

I-090-001

MR. KOSZYK: Hello. My name is Eric Koszyk, Capitol Hill, and I'm just speaking out against the A-Plus option tonight.

I-090-002

Basically, this bridge is going to last the next 50 to 75 years. We need to build a bridge that meets the goals in 50 years, not in just a decade or so. And we need to realize that the future is not going to be as car-centered as it is today, due to the price of gas increasing.

Plus, we need to meet our state's and our nation's global-warming goals, and this bridge would not do that. We are just basically building a bridge for the 1950s as opposed to the 2050s, which is what we need to focus on today.

You can't just say that, later on, we'll add light-rail lanes because, at that point, the lanes are already devoted to cars, and then people will fight those as well. So, you know, we need to do it now, not in 10, 20, or 30 years.

I-090-003

So we need to keep the bridge with only six lanes with the maximum, and two lanes should be devoted to barrier-separated bus rapid transit now and being light-rail ready in the future. So bus rapid transit now, light-rail ready in the future.

I-090-004

And also, we need to keep the Montlake transit stop, and we also need to get rid of the Arboretum ramps, because the Arboretum is a state treasure and a national treasure, and it must be kept in its present form.

And thank you very much. Thank you.

(End of comment.)

From: elinorK@comcast.net [mailto:elinorK@comcast.net]  
Sent: Wednesday, February 24, 2010 12:22 PM  
To: SR 520 Bridge SDEIS  
Subject: On ramps at Arboretum

I-091-001

I attended the meeting at the Naval Station on Feb 23rd. Several comments were made by folks representing the Arboretum foundation basically speaking against on-ramps to the new 520 bridge because of possible increased traffic on Lake Washington Blvd. I am a resident of Madison Park. Since the 1970's population has increased in all the lakeside communities (Madison Park, Leschi, Madronna) as well as the Madison Valley. Residents of these communities are dependent (primarily to reach their eastside employment) on access to the arboretum on-ramps. It would be logistically a mess to expect all of the traffic from the above mentioned areas to reach 520 via 23rd. Please keep the current plan for the revised on-ramps and exit ramps directly into Lake Wash Blvd. Thank- you. Elinor Kriegsmann 98112

From: Coleman Leuthy [mailto:kolman@zipcon.net]  
Sent: Monday, March 01, 2010 10:48 AM  
To: SR 520 Bridge SDEIS  
Subject: 520 Bridge

I live in Montlake across the boulevard from I-520.

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\* Keep the approved plan and get the bridge built.  
( Rail could be ok but needs to be part of transit lanes [ ? ] - but this seems difficult to find a location with enough space and I question how it would be connected to other rail systems other than over in Ballard ).

I-092-002

**\* We need access to and from I - 520 from the North and the South so that we will accomplish getting to and from the East side , I - 405 , and Redmond - Duval as we are now able to do.**

Thank you for helping .

Coleman Leuthy

Jorgen Bader  
6536 -- 29th Ave. N.E.  
Seattle, WA 98115

February 23, 2010

Washington State Department of Transportation  
c/o Jennifer Young  
SR 520, I-5 to Medina Bridge Replacement and HOV Project  
Environmental Manager  
SR 520 Office  
600 Stewart St., Suite 520  
Seattle, WA 98101

RE: Supplemental Draft EIS and  
Executive Summary

Dear SR 520 Project Managers:

I-093-001 | My comments break into six sections on your Supplemental Draft Environmental Impact Statement on the SR 520 Bridge Replacement and HOV project I-5 to Medina ("SDEIS"), and Section 4(f) and 6 (f) Evaluations ("4 (f) Evaluation"):

I. Design alternatives --- Option A+ without the Arboretum ramps is definitely the best resolution;

II. Recommendations for inclusion of topics as part of the SR 520 program package, i.e. provisions for assisting transit, a corridor management agreement, and authorization for acquisition of properties needed for mitigation purposes;

III. Areas for additional research and explanation and fundamental errors in analysis;

IV. Commentary on particular paragraphs in the SDEIS and errata that a careful fact checker editor would have caught and corrected; and

V. Comments relating to 4 (f) Evaluation and its attachments; and

VI. Notations on the Executive Summary and particular paragraphs in it.

I-093-002 | Parts III, IV, V and VI are in their order of appearance in the respective documents. Paragraphs on the same topic or that make the same mistake are considered together. The comments on the SDEIS make a cross reference to the captions of comparable sections in the Executive Summary. Since the Executive Summary receives much wider circulation, the additions and errors need to be made in both documents.

I-093-003 | Two mistakes recur throughout. The Summary Sections of both the SDEIS and the Executive Summary delete particular faults of Option K and thus apply to it generalizations that are at best partially true --- sort of like air brushing a negative in photography. The Executive Summary sometimes contains statements that are not supported by the text of the SDEIS and are tantamount to editorial opinion.

I-093-004

## I. DESIGN ALTERNATIVES

The SDEIS shