Washington State Department of Transportation

SR 520 Bridge Replacement and HOV Program

I-5 to Medina: Bridge Replacement and HOV Project

SR 520 Project/MOU Implementation Process Flowchart

DRAFT - Updated: July 9, 2012

Conceptual – For Planning Purposes Only

Abbreviations

- **CCMP:** Community Construction Management Plan
- **NTMP:** Neighborhood Traffic Management Plan
- **SCDP:** Seattle Community Design Process
- **WABN:** West Approach Bridge North
- **CEVP:** Cost Estimation Validation Process
- **TIFIA:** Transportation Infrastructure Finance and Innovation Act

	2012								2013				2014			
	May	June	July	August	September	October	November	December	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Financing			Preliminary TIFIA Decision			Final TIFIA Decision			I-90 Tolling Update				I-90 Tolling Environmental Assessment			
			Seek funding for unfunded project elements													
Project Implementation			Advance Seattle designs (pending funding) – WAB-South, Portage Bay Bridge, Montlake interchange, I-5 interchange													
			Advance design for next construction phase (WABN) / Technical coordination						Design decisions needed	Finalize design and contract preparation			Contract ready for advertisement	Contract procurement	Construction	
MOU Implementation		June 20 MOU executive group meeting			Aug. 28. MOU executive group meeting			Dec. MOU executive group meeting								
Seattle Community Design Process			July Stake holder meetings (Montlake lid)	July 16 SCDP public session (Montlake lid)	Draft SCDP Report	Final SCDP Report	Public comment									
Other					Arboretum Agreement	Second bascule bridge triggers report			Draft NTMP	Final NTMP	NTMP early implementation					
Pre-Construction													Develop CCMP (WABN)	Final CCMP (WABN)	Implement CCMP	
				Technical coordination / Permit compliance												
External Coordination					Sept. 10 Council briefing (Mayor date TBD) Topics include: --SCDP draft report --MOU update --TIFIA		Nov.26 Council briefing (Mayor date TBD)	Dec. 10 Council briefing / Council action (Mayor date TBD) Public open house	Legislative update: --Cost/funding --TIFIA --MOU update (incl. SCDP)				Legislative update: --Cost/funding --Design update --Planning			

Attachment 1: Seattle/SR 520 MOU Implementation Framework for Coordination

Draft / Work in Progress -- Updated April 19, 2012

West Side Executive Leadership Group

Co-led: WSDOT (Julie Meredith, Dave Dye, Ron Judd) and City of Seattle (CM Conlin, Peter Hahn, Ethan Raup, Christopher Williams)

Purpose: Coordinates on legislative direction, technical recommendations and funding availability.

- **Governor and Legislature WSDOT executives updates**
- **Full Council and Mayor's Office briefings**
- **Partner agency executive updates**

West Side Oversight Group

Co-led: WSDOT (Kerry Pihlstrom, Rob Berman, Sarah Brandt) and City of Seattle (Mike Fong, Jennifer Wieland, Peter Harris, David Hiller, Michael Shiosaki, Phyllis Shulman)

Participants: City Council, Mayor's Office, SDOT, Seattle Parks & Recreation, WSDOT staff

Purpose: Integrates feedback from all processes and sets direction for policy recommendations.

Seattle Community Design Process

WSDOT Lead: Rob Berman

Participants: Partner agencies, neighborhood representatives, general public

Purpose: Provides connectivity between various design and stakeholder coordination processes. Provides input to appropriate processes, listens to and synthesizes community feedback, and informs West Side Oversight Group. Provides input to SR 520/Seattle Technical Working Group, as appropriate.

SR 520/Seattle Technical Working Group

WSDOT Lead: Kerry Pihlstrom

Participants: WSDOT, Seattle Departments

Purpose: Interagency coordination and information sharing to support project design, implementation, and timely compliance with agreements, regulatory requirements, and other standard practices. Identifies key areas and appropriate timing of input needed from Seattle Community Design Process.

Design and Construction: General Public Engagement Processes

External outreach and involvement opportunities

Urban and Sustainable Design

WSDOT Lead: Rob Berman
Participants: City depts, partner agencies and neighborhood representatives

Purpose: Provide feedback on urban design features for communities on the Seattle side of the corridor

Recommendation of 6392 (Urban Design and Streetscapes White Paper)

Community Construction Management Planning

WSDOT Lead:
Dave Becher (FB&L)
Participants:
Public, City depts

Purpose: Minimize the effects of construction on the public by providing timely and responsive information, as well as implementing standard specifications and best practices.

Requirement of Section 106 Programmatic Agreement, ROD, and Seattle shoreline permit conditions

Montlake Bascule Bridge Planning

Lead: Mike Fong (Council), Tim Payne
WSDOT Lead:
Michael Horntvedt
Participants: City depts, partner agencies and neighborhood representatives

Purpose: Provide feedback to WSDOT and City of Seattle on triggers for constructing and design alternatives for the second bascule bridge

Recommendation of 6392, ROD

Neighborhood Traffic Management Planning

Lead: Jennifer Wieland (SDOT)
WSDOT Lead:
Michael Horntvedt
Participants: City depts, partner agencies and neighborhood representatives

Purpose: Provide feedback to WSDOT and City of Seattle on strategies to identify solutions to neighborhood traffic concerns.

Recommendation of 6392, ROD

Mitigation, Regulatory Compliance, and Standard Practices

Internal processes (interagency agreements and protocols involving participants with standing)

Arboretum Coordination/ Mitigation Implementation

WSDOT Lead: Kerry Pihlstrom
Participants: ABGC

Purpose: Implement mitigation projects identified in 2010 Arboretum Mitigation Plan

Recommendation of 6392, ROD

Section 106 Programmatic Agreement Implementation

WSDOT Lead: Steve Archer
Participants: Section 106 concurring parties, including Seattle Historic Preservation Officer (Dept. of Neighborhoods)

Purpose: Implement commitments made in 2010 Section 106 Programmatic Agreement

Regulatory requirement, ROD

Permitting/Regulatory Agency Coordination

WSDOT Lead: Jenifer Young, Scott White
Participants: Resource and permitting agencies

Purpose: Implement regulatory commitments identified in FEIS, ROD,
and permits

General regulatory requirements

Existing WSDOT Practices

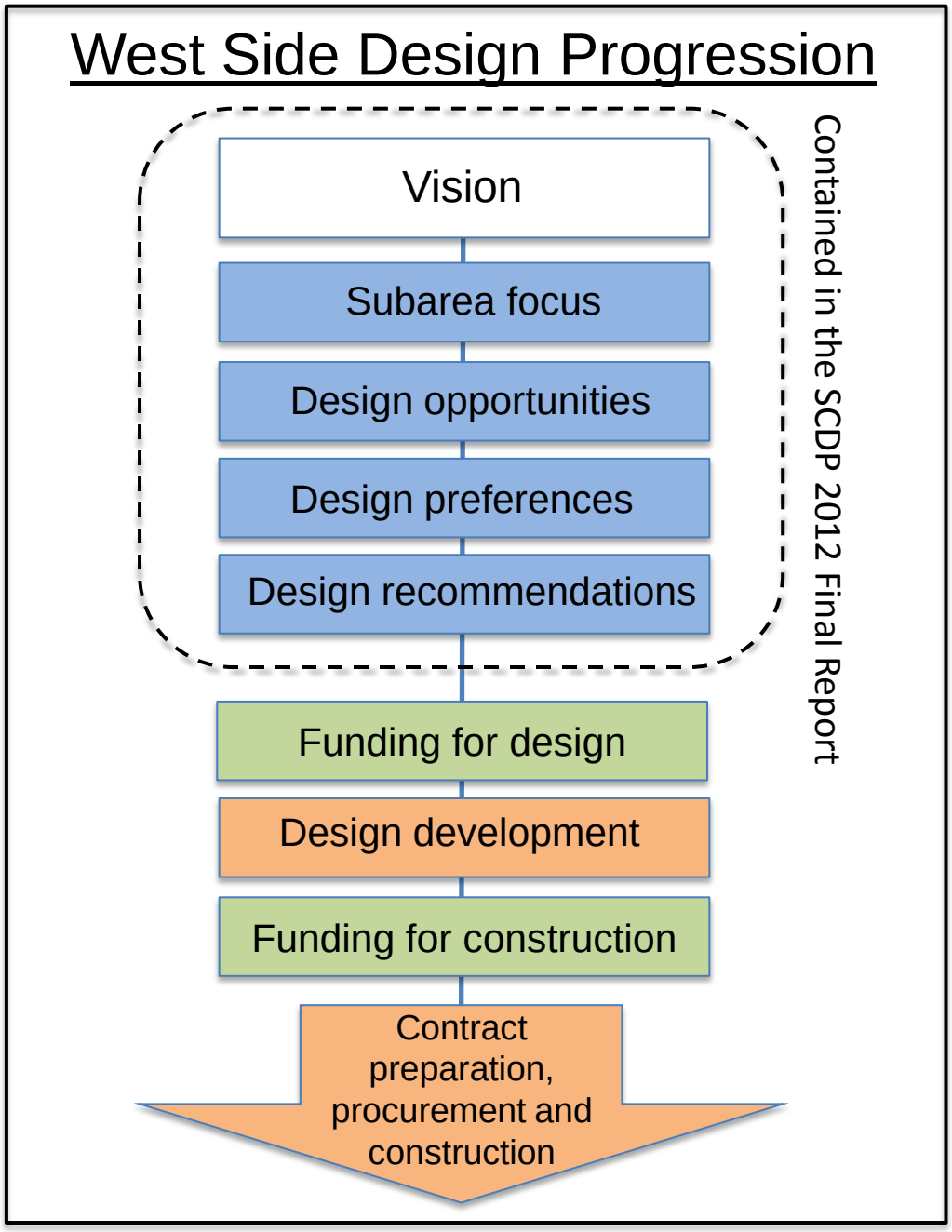
WSDOT Lead:
Daniel Babuca (TBD)
520 Liaison:
Jennifer Wieland
Participants: City depts, (SDOT, DPD, Dept of Neighborhoods, Parks & Rec, SPU, SCL, etc.) and advisory boards, as needed

Purpose: Coordinate with city depts

Standard coordination processes

NOTE: This chart illustrates how the City of Seattle and WSDOT will coordinate to implement commitments agreed to in the 2011 Memorandum of Understanding. This is not a decision-making diagram.

West Side Design Progression



DRAFT - FOR INTERNAL DISCUSSION
August 16, 2012

DRAFT – for internal discussion
8/16/12

Proposed schedule through 2012:
SDC and Seattle Community Design Process (SCDP)

(With special attention to SDC endorsement for Sept. 10, 2012 Seattle City Council briefing)

SCDP project team intends to carry the following to City Council:

1. Update on MOU process through August 2012
2. Overview of expected process through December, including expected endorsement of 'preferences' by various stakeholder groups, such as Cascade Bicycle Club, Seattle Design Commission, Seattle Bicycle Advisory Board, and Seattle Pedestrian Advisory Board, by the end of October 2012.
3. Overall Vision for the west side of the SR 520 corridor, including the Vision for user experiences, and supporting diagrams
4. Explanation of project design progression

In order to maximize the SCDP project team's effectiveness and credibility with City Council, we need SDC's written endorsement of:

1. SCDP (and next steps)
2. Overall Vision
3. Guidance on specific design elements

SDC meeting dates and expected outcomes

August 16 Full SDC

1. Discuss the nature/extent of SDC endorsement and guidance we are seeking
2. Endorsement of Vision
3. Preliminary discussion of design preferences

August 22 Subcommittee

1. Further discussion of design preferences
2. Final review/discussion of SDC endorsement/guidance letter to City Council/Mayor
3. Continue conversation of tiered delivery approach

September 6 SDC internal business meeting (no SR 520 staff attend)

1. SDC reviews and endorses letter to provide to City Council

September 10 Seattle City Council briefing

1. MOU implementation progress update
2. SCDP and overview of design preferences (TBD)
3. Second bascule bridge triggers analysis update (TBD)

September 20 Full SDC

1. Outcomes of council briefing
2. Continue conversation of design preferences, design delivery approach, and design progression

October – December 2012

1. West Approach Bridge design coordination
2. Continued coordination on west side design development

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8/16/12

Our Overall Vision

The SR 520 Corridor is a critical, regional highway facility that enters the northern edge of downtown Seattle. **Our vision for this corridor is to become the premier gateway to the City of Seattle by reconnecting to the early Seattle vision of *Nature meets City*.**

On the Seattle side, the SR 520 corridor aims to restore two important, intersecting axes that are shown in the historic 1909 "Seattle Parks and Boulevard Plan" that was created by the Olmsted brothers for the City of Seattle. The first is an east-west (natural) axis wherein a forested SR 520 corridor completes a gap in an "Emerald Necklace" by linking Interlaken Blvd. and the Arboretum as well as providing the primary gateway opportunities into downtown Seattle. The second is a north-south (urban) axis that begins with Montlake Blvd. at the University of Washington and extends along 23rd Ave. to Capitol Hill. The SR 520 Project has the opportunity to take the northern portion of this axis along Montlake Blvd. and create grand "parkway" that extends though East Lake Washington Blvd. into the Arboretum.

Our Vision for Current Users and Future Generations

We intend to implement our Program in a manner that yields affordable solutions and fosters groundbreaking 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.

Specifically:

- As motorists progress westbound from Lake Washington they will continue to experience a safe, efficient highway corridor that also represents a series of gateways from the edge of the lake into Montlake, across Portage Bay, and into downtown Seattle.
- Pedestrians will always feel comfortable, visible, and safeguarded from vehicles on adjacent roadways. Their pathways will be well marked. Some pathways will allow pedestrians to efficiently move to their destinations such as transit stops or playgrounds. Other pathways will allow them to linger and enjoy their surroundings.
- Cyclists will have great connections, good sight distances, and reasonable grades. Their wait times and passage through intersections will be equal to or shorter than motorized vehicles.
- Transit users will enjoy convenient access to buses as well as safe, comfortable shelters.
- All users should experience features that are scaled to their location and vantage points including bridge elements, tunnel portals, and overlooks.
- The aesthetic expression of all constructed features shall be "naturalistic-contemporary" and complement their natural and residential surroundings.

ROANOKE AREA

- Expand and landscape a pedestrian and bicycle connection over I-5
- Provide a lid that supports mostly passive uses, bicycle and pedestrian connections, and blends into the hillside to the south
- Include a new intersection design at 10th Avenue East and Delmar Drive East
- Expand Bagley viewpoint and provide street parking on Delmar Drive East

PORTAGE BAY BRIDGE

- Proceed with further technical analysis and refinements for two bridge types, the box girder and cable stayed bridge
- Explore ways to reduce visual effects and integrate the structure with surrounding neighborhoods
- Provide pedestrian connections from Delmar Drive East to Boyer Avenue East under Portage Bay Bridge
- Study safe and effective bicycle and pedestrian connections from Montlake to downtown Seattle and north Capitol Hill

Montlake Option B
Lowered Transit/HOV ramps

SR 520 regional bicycle/pedestrian path

Path/sidewalk

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MONTLAKE AREA

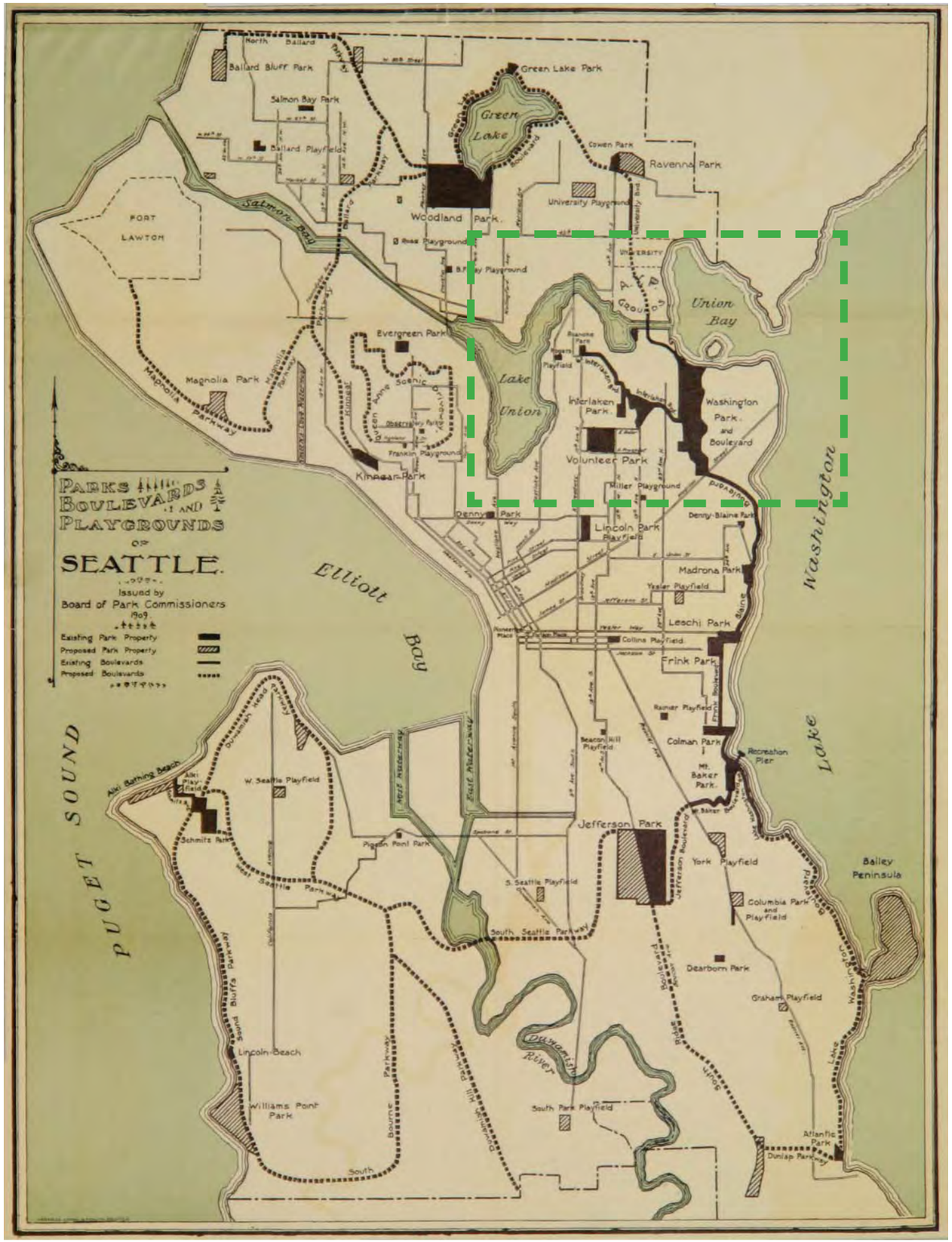
- **Overall:** Enhance connections for all users including bicyclists, pedestrians and transit users
- **Canal Reserve area:** Shift regional bicycle and pedestrian path onto the Montlake lid for better connections and to preserve open space
- **Stormwater area:** Integrate the stormwater wetland into the existing park and shoreline
- **Montlake lid area:** Activate the west portion of the lid and provide passive space at the east end. Option to lower transit/HOV ramps under the east side of the lid (see option B)
- **Lake Washington Boulevard:** Design the roadway to buffer neighbors from traffic and integrate with the north entry of the Arboretum
- **Montlake Boulevard:** Provide planted medians for continuity and accommodate multimodal travel

