Ballard-Interbay Regional Transportation System Study
Interagency Team Meeting #4

Meeting agenda

11:30 Welcome
11:45 Social and Economic Impact Analysis Findings
12:10 Stakeholder Engagement Updates
12:25 Project List Development, Evaluation, and Refinement
1:05 **Public Comment**
1:25 Next Steps and Action Items
**Meeting objectives**

- Provide clear information about project status, including work underway and completed
- Gather input and direction on the social and economic impact analysis
- Solicit feedback on approach to refining project list and applying additional evaluation criteria

**Welcome & Meeting Protocols**

- What do you hope to get out of today’s meeting?

Visit [www.tinyurl.com/BallardInterbay](http://www.tinyurl.com/BallardInterbay) to provide comment!
Meeting protocols

For IAT members:
• Use video when possible
• Raise your hand if you have a question
• Pose topics for group discussion or share comments in the chat window throughout the meeting
• Interrupt if we’re not “seeing” you!

Meeting protocols

For community members:
• Guests are muted throughout the meeting to support presentation and IAT discussion
• Public comments will be invited at 1:05 PM for a 20-minute period
• You can sign up at the link below to speak or indicate interest in the chat window
• Additional comments may be submitted in writing at any time

www.tinyurl.com/BallardInterbay
Comments from Councilmember Strauss

IAT member introductions

- Share one of your favorite places to go in the Pacific Northwest in summer
- Identify one take-away you hope to have from today’s meeting
Ballard-Interbay Regional Transportation System (BIRT) Study

The Washington State Legislature asked SDOT to develop a report on how to improve travel for people and goods in Ballard-Interbay.

Project elements

- **JANUARY - MARCH**
  - Review Existing Plans & Previous Studies
    - Summarize findings and document guiding assumptions

- **APRIL - JUNE**
  - Forecast & Assess Multimodal Integration
    - Forecast future conditions
    - Assess traffic, freight, and multimodal strategies

- **JULY - AUGUST**
  - Analyze Impacts & Benefits of Bridge & System
    - Conduct social and economic cost/benefits analysis

- **SEPTEMBER**
  - Bridge Replacement Timeline & Funding Strategy
    - Develop timeline and funding approach for replacement of bridges

- **OCTOBER - NOVEMBER**
  - Report to WA Legislature
    - Draft in October, submit November 1, 2020
Completed deliverables available online

Document and Plan Review

Methods and Assumptions Memorandum

Multimodal Needs Assessment

Coming soon!
Social and Economic Baseline Analysis

http://www.seattle.gov/transportation/birt/

Social and Economic Impact Analysis Findings

- What questions do you have about the impact analysis?
- Do the differences between the scenarios make sense to you?

Visit www.tinyurl.com/BallardInterbay to provide comment!
Social and economic impact analysis

Methods and Assumptions

• Focused on scenario-level impacts; does not include impacts from construction of bridge alternatives
• Uses USDOT Benefit-Cost Analysis Guidance for Discretionary Grant Programs
• Existing and projected travel times and traffic volumes differ from bridge studies because of:
  – Horizon year
  – Analytical methods
  – Project extents

Impacts to Study

• Travel time by mode
• Vehicle and transit operating costs
• Safety by mode
• Accessibility to housing, jobs, and non-work destinations
• Market desirability and property values
• Build costs
Two alternatives for each bridge

Ballard Bridge: low- and mid-height

Magnolia Bridge: in-kind replacement and Armory Way

Ballard Bridge impact analysis (2042)

