



UNIVERSITY OF WASHINGTON

OFFICE OF THE PRESIDENT

Mark A. Emmert, President

April 15, 2010

Ms. Jenifer Young
Environmental Manager
Washington State Department of Transportation
SR 520 Program Office
600 Stewart Street, Suite 520
Seattle, WA 98101

Via electronic mail: SR520Bridge_SDEIS@wsdot.wa.gov

Subject: University of Washington comments on the SR 520 SDEIS

Dear Ms. Young:

S-002-001

The University of Washington is pleased to submit the attached comments on the SDEIS for the SR 520 project. We trust that these comments can be addressed as WSDOT moves forward to define its Preferred Alternative. It is imperative that this essential infrastructure be replaced before it fails—losing this link between Seattle and the Eastside communities would be detrimental to the University of Washington as well as the region's continued prosperity.

We support the proposed corridor configuration of 4 general-purpose lanes plus 2 HOV lanes, a configuration that maintains the capacity for single-occupant vehicles while vastly improving capacity for transit and carpools. The project would also provide a new connection across Lake Washington for pedestrians and bicyclists. Improving these alternative travel modes will support the University's nationally recognized Transportation Management Plan to reduce single-occupant vehicle trips. It will also support our commitment to reduce greenhouse gases through the Seattle Climate Partnership Agreement.

We encourage the WSDOT to move forward immediately with design and construction of improvements on the west side of the corridor. The full benefit of investing in improved transit and bicycle connections across Lake Washington will not be realized until those improvements can be extended all the way to Interstate 5 and through the Montlake Boulevard corridor. As we have stated throughout the mediation process, the University of Washington can accept any of the Westside interchange options, with proper mitigation, that meet the following priorities:

- Improves transit connections to the University of Washington campus.
- Protects the University's assets, including UW Medical Center, Husky Stadium, Washington Park Arboretum, and the Waterfront Activities Center.

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S-002-001

Since the SDEIS was published, FHWA and WSDOT have developed a Preferred Alternative that is similar to Option A+, but incorporates design refinements that respond to community and stakeholder comments on the SDEIS. WSDOT has performed additional studies to identify alternative construction methods and opportunities to reduce the project's construction and long-term effects, as presented in Chapter 3 of the Final EIS. WSDOT will continue to coordinate with the University of Washington to ensure that project effects on the university are minimized or mitigated as much as possible.

S-002-001

- Does not degrade traffic operations through the Montlake Boulevard corridor.
- Maintains the campus parking supply by replacing parking lost due to construction or permanent facilities.
- Allows the University to grow in the future by retaining the building capacity of our property south of Husky Stadium.

Based on information and analysis presented in the Supplemental Draft EIS as well as the Legislative Working Group, the University of Washington currently prefers Option A+ because it meets all of the priority criteria. We would welcome additional design refinements to Option A+ that improve transit connectivity and ensure effective, efficient, and feasible coordination of bus and light rail service while further reducing the potential environmental impacts. Details about key refinements that are currently being considered that the University of Washington supports are listed below. If Option K or L were to be selected as the Preferred Alternative, further analysis and improvements would be needed to mitigate the project's impacts on our future building capacity, parking, and assets such as Husky Stadium, the Waterfront Activities Center, and the historic Canoe House.

S-002-002

Elements to Consider for the Preferred Alternative

The University of Washington continues to work with the partner agencies to refine the alternatives and reach consensus on a Preferred Alternative to meet the legislative objectives of improving transit connectivity and bus and light rail service. Elements of Option A+ and refinements we believe add value if included in the Preferred Alternative are:

- Providing a second bascule bridge across the Ship Canal on Montlake Boulevard. The second bridge is the only way to improve the transit, bicycle, and pedestrian capacity of this primary connection to the University of Washington campus.
- Providing the westbound auxiliary lane between Montlake Boulevard and Interstate 5. This lane has been shown to have substantial traffic operational and safety benefits to both the SR 520 mainline and Montlake Boulevard. The small amount of additional width required between the on-ramp from Montlake Boulevard and the off-ramp to I-5 (estimated to be about a 10-foot widening for 405 feet in length) is worth that benefit.
- Supporting the Rainier Vista land bridge, which would enhance the pedestrian connection between the Montlake Triangle and main campus by constructing a land bridge across a lowered Pacific Place and grade-separating pedestrian movements from both Pacific Place and the Burke-Gilman Trail. Rainier Vista would also provide a link to the improved pedestrian/bicycle crossing on the Montlake Bridge, and provide much needed layover space on NE Pacific Place for buses. This project was analyzed and is supported by the three parties: Sound Transit, the UW, and the City of Seattle Department of Transportation.
- Modifying the Montlake Boulevard interchange to enhance pedestrian, bicycle, and transit connections. This could include moving the direct transit access ramps to the NE 24th Street alignment, providing some HOV lanes along Montlake Boulevard, and improving pedestrian crossings at the interchange ramps.

S-002-002

The Preferred Alternative includes a new bascule bridge and an expanded Montlake lid over SR 520 with improved pedestrian and transit facilities. It also includes modifications to the SR 520/Montlake Boulevard interchange area to improve pedestrian, bicycle, and transit connections. These enhancements were developed through the workgroup process mandated by Engrossed Substitute Senate Bill (ESSB) 6392, wherein WSDOT and FHWA coordinated with the University of Washington, the City of Seattle, bicycle and pedestrian advisory boards, Seattle Design Commission, King County Metro, and Sound Transit to develop a plan for incorporation of several elements. These elements include the University of Washington's Rainier Vista plan, Sound Transit's pedestrian bridge, and improvements to the transfer between the Montlake Triangle and Sound Transit's rail station. This plan will be included in the background assumptions for the analysis of the Final EIS. In addition, WSDOT continues to work collaboratively with the University and Sound Transit in their planning for Rainier Vista land bridge and the University Link station. Although the Preferred Alternative does not include an auxiliary lane on the Portage Bay Bridge, it does include a managed shoulder that provides the same function during times of congestion. For more information about these details, along with other design refinements, see Chapter 2 of the Final EIS.

S-002-003

Washington Park Arboretum

The Washington Park Arboretum is a regional resource managed by the City of Seattle and the University of Washington. Reducing and calming through traffic in the Arboretum is of critical importance to the University. We recognize that diverting traffic out of the Arboretum would affect congestion in the 23rd/24th Avenue corridor, which would delay the local transit services that rely on this route. We support elements of a Preferred Alternative that can reduce traffic through the Arboretum while maintaining transit reliability. These could include:

- Increasing capacity at SR 520/Montlake Boulevard to reduce traffic that uses the Arboretum as a short-cut route.
- Relocating and re-orienting the Lake Washington Boulevard ramps so that they connect to the street grid further west and could be better integrated into the lid concepts near the Montlake Boulevard interchange.
- Implementing traffic calming measures such as raised crosswalks or channelization to reduce the speed of traffic through the Arboretum.
- Tolling through traffic in the Arboretum to divert traffic to other routes or other modes of transportation.

S-002-004

Wetlands and Aquatic Habitat Mitigation

We will continue to work with WSDOT to find suitable sites for compensatory mitigation for wetland and aquatic habitat impacts. To the extent feasible, we request that the loss of wetlands and aquatic habitat in the Arboretum be first mitigated in the Arboretum through actions as described in the Initial Wetland and Aquatic Mitigation Reports. For additional impacts that cannot be mitigated in the Arboretum, the University requests that additional mitigation actions occur at the Union Bay Natural Area (UBNA), within the framework of the UBNA Master Plan.

Because of the University's standing as an educational and research institution, we request that all mitigation actions be designed in close coordination with University academic staff from the appropriate academic colleges to assure opportunity for research and teaching. The University looks forward to working with WSDOT and the resource and permitting agencies to develop an interdisciplinary approach to design, implementation, construction oversight, and monitoring of wetland and aquatic habitat mitigation—including opportunities for hands-on involvement by University faculty, staff, and students to be engaged in these processes. As a critical element in establishing this approach, the final wetland mitigation plan must be complete and available for our review prior to completion of the FEIS.

S-002-005

Section 6(f) and 4(f) Resolution

We will continue to work with WSDOT and the City of Seattle to find suitable replacement property for all loss or use of park and recreation property, and the Arboretum Waterfront Trail. The 6(f) property replacement issues must be resolved for the UW to support

S-002-003

As mandated by ESSB 6392, WSDOT coordinated with the City of Seattle and the Washington Park Arboretum to address traffic concerns in the park. This coordination took place in conjunction with development of the Arboretum Mitigation Plan, a joint effort between WSDOT, SDOT, and the Arboretum and Botanical Garden Committee. The Preferred Alternative would reduce current traffic-related effects on the Arboretum by eliminating the existing Lake Washington Boulevard ramps. Westbound SR 520 traffic would be able to access Lake Washington Boulevard via a new intersection located on the Montlake Boulevard lid at 24th Avenue East, consistent with the suggestion made in the comment. The City of Seattle, in coordination with WSDOT, is developing a plan to address traffic management within the Arboretum. As part of the planning process, WSDOT has committed to funding traffic calming measures that would be implemented in 2011. The traffic management plan will provide further study of the potential to use tolling as a way of managing traffic through the Arboretum.

S-002-004

WSDOT coordinated with the University of Washington, Seattle Parks and Recreation, and the Arboretum and Botanical Garden Committee (which includes both agencies as well as the Arboretum Foundation), and appropriate resource agencies to discuss mitigation opportunities on University of Washington properties in the Washington Park Arboretum and the Union Bay Natural Area. This coordination resulted in the identification of wetland mitigation projects in both the Arboretum and the Union Bay Natural Area. These projects are described in the Conceptual Wetland Mitigation Plan (Attachment 9 to the Final EIS). Although WSDOT also evaluated the Arboretum for potential aquatic mitigation sites, none were identified that met resource agency mitigation requirements.

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S-002-005 | the Preferred Alternative. As 6(f) grantees, the UW and the City of Seattle Parks Department will be responsible for the adequacy of the replacement. There must be agreement among the agencies, documented in the Memorandum of Agreement between the WSDOT, the UW, and the City, that gives the UW assurance that their 6(f) responsibilities are met. We understand that additional environmental analyses will be prepared once potential replacement properties are identified. We welcome the opportunity to work with WSDOT to make sure that these analyses meet UW requirements.

S-002-006 | The University looks forward to an ongoing discussion with the WSDOT to resolve questions of impacts to 4(f) properties associated with the UW Open Space and Arboretum during construction. As an entity with jurisdiction over 4(f) lands impacted by the proposed project, the University appreciates the opportunity to coordinate with the WSDOT per 23 CFR 774. During this coordination process, we will work with WSDOT to develop appropriate mitigation for project-related, temporary adverse occupancy or constructive use of 4(f) properties.

S-002-007 | Our comments on each chapter of the SDEIS and the Discipline Reports are provided in a table attached to this letter for your convenience.

On behalf of the University of Washington, thank you for including us in this design and decision-making process. As I said in the beginning of this letter, we cannot risk losing this critical piece of infrastructure. For that reason, we stand ready to do our part to help your staff move this project forward once you have chosen the Preferred Alternative. Please do not hesitate to call upon us.

Sincerely yours,



Mark A. Emmert
President

Attachment: Table of Comments

S-002-005

Continuing efforts by WSDOT, the University, and the City of Seattle have identified the Bryant's Building site as the preferred replacement site for Section 6(f) converted properties. The three parties signed a Memorandum of Understanding in November 2010 identifying this site and committing to a process to finalize the property transfers necessary to comply with Section 6(f) requirements. The Section 6(f) Environmental Evaluation (Attachment 15 of the Final EIS) provides additional detail on the selection process and the future actions that will be taken to finalize Section 6(f) compliance.

S-002-006

The Final Section 4(f) Evaluation describes the proposed mitigation for the Arboretum and the UW Open Space, as well as for other properties protected by Section 4(f).

S-002-007

Responses S-002-008 through S-002-123 address the comments in the table.

Because the following pages of this item are difficult to read, a full page version of this item is included at the end of the response to comments on the SDEIS in the printed version, and in a separate PDF file in the DVD and online version.

S-002-008


Final locations and park acquisition acreage were confirmed and calculated for the Preferred Alternative and are presented in Chapter 5 of the Final EIS, as well as in the Recreation Discipline Report Addendum (Attachment 7 to the Final EIS) and the Final Section 4(f) Evaluation. Other disciplines that relied on that information for their analyses also have updated their findings based on the current information.



S-002-009

The improved clearance height of the bridge is approximately 14 to 20 feet above the Arboretum Waterfront Trail across Foster Island under SR 520. This profile, which is higher than that of any of the SDEIS design options in this area, is designed to improve stormwater management, allow more light to penetrate to wetland plant communities and aquatic habitat below the bridge, and enhance pedestrian passage on the Arboretum Waterfront Trail. Please see Chapter 2 of the Final EIS for more information about the proposed bridge design.

