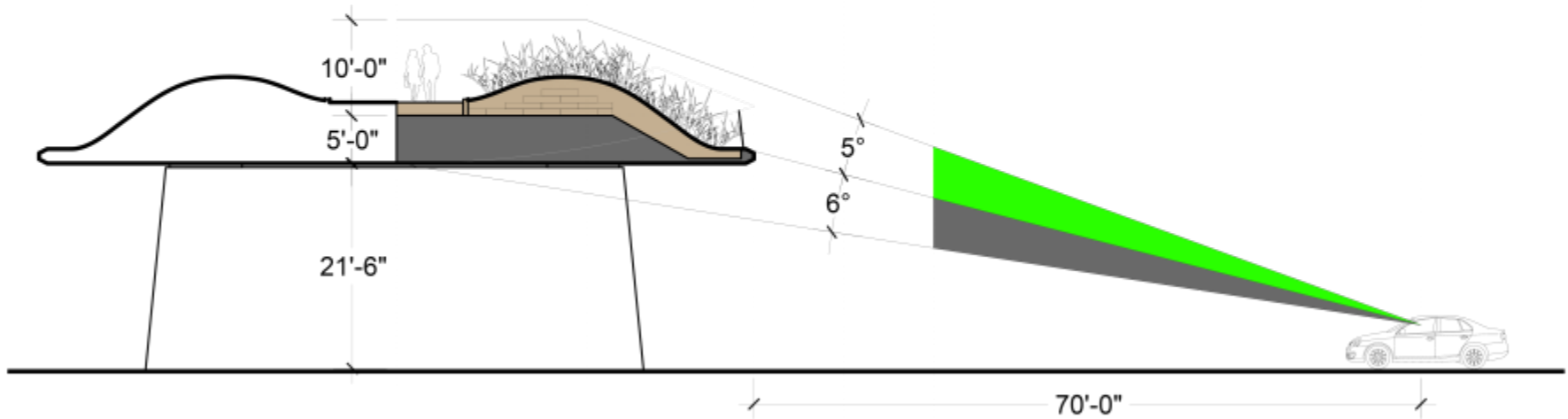


Option 1: Dish

03/14/16

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

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

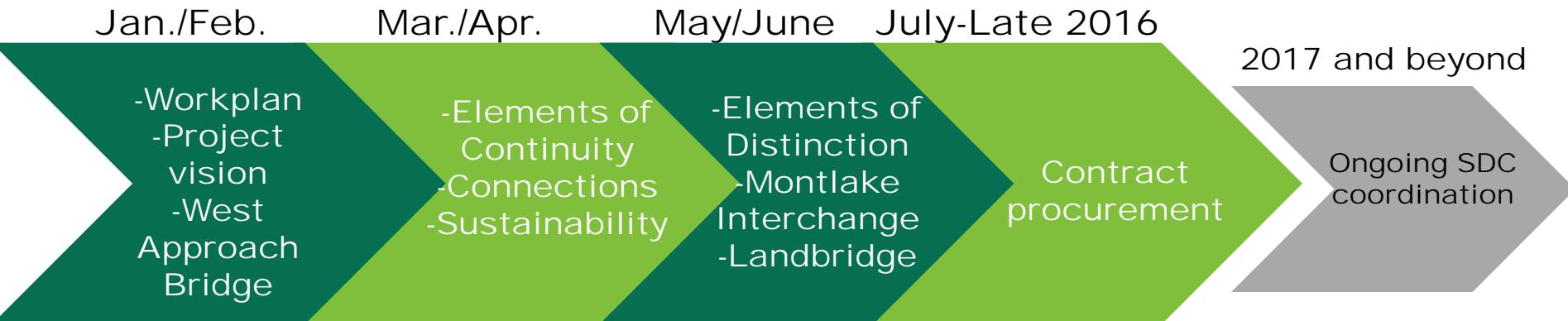
Land bridge – Design Goals

- ✓ 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
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- ✓ 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



SR 520 'Rest of the West'

Edward B. Murray
Mayor

Sam Assefa
Director, OPCD

Shannon Loew, Chair

Ross Tilghman, Vice Chair

Brodie Bain

Lee Copeland

Ben de Rubertis

Thaddeus Egging

Rachel Gleeson

Laura Haddad

Theo Lim

John Savo

Michael Jenkins
Director

Valerie Kinast
Coordinator

Aaron Hursey
Planner

Juliet Acevedo
Administrative Staff

**Office of Planning and
Community Development**
700 5th Avenue, Suite 2000
PO Box 34019
Seattle, WA 98124-4019

TEL 206-615-1349
FAX 206-233-7883
seattle.gov/dpd/cityplanning

Commissioners Present

Shannon Loew, Chair
Ross Tilghman, Vice Chair
Brodie Bain
Lee Copeland
Laura Haddad
Theo Lim
John Savo

Commissioners Excused

Ben de Reubertis
Thaddeus Egging
Rachel Gleeson

Project Description

The Washington State Department of Transportation (WSDOT) is redeveloping the Seattle segment of the State Route (SR) 520 corridor between I-5 and Lake Washington. The redevelopment will include new bridges that meet current seismic standards, updated roadways with HOV capacity and new pedestrian and bicycle facilities. In addition, the project will include a lid between Montlake Blvd E. and 24th Ave E, as well as a bicycle and pedestrian bridge over SR 520 to the east of the Montlake lid.. The lid will include improved transit connections, open spaces, and enhanced non-motorized connections. Although the entire project is fully funded, funding for design and construction is allocated over several biennia. Construction is anticipated to occur in three phases:

- Phase I – Includes the corridor spanning from Lake Washington to Montlake Blvd. This phase will include the design and construction of the Montlake lid, land bridge, and West Approach Bridge South (WABS).
- Phase II – Includes the planning, design, and construction of the Portage Bay Bridge, 10th and Delmar lid, and I-5 interchange.
- Phase III – Includes a second bascule bridge over the Montlake Cut.

The Seattle Design Commission (SDC) is providing advice to WSDOT on final design concepts related to Phase I of the corridor, which will be constructed by a design-build contract. This final design work will assist WSDOT in developing the Request for Proposals (RFP) for construction of Phase 1. The concept designs developed in assistance with the SDC will be incorporated into the RFP and used by a future design-build contractor to complete final design and construct the project.

Meeting Summary

At this meeting, the SDC received an overview of the SR 520 Project, focusing on the refinement of the Montlake Lid design and proposed programming. Following the presentation, comment, and deliberation, the SDC agreed to endorse the Montlake Lid design and programming.

Recusals and Disclosures

Thaddeus Egging recused himself. His is an employee of KPFF, the engineering firm working on this project.

June 2, 2016**9:00 - 12:00 pm****Type**

Major Project

Phase

Concept Design

Previous Reviews[04/07/16, 02/04/16](#)**Project Team Present****Brianna Holan**

LMN Architects

Kerry Pihlstrom, WSDOT**Osama Quotah**

LMN Architects

Steven Van Dyck

LMN Architects

Attendees**Adam Amrhein**

LMN Architects

Joe Basile

WSDOT Consultant

Lyle Bicknell

OPCD

Evan Chakroff

LMN Architects

Calvin Chow

Council Central Staff

Allan Davis

Seattle Arch

Candace Goodrich

WSDOT Consultant

David Graves

SPR

Matt Gurrad

HDR

Todd Harrison

HDR

Steve Peer

WSDOT

Matt Rochon

WSDOT

Norie Sato

Sato Services

John O'Neil, Seattle Prep**Ghassan Sabboubbeh**

WSDOT

Bernard Van de Kamp

SDOT

Connie Zimmerman

COS

June 2, 2016

*Figure 1: Nature meets city diagram**Figure 2: Phase I plant communities***Summary of Presentation**

Kerry Pihlstrom, of WSDOT, and Osama Quotah, Brianna Holan, and Steven Van Dyck, of LMN Architects, presented the project proposal. Kerry Pihlstrom provided an overview of the vision and values for the project as well as the history and development of the surrounding area. Although fully funded, the corridor will be built out in three phases. This presentation focused on refinement of the vision "Nature meets City" (see figure 1), and the design and programming of the Montlake Lid and surrounding area.

Transit corridors located within phase I of the project currently service 150,000 plus vehicles per day as well as 15 bus routes. When planning and designing the Montlake Lid, the design team envisioned creating a new element of "civic infrastructure" that will integrate transportation needs while restoring ecology (see figure 2) and local neighborhood connections in a way that will significantly draw users into the space. The lid and surrounding area will serve as the location where natural elements such as the shoreline, arboretum, and parklands will blend together with neighborhoods, roads, and pathways.

The project area will include pathways, nodes, transition spaces, outlooks, and open space, as well as interpretive elements located throughout in order to reflect the

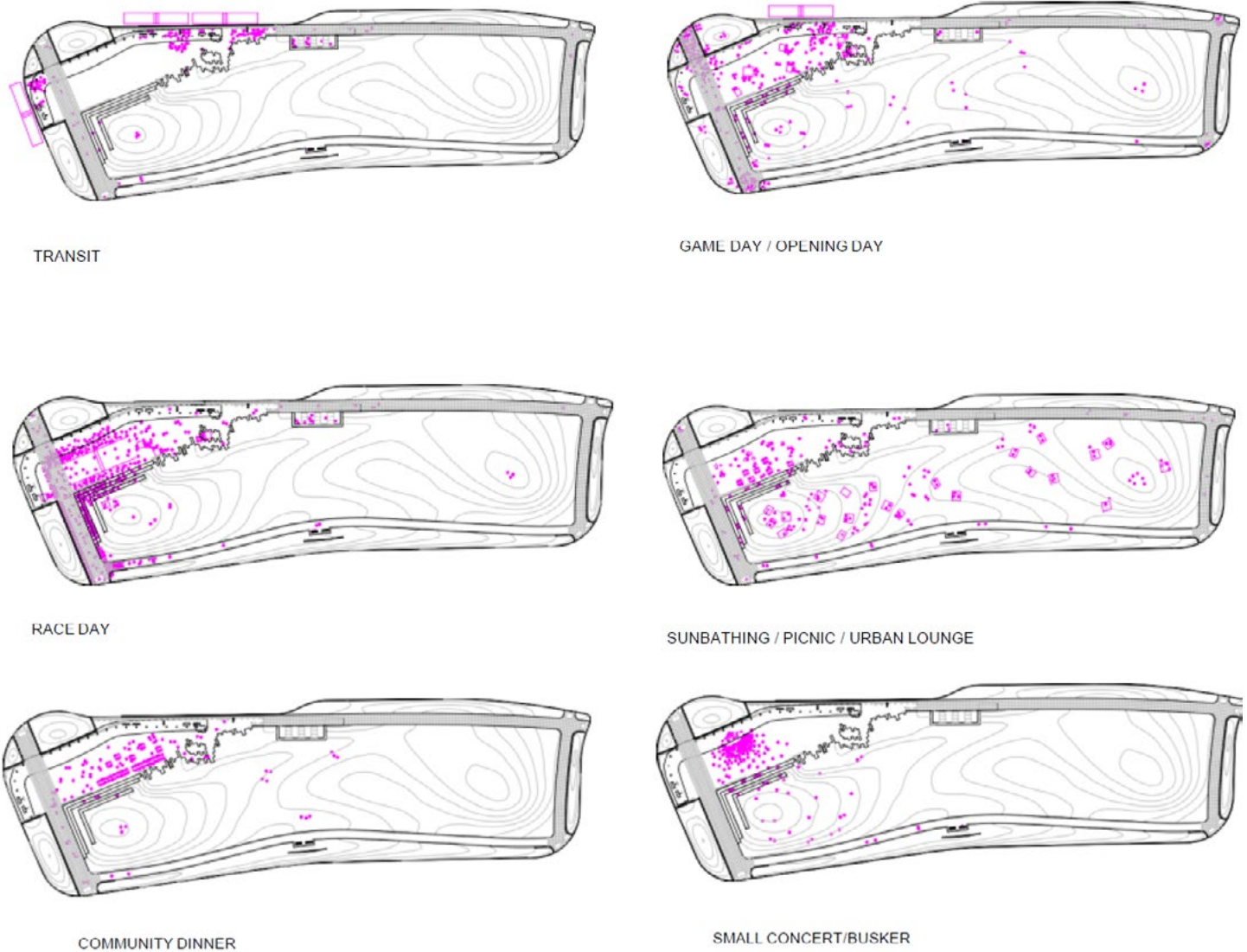


Figure 3: Examples of programming on proposed Montlake Lid

natural and cultural history of the area. The open space, located along Montlake Boulevard on the Montlake Lid will include a transit shelter that will serve as an urban trailhead for the users entering the area and then traveling elsewhere throughout the city.

The Montlake Lid and Landbridge are designed to attract a variety of user groups ranging from community members and daily transit users to citywide and regional user groups gathering for a special event. See *figure 3* for more detail. The user experience will vary based on location and will can accommodate activities such as walking, nature viewing, bike repair, picnicking, and waiting for transit.

The team then presented several design goals and next steps for the project proposal, which include developing a request for proposals (RFP) for project bidding as well as discussing program leadership, future operations, and maintenance.

Agency Comments

Lyle Bicknell, OPCD, Stated that the project team continues to work collaboratively with other agencies and community members. Mr. Bicknell mentioned that the team would continue to reach out to a broad range of stakeholders. He stressed the importance of maintaining a high level of design quality while moving forward to the bidding process.

Public Comments

None

Summary of Discussion

The Commission organized its discussion around the following issues:

- Vision
- Circulation
- Landscape and programming
- Key nodes
- Materiality
- Sustainability (operations and maintenance)
- RFP and Unknowns

Vision

Although the SDC appreciated the level of detail provided by the project team, they are concerned the vision is not clearly articulated yet, nor being fully used in developing and supporting key design features. Commissioners recommended the project team specifically show how each design element fits within the overall vision and supports the "nature meets city" concept, the concept that the SDC fully supports. The commission also recommended the team continue to design the corridor to a standard that meets the Olmsted legacy envisioned for this area, specifically as it relates to connectivity. The SDC also recommended the selected design build team include a separate landscape architecture firm in order to effectively address and balance the "nature meets City" theme with the historic context.

Circulation

The SDC supported the fundamental circulation elements including the multitude of pathways, orientation of pedestrians to overlooks and nodes, and the form and location of the land bridge. Commissioners recommended the design team continue to establish and reinforce a visible hierarchy of pathways at the nodes (or knuckles) where the pathways intersect. Developing a hierarchy at these "knuckles" will help reinforce the identity of both the regional and local pathways.

Landscape and programming

The SDC continued to provide reasons as to why the selected design build team should include a landscape architect. Commissioners recommended the chosen landscape architect should understand how to effectively implement the "nature meets City" concept that blur edges between natural and built elements. In addition, the commission felt it was crucial for the landscape architect to spend time focusing on designs of pedestrian spaces next to vehicular areas, and be able to address detailed planting and material needs.

The Commission underscored all of the fundamental design elements presented in the landbridge, including its form, the mix of landscape and pathways, belvederes, etc. The commission believes that the concept designs presented in the landbridge are fundamental to the success of this feature.

The commission supports the idea of blending edges between pathways (City) and planting areas (nature) with features like the grass berms along the landbridge, the edges of the lid, adjacent to the roadways, and the overall open space. The SDC recommended the design team continue to include plant typologies that exist in other areas throughout the Olmsted corridor.

Key nodes

The Commission appreciated the location and design of nodes throughout the corridor, including mixing zones at either end of the landbridge, the plaza and transit mixing areas at the NW corner of the Lid, etc. Commissioners agreed nodes like this would allow users to have a unique experience. The SDC also appreciated the design team relocating the southbound Metro stop south of the proposed Lid along Montlake Boulevard as well as relocating the regional pathway to the north of the open space. The commission was concerned that the relocated transit stop south of the lid be better connected through pedestrian improvements or other wayfinding connections to the lid and its transit connections.

Materiality

The SDC commended the design team for providing a high level of detail for all users, from vehicles to cyclists and pedestrians. The Commission stressed the importance of providing a detailed explanation as to why specific material choices were selected and how they correspond with the overall vision for the project. This level of detail will be

important to communicate as part of the RFP for the design build contract. Commissioners would also like to provide more feedback regarding signage, lighting, and benches during future meetings.

Sustainability (operations and maintenance)

The SDC recommended the design team fully express how the project will incorporate stormwater strategies throughout the corridor. Commissioners agreed the project team has coordinated with a variety of agencies, organizations, and community groups and recommended WSDOT identify which agencies will have jurisdiction over specific design elements.

RFP and Unknowns

The Commission stressed the importance of including specific design element details within the RFP, including technical diagrams and lists that define criteria such as distances, sound maximums, views, and landscaping. Commissioners stated that the RFP should represent the base line design viewed to date and that the overall vision, included specific design materials and details, represented in the RFP should be delivered. The Commission also recommended the design team and associated agencies reconsider the necessity, quantity and location of bicycle lockers.

Action

The SDC endorses the revised Montlake Lid design and proposed programming, and design development of elements of continuity and distinction presented during today's meeting. The Commission will continue to provide feedback to WSDOT and related agencies as the design continues through the RFP process.

SR 520 Program

Seattle Design Commission



SR 520 Rest of the West Design Team

June 2, 2016

Design Presentation Overview

Program Overview

- SR 520 Program
- Rest of the West
- Sustainability/Vision

Design Presentation

- Context and History
- User Experience

Today, seeking endorsement of:

- Refined Montlake lid design and programming



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

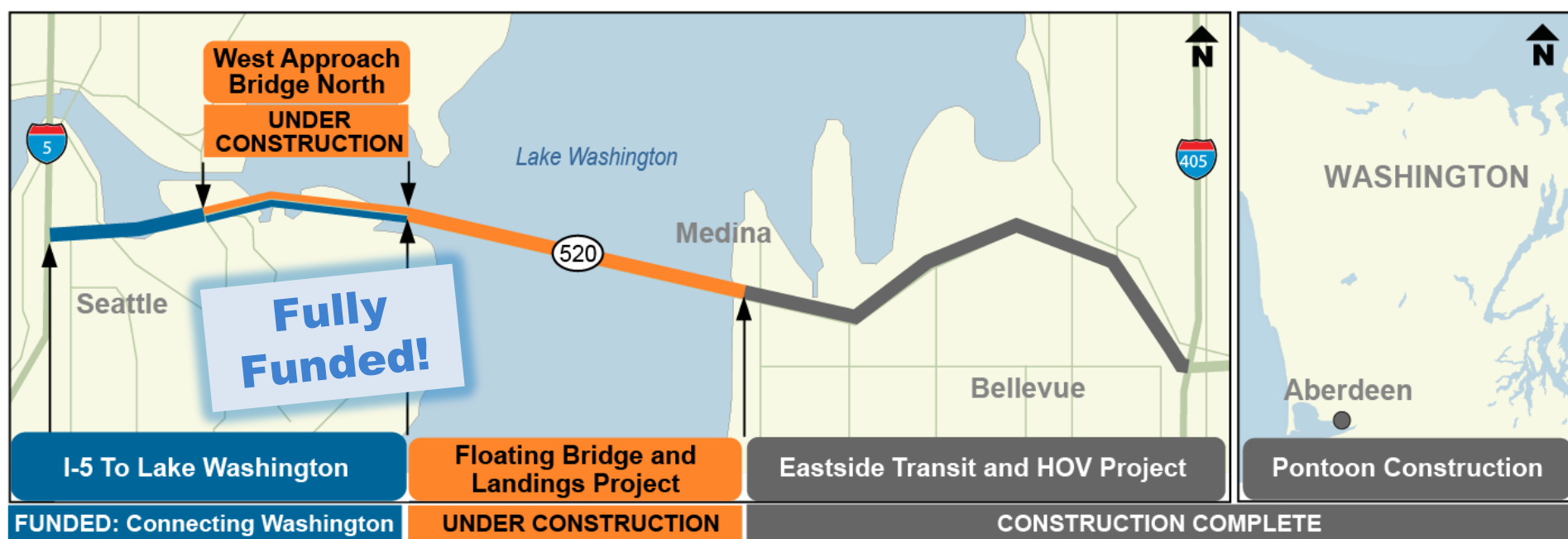


The SR 520 program is enhancing mobility by:

- 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



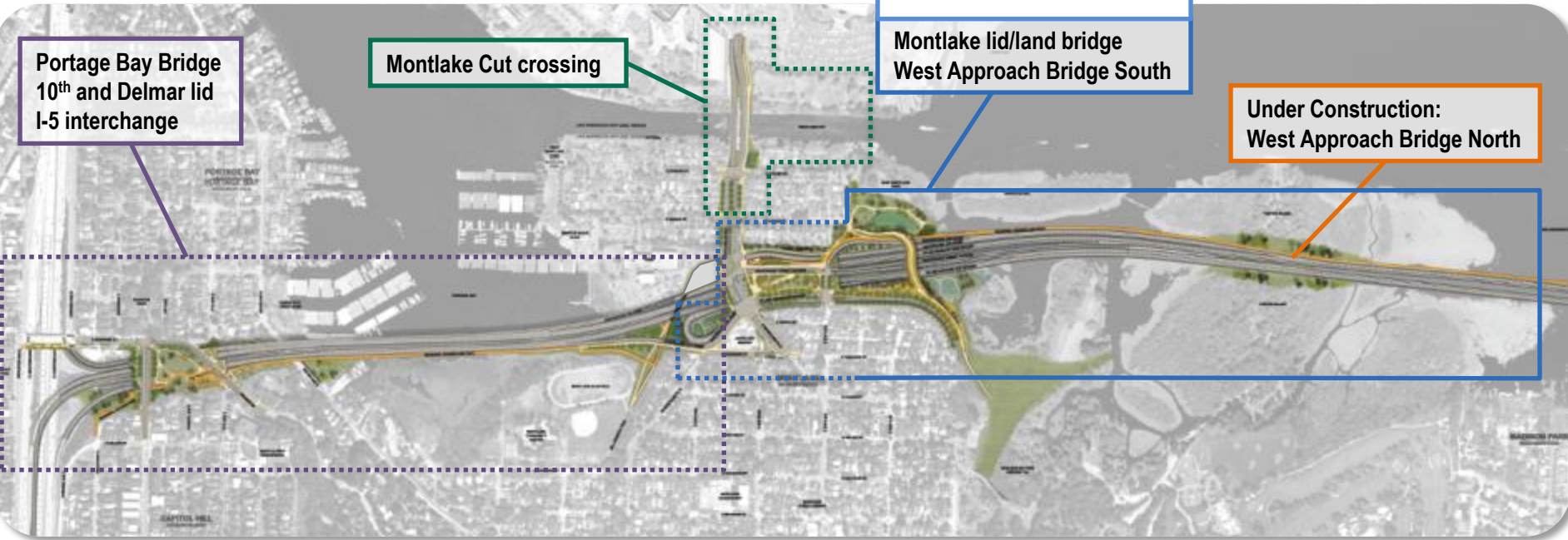
Program schedule

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

Rest of the West Project Overview

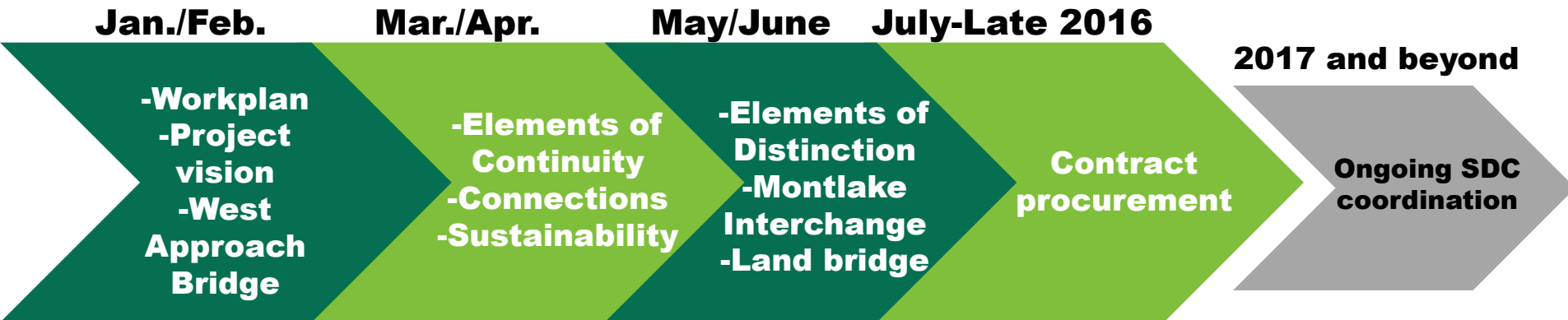


Possible future use of a portion of NOAA property, approximating the area shown in the FEIS, for public pedestrian-bike path is subject to agreement by NOAA as a part of ongoing mitigation discussion

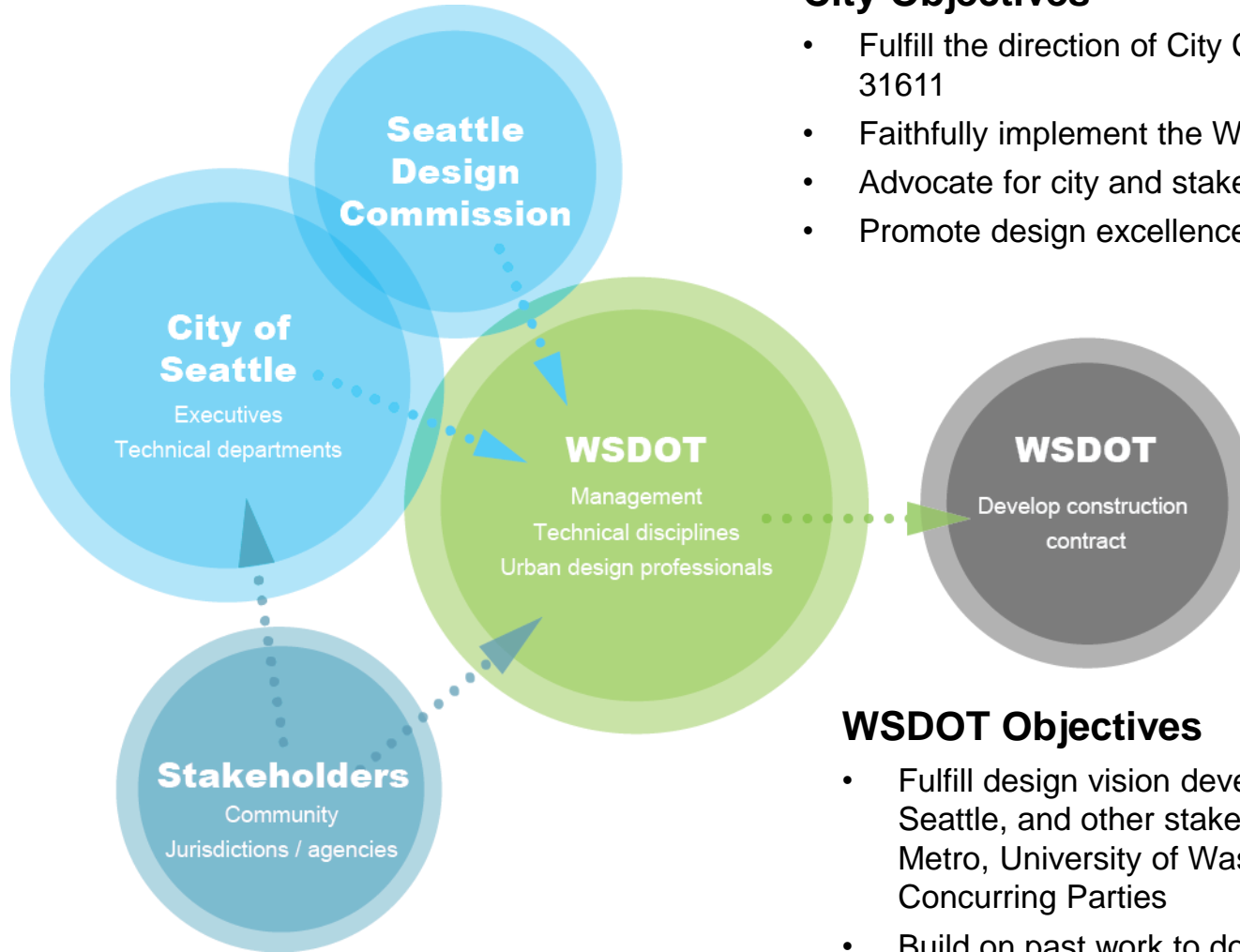


Timeline

- **Jan. – June 2016: Design Focus**
 - Ongoing coordination with SDC Subcommittee
 - Briefings with full SDC
 - Coordination with key stakeholders and broader public
- **Summer – Late 2016: Contract Procurement Focus**
 - Reach maintenance agreements
 - Participation in contract procurement process



Stakeholder Coordination



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.

WSDOT Sustainability Values



What We Heard

- ✓ Community Aesthetic Design Consultant
- ✓ Column folly
- ✓ *User experience along pathways**
- ✓ Gateway design – unique multimodal experience
- ✓ *Viewpoint opportunities**
- ✓ *Lid character and program**
- ✓ 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

Disclaimers



Ecology, Geology, and Portage



1850

Pre-1851: Duwamish, and other first nations settlements and byways.

Local place name “Carry a Canoe” indicates passage between the waterways.



Connectivity

- Transportation
- Landscape



Courtesy Paul Dorpat.



Transportation and Infrastructure



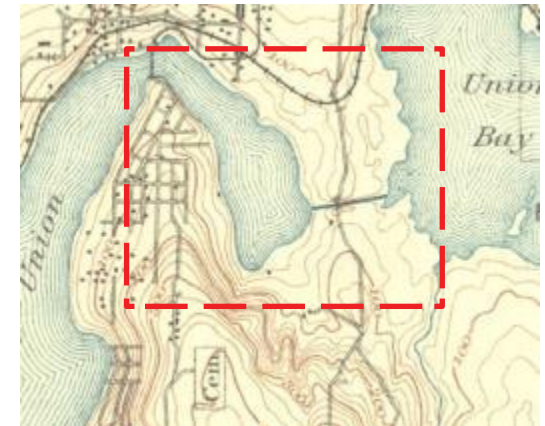
1894

1851: European American settlers arrive.

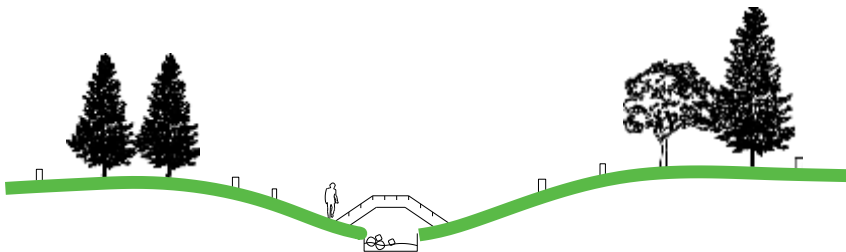
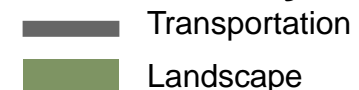
1869: Seattle incorporated.

1876: Land for Volunteer Park & Lakeview Cemetery set aside.

1860s-1880s: Montlake Ditch constructed to aid logging transport between waterways.

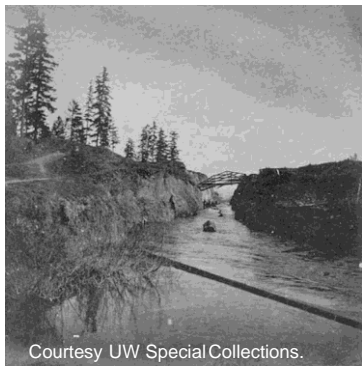


Connectivity





Courtesy MOHAI, Seattle



Courtesy UW Special Collections.



Transportation and Infrastructure

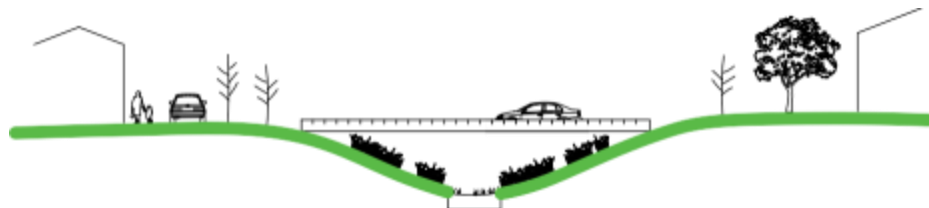
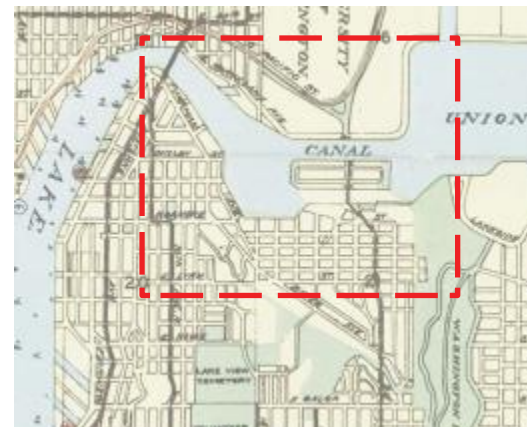


1918

1898: Canal Reserve established around Montlake Ditch.

1907: Olmstead Brothers propose Lake Washington Boulevard extension. to Alaska-Yukon Exhibition at UW site.

1909-1916: Dredging of Montlake Cut. Lake Washington water level lowered by 9 feet.



Connectivity

- Transportation
- Landscape



Courtesy MOHAI, Seattle

Olmsted Master Plan

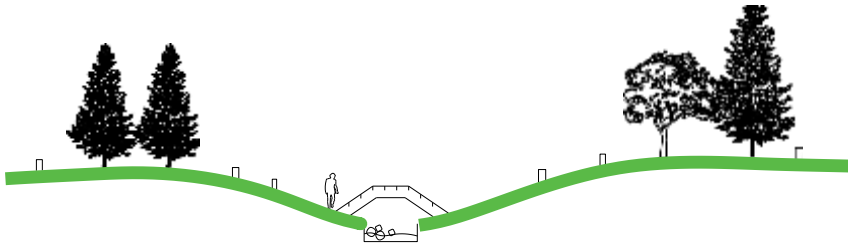
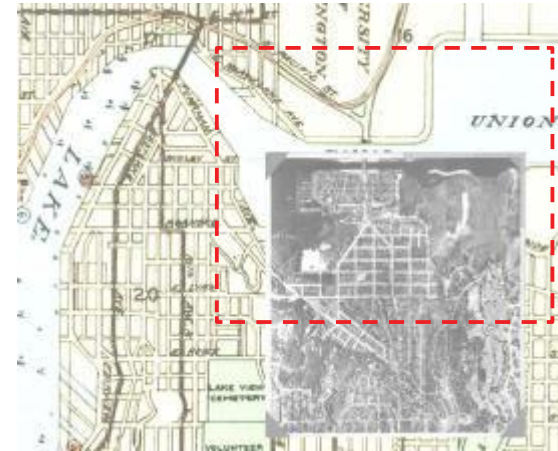


1937

1925: Montlake Bridge opens.

1934-1935: UW Arboretum established Washington Park site. Olmsted Brothers submit plans.

1935-1941: Arboretum lands graded & planted, major structures constructed (including canal reserve).



Connectivity

- Transportation
- Landscape





Courtesy MOHAI, Seattle

Federal and Civic Development

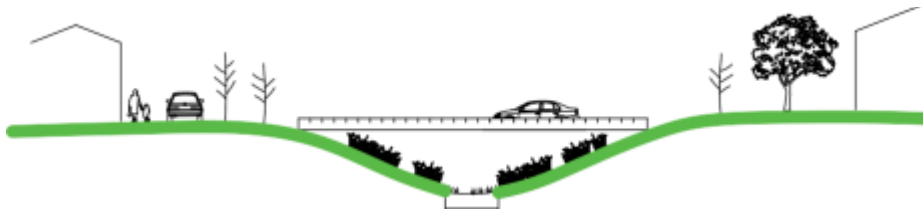


1942

1941: WPA assistance to Arboretum discontinued.

1940s-1950s: development of Arboretum slows but continues.

1952: MOHAI opens, primary access from south via Lake Washington Boulevard.

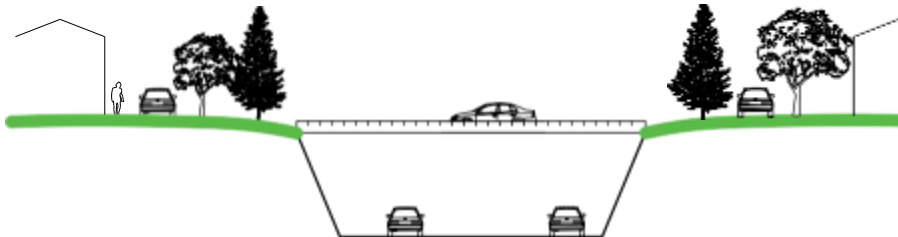


Connectivity

- Transportation
- Landscape



Heroic Infrastructure

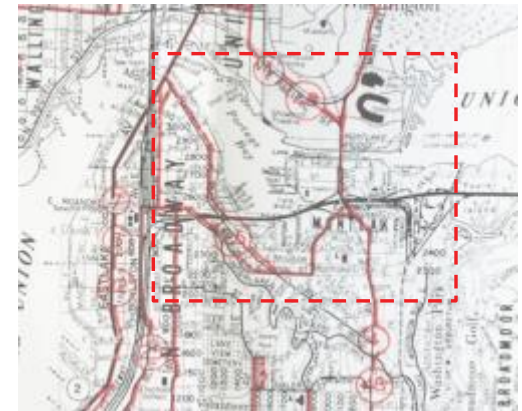


1967

1961-1963: Construction of SR520 floating bridge. R.H. Thompson expressway proposed, cutting through arboretum.

1968: Waterfront / Foster Island trail constructed.

1969-1972: Freeway protests. Thompson Expressway plan rejected by voters.

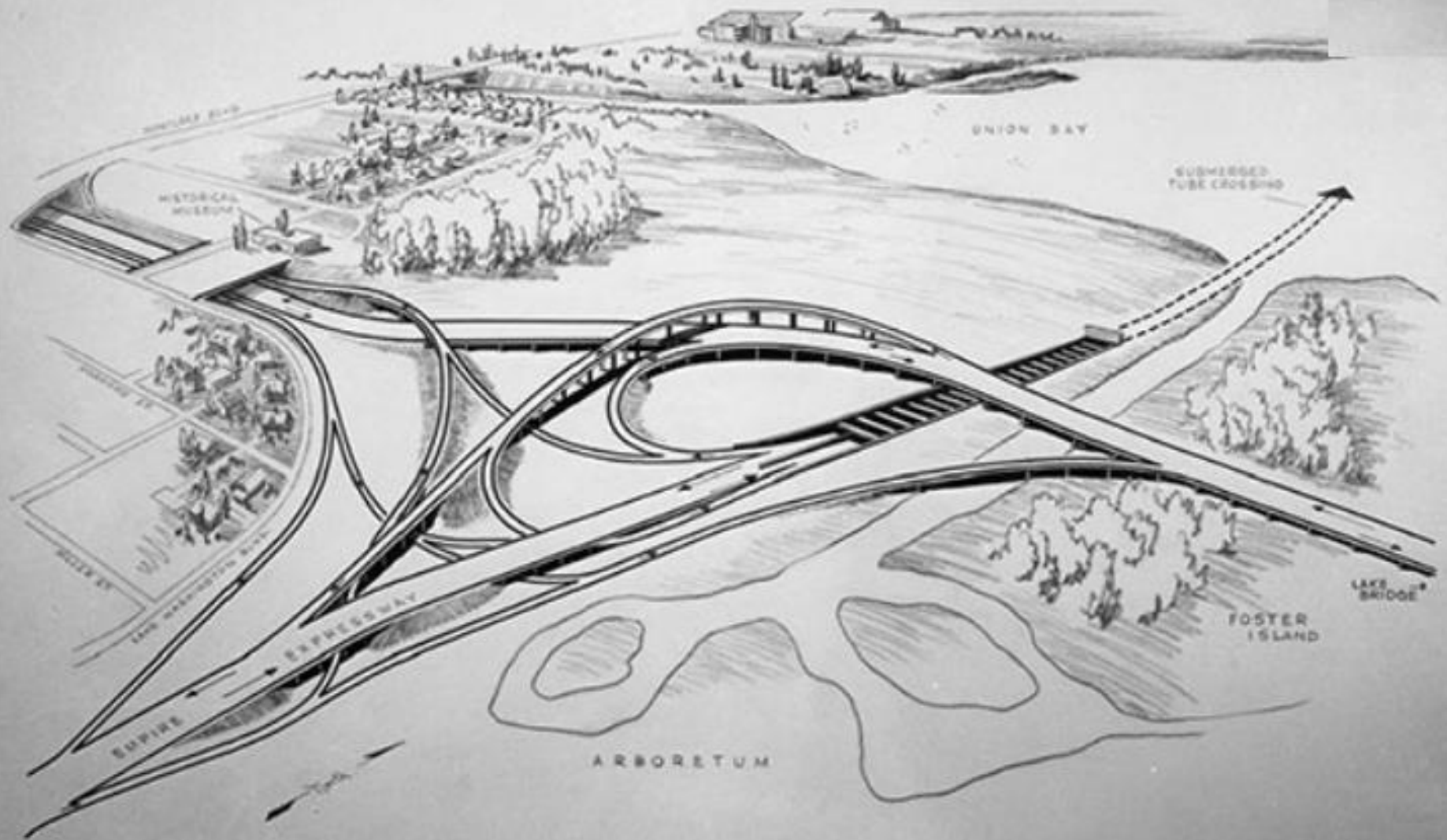


Connectivity

- Transportation
- Landscape

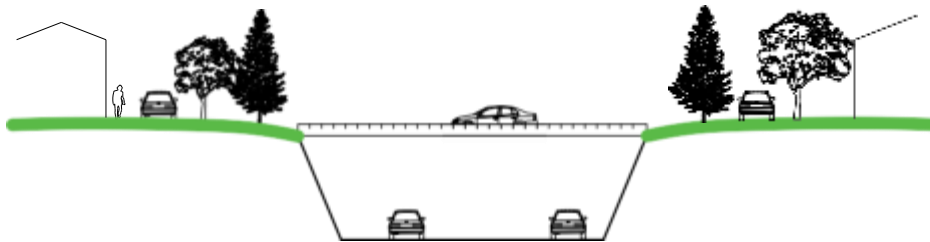
EMPIRE EXPRESSWAY

~ ARBORETUM INTERCHANGE ~





Dominant Infrastructure



2015

1972-2014: “Ramps to Nowhere”

2000-2010s: SR520 improvements

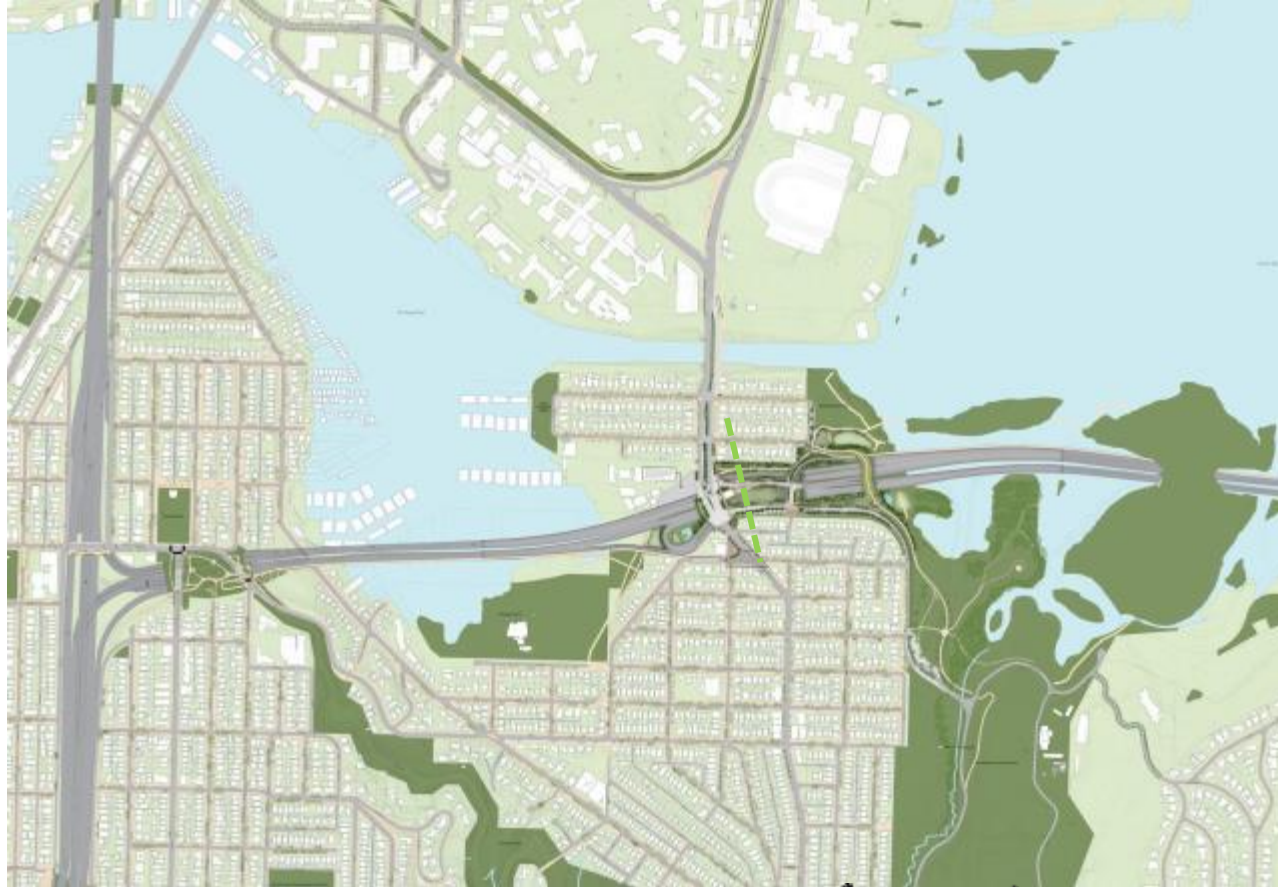


Connectivity

- Transportation
- Landscape

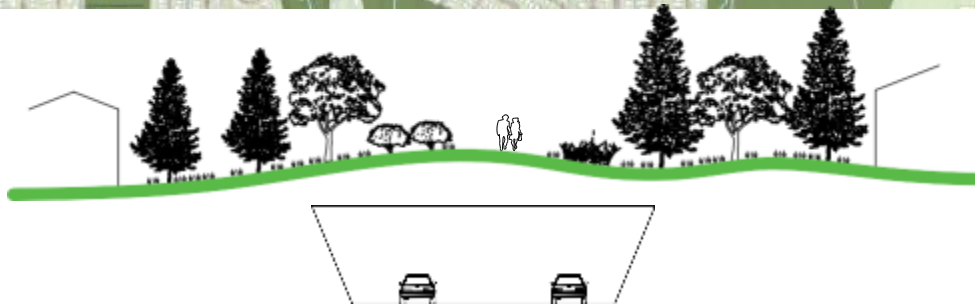
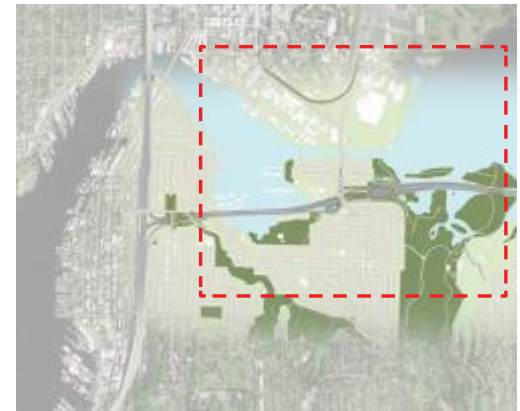


Reconnected Greenways and Urban Fabric



FUTURE

SR520 improvements complete



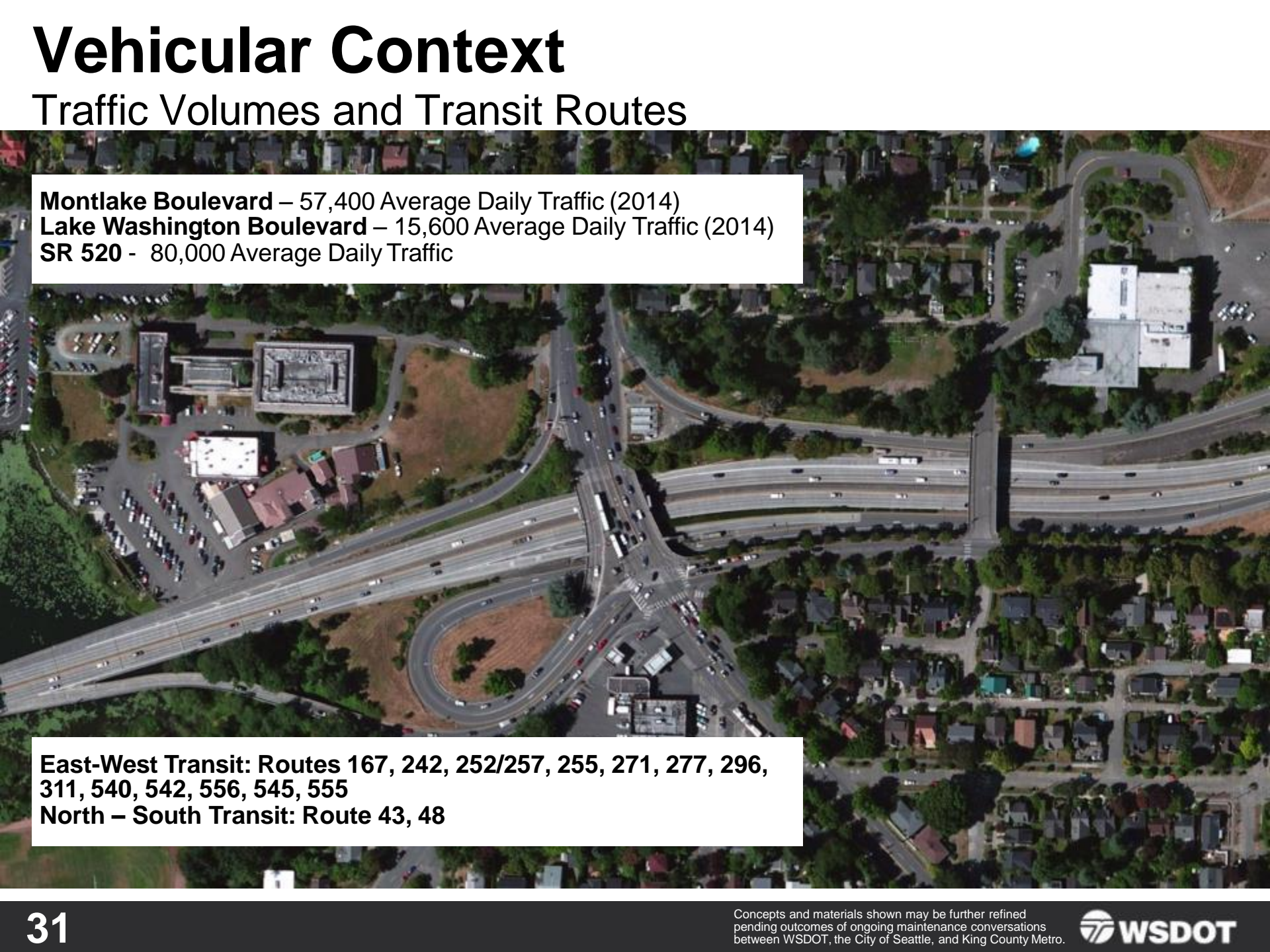
Connectivity

- Transportation
- Landscape



Vehicular Context

Traffic Volumes and Transit Routes



Montlake Boulevard – 57,400 Average Daily Traffic (2014)
Lake Washington Boulevard – 15,600 Average Daily Traffic (2014)
SR 520 - 80,000 Average Daily Traffic

East-West Transit: Routes 167, 242, 252/257, 255, 271, 277, 296, 311, 540, 542, 556, 545, 555
North – South Transit: Route 43, 48

We seek to create a new Civic Infrastructure that integrates future-compatible transportation needs, restores the local ecology, neighborhood and greenway connections, and draws on the significance of the place.



Olmsted Principles

Comprehensive Approach:

Connect Multiple Smaller spaces to form larger network

Unified Composition

Borrowed landscape

Genius of Place

Embracing the uniqueness of site

Orchestration of Use and Movement

Clear and varied

Nature Meets City

Progression of Experience



Nature Meets City



Path Alignment



Node Design



Transitions



Intersection Design



Neighborhood Open Space



Outlooks



Elements of Continuity:



Elements of Continuity

Gateway Experience Looking East



Elements of Continuity

View Looking West at Land Bridge



Elements of Continuity

View Along Regional Shared Use Path



Elements of Continuity

View from Portage Bay Looking East



USER EXPERIENCE

Neighborhood



Casual Strollers



Neighborhood Families

City



Bicyclist



Weekend Warrior



Transit User



Special Event

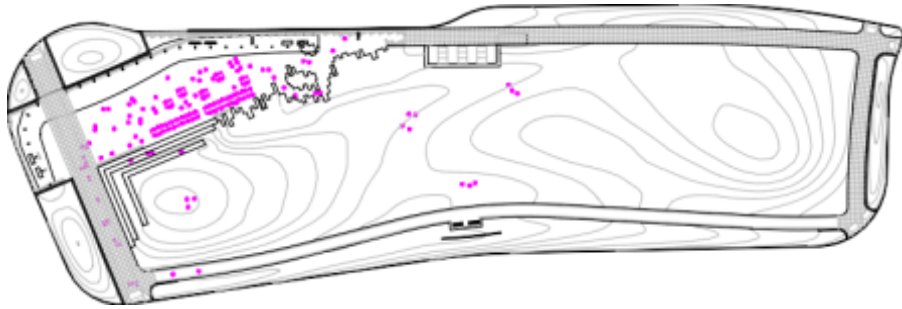
Lid Program

Forward Compatibility

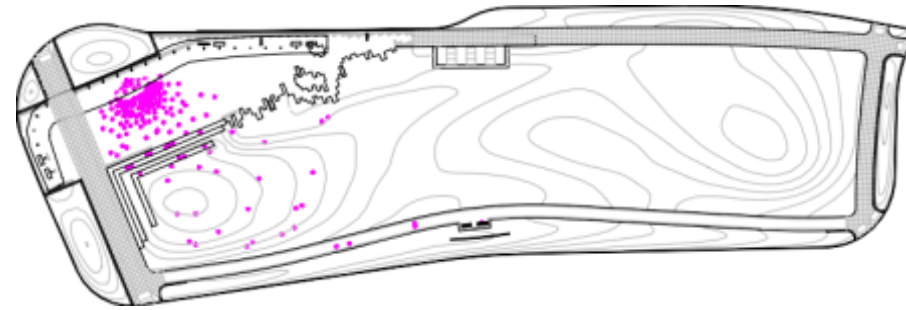


Lid Program

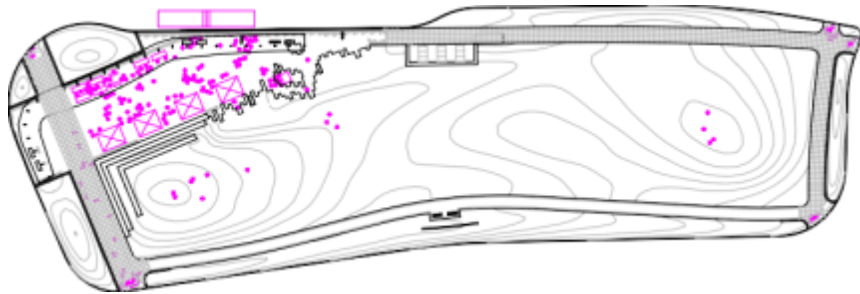
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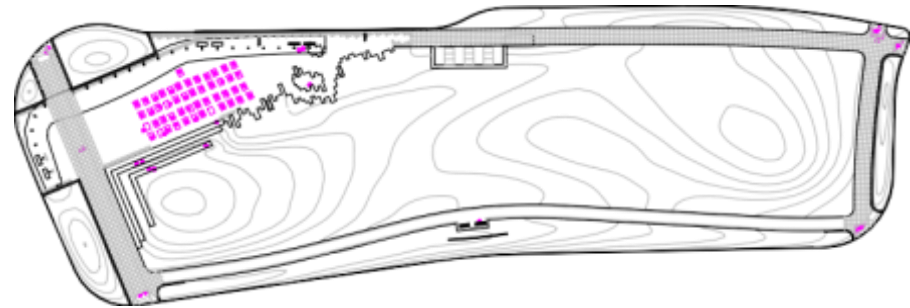
COMMUNITY DINNER



SMALL CONCERT/BUSKER



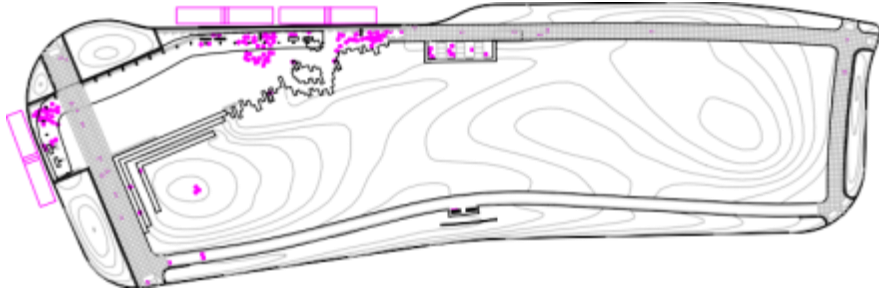
COMMUNITY MARKET/VENDORS



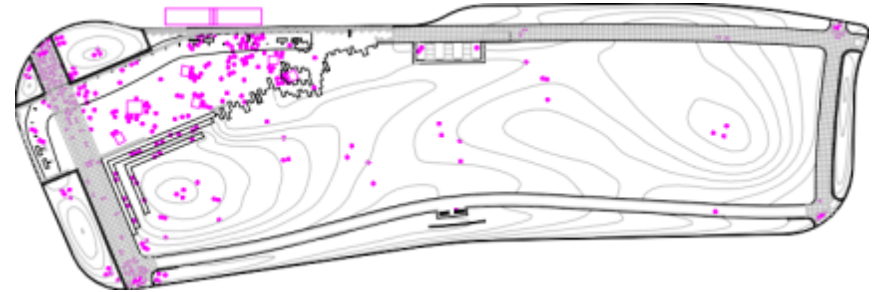
YOGA

Lid Program

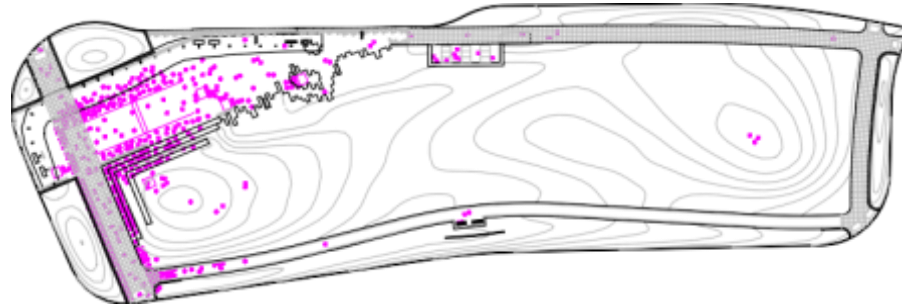
Forward Compatibility



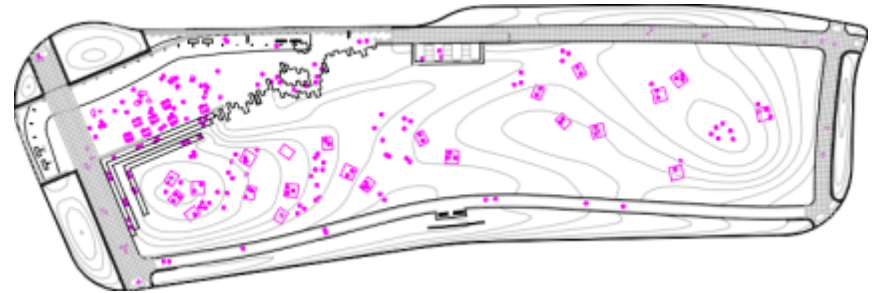
TRANSIT



GAME DAY / OPENING DAY



RACE DAY



SUNBATHING / PICNIC / URBAN LOUNGE

Possible Historic/Cultural Elements



**GEOLOGIC HISTORY/
REMNANTS:** erratics
and other stone elements



RECENT-HEROIC: ur-
ban erratics
cut pieces of the hollow
columns and 520 structure



RECENT-HEROIC: ur-
ban erratics
520 structure repurposed
concrete



CULTURAL:
urban erratics
Montlake neighborhood
history - stair/ porch detail
recalled on site, other
small residential architec-
tural "details"



CULTURAL:
hand-crafted texture
adzed patterns elements,
refined Pacific NW crafts,
craftsman

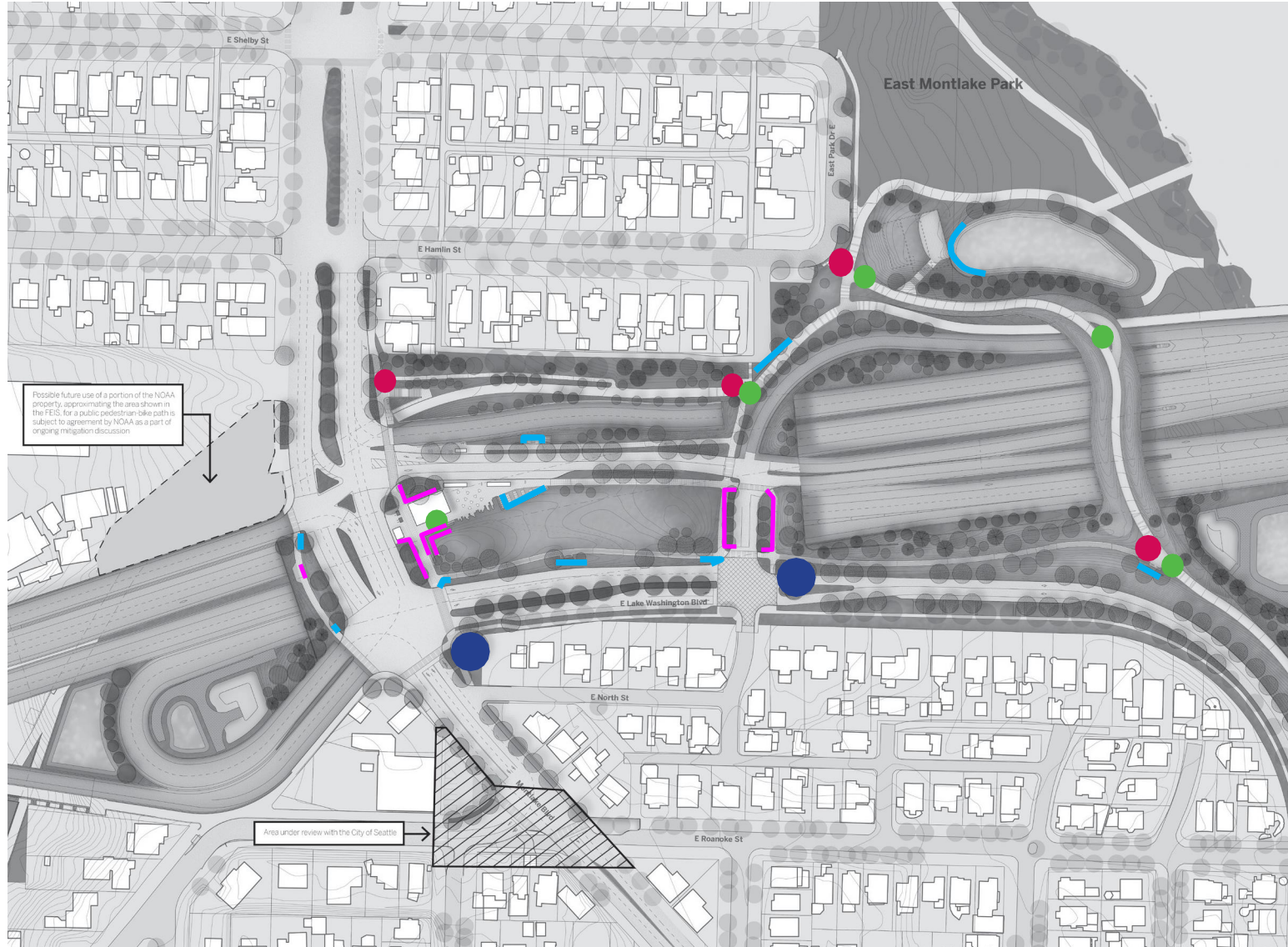


CULTURAL: oars mark-
er pole shapes, pattern
element



Interpretive Signage
Complementary to Arbore-
tum system

Interpretive Elements Concept Plan



- System Map/Interpretive Signs
- Urban Erratics: Cultural History
- Lake Washington Boulevard Stone transition features
- | Site Wall Repurposed concrete from 520 demo
- | Site Wall Repurposed concrete from 520 demo

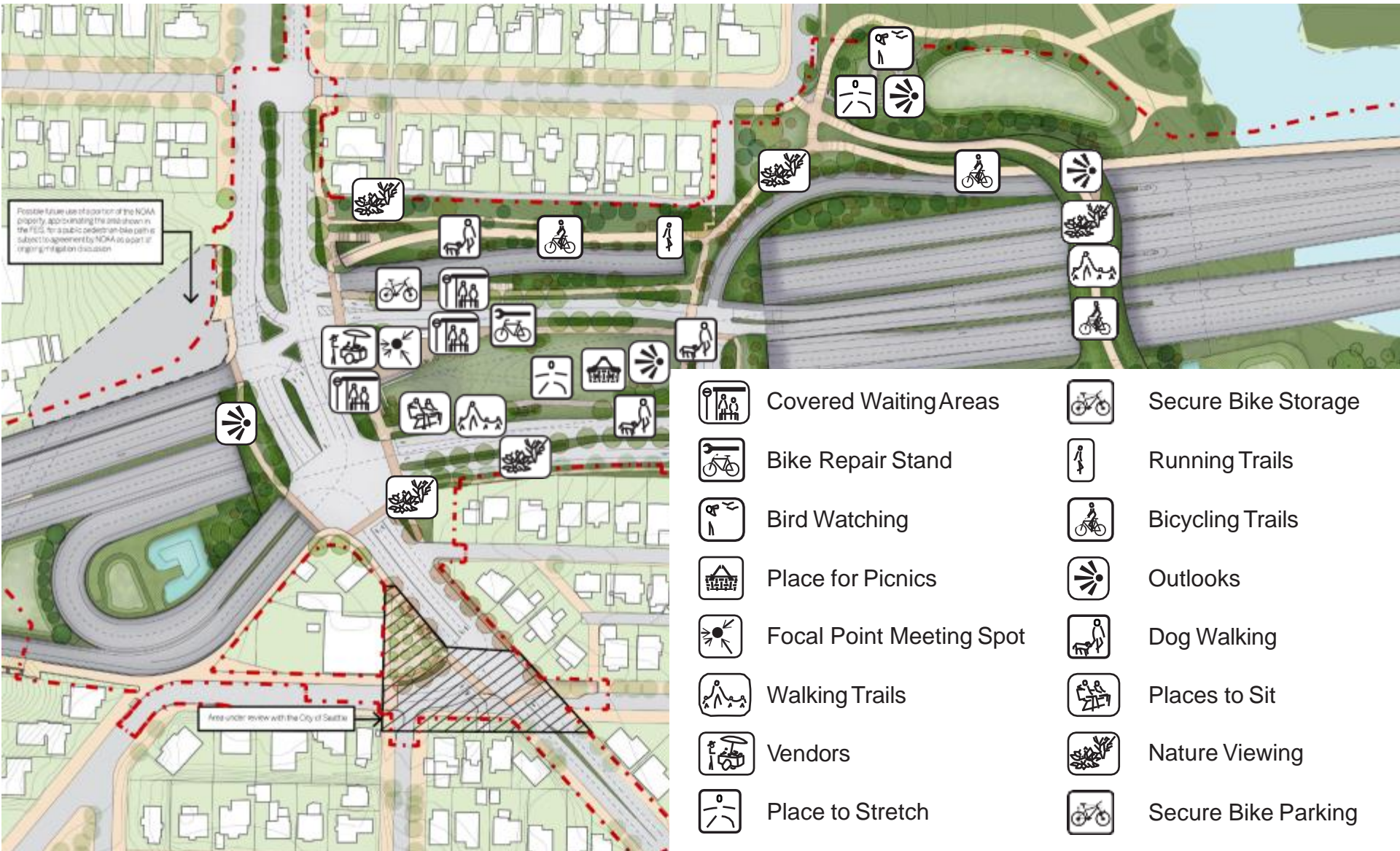
Plant Communities

Progression of Experience



User Experience

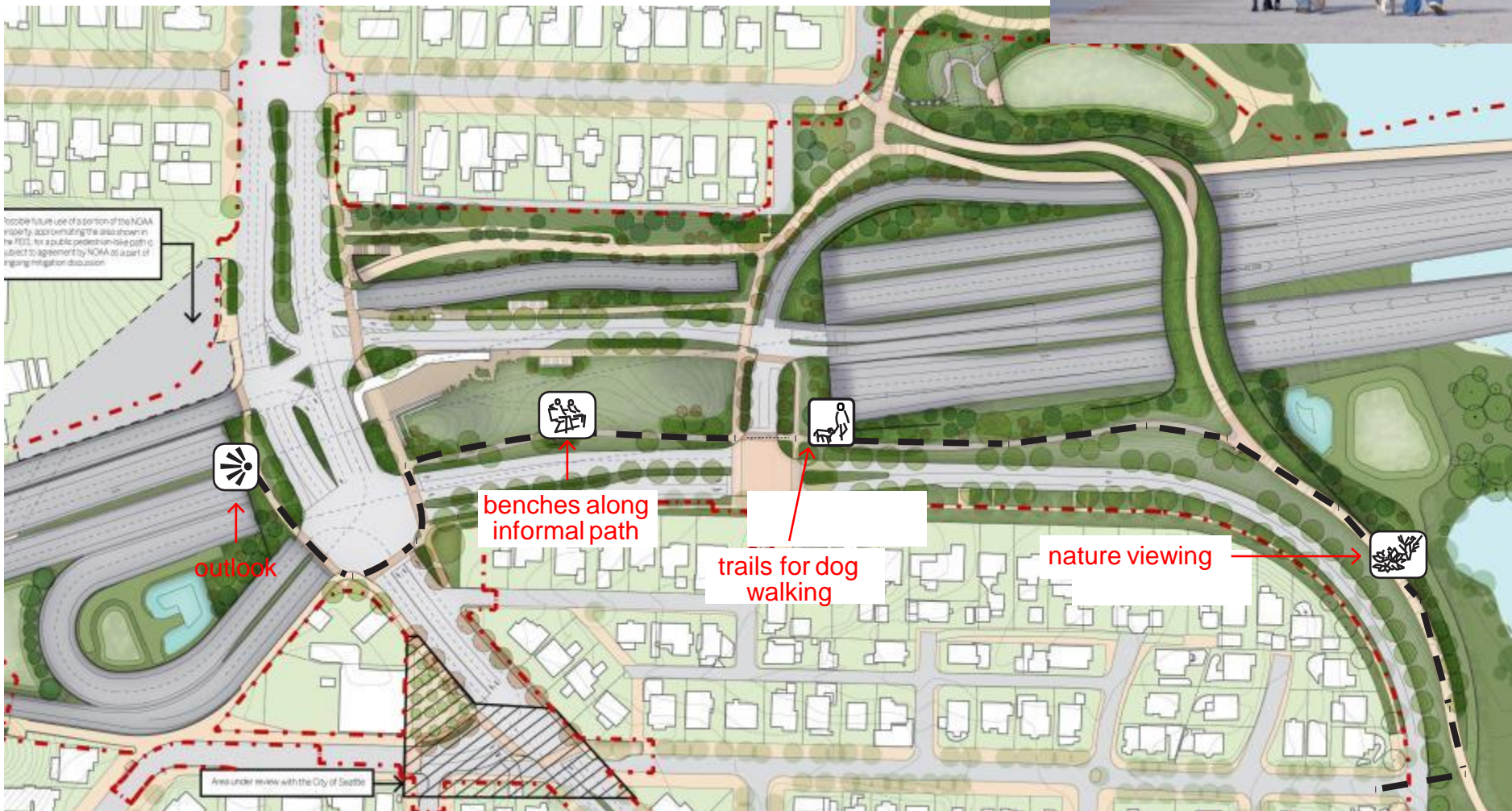
Possible Activities



Casual Stroller

Lives or works near the site. Uses the space as an opportunity for fresh air, socialize with neighbors, and a place to walk the dog.

Casual Stroller



E Lake Washington Blvd

Looking West near 24th Street



paving



existing 2x2 sidewalk

lighting



domus fixture

planting



Olmsted legacy

paving



gravel pathway with concrete edging

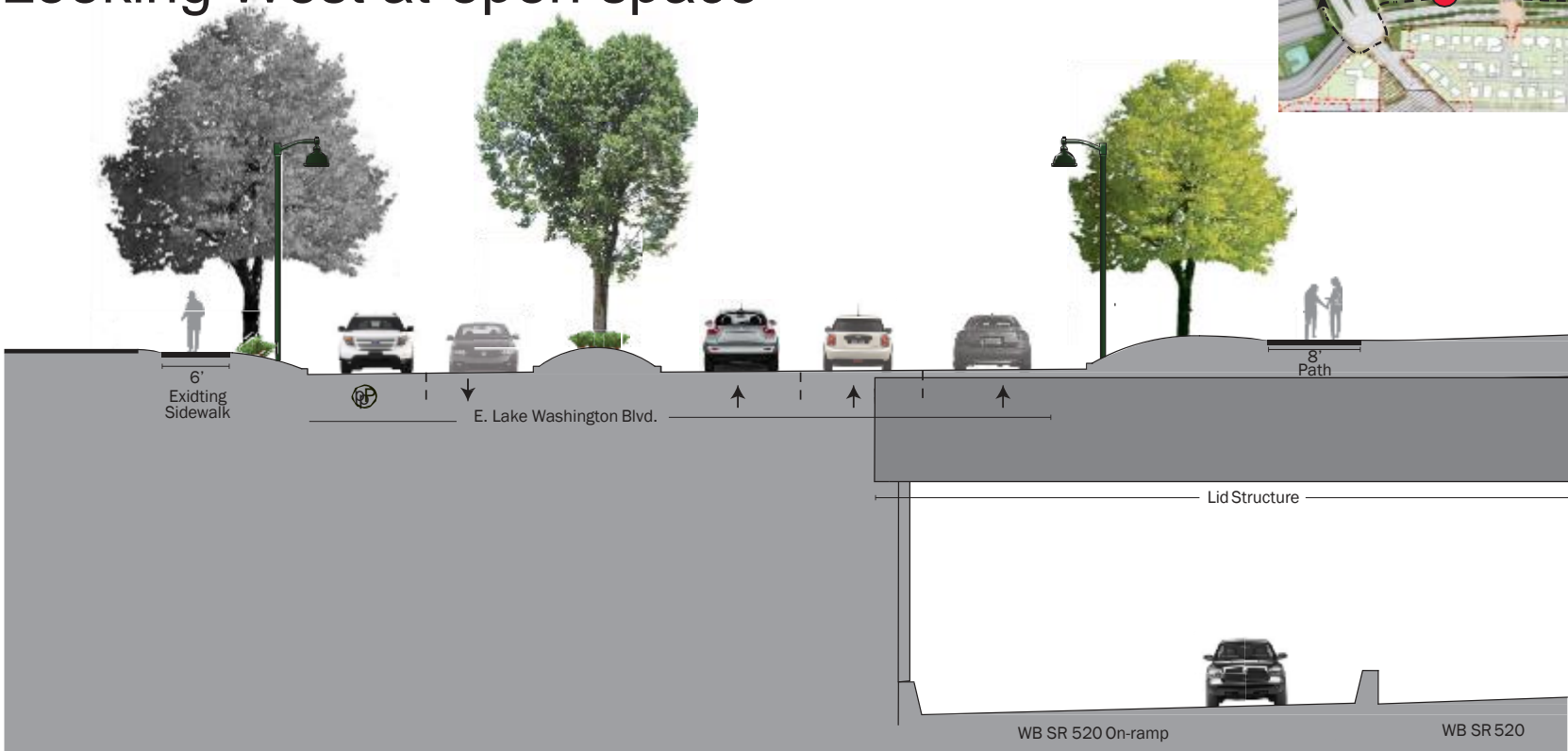
site walls



moss inducing textured concrete

E Lake Washington Blvd

Looking West at open space



paving



existing 2x2 sidewalk

lighting



domus fixture

planting



Olmsted legacy

paving



gravel pathway with concrete edging

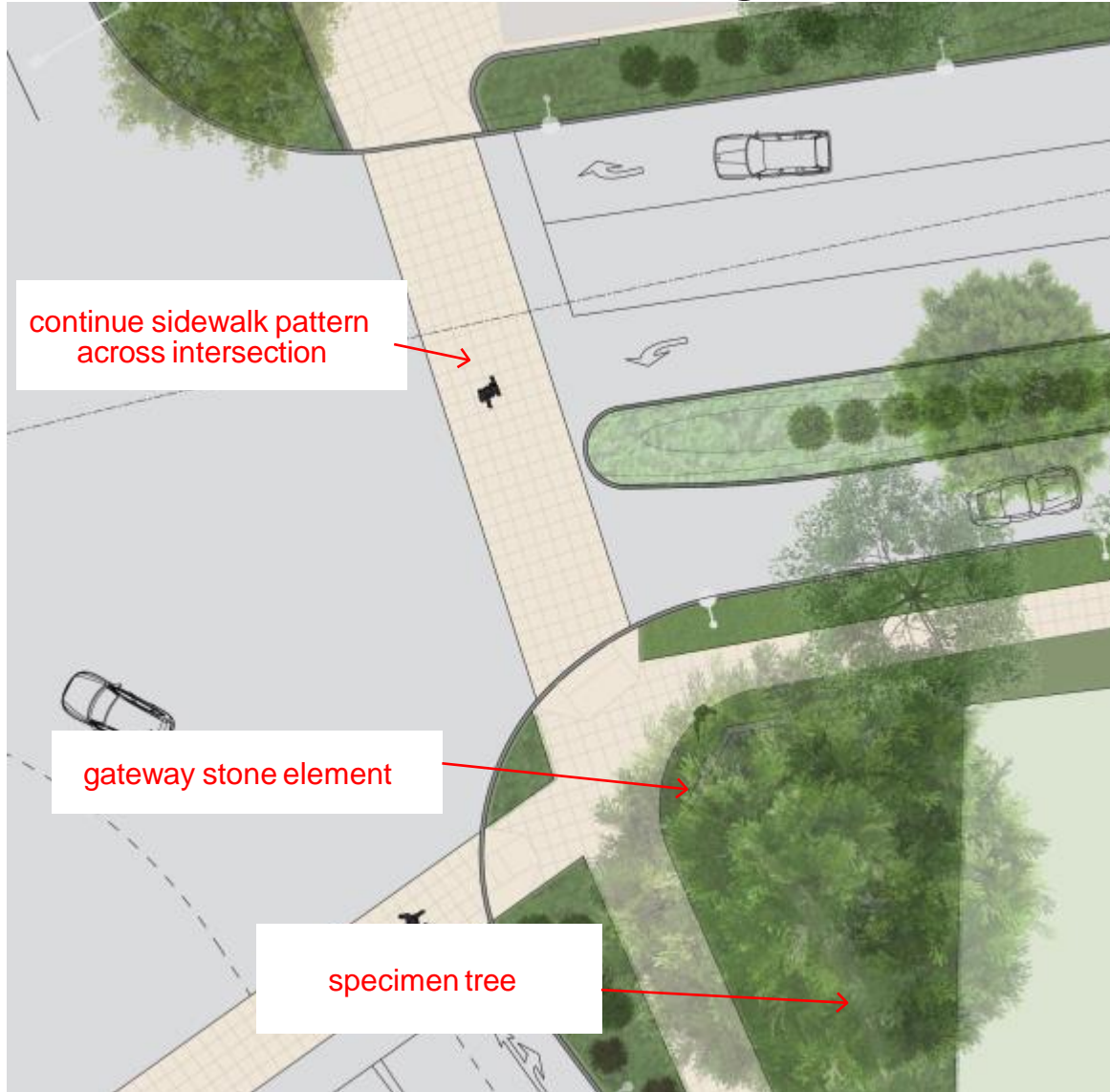
site walls



World's Fair bench

Montlake Blvd

SE Corner of Lake Washington Blvd Intersection



Casual Stroller



referential stone gateway element



large specimen tree



lawn

Montlake Blvd

Looking north at main open space



EB SR 520



street lighting



City street light

street edge planting sidewalk paving



Olmsted legacy

sidewalk paving



2x2 scored concrete

plaza paving



horizontal scored concrete

plaza lighting



undermount in site walls along plaza
per city precedent

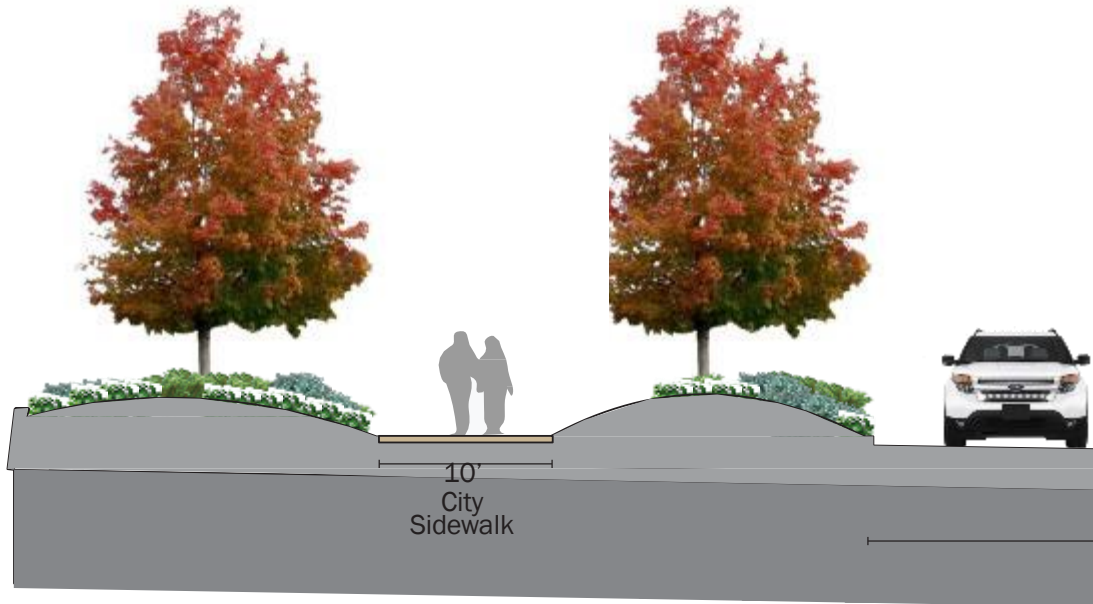
site walls



adze texture concrete

Montlake Blvd

Looking at north west side of Montlake Blvd



street lighting



City street light

street edge planting



Olmsted legacy

sidewalk paving



2x2 scored
concrete

plaza paving



horizontal scored
concrete

plaza lighting



undermount in site
walls along plaza

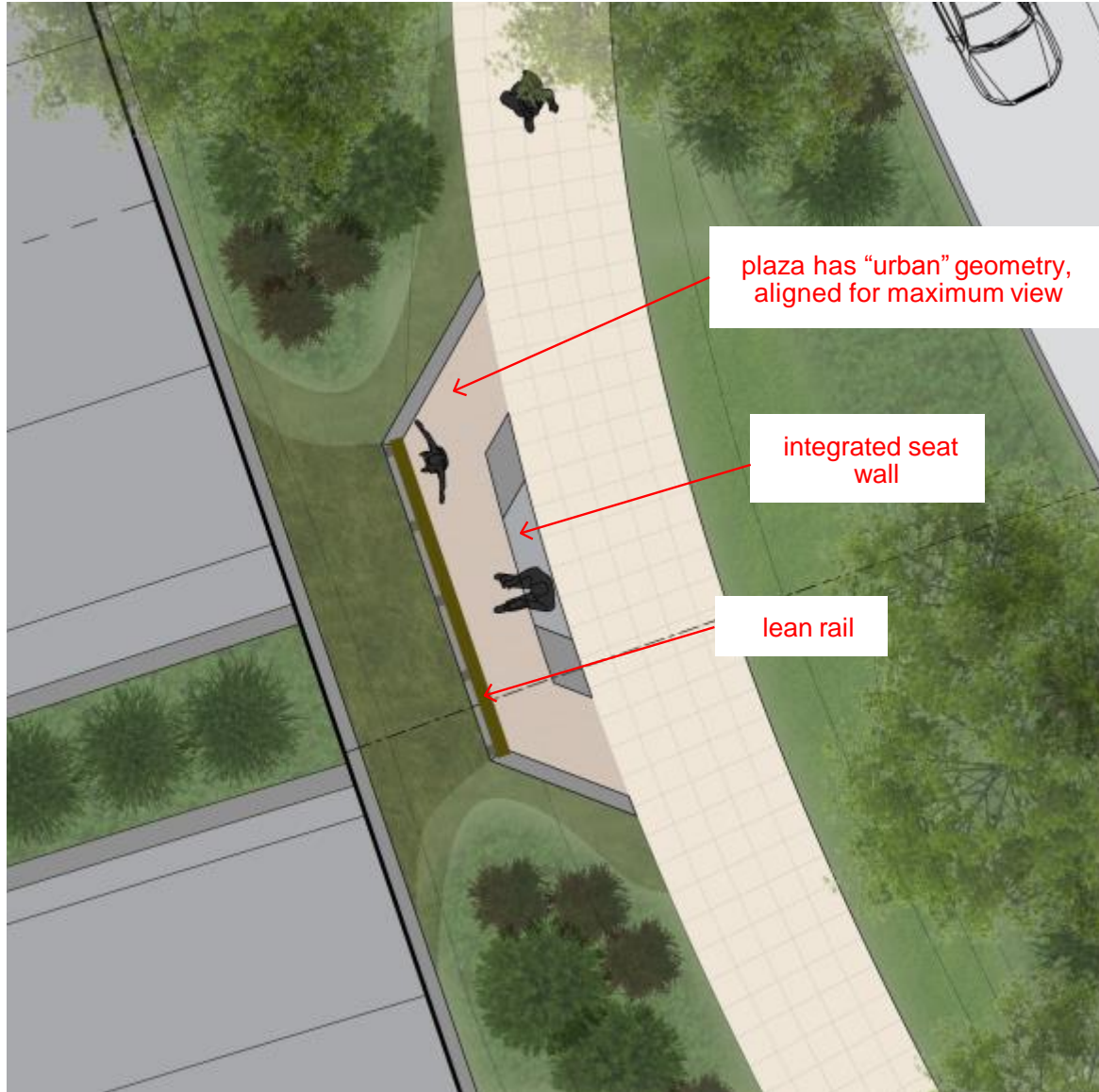
site walls



adze texture
concrete

Montlake Blvd

at outlook Lid Edge



lighting

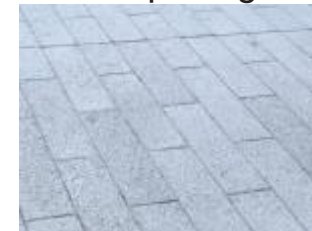


City street light
site wall



adze texture con-
crete wall

outlook paving



horizontal tiled scoring

street edge planting



Olmsted legacy
retaining wall



moss inducing
textured concrete

sidewalk paving



2x2 scored concrete

Montlake Blvd Outlook

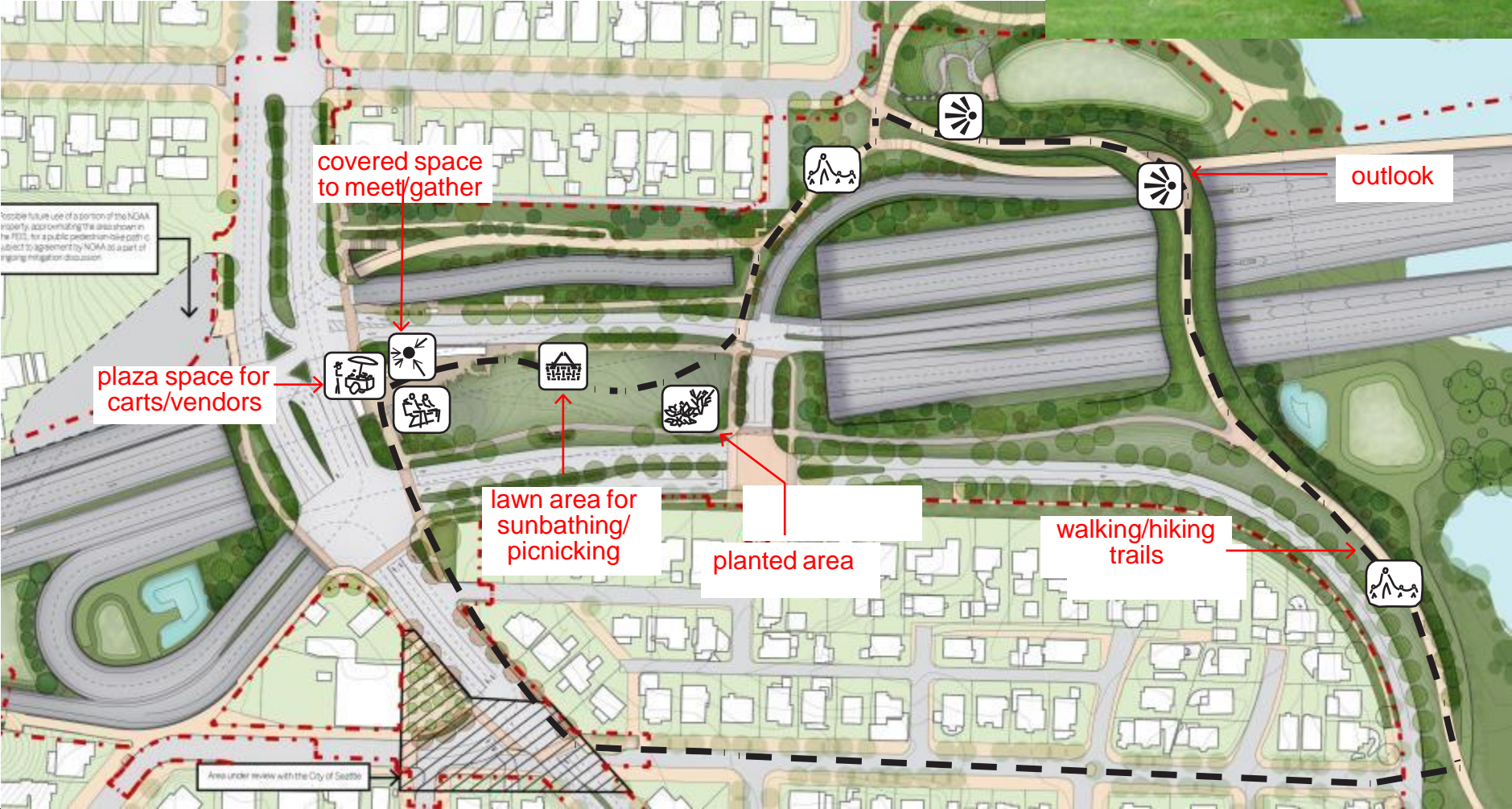
Looking west



Neighborhood Family

Lives within walking distance. Looking for places to learn, explore, and play.