<table>
<thead>
<tr>
<th>Mid-Level</th>
<th>Low-Level</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Travel Time</strong>&lt;br&gt;Average daily, all travel purposes</td>
<td>- 0.6 minutes&lt;br&gt;$3.9M</td>
<td>- 0.2 minutes&lt;br&gt;$1.4M</td>
</tr>
<tr>
<td><strong>Operating Costs</strong>&lt;br&gt;Insufficient evidence to suggest impact</td>
<td>VMT most associated with land use changes</td>
<td></td>
</tr>
<tr>
<td><strong>Safety</strong>&lt;br&gt;Potential savings</td>
<td>$2.65M per fatal crash&lt;br&gt;$62,650 per injury crash</td>
<td>Shared-use path would reduce risk of collisions; wider sidewalks would enhance pedestrian safety</td>
</tr>
<tr>
<td><strong>Costs</strong>&lt;br&gt;$971M</td>
<td>$471M</td>
<td>Design, construction, and right-of-way costs</td>
</tr>
<tr>
<td><strong>Accessibility</strong>&lt;br&gt;No impact</td>
<td>Minimal change in travel time</td>
<td></td>
</tr>
<tr>
<td><strong>Market Desirability</strong>&lt;br&gt;No change</td>
<td>Continued market demand for the study area</td>
<td></td>
</tr>
</tbody>
</table>
Magnolia Bridge impact analysis (2042)

<table>
<thead>
<tr>
<th>In-Kind Replacement</th>
<th>Armory Way</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average daily, all</td>
<td>No impact</td>
<td>+ 13 minutes</td>
</tr>
<tr>
<td>travel purposes</td>
<td></td>
<td>$23.1M</td>
</tr>
<tr>
<td>Operating Costs</td>
<td>Insufficient evidence to suggest impact</td>
<td>VMT most associated with land use changes</td>
</tr>
<tr>
<td>Safety</td>
<td>Minimal benefits for non-motorized access</td>
<td>Few historic bicyclist/pedestrian collisions; small projected increase in volumes</td>
</tr>
<tr>
<td>Costs</td>
<td>$397.7M</td>
<td>$265.8M</td>
</tr>
<tr>
<td>Accessibility</td>
<td>No impact</td>
<td>+ 13 minutes to commute times</td>
</tr>
<tr>
<td>Market Desirability</td>
<td>Insufficient evidence to suggest impact</td>
<td>Continued market demand for the study area</td>
</tr>
</tbody>
</table>

Discussion and next steps

• What questions do you have about the social and economic impact analysis methods or findings?
• Do the results make sense to you?
• What suggestions do you have for further study or additional model runs?
Stakeholder Engagement Updates

- Do these results match what you have heard about BIRT?

Visit www.tinyurl.com/BallardInterbay to provide comment!

Completed and ongoing activities:

- Meetings with elected officials and community organizations (MCC, SNG, NSIA)
- City advisory board briefings (SFAB, SBAB)
- Call for interest via Puget Sound Shipbuilders Association and Fisherman’s Terminal
- BINMIC worker survey
- Business interviews and meetings
- WSBLE surveys
- Coordination with Mayor’s MIS
Public engagement in July and August

Over 500 Survey Respondents
- 74% residents
- 46% visitors for personal trips
- 11% employees
- 10% visitors for work trips
- 8% business owners

How respondents travel in Ballard-Interbay:

- Drive: 83%
- Walk: 75%
- Transit: 61%
- Bike: 56%
- Ridehail: 28%
- Freight: 2%

Public engagement results

Projects focused on bicycle and pedestrian connections received strong support:
- Bike/ped connections to fill network gaps (43%)
- Bike/ped connections over physical barriers (40%)
- Connections to future Link stations (40%)
- Magnolia Bridge replacement (40%)
- Ballard Bridge replacement (36%)
- Reduce delay for driving and freight (24%)
- Transit priority and speed and reliability improvements (24%)
Public engagement results

Most popular projects:
• In-Kind Replacement of the Magnolia Bridge
• Magnolia Trail
• 15th Ave/Elliott Ave PBL from W Emerson St to Broad St
• Ballard Locks Connection
• Interim Ballard Bridge Improvements
• 14th Ave Improvements

“Ask a Bridge Engineer” video coming soon

Inquiring minds want to know:
• What’s the condition rating of the Interbay bridges?
• And what does that really mean?
• How does SDOT make decisions about when to replace a bridge?
• What funding sources are available for these projects?
Project List Development, Evaluation, and Refinement

• Do the changes to the project list reflect your feedback?
• Do you have questions about the operational performance benefits for the corridor management strategies?
• Which projects are most important to advance into our recommendations?