S-002-010

The SDEIS discussed the possibility of constructing the project in separate phases over time, with the vulnerable structures (the Evergreen Point floating bridge, west approach bridge, and Portage Bay bridge) built first. This “Phased Implementation scenario” was analyzed for each environmental resource. As discussed in Section 2.8 of this Final EIS, due to the funding shortfall, FHWA and WSDOT still believe it is prudent to evaluate the possibility of phased construction of the corridor should full project funding not be available by 2012. Currently committed funding is sufficient to construct the Evergreen Point floating bridge and landings; a Request for Proposals has been issued for this portion of the project, with proposals due in June 2011. Accordingly, this Final EIS discusses the potential for the floating bridge and landings to be built as the first phase of the SR 520, I-5 to Medina project. This differs from the SDEIS Phased Implementation scenario, which included the west approach and

 SR 520 Bridge Replacement and HOV Program <small>I-5 to Medina: Bridge Replacement and HOV Project</small>						<div style="border: 1px solid black; padding: 2px;"> Please note that this document has been reformatted to improve legibility. No content has been altered. </div>	
Report Name and Date		SR 520: I-5 to Medina Bridge Replacement and HOV Project, SDEIS and Discipline Reports					
Name of Reviewer(s)/Disciplines Reviewed		Jan Arntz, Fred C. Hoyt, Amy Kosterlitz, University of Washington – All Disciplines					
Date of SDEIS Issue		January 22, 2010		COMMENTS DUE BY		April 15, 2010	
No.	Chapter/Section	Page	Exhibit No.	Priority	Comment	Reviewer	
S-002-008	1	All	Global		1	Update the park acquisition numbers, prior to completion of the FEIS, throughout the document including the Attachments and Discipline Reports. Refer to specific comments on the Draft Section 4(f)(6)(f) Evaluation.	
S-002-009	2	2.3	2-23		3	The new bridge structure across Union Bay in Option K is 5' above the water through the Arboretum for a width of 192 ft to 250 feet wide. With a bridge this low, water access and recreation is limited and the aquatic habitat may be compromised.	
S-002-010	3	2.4	2-34		1	If the project is phased, how would the floating bridge transition to the land portion of Foster Island? More detail of project phasing needs to be presented in order to evaluate the potential impacts of project phasing.	
S-002-011	4	4.4	4-26		1	The plant collections at the Washington Park Arboretum should be noted as being in the project area. Some plant collections are of international significance. Because not all of the impacts and mitigation are fully analyzed at this point, noting these collections is important to further analysis of parks impacts.	
S-002-012	5		4-29		1	The plant collections at the Canal Reserve Property should be noted in the document. The plants are appraised at close to \$1.5 million dollars. An impact to McCurdy Park means that the UW and UW Botanical Gardens would need to be compensated for the loss of this collection.	
S-002-013	6		4-30		2	There is some DNR property near MOHAI and on Marsh Island that should be identified in the document.	
S-002-014	7	4	4-32		2	This section should identify and describe the Union Bay Natural Area. http://depts.washington.edu/uwbgr/research/ubna.shtml	
S-002-015	8	4.5	4-37		3	The Union Bay Natural Area should be identified with the West Approach Landscape Unit.	
S-002-016	9	5	5-25	5.1-14	1	The UW requests that this rendering be updated prior to publication of the FEIS. The Sound Transit Pedestrian Bridge and the Rainier Vista Land bridge are being analyzed. A final design decision should be made by the time the FEIS is ready for publication. The rendering should be foot-noted that the Montlake Boulevard/NE Pacific Street intersection varies for each Option, and briefly remind the reader of the difference in options.	
S-002-017	10	5	5-74	5.5-7	3	The description of impacts for Option L is not similar to those of Option A, as shown in Exhibit 5.5-7. If Option L is selected, revise the description of visual impacts for Option L.	
S-002-018	11	5.7	5-105		2	The vibrations analysis presented in the Noise Discipline Report, and recommendation for monitoring should be repeated in Chapter 5. The UW requests use of the noise and vibration specifications used for the Sound Transit Link station construction at Husky Stadium. See comment on Noise Discipline Report below. Nearby land uses are research facilities that use extremely sensitive instrumentation. This should be noted in the document. (see Comment 44)	
S-002-019	12	6	6-14	Table 6.1-5	2	Include in Table 6.1-5 the WSDOT public lot west of the SR 520 off-ramp to Lake Washington Boulevard.	

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No.	Chapter/Section	Page	Exhibit No.	Priority	Comment	Reviewer	
S-002-020	13	7.8	7-11	7-4a	2	The figure is missing the <i>Washington Park Arboretum Master Plan</i> .	Fred Hoyt
S-002-021	14	7	7-25		1	The UW requires more information on the bridge height through the Arboretum. A decision on the bridge height will be a balance of: minimum height to minimize negative impacts of shading to wetland fauna, minimum height to maintain recreational activities, design constraints due to drainage requirements, the affect of bridge height on noise and resulting noise wall height and length. The UW requests side views of the bridge, for the area from McCurdy Park to Foster Island looking north and south. The visual simulation should show the existing heights at the bottom of the bridge and the top of the bridge (surface and railing) in order to understand the visual simulation and height of the bridge alternative.	Fred Hoyt
S-002-022	15					The visual analysis should include the affect of tree removal on views. The UW is particularly concerned with the views from the Arboretum because it affects the visitor experience. Are there any areas where tree removal would open up a view to the bridge that is currently blocking views of the bridge?	
S-002-023	16	4(f)/6(f) Evaluation	Global		1	The SEIS on 4(f)/6(f) impacts and mitigation must be complete and agreed to by UW and City parks before publication of the FEIS.	Amy Kosterlitz
S-002-024	17	4(f)/6(f) Evaluation	Global		1	The 6f property replacement issues must be resolved for the UW to support the preferred alternative. As 6f grantees, the UW and City of Seattle Parks Department will be responsible for the adequacy of the replacement. The UW supports the statement in the Draft Parks Mitigation Technical Memorandum that there must be agreement among the agencies, documented in the Memorandum of Agreement between the WSDOT, the UW and the City that gives the UW assurance that the 6f responsibilities are met.	Amy Kosterlitz
S-002-025	18	4(f)/6(f) Evaluation	Global		1	There is no recognition of "constructive use" impact based on visual, noise, or other impairment. This impact should be addressed in the 4f analysis. As stated in the report on page 58, 23 CRF, Part 774 ad[d] requires documented agreement by the official(s) with jurisdiction over the Section 4(f) property that the proposed temporary occupancy is so minimal that it does not constitute a use under Section 4(f).	Amy Kosterlitz
S-002-026	19	4(f)/6(f) Evaluation	Global		1	The accuracy of all parks acreage must be verified. Some park properties and open space are inaccurately identified and there are discrepancies in park acreages.	Amy Kosterlitz
S-002-027	20	4(f)/6(f) Evaluation	Global		1	We recommend that a table be prepared to identify all of the affected parks and open space properties. It should include a list of the affected parks (formal and common name), ownership, map and data sources, and affected acreage This will assist the affected agencies prepare the Memorandum of Agreement related to mitigation. Include this table in the FEIS and/or Attachment 6.	C. Hirschey
S-002-028	21	4(f)/6(f) Evaluation	51		1	The discussion of Foster Island discloses what is known and unknown with regard to Foster Island. As stated in the document, "...the boundaries of the TCP remain undefined. Further documentation and analysis will be undertaken to identify the TCP boundaries as part of the Section 106 process, but it is assumed that all of Foster Island will be included in these boundaries. The UW requests that the missing information be provided and the document updated prior to completion of the FEIS.	Jan Arntz

the Portage Bay bridge in the first construction phase. Under the current delivery strategy, the floating bridge would still be the first project component completed, but it would transition back to the existing west approach structure east of Foster Island and would not affect the island. Exhibit 2-29 in the Final EIS shows the transition area, which is located east of Foster Island.

Sections 5.15 and 6.16 of the Final EIS describe effects associated with this revised potential phasing. The project phasing evaluated in the Final EIS would result in a delay in many of the effects and benefits of the project on Seattle parks, neighborhoods, and wetlands.



S-002-011

The Arboretum plant collections are discussed in the Recreation Discipline Report Addendum (Attachment 7 to the Final EIS). Additional information on the significance of the Arboretum's plant collections has been included in Chapter 4 of the Final EIS. The Arboretum Mitigation Plan (Attachment 9 to the Final EIS) describes mitigation measures agreed upon by WSDOT, the University, the City of Seattle, and the Arboretum Foundation for effects of the SR 520, I-5 to Medina project.

S-002-012

The canal reserve land is discussed as a contributing element to the Montlake Historic District, and a former part of the Washington Park Arboretum, in both the Final Cultural Resources Assessment and Discipline Report (Attachment 7 of the Final EIS) and in the Final Section 4(f) Evaluation (Chapter 9 of the Final EIS). WSDOT has recognized that the parcel is significant for the original specimen plantings that have survived at this location. Of the 59 specimen plantings at the canal reserve land, 24 are from the historic period of the Montlake Historic District.

The Arboretum has conducted an appraisal of its tree collection in areas

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No.	Chapter/Section	Page	Exhibit No.	Priority	Comment	Reviewer
S-002-029	22 4(f)/6(f) Evaluation			2	If option K or L are selected, then a documentation of the Canoe House structural condition should be a requirement included in the FEIS.	Jan Arntz
S-002-030	23 4(f)/6(f) Evaluation	89		2	The cost and commitments to replacing the Waterfront Activities Center and the mitigation required to replace the current activity at the Canoe house must be clearly identified if Option K moves forward.	Jan Arntz
S-002-031	24 4(f)/6(f) Evaluation	111		1	The removal and reconstruction of the three pedestrian overpasses is mentioned in the first paragraph at the top of the page, however this is in conflict with the statement on page 151. See comment, page 151.	Jan Arntz
S-002-032	25 4(f)/6(f) Evaluation	133, 140		2	The Canal Reserve is unique open space property that should be called out. If it is not a 4(f) 6(f) property (Exhibit 52 acreage, and discussed in Exhibit 55) then it should be addressed in the SDEIS/FEIS	C. Hirschey
S-002-033	26 4(f)/6(f) Evaluation	151		1	If Option L is selected, then mitigation is required for the removal of the pedestrian bridges. The removal of the bridges under Suboption L, does not meet the UW's need to safely move people at the same location.	Jan Arntz
S-002-034	27 4(f)/6(f) Evaluation	152		3	Some mitigation measures are described as, "a commitment to work with the public agencies to determine mitigation". The UW accepts this approach yet recognizes that this work should be complete, and included in the Memorandum of Agreement, before completion of the FEIS.	C. Hirschey
S-002-035	28 4(f)/6(f) Evaluation	154		1	The document states that WSDOT is working with the City of Seattle and the UW on identification of additional appropriate replacement land for permanently acquired park property. The expectation of UW is that we will continue to work with the City and WSDOT on mutually acceptable replacement properties and that this will occur before completion of the FEIS.	Jan Arntz
S-002-036	29 Cultural Resource Disc. Report	31		2	The historic setting of the University of Washington should be included in this section.	Jan Arntz
S-002-037	30 Cultural Resource Disc. Report	Global		2	The UW appreciates the time and effort of the WSDOT to review the properties on the UW campus, but we cannot agree or disagree with the listings because we have not done an independent analysis or historical survey of the campus. Should any other information become available during preparation of the FEIS we would request that the information and analysis in the document be updated.	Theresa Doherty
S-002-038	31 Cultural Resource Disc. Report	164		1	If options K or L are selected, it would/could result in vibration impacts to the UW, certainly more than for Option A. The UW requests that an analysis of vibration impacts and Electro Magnetic Interference (EMI) levels use the same methodology as for the Sound Transit University Link project. (see Comment 44)	Jan Arntz
S-002-039	32 Cultural Resource Disc. Report	165		3	The Opening Day crew races are an international event and an important element of Seattle's culture. This event should be included in the document.	Jan Arntz

affected by the project and provided that information to WSDOT. WSDOT has reviewed the appraisal and will include the cost of affected trees as part of the real estate transaction. Additionally, through the Section 106 process, WSDOT has committed to resolving the project's adverse effects to historic properties.

The specimen plants at McCurdy Park are noted in the Final Section 4(f) Evaluation (Chapter 9 of the Final EIS) and are considered part of this recreational resource.

S-002-013



The Department of Natural Resources ownership of portions of Marsh Island and East Montlake Park is correctly described in the Affected Environment section of the Recreation Discipline Report (Attachment 7 to the SDEIS) and the Section 6(f) Environmental Evaluation (Attachment 15 of the Final EIS). For updated information regarding effects on parks related to the Preferred Alternative, see the Recreation Discipline Report Addendum (Attachment 7 to the Final EIS).

S-002-014

The Union Bay Natural Area was not included in the Recreation Discipline Report because it is located outside the boundary of the study area (which extends 500 feet from the limits of construction). It would not be negatively affected by the project.

S-002-015

The Union Bay Natural Area is not specifically mentioned in Section 4.5 of the SDEIS; however, it is included in the West Approach Landscape Unit as shown in Exhibit 4.5-1 on page 4-35. There was an error on Exhibit 4.5-1 on Page 4-35. The landscape unit labeled Union Bay should be labeled West Approach. This has been updated in Section 4.5 of the Final EIS.