Neighborhood Family



Neighborhood Open Space



24th Ave E

Montlake Blvd E



Olmsted legacy



lawn



World's Fair bench

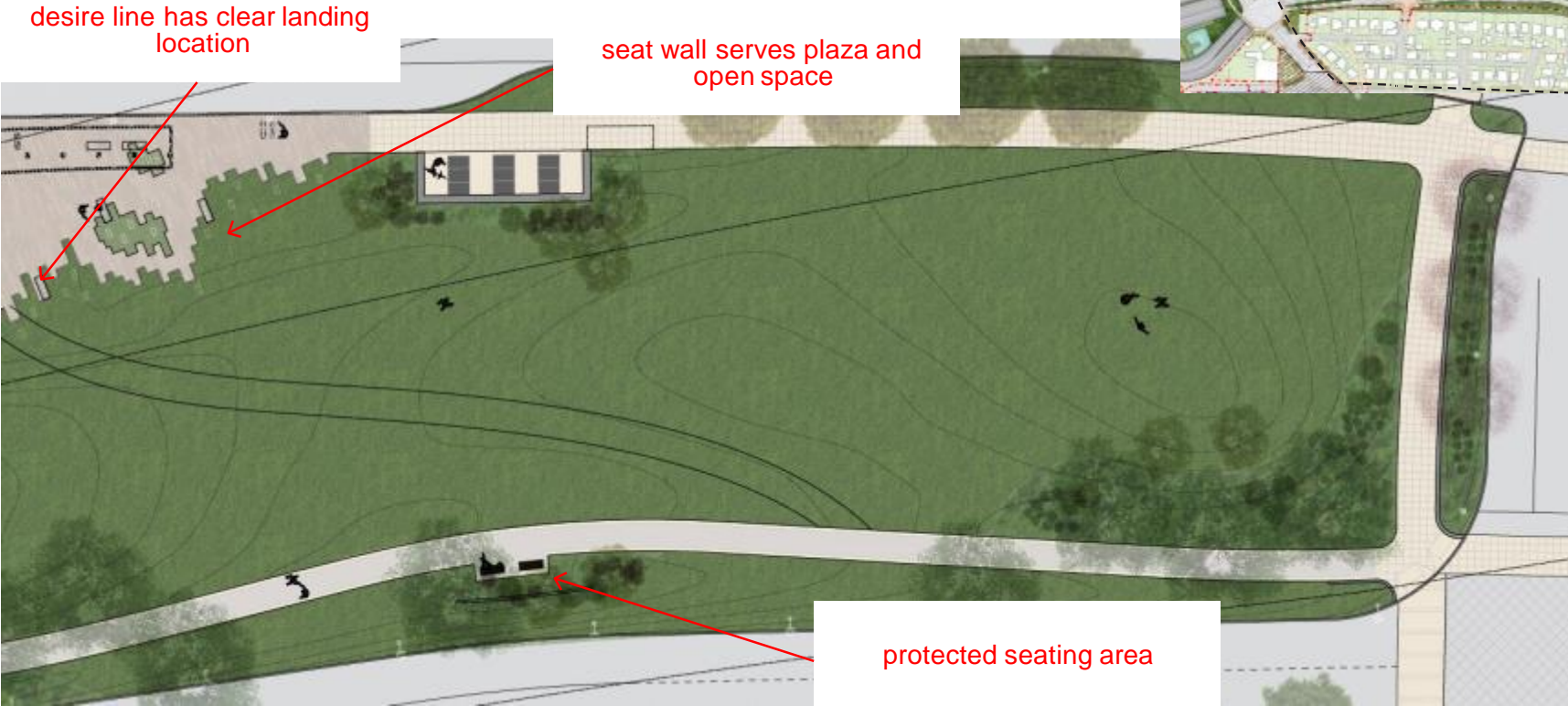


adze texture concrete walls



integrated shelter

Neighborhood Open Space



plaza paving



paving

central open space planting



lawn

Lake Washington Blvd planting



Olmsted legacy

Lake Washington Blvd paving



gravel edged with concrete

Lake Washington Blvd seating



furniture

Neighborhood Open Space

View looking East from Montlake Blvd

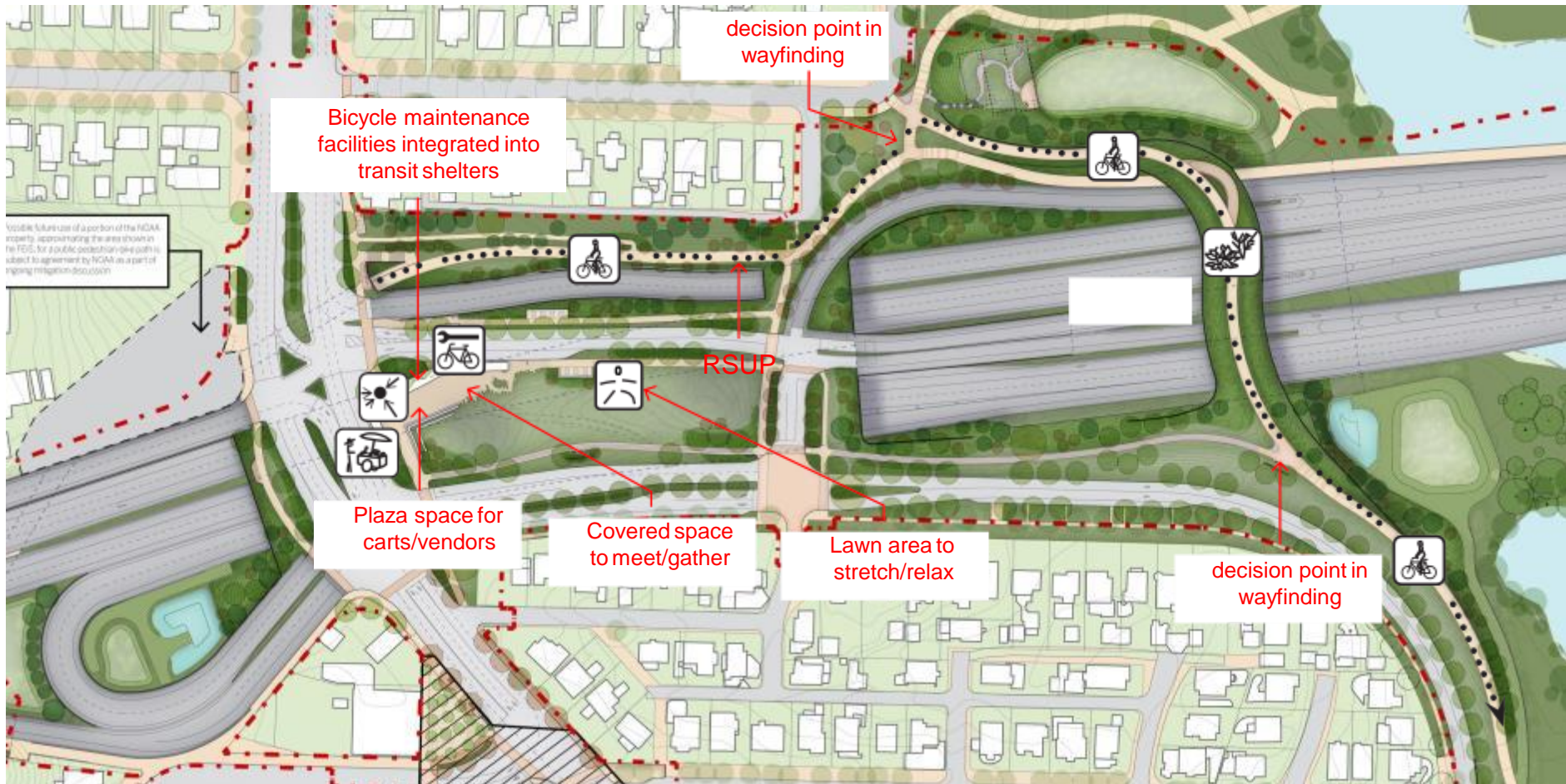


Bicyclist

Meets up with colleagues for an afternoon ride.
Needs bike amenities, legible network, shelter from rain.



Bicyclist



Regional Shared Use Path

Looking west



planting



portage passage

RSUP lighting



bollard system

RSUP paving



asphalt

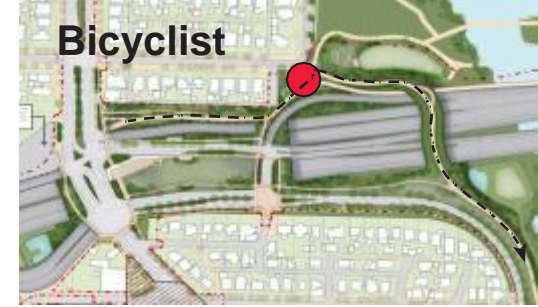
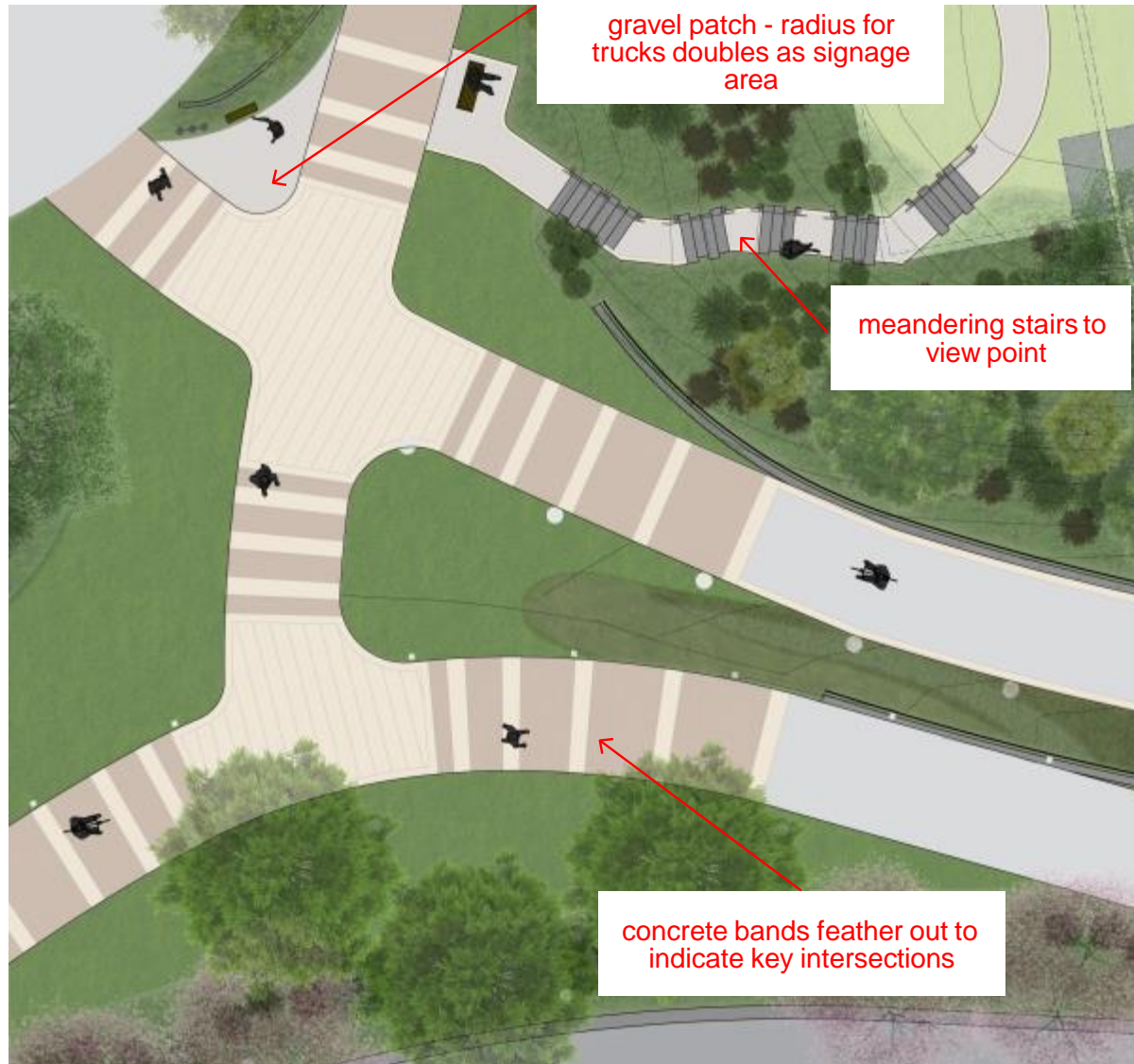
sidewalk paving



scored concrete

Knuckles

RSUP and land bridge intersection



path intersection



scored horizontal
concrete/pavers

land bridge paving



asphalt with gravel
shoulder

RSUP paving



asphalt

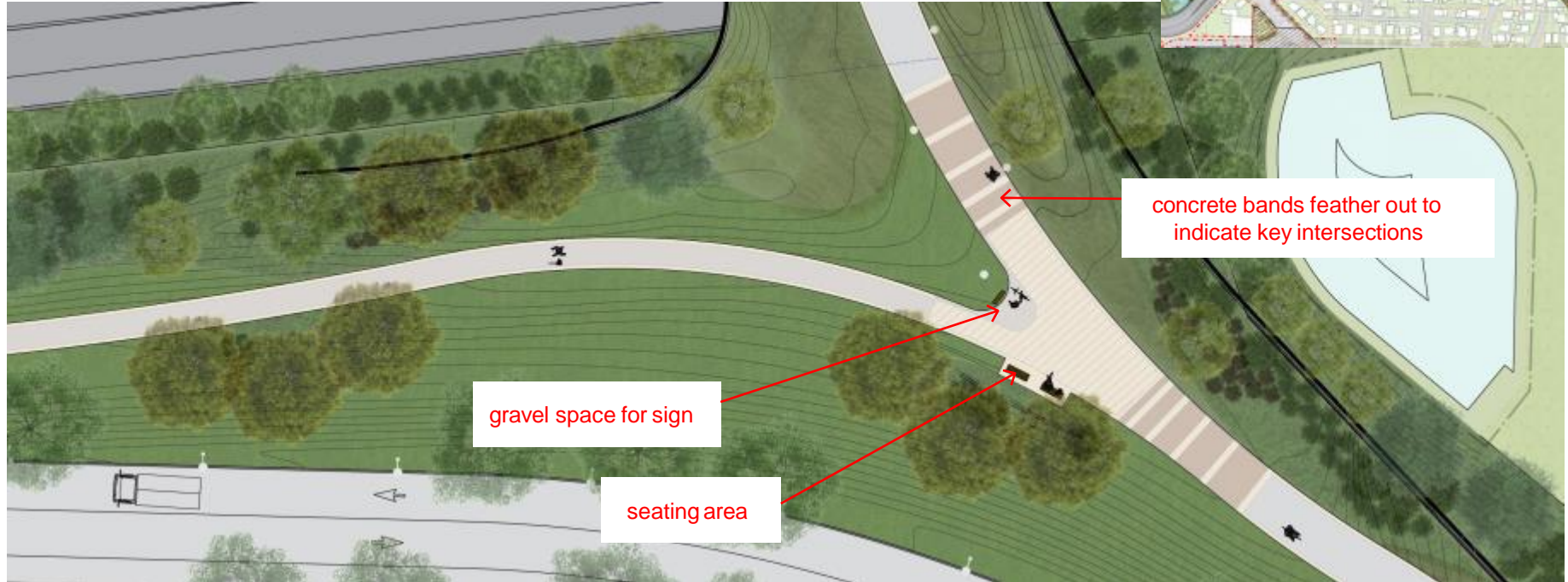
planting



portage passage

Knuckles

Olmsted bend and land bridge intersection



path intersection



scored horizontal concrete

lighting



domus fixture

planting



Olmsted legacy



paving



gravel pathway with concrete edging

site walls



recycled concrete

Knuckles

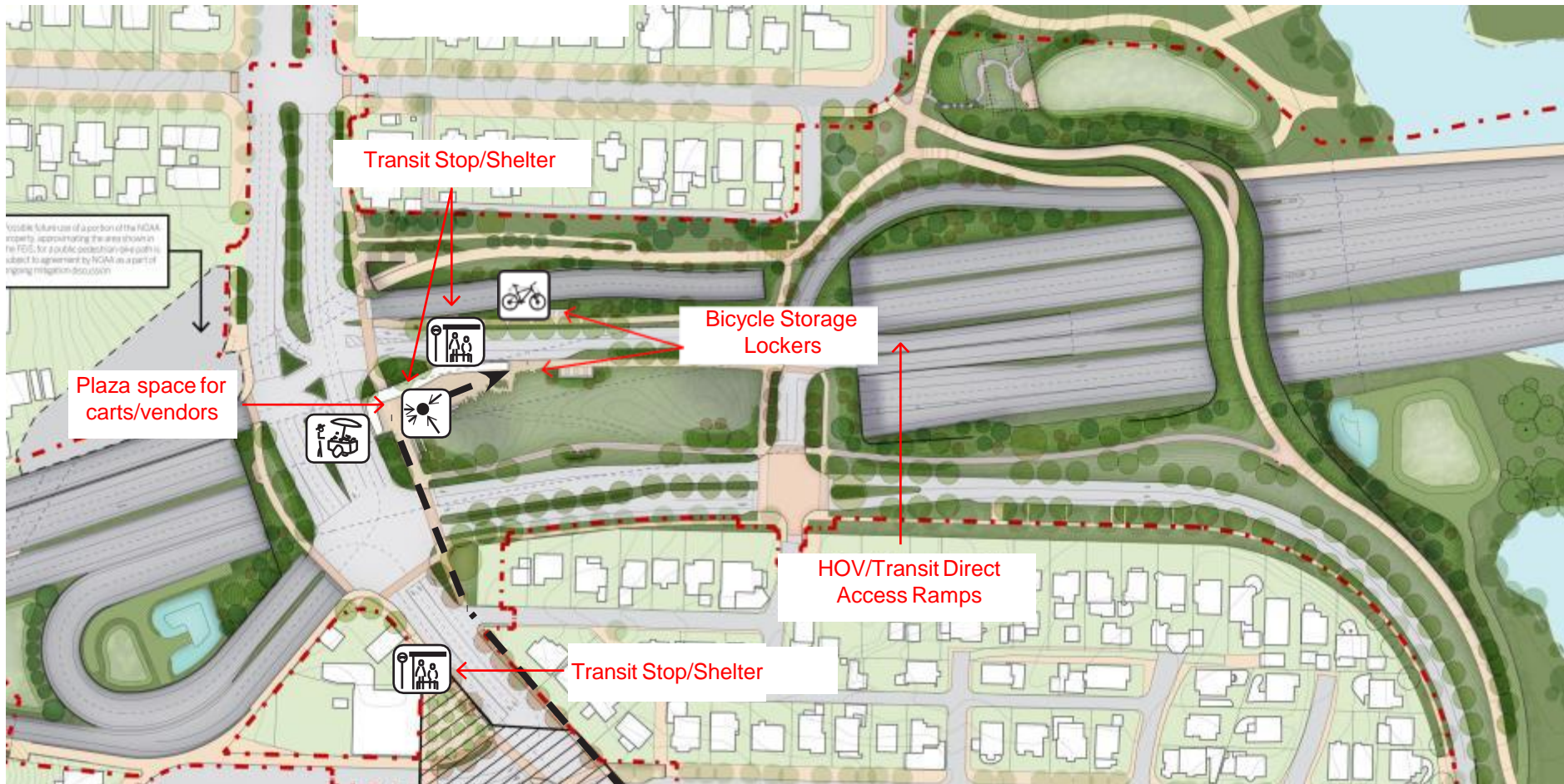
Olmsted bend and land bridge intersection



Transit User

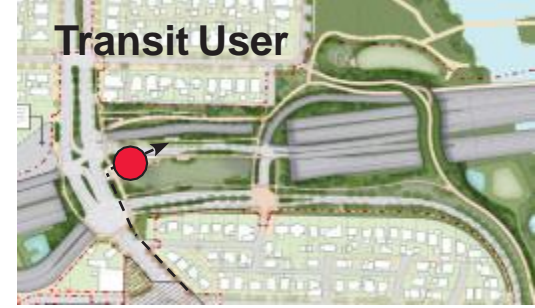
Commutes using multiple modes. Spends time in the plaza everyday, has a ritual.

Transit User



Urban Trailhead

North-South Section: Plaza



Olmsted Legacy



lawn



World's Fair bench



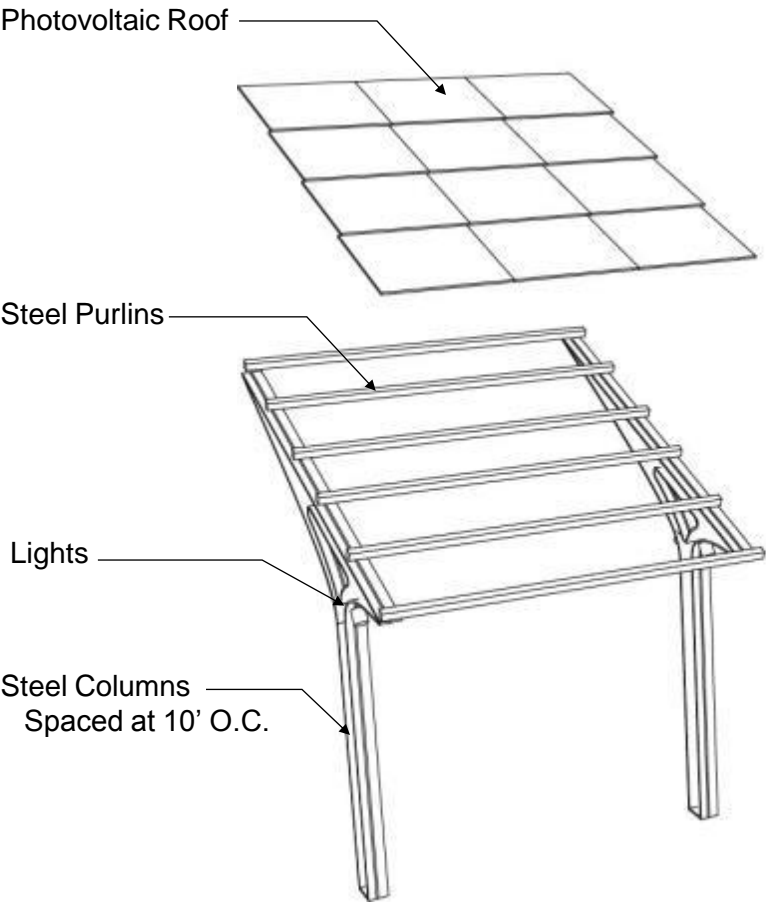
textured site walls



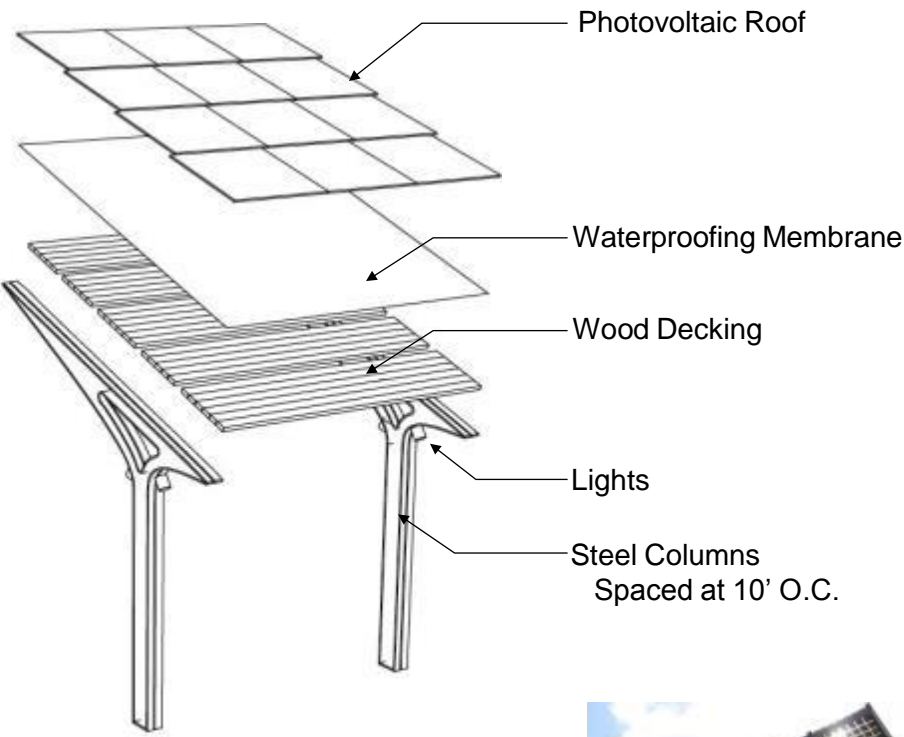
integrated shelter
with bike program

Pavilion/Shelter

Concept



Steel only Condition

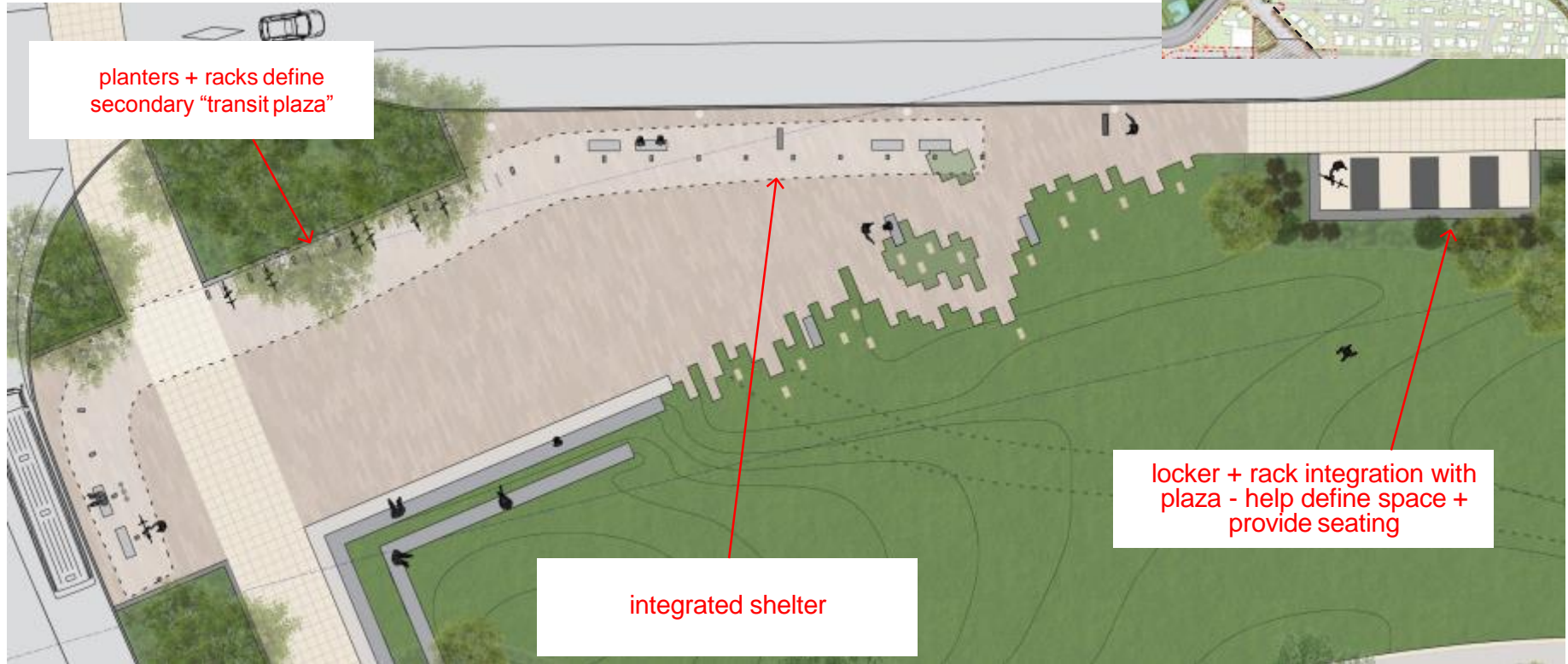
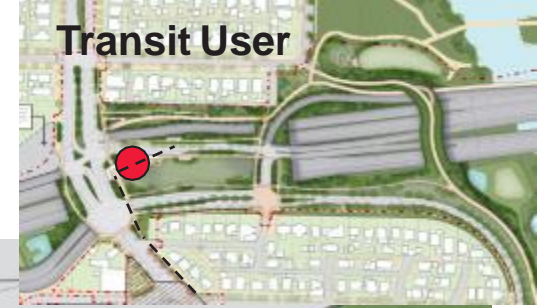


Steel + Wood Condition



integrated shelter

Urban Trailhead Plaza



feathered in paving



adze texture concrete site walls



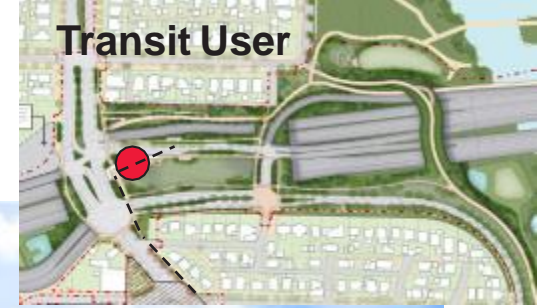
integrated shelter



pedestrian scaled lighting along HOV street, per city precedent

Plaza

Looking East towards Montlake Blvd



Weekend Warrior

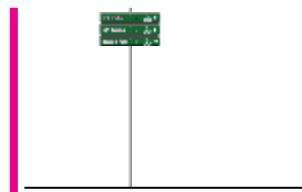
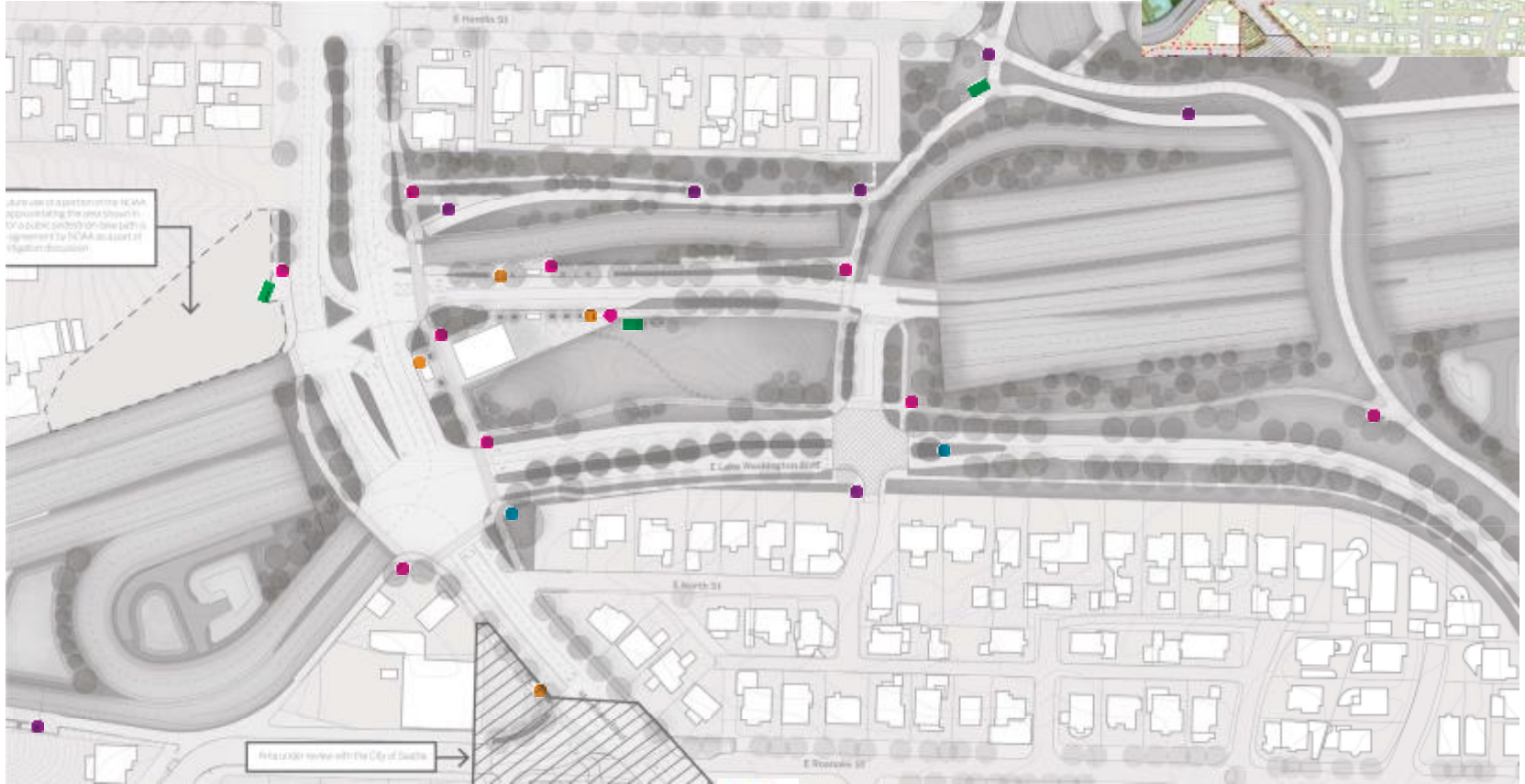
Out to get some exercise on the weekend. Looking to discover new engaging routes around the region.



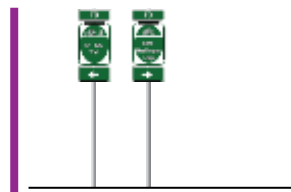
Weekend Warrior



Wayfinding System



City connections



Regional path and trail systems



Transit connections



System map



Lake Washington Boulevard system
• Stone transition features

24th Ave E

Looking North



EB SR 520

site walls



adze textured concrete

lighting



pedestrian scaled fixture
per city precedent

sidewalk paving



2x2 scored concrete

planting



Olmsted legacy

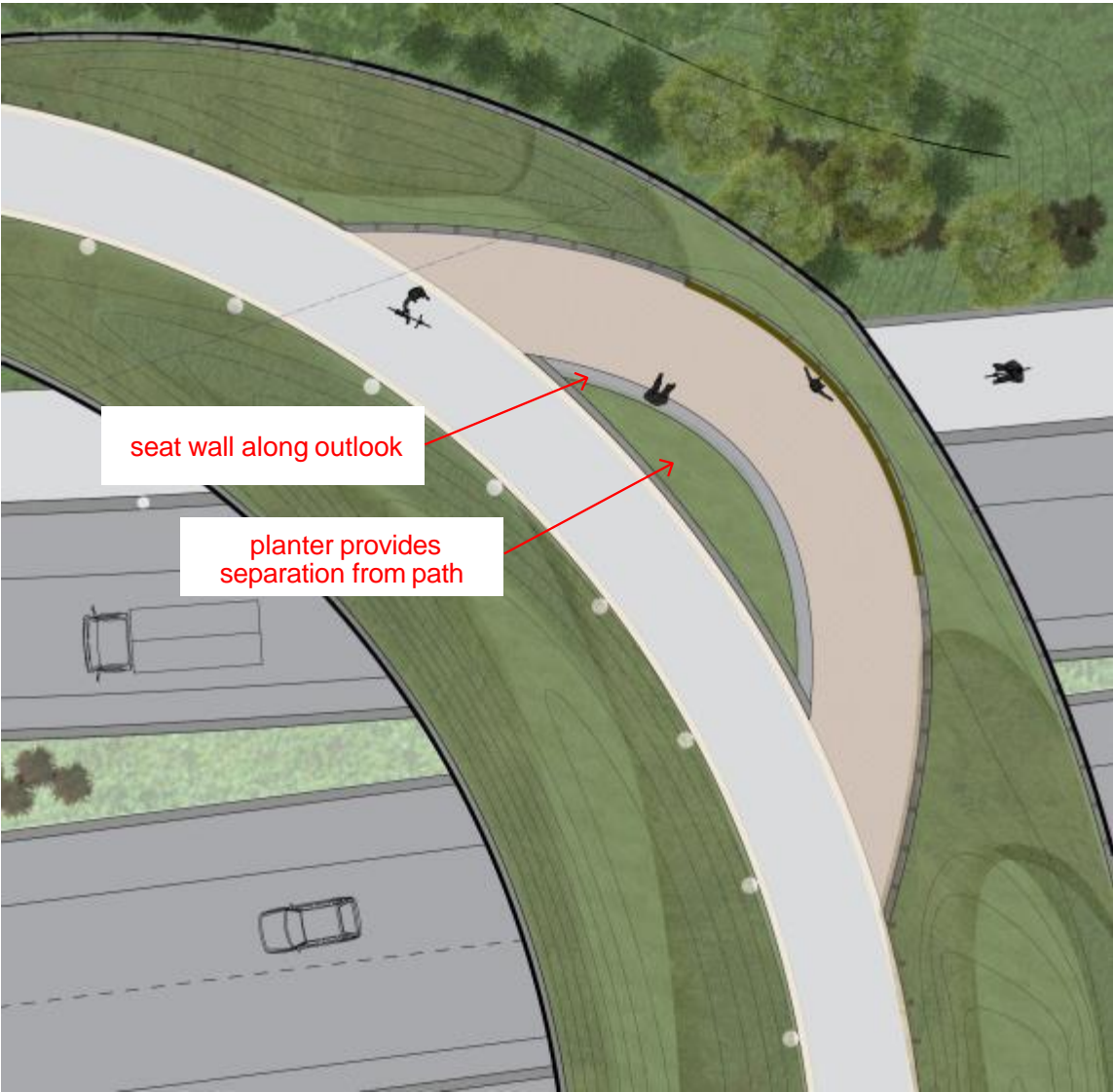
gateway wall



moss inducing textured concrete

Landbridge

at outlook



outlook paving



scored concrete/
pavers

pathway paving



asphalt with gravel
shoulder

lighting



within planting, inset along site walls

planting



land bridge meadow

Land bridge

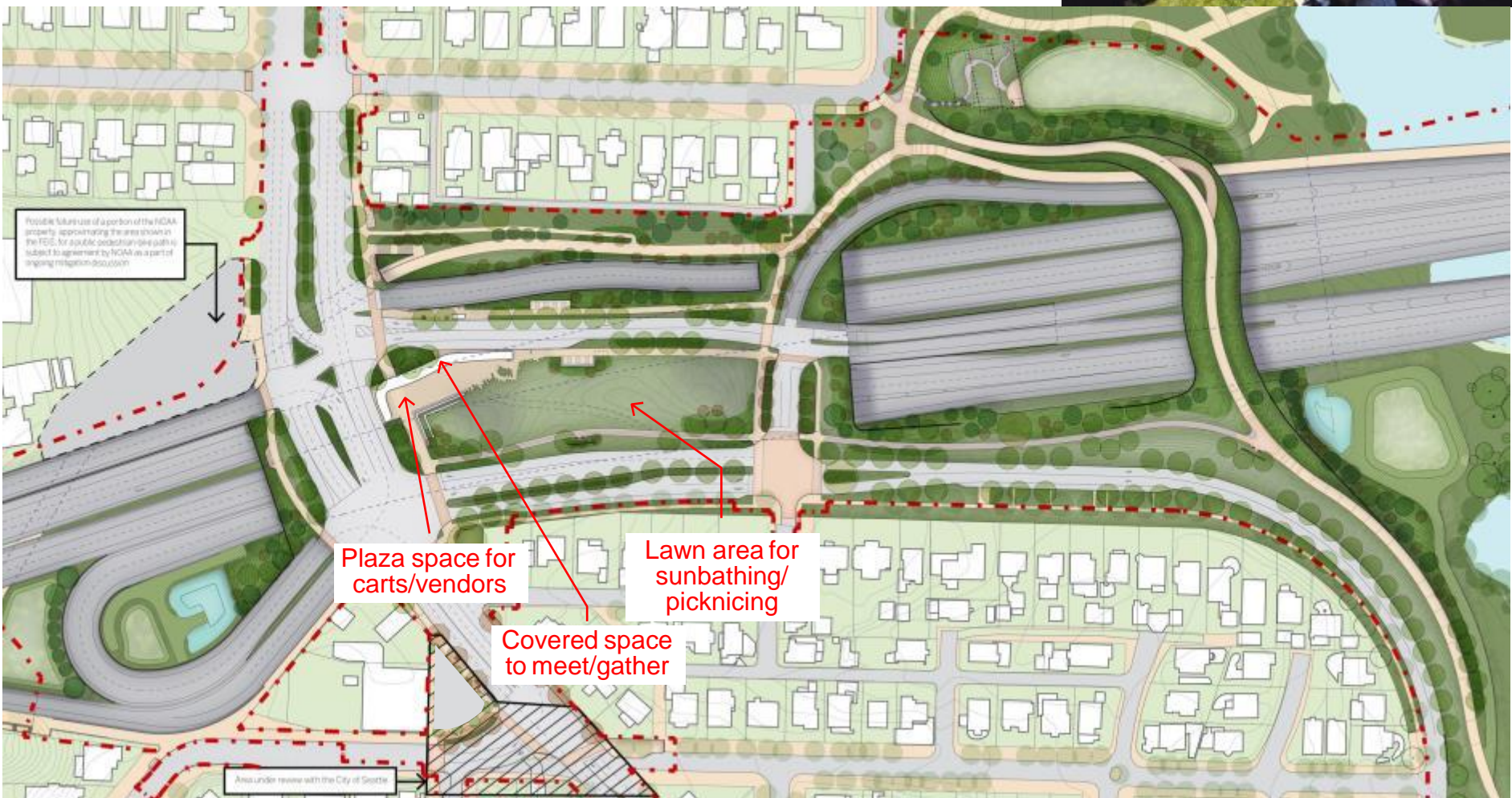
Looking Northwest



Special Event

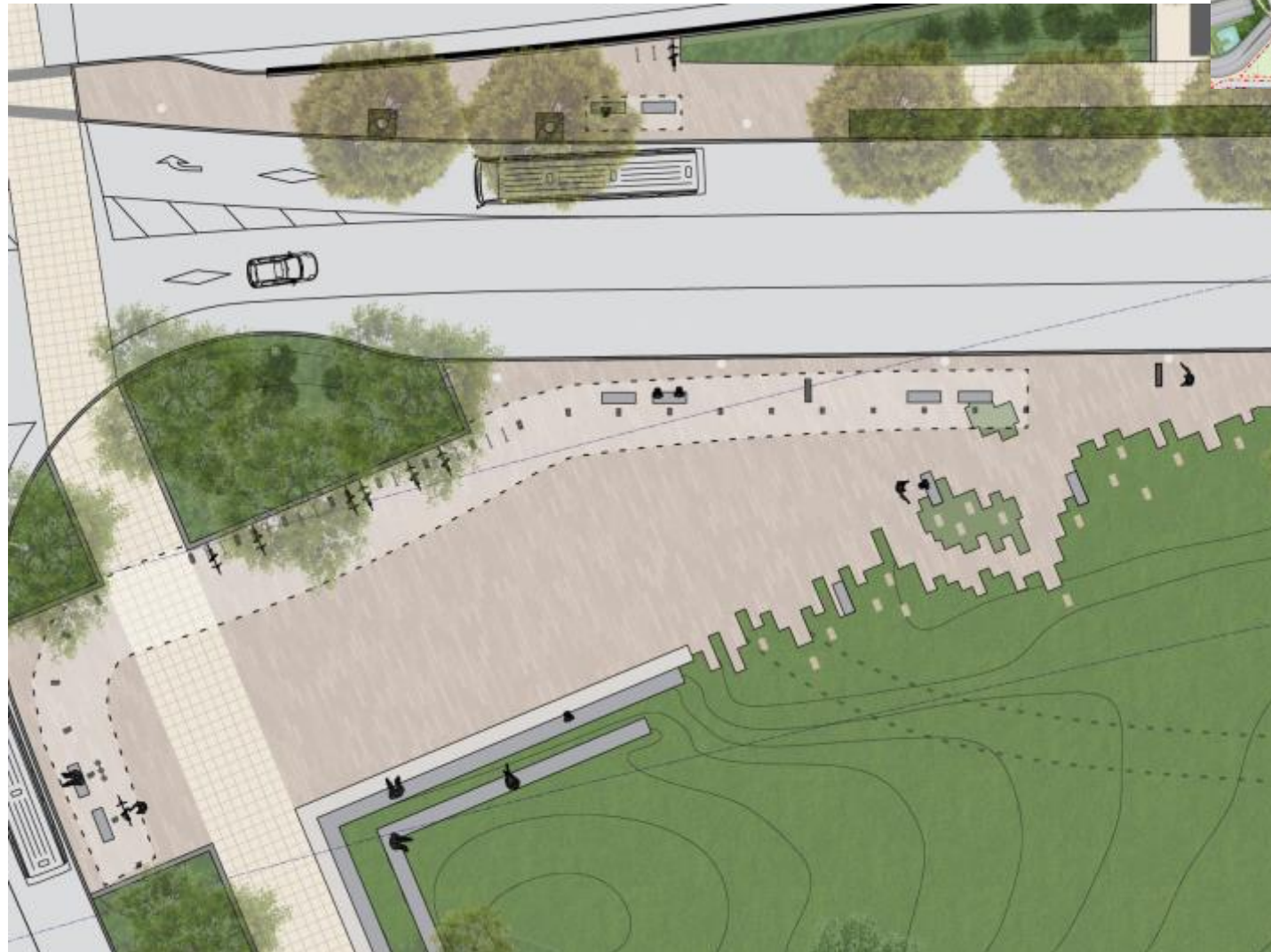
Large gatherings, community activities, pre-event space for neighborhood events (husky games, opening day. . .)