Montlake Option A
High Transit/HOV ramps

WEST APPROACH BRIDGE

- Incorporate simple and clean design of the structure
- Make pathways under the bridge safe and attractive for users
- Include belvederes or resting places along the north side

1909 Seattle Parks and Boulevard Plan



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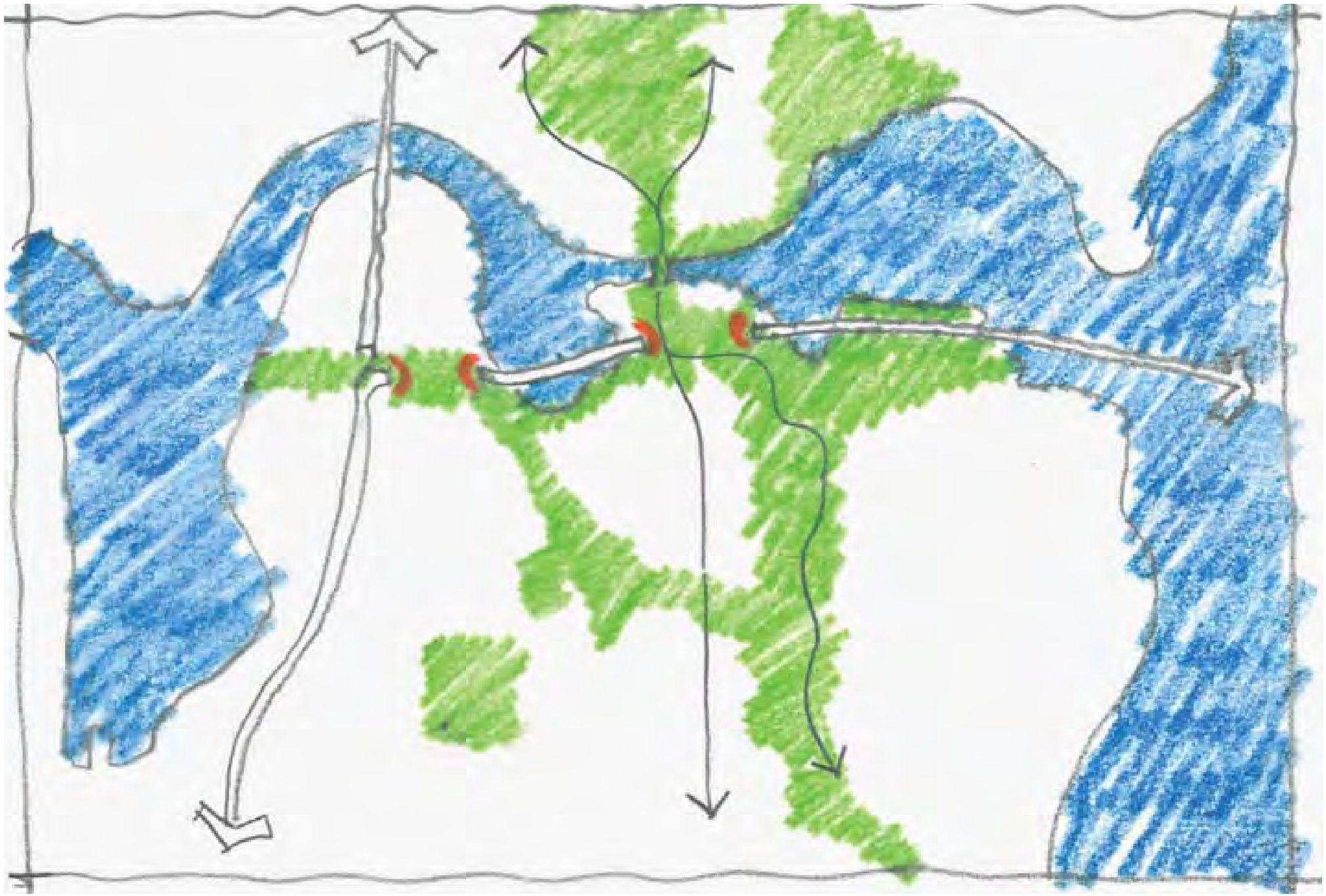