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S-002-040	33 Cultural Resource Disc. Report	167		3	There is no mitigation of the impacts from dust, noise and vibration to cultural resources. The UW requests that mitigation measures be identified for dust, noise, and vibration impacts to cultural resources.	Jan Armtz
S-002-041	34 Cultural Resource Disc. Report	192		2	The discussion of Foster Island needs more detail to document the project impacts and archeological resources on Foster Island. The archeological field studies are occurring in March and April 2010. These studies, mitigation, and a response protocol during construction should be documented and reviewed by UW before completion of the FEIS.	Jan Armtz
S-002-042	35 Ecosystem Disc Report	4-5	Exhibit 4.2		The Pacific Place Triangle/Rainier Vista should be included in the analysis as a Landscape unit.	Jan Armtz
S-002-043	36 Ecosystem Disc Report	4-12		1	Include the Union Bay Natural Area in the analysis. If there are no impacts, then a statement should be included in the WSDOT Ecosystem Discipline Report that the area is not impacted by the project alternatives.	Jan Armtz
S-002-044	37 Indirect/Cumulative Impacts Disc. Report	74		1	This section focuses the discussion on the Arboretum, however the project affects recreational activities at the Waterfront Activities, national and international crew races, Husky football games in terms of number of attendees and boats, and possible visitor experience at the Union Bay Natural Area. Expand the discussion and analysis to include this range of recreational activities.	Jan Armtz
S-002-045	38 Land Use/Economics, and Relocations Disc. Report	45		1	While Exhibit 21 includes the University of Washington, there is no discussion as to the economic benefit. Page 45 includes the number of employees but it does not discuss students, the amount of research, etc. The economic benefit should support the SR 520 project decisions due to the significant state investment in the UW. The UW will soon publish an economic impacts report and will provide it to WSDOT.	Jan Armtz
S-002-046	39 Land Use/Economics, and Relocations Disc. Report	105		3	The discussions regarding Options K and L are very light in terms of the UW and the Waterfront Activities Center. Should either of these two options or elements of them be selected as the Preferred Alternative, the UW would request more detail in these discussions.	Jan Armtz
S-002-047	40 Land Use/Economics, and Relocations Disc. Report	Attach 1 pg 1-26		1	For the first policy listed, it has been disclosed that the removal of the unused R.H. Thomson Expressway ramps would not allow for a multiuse link path to MOHAL, and that the 6-lane Alternatives would be inconsistent with this policy. It is unclear how bicycle circulation would occur with each of the alternatives.	Jan Armtz
S-002-048	41 Noise Disc Report	99		3	The UW concurs with the noise walls included with the project, and supports the WSDOT with the need to coordinate the design and construction of noise walls with the UW and the neighborhoods to address the design, aesthetics, and possible mitigations measures need for the noise walls. The height of noise walls and potential secondary impacts created by the noise walls are of concern to the Arboretum. The UW requests design consultation with WSDOT during design of the noise walls.	Jan Armtz

S-002-016

Although the Montlake Triangle improvements are not part of the Preferred Alternative, WSDOT has worked with the University of Washington, the City of Seattle, King County Metro, and Sound Transit through the ESSB 6392 process to ensure that the Sound Transit pedestrian bridge over Montlake Boulevard is compatible with WSDOT requirements for such facilities. Chapter 7 of the Final Transportation Discipline Report (Attachment 7 to the Final EIS) includes a graphic depicting the current proposal for pedestrian and bicycle connectivity in the Montlake Triangle.



S-002-017

Although it is possible that a different choice of viewpoints for Exhibit 5.5-7 could have better demonstrated the description of effects from Option L, the statement made was correct in context. The Final EIS does not include an updated description of this Option L's effects.

S-002-018

Chapter 5 of the Final EIS focuses on project operation and permanent effects; therefore, construction vibration information has not been included in this chapter. Adjacent land uses that could be affected by construction noise and vibration are discussed in Chapter 6 of the Final EIS and the Noise Discipline Report Addendum (Attachment 7 to the Final EIS).

WSDOT discussed use of the Sound Transit specifications for the SR 520, I-5 to Medina project during coordination with the UW through the ESSB 6392 workgroup process. WSDOT will use its own contract specifications to address the noise and vibration effects of construction; however, WSDOT may modify its specifications to include information from Sound Transit or other contract specifications if WSDOT and FHWA determine that those measures would better protect the environment for the project and that they would be feasible for WSDOT to implement.

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Report Name and Date		SR 520: I-5 to Medina Bridge Replacement and HOV Project, SDEIS and Discipline Reports				
Name of Reviewer(s)/Disciplines Reviewed		Jan Arntz, Fred C. Hoyt, Amy Kosterlitz, University of Washington – All Disciplines				
Date of SDEIS Issue		January 22, 2010		COMMENTS DUE BY		April 15, 2010
No.	Chapter/Section	Page	Exhibit No.	Priority	Comment	Reviewer
S-002-049	42 Noise Disc Report	Global		1	Vibration monitoring, mitigation, and notification of construction activities are extremely important to nearby research facilities. These facilities use very sensitive measuring instruments. The UW requests that WSDOT use the Sound Transit Noise and Vibration Specifications because these specifications have been developed with the input and concurrence of UW and the affected research facilities. http://www.cpo.washington.edu/DOCMAN/WEB_FTP/DOCMANFTP/U220%20Conformed%20Specifications.pdf	A. Casillas
S-002-050	43 Noise Disc Report	60, 61		2	The vibrations analysis includes recommendation for monitoring as a possible course of action when vibration levels reach 1.27 inches per second. Delete the word "possible". Include this commitment in Chapter 5. However, the UW's preferred methodology is the Sound Transit methodology (see above).	C. Hirschey
S-002-051	44 Noise Disc Report			1	The potential for pile driving during bridge construction is not addressed. Specifically, construction noise and vibrations of constructing the second bascule bridge should be addressed due to the proximity to the UW Medical Center.	M. Heffron

The Noise Discipline Report Addendum provides detailed information on potential construction-related vibration for the Preferred Alternative. WSDOT will continue to coordinate with the UW to provide additional information on noise monitoring methods and to determine the best ways to avoid or minimize the effects of noise, vibration, and other construction factors on the UW's work. Monitoring would take place if vibration from impact construction methods is expected to exceed a certain threshold. Such methods include pile driving, vibratory sheet pile installation, and soil compacting. WSDOT will continue to coordinate with the UW on appropriate methodology after the NEPA Record of Decision is issued.

S-002-019

Construction effects on parking and the discussion of parking lot options have been updated and are included in the Final Transportation Discipline Report developed for the Preferred Alternative (Attachment 7 to the Final EIS). Table 6.1-5 has been revised as appropriate.

S-002-020



Exhibit 8 in the Final Indirect and Cumulative Effects Discipline Report (Attachment 7 to the Final EIS) includes the Arboretum Master Plan.

S-002-021

Please see the response to Comment S-002-009. Section 5.5 of the Final EIS and the Visual Quality and Aesthetics Discipline Report Addendum (Attachment 7 to the Final EIS) include several new visualizations that show the profile and height of the Preferred Alternative through the Arboretum.

S-002-022

The Potential Effects section of the Visual Quality and Aesthetics

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Name of Reviewer(s)		Kevin O'Brien, Otak, Inc. (for University of Washington)					
Date of SDEIS Issue			Friday, January 29, 2010		COMMENTS DUE BY	Thursday, April 15, 2010	
No.	Chapter/Section	Page	Exhibit No.	Priority ¹	Comment	Reviewer	
S-002-052	1	1 & 2	1-25, 2-3	2-9 & 2-10	2	A new trail is proposed in the Arboretum, as part of the 6-lane general design. However, only Option A shows this trail (pg. 2- 16), with Options K and L apparently not showing the trail. Clarification of the graphics and/or whether the trail is proposed under all options should be made. The new trail is referenced in SDEIS Chapter 1, pg. 1-25, and again on pg. 2-3.	
S-002-053	2	1	1-26		2	Pg. 1-26—no mention of the spill containment vaults on the floating bridge occurs in the stormwater treatment section. The vaults need to be included in this section, along with the explanation that the proposed design and operation of stormwater quality treatment is not a conventional enhanced or basic BMP, and will require approval by Ecology.	
S-002-054	3	3	3-7		2	Need to modify the in-water timing table. We suggest eliminating the July 16-July 31 and November 16-February 1 work window, as this pertains to Lake Washington north of Arrowhead Point. The appropriate work window from SR 520 northward to Arrowhead Point is July 18-March 15.	
S-002-055	4	4	4-64		2	Pg. 4-64—wetland habitat is rated as "moderate". However, if wetland functions are analyzed by combining the wetlands units as a lake-fringe wetland complex, what is the resulting habitat value? The Corps and possibly Ecology need to verify delineated wetland edges, characterization, and the functional assessments of the wetland units, as this is a major factor in determining the mitigation necessary for the project. We expect to see Corps/Ecology verification of the wetland edges, units, and functions prior to issuance of the Final SEIS for the project.	
S-002-056	5	5	5-64		2	It is unclear if this section intends to present proposed mitigation for 4(f) impacts, wetland and/or buffer impacts, shoreline impacts, or simply restoration suggestions. Similar question for impacts to the Arboretum.	
S-002-057	6	5	5-69 to 5-75		2	Visual impacts call out reductions in specimen trees associated with the UW Open Space (pg. 5-69), loss of screening tree buffers associated with views from the Arboretum and UW WAC (pg. 5-70), the southeast UW campus (pg. 5-71), and Foster Island (pg. 5-72, 5-74&75). Have these impacts been factored into 6(f)/4(f) analyses? Coupled with the occupation of 4(f) lands during the multi-year construction period, these collective impacts do not seem minor and would not merit a temporary exemption, per 23 CFR 774.13(d).	

Discipline Report discussed the possible negative and positive effects of tree removal on views. For updated information on views, please see the Visual Quality and Aesthetics Discipline Report Addendum (Attachment 7 to the Final EIS).

S-002-023

Beginning in 2001, WSDOT coordinated with the agencies with jurisdiction over parks and recreation facilities (including the UW) to evaluate project impacts and likely mitigation measures. Through the Parks Technical Working Group, WSDOT, the City of Seattle, the UW, and other agencies have evaluated potential project impacts to park and recreation facilities and have identified appropriate mitigation. These mitigation measures are included in the Final Section 4(f) Evaluation (Chapter 9 of the Final EIS) and the Final Section 6(f) Evaluation (Chapter 10 of the Final EIS). Please see these chapters for a more detailed description of interagency coordination and agreed-upon mitigation measures.

S-002-024

Through WSDOT's coordination with the City of Seattle and University of Washington (described in the response to the previous comment), a preferred replacement site was identified to mitigate for the project's conversion of the Section 6(f) property. In November 2010, WSDOT signed a Memorandum of Understanding (MOU) with the City and UW to memorialize the commitment to continued coordination throughout the Section 6(f) process, and to proceed with evaluation of the Bryant Building site as the replacement site that best fulfills the Section 6(f) replacement criteria.

The agencies agreed that the proposed site would serve the recreational needs of the community currently served at the existing site and that the proposed replacement site location is appropriate to replace the existing facilities. WSDOT's appraisal demonstrated that the equivalent or higher



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No.	Chapter/Section	Page	Exhibit No.	Priority ¹	Comment	Reviewer		
S-002-058	7	5	5-35		1-2	The "Converted to Right-of-Way" shading is difficult to understand. Is this land outside of the current right-of-way that is being converted to right-of-way under the proposed project, or is it land that is being converted to a transportation structure? Why isn't the pink area on Option K on pg. 5-35 included in the dotted line that comprises the proposed right-of-way? Is this because a subterranean feature like a tunnel doesn't have a right-of-way associated with it? This seems odd, given the comments in the Section 4(f)/6(f) report about an underground easement for the Section 4(f) use of the Open Space property for the tunnel. What about ROW acquisition issues associated with the Foster Island lid? Are there any? In addition, there are differences in the proposed right-of-way dotted line polygon on pg. 5-35, with Options K and L showing a longer extension of ROW along Pacific Ave. vs. Option A—yet there isn't any indication of a Converted color, making the distinction between existing ROW and proposed ROW unclear. It is assumed that this represents an increase in ROW along a corridor that already is considered ROW for SDOT; however, some clarification is needed.		
S-002-059	8	5	5-36		2	The SDEIS concludes that the right-of-way acquisitions represent only a small percentage of land use change in the City of Seattle—yet anywhere from 9 to 14 acres of park/open space/civic/quasi-public land will be converted to ROW under the various alternatives. Such a conclusion is questionable, because any land conversion can be minimized if the scale for comparison is large enough. A more reasonable approach would be to analyze the proportion of land conversion for the project corridor, for a more targeted approach. In addition, park and open space land in the project vicinity and associated neighborhoods is being significantly altered.		
S-002-060	9	5	5-39		1	The statement...."that the UW Water Activity Center will be relocated for several years" should be included and specifically addressed in the mitigation portion of the SDEIS.		
S-002-061	10	5	5-43		2	The text identifies impacts to the Arboretum recreational opportunities under Seattle's SMP and project inconsistency with that policy, but this inconsistency is not mentioned under the Arboretum Master Plan consistency. The Arboretum Master Plan specifically calls out continued non-structural recreational use as a Plan element, and thus the proposed project and its impacts to the recreational elements of the Arboretum are inconsistent with this element of the Arboretum Master Plan, as well as the other elements mentioned in the SDEIS.		

value criterion of Section 6(f) had been fulfilled. The purchase and/or development of the Bryant Building site would result in a total net gain of 1.3 acres of Section 6(f) recreational space in the Seattle area.