Special Event



Urban Trailhead

Plaza Detail



integrated shelter



adze texture concrete
seating walls



feathered in paving

Urban Trailhead

Plaza Detail



Urban Trailhead

Plaza Detail



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

Next steps



RFP development

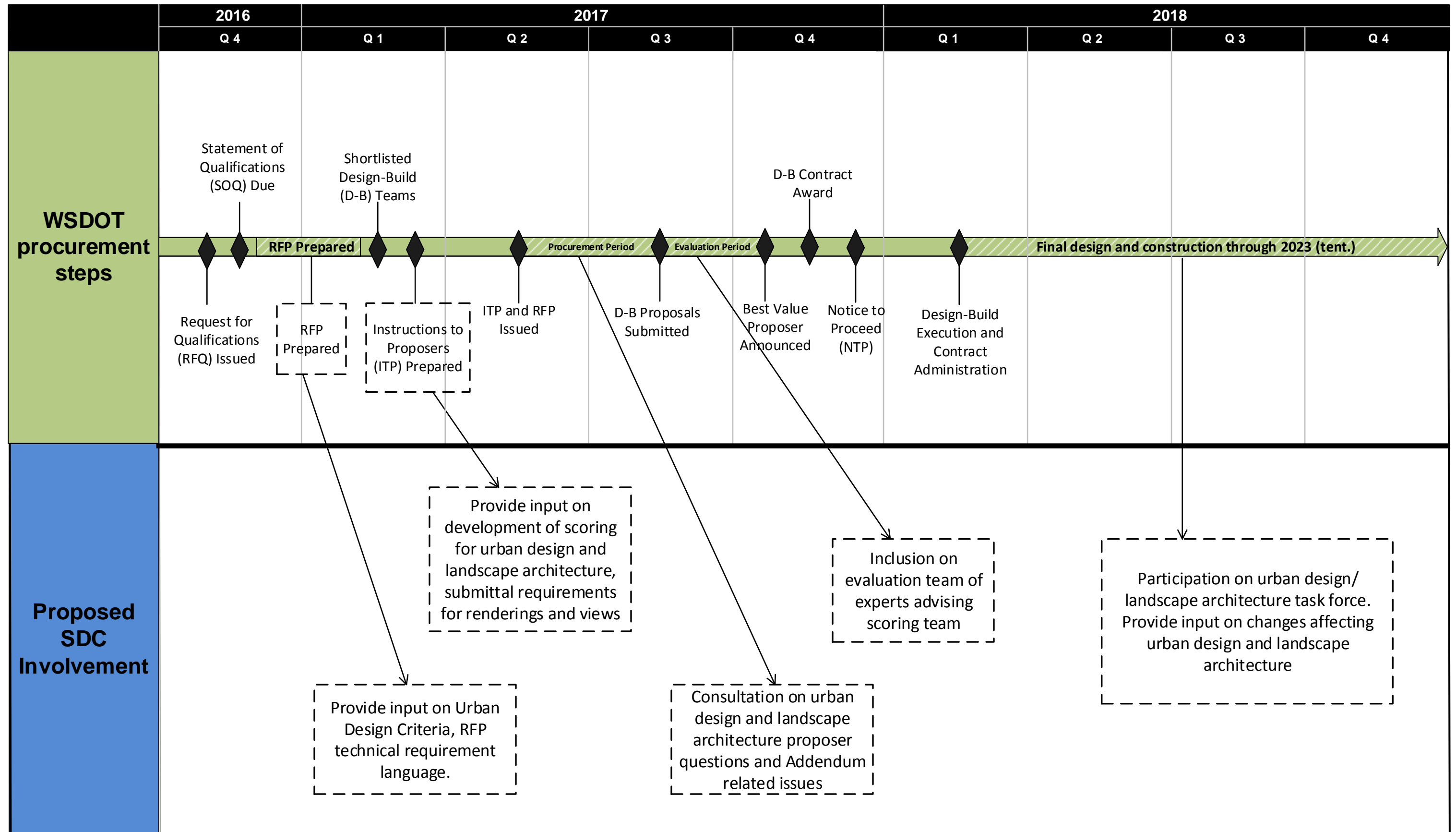
programming

leadership

operations and

maintenance

West Approach Bridge South/Montlake lid RFP Seattle Design Commission involvement



Attachment C

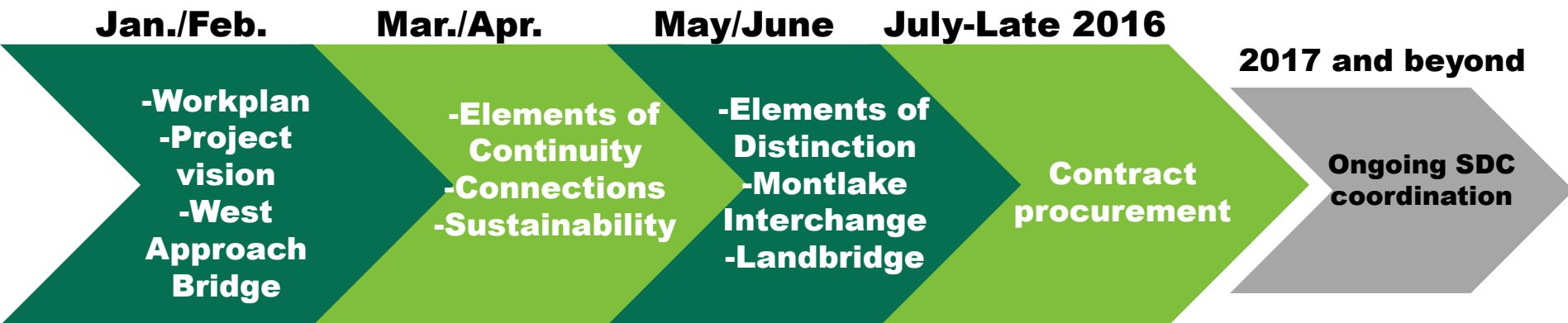
Presentation Overview

- Introduction
- What We Heard
- Elements of Continuity
 - Pathways
 - Walls
 - Corridor Signage
- Today, Seeking Endorsement of:
 - Development of gateway experience across the corridor
 - Development of path and trail hierarchy and connections

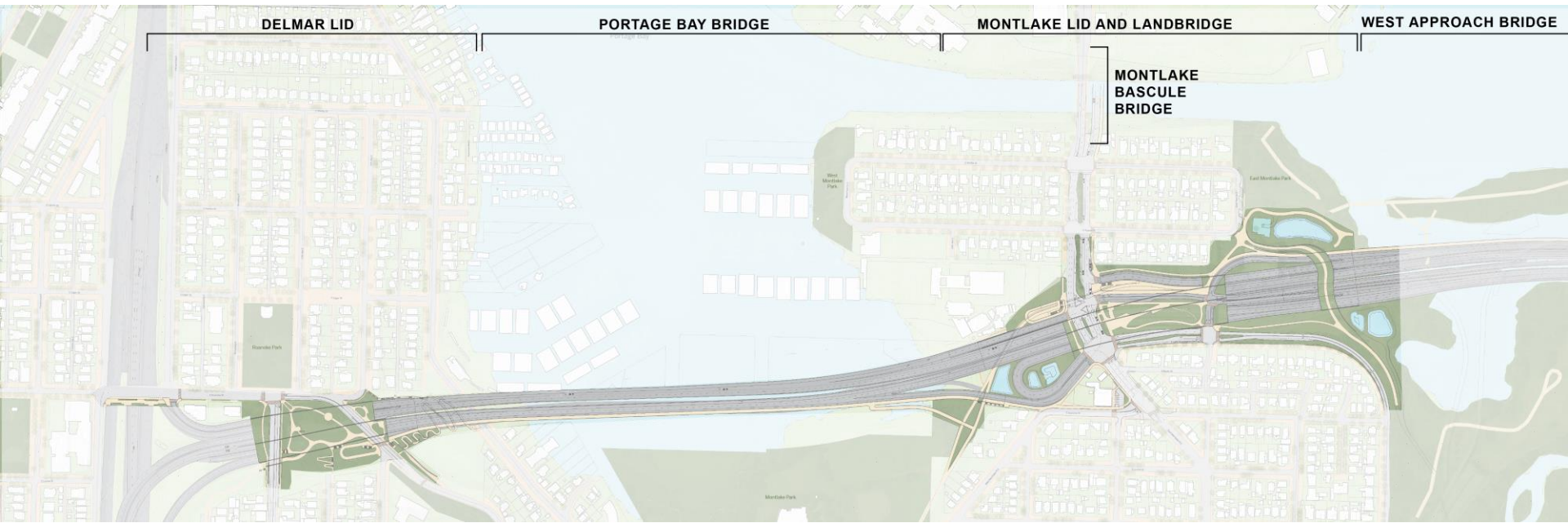


Timeline

- **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



Rest of the West Corridor



What We Heard

- Column Follie
- Autonomous Cars
- LID Program
- Cultural Integration



Vision:

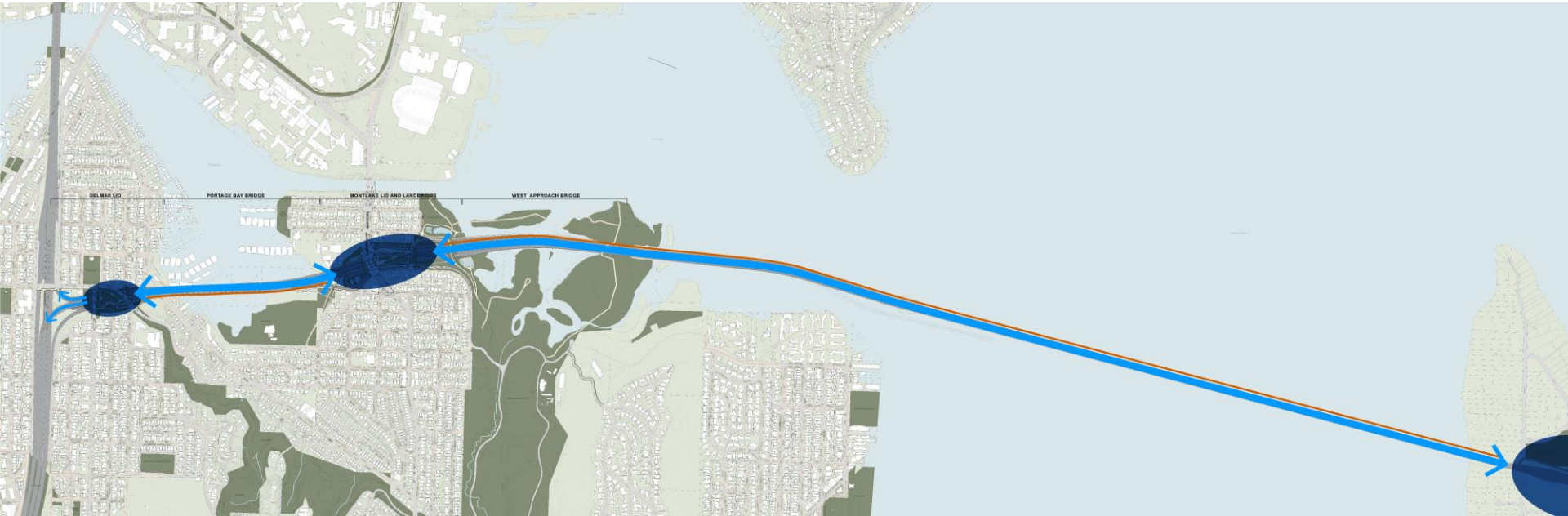
Nature meets City

- Practical Solutions
- Sustainability
- Balance Aesthetics, Functionality and Sense of Speed
- Memorable Experience



Vision

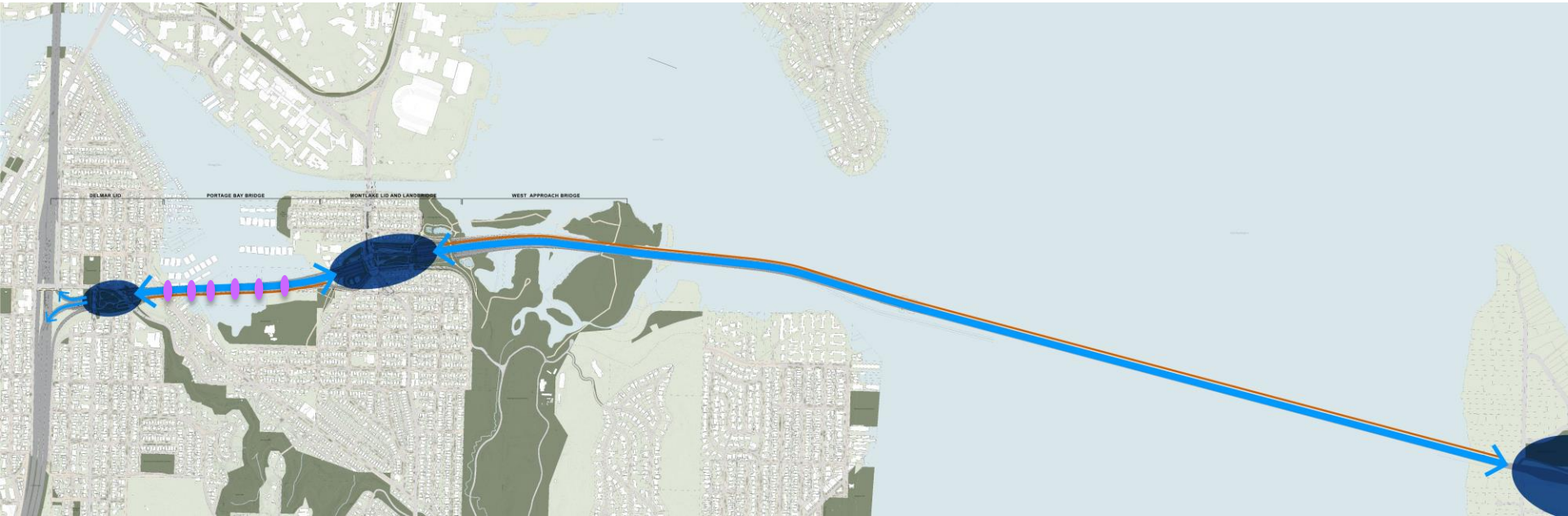
Elements of Continuity and Distinction



Overview

Vision

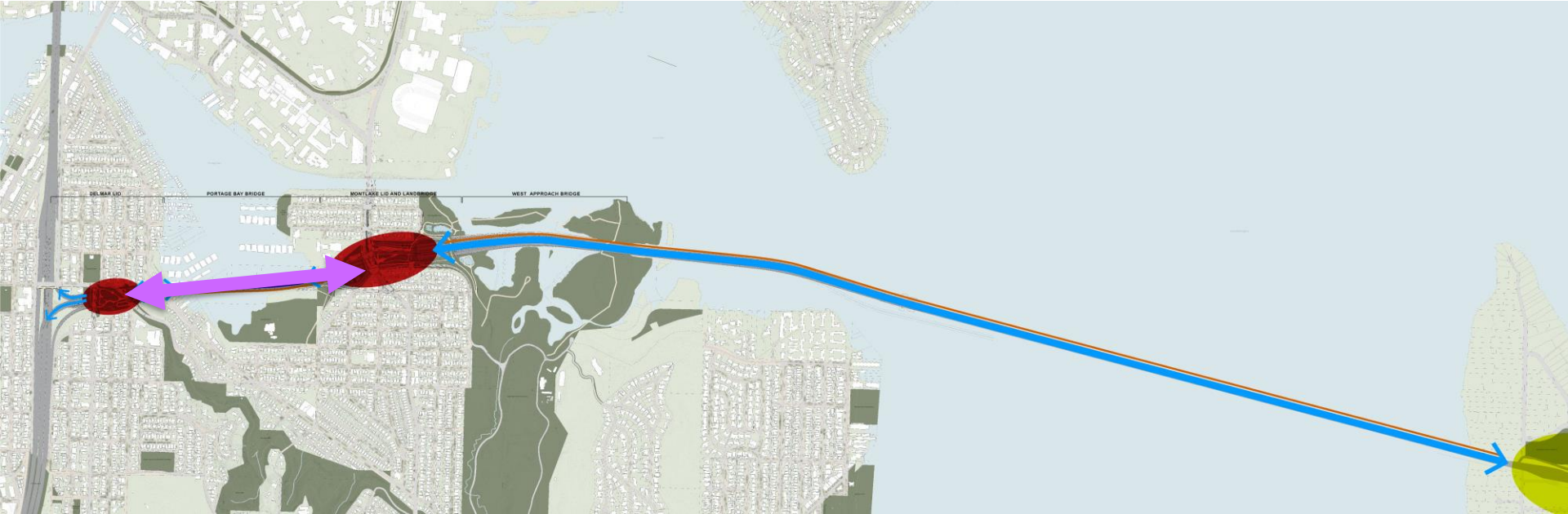
Elements of Continuity and Distinction



Overview

Vision

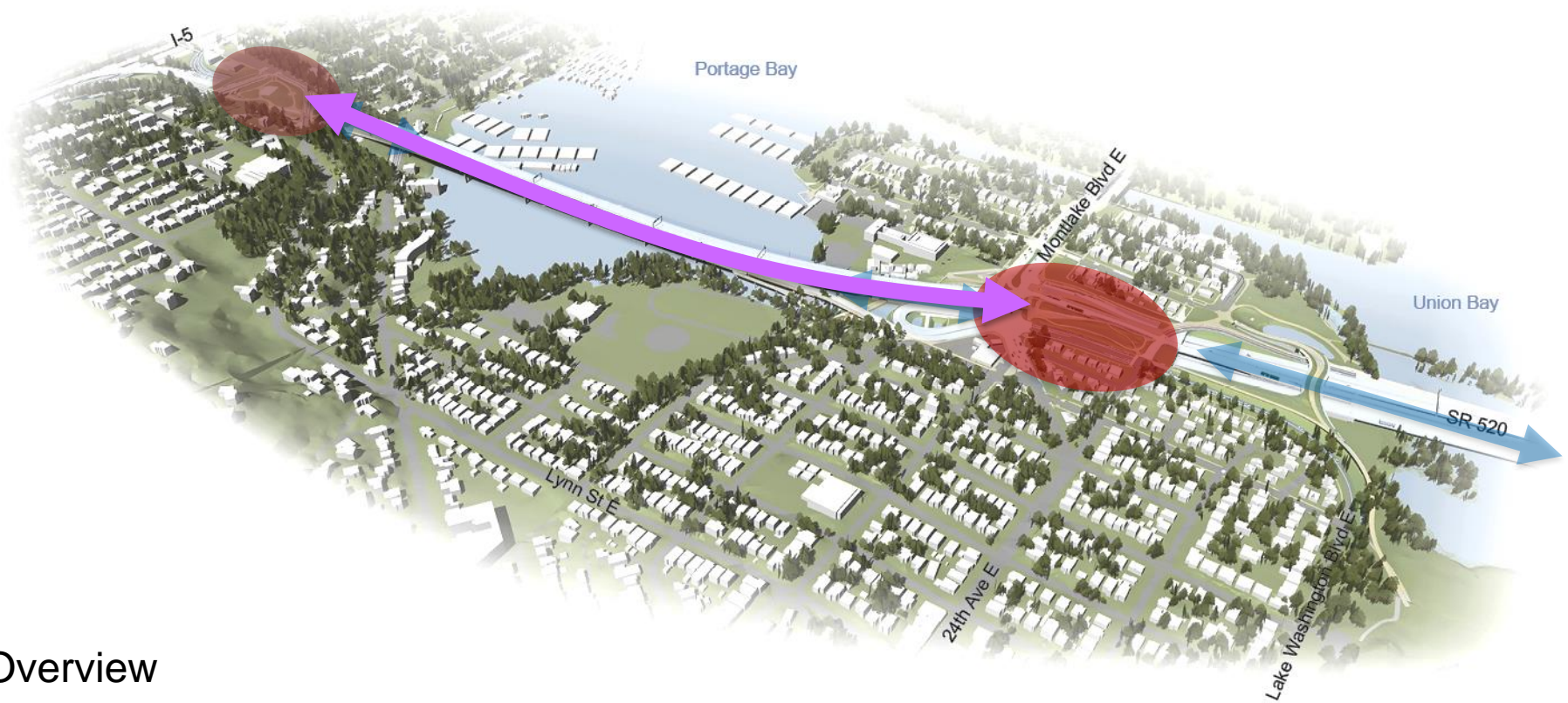
Elements of Continuity and Distinction



Overview

Vision

Elements of Continuity and Distinction



Overview

Areas of Focus

Elements of Continuity



Gateways, Edges, & Walls

Areas of Focus

Elements of Continuity



Pathways

Areas of Focus

Elements of Continuity



Highway Signage

Areas of Focus

Elements of Continuity

Systems

Walls

Edges

Pathways

Signage

Lighting

Structure

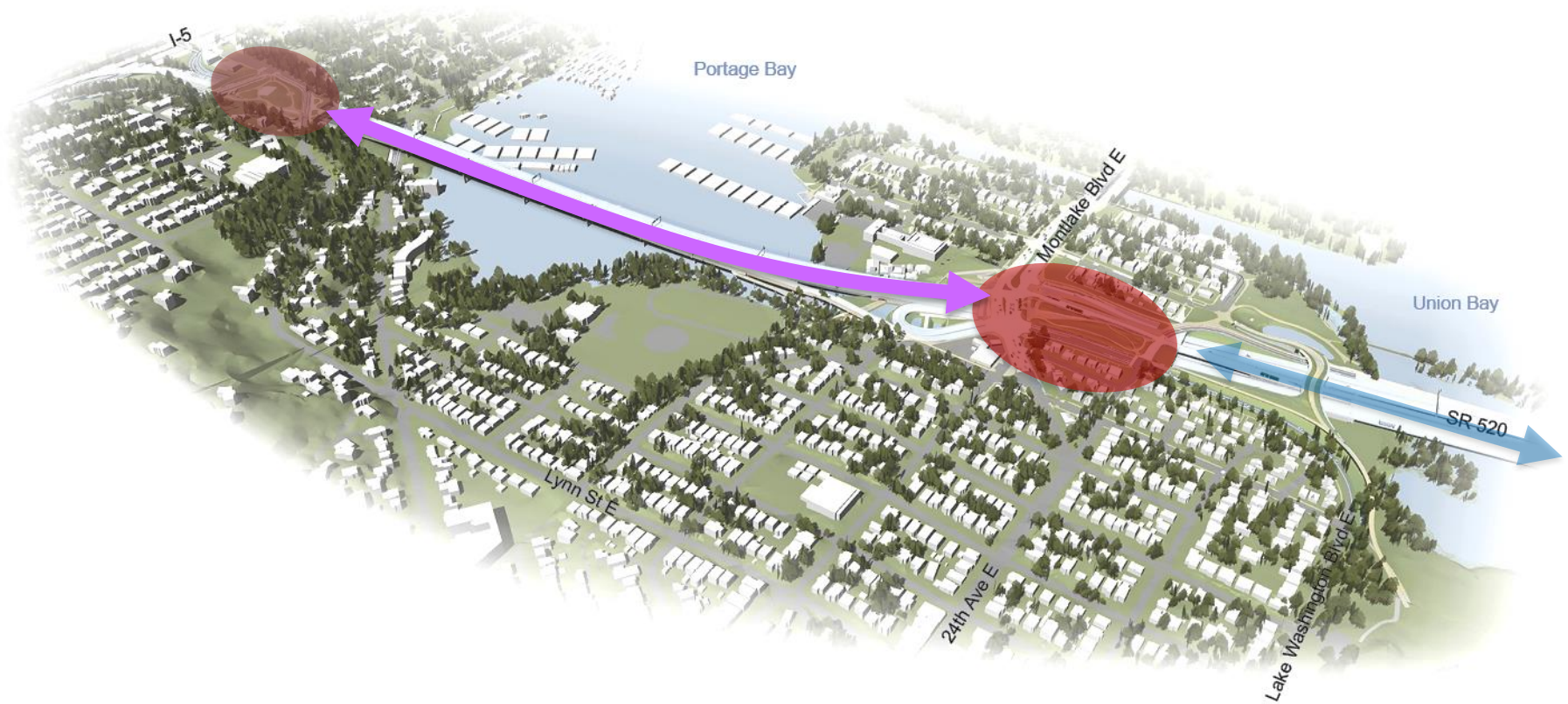
Wayfinding

Outlooks



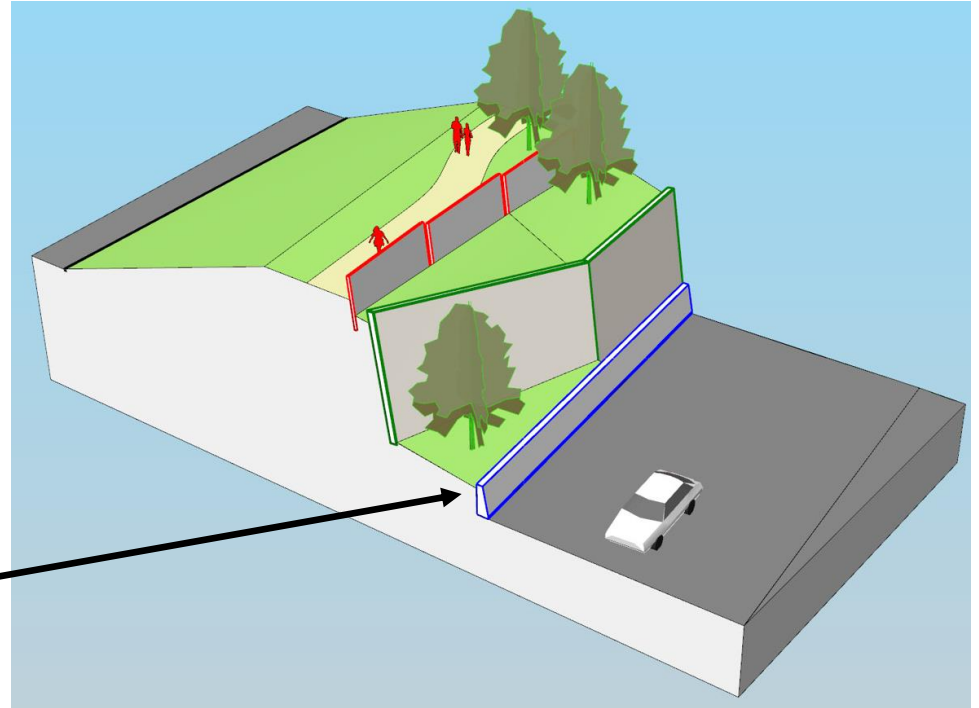
Vision

Elements of Continuity and Distinction



Walls, Edges and Gateways

CONCEPTUAL LAYERS



CORRIDOR

- LARGER SCALE ELEMENTS, SEEN AT SPEED
- HYBRID CONNECTIVITY: ARRIVAL AND DEPARTURE
- CONTINUOUS AESTHETIC
- CAST IN PLACE SYSTEM

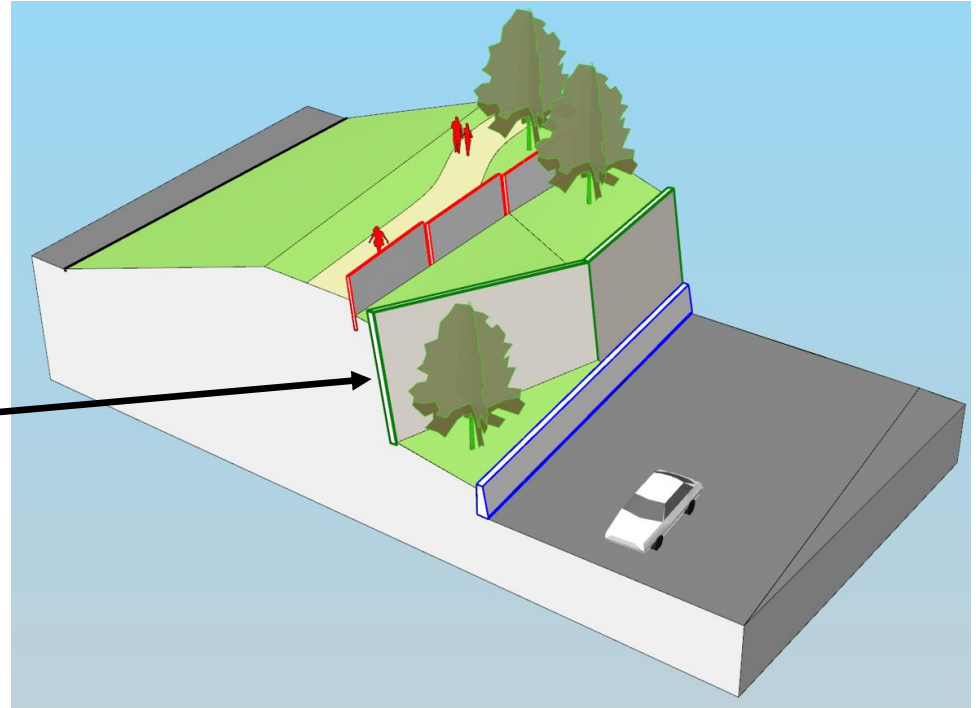
Walls, Edges and Gateways

CONCEPTUAL LAYERS



EARTH

- EMPHASIZE ECOLOGY AND TOPOGRAPHY
- SOFT EDGES & POROSITY
- WORK WITH NATURAL SYSTEMS



Walls: Earth (retaining)



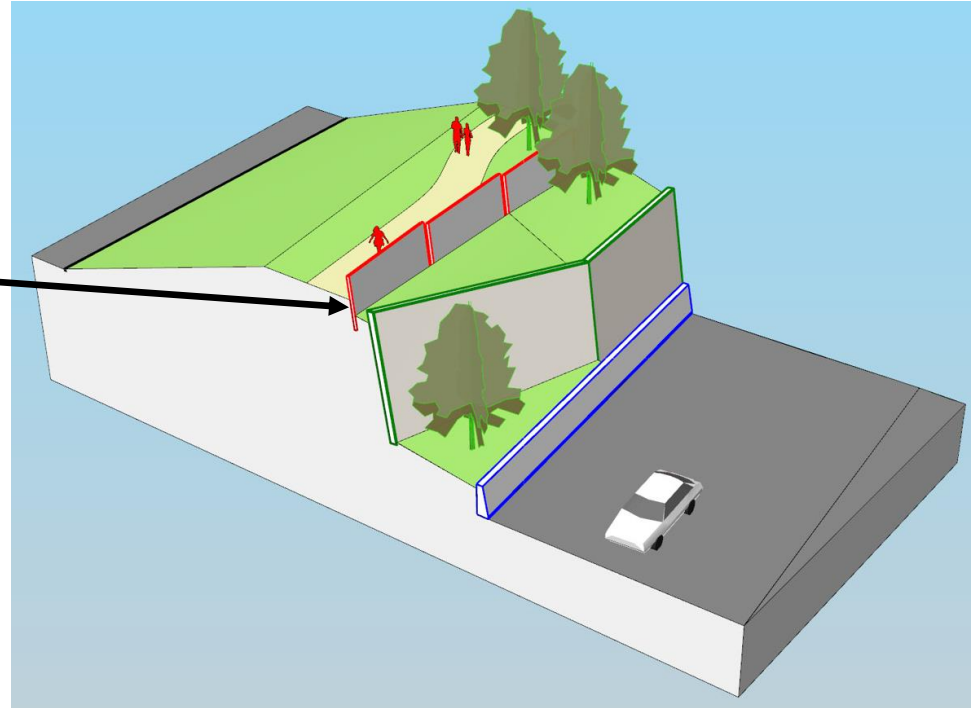
Walls, Edges and Gateways

CONCEPTUAL LAYERS



NEIGHBORHOOD

- HUMAN SCALE ELEMENTS
- ELEMENTS OF DISTINCTION
- LANDMARKS AND ACTIVITY ZONES
- CONTINUOUS AESTHETIC
- PRECAST SYSTEM



Walls: Neighborhood/Gateway

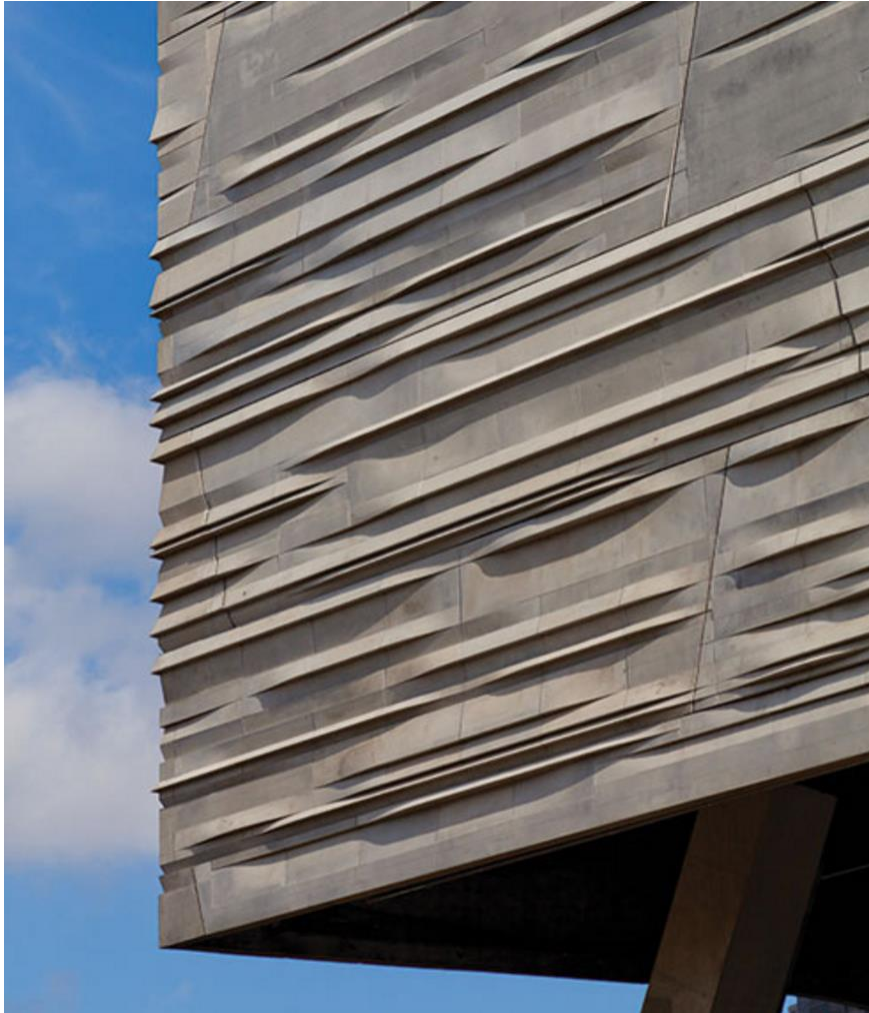


From Neighborhood

Walls: Neighborhood/Gateway



From Highway Corridor

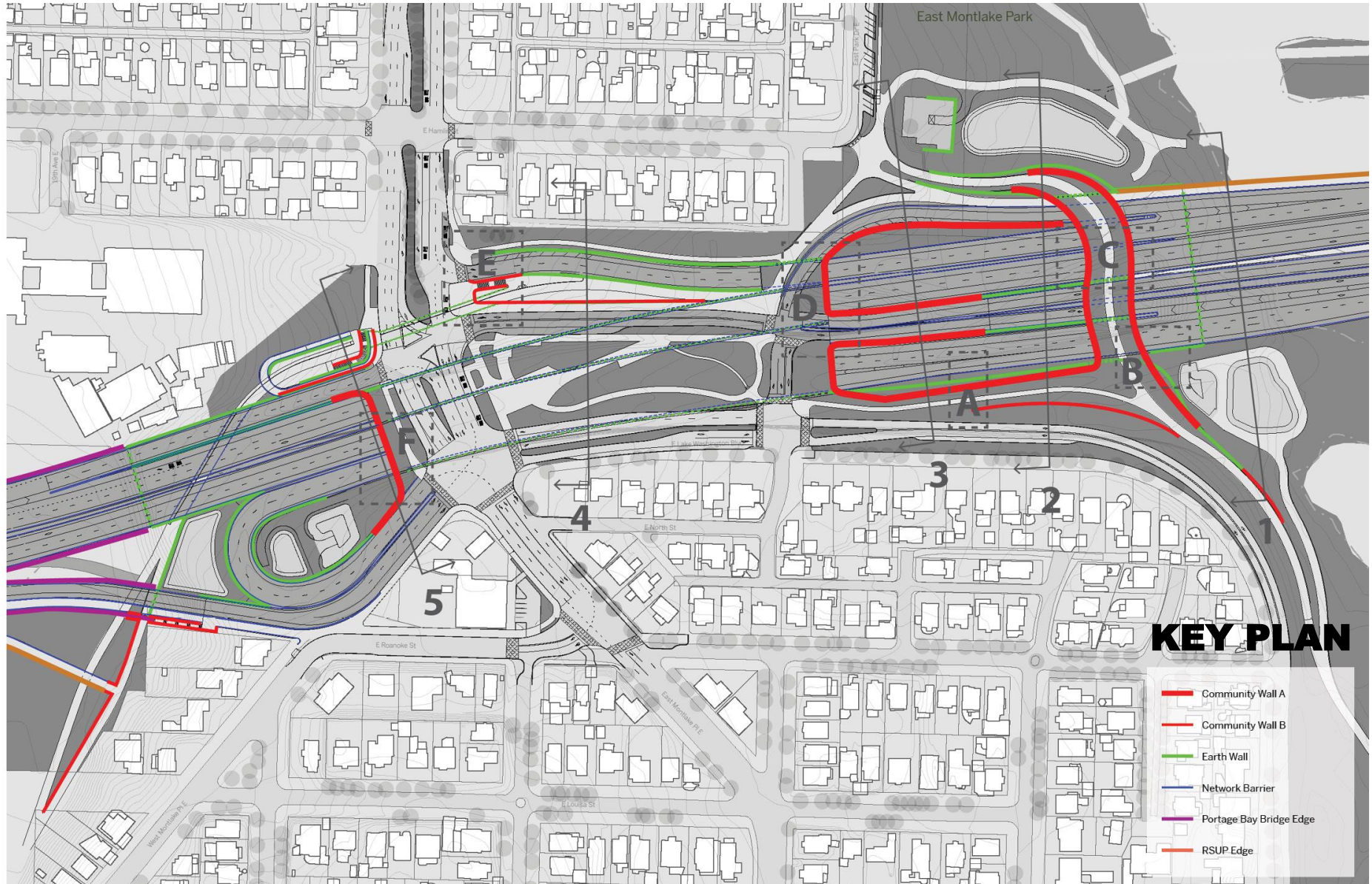




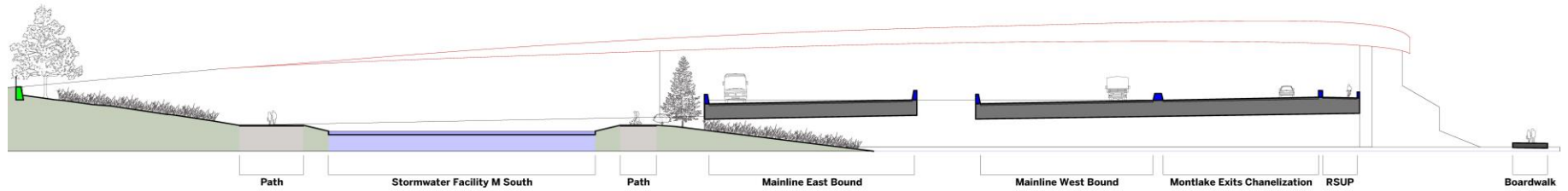
Walls, Edges & Gateways



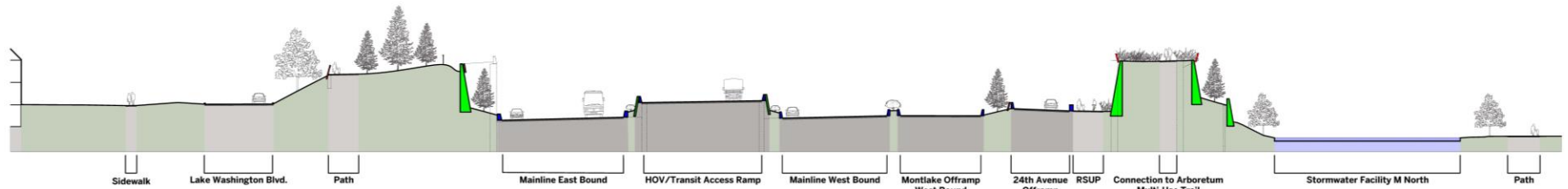
Walls, Edges & Gateways



Walls, Edges & Gateways

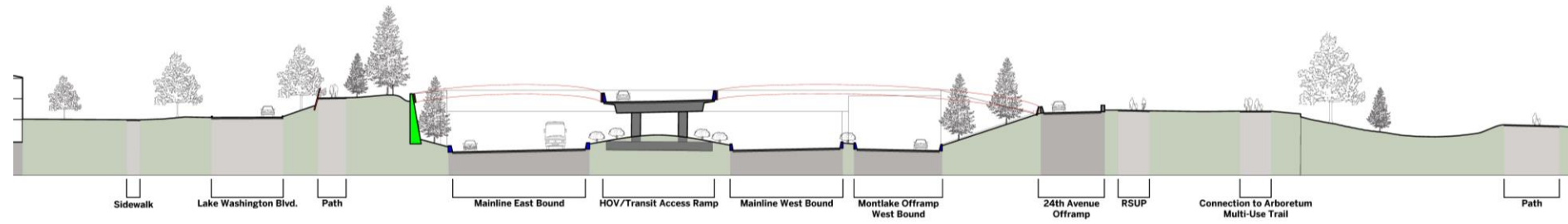


Section 1

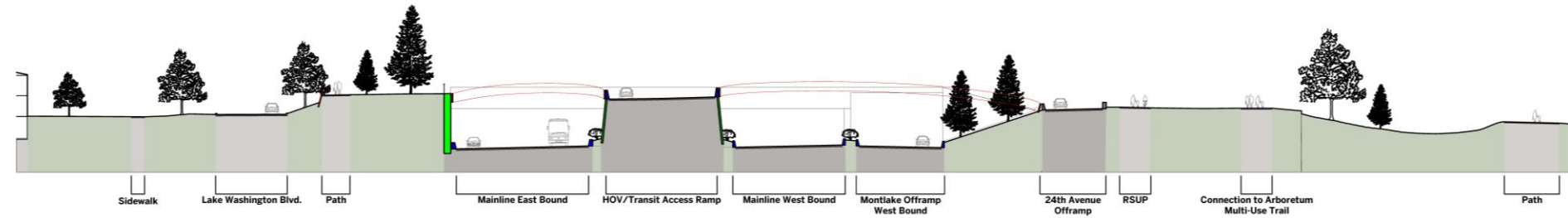


Section 2

Walls, Edges & Gateways

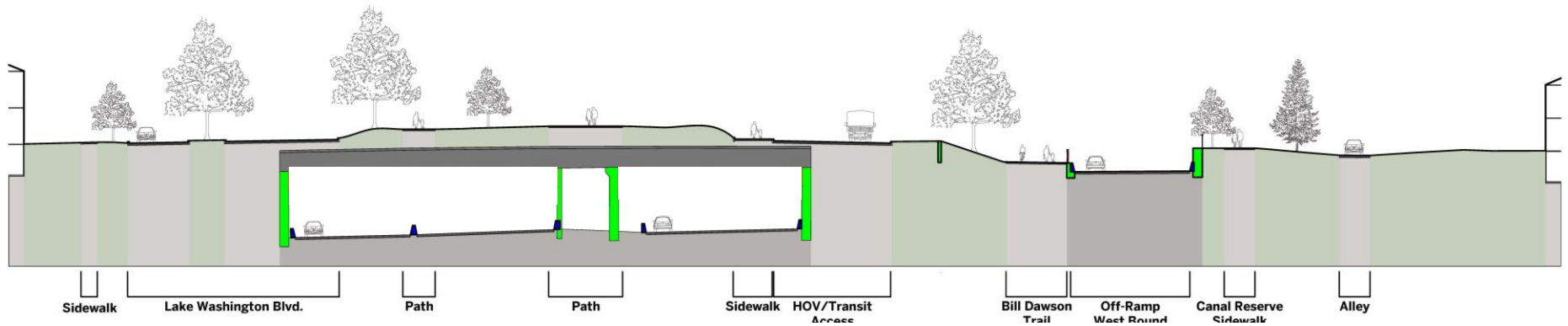


Section 3A

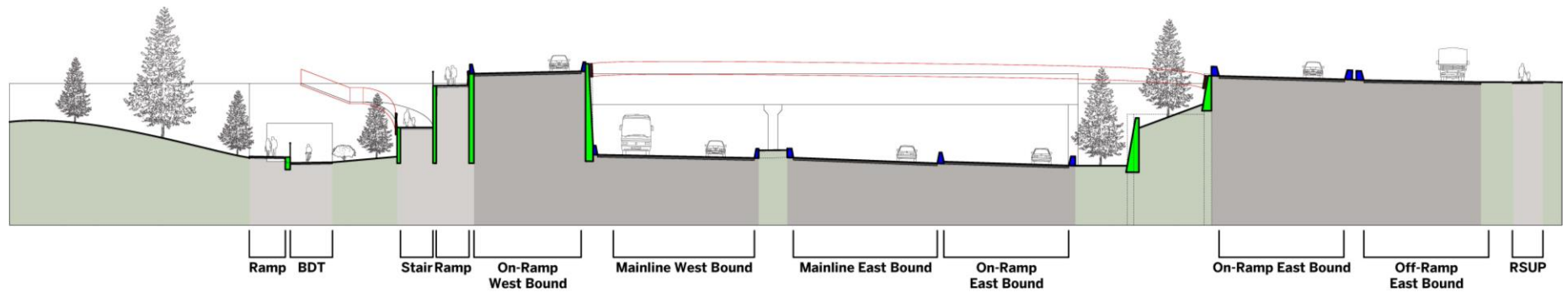


Section 3B

Walls, Edges & Gateways

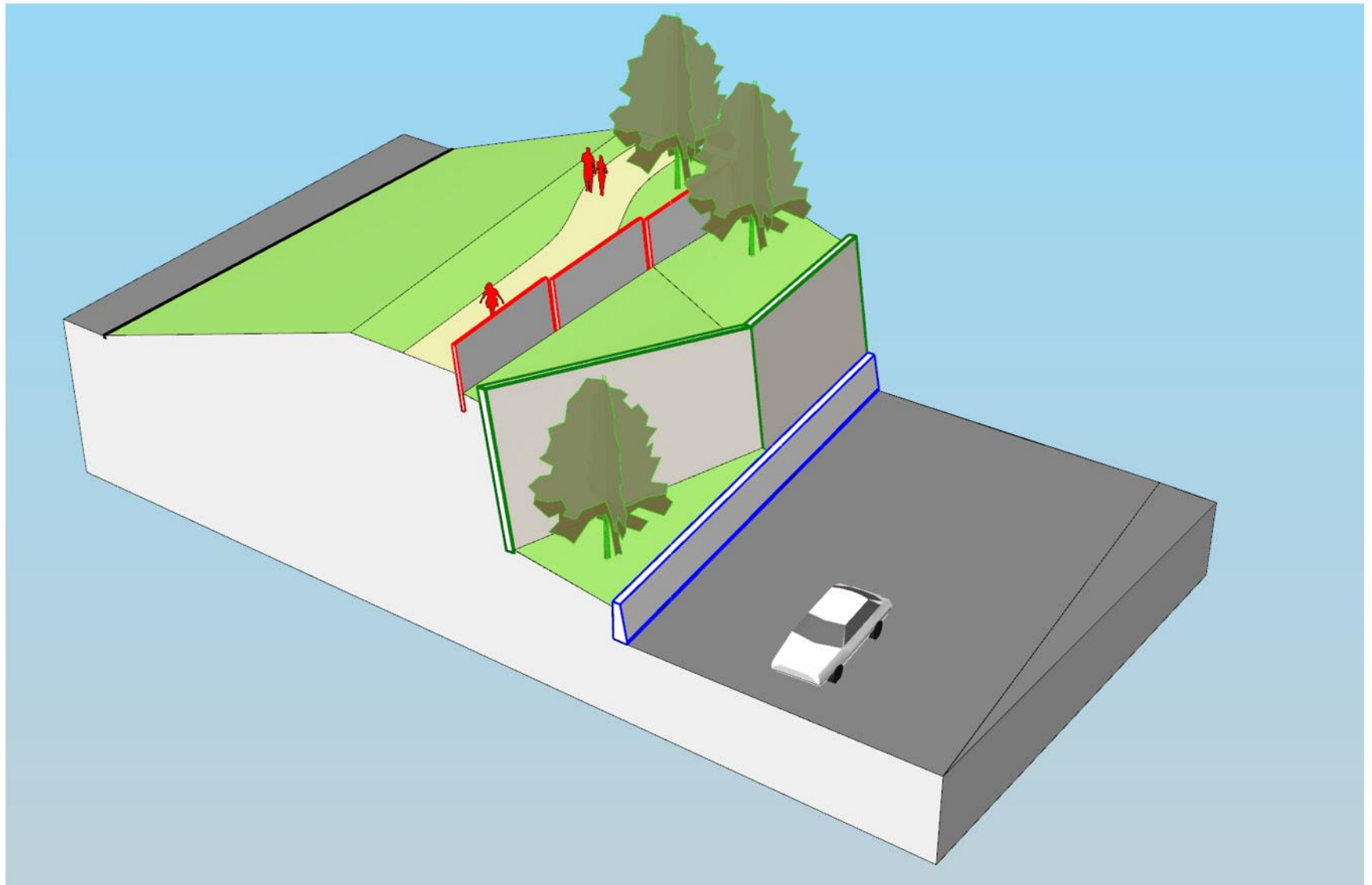


Section 4



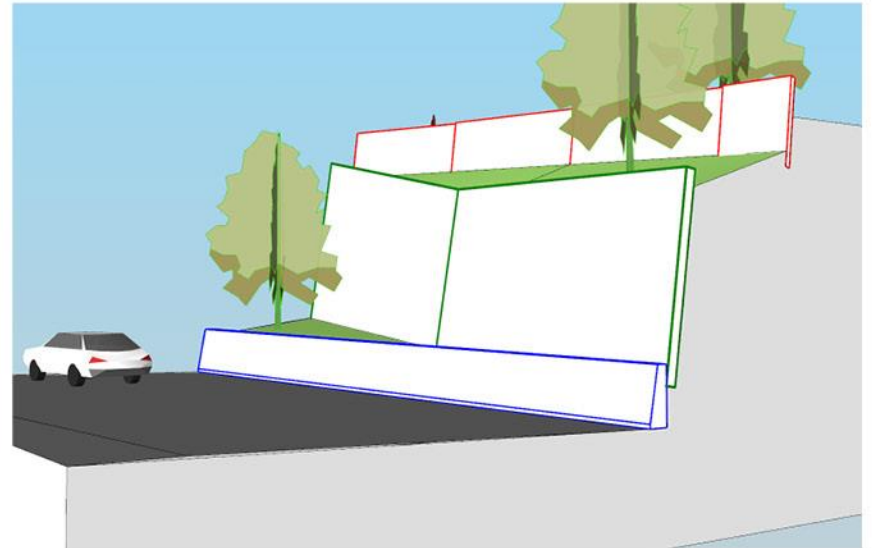
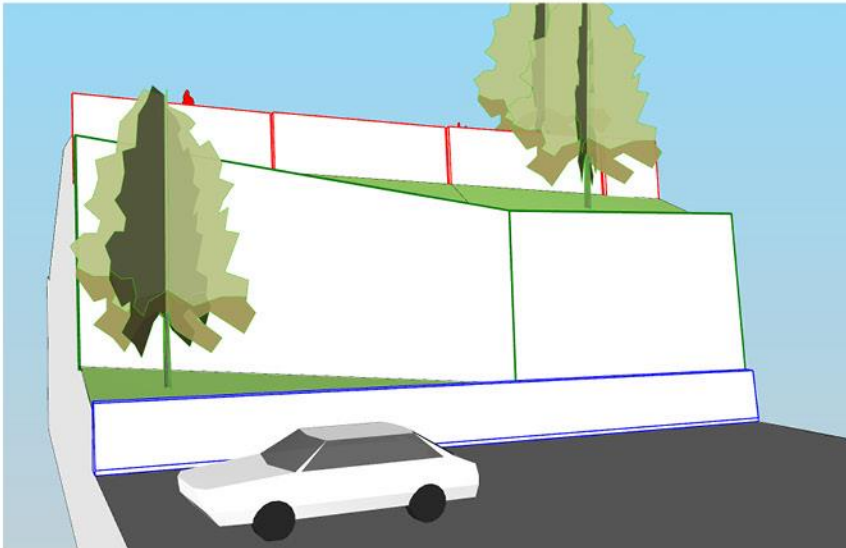
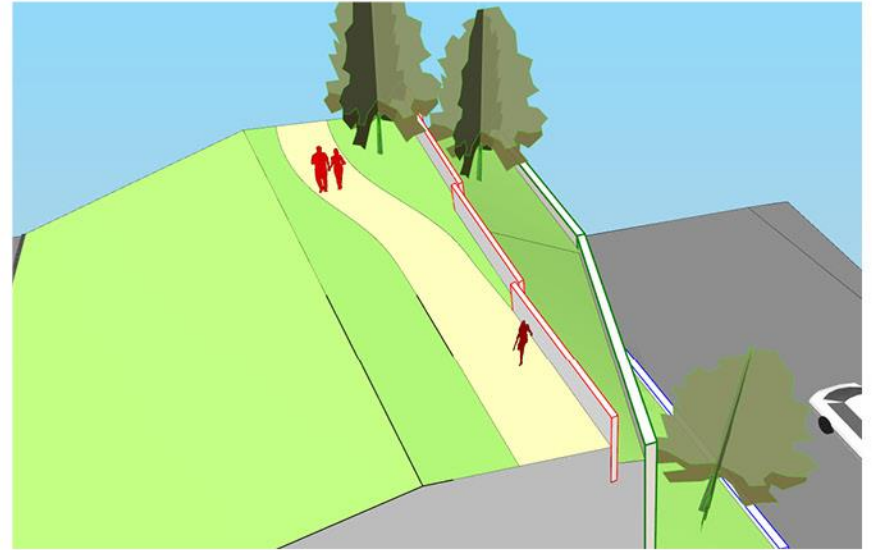
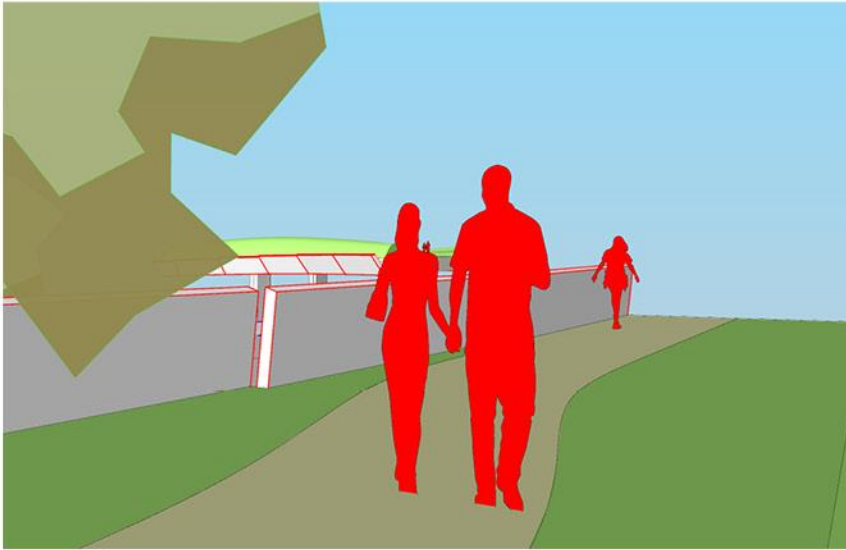
Section 5