SR 520 gateway opportunities and integration into the parks and boulevard network

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Vision Key Map

Improving an Urban Axis

Montlake Boulevard East connects two major activity centers: the University of Washington and downtown Seattle, with opportunities to work with partners to enhance the quality of experiences, safety and efficiency of mobility, and the vibrancy of diverse neighborhoods.

Integrating an Historic Boulevard

Montlake Boulevard East and East Lake Washington Boulevard are the historic footprint of the Olmsted multimodal parkway, providing varied users a sense of journey and arrival

Enhancing the Natural Blue-Green Axis Along the Corridor

The SR 520 project connects lakes, marshes, bays, shorelines, urban forests and open spaces.

Identifying Gateways to Seattle

The SR 520 project provides a series of natural and built “gateways” or defined entries, into Seattle: bridges, forests, bays, and lid portals.

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Geographical Areas Key Map

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Baseline alternative with refinements based on community input (July 2012)

PORTAGE BAY BRIDGE DESIGN CONCEPTS

Highlights of the Portage Bay Bridge: Cable Stay Option

The Cable Stay bridge design option maintains the roadway operations of the baseline while being shifted slightly to the north to ease constructability issues. Other issues that relate to the three primary perspectives of the bridge are:

Over

- Two sets of moderate height cable stay towers (approximately 180 feet tall) at west end of bridge

Under

- One hillside foundation west of Boyer Avenue East with main span of 800 feet minimizing impacts on Queen City Yacht Club operations
- Longer span reduces in-water foundations and allows improved visibility and water access across Portage Bay
- Gap of 15 feet between bridge structures reduces scale of structure from below and allows light and air flow

On

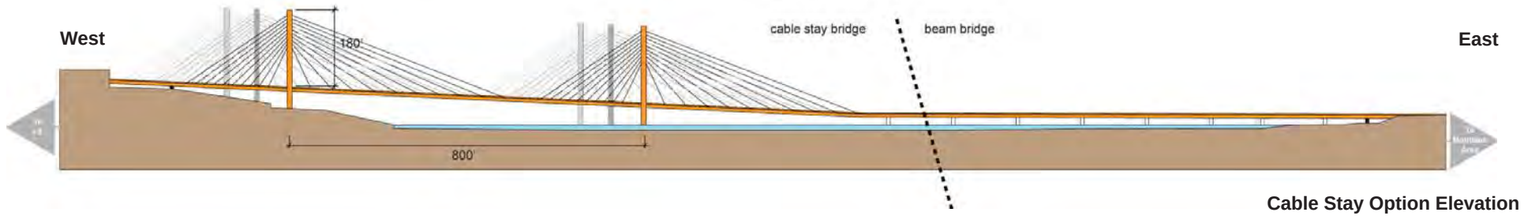
- Thin, light bridge deck supported by cable stays
- Eastern bridge type beam bridge with common span lengths