S-002-025

WSDOT is working closely with FHWA, which administers Section 4(f), on the characterization of uses under this regulation. The UW-owned properties that the Preferred Alternative affects would all experience a direct use (i.e., an acquisition of property) as a result of the project. If there is a direct use of a Section 4(f) property, the analysis does not go on to consider constructive use as defined by 24 CFR 774, since the direct use triggers the need to consider avoidance alternatives and measures to minimize harm. As noted in the responses to previous comments, WSDOT has worked closely with the UW as an agency with jurisdiction over Section 4(f) resources in evaluating impacts and developing mitigation measures for these resources.

S-002-026

Final park acreages were confirmed and calculated for the Preferred Alternative and are presented in Section 5.4 of the Final EIS and the Recreation Discipline Report Addendum (Attachment 7 to the Final EIS).

S-002-027

Table 4.4-1 in the Final EIS includes summary information including ownership for recreation resources in the project vicinity. Table 5.4-1 in the Final EIS summarizes the permanent park acquisition by resource. The same information is provided in the Final Section 4(f) Evaluation which is Chapter 9 in the Final EIS.

S-002-028

Following publication of the SDEIS, further documentation and analysis was performed to determine the boundaries of the Traditional Cultural



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Date of SDEIS Issue		Friday, January 29, 2010	COMMENTS DUE BY		Thursday, April 15, 2010	
No.	Chapter/Section	Page	Exhibit No.	Priority ¹	Comment	Reviewer
S-002-062	11	5	5-43	1	Pg. 5-43. Specific, or even conceptual mitigation, has been deferred until a preferred alternative is identified. This may not be appropriate at this stage. The SDEIS should present more detail on mitigation, or mitigation requirements that will be met, other than reference to future mitigation planning. For example, it should bear mentioning that the City of Seattle has mitigation requirements for shoreline habitat, fish and wildlife habitat conservation areas, and shoreline habitat buffer. Identified mitigation ratios for shoreline habitat buffer, per the Seattle Municipal Code, are 1:1 for replacement of shoreline habitat/shoreline ecological function that occurs within ¼ mile of where the vegetation removal, habitat loss, or placement of new impervious surface occurred; or 3:1 where the mitigation replacement is located along the shoreline greater than ¼ mile from where the habitat loss occurred.	
S-002-063	12	5	5-51	2	The statement that the project will treat stormwater runoff from the road and this will benefit fish species needs to be investigated and verified. Increased stormwater runoff from the larger pollution-generating impervious surfaces of the proposed bridge, even if treated, may very well not represent a benefit—just a minimization measure.	
S-002-064	13	5	5-52	2	Text provides some specific mitigation measures for social justice impacts. We would like to see a similar approach, with specific mitigation measures called out, for land use mitigation, wetland mitigation, and Section 4(f) and 6(f) mitigation as components in the Final SEIS.	
S-002-065	14	5	5-57	2	All options, not just Options K and L, will affect the use of the UW open space because of new project elements and associated ROW acquisitions. No mention of the stormwater treatment facilities proposed for the UW Open Space area occurs. The conversion to ROW for a stormwater treatment facilities should be disclosed in the document.	
S-002-066	15	5	5-64	2	Mitigation for impacts is rather vaguely called out as occurring as part of an ongoing process. The UW expects a fuller treatment of proposed mitigation for loss of UW Open Space function and impacts to the Arboretum in the Final SEIS.	
S-002-067	16	5	5-68 to 5-75	2	The SDEIS suggests mitigation for the diminishment of aesthetic value on these 4(f) lands. Coupled with the occupation of 4(f) lands during the multi-year construction period, these collective impacts do not seem minor and would not merit a temporary exemption, per 23 CFR 774.13(d).	

Property on Foster Island. According to the findings of the analysis, WSDOT will treat all of Foster Island as a TCP. However, because Foster Island remains a culturally sensitive area to those tribes that traditionally used the land, detailed information is confidential per 36 CFR 800.11(c) and Section 304 of the National Historic Preservation Act and will not be included in the Final EIS. WSDOT has worked with these tribes to maintain and preserve their culturally sensitive information and will not publish any such information without the consent of the consulting tribal parties.

S-002-029

As discussed in the Final Cultural Resources Assessment and Discipline Report (Attachment 7 of the Final EIS), the new bascule bridge over the Montlake Cut would have a visual effect on the Canoe House and would be mitigated through measures stipulated in the Programmatic Agreement. The effects of the Preferred Alternative on the Canoe House would be similar to Option A. If Options K or L were identified as the Preferred Alternative in the future, additional documentation about the Canoe House would occur as appropriate.

S-002-030

Please see the response to comment S-002-029. The Preferred Alternative would have no construction or operation effects on the Waterfront Activities Center. Project cost estimates presented in Chapter 1 of the SDEIS and Final EIS include anticipated mitigation costs. If Options K or L were identified as the Preferred Alternative in the future, additional detail regarding replacement of the Waterfront Activities Center functions would be provided as appropriate during final design.

S-002-031

The Preferred Alternative does not include the removal of the three pedestrian bridges, so there is no further discussion in the Final EIS

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No.	Chapter/Section	Page	Exhibit No.	Priority ¹	Comment	Reviewer	
S-002-068	17	5	5-121	5.10-1	2	Water Resources. The section on the Lake Washington West Approach should reference the facilities on Exhibit 5.10-1. Presumably the treatment vaults associated with Option A are the vaults in Facility V, and the treatment vaults for K are presumably Facility V and Facility Y. It is unclear what treatment facility is being referenced for Option L—presumably the Facility M wetlands. Under the Union Bay basin section on the same page (5-121), there is no mention of Facility U or what impervious surfaces associated with the project will drain to Facility U. The role of Facility Z is not specified; although mention of spill containment vaults occurs as part of the stormwater treatment discussion for the floating bridge portion of SR 520, Facility Z does not appear to be associated with that part of the bridge. Under Table 5.10-2, proposed facility K is listed but not shown in Exhibit 5.10-1.	
S-002-069	18	5	5-122		2	Pg. 5-122 in SDEIS, and Water Resources Discipline Report. Comments made by this reviewer and others for the Draft Water Resources Discipline Report specifically asked for evidence regarding the efficacy of the proposed spill containment vaults and associated catchment basins and roadway sweeping—the AKART analysis by CH2M Hill. Replies to these comments indicated that the AKART analysis would be available upon publication of the SDEIS. This reviewer has been unable to locate that analysis. The AKART analysis should be made available as part of the support documentation for the SDEIS and Final SEIS.	
S-002-070	19	5		5.10-2	1	The proposed spill containment vaults in the SDEIS appear to be enclosed and not open-bottomed structures, in contrast to the Water Resources discipline report. This is an important distinction, as spill containment vaults would be expected to have a much higher localized concentration of contaminants because of stormwater discharge into a limited space, compared to a comparable volume of water elsewhere in the lake, and open-bottomed vaults could allow fish into these cells. Additionally, it is unclear from the SDEIS how the proposed treatment system is supposed to work, particularly when the statement is made that the lagoons will allow dilution of pollutants in stormwater prior to discharge beneath the bridge.	KOB
S-002-071	20	5		5.10-3	3	It is unclear as to what the pollutant loads represent. Is it yearly pollutant loading? Pollutant loading during a particular design storm event? We assume yearly pollutant loading, but this should be explicit.	
S-002-072	21	5	5-125		2	Permanent negative effects to water quality associated with the proposed project will be minimized and not avoided, as pollutants will continue to be loaded into the waters of Lake Washington under the proposed project, even with implementation of water quality treatment BMPs.	
S-002-073	22	5	5-125		2	The statement that an increase in impervious surface associated with the proposed project will not cause a detectable change in water quality is not borne out by the analyses conducted in the Water Resources discipline report—which contains a table that predicts detectable changes in water quality in different drainage areas under different alternatives (Exhibit 30). While most of these predicted differences represent decreases in pollutant loading under proposed vs. existing conditions, there are localized predicted increases in some pollutants.	

about that issue or any related mitigation. If Option L were identified as the Preferred Alternative in the future, additional detail regarding the pedestrian bridges would be provided as appropriate during final design. Avoidance or minimization of this effect is not possible, as stated on page 151; however, mitigation, such as replacement as stated on page 111, would be provided.

S-002-032

Please see the response to comment S-002-012.

S-002-033

Please see the response to Comment S-002-031.

S-002-034

WSDOT has coordinated with regulatory agencies and the University of Washington to develop mitigation concepts and commitments for natural and built environment resources through several processes. The processes include the Natural Resources and Parks Technical Working Groups, as well as the Arboretum mitigation planning process required by ESSB 6392. Commitments related to Sections 4(f) and 6(f) have been formalized through the Final Section 4(f) Evaluation, the Section 6(f) Environmental Evaluation, the Section 106 Programmatic Agreement (Attachment 9 of the Final EIS), and a Memorandum of Understanding between WSDOT, the UW, and the City of Seattle regarding Section 6(f) replacement property.

S-002-035

Please see the response to Comment S-002-005. WSDOT has continued to work with the City of Seattle and the UW in identification of replacement properties.



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S-002-074	23	5	5-135		2	The statement that the Option A suboption would result in an additional 2.3 acres of shading of aquatic bed wetlands compared to Option A is inconsistent with the information on pg. 5-127, both in the text and in Table 5.11-1. If the statement is accurate and aquatic bed habitat is being shaded that is not being counted in the wetland shading impacts, these wetland impacts need to be revised to reflect shading that occurs not just to forested, scrub/shrub, and emergent wetlands, but to aquatic bed wetlands, as well.	
S-002-075	24		5-143		2	Change the following, in order to reflect the language in the Ecosystems Discipline Report and to draw a more appropriate conclusion. "This would improve aquatic habitat conditions in some areas and offset and minimize potential negative effects in other areas."	
S-002-076	25	5	5-143		3	It is suggested that the Wetlands paragraph should be moved to pg. 5-144 as the first paragraph under the Wetlands heading, or be deleted.	
S-002-077	26	5	5-144		3	The first paragraph on this page, under the heading Fish and Aquatic Resources and Wildlife and Habitat, does not make much sense. If there are additional, specific avoidance and minimization measures associated with permanent impacts, it would make sense to list them on pg. 5-143. If the additional avoidance and minimization measures are associated with construction-related impacts, delete this section and include those measures in Chapter 6.	
S-002-078	27	5	5-146		1	No mitigation is proposed for permanent loss of wildlife habitat. Although not required under any regulatory framework, the project as a whole would benefit from an approach that seeks some compensatory mitigation for loss of this habitat.	
S-002-079	28	6	Multiple		1	Construction activities affecting parks, the Arboretum, and the UW Open Space, as identified in Chapter 6, will last for years but are called out as temporary impacts. 23 CFR 774.13(d) establishes criteria for temporary occupancy exceptions, and states that not only must the temporary impacts last for less time than the duration of the project, but that the scope of work must be minor (nature and magnitude of the disturbance is minimal). The latter criterion concerning "minor" scopes of work suggests that impacts on the order of magnitude of several years preclude being considered exceptions to the requirement for 4(f) approval: such on-going, long-standing impacts are of a temporal nature and magnitude that cannot reasonably be considered minor.	

S-002-036

This section in the SDEIS Cultural Resources Discipline Report is a focused discussion of the historic context of the study area. The University of Washington is briefly mentioned in this section because only a small portion of the university campus is within the boundaries of the Area of Potential Effect, and a full discussion of the campus was not warranted.

S-002-037



WSDOT has not performed additional analysis on the University of Washington historic buildings since the SDEIS was published. Therefore, the Final EIS will not include any updated information on these buildings. Please see the response to Comment S-002-036.

S-002-038

The Preferred Alternative is most similar to Option A from the SDEIS, and is not expected to include vibration-generating construction activities in close proximity to vibration-sensitive facilities on the UW campus. Please see the response to Comment S-002-018 regarding WSDOT's approach to working with the UW to assess and minimize construction vibration.

S-002-039

The SDEIS Cultural Resources Discipline Report discussed properties eligible for the National Register of Historic Places (NRHP) that may be affected by the project. As part of the analysis, activities or events uniquely associated with a property that give evidence of its historic importance were identified. One such example discussed in the report was the Opening Day of Boating Season, which is a traditional activity associated with the NRHP-listed Seattle Yacht Club. However, an activity alone is not eligible for the NRHP; it must be associated with a specific historic property as a defining characteristic of that property.