Walls, Edges & Gateways



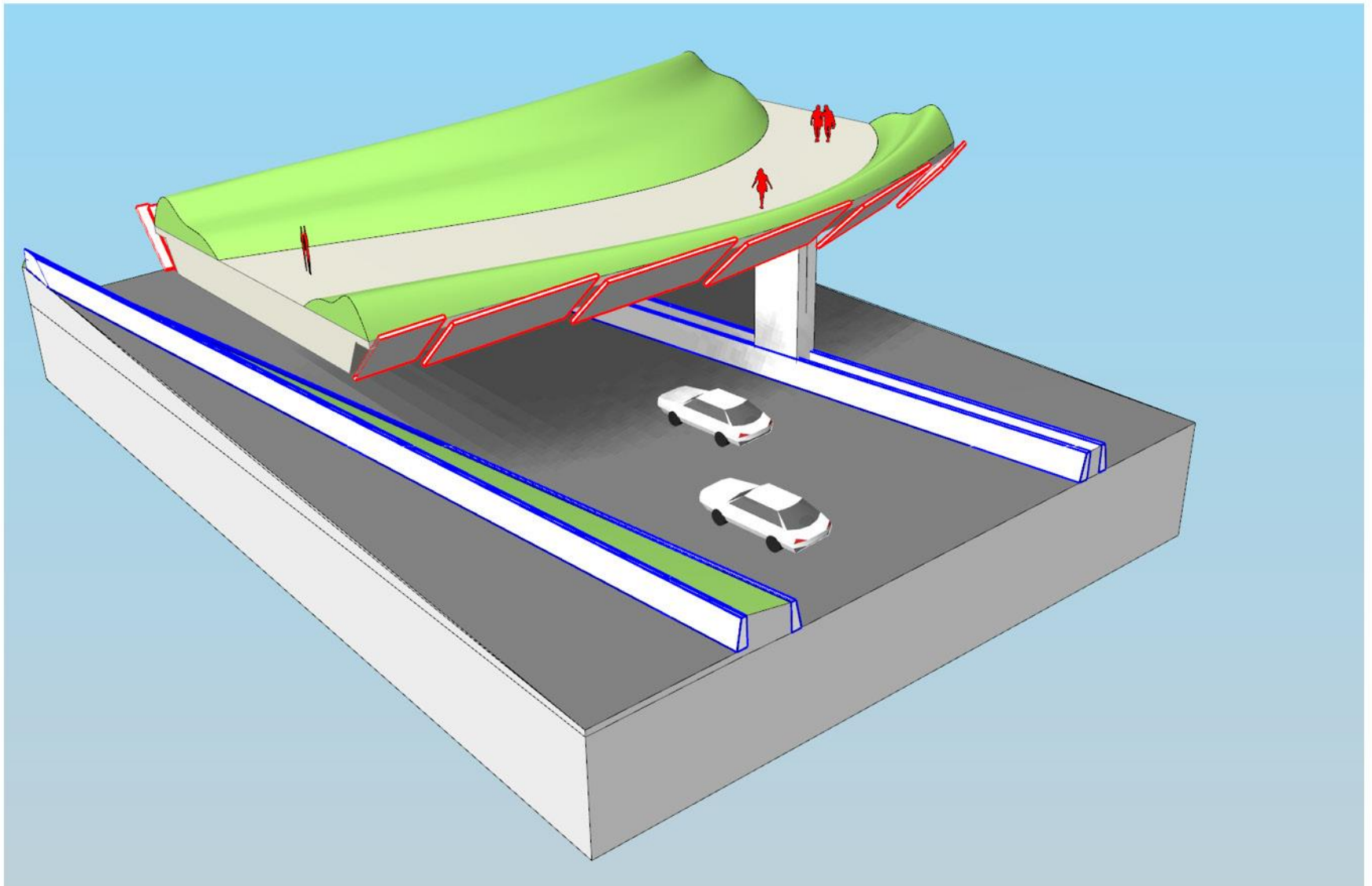
Zone A.1

Walls, Edges & Gateways



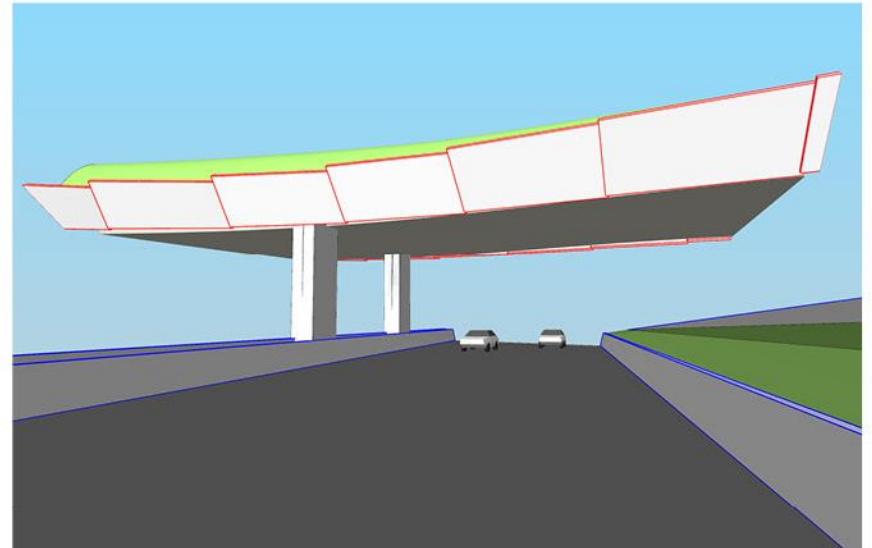
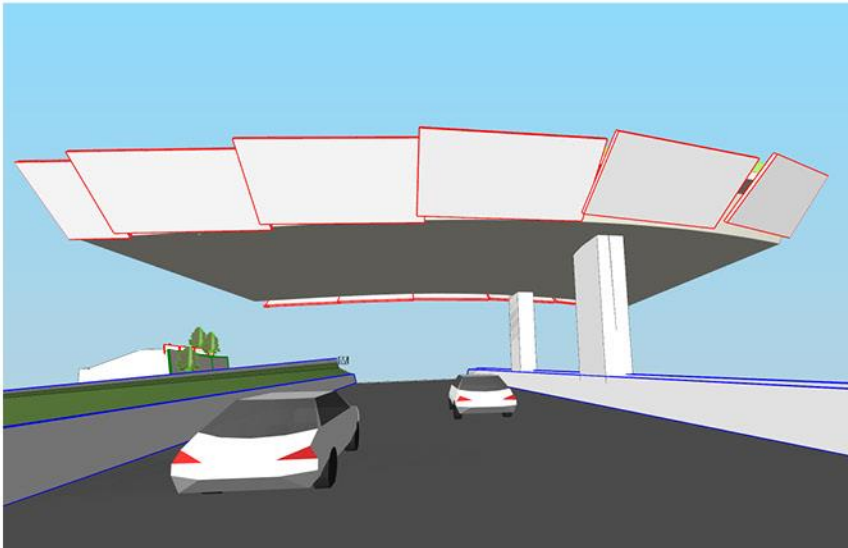
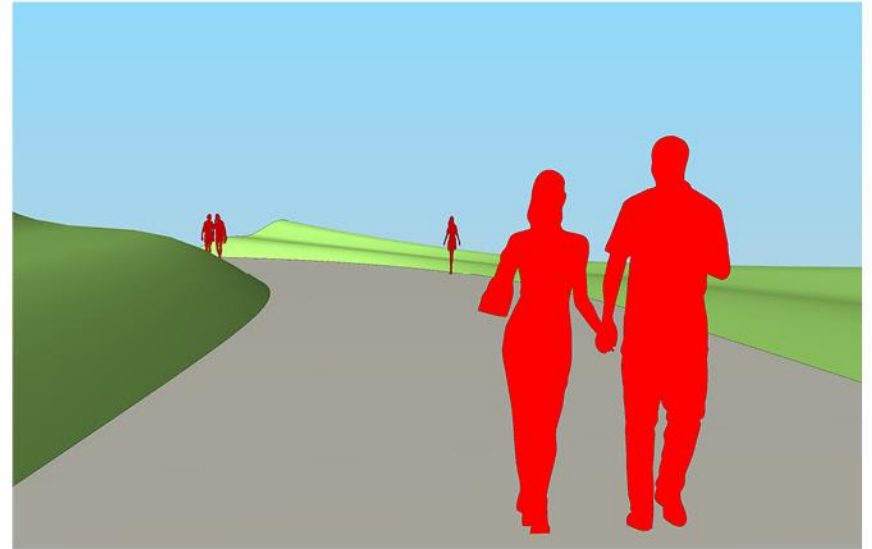
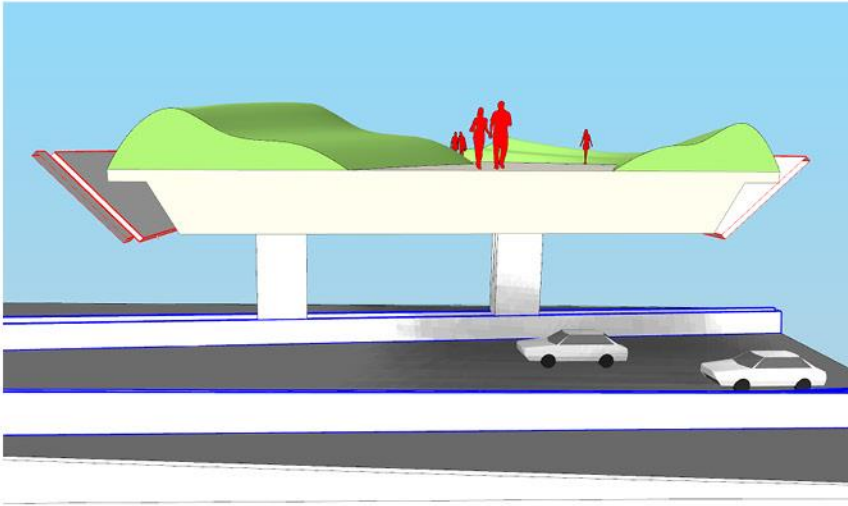
Zone A.1

Walls, Edges & Gateways



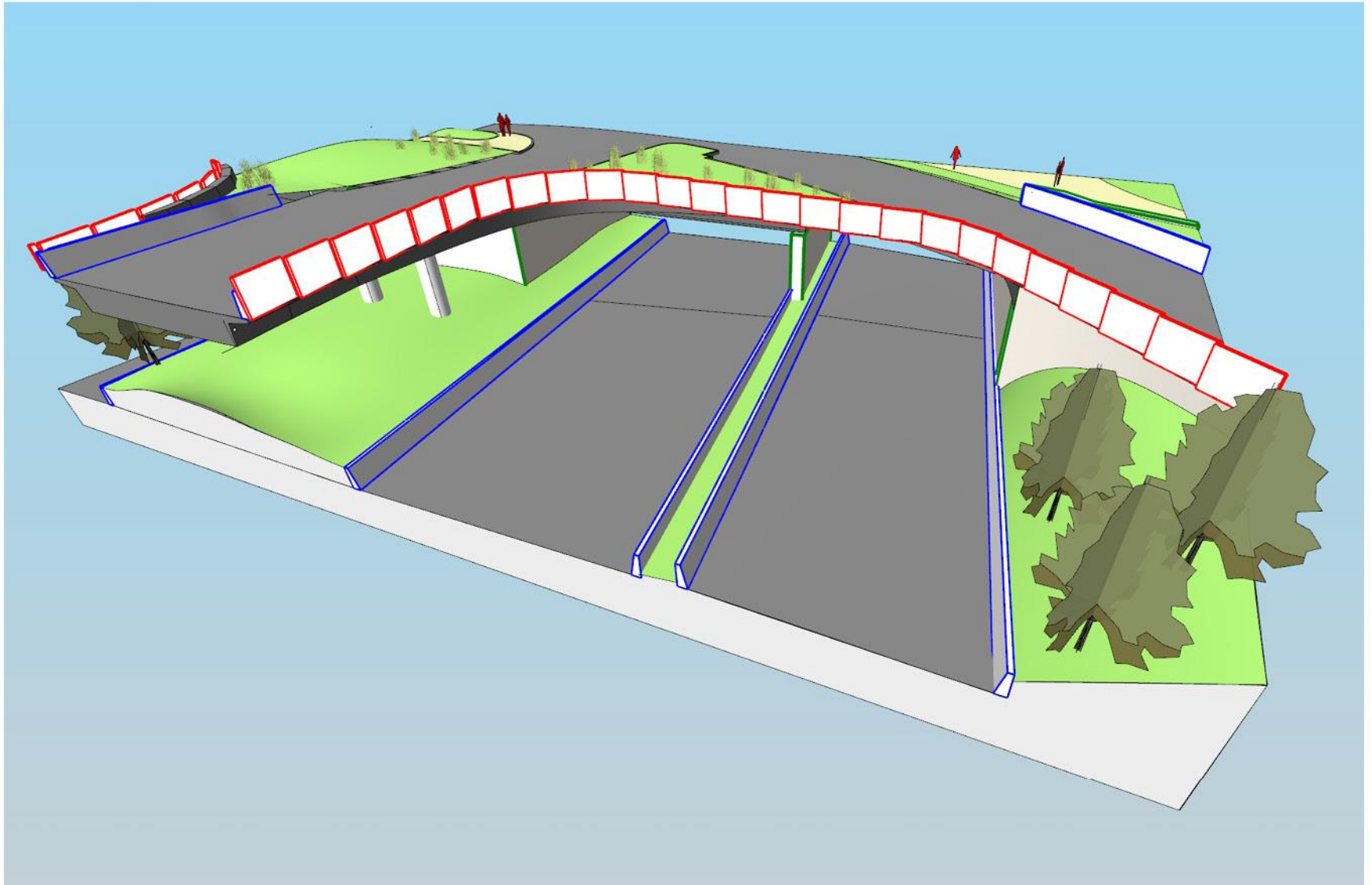
Zone C

Walls, Edges & Gateways



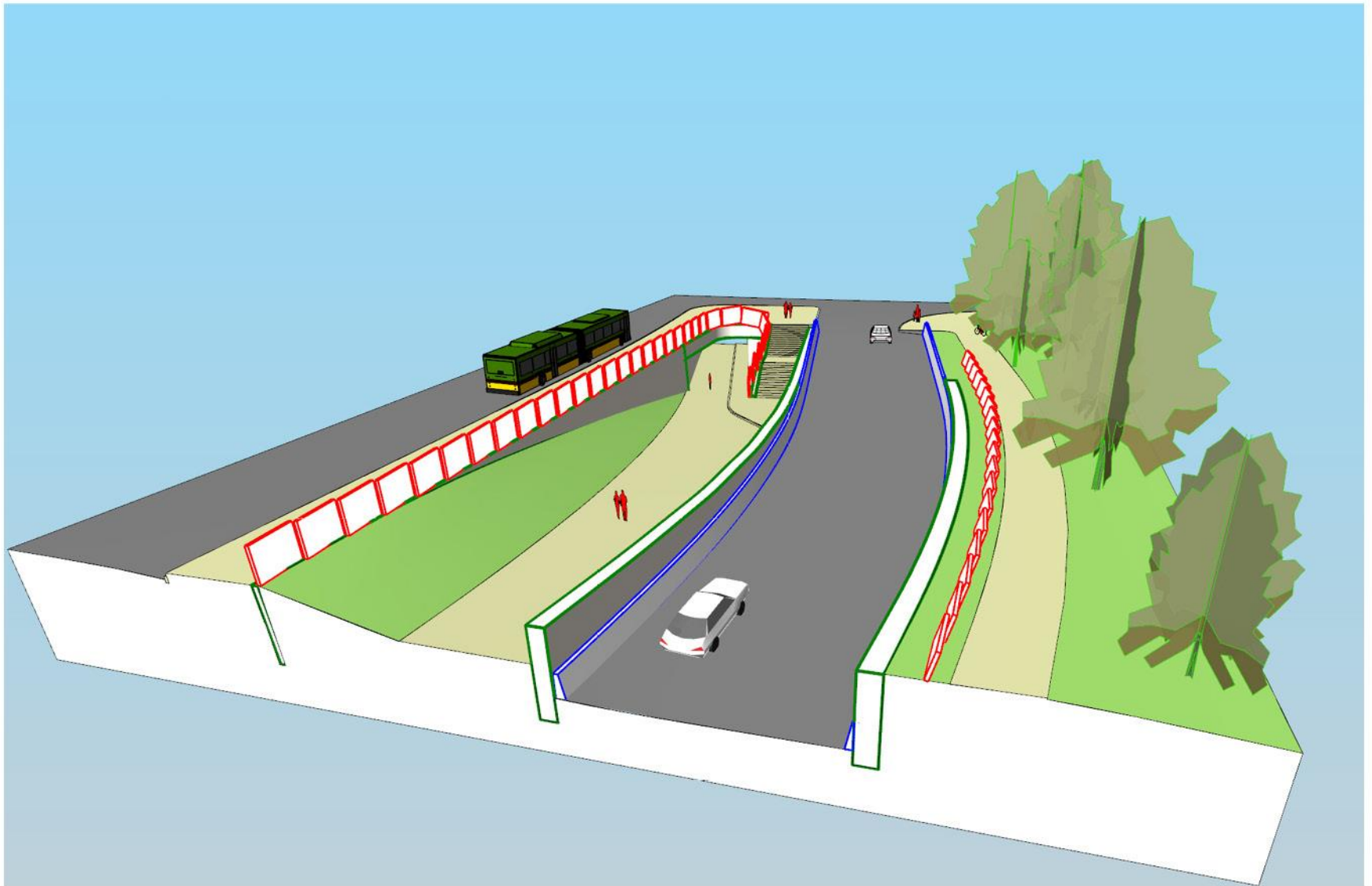
Zone C

Walls, Edges & Gateways



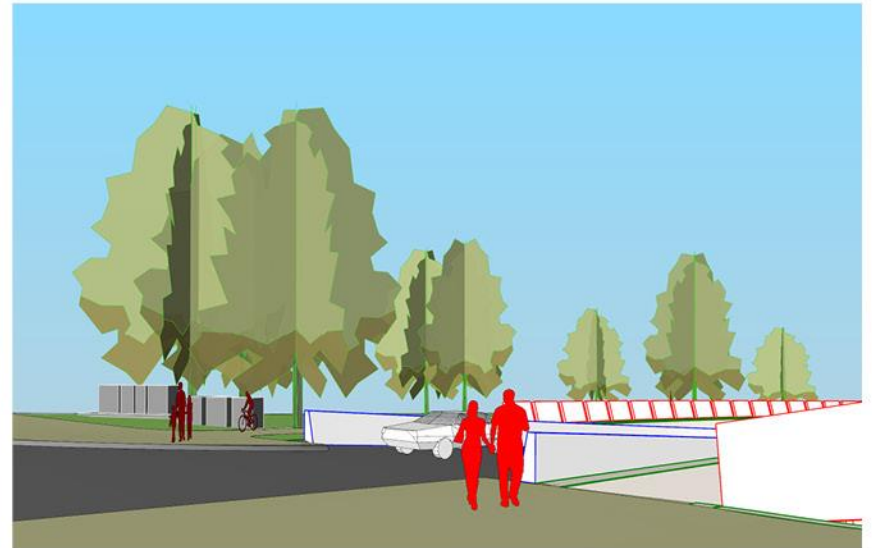
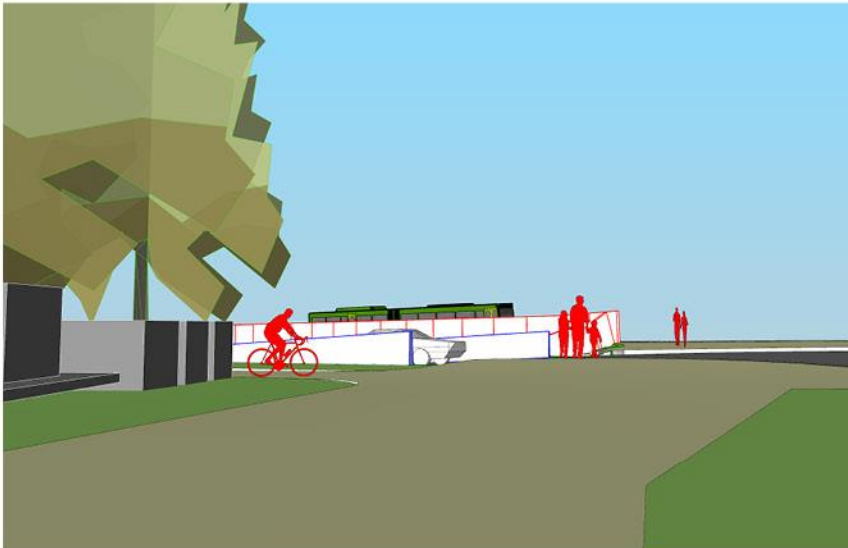
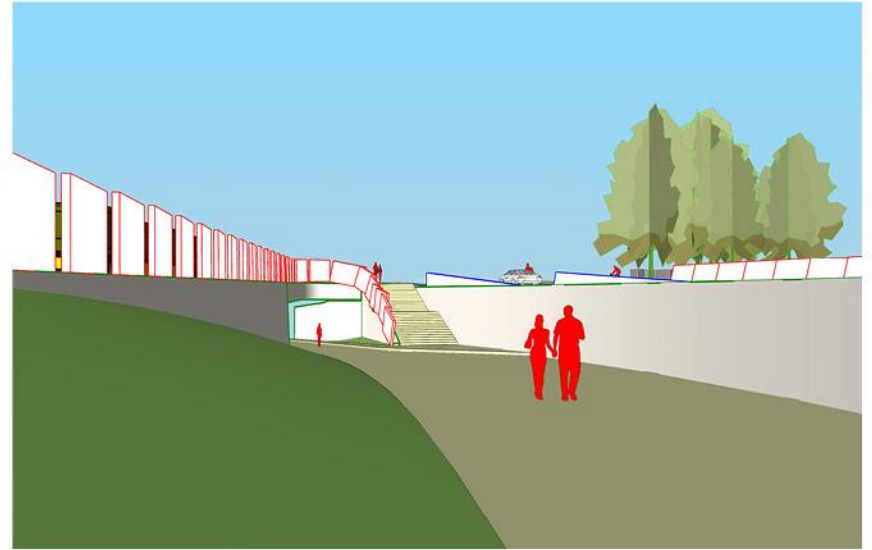
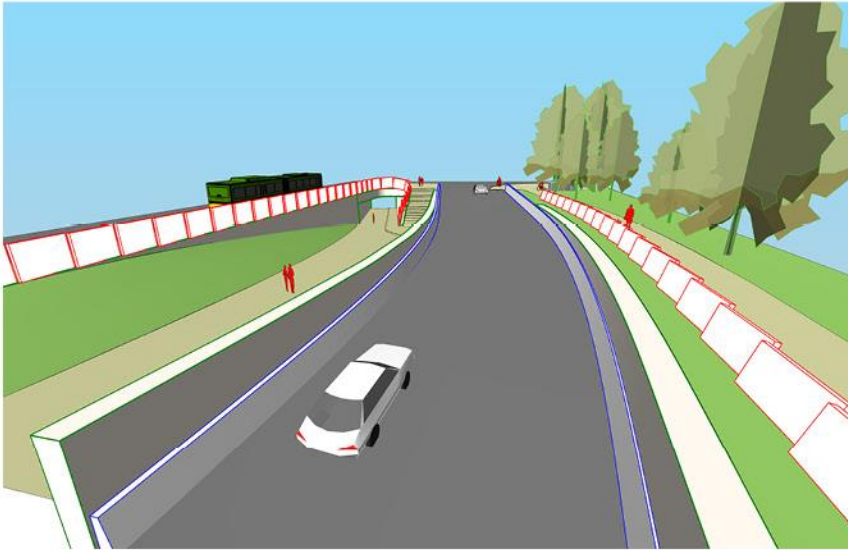
Zone B.1

Walls, Edges & Gateways



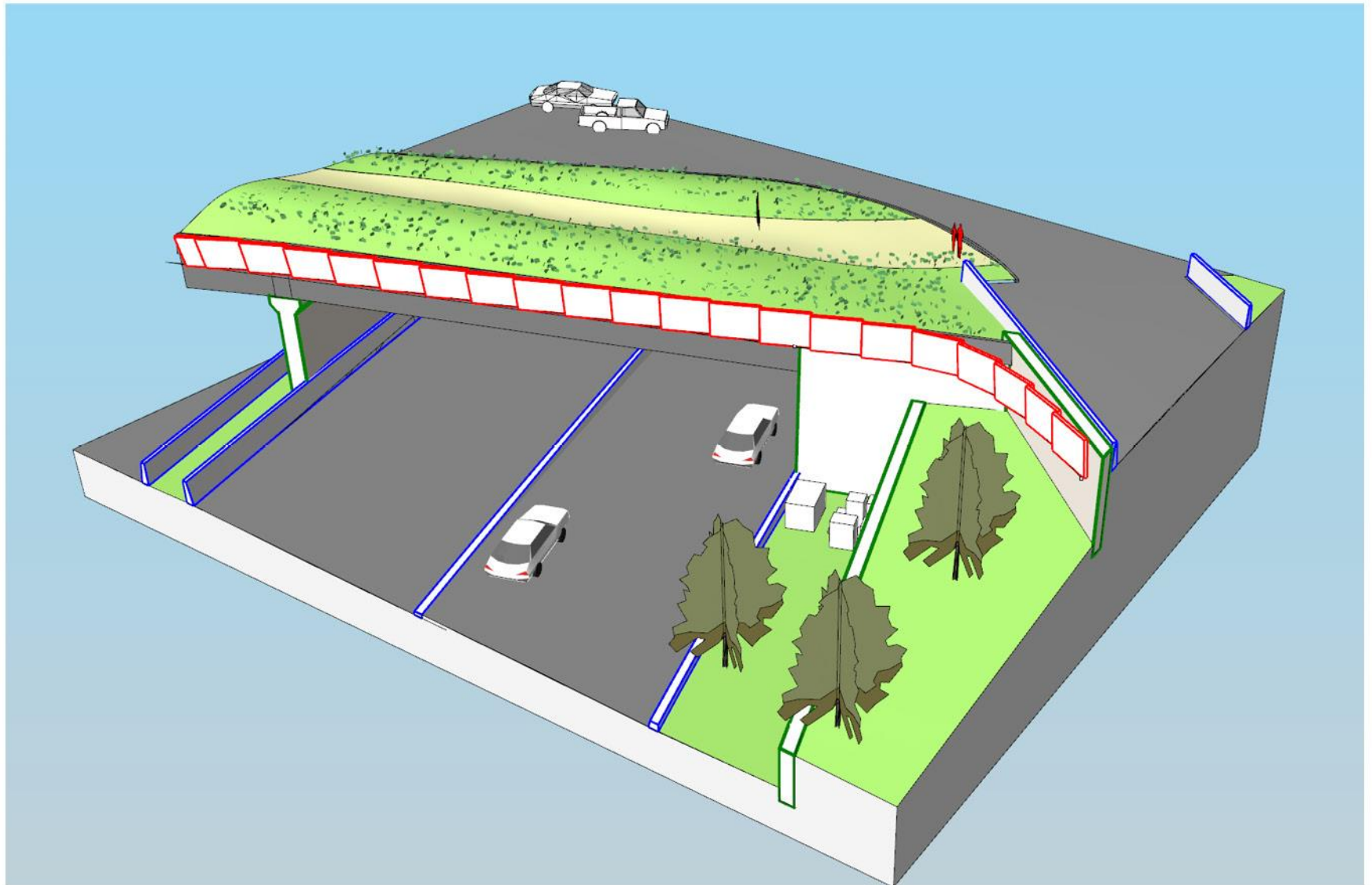
Zone E

Walls, Edges & Gateways



Zone E

Walls, Edges & Gateways



Zone F

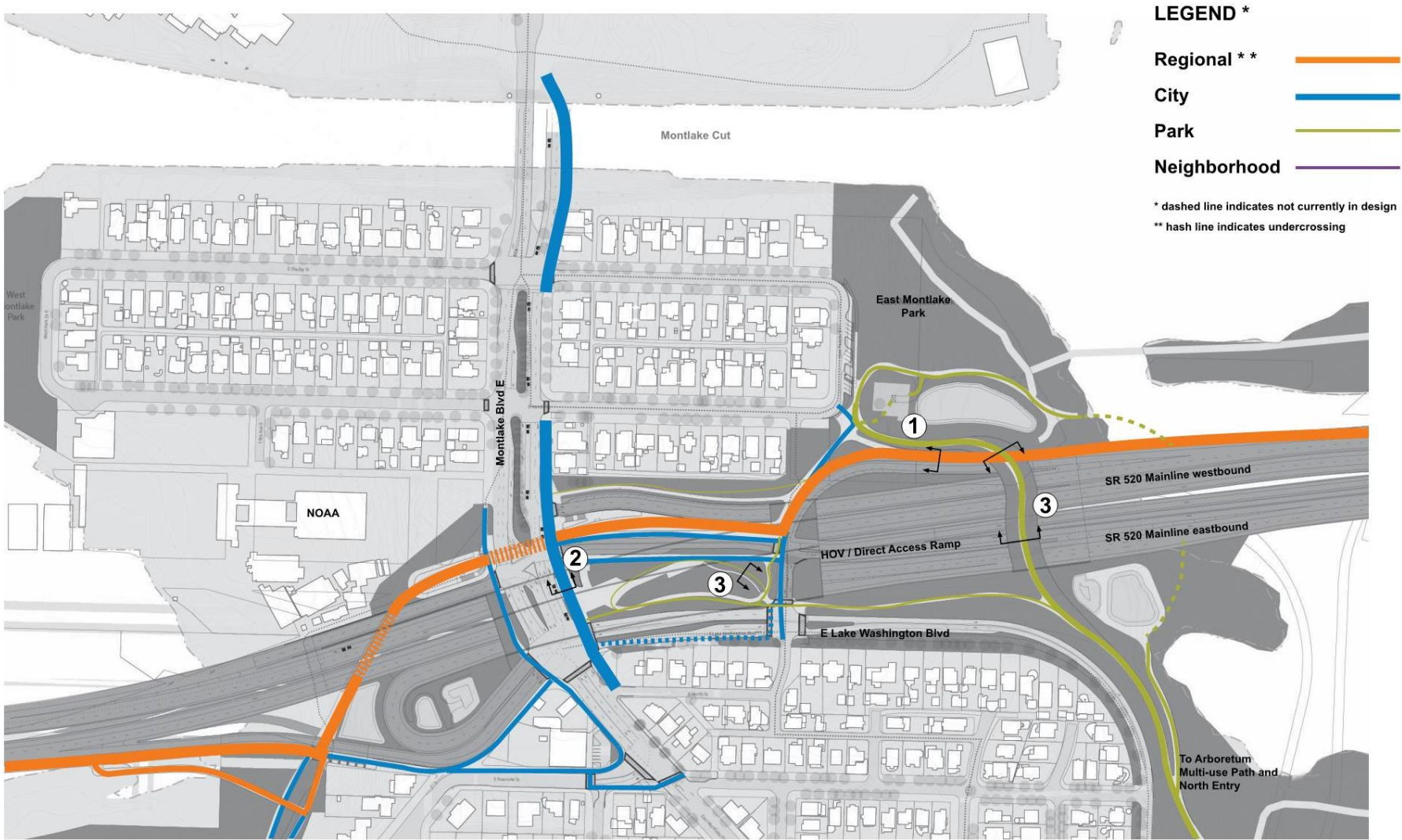
Concept Development

Pathways



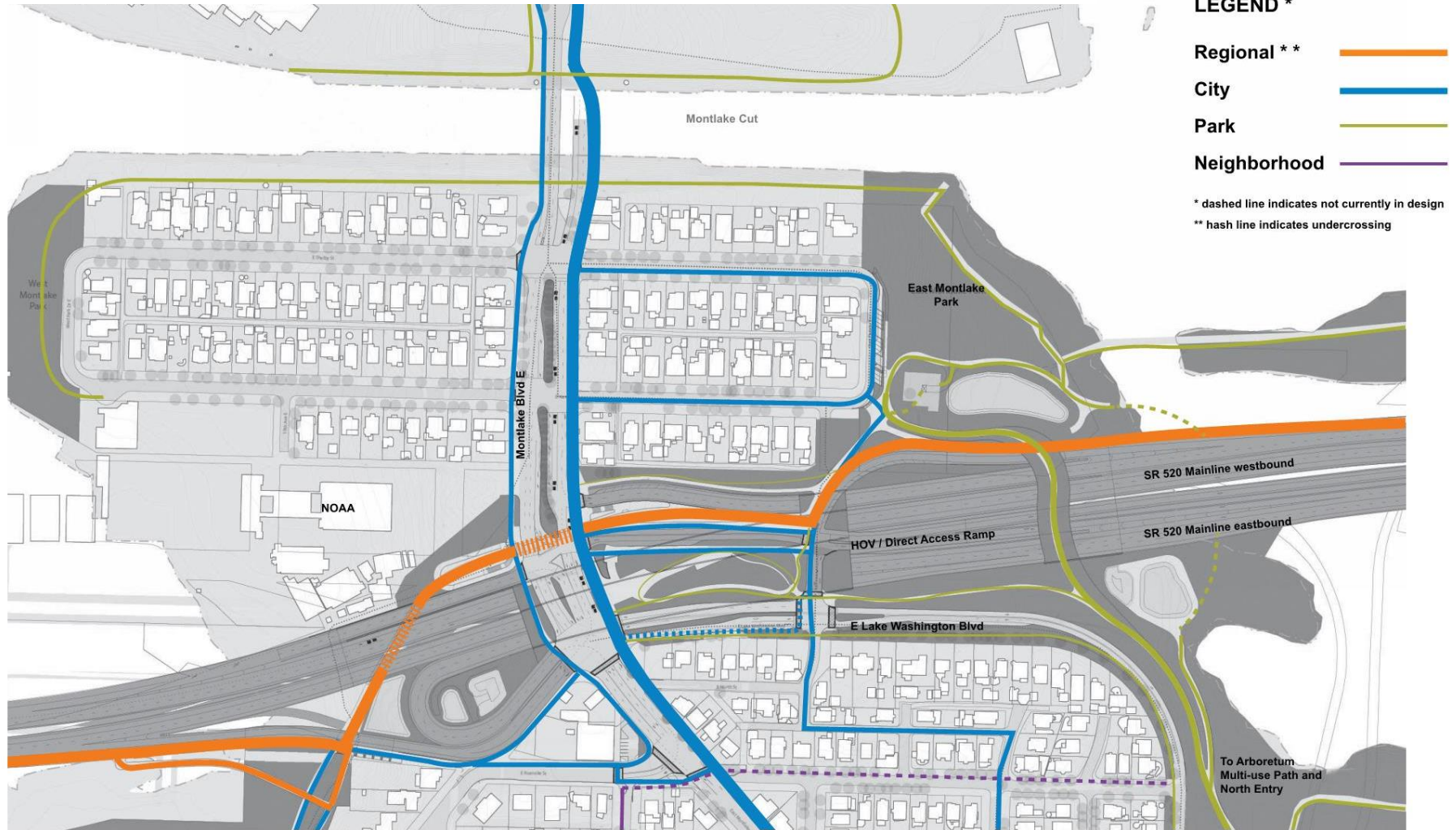
Path Hierarchy

WSDOT Project Montlake Area



Path Hierarchy

Complete Network Montlake Area



Path Hierarchy

Character & function precedents

1 Regional

Eastside SR 520 Regional Shared Use Path Source: WSDOT



Burke Gilman at University of Washington Source: Seattle Bike Blog



FUNCTION

TYPE Separated grade, shared-use facility

SPEED Fast to medium (18 - 1 mph)

WIDTH 14-20 feet

MATERIAL asphalt with concrete

USE Commuter to recreational

SKILL LEVEL All ages and abilities

SEPARATION Separated grade, rail, wall, barrier

ADJACENCY water, mainline traffic, mixing zone

Path Hierarchy

Character & function precedents

2 City



Seattle Second Avenue Protected Bike Path Source: Planning.org



Seattle Children's Sandpoint Protected Bike Path Source: Seattle Bike Blog



FUNCTION

TYPE Arterial sidewalk, protected bike lane

SPEED Fast to slow

WIDTH 6-16 feet

MATERIAL asphalt or concrete (smooth or scored)

USE Commuter to recreational

SKILL LEVEL All ages and abilities

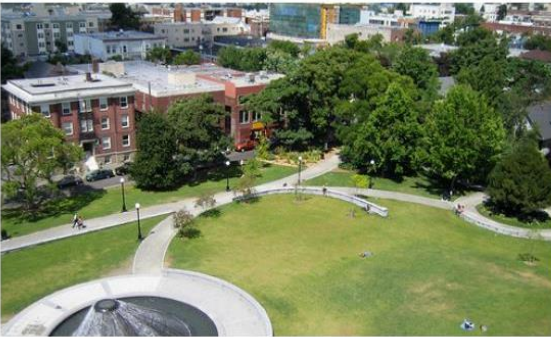
SEPARATION At grade with planting strip, on-street with buffer, bollard, flexible delineator, raised curb or parking separation

ADJACENCY arterial street, transit, boulevard trees

Path Hierarchy

Character & function precedents

3 Parks



FUNCTION

TYPE Shared-use path (landbridge), sidewalk,

SPEED Medium to slow

WIDTH 3-12 feet

MATERIAL asphalt, concrete, gravel, wood chip, boardwalk

USE Slow commuter to recreational informal soft-surface path

SKILL LEVEL All ages and abilities

SEPARATION Off-street within park/lid areas, planting strip, separated grade (landbridge)

ADJACENCY lawn, ornamental plantings, meadow, wetland, water, views

Path Hierarchy

Character & function precedents

4 NEIGHBORHOOD

Stoneway Neighborhood Greenway Crossing Source: Seattle PI



Greenwood Phinney Greenway Source: Seattle Greenways



39th Avenue NE Greenway Source: Seattle Bike Blog



FUNCTION

TYPE Non-arterial sidewalk, neighborhood greenway

SPEED Slow to medium

WIDTH 5-6 feet (sidewalk) + residential street

MATERIAL concrete, asphalt (street)

USE Slow commuter to recreational

SKILL LEVEL All ages and abilities

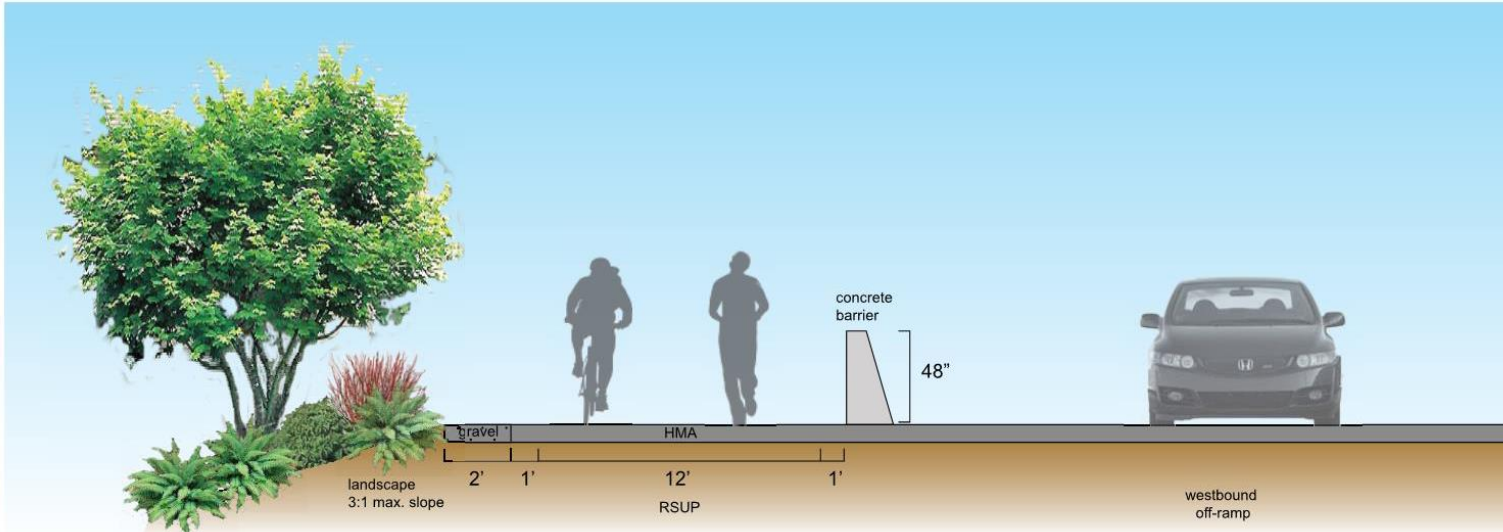
SEPARATION At grade, planting strip, on-street, sharrow markings

ADJACENCY residential, street trees

Path Hierarchy

Character

1 Regional



regional shared-use path landing at Montlake on grade looking east

FUNCTION

TYPE Separated grade, shared-use facility

SPEED Fast to medium (18 - 1 mph)

WIDTH 14-20 feet

MATERIAL asphalt with concrete

USE Commuter to recreational

SKILL LEVEL All ages and abilities

SEPARATION Separated grade, rail, wall, barrier

ADJACENCY water, mainline traffic, mixing zone

Path Hierarchy

Character

2 City



Local transit stop at Montlake Boulevard East looking south

FUNCTION

TYPE Arterial sidewalk, protected bike lane

SPEED Fast to slow

WIDTH 6-16 feet

MATERIAL asphalt or concrete (smooth or scored)

USE Commuter to recreational

SKILL LEVEL All ages and abilities

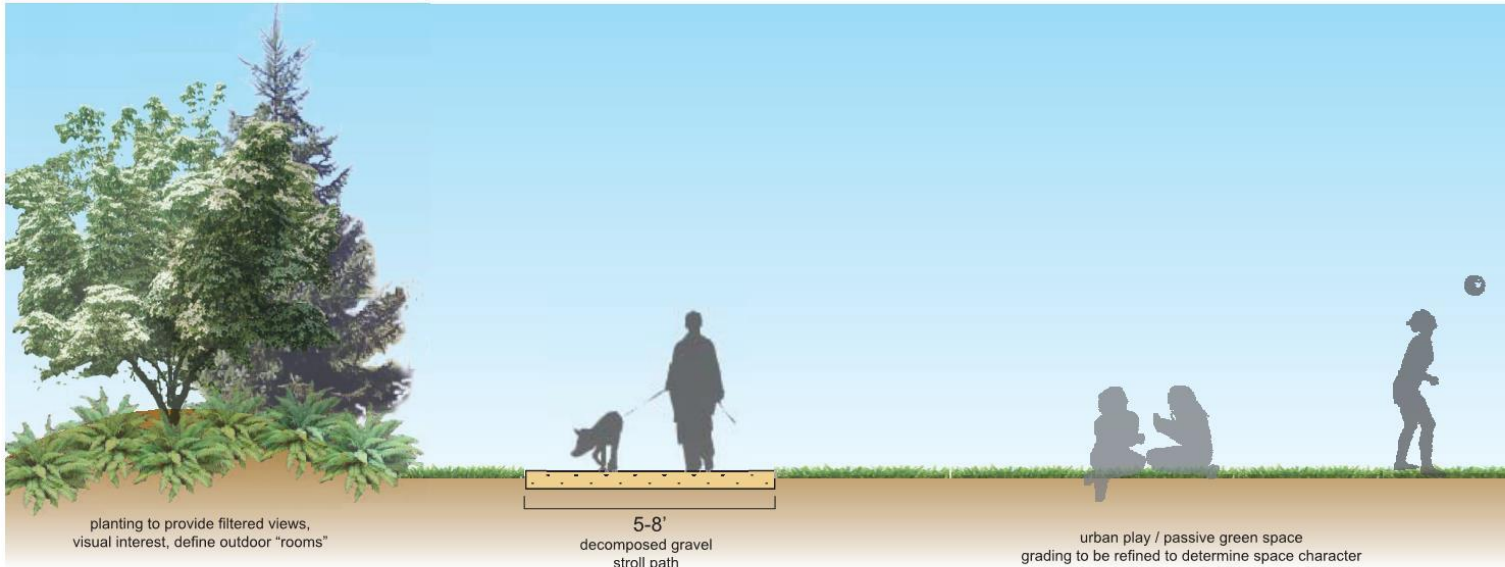
SEPARATION At grade with planting strip, on-street with buffer, bollard, flexible delineator, raised curb or parking separation