Benefits

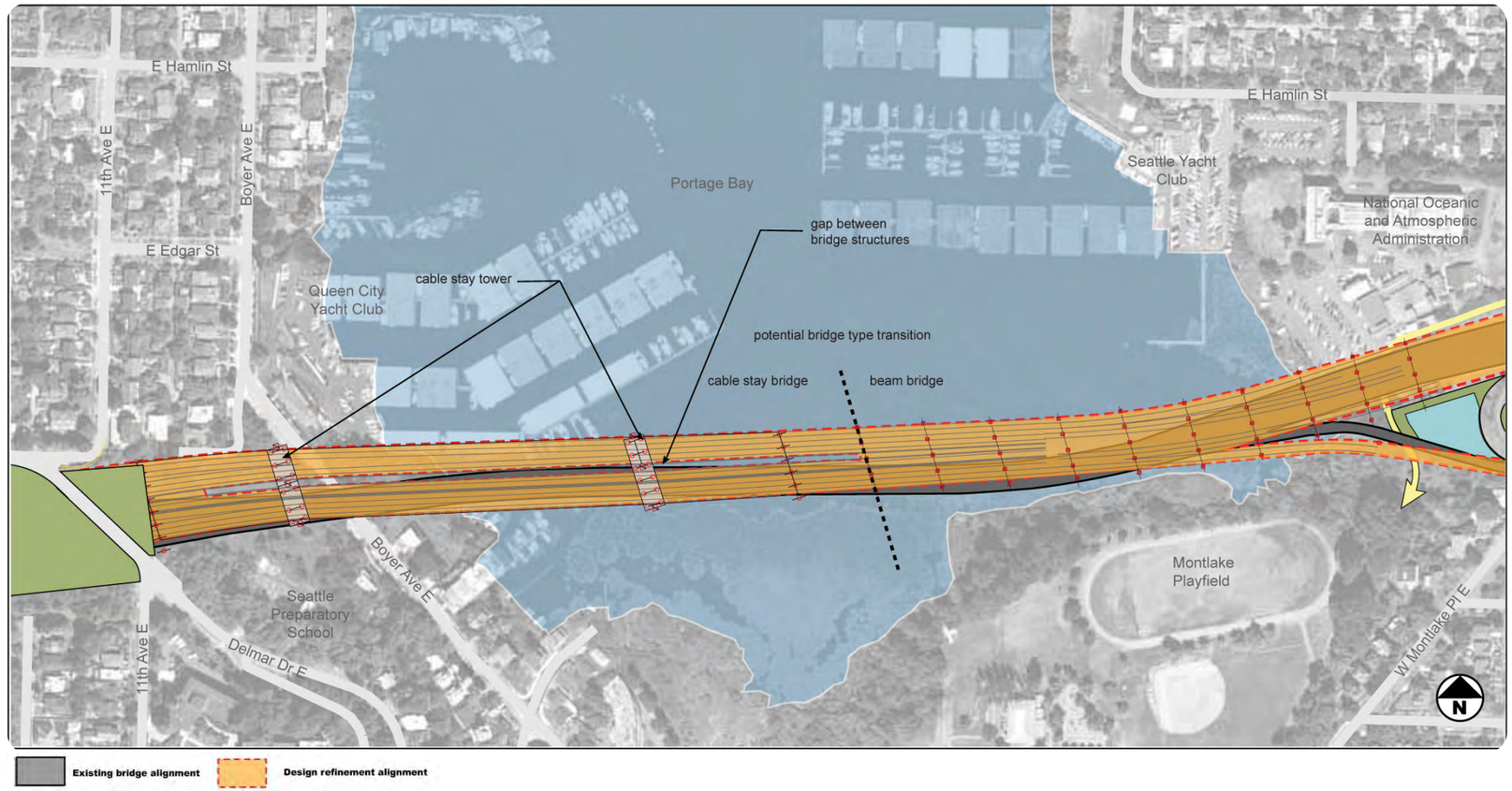
- Provides a regional signature bridge at Portage Bay
- Represents a modern design with lightness and transparency
- The long span opens the bay below for access and visibility
- Less material and less in-water work

Considerations

- Higher design complexity needs to stay within the budget
- The towers must have rational and beautiful design