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No.	Chapter/Section	Page	Exhibit No.	Priority ¹	Comment	Reviewer
S-002-079	29	6	6-38	1	<p>This "temporary" nature of these impacts is particularly relevant for the Washington Park Arboretum, in which "temporary" impacts are not considered a 4(f) use of the property, and thus have no mitigation associated with said use. However, the "temporary" impacts are much larger than the 4(f) use acreage identified in the report, and last for so long, that a reasonable interpretation of 23 CFR 774.13(d) would suggest that these "temporary" uses do not meet the criteria to be considered exempt. For example, Option A identifies 0.9 acres of 6(f) use of the Arboretum due to permanent conversion of the land to transportation use. However, 2.4 acres of construction impacts will occur in the Arboretum, lasting up to six years. For Option K, a total of 1.4 acres of 4(f) use of the Arboretum due to permanent conversion of the land to transportation use, but 5.3 acres of construction impacts will occur and will last up to seven years. Finally, Option L identifies 0.6 acres of 6(f) use of the Arboretum due to permanent conversion of the land to transportation use, while 3.5 acres of construction impacts will occur and last approximately six years.</p> <p>In addition to the larger impacts to the Arboretum, the UW Open Space area has "temporary" construction impacts that are larger than the 4(f) use identified in the report and last for several years. Option A is identified as having 0.2 acres of 4(f) use associated with permanent acquisition of the land to transportation use, but another 1.1 acres will be impacted for 27 months due to construction easement and associated construction staging (Exhibit 3-8). Option K is identified as having 0.1 acres of 4(f) use associated with permanent conversion of the land to transportation use, but another 0.5 acres will be impacted for 45 months due to a construction easement. Option L is identified as having 0.5 acres of 4(f) use associated with permanent conversion of the land to transportation use, but another 0.9 acres will be impacted for 30 months due to a construction easement.</p> <p>The extended duration of these construction impacts, particularly those in the Arboretum, strongly indicate that such impacts cannot be considered "temporary" or "minor", and therefore should not be considered exceptions under 23 CFR 774.13(c)—and should be mitigated for accordingly.</p>	
S-002-080	30	6	6-79	1	<p>Increased turbidity and sediment mobilization associated with the project may not adversely affect the water quality of Lake Washington as a whole, but will certainly cause localized adverse effects to aquatic fauna that may experience the increases in turbidity. A project of this magnitude and duration will result in localized degradation of water quality and will negatively affect aquatic biota in the vicinity of the project, even with TESC and BMPs in place to limit sediment mobilization and increases in turbidity. Additionally, if benthic sediment is mobilized as a result of project activity, there may be further water quality degradation if contaminants associated with the sediment are also mobilized.</p>	

While the UW crew races are a part of the Opening Day ceremonies, they do not serve as a defining characteristic of a specific historic property. Therefore, the crew races themselves are not considered a historic property for purposes of this project. However, crew activities, including the Windermere Cup which occurs on Opening Day, and discussed in the Final EIS (see Section 4.4) and the Recreation Discipline Report Addendum.

S-002-040

Proposed mitigation measures for construction effects, including dust, noise, and vibration, were included in the mitigation section of the SDEIS Cultural Resources Discipline Report and were also discussed in the SDEIS. Since then, as part of its Programmatic Agreement with Section 106 consulting parties (including UW), WSDOT has committed to developing a Community Construction Management Plan that will include more specific mitigation measures for these types of effects, along with protocols for notifying affected property owners and procedures for resolving complaints. The plan will apply to all properties affected by construction. For more information, please see the Programmatic Agreement and the Community Construction Management Plan Outline, both in Attachment 9 to the Final EIS.

S-002-041

Please see the response to comment S-002-028. WSDOT will treat all of Foster Island as a TCP; however, WSDOT has worked with tribes to maintain and preserve their culturally sensitive information and will not publish any such information without the consent of the consulting tribal parties.

S-002-042

The Pacific Place and Rainier Vista area was within one of the areas of landscape cover types described in Section 4 of the Ecosystems



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Date of SDEIS Issue		Friday, January 29, 2010		COMMENTS DUE BY		Thursday, April 15, 2010
No.	Chapter/Section	Page	Exhibit No.	Priority ¹	Comment	Reviewer
S-002-081	31	6	Multiple	1	Restoration of the "temporarily affected wetland areas," due to the length of time associated with the ongoing construction-related fill of the wetlands, may be prohibitively difficult from an ecological perspective. A severe enough disturbance for a long enough time period (i.e. "temporary" wetland fill for several years) may result in a perturbation away from functioning wetland conditions that cannot be feasibly restored. Such impacts may be considered permanent, and a more appropriate response would be compensatory mitigation (wetland creation, enhancement of existing wetlands, etc.) at an appropriate ratio.	
S-002-082	32	6	6-86	2	The UW requests a more thorough discussion of noise effects due to pile driving activities, the effects on fish, and the specifics of the 2009 pile-driving evaluations to be made available for the Final SEIS. The magnitude of pile-driving activities and the levels of underwater noise generated, per WSDOT's own ESA guidance, are likely to result in significant negative impacts to fish, including behavioral displacement, physiological stress, injury, and potentially death.	
S-002-083	33	6	6-87		Although it is true that different fish species respond differently to different light regimes, it seems appropriately conservative to conclude that negative effects to fish due to nighttime construction lighting associated with the project are likely, or at least possible. Please add language to reflect this.	
S-002-084	34	6	6-92 & 6-95	2	Construction activity and disturbance, including areas of habitat at considerable remove from the construction footprint due to pile-driving activity and associated underwater noise, would likely result in substantial negative impacts to fish species in general, and listed salmonids in particular.	
S-002-085	35	6	6-114	2	Include use of 4(f) land associated with the UW Open Space.	
	36	6	6-116	2	No mention of mitigation for use of 4(f) land associated with the UW Open Space. This needs to be included.	
S-002-086	37	6	6-99 & 6-124	1	The likely need for wetland compensatory mitigation to address long-term construction impacts should be addressed here. Although the Initial Wetland Mitigation Report indicates that mitigation ratios for long-term temporary impacts to wetlands have not yet been established, it may bear mentioning that the guidance document the Report cites—the Ecology/Corps joint <i>Wetland Mitigation in Washington State - Part 1</i> —suggests a ratio for long-term temporary impact of 1/4 that of the typical ratios for permanent impacts, and even greater mitigation ratios for long-term temporary impacts lasting more than 2 years. These are relevant issues and bear some mention here.	

Discipline Report, but did not merit a separate cover type classification. The Preferred Alternative does not include any changes to this area; therefore, it is not analyzed further. If Options K or L were identified as the Preferred Alternative in the future, additional information would be provided as appropriate during final design.

S-002-043

The Union Bay Natural Area would not be affected by construction or operation of the project. This information has been added to the Ecosystems Discipline Report Addendum (Attachment 7 to the Final EIS).

S-002-044

The Indirect and Cumulative Effects Analysis Discipline Report is intended to look at project effects on long-term trends and effects that are removed in time or distance, rather than at direct effects of the project. The report did include discussions regarding the Waterfront Activities Center as well as Opening Day activities. Additional discussion of direct project effects on recreational activities was included in the Recreation Discipline Report.

S-002-045

Exhibit 21 of the Land Use, Economics, and Relocations Discipline Report was a summary of the largest employers in King County and was not intended to include specific details regarding economic effects of the project. Economics effects were discussed in the Potential Effects section of the discipline report.

S-002-046

Please see the response to S-002-029 and S-002-030 regarding the Waterfront Activities Center and the Canoe House. If Options K or L



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S-002-087		5-146 & 5-172; 6-99 & 6-100; 6-124		1	The likely need for fish/aquatic resources and shoreline habitat compensatory mitigation to address operational and/or long-term construction impacts should be addressed here. Mitigation for impacts to fish/aquatic resources and shoreline habitat associated with the Arboretum should occur on Arboretum property as a first priority, with off-site mitigation considered as a secondary priority. Enhancement of Arboretum Creek and restoration of fish access/passage into that system is a good example of the kind of mitigation activity for impacts that is supported both by the UW and the City of Seattle. Additional habitat mitigation activities associated with mitigation on Arboretum Creek—for instance, improving shallow water lake habitat at the mouth of the creek to improve salmonid access to the creek itself—should also be considered as a high priority, site-specific mitigation approach.	
S-002-088		7-20		2	The statement that land in the project vicinity that is converted to transportation use from park/open space/civic/quasi-public land is insignificant at the City/Puget Sound regional level may be true, but the scale of comparison may be inappropriate for determining potential indirect and cumulative effects. Rather, the indirect and cumulative effects to neighborhoods in or near the project corridor represent an alternative, potentially more appropriate scale for this analysis. This more project-specific spatial scale for such an analysis is further supported by Seattle's Ordinance 118477, which indicates that park and recreational land held by the City must be preserved or mitigated for by providing replacement "land or a facility of equivalent or better size, value, location and usefulness in the vicinity, serving the same community and the same park purposes." (Italics added).	
S-002-089	7	7-32		2	Suggest amending the sentence with the italicized phrasing here: "The improved stormwater treatment associated with the project will offset the additional pollution-generating impervious surface associated with the project, and will help minimize the anticipated continued pollutant loading into Lake Washington from stormwater vectors."	
S-002-090	7	7-32 & 7-33		2	It is unclear if there really is a long-term trend towards improved surface water quality associated with transportation projects and their stormwater treatment facilities. Are there data or studies to support this assertion? If so, citation of the appropriate studies should occur here.	
S-002-091	7	7-33		1	Indirect effects on wetlands should include the consequences of long-term construction activity, and evaluate the time for impacted wetlands to recover following restoration plantings and activity after construction is complete. Such indirect effects could include the successional stages that impacted wetlands would pass through, beginning from disturbed and newly-planted habitat to a more established and mature wetland community. Wetlands impacted and then restored maybe more susceptible to aggressive colonization by non-native invasive species, which is an indirect effect that should be disclosed. Indirect effects will also include the long-term effects of increased shading of wetland habitat by the larger bridge and roadway infrastructure. At this point, given that no mitigation approach has been articulated for wetland shading effects, any effects to wetlands as a result of shading must be considered as indirect effects. Claiming that there are no project-related indirect effects to wetlands is inaccurate.	

were identified as the Preferred Alternative in the future, additional information would be provided as appropriate.

S-002-047

Chapter 2 of the SDEIS described the pedestrian and bicycle improvements proposed for the 6-Lane Alternative design options. All options provided enhanced connections between the Arboretum and MOHAI. Since publication of the SDEIS, WSDOT has collaborated with the City of Seattle Pedestrian Advisory Board and Seattle Bicycle Advisory Board through the ESSB 6392 process to develop additional design refinements to address bicycle and pedestrian connections and amenities. The suggested design refinements have been incorporated into the Preferred Alternative and are described in detail in the Design Refinements and Transit Connections Workgroup Recommendations Report (see Attachment 16 for more details). Also refer to Chapter 7 of the Final Transportation Discipline Report (Attachment 7) for information about pedestrian and bicycle facilities included in the Preferred Alternative.

S-002-048

The noise reduction strategies included in the Preferred Alternative are predicted to reduce noise sufficiently in the Seattle portion of the project area that noise walls are not recommended as mitigation in Seattle, except potentially along I-5 in the North Capitol Hill area where the reasonableness and feasibility of a noise wall is still be evaluated (see Section 5.7 of the Final EIS). Reductions in the Arboretum would be achieved through a combination of these measures and design features of the west approach bridge. WSDOT will continue to coordinate with the University of Washington and affected communities during project design to communicate about the Preferred Alternative's noise reduction strategies. Please see the Noise Discipline Report Addendum (Attachment 7 to the Final EIS) for additional detail.



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43	7	7-36		2	The single report referenced with regard to Chinook and Northern pikeminnow behavior in the vicinity of the existing SR 520 bridge does not support a conclusion of "minor" project-related cumulative effect on fish resources. The report authors acknowledge the complexity and variability of Chinook behavior and site heterogeneity, and conclude that further study is necessary to resolve the questions and uncertainties regarding how salmonids, their predators, and bridge structures interact in this system.	

S-002-092

S-002-049

Please see the response to Comment S-002-018. WSDOT will use its own contract specifications to address the noise and vibration effects of construction; however, WSDOT may modify its specifications to include information from Sound Transit or other contract specifications if WSDOT and FHWA determine that those measures would better protect the environment for the project and that they would be feasible for WSDOT to implement.

S-002-050



Please see the response to Comment S-002-018. Monitoring would take place if vibration from impact construction methods is expected to exceed a certain threshold. Such methods include pile driving, vibratory sheet pile installation, and soil compacting. WSDOT will continue to coordinate with the UW on appropriate methodology after the NEPA Record of Decision is issued.

S-002-051

Noise and vibration associated with pile driving were discussed on pages 64 through 69 of the Noise Discipline Report. Pile driving will not be done for construction of the new bascule bridge. For information on how WSDOT will coordinate with the UW regarding vibration effects and monitoring during construction, please see the response to Comment S-002-018.

S-002-052

As shown in Exhibit 5.1-15 of the SDEIS, the undercrossing of SR 520 along the shore from the Arboretum toward East Montlake Park would have been available only in Option A. An explanation was provided in Chapter 7 of the Transportation Discipline Report. The Preferred Alternative includes a similar bicycle/pedestrian path, shown in Exhibit 5.1-33 of the Final EIS.