Visit www.tinyurl.com/BallardInterbay to provide comment!

Potential projects

• Evaluated 80+ projects for ability to meet project goals
• Provided 40+ projects for public input
• Many potential projects are independent of bridge alternatives, including crossing enhancements and walking and biking improvements
• Bridge-dependent projects are more focused on freight and transit access
Responding to IAT feedback

- Responded to IAT and SDOT comments
- Revisited some existing plans
- Added new projects as appropriate
- Provided references to other information
- Updated scores to reflect modal integration, modal priority, and right-of-way impacts
- Adjusted “Evaluation Criteria” tab to reflect changes since Methods & Assumptions Memo
- Scored all outstanding metrics, which altered top projects fairly significantly

Noted comments about facility design for future consideration.

Adjusted equity evaluation criteria

Social Impacts: Residents
• Considers income (quartiles of median income) and race (% non-white populations)

Social Impacts: Employees
• Considers income (quartiles of workers earning less than $1,250/month) and race (% non-white populations)

ADA Access
• Considers access or safety for people with disabilities (e.g., crosswalk improvements, sidewalk condition improvements, improved transit experience)

Sidewalk on Dravus Bridge over 15th Ave
Added new projects

New since public meetings:
- B-18: 20th Ave W Bike Lanes
- F-11: Dynamic Freight Signage on 15th Ave W
- MM-17: Dravus St Bridge Replacement
- MM-18: Dravus St Corridor Signal Optimization
- MM-19: Dravus St & 17th Ave W Roundabout
- T-10: Route 40 TPMC Leary Way Bus Lanes

Highest scoring projects

<table>
<thead>
<tr>
<th>#</th>
<th>ID</th>
<th>Project Title</th>
<th>Bridge Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MM-17</td>
<td>Dravus Bridge Replacement - <strong>NEW</strong></td>
<td>Both</td>
</tr>
<tr>
<td>2</td>
<td>P-6</td>
<td>Along the Roadway Improvements: Elliott Ave/15th Ave</td>
<td>Both</td>
</tr>
<tr>
<td>3</td>
<td>BP-15</td>
<td>Wheeler St Pedestrian Bridge</td>
<td>Higher Cost</td>
</tr>
<tr>
<td>4</td>
<td>MM-19</td>
<td>Dravus &amp; 17th Ave Roundabout - <strong>NEW</strong></td>
<td>Both</td>
</tr>
<tr>
<td>5</td>
<td>BP-17</td>
<td>Elliott Bay Trail Extension</td>
<td>Both</td>
</tr>
<tr>
<td>6</td>
<td>BP-1</td>
<td>Crossing Improvements at High Priority Signalized Intersections</td>
<td>Both</td>
</tr>
<tr>
<td>7</td>
<td>MM-15</td>
<td>15th Ave W FAT Lanes</td>
<td>Both</td>
</tr>
<tr>
<td>8</td>
<td>BP-2</td>
<td>Safety and Crossing Enhancements at High Priority Unsignalized Locations</td>
<td>Both</td>
</tr>
<tr>
<td>9</td>
<td>P-1</td>
<td>Along the Roadway Improvements: W Dravus St</td>
<td>Both</td>
</tr>
<tr>
<td>10</td>
<td>BP-4</td>
<td>Howe St Bike and Pedestrian Connection</td>
<td>Both</td>
</tr>
</tbody>
</table>
Corridor management approach

- Improve travel time for people and goods along key corridors
- Focus on roadway and operational improvements based on identified needs
  1. 15th Ave NW/W (Blue)
  2. NW Leary Way (Yellow)
  3. W Emerson St/W Nickerson St (Green)
  4. W Dravus St (Orange)
  5. Armory Way Bridge (Red)
  6. Magnolia Bridge (Purple)