Cable Stay Option Elevation



View from West Montlake Park facing southwest

View from Montlake Boulevard E. facing west

View from Montlake Playfield facing northwest

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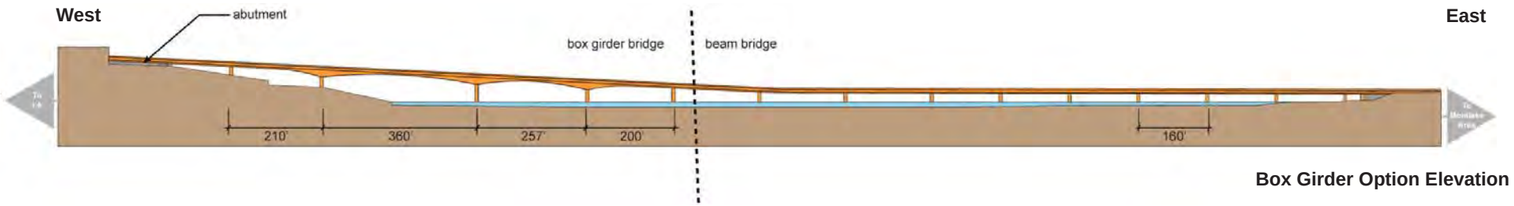
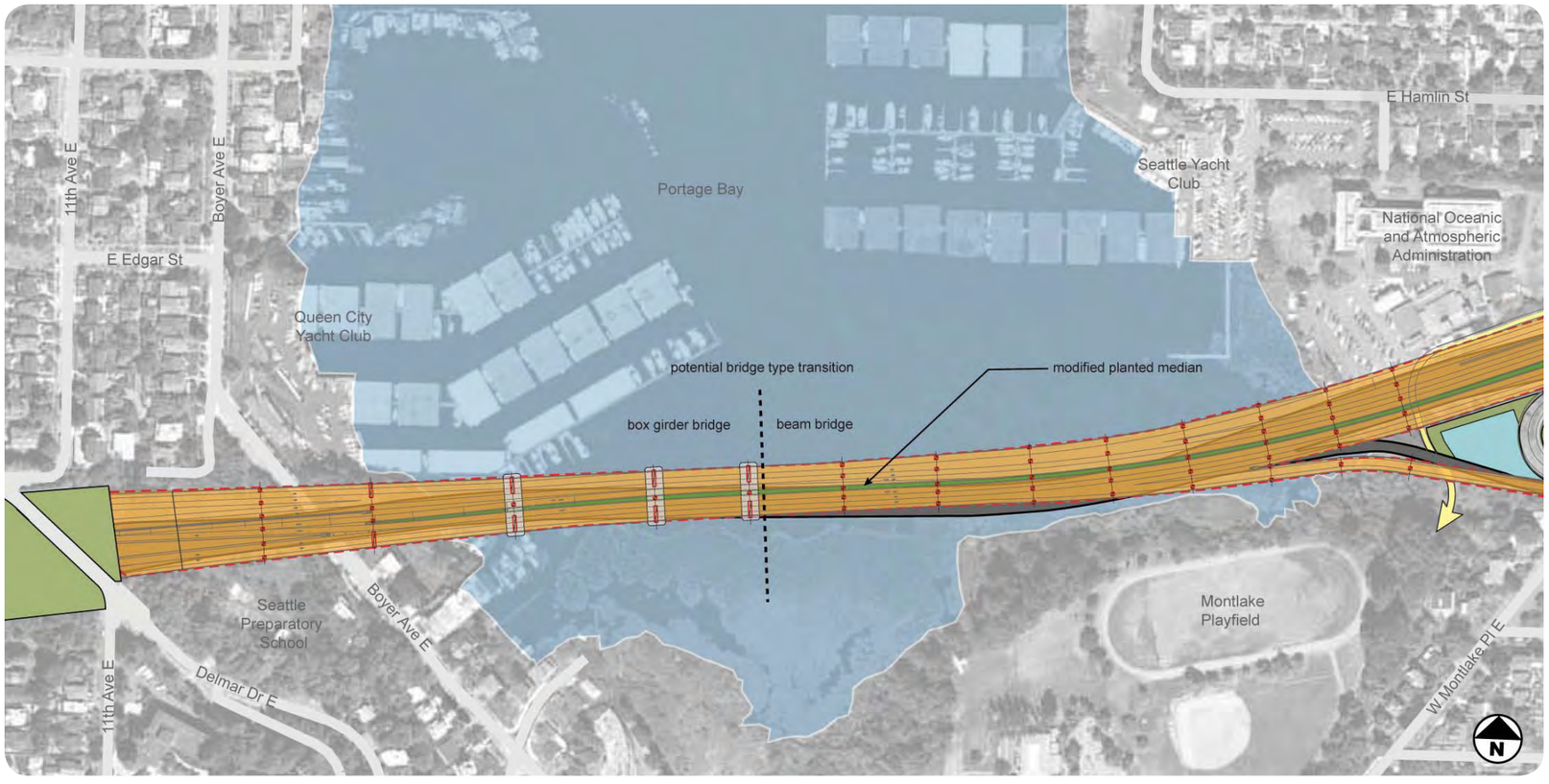
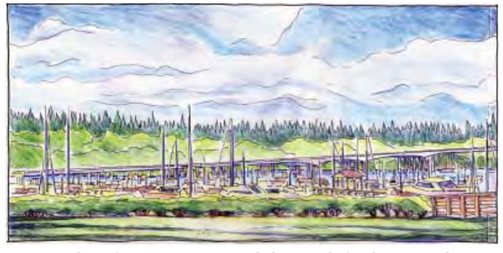


Box Girder Option Elevation





View from West Montlake Park facing southwest

View from Montlake Boulevard E. facing west

View from Montlake Playfield facing northwest

Highlights of the Portage Bay Bridge: Box Girder Option

The box girder bridge design option maintains the roadway operations of the baseline while the alignment is shifted slightly to the north to ease constructability issues. Other issues that relate to the three primary perspectives of the bridge are:

Over

- No structure above bridge deck

Under

- Box girder bridge at the west end with a maximum span length of 360 feet
- More structure under bridge

On

- Thicker bridge deck with segmental construction
- Beam bridge to the east with variable span lengths
- Modified planted median

Benefits

- Cost-efficient structure with moderate span lengths
- Variable depth at the columns provides curvilinear form

Considerations

- Moderate span lengths create operational and construction impacts on west end of bridge
- More in-water and hillside foundations in poor soils because more spans are required

Baseline design with refinements based on community input (July 2012)