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Date of SDEIS Issue		Friday, January 29, 2010		COMMENTS DUE BY		April 15, 2010	
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S-002-093	1	TDR	Global		1	The UW supports having HOV direct access ramps to Montlake Boulevard, and prefers that they be designated for transit plus carpool use because of the important carpool component of the UW's TDM program. The origin of both students and employees is from throughout the region, including lower density areas that are not well served by transit.	
S-002-094	2	TDR	2-6		3	The second bullet under "Montlake Interchange Area" should include the degradation in LOS with Options K and L at the Montlake Boulevard NE/NE Pacific Street intersection.	
S-002-095	3	TDR	2-13		1	Provide a summary of the discussion requested from the comment made on page 5-15.	
S-002-096	4	TDR	2-14		1	Update relative to detailed comment made for pages 8-21 through 8-23.	
S-002-097	5	TDR	2-14		1	While a summary chapter, the reference to the Montlake Freeway Transit Station being removed requires more information as to the transit rider impact and the transit facilities and increase in transit service hours needed to mitigate changes resulting from the project.	
S-002-098	6	TDR	4-13		3	Item #1 for local traffic volume forecast should clarify if the growth rates were applied to daily volumes, peak period, or peak-hour volumes.	
S-002-099	7	TDR	5-15,	5-9, 5-10	2	While it is recognized that the ramps were defined by the mediation process, the volume and type of HOV trips (carpool vs. bus) is important to assessing the need for and function of transit-only ramps near Montlake. If the HOV direct access ramps are limited to transit only, then the discussion of westbound HOV travel time should disclose the fact the westbound carpools exiting at Montlake Boulevard must weave across the general purpose lanes to reach the off-ramp. The carpool portion of the HOV travel time reported will experience additional delay compared to the bus-transit using the direct access ramps. Report the volume of carpools affected and the affect on the general-purpose lanes and travel delay to carpools. Provide a summary of results in Chapter 2.	
S-002-100	8	TDR	5-20		2	The section on "Travel Time and Speed" should disclose the affects of the westbound weave by carpools that exit at Montlake Boulevard.	
S-002-101	9	TDR	5-30		2	The text related to the Portage Bay Viaduct states, "Vehicle demand on the westbound on-ramp from Montlake Boulevard would be less with the 6-Lane Alternative than the No Build. This is because sections of SR 520 would be tolled, including the Portage Bay Bridge." The University of Washington would oppose segmental tolling on SR 520 that could divert traffic from the Portage Bay Viaduct to other arterials such as NE 45 th Street and NE 50 th Street. Further information about the tolling assumptions made for the analysis should be provided.	

S-002-053

The spill containment lagoons were discussed on pages 5-21 and 5-22 of the SDEIS, as well as in the Water Resources Discipline Report (Attachment 7 to the SDEIS). The All Known and Reasonable Technologies (AKART) study recommending the containment lagoons, along with high-efficiency sweeping, as the appropriate treatment technology for the floating bridge was conditionally approved by the Washington State Department of Ecology (Fitzpatrick 2010). This report will be available concurrently with the Final EIS. Additional information on the AKART study is provided in the Water Resources Discipline Report Addendum (Attachment 7 to the Final EIS). WSDOT agrees this should have been included in the stormwater treatment section and a discussion of the lagoons has been added to the stormwater section of Chapter 2 of the Final EIS.

S-002-054

WSDOT has coordinated with the regulatory agencies and the tribes to establish site and project specific in-water work windows to minimize the potential for any project activities to affect juvenile or adult salmonids. WSDOT will continue this coordination throughout the permitting and construction phases to minimize the potential effects. Final construction work windows will be documented in the Hydraulic Project Approval issued by the Washington Department of Fish and Wildlife. Refer to the Ecosystems Discipline Report Addendum and the Conceptual Aquatic Mitigation Plan for more information regarding work windows (Attachments 7 and 9 of the Final EIS). Table 3-3 in the SDEIS has been updated in Chapter 3 of the Final EIS to reflect the current in-water work windows.

S-002-055

WSDOT reviewed the wetland ratings between the SDEIS and the Final EIS and modified some of the function scores; however, the wetland categories did not change. In addition, some of the Category III wetlands

rated almost high enough to be classified as Category II.


Because the wetlands in the Arboretum have local significance, WSDOT will mitigate for effects to these wetlands as Category II wetlands, although WSDOT still considers them to be Category III wetlands. In November 2010, WSDOT submitted the Final Wetland Assessment Technical Memorandum to the U.S. Army Corps of Engineers, Ecology, and the City of Seattle for verification of wetland delineation boundaries and ratings. The Corps agreed with the wetland delineation with minor revisions. These revisions are included in the Ecosystems Discipline Report Addendum (Attachment 7 to the Final EIS).



S-002-056

Section 5.4 of the SDEIS discusses potential effects on park and recreation facilities within the project area and contains an overview of possible measures to minimize and mitigate these effects. Because the Arboretum’s natural features are part of its recreational and educational functions, mitigation measures addressing these features were included in the discussion. Since the Preferred Alternative was developed, WSDOT has worked closely with both resource agencies and agencies with jurisdiction over parks to develop more specific and detailed mitigation measures for project impacts. Chapter 5 of the Final EIS summarizes these mitigation measures by discipline. For a more comprehensive discussion of mitigation measures proposed for wetlands, please see the Ecosystems Discipline Report Addendum and the Conceptual Wetland Mitigation Report. For more detail on mitigation measures pertaining to the Arboretum, please see the Final Section 4(f) Evaluation (Chapter 9 of the Final EIS) and the SR 520 Arboretum Mitigation Plan (Attachment 9 to the Final EIS).

S-002-057

Under the Preferred Alternative, fewer specimen trees would be removed than under Option A, and specimen trees would not be

							
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No.	Chapter/Section	Page	Exhibit No.	Priority ¹	Comment	Reviewer	
S-002-102	10	TDR	5-31	6-3, 6-4	The text in paragraphs 2 and 3 state that the SR 520 westbound mainline is "over capacity, adding to the congestion spilling back on to the local system." However, Exhibit 3 shows the intersection of the westbound ramps at Montlake Boulevard at LOS A and B in the A.M. and P.M. peak hours, respectively. Exhibit 6-4 shows this intersection and LOS A for both the A.M. and P.M. peak hours. If the design decisions are based on the impacts of queue spill-back, then the analysis, data, and text in Chapter 6 should be consistent with the results of the mainline freeway analysis.		
S-002-103	11	TDR	5-31	1	The UW would support design modifications that reduce the volume of traffic on Lake Washington Boulevard including traffic calming and tolling. However, additional improvements along Montlake Boulevard may be required to accommodate traffic diverted from Lake Washington Boulevard. The UW's primary concern with removing the ramps is congestion along Montlake Boulevard, and its affect on transit travel times and reliability.		
S-002-104	12	TDR	5-32	25	1	Analysis should be added to both westbound and eastbound mainline operations sections to show how the different direct transit and/or HOV access ramps affect mainline operations. For Option A, westbound HOV traffic would need to weave across the mainline flow to exit at Montlake Blvd (transit could use the direct access ramp) and eastbound transit and HOV would have to make the merge. Suboption A would remove the eastbound weave. The analysis would help determine the benefit or impact of various ramp choices among the options.	
S-002-105	13	TDR		6-19	3	This exhibit indicates that the westbound off-ramp to Montlake Boulevard does not include left turn channelization under Option A. This must be an error. It is difficult to interpret Option A versus A+ when combined in one figure. A unique figure should be provided for each alternative presented in the FEIS.	
S-002-106	14	TDR	6-x		2	The traffic operations analysis for the Montlake Boulevard/Pacific Street intersection must account for the approved (and recently constructed) driveway on the east side of the intersection. This driveway is now controlled by the traffic signal at that intersection. Interim conditions will be in effect through Link Light Rail construction. For year 2030 conditions, the analysis should assume that the driveway can be entered via the northbound right turn or southbound left turn movement. SDOT will require that the latter movement be served by a protected left turn phase to prevent a clearance interval trap. Traffic exiting the driveway may be restricted to right turn out only, although through movements to Pacific Street may be allowed to overlap with part of the eastbound right turn phase.	
S-002-107	15	TDR	6-44		3	At the East Roanoke Street/Harvard Avenue/SR 520 Westbound off-ramp, the No-build westbound off-ramp queue is stated as reaching beyond the split from the I-5 northbound exit lane. For Option A, the queue is 350 feet further than the No-build. Was this potential queuing onto the SR 520 mainline included in the analysis of the Portage Bay Viaduct, or would it further exacerbate the condition reported on both the mainline and local roadway system in the Montlake Boulevard area? How would the impact to mainline flow change with and without the auxiliary lane on the Portage Bay Viaduct?	

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S-002-108	16	TDR	7-1		2	This chapter does not quantify the number of bicyclists expected to cross on the new SR 520 bike lane, identify their paths of travel, or evaluate the adequacy of the local bike facilities given the expected increases in volumes. We expect that there would be a significant increase in bike traffic between SR 520 and the Burke Gilman Trail. What improvements might be needed on the Montlake Bridge and in the Montlake Triangle area to accommodate that connection?	
S-002-109	17	TDR	7-5		2	The UW supports construction of the second bascule bridge because it is the best way to improve the pedestrian and bicycle conditions across the Montlake Cut. However, we remain concerned about the affects on pedestrians and bicycles if the second bascule bridge is not funded.	
S-002-110	18	TDR	7-17	18	1	Currently, there are about 100 bicyclists who park their bikes adjacent to SR 520 and transfer to SR 520 buses at the Montlake Flyer stop. The impact of removing the Montlake Freeway station means that some bicyclists will ride across the lake and some will ride their bike and transfer at the Montlake Multi-Modal Center. What is the estimated bike storage requirement at the Montlake Multi-Modal Center? The UW needs to understand how and where the bicycle lockers will be accommodated at the Montlake Multi-Modal Center before supporting the preferred alternative and mitigation measures.	
S-002-111	19	TDR	7-17			A description and/or figure is needed to show that a cohesive and safe bicycle facility will be provided connecting the new SR 520 bike trail to the Burke-Gilman Trail.	
S-002-112	20		8-13,	8-6	2	The number of boardings and alighting at existing bus stops is needed in order assess and comment on the proposed changes to bus routing and bus stops. It would be helpful to the reader to include these data on Exhibit 8-6 or in a table.	
S-002-113	21	TDR	8-19		1	There are major differences among the Montlake Area interchange options in terms of HOV direct access lanes. Some of the options have "Transit-only" access lanes, while others provide for HOV (bus + carpool). It would be useful to add a section to this chapter that describes the number of vehicles for each mode (transit versus carpool) assumed to access each ramp option. The UW would support design modifications that provide direct access for both transit and carpools since both modes are heavily used by UW students and staff and a key elements of the UW's transportation management plan.	
S-002-114	22	TDR	8-19		2	The side bar includes an explanation of the SR 520 High Capacity Plan. However there is no explanation in the text as to what elements of the plan would be implemented to restructure the transit routes given the transit facilities provided with each alternative.	
S-002-115	23	TDR	8-20		2	The text (last full paragraph) refers to "incremental strategies for meeting cross-lake travel demand." Is there a specific increment assumed in the analysis of alternatives? What increment can be implemented under the assumed transit funding levels?	

removed from the Waterfront Activities Center area. Specimen trees would still be removed from the UW Open Space Area for construction of the second bascule bridge and in the Arboretum for construction of the new SR 520 roadway. The Final Section 4(f) Evaluation (Chapter 9 of the Final EIS) discusses removal of the specimen trees for operation of the project. The removal of these trees is not expected to substantially affect the functions and values of these recreational properties.

S-002-058



The graphic referred to was inaccurate. However, the right-of-way acquisition totals disclosed for Option K in Exhibit 5.2-4 of the SDEIS were correct. Exhibits 5.2-1 through 5.2-4 have been revised in the Final EIS to include a designation for existing right-of-way. These exhibits show the land that would be converted to right-of-way for the Preferred Alternative.

S-002-059

The SDEIS acknowledged that anywhere from 9 to 14 acres of park/open space/quasi-public land would be acquired for the project. To provide additional context, the Recreation Discipline Report specifically evaluated the percentage of each park property that would be acquired for right-of-way. Updated information for the Preferred Alternative can be found in the Recreation Discipline Report Addendum (Attachment 7 to the Final EIS).

S-002-060

The Preferred Alternative does not require relocation of the UW Waterfront Activities Center. Please see the Land Use, Economics, and Relocations Discipline Report Addendum (Attachment 7 to the Final EIS) for information regarding property acquisitions needed for the Preferred Alternative.