ADJACENCY arterial street, transit, boulevard trees

Path Hierarchy

Character

③ Parks



gravel stroll path at lid looking east

FUNCTION

TYPE Shared-use path (landbridge), sidewalk,

SPEED Medium to slow

WIDTH 3-12 feet

MATERIAL asphalt, concrete, gravel, wood chip, boardwalk

USE Slow commuter to recreational informal soft-surface path

SKILL LEVEL All ages and abilities

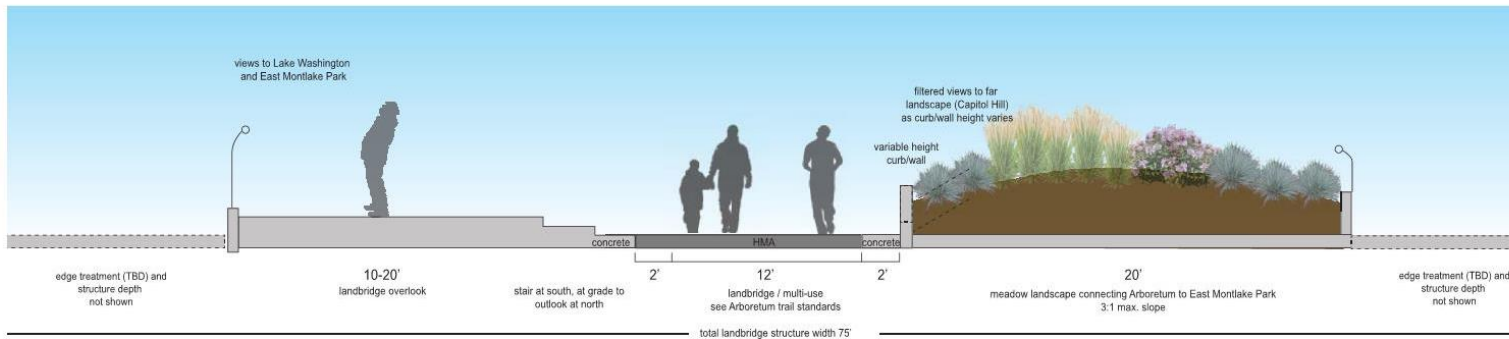
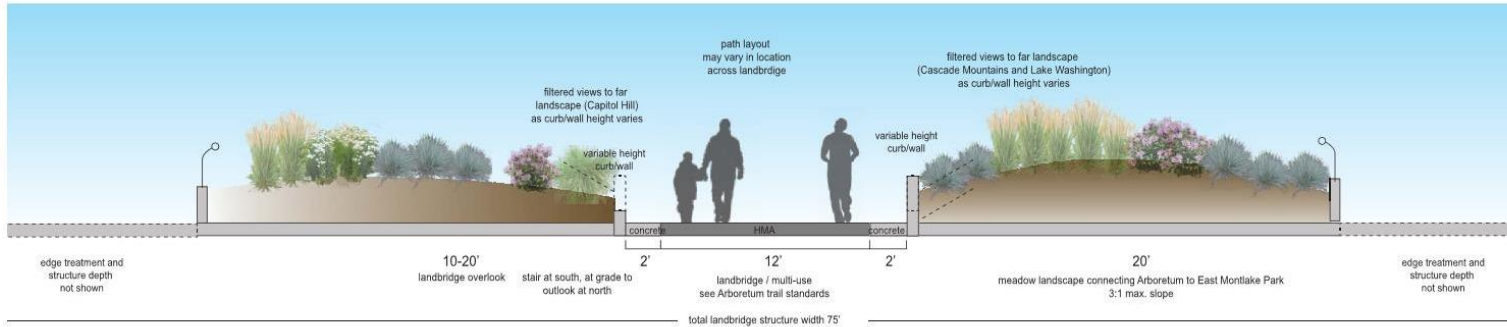
SEPARATION Off-street within park/lid areas, planting strip, separated grade (landbridge)

ADJACENCY lawn, ornamental plantings, meadow, wetland, water, views

Path Hierarchy

Character

3 Parks



FUNCTION

TYPE Shared-use path (landbridge), sidewalk,

SPEED Medium to slow

WIDTH 3-12 feet

MATERIAL asphalt, concrete, gravel, wood chip, boardwalk

USE Slow commuter to recreational informal soft-surface path

SKILL LEVEL All ages and abilities

SEPARATION Off-street within park/lid areas, planting strip, separated grade (landbridge)

ADJACENCY lawn, ornamental plantings, meadow, wetland, water, views

Path Hierarchy

Materials

boundary



sign



surface



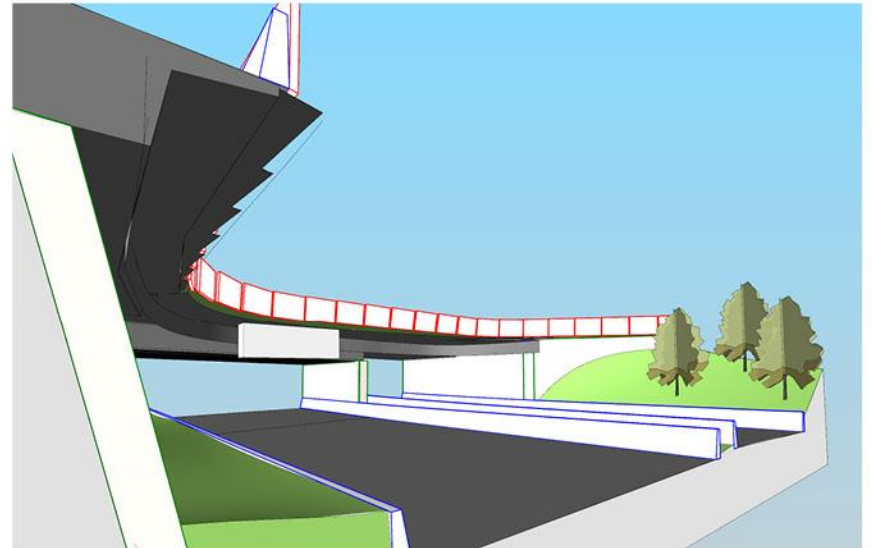
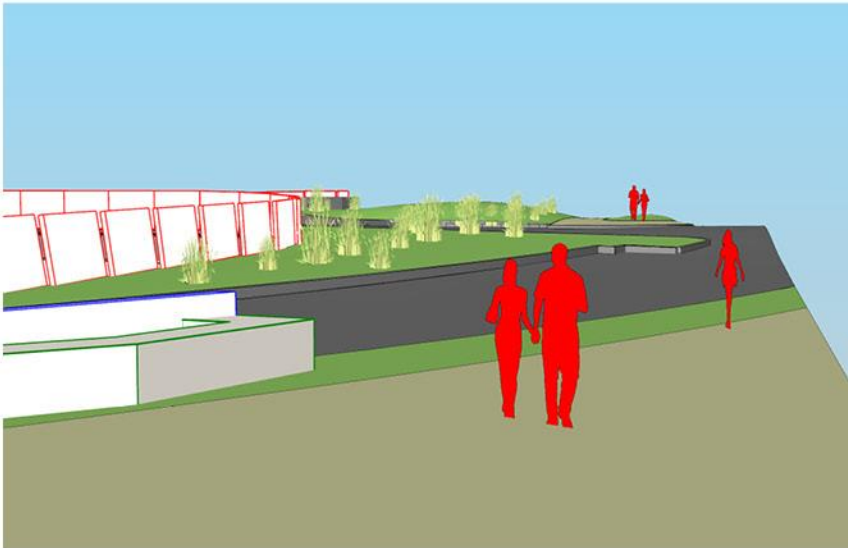
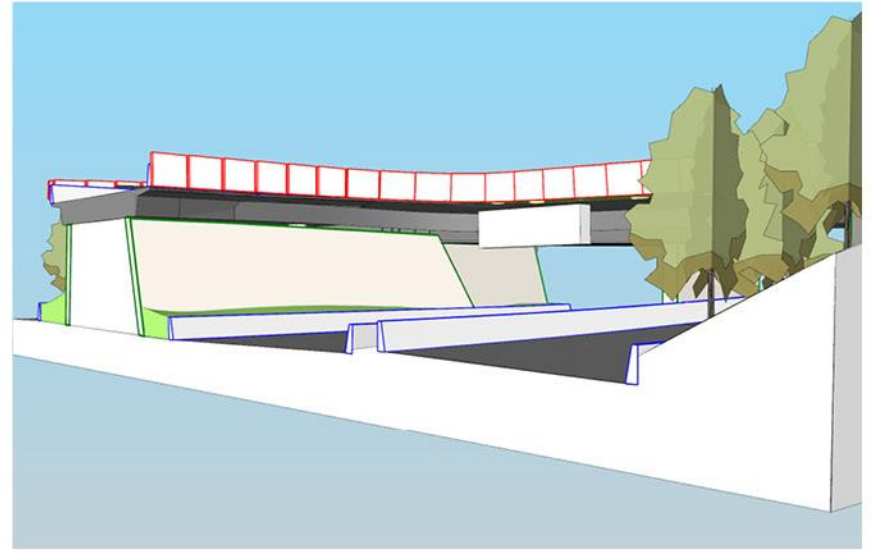
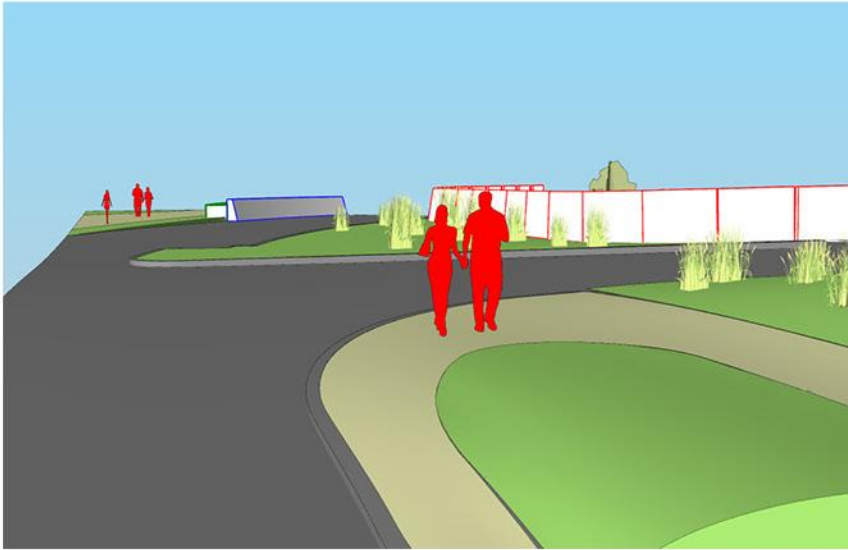
texture



place



Walls, Edges & Gateways



Zone B.2

Concept Development

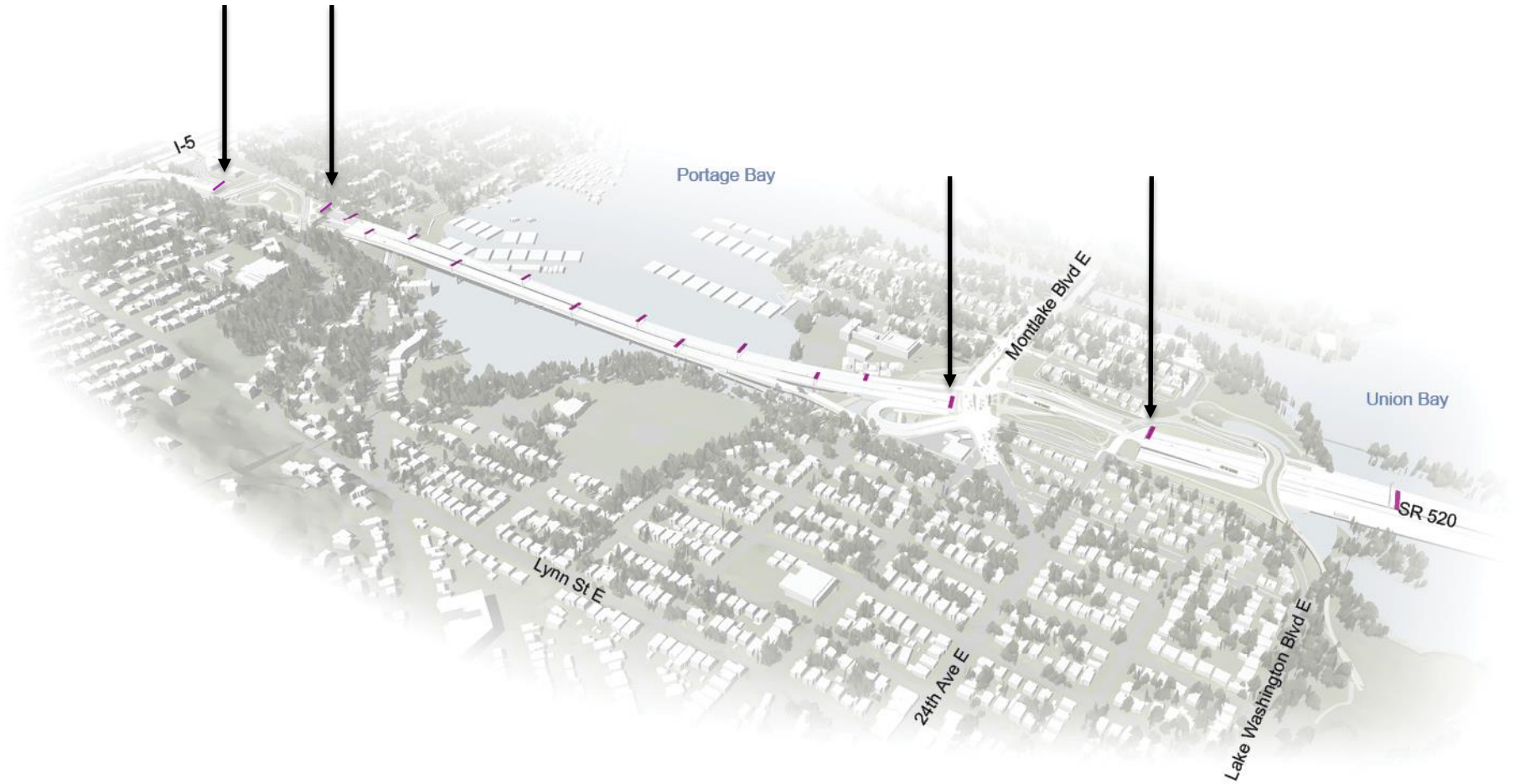
Signage



Concept Development

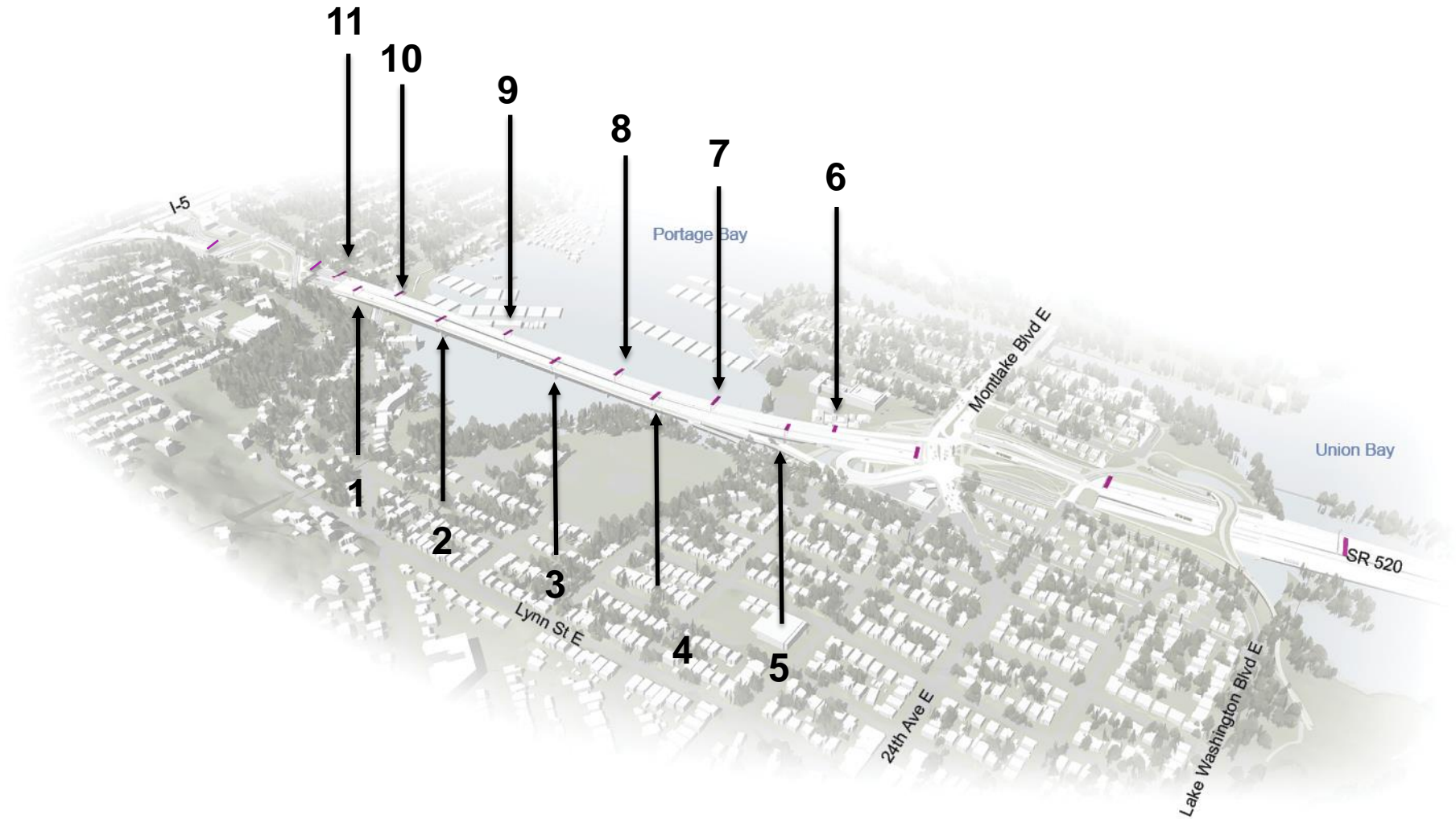
Signage

Fire/Life/Safety Signage @ Tunnel entries



Concept Development Signage

Gantries



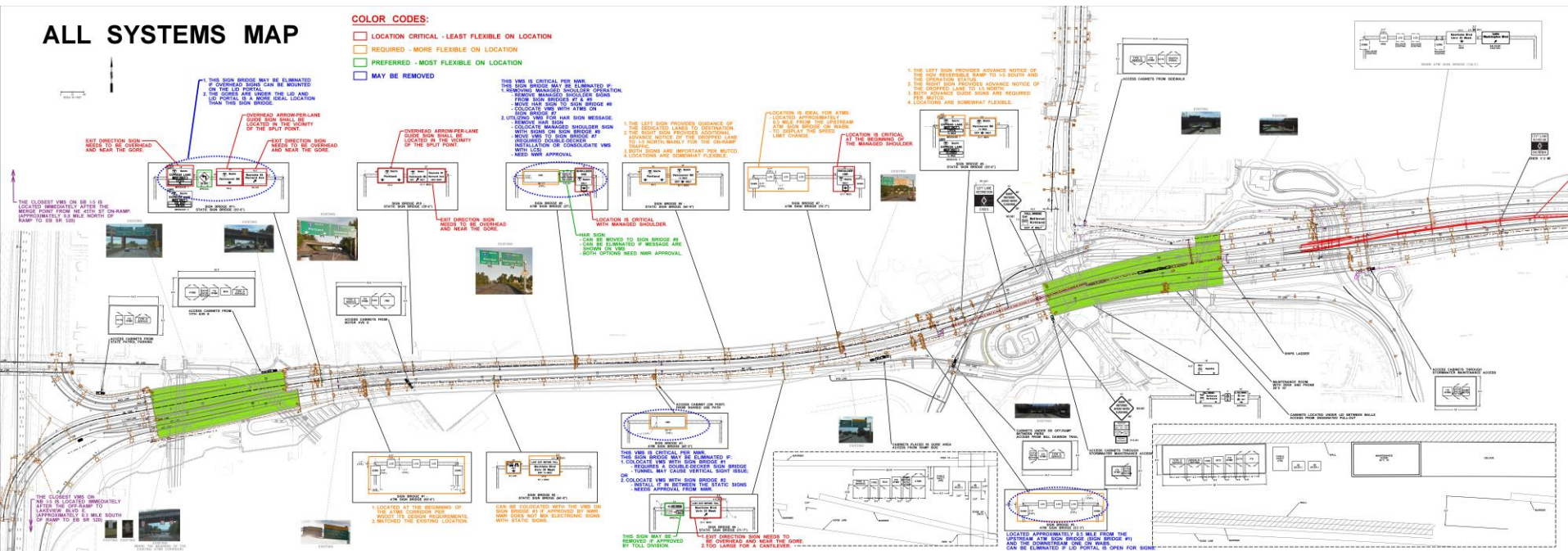
Concept Development Signage

FIXED LOCATION:

1. Regulatory
2. WSDOT Policy
3. Preferred

FLEXIBLE LOCATION:

1. Regulatory
2. WSDOT Policy

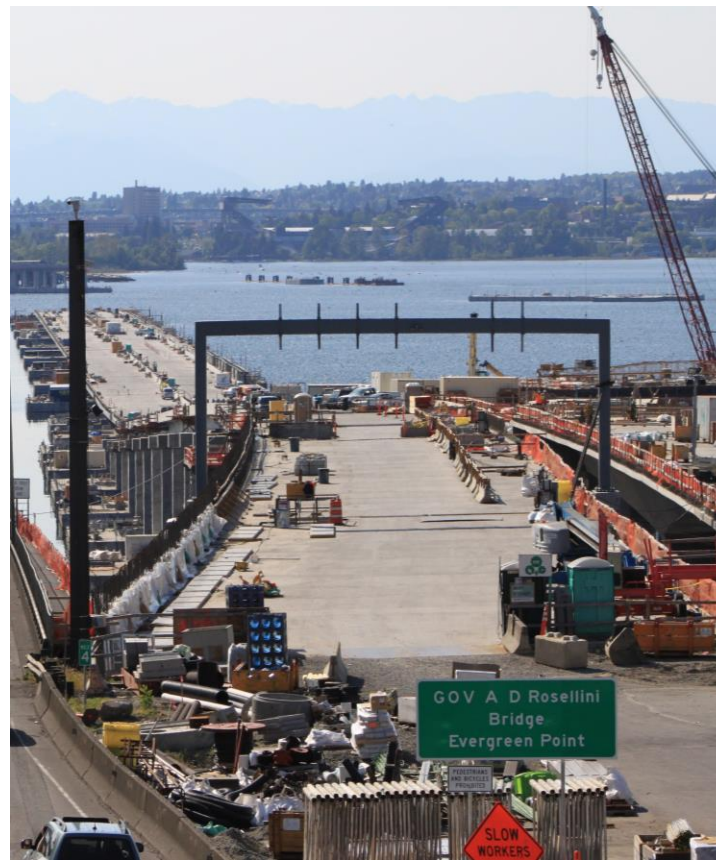


Concept Development Signage

Opportunities:

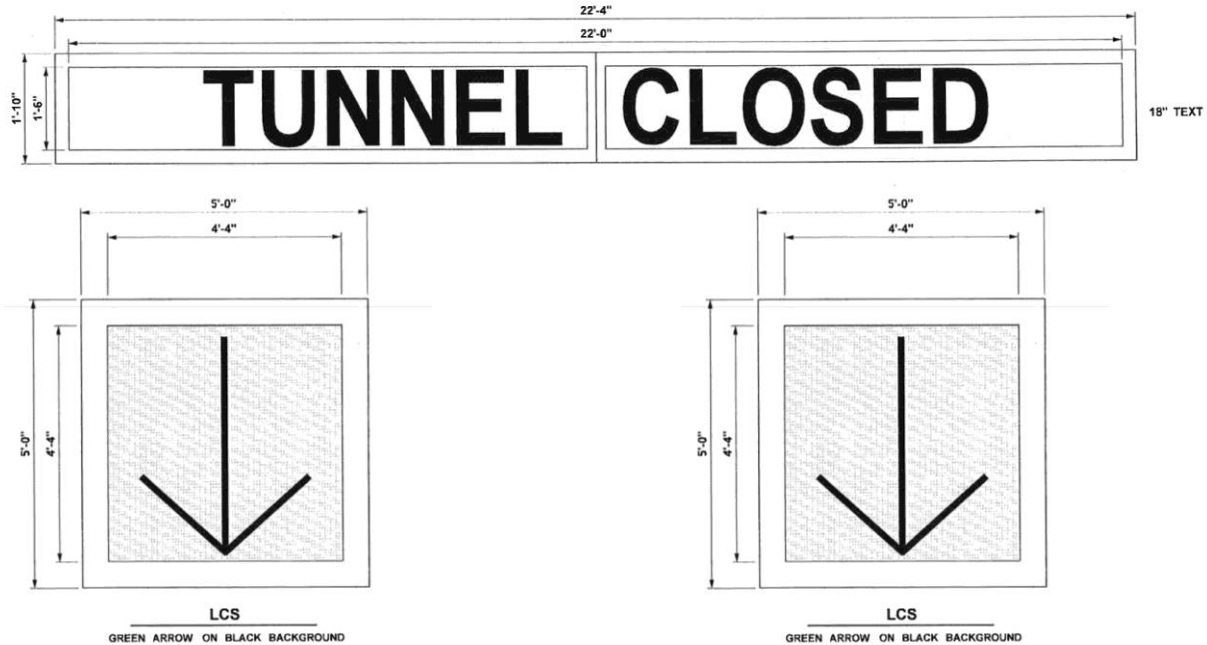
Fewer signs within flexible parameters

Gantry design integration on Portage Bay Bridge



Concept Development

Tunnel Signage



Option 1

Potentially smaller visual impact on Lid edges
Requires more sign gantries on corridor

Concept Development

Tunnel Signage



Option 2

Potentially larger visual impact on Lid edges
Requires fewer sign gantries on corridor

END

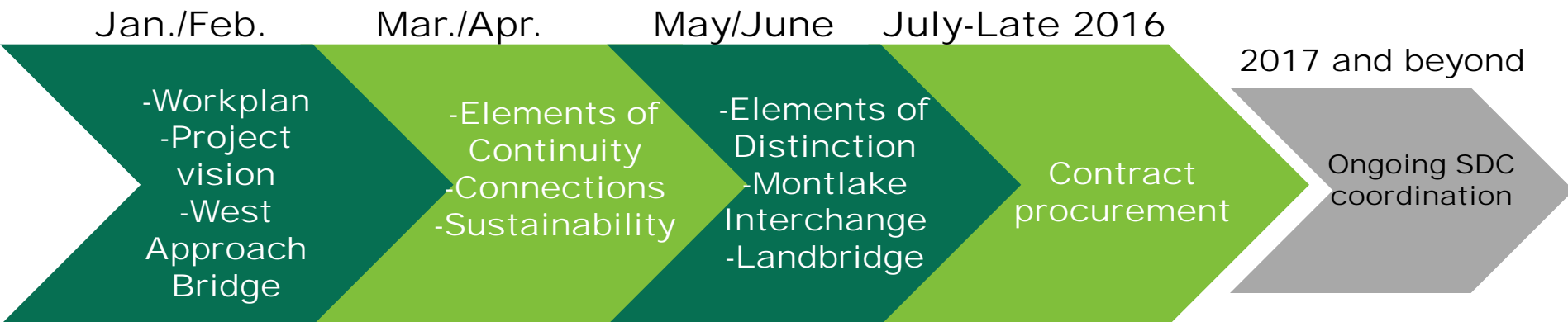
Presentation Overview

- Introduction
- What We Heard
- Elements of Continuity
 - Sustainability
 - Pathways
 - Walls
 - Lighting
 - Corridor Signage
- Elements of Distinction
 - Landbridge
 - Lid Development
- Today, Seeking Endorsement of:
 - Development of elements of continuity
 - Development of elements of distinction



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



Sustainability: Design

- Connectivity
 - Transportation mode shift
 - Park and gateway connections
 - Access to shoreline
- Ecology
 - Stormwater
 - Restored habitat
 - Noise and pollution reduction
 - GHG
- Material use and reduction
 - Locally sourced
 - Lifecycle cost
 - Energy efficient

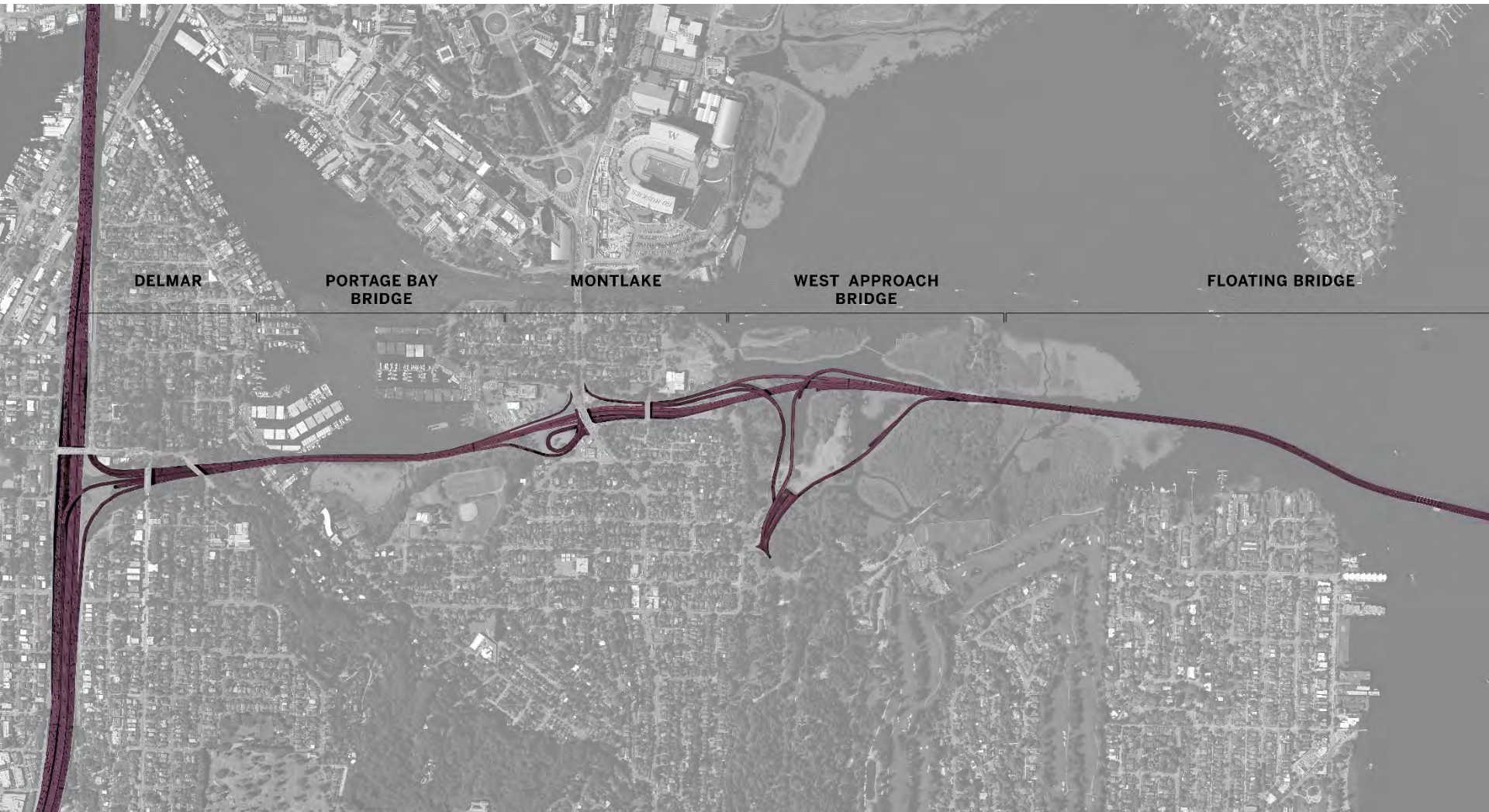


Sustainability: Construction

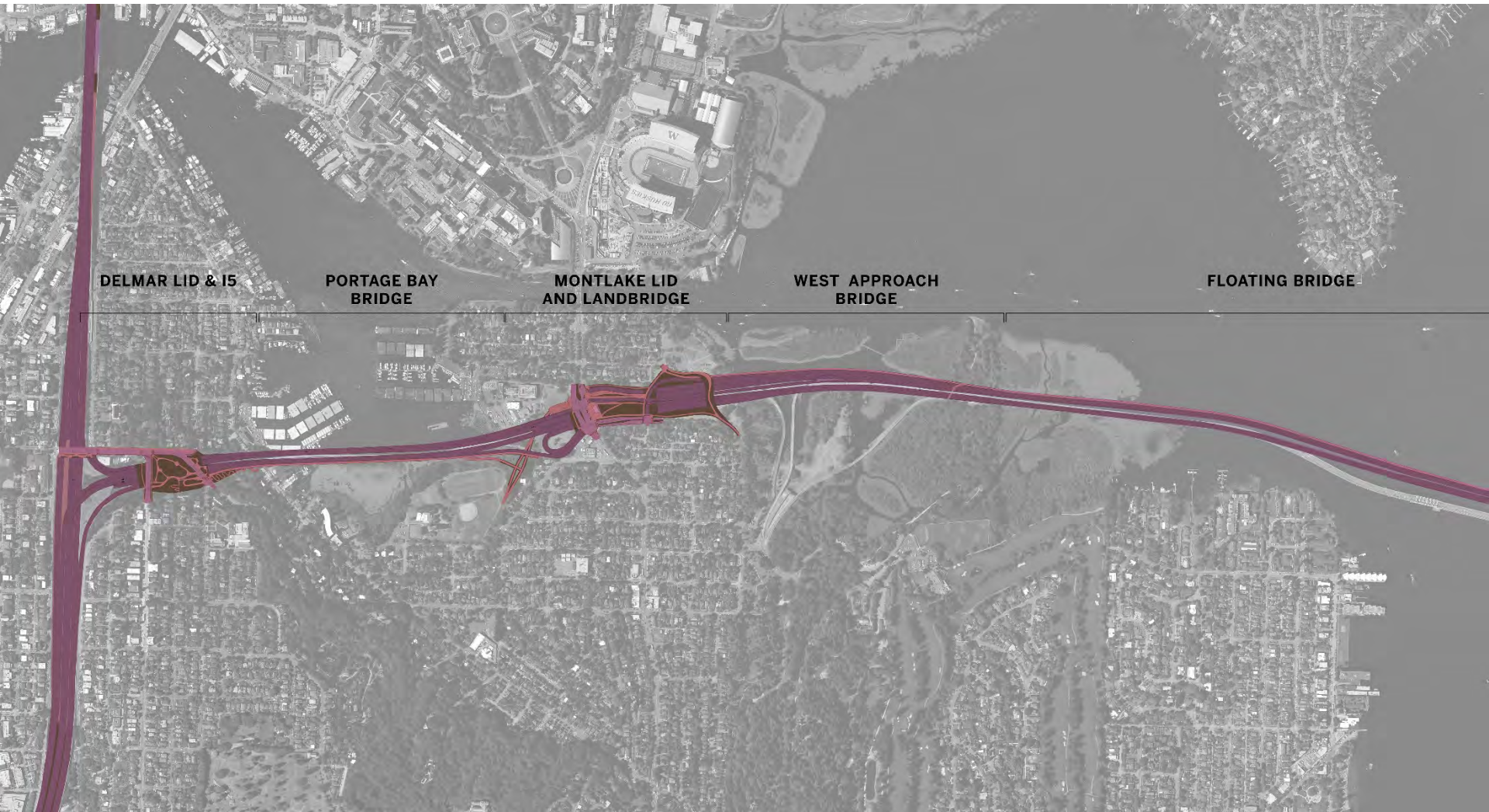
- Connectivity
 - Transportation mode shift
 - Park and gateway connections
 - Access to shoreline
- Ecology
 - Stormwater
 - Restored habitat
 - Noise and pollution reduction
 - GHG
- Material use and reduction
 - Locally sourced
 - Lifecycle cost
 - Energy efficient



520 Corridor Before



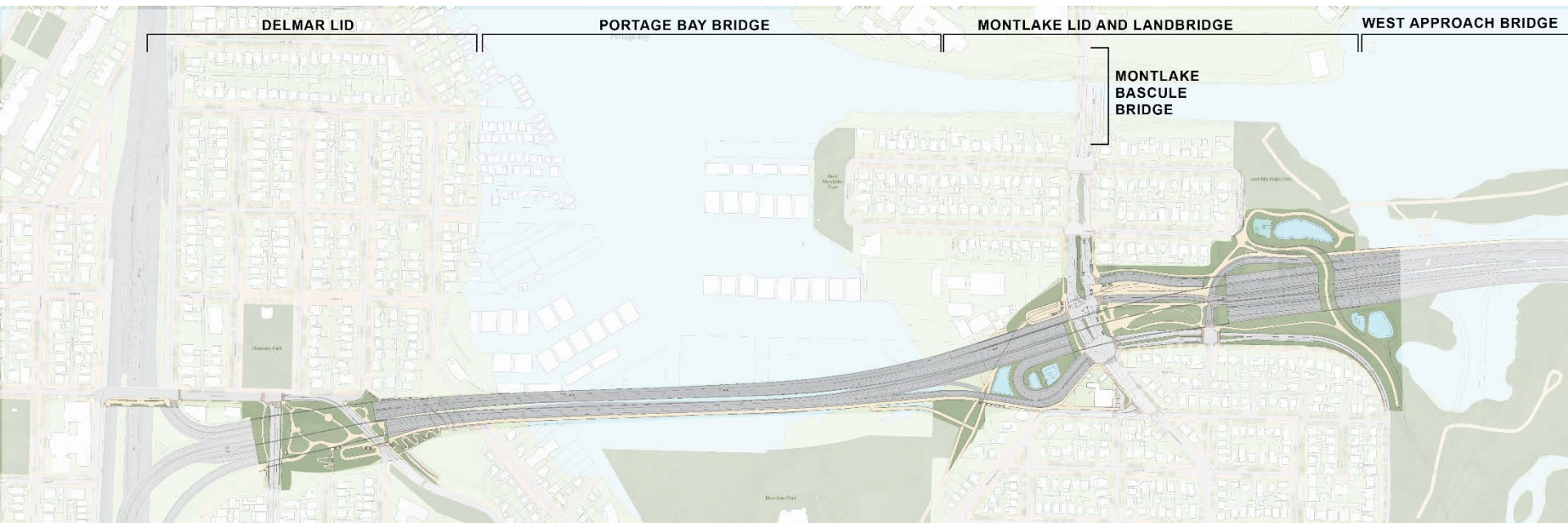
520 Corridor Proposed



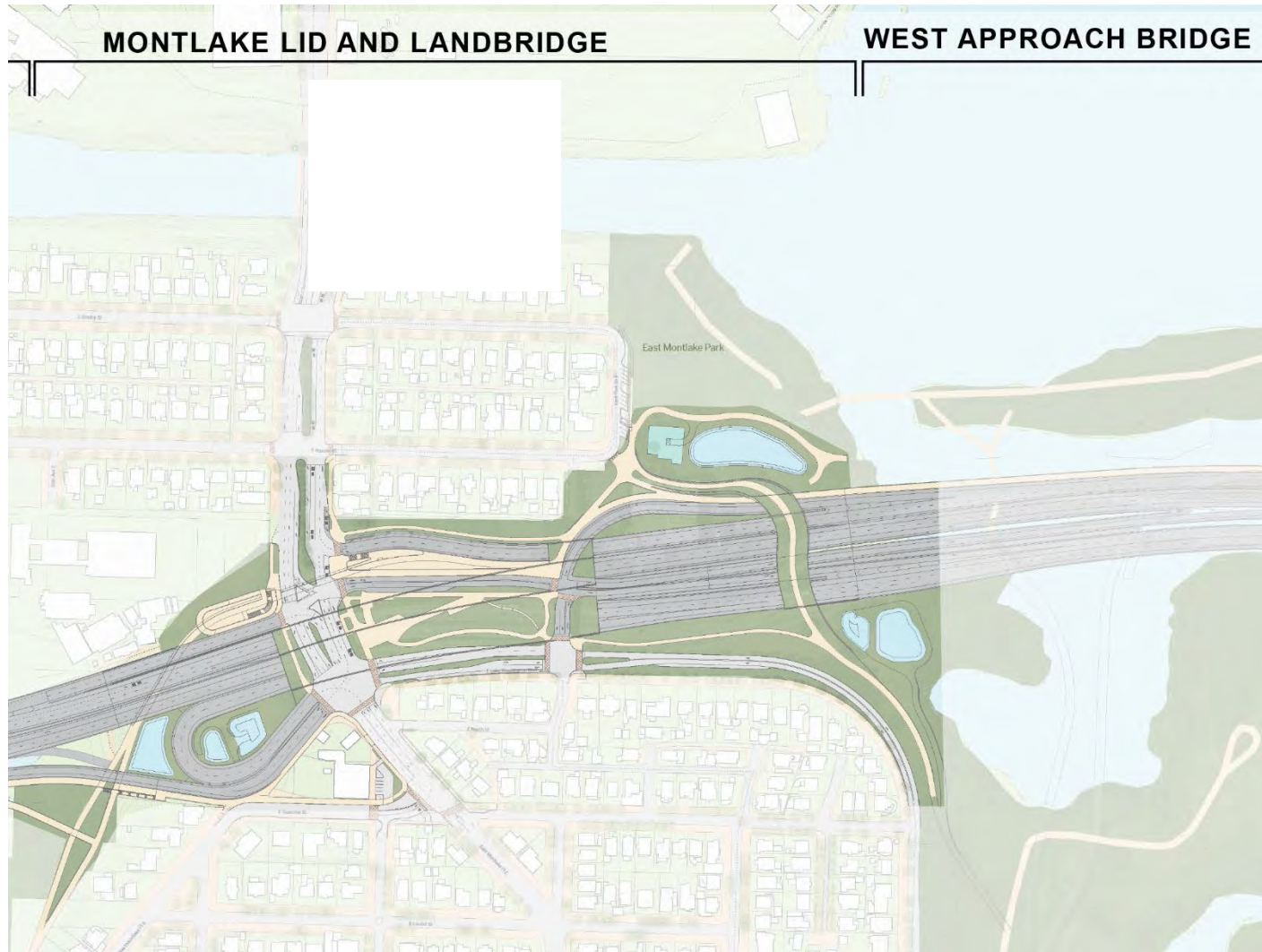
520 Corridor Proposed



Rest of the West Corridor



Limit of Work



What We Heard

- Gateways and walls:
 - Performance driven
 - Serve as gateways
- Landbridge
 - Experience from different perspectives
 - Emphasize the landscape
- Pathways
 - User experience and desire lines
- Signage
 - Minimize and Integrate



Vision:

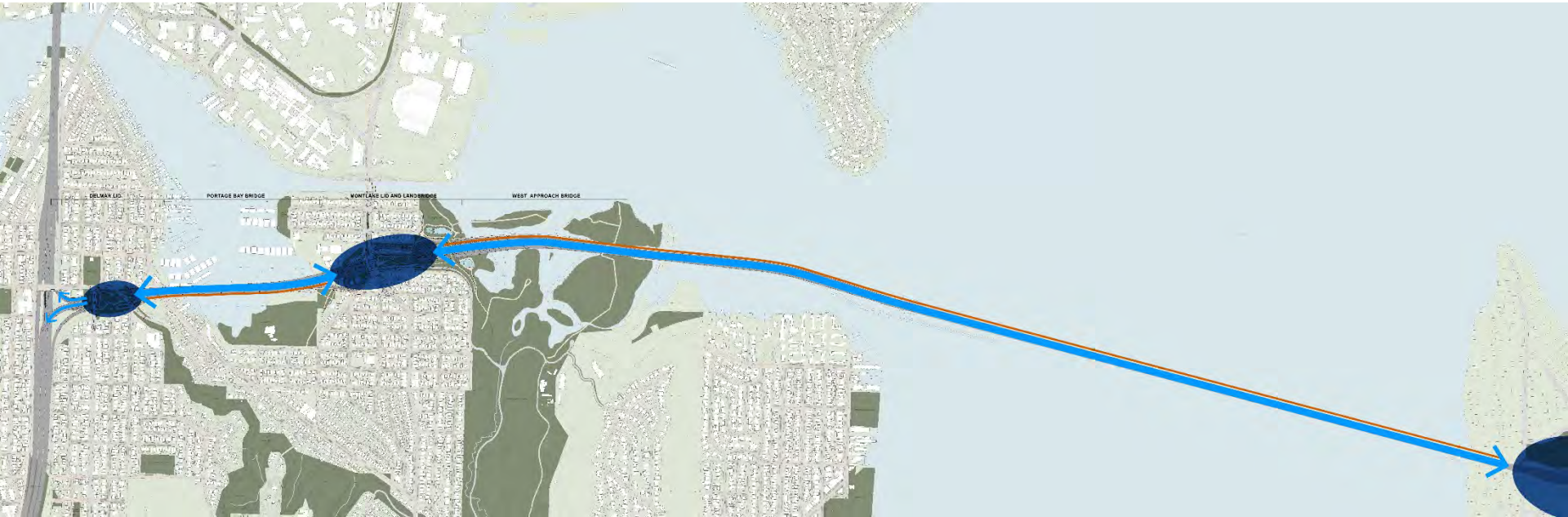
Nature meets City

- Practical Solutions
- Sustainability
- Balance Aesthetics, Functionality and Sense of Speed
- Memorable Experience