Identified corridor needs

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Primary Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 15th Ave W</td>
<td>Southbound congestion in AM and northbound congestion in PM</td>
</tr>
<tr>
<td>2. NW Leary Way</td>
<td>Increase mobility of people and goods through closely spaced, signalized, high-access locations</td>
</tr>
<tr>
<td>3. W Emerson Pl / W Nickerson St</td>
<td>Maintain mobility of people and goods while balancing serving access points</td>
</tr>
<tr>
<td>4. W Dravus St</td>
<td>Trucks unable to make in-lane turning maneuvers at intersections with 15th Ave W ramps</td>
</tr>
<tr>
<td>5. Armory Way Bridge</td>
<td>Maintain mobility of people and goods while balancing serving access points</td>
</tr>
<tr>
<td>6. Magnolia Bridge</td>
<td>Maintain mobility of people and goods</td>
</tr>
</tbody>
</table>
Categories of corridor management strategies

Strategies are organized in the following categories:

• Signal operations
• Intelligent Transportation System (ITS) strategies
• Traffic control
• Channelization or striping
• Access management
• Capital improvements

Summary of operational performance benefits

• Some strategies expected to provide qualitative benefits were not included in analysis (e.g., adaptive traffic signals, access management, ITS for wayfinding)
• Other strategies evaluated with Synchro by mode, peak hour, direction
• Comparison is performance of base bridge scenarios to scenarios with corridor management strategies
Share your priority projects

Map available at www.tinyurl.com/BIRTprojectmap. Note we are longer accepting comments.

Next steps: preparing recommendations

The final plan will include recommendations in three categories:

- **Core projects**: bridge options, corridor-wide investments
- **Top investments by mode**: active transportation; transit; freight; auto/corridor
- **Smaller/simpler projects**: near-term, low-cost, and/or programmatic projects for any mode

The top projects will:
- Score well on evaluation criteria
- Reduce modal conflicts
- Complement one another
- Include large, transformative projects and smaller, simpler projects
Public Comment

• What questions or comments do you have about the information presented today?

Visit www.tinyurl.com/BallardInterbay to provide comment!

Public comment protocol

• All: If you signed up via the online form, we will call on you in the order you completed the form

• Web participants: Indicate if you would like to provide a verbal comment by “raising your hand” or noting interest in the chat window; wait for your name to be called

• Dial-in participants: Indicate if you would like to comment by pressing *9 to “raise your hand;” we will invite you to take your turn to speak by stating the last 4 digits of your phone number (press *6 to unmute yourself)

• Comments will be limited to 2 minutes per person

Additional comments may be submitted using the form linked in the chat and on the next slide.
Public Comment

• What do you want to make sure agency partners and the project team consider?
• Do you have additional comments? Visit www.tinyurl.com/BallardInterbay to share them.

Next Steps & Action Items

• Is there additional information you need at this point?
• How can we support you in sharing today’s content with your colleagues and leadership?

Visit www.tinyurl.com/BallardInterbay to provide comment!
Immediate next steps

- **August 2020**: Create project package recommendations
- **September 2020**: Develop draft plan and bridge replacement timeline and funding strategy
- **October 2020**: Refine draft plan with public input and agency comments
- **November 1, 2020**: Submit final report

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Upcoming IAT meetings and key topics

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Topics</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting #5</td>
<td>• Draft Plan Recommendations</td>
<td>September</td>
</tr>
<tr>
<td><em>(public welcome)</em></td>
<td>• Draft Replacement Timeline and Traffic Management Plans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Draft Funding Strategy</td>
<td></td>
</tr>
<tr>
<td>Meeting #6</td>
<td>• Final Review of Draft Plan</td>
<td>October</td>
</tr>
<tr>
<td><em>(if needed)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Thank you!

BallardInterbay@seattle.gov
www.seattle.gov/transportation/birt