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S-002-116	24	TDR	8-22		2	The impacts to transit riders are difficult to compare across alternatives. Each alternative would have different routing for regional and local transit. Please describe the various routing choices, stop locations, and other transit operating conditions associated with the various SR 520 alternatives.	
S-002-117	25	TDR	8-21, 8-22, 8-23		1	Transit facility and service enhancements will likely be needed due to physical changes in the corridor (e.g., removal of the Montlake Flyer stop) or addition of direct access ramps as well as to accommodate additional ridership due to tolling on the SR 520 bridge. The bus route restructuring required due to removal of the Montlake Flyer stop, and due to the HOV Direct Access ramps results in more buses providing transfers, terminating or beginning a route with layovers in the vicinity of Montlake Boulevard and Pacific Avenue (Montlake Triangle). The preferred alternative should mitigate the additional transit service and facilities needed because of these project-related impacts.	
S-002-118	26	TDR	8-25	16	2	Clarify if transit service described with the alternative are within the assumed funding scenario or if funding dedicated from the (unfunded) Urban Partnership Agreement is required to meet service needs with the alternative.	
S-002-119	27	TDR	8-29, 8-30		1	The UW prefers that direct access ramps serve both HOV and transit. If HOV cannot be accommodated on the direct access ramps, then additional analysis should be performed to show the effect that HOVs would have on mainline operations if they have to weave from the center lanes to the off-ramps. The volume of affected HOV vehicles should also be disclosed.	
S-002-120	28	TDR	9-10	21	2	If Option K or L is selected, a mitigation plan related to both the temporary and permanent loss of substantial parking in the UW's lots E-11 and E-12 must be included as part of the project.	
	29	TDR	10-9	10-4	2	If Option K or L is selected, additional analysis will be needed to show how construction on the south side of Husky Stadium would be coordinated between the Sound Transit tunnel/station construction and the SR 520 cut-and-cover construction. The potential for overlapping staging areas, construction traffic, and parking impacts would need to be evaluated and mitigated.	
	30	TDR	10-34	15	2	If Option K or L are selected, more analysis and design will be needed related to the temporary grade-separated pedestrian crossing at the north end of the Montlake Bridge. Where would landings be located? How would pedestrians reach locations further north (e.g., Husky Stadium)? Would the temporary structure block views from Rainier Vista?	
S-002-121	31	TDR	10-36	New	1	If any of the alternatives would require traffic to be detoured off of Pacific Street to Pacific Place, then additional analysis and design would be required to determine the extent of improvements needed to accommodate the detoured traffic. For example, if a dual left turn lane is needed from northbound Montlake Blvd to Pacific Place, would widening be needed to the north in order to align through lanes? And would it affect the Hec Ed Bridge? Also, with substantial increases in traffic on Pacific Place, would a pedestrian signal be needed at the existing mid-block pedestrian crossings? And finally, how would use of Pacific Place affect transit routes, transit stops, and trolley operations?	

S-002-061



Text at the bottom of page 5-42 and the top of page 5-43 in the SDEIS acknowledges that removal of the Lake Washington Boulevard ramps would be inconsistent with the Arboretum Master Plan's policy encouraging conversion of those ramps to a multi-use path to MOHAI. Maintaining the disused ramps while constructing a new, modern highway facility is not feasible, and their removal provides an opportunity to visually and environmentally enhance the area where they are currently located. As noted in the response to Comment S-002-047, the Preferred Alternative provides enhanced connections between the Arboretum and MOHAI by means of a new trail along the shoreline. The SR 520 Arboretum Mitigation Plan, developed in coordination with the Arboretum and Botanical Garden Committee under the requirements of ESSB 6392, identifies a number of other improvements to pedestrian and bicycle connectivity in and near the Arboretum and includes a project to restore the area now occupied by the ramps.

S-002-062

The SDEIS acknowledged the preliminary nature of mitigation planning and noted that development of detailed mitigation measures would occur following identification of a preferred alternative. In summer 2010, WSDOT began a technical working group with natural resource agencies to provide information on design and construction of the Preferred Alternative and to seek guidance on impact assessment and mitigation approaches. The Conceptual Wetland Mitigation Plan and the Conceptual Aquatic Mitigation Plan (see Attachment 9 to the Final EIS) are the result of this collaboration, and reflect a considerably greater level of detail than the mitigation concepts described in the SDEIS.

S-002-063

Modeling of pollutant discharges completed for both the SDEIS and the Final EIS demonstrates that the project would provide a water quality benefit compared to No Build, even with the increase in pollutant-

 SR 520 Bridge Replacement and HOV Program  <small>I-5 to Medina: Bridge Replacement and HOV Project</small>							
Report Name and Date		SR 520: I-5 to Medina Bridge Replacement and HOV Project, Transportation Discipline Report, December 2009					
Name of Reviewer(s)		University of Washington, Transportation Review Staff & Consultants (M. Helfron, C. Hirschev, P. Dewey)					
Date of SDEIS Issue		Friday, January 29, 2010	COMMENTS DUE BY		April 15, 2010		
No.	Chapter/Section	Page	Exhibit No.	Priority ¹	Comment	Reviewer	
S-002-122	32	TDR	12-6	2	1	The parking supply provided by the University of Washington is subject to its agreement with the City of Seattle. Other major projects, such as Sound Transit's light rail station, have provided replacement parking for its temporary construction impacts. Any option that affects parking, particularly Option K or L, that would substantially affect parking south of Husky Stadium, would require a detailed mitigation plan to replace or relocate the affected parking. Temporary and permanent parking impacts would need to be mitigated.	
S-002-123	33	TDR	12-8		1	Additional mitigation/design options should be identified in the FEIS and selection of the preferred alternative. See comments in Chapter 6 and Chapter 8.	

generating impervious surface. Please see Section 5.10 of the Final EIS and the Water Resources Discipline Report Addendum for a discussion of modeling results for the Preferred Alternative.

S-002-064

Please see the response to Comment S-022-062. The Final EIS and addenda to the discipline reports provide more specificity in proposed mitigation measures where possible.

S-002-065

Table 5.4-1 in the SDEIS acknowledged that Option A would permanently acquire land from the UW Open Space. Exhibit 5.4-3 in the SDEIS showed the areas within the UW Open Space that would be converted to right-of-way. This has been updated in the Final EIS. The Preferred Alternative would permanently acquire approximately land from the UW Open Space for the operation of the new bascule bridge and a new stormwater treatment bioswale. Please see the Potential Effects section of the Recreation Discipline Report Addendum for acquisitions required under the Preferred Alternative.

S-002-066

Please see the responses to S-002-061, S-002-062, and S-002-064 regarding effects to the arboretum and potential mitigation.

Through the Parks TWG and the ESSB 6392 workgroup processes, WSDOT has coordinated with the City of Seattle and the UW to identify appropriate replacement land for permanently acquired park property. WSDOT is evaluating the possibility of transferring property from the WSDOT peninsula to the Arboretum after the R.H. Thomson ramps and SR 520 ramps are removed and the area is restored to a natural condition. Mitigation to replace the lost acreage in the UW Open Space would also be accomplished through a land transfer from the WSDOT

peninsula area for the Preferred Alternative and all SDEIS options. Mitigation measures are listed and discussed for Section 4(f) properties where it is not possible to avoid a use (see Chapter 9 of the FEIS).

S-002-067

Please see the response to Comment S-002-025. As noted in the response to that comment, a constructive use cannot occur on a property that is already experiencing a direct use. Aesthetic use of property as defined by Section 4(f) occurs only when "[T]he proximity of a proposed project substantially impairs aesthetic features or attributes of a property protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the property." Under 23 CFR Part 774, a temporary occupancy of a Section 4(f) property during construction is not a "use" within the meaning of Section 4(f), provided that the criteria in 23 CFR 774.13(d) are satisfied.

S-002-068

The facilities listed in Exhibits 5.10-1 and 5.10-2 in the SDEIS were discussed in detail in the Water Resources Discipline Report. The treatment design and facilities have been updated for the Preferred Alternative since the SDEIS was published. Please see the Water Resources Discipline Report Addendum (Attachment 7 to the Final EIS) and Section 5.10 of the Final EIS.

S-002-069

Subsequent to publication of the SDEIS, the AKART analysis was reviewed and approved by the Washington State Department of Ecology, with conditions concerning monitoring of operation performance. The AKART report and the Ecology approval letter are available in the SR 520 Program Library
<http://www.wsdot.wa.gov/Projects/SR520Bridge/library.htm>.

S-002-070

Please see the response to Comment S-002-069. The spill control lagoons, represented correctly in the Water Resources Discipline Report, have an open bottom and allow for discharge of stormwater mixed with Lake Washington water to the lake. The AKART analysis presents the results of the dilution modeling performed to track the mixing and movement of stormwater pollutants in the lake and compares these concentrations to state water quality standards to determine at what distance concentrations in the dilution plume would meet the standards. Ecology approved this modeling approach and assigned a mixing zone to each spill lagoon. Ecology also required a monitoring program to be conducted after construction to assess the performance of the stormwater treatment including discharges to spill lagoons.

S-002-071

The pollutant loading is calculated for the water year. This clarification has been made in Final EIS Section 5.10 and the Water Resources Discipline Report Addendum (Attachment 7 to the Final EIS).

S-002-072

As required by NEPA, the analysis compared the SDEIS options with the No Build Alternative. The analysis showed that adopting any of the SDEIS options, as well as the Preferred Alternative, would reduce pollutant loading compared to No Build. This reduction in pollutant loadings would represent a net benefit to water quality in the project area.

S-002-073

Additional pollutant loading analysis has been conducted for the Preferred Alternative. Pollutant loading conclusions have been clarified in the Final EIS, and Exhibit 30 has been updated. Please refer to the

Water Resources Discipline Report Addendum (Attachment 7 to the Final EIS) for pollutant loading information.

S-002-074

The statement on page 5-135 of the SDEIS is incorrect. It should read “Shading would affect 2.3 acres of aquatic habitat.” This does not include the 0.1 acre of wetland that would be shaded by the Option A Suboptions. The Final EIS includes updated impact calculations for the Preferred Alternative.

S-002-075

The requested change was not made because it would not result in a change in the SDEIS analysis or findings.

S-002-076

The requested change was not made because it would not result in a change in the SDEIS analysis or findings.

S-002-077

The discussion of mitigation measures has been updated for the Preferred Alternative. Please refer to Section 5.11 of the Final EIS.

S-002-078

Please see the response to Comment S-002-062. Wildlife are expected to benefit from compensatory wetland and aquatic mitigation sites developed to offset effects associated with the project. The Conceptual Wetland Mitigation Plan and the Conceptual Aquatic Mitigation Plan that accompany the Final EIS reflect a considerably greater level of detail than the mitigation concepts described in the SDEIS.

S-002-079

Please see the responses to comments S-002-025 and S-002-067. Mitigation proposed for Section 4(f) facilities affected by the project has been developed in cooperation with the agencies with jurisdiction over these facilities, including the UW.

S-002-080

Turbidity and sedimentation will be minimized using construction techniques described in the Construction Techniques and Activities Discipline Report Addendum (Attachment 7 to the Final EIS). Water quality standards during construction will be identified in the National Pollutant Discharge Elimination System construction permit, and compliance with these standards will be monitored throughout construction. By complying with these permit requirements and with conditions imposed under other permit processes and the Endangered Species Act, WSDOT will have fulfilled its obligations to mitigate for adverse effects on water quality during construction.

S-002-081

Effects from construction are considered to be long-term temporary effects. These effects were discussed in detail with the Natural Resource Technical Working Group and will be mitigated according to the ratios determined by the appropriate agencies. Recovery of wetlands is expected because most construction related wetland effects are a result of shading and wetland substrate would remain in-tact. The mitigation measures are outlined in detail in the Conceptual Wetland Mitigation Plan (Attachment 9 to the Final EIS).

S-002-082

The potential adverse effects of pile driving were discussed in the Ecosystems Discipline Report, which acknowledged that "Pile driving could affect nearby fish behavior or potentially cause fish mortality from

the high sound pressure levels from impact pile driving hammers.” The Ecosystems Discipline Report Addendum (Attachment 7 to the Final EIS) describes the results of a test pile study in the project area that WSDOT conducted in cooperation with resource agencies to evaluate the effectiveness of mitigation measures in attenuating pile driving impacts on fish. The study demonstrated a high level of noise reduction with the use of bubble curtains during pile driving. Please see the Ecosystems Discipline Report Addendum for more information on the results of the test pile study and additional measures planned to minimize negative effects.

S-002-083

The potential effects of nighttime construction lighting were recognized in the SDEIS with the following statement: "...slower migration rates through the area, when combined with the ambient light levels, could result in greater exposure of fish to predators." However, Section 6.11 of the Final EIS and the Ecosystems Discipline Report Addendum include more discussion of the potential effects of nighttime construction lighting.

S-002-084

Please see the response to Comment S-002-082 for information regarding potential noise effects on fish.

S-002-085

Table 6.12-1 was intended to provide an overview of qualitative effects during construction and does not specifically identify the use of Section 4(f) land. The project's Section 4(f) use of the UW Open Space, along with the identified mitigation for the project's Section 4(f) use, is discussed in both the Draft Section 4(f)/6(f) Evaluation (Attachment 6 to the SDEIS) and the Final Section 4(f) Evaluation (Chapter 9 of the Final EIS).

S-002-086

Please see the responses to comments S-002-062 and S-002-081. The Natural Resources Technical Working Group provided information on design and construction of the Preferred Alternative and guided impact assessment and mitigation approaches. The mitigation measures are outlined in detail in the Conceptual Wetland Mitigation Plan (Attachment 9 to the Final EIS).