Vision

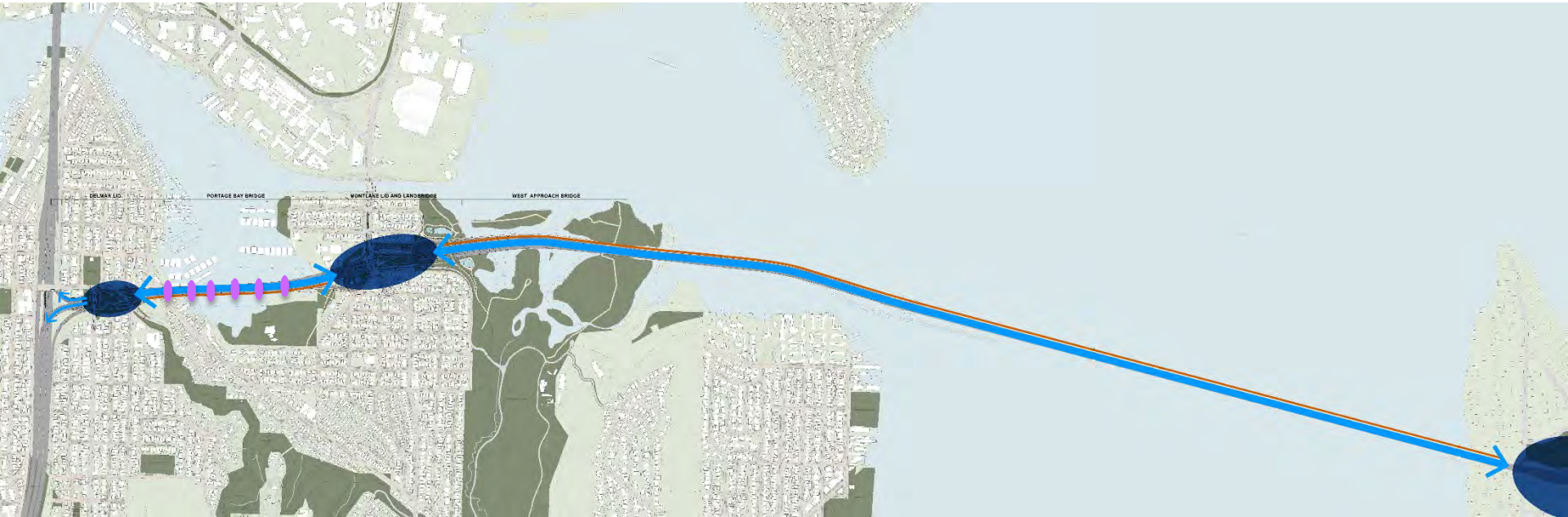
Elements of Continuity and Distinction



Overview

Vision

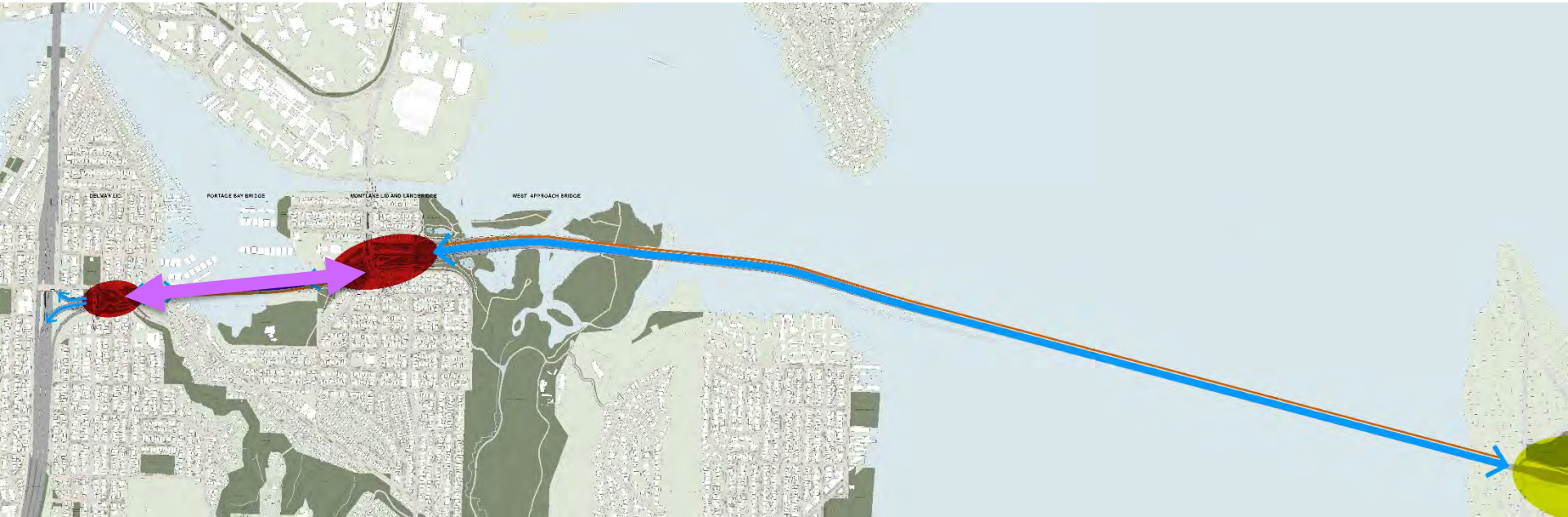
Elements of Continuity and Distinction



Overview

Vision

Elements of Continuity and Distinction



Overview

Elements of Continuity and Distinction



Overview

Elements of Continuity



Gateways, Edges, & Walls

Walls, Edges & Gateways



Walls, Edges and Gateways



NEIGHBORHOOD

- HUMAN SCALE ELEMENTS
- ELEMENTS OF DISTINCTION
- LANDMARKS AND ACTIVITY ZONES
- CONTINUOUS AESTHETIC
- PRECAST SYSTEM



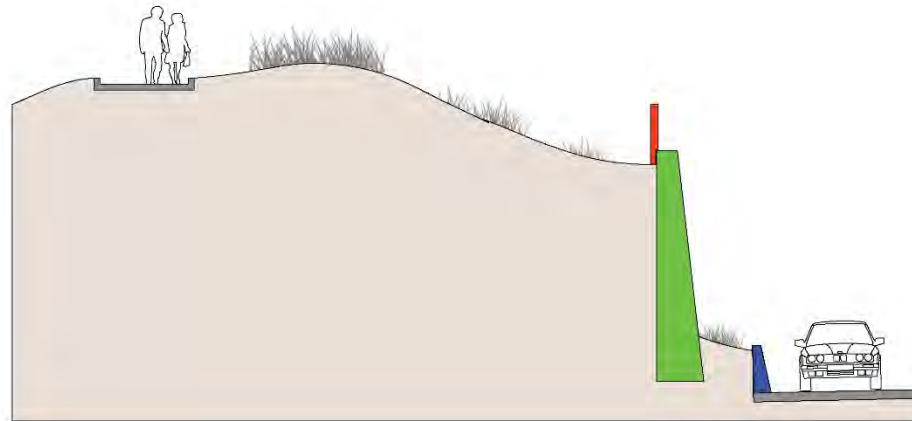
EARTH

- EMPHASIZE ECOLOGY AND TOPOGRAPHY
- SOFT EDGES & POROSITY
- WORK WITH NATURAL SYSTEMS



CORRIDOR

- LARGER SCALE ELEMENTS, SEEN AT SPEED
- HYBRID CONNECTIVITY: ARRIVAL AND DEPARTURE
- CONTINUOUS AESTHETIC
- CAST IN PLACE SYSTEM



Walls, Edges and Gateways



NEIGHBORHOOD

- HUMAN SCALE ELEMENTS
- ELEMENTS OF DISTINCTION
- LANDMARKS AND ACTIVITY ZONES
- CONTINUOUS AESTHETIC
- PRECAST SYSTEM



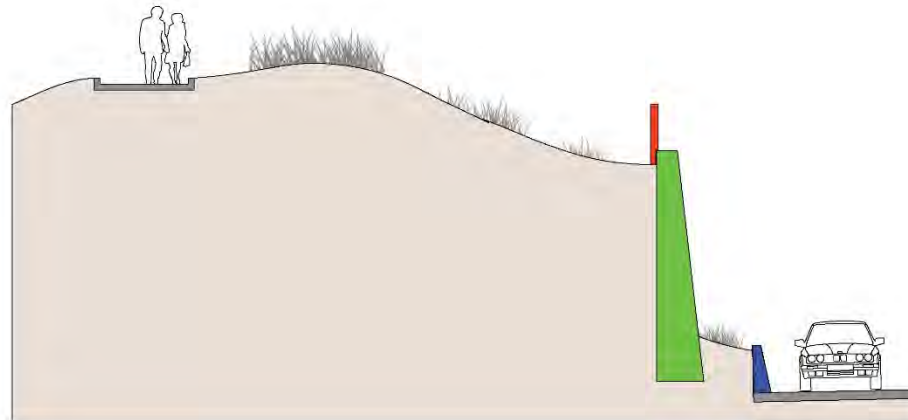
EARTH

- EMPHASIZE ECOLOGY AND TOPOGRAPHY
- SOFT EDGES & POROSITY
- WORK WITH NATURAL SYSTEMS



CORRIDOR

- LARGER SCALE ELEMENTS, SEEN AT SPEED
- HYBRID CONNECTIVITY: ARRIVAL AND DEPARTURE
- CONTINUOUS AESTHETIC
- CAST IN PLACE SYSTEM



COMMUNITY

- HUMAN SCALE ELEMENTS
- ELEMENTS OF DISTINCTION
- LANDMARKS AND ACTIVITY ZONES
- CONTINUOUS AESTHETIC
- PRECAST SYSTEM



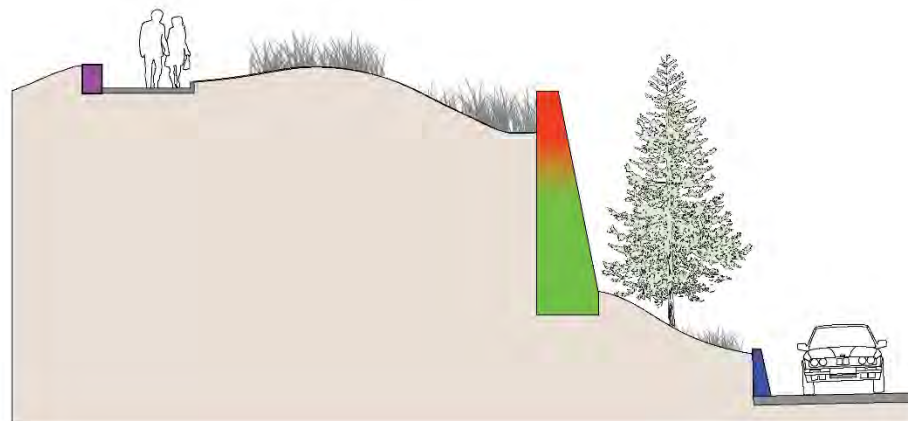
EARTH

- EMPHASIZE ECOLOGY AND TOPOGRAPHY
- SOFT EDGES & POROSITY
- WORK WITH NATURAL SYSTEMS



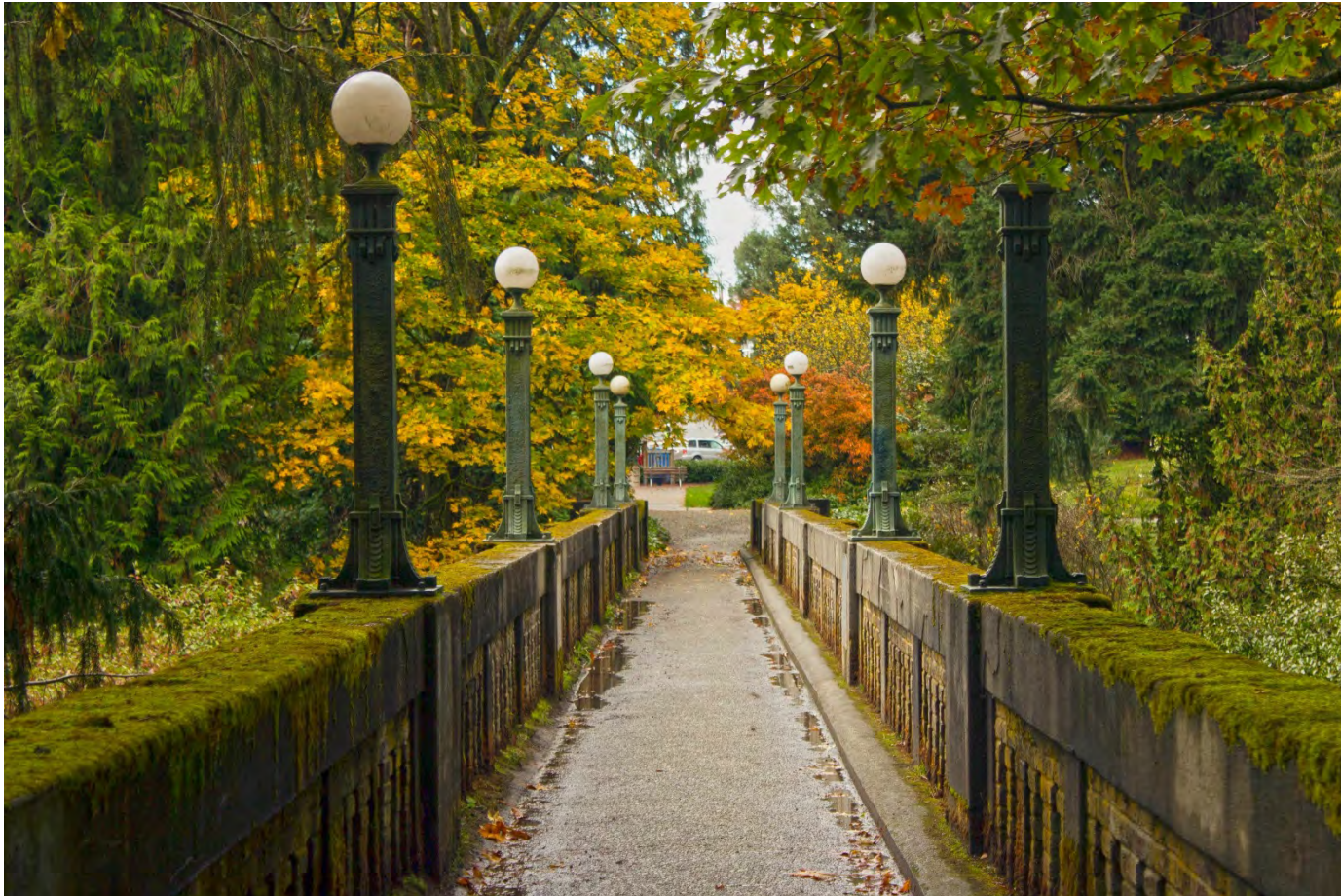
CORRIDOR

- LARGER SCALE ELEMENTS, SEEN AT SPEED
- HYBRID CONNECTIVITY: ARRIVAL AND DEPARTURE
- CONTINUOUS AESTHETIC
- CAST IN PLACE SYSTEM



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



Tactile

Designed to be Touched

Verdant

Designed to Hold Plants

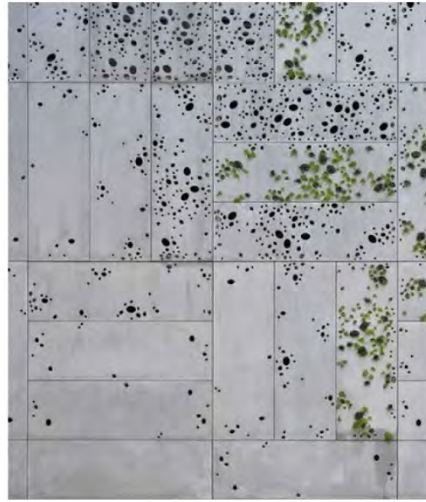
Walls, Edges and Gateways



Walls, Edges and Gateways

Community Wall Precedent Images

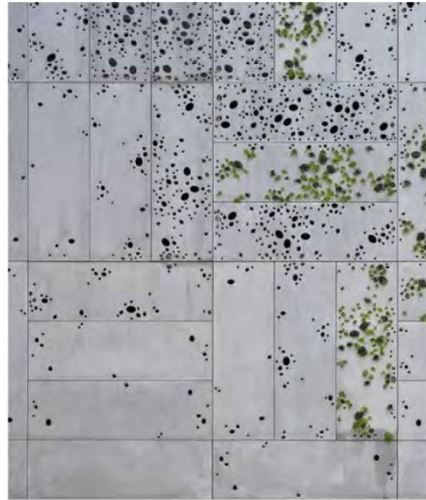
- Tactile - designed to be touched
- Related to but refined version of earth walls
- Possible incorporation of natural, non-geometric texture or pattern



Walls, Edges and Gateways

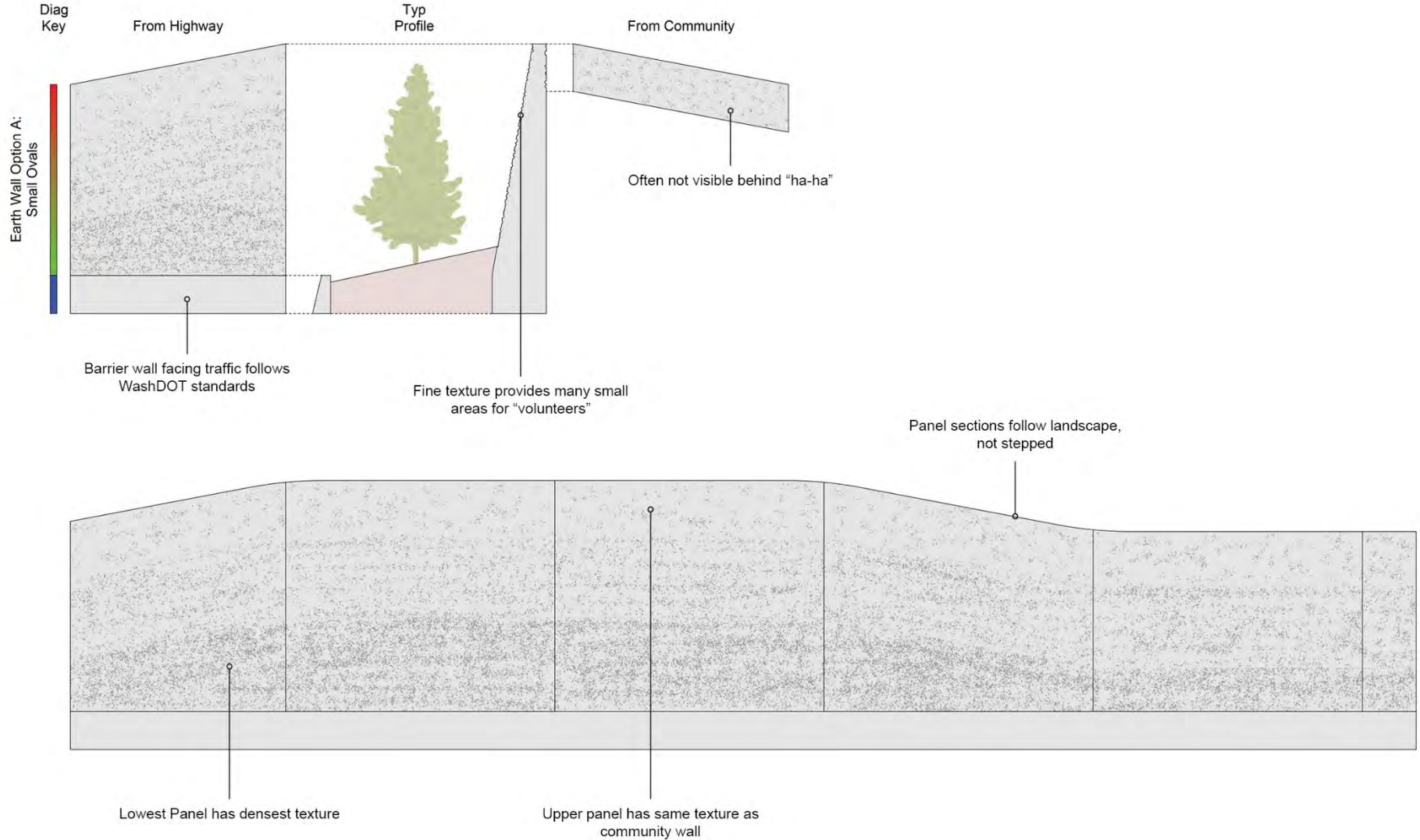
Earth Walls - Highway Facing

- Decomposed texture
- Exposed substrate
- Encourages “volunteers”
- Finish consistent across construction types
- Need to be painted?



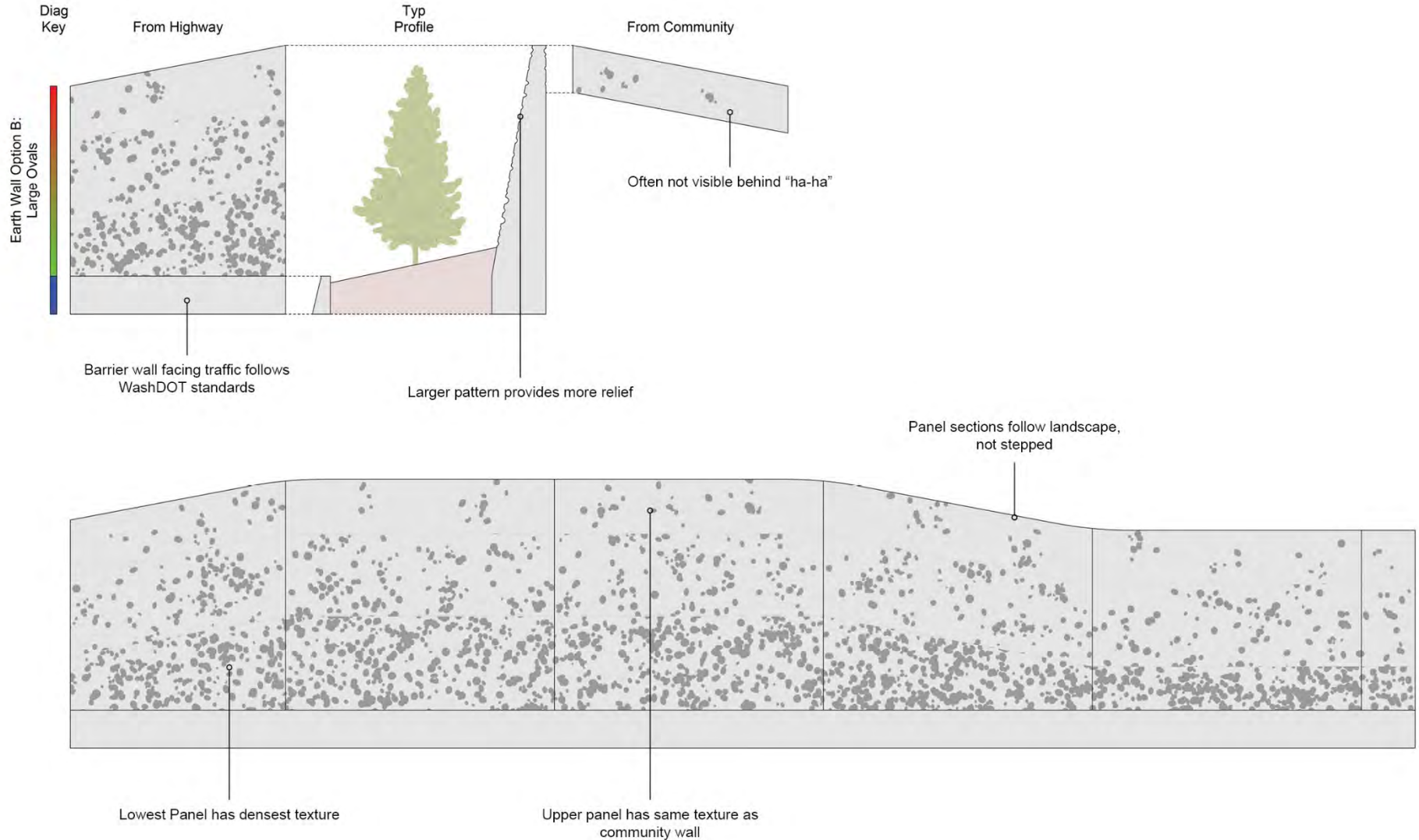
Concept Development

Wall Type Study: Option A, Fine Texture



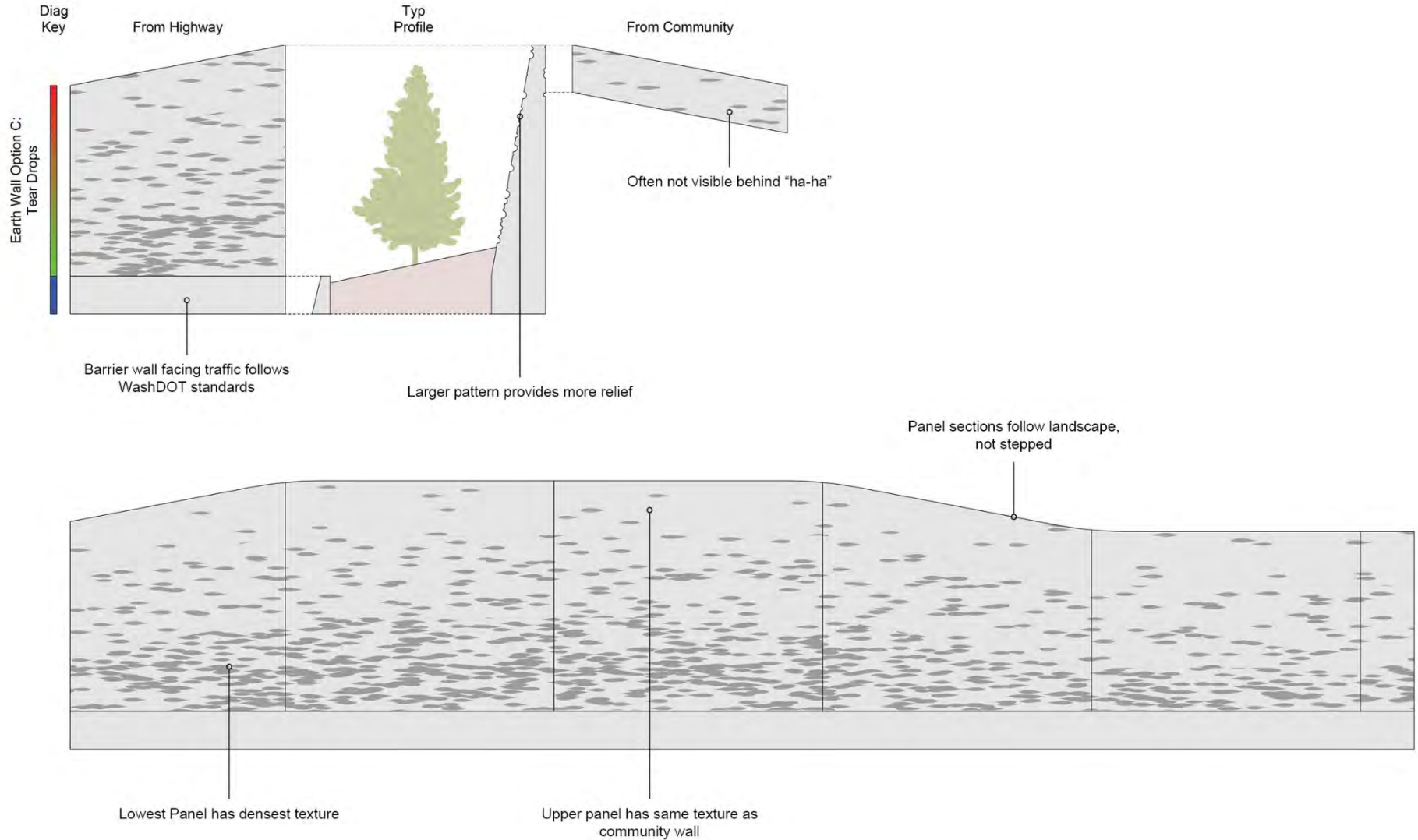
Concept Development

Wall Type Study: Option B, Coarse Texture



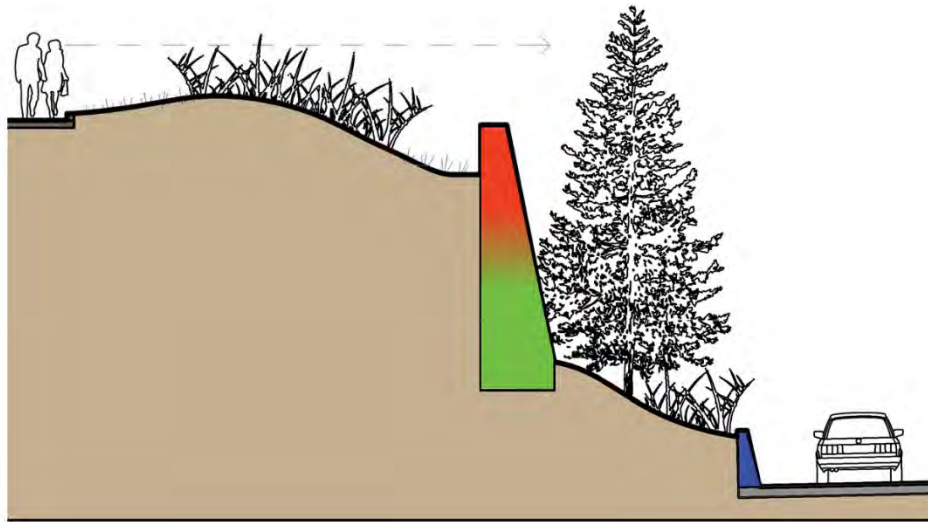
Concept Development

Wall Type Study: Option C, Linear Texture



Walls, Edges and Gateways

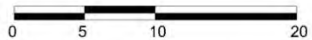
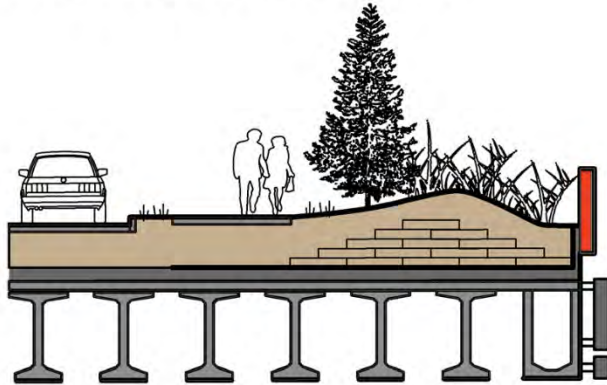
Section Views



Section 1

Walls, Edges and Gateways

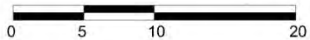
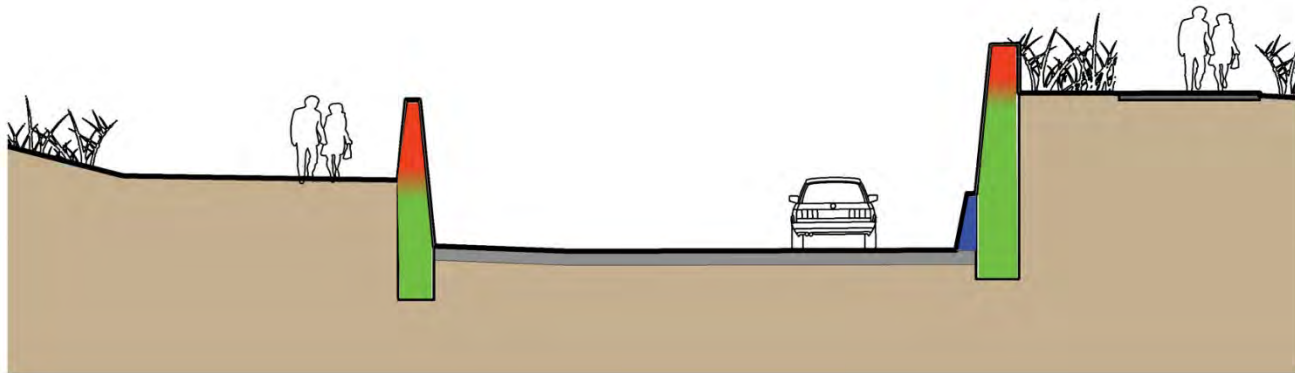
Section Views



Section 2

Walls, Edges and Gateways

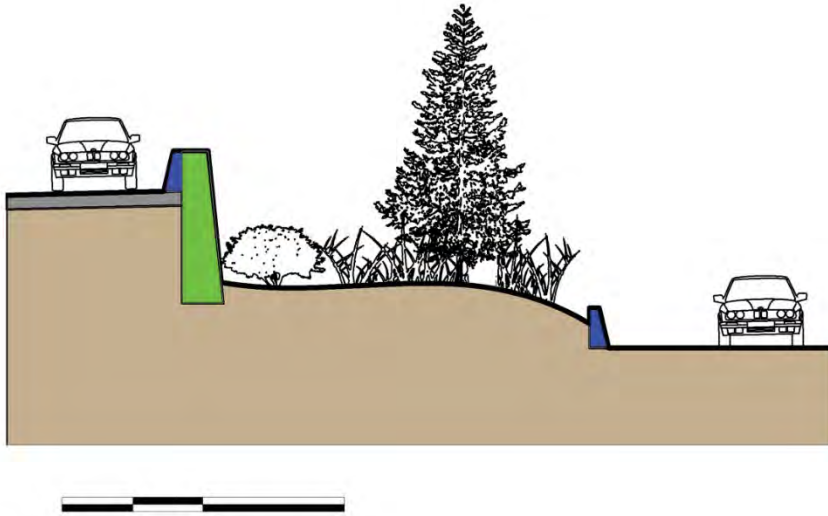
Section Views



Section 3

Walls, Edges and Gateways

Section Views



Section 4



Walls, Edges and Gateways

Earth Walls - Planted

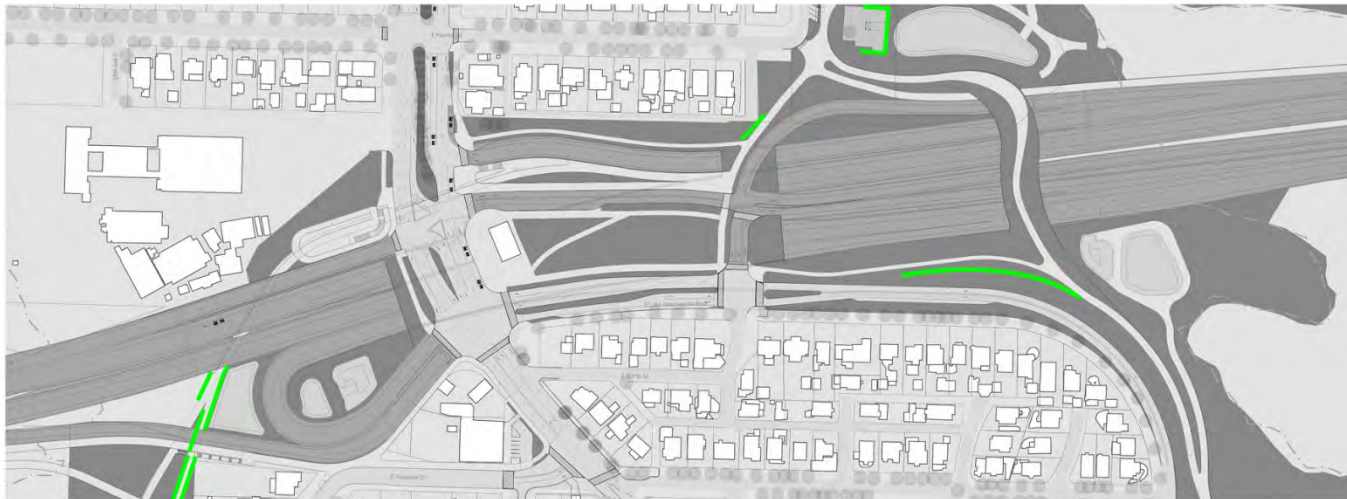
- In “canyon” conditions, opportunity to incorporate more planting
- Who maintains?
- Same finish as community walls, with pushed/pulled planting areas



Walls, Edges and Gateways

Earth Walls - Landscape

- Used in park settings
- Natural materials
- Tactile



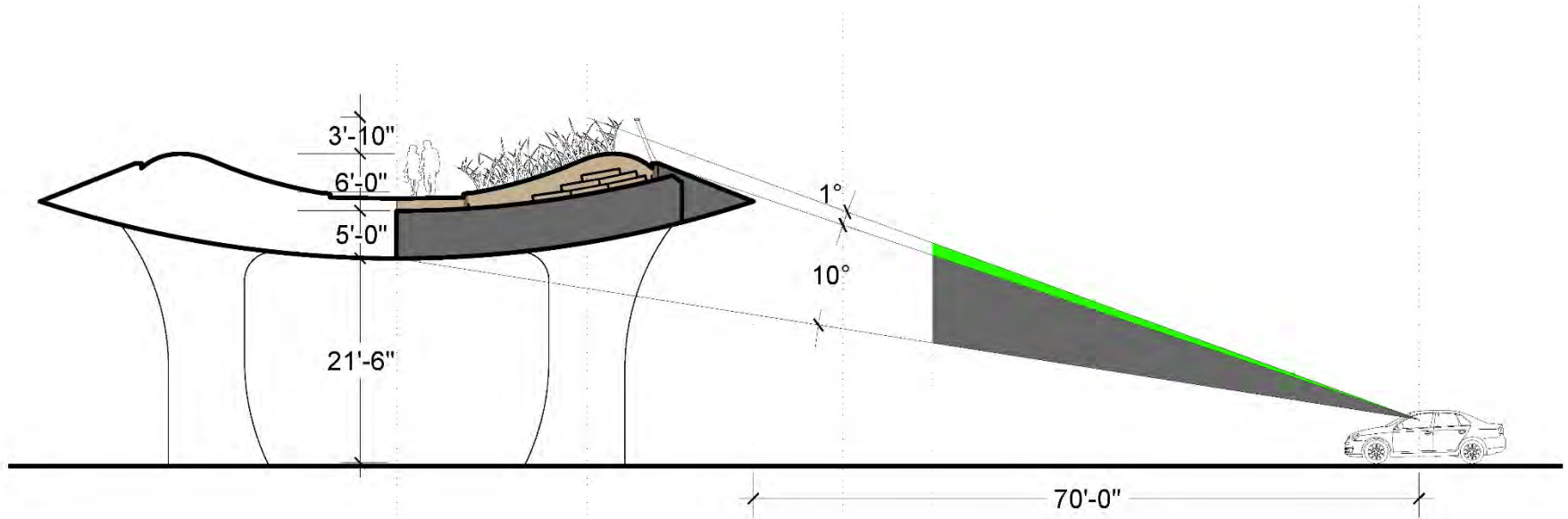
Concept Development

Landbridge



Concept Development

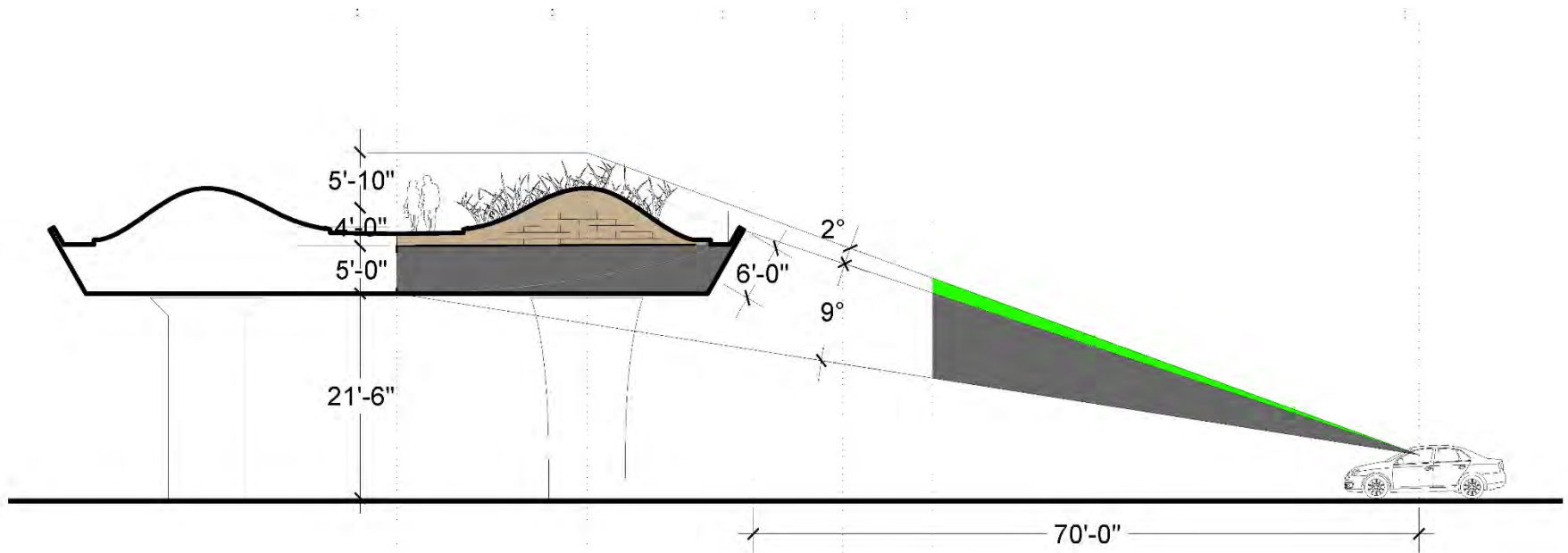
Landbridge



Baseline Design: "Saucer"

Concept Development

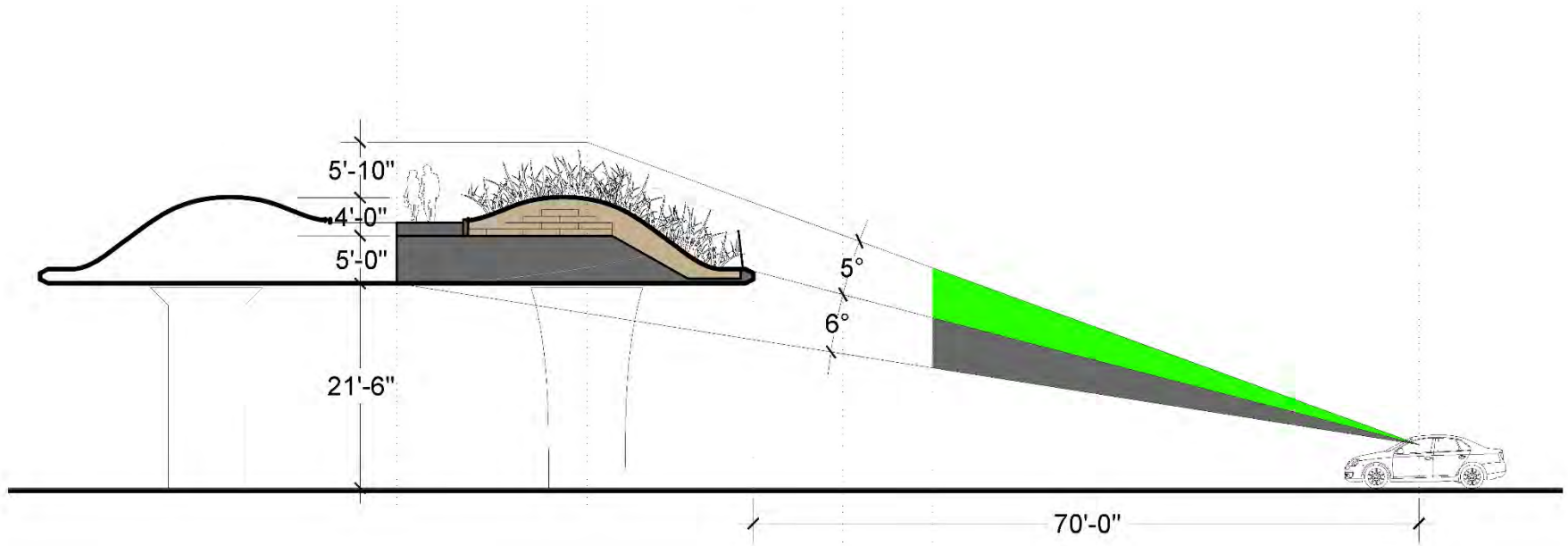
Landbridge



Option 1: Dish

Concept Development

Landbridge



Option 2: Plate

Concept Development

Landbridge



Baseline Design: "Saucer"

Concept Development

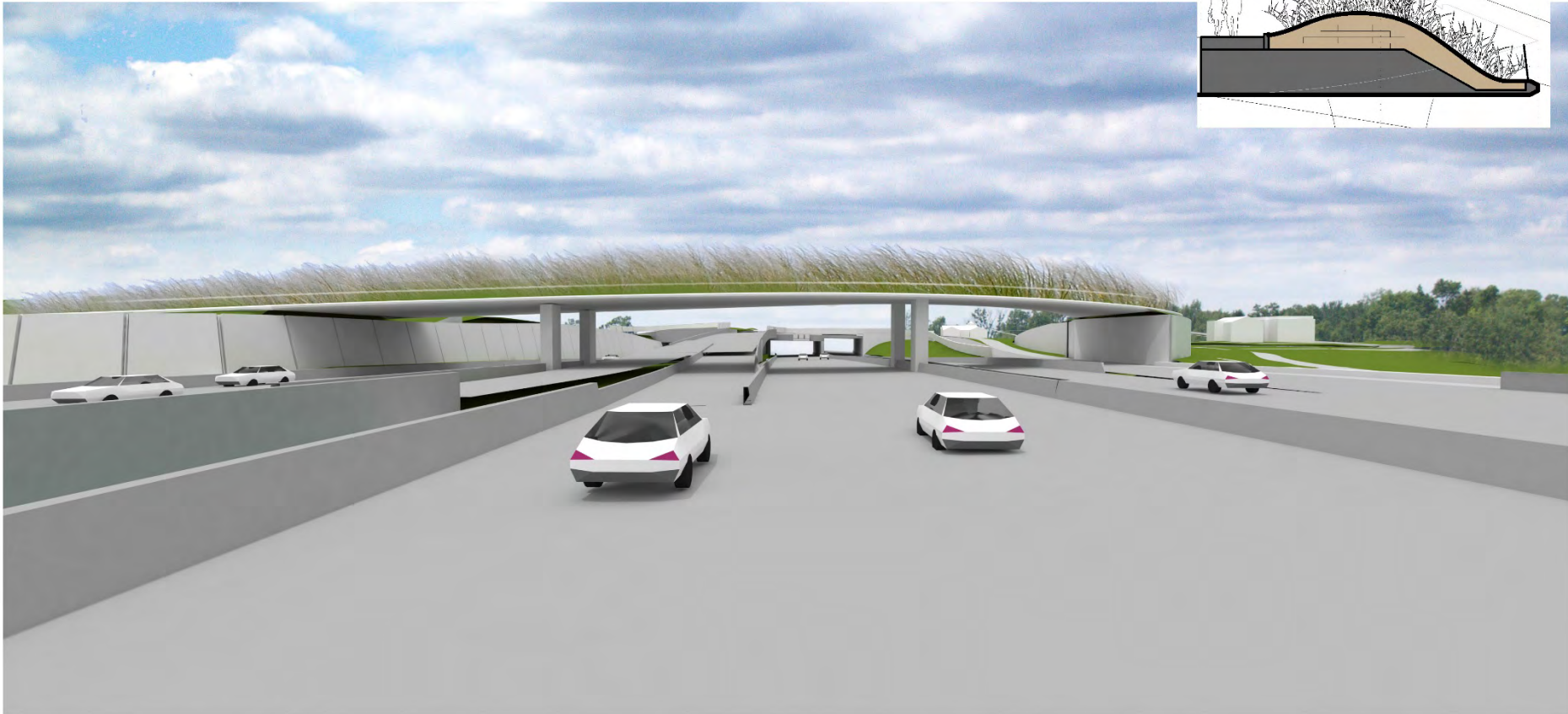
Landbridge



Option 1: Dish

Concept Development

Landbridge



Option 2: Plate

Concept Development

Landbridge



Baseline Design: "Saucer"