S-002-087

Please see the response to Comment S-002-003. As part of the development of the SR 520 Arboretum Mitigation Plan (Attachment 9 to the Final EIS), WSDOT evaluated aquatic habitat improvements to Arboretum Creek and the portion of Lake Union near the creek's mouth, but determined through consultation with resource agencies that there would be little or no benefit to aquatic species gained by improvements to the creek.

S-002-088

See the response to Comment S-22-059. Compliance with Section 6(f) requirements for replacement of property converted to non-park use are considered to constitute compliance with Seattle Ordinance 118477.

S-002-089

Please see the response to Comment S-002-072. The requested change was not made because the original statement is accurate.

S-002-090

The assertion that improved stormwater management on transportation projects is one factor in improving surface water quality is based on widely accepted science that improving the quality of water from point and non-point discharges from any development leads to a long-term trends of improved quality in surface water bodies. The current SR 520

highway has little to no stormwater management. As the proposed highway will have stormwater management meeting or exceeding the standards in the WSDOT Highway Runoff Manual, the likely future condition of the surface water bodies of the study area will be gradual and steady improvement in quality. This is due to requirements for improved stormwater management and treatment of new development projects and the improvement in stormwater treatment technologies.

S-002-091

See the response to Comment S-002-081. All effects from construction, including long-term temporary effects, are considered direct effects. This includes the time it takes for a wetland to recover following restoration. Effects from shading, both during construction and during operation, are also considered direct rather than indirect effects.

S-002-092

The requested change was not made because the information in the referenced report does not indicate a major effect from the project on salmonid predation and migration rates, particularly when compared to the overall migration time and distance that these fish travel during their outmigration through the lake and the Ship Canal. Please see the Ecosystems Discipline Report Addendum in Attachment 7 to the Final EIS for further discussion of these findings in relation to the Preferred Alternative.

S-002-093

The Preferred Alternative includes transit/HOV direct access ramps to Montlake Boulevard to help facilitate transit and HOV movement (see Chapter 2 of the Final EIS). Also see the Final Transportation Discipline Report (Attachment 7 to the Final EIS) for more information regarding transit and HOV lanes.

S-002-094

This information has been included on the Final Transportation Discipline Report (Attachment 7 to the Final EIS).

S-002-095

The typical configuration for high-occupancy vehicle (HOV) lanes requires vehicles to weave across the general purpose lanes from and to on-ramps and off-ramps. This weaving activity was accounted for in the traffic analysis and represented in the corridor results, including anticipated travel times, in the SDEIS Transportation Discipline Report. Detailed analysis of entering and exiting traffic flow by mode is not provided for any of the ramps along the corridor.

The Preferred Alternative includes an HOV direct-access ramp for transit and 3+ HOVs to and from the east that connects to the Montlake interchange area. Access to this ramp would be directly from the inside HOV lanes on the SR 520 corridor; therefore, neither transit nor 3+HOV traffic would have to change lanes to use this ramp, potentially decreasing travel times.

A discussion of this information can be found in Chapter 8 of the Final Transportation Discipline Report.

S-002-096

For the Final Transportation Discipline Report, key points were revised to reflect the Preferred Alternative, and additional information regarding transit effects was added. The removal of the Montlake Freeway Transit Station remains a component of the Preferred Alternative. Please see Chapter 8 of the Final Transportation Discipline Report (Attachment 7 to the Final EIS) for a discussion of the effects of the Preferred Alternative on transit service, facilities, ridership, travel times, and rider connections. The transit elements identified for the Preferred Alternative were

developed through coordination with King County Metro, Sound Transit, Seattle Department of Transportation, and the University of Washington.

S-002-097

More detailed information regarding the effects of removing the Montlake Freeway Transit Station can be found in Chapter 8 of the Transportation Discipline Report.

S-002-098

The growth rates included in the local traffic volume forecast were applied to daily volumes. Separate growth rates for local traffic are calculated for AM peak period and PM peak period. Chapter 4 of the Final Transportation Discipline Report clarifies the growth rate methodology.

S-002-099

Please see the response to Comment S-002-095. The Preferred Alternative direct access ramps allow for both HOV and transit.

S-002-100

Please see the response to Comment S-002-095. The weaving maneuver was factored into the SDEIS traffic analysis used to estimate travel times, and the Preferred Alternative includes features which remove the need to perform this action.

S-002-101

The Final EIS has updated the traffic modeling by including the new tolling assumptions in the analysis of the No Build Alternative and the Preferred Alternative. The Preferred Alternative assumes single-point tolling (see Chapter 1 of the Final EIS).

S-002-102

A description has been included in Chapter 6 of the Final Transportation Discipline Report that describes how the local traffic analysis Level of Service (LOS) is determined based on the traffic volumes approaching the intersection only and is not based on how up or downstream system operations. Additional discussion about how the system operates will be included in the Final EIS to provide additional clarity. The text will clearly indicate the interrelationship between freeway and local traffic operations and describe how removing one bottleneck can improve the entire system.

S-002-103

Please see Chapter 6 of the Final Transportation Discipline Report (Attachment 7 to the Final EIS) for a discussion of the effects of removing the Lake Washington Boulevard ramps, including traffic volumes and operations on Montlake Boulevard/23rd Avenue and Lake Washington Boulevard. Chapter 8 of the Final Transportation Discipline Report discusses the effects of the Preferred Alternative on transit service, facilities, rider connections/transfers, and transit travel times in the Montlake interchange area.

S-002-104

Please see the response to Comment S-002-095. If Option A were identified as the Preferred Alternative in the future, additional analysis would be performed.

S-002-105

A unique figure illustrating each option was provided in Chapter 2 of the SDEIS. Please see Chapter 2 of the Final EIS for exhibits illustrating the lane configuration at the SR 520/Montlake Boulevard interchange with the Preferred Alternative.

S-002-106

The transportation team reviewed Capital Improvement plans, Comprehensive plans, and State Highway plans for projects that are planned and programmed within the limits of the study area. No plans were cited for modifications to the signal control or approaches at the Montlake Boulevard/Pacific Street intersection. If there are plans by the City of Seattle to modify the intersection, then it is within their purview and it would not change the relative differences between with and without the SR 520 project. No modifications have been made to the intersection operations for this evaluation.

S-002-107

The effect of queuing on the westbound off ramp to E Roanoke Street and Harvard Ave E was accounted for in the results of the analysis for the Portage Bay Bridge. The westbound auxiliary lane included in Option A primarily would benefit local street operations along Montlake Boulevard E, rather than improving operations on mainline SR 520. The ramp would provide capacity for vehicles traveling from Montlake Boulevard to I-5. This would alleviate congestion along Montlake Boulevard that results from queuing along the westbound on-ramp. The Preferred Alternative includes a managed shoulder instead of a full auxiliary lane. Please see the Final Transportation Discipline Report, Chapter 5 for a discussion of freeway traffic and ramp operations with the Preferred Alternative.

S-002-108

As required by ESSB 6392, WSDOT collaborated with the City of Seattle Pedestrian Advisory Board and the Seattle Bicycle Advisory Board to develop design refinements that address bicycle and pedestrian connections and amenities in the Montlake interchange area and on Montlake Boulevard. The suggested design refinements are described in Chapter 7 of the Final Transportation Discipline Report and at a greater

level of detail in the Design Refinements and Transit Connections Workgroup Recommendations Report (Attachment 16 to the Final EIS).

S-002-109

The Preferred Alternative includes the construction of a new bascule bridge similar to the one in Option A (see Chapter 2 of the Final EIS). Traffic operations modeling for the project assumes that the bascule bridge will be complete by the project design year of 2030.

S-002-110

Continued coordination between staff from the City of Seattle, University of Washington, King County Metro, Sound Transit and the State DOT will be used to determine where bike lockers could be located at the Montlake Triangle. They will also continue to coordinate as to the number of lockers that could be provided. This coordination effort is a continuation of the Engrossed Substitute Senate Bill 6392 design refinement process. Please see the response to Comment S-002-108 for information regarding ESSB 6392.

S-002-111

Exhibit 29 in the Recreation Discipline Report shows the future trail connectivity (including bicycle paths) for each of the SDEIS options. Please see section 5.1 and Exhibit 5.1-32 in the Final EIS for information about the nonmotorized facility connections and improvements in the Montlake Area.

S-002-112

Information on boardings and alightings was included in the Transportation Discipline Report and has been updated for the Final Transportation Discipline Report. Please see Chapter 8 of the Final Transportation Discipline Report (Attachment 7 to the Final EIS) for

information regarding the number of boardings and alightings at existing bus stops.

S-002-113

Please see the response to Comment S-002-095. Information regarding HOV lane policy under the Preferred Alternative can be found in Chapter 8 of the Transportation Discipline Report.

S-002-114

The High Capacity Transit Plan (December 2008) was prepared by the SR 520 project to support regional transit planning, but its proposed elements would not be implemented by the SR 520 project and were therefore not described in detail. Please see Chapter 8 of the Final Transportation Discipline Report (Attachment 7 to the Final EIS) for a discussion of how the Preferred Alternative would affect transit facilities and service.

For detailed information regarding the transit route changes proposed in the SR 520 High Capacity Transit Plan, please see the SR 520 project page on the WSDOT web-site:

<http://www.wsdot.wa.gov/Projects/SR520Bridge/brhpdesign.htm>.

S-002-115

The High Capacity Transit Plan outlines the incremental strategies planned for satisfying cross-lake travel demand. The partner agencies have developed a phased-implementation approach for delivering high-capacity transit service. The partner agencies selected 2016 as the target date for the start of bus rapid transit service to take immediate advantage of the continuous HOV lanes proposed for the SR 520 Corridor program and Sound Transit's University Link station. Completions of the HOV lanes are now expected by 2018, and represents WSDOT's contribution to the first increment of

implementation.

For detailed information regarding the transit route changes proposed in the SR 520 High Capacity Transit Plan, please see the SR 520 project page on the WSDOT web-site:

<http://www.wsdot.wa.gov/Projects/SR520Bridge/brhpdesign.htm>.

S-002-116

The SDEIS Transportation Discipline Report described the changes associated with each design option in detail based on user travel patterns by direction of travel. Additional information is provided in Chapter 8 of the Final Transportation Discipline Report (Attachment 7 to the Final EIS) regarding the effects of the Preferred Alternative on transit service and facilities in the project area.

S-002-117

The Preferred Alternative would remove the Montlake Freeway Transit Station and add new bus stops on the Montlake lid. WSDOT has collaborated with the University of Washington, City of Seattle, King County Metro, and Sound Transit as part of the design refinements and transit connections workgroup required by ESSB 6392 to determine how to improve transit connections. The workgroup evaluated the transit connections at the Montlake interchange and identified preferred bus stop locations and made specific design recommendations to ensure an adequate level of midday service between the University/Montlake and the Eastside after the closure of the Montlake Freeway Transit Station. These recommendations have been incorporated into the Preferred Alternative. Updated information regarding the effects of removing the Montlake Freeway Transit Station is provided in Chapter 8 of the Final Transportation Discipline Report.

S-002-118

The Lake Washington Congestion Management Program is a series of projects to help address congestion on I-90 and SR 520 in the Seattle area. The projects are receiving federal funds through the Lake Washington Urban Partnership Agreement (UPA). The UPA is a cooperative agreement to improve traffic flow within the SR 520 corridor by implementing variable tolling and Smarter Highways systems, offering enhanced transit service and supporting carpools, vanpools, teleworking and other efficient transportation options.

In 2007, the Federal Highway Administration awarded a \$154.5 million grant to the UPA between the Washington State Department of Transportation, King County Metro, and the Puget Sound Regional Council. The projects included with the Lake Washington Congestion Management Program include tolling, transit, technology (Smarter Highways), and carpool and telework programs. The SR 520 UPA Variable Tolling Project is the tolling component of the Lake Washington UPA. New transit routes and additional trips to existing routes are also a part of the Lake Washington Congestion Management Program. For more information see the project website:

<http://www.wsdot.wa.gov/Projects/LkWaMgt/>.

Also, see Chapter 1 of the Final EIS for more information regarding project funding.

S-002-119

Please see Comment S-002-095. The Preferred Alternative direct access ramps allow for both HOV and transit.

S-002-120

If Options K or L were identified as the Preferred Alternative in the future, additional detail regarding parking losses, construction effects,

pedestrian access, and visual quality effects would be provided as appropriate during final design.

S-002-121

Closure of Pacific Street would not be required under the Preferred Alternative. See Chapter 6 of the Final EIS for information regarding potential detour routes during construction.

S-002-122

The Preferred Alternative would affect five parking spaces on the UW campus during construction and no spaces during operation. This represents less than one percent of the overall campus parking supply. WSDOT will continue to work with the University of Washington and the City of Seattle on appropriate mitigation measures parking effects.

S-002-123

The suggested design refinements and mitigation measures resulting from the ESSB 6392 workgroup process, which involved the City of Seattle and its pedestrian and bicycle advisory boards, King County Metro, and Sound Transit, are included in the Design Refinements and Transit Connections Workgroup Recommendations Report (Attachment 16 to the Final EIS). WSDOT will continue to refine mitigation measures for the project as design is finalized, as mandated by ESSB 6392 and all applicable federal, state, and local permitting requirements.