Concept Development

Landbridge



Option 1: Dish

Concept Development

Landbridge



Option 2: Plate

Concept Development

Landbridge



Concept Development Pathways



Concept Development

Pathways

Path Hierarchy

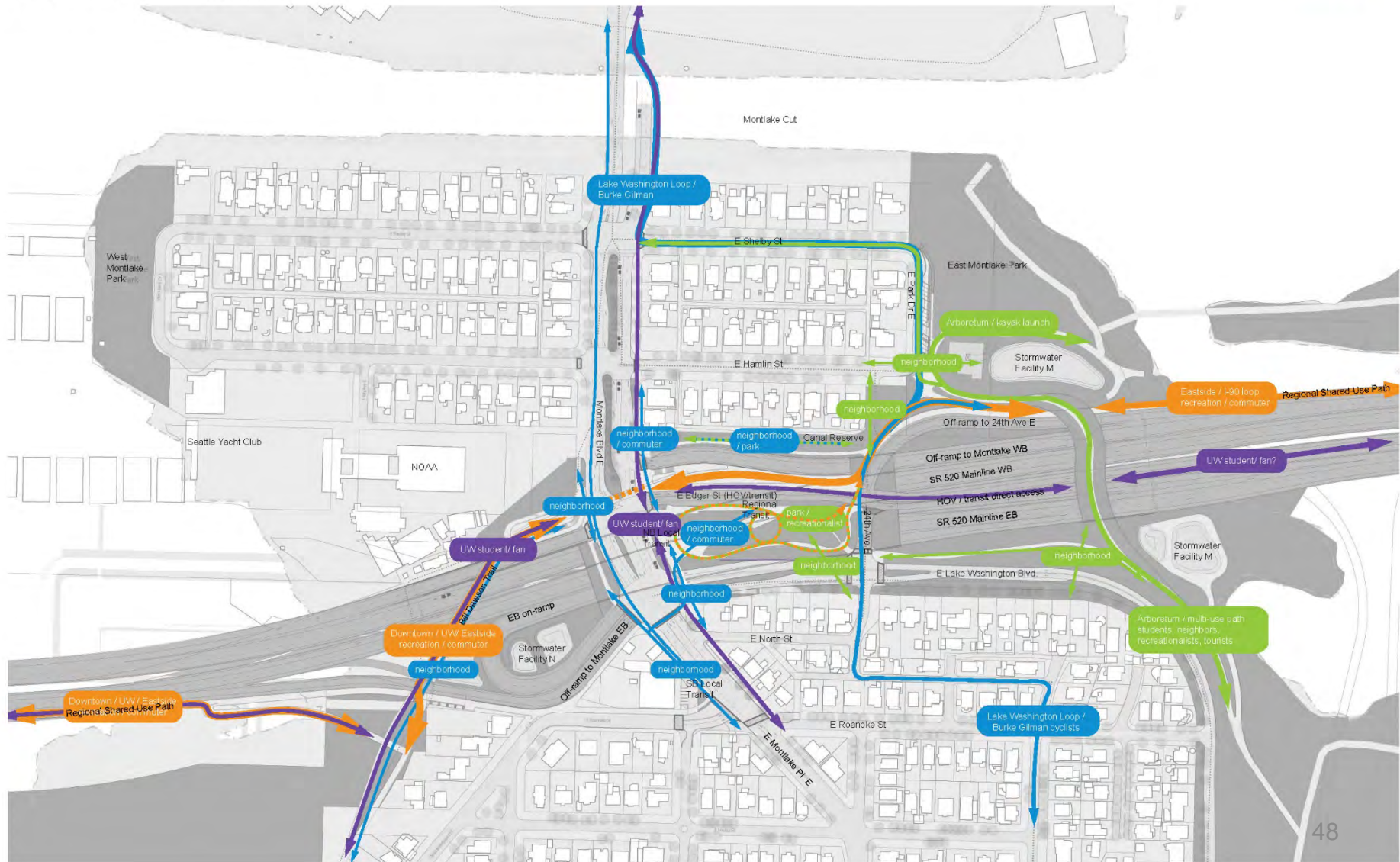
WSDOT Project Montlake Area



Concept Development Pathways

Users and Destinations

DRAFT



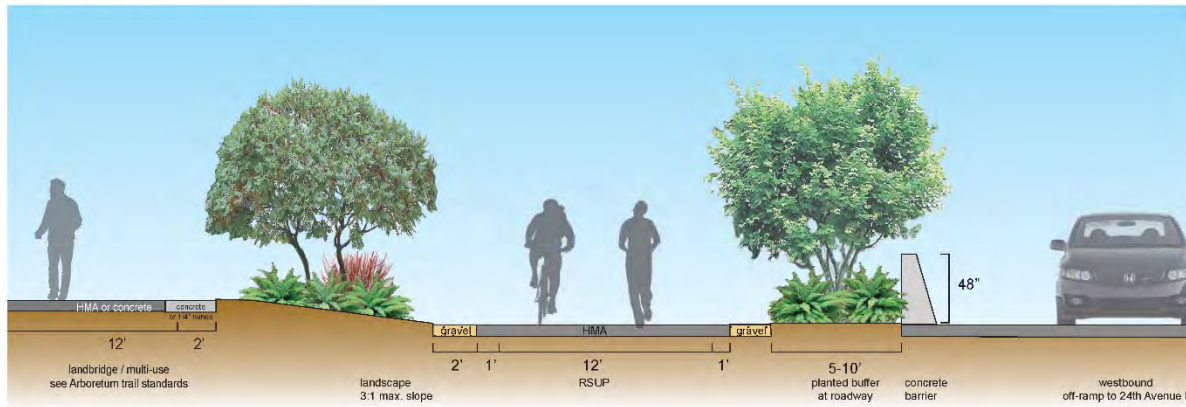
Concept Development

Pathways

1 Regional

DRAFT

CHARACTER



SR 520 Regional Shared-Use Path (RSUP) at Montlake looking east (landbridge to north)

FUNCTION

TYPE Separated grade, shared-use facility

USE Commuter to recreational

USER Eastside, Seattle, commuter to downtown or UW, neighbors, recreational cyclists, bikers and walker/runners

SPEED Fast to medium (18 - 1 mph)

SKILL LEVEL All ages and abilities

WIDTH 14-20 feet

SEPARATION Separated grade, rail, wall, barrier

MATERIAL asphalt with concrete

ADJACENCY water, mainline traffic, mixing zone

PRECEDENT



MATERIAL



Concept Development

Pathways

② City

DRAFT

CHARACTER



Local transit stop at Montlake Boulevard East looking south

PRECEDENT



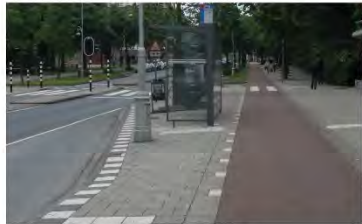
Seattle Second Avenue Protected Bike Path
Source: Planning Unit



Seattle Children's Sandpoint Protected Bike Path
Source: Seattle Bike Blog



MATERIAL



Bus shelter with multimodal (playing, separate bike and pedestrian) modes



Sidewalk and grassy area



Continuous wide way connecting city blocks with open square, Portland OR



Transit canopy with glass pavers, Evergreen Point Ltd, SR 523



Transit Canopy with scored concrete, Seattle Street Car (McGraw-Hill)

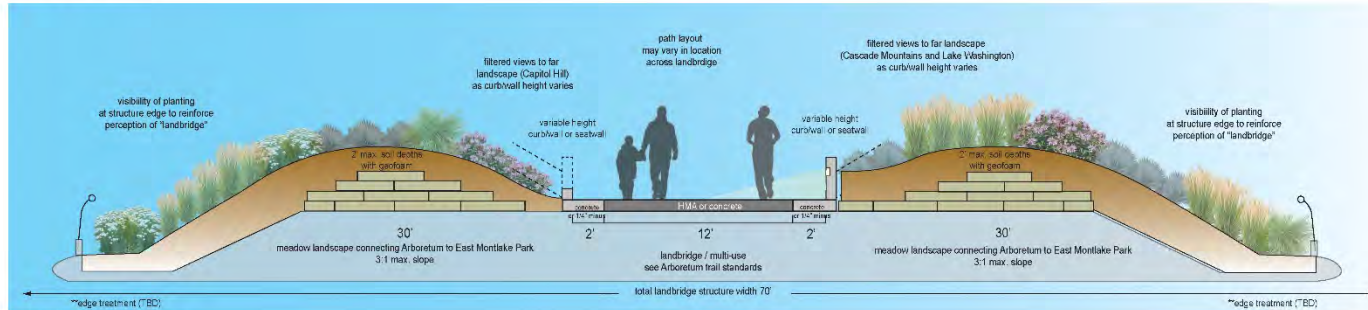
Concept Development

Pathways

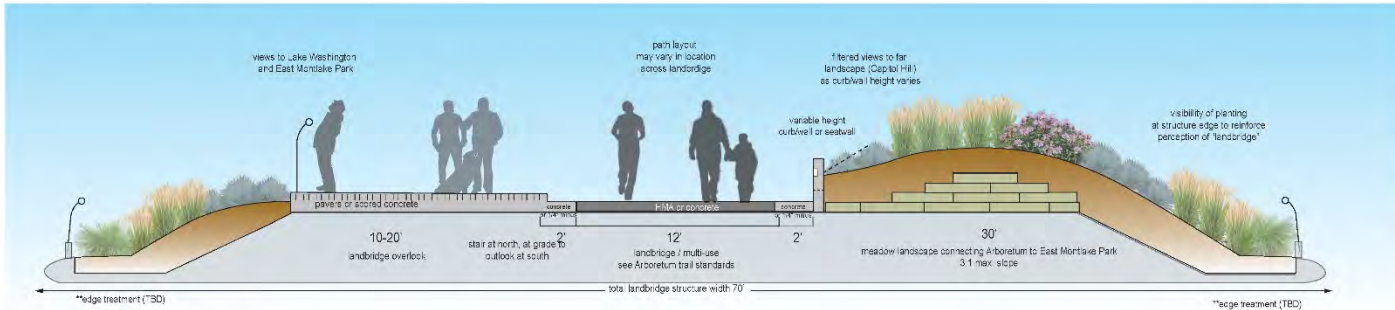
DRAFT

3 Parks

CHARACTER



3a Landbridge looking north



3b Landbridge at overlook looking south

FUNCTION

TYPE Shared-use path (landbridge), sidewalk, informal soft-surface path

USE Slow commuter to recreational

USER Neighbors, Arboretum visitors, commuters, runners, event day patrons, recreational cyclists, bikers and walker/runners

SPEED Medium to slow

SKILL LEVEL All ages and abilities

WIDTH 3-12 feet

SEPARATION Off-street within park/lid areas, planting strip, separated grade (landbridge)

MATERIAL asphalt, concrete, gravel, wood chip, boardwalk

ADJACENCY lawn, ornamental plantings, meadow, wetland, water, views



Meadow planting with aggregate path at a park in New York City



Landscaped concrete bridge over a waterway in a park in New York City



Meadow planting with paved path at a park in New York City



Paved path with raised planters and a wooden bridge in a park in Virginia

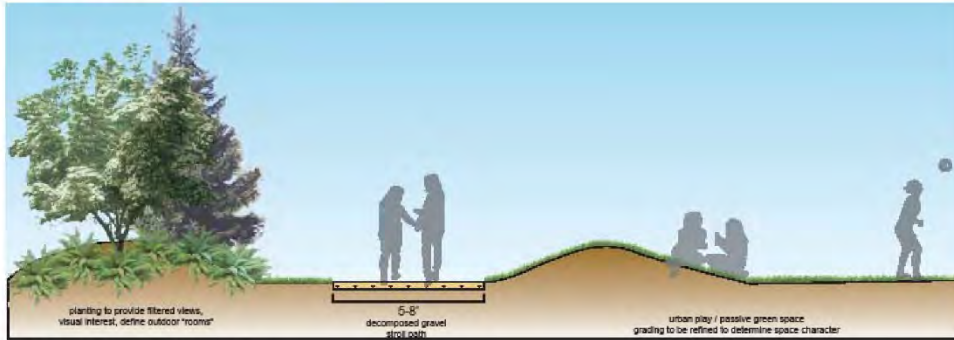
Concept Development

Pathways

DRAFT

③ Parks

CHARACTER



3c Gravel stroll path at lid looking east

PRECEDENT



MATERIAL



FUNCTION

TYPE Shared-use path (landbridge), sidewalk, informal soft-surface path

USE Slow commuter to recreational

USER Neighbors, Arboretum visitors, commuters, runners, event day patrons, recreational cyclists, bikers and walker/runners

SPEED Medium to slow

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SEPARATION Off-street within park/lid areas, planting strip, separated grade (landbridge)

MATERIAL asphalt, concrete, gravel, wood chip, boardwalk

ADJACENCY lawn, ornamental plantings, meadow, wetland, water, views

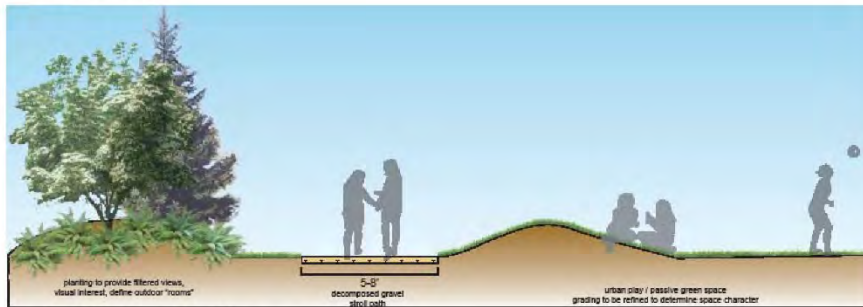
Concept Development

Pathways

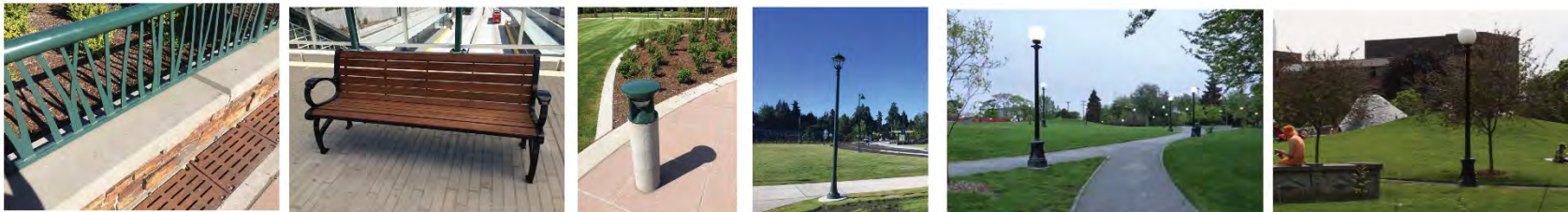
DRAFT

3 Parks

CHARACTER



gravel stroll path at lid looking east



Concept Development

Lighting



Concept Development

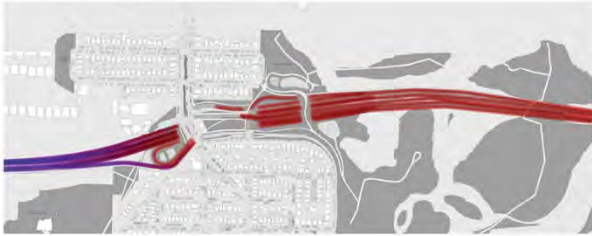
Lighting



Concept Development Lighting

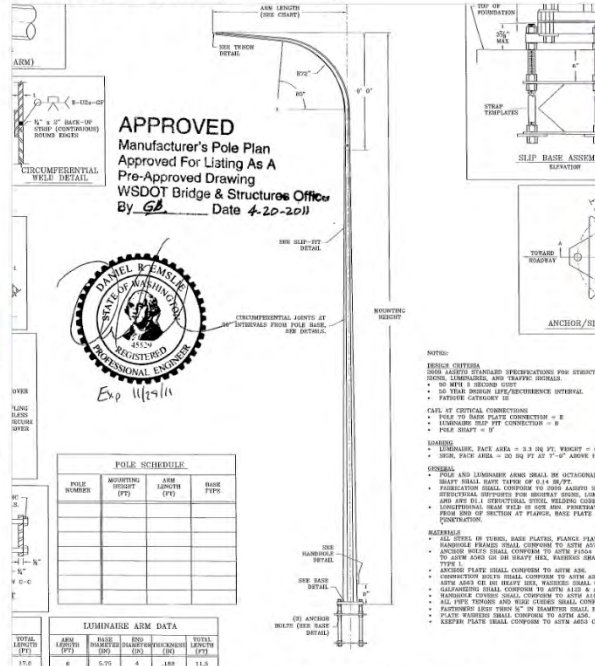
Lighting Highway Network

Element Locator



Concept Idea

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



Use Typical WSDOT Pole and Fixture Standards



Incorporation of LED Fixtures



Other WSDOT Pole and Fixture

Concept Development

Lighting

Lighting - City Streets

Lake Washington Boulevard

Element Locator



Concept Idea

- Blend with other "Streets" lighting to create consistent, pedestrian scaled park lighting to transition into Arboretum

Olmsted Light



Olmsted Light from Arboretum

Current Corridor Lighting



New light fixture along Lake Washington Blvd

Concept Development

Lighting

Lighting - City Streets

Montlake Boulevard

Element Locator



Concept Idea

- Street lights on poles or vertical
- Provide even car and pedestrian lighting
- Responds to but does not duplicate Olmsted character in scale and function

Existing Fixtures Along Montlake



Lighting fixtures at UW transit plaza

Concept Images



Pedestrian Scaled Fixtures

Concept Development

Lighting

Lighting - City Streets

24th Avenue E and HOV Street

Element Locator



Concept Idea

- Street lights on poles or vertical
- Provide even car and pedestrian lighting
- Responds to but does not duplicate Olmsted character in scale and function

Concept Images



Pedestrian Scaled Fixtures

Concept Development

Lighting

Lighting Landbridge

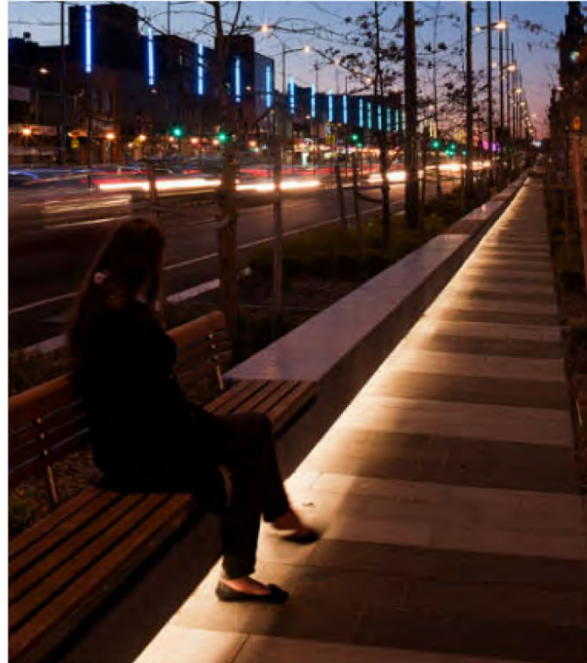
Element Locator



Concept Idea

- Features/objects are lit
- Surrounded by streets on all edges, which will provide baseline lighting
- Pathways follow pathway lighting concept
- Lighting concept similar to lid and other park spaces for consistency
- Transition area from Arboretum to lid and places north

Concept Images



Continuous pathway wash



Low wall inset lighting



Landscape lighting as dominant experience



Feature and pathway lighting work

Concept Development

Lighting

Lighting

Montlake Lid: Urban Trailhead

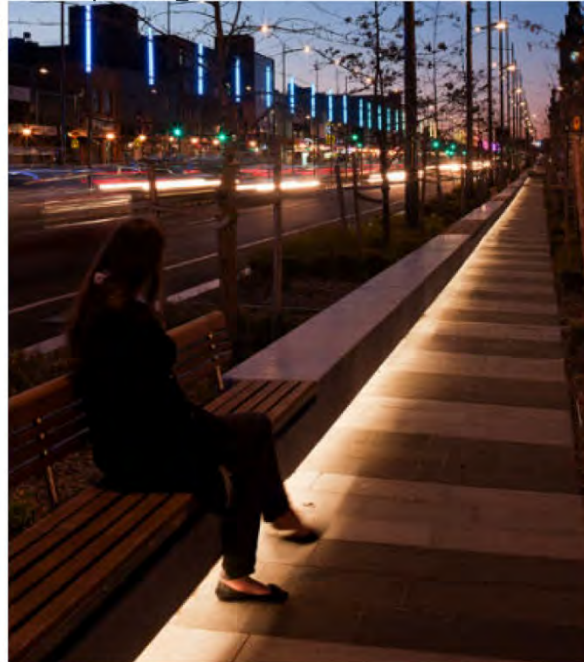
Element Locator



Concept Idea

- Features/objects are lit
- Surrounded by streets on all edges, which will provide baseline lighting
- Pathways follow pathway lighting concept
- Lighting concept similar to landbridge and other park spaces for consistency

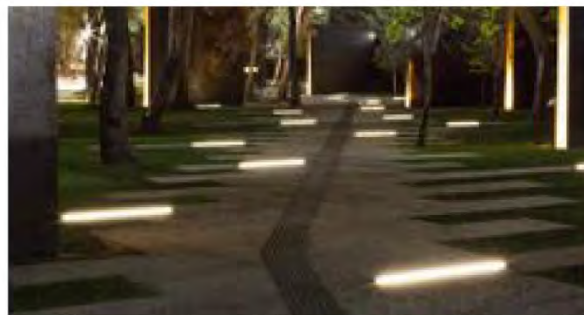
Concept Images



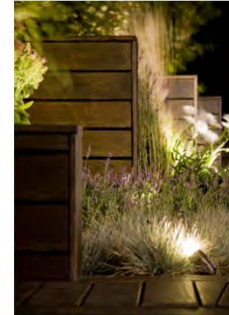
Wash lighting on pathways



Bollard Lighting



On ground lighting in pathway



Landscape lighting as dominant experience

Concept Development

Lighting

Lighting Montlake Lid: Neighborhood Node

Element Locator



Concept Idea

- Features/objects are lit
- Surrounded by streets on all edges, which will provide baseline lighting
- Pathways follow pathway lighting concept
- Lighting concept similar to landbridge and other park spaces for consistency

Concept Images



Low wall inset lighting



Bollard Lighting



Landscape lighting as dominant experience

Concept Development

Lighting

Lighting Bike/Ped Network - RSUP

Element Locator



Concept Idea

- Path lighting changes character to respond to context: On structure, on ground, and in tunnel
- Similar expression across RSUP to guide users across corridor
- On structure, lighting is mounted in handrails or along walls to light paths
- On ground, lighting is mounted in pathway or on bollards along pathway to guide path users along route
- In tunnels, opportunity to integrate wayfinding features, natural light, and lighting that gives structural/depth expression

Concept Images



On structure, lighting mounted in handrail



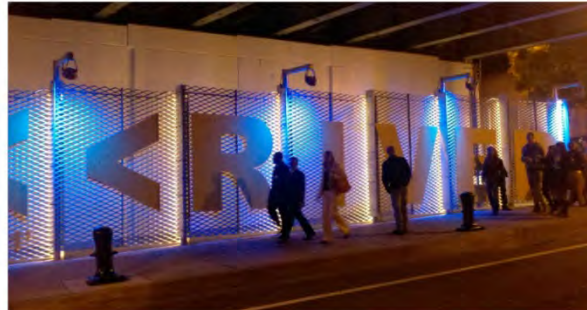
Handrail lighting



On ground lighting in pathway



Possible bollard lighting when on ground



Combine Wayfinding and Lighting in Tunnels



Lighting that gives depth and perspective

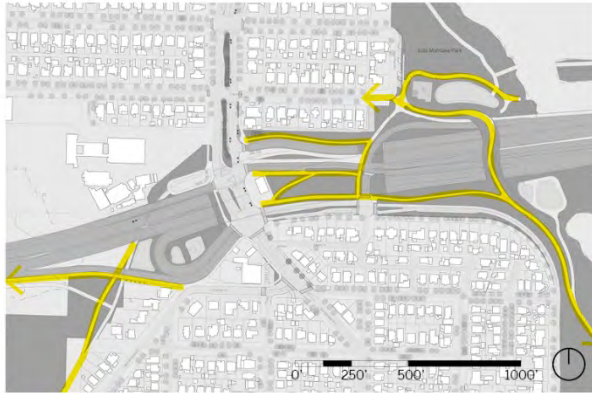
Concept Development

Lighting

Lighting - Bike/Ped Network

Other Paths

Element Locator



Concept Idea

- All other pathways feature similar, less expressive lighting scheme than RSUP

Concept Images



Wall lighting



Furniture/Feature along trails provide additional lighting

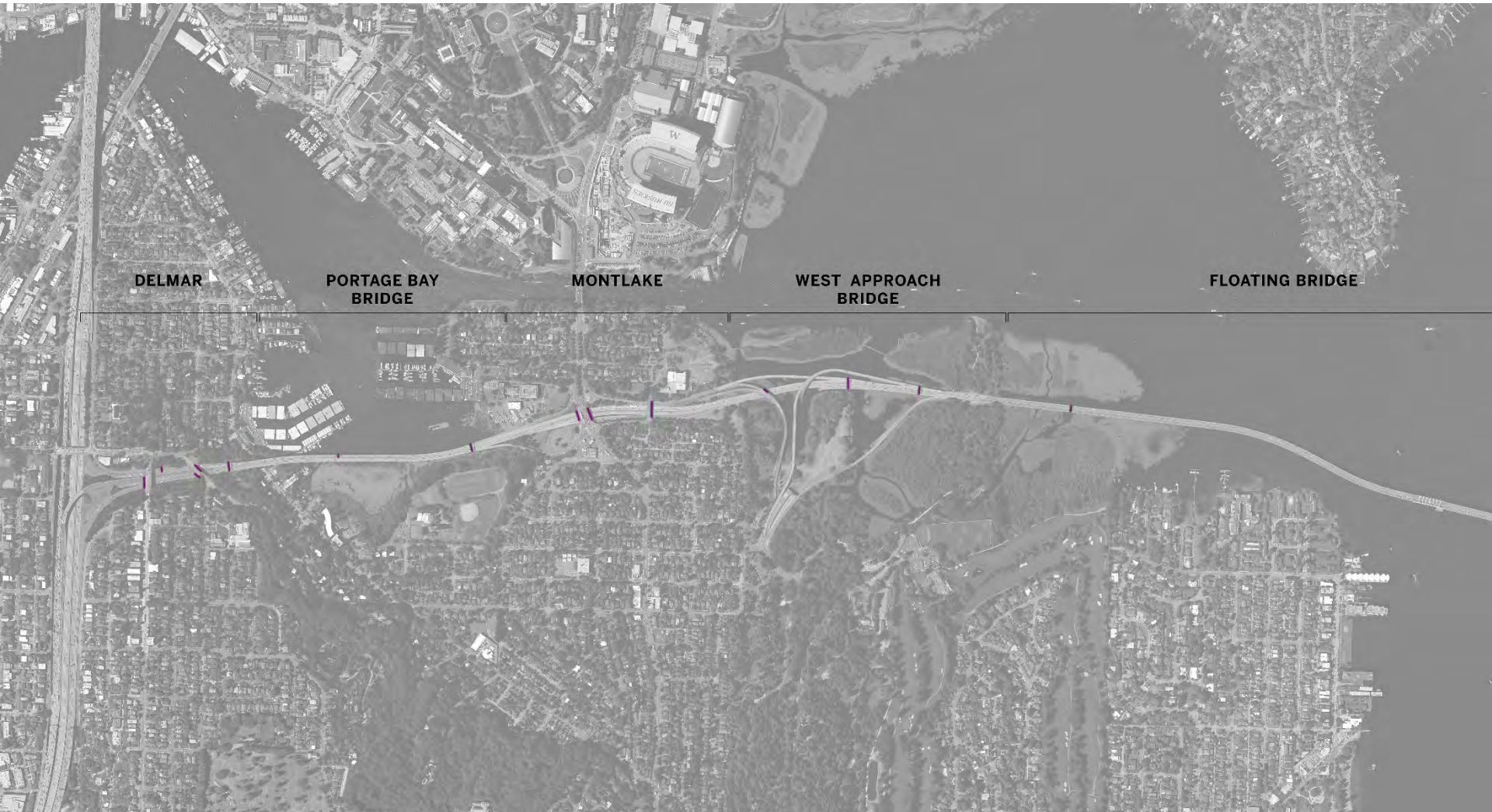


Possible use of bollard lighting

Concept Development Signage



Concept Development Signage



Concept Development Signage

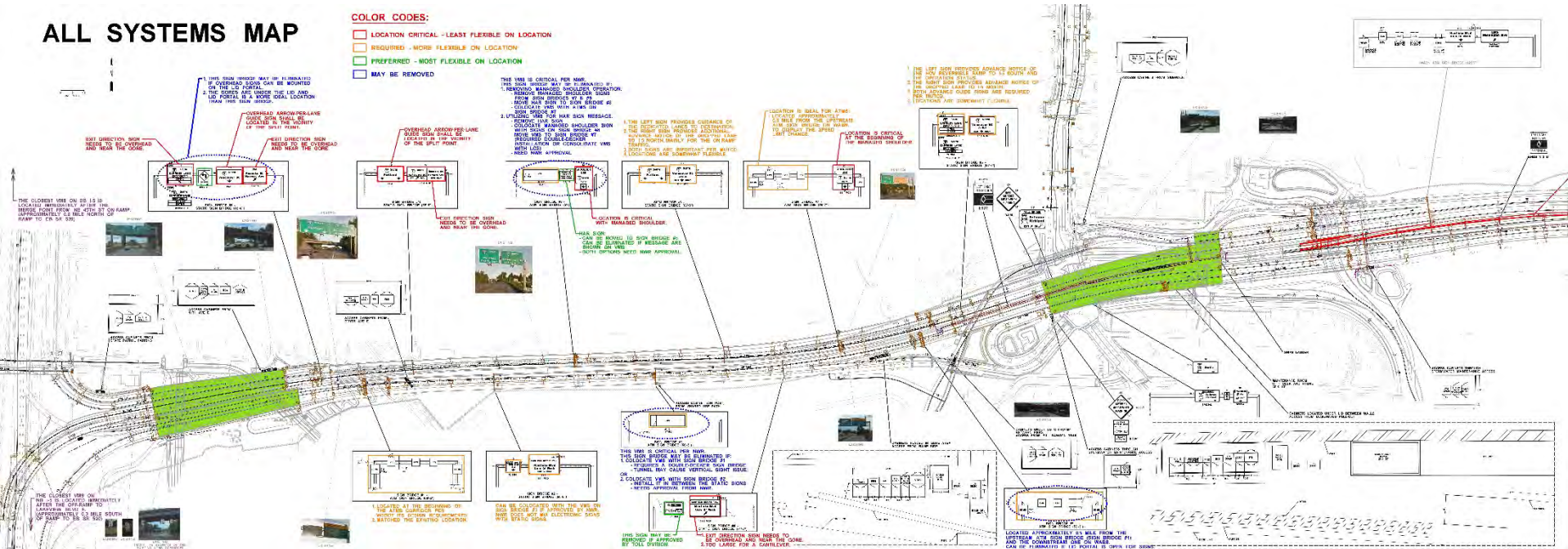
FIXED LOCATION:

1. Regulatory
2. WSDOT Policy
3. Preferred

FLEXIBLE LOCATION:

1. Regulatory
2. WSDOT Policy

ALL SYSTEMS MAP



Concept Development Signage

Strategies

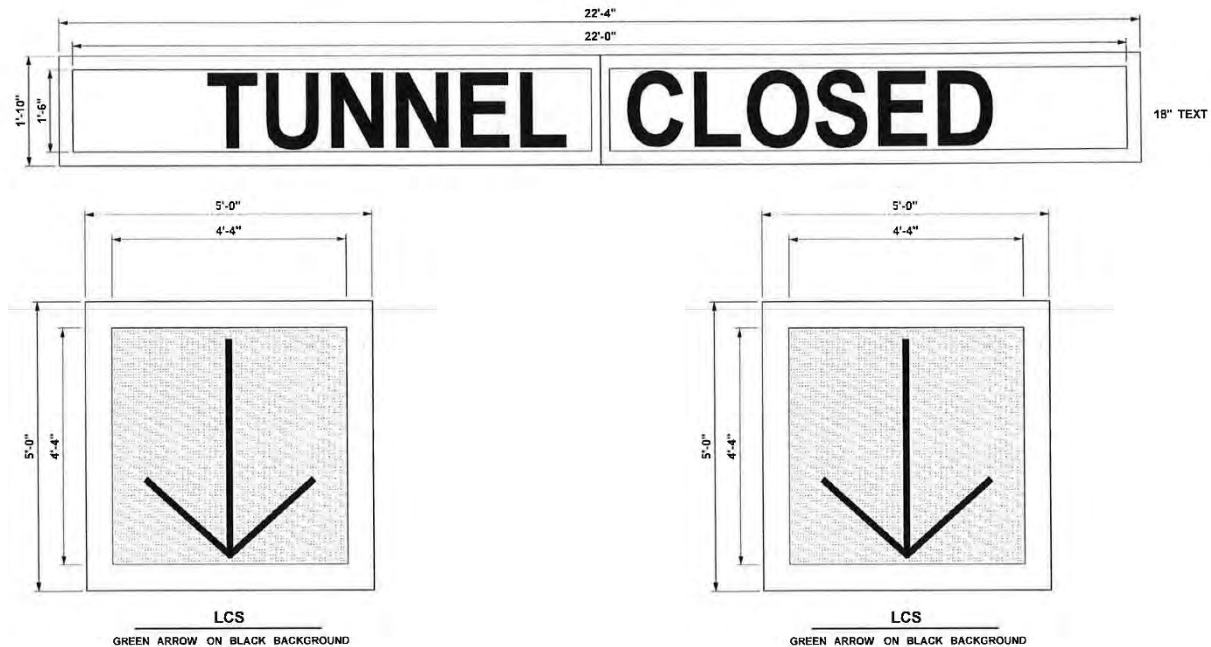
- Minimize
- Rationalize
- Simplify

Opportunities:

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



Tunnel Signage



Option 1

Potentially smaller visual impact on Lid edges
Requires more sign gantries on corridor

Tunnel Signage

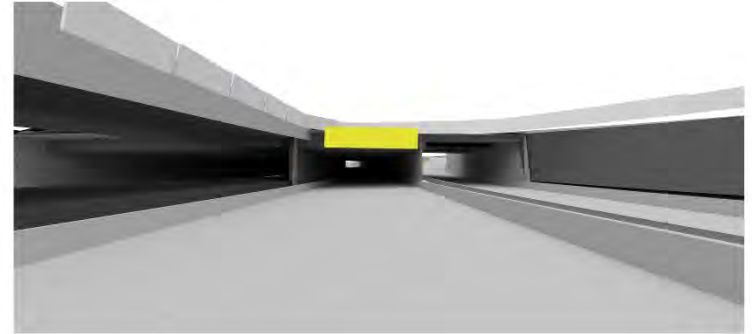
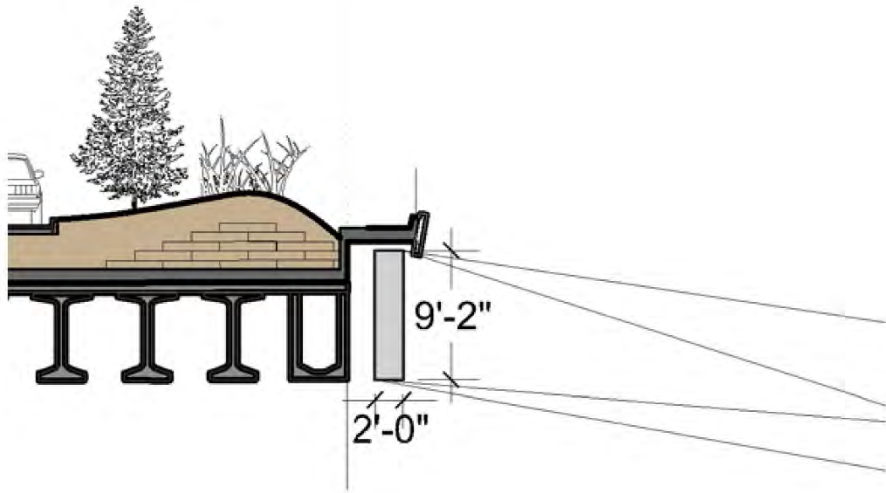


Option 2

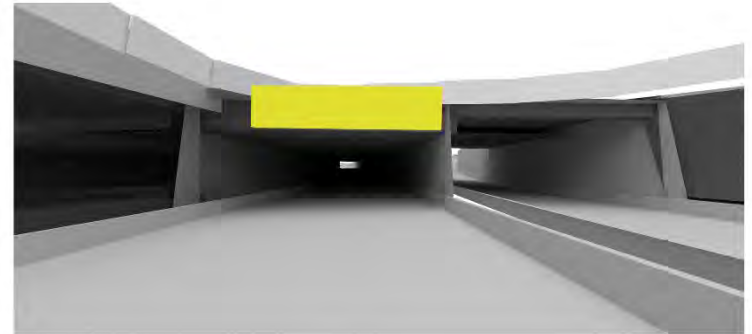
Potentially larger visual impact on Lid edges
Requires fewer sign gantries on corridor

Concept Development

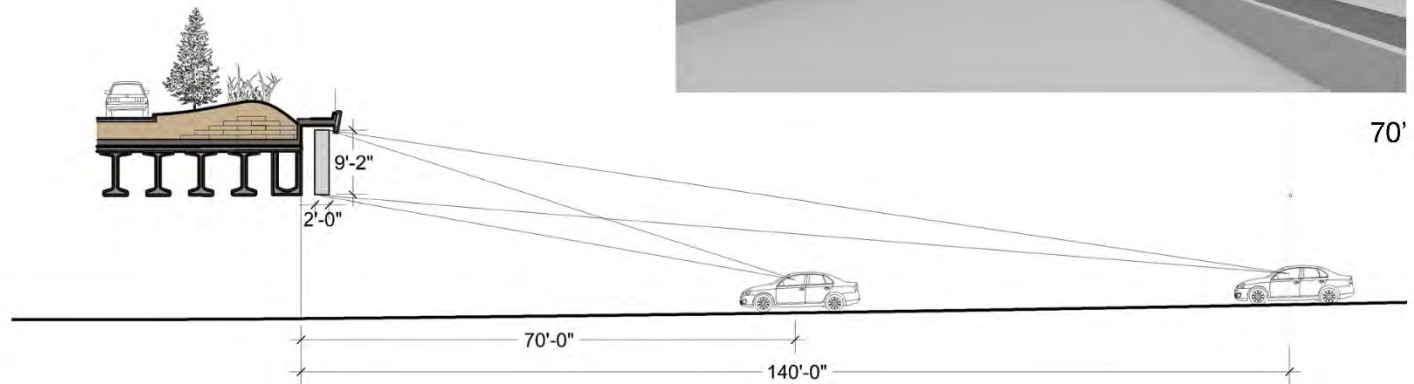
Tunnel Signage



140'

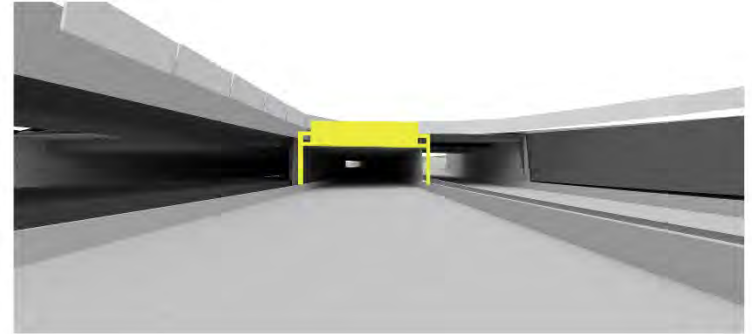
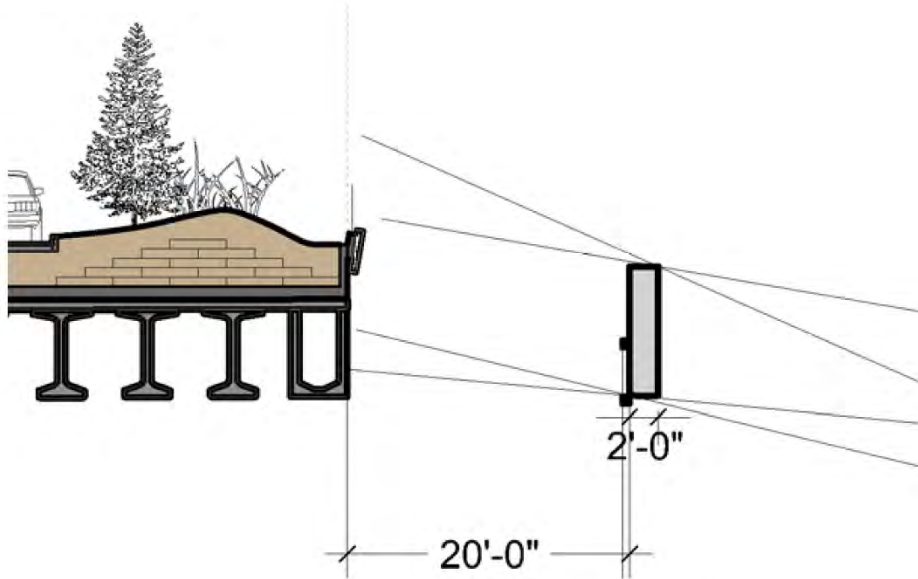


70'

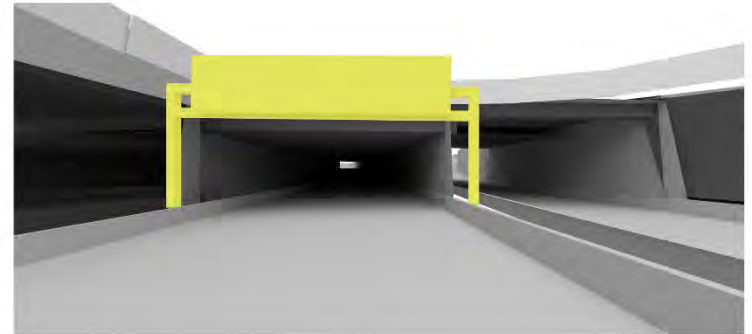


Option 1: Sign on Lid

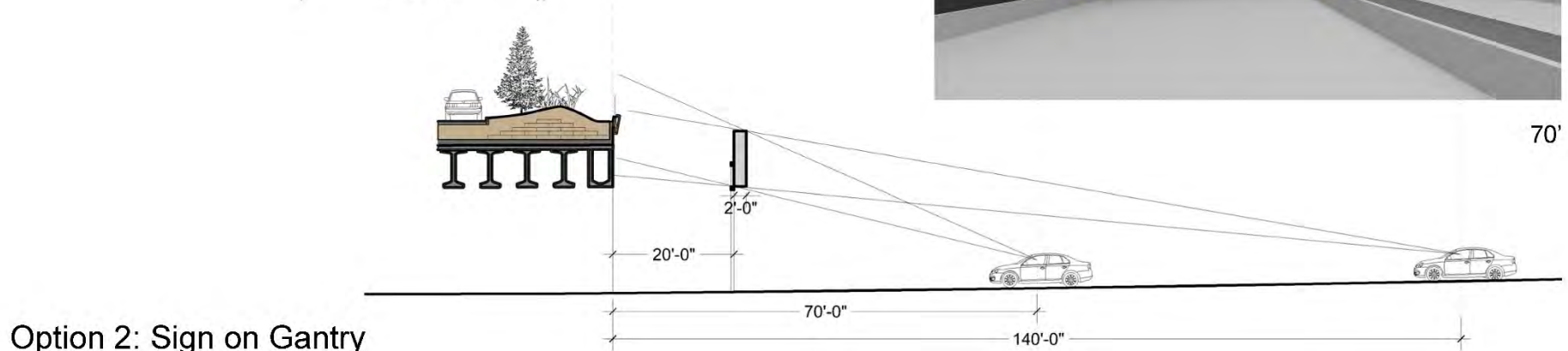
Tunnel Signage



140'



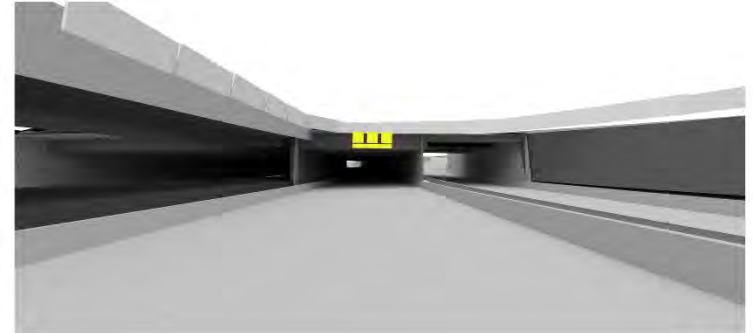
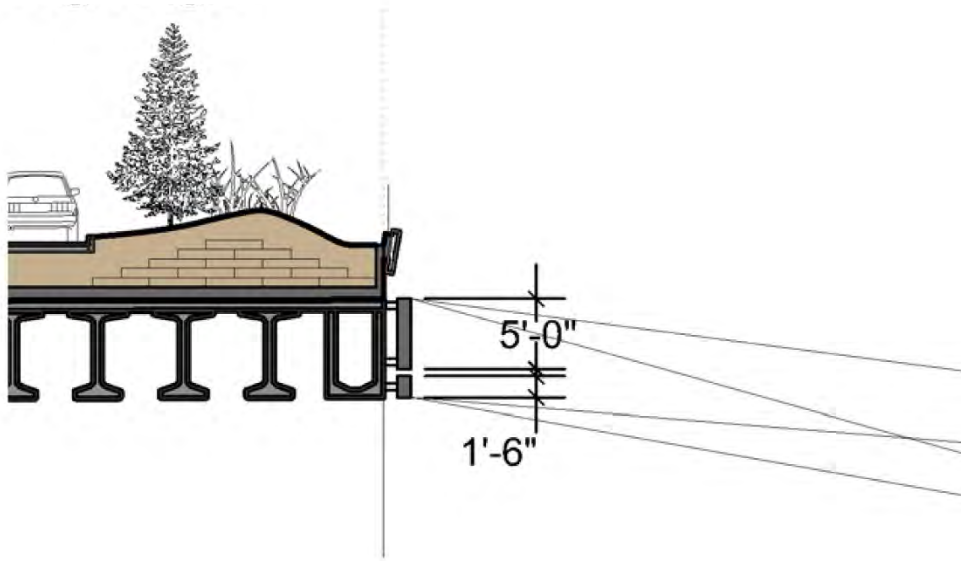
70'



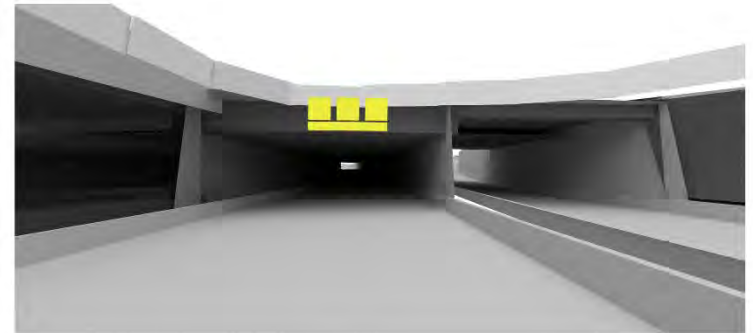
Option 2: Sign on Gantry

Concept Development

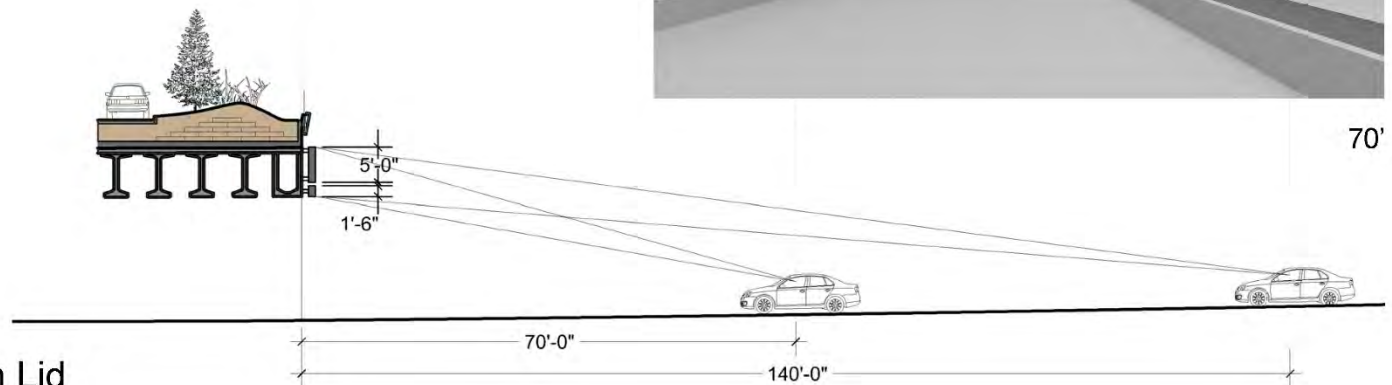
Tunnel Signage



140'



70'



Option 3: Amber Signs on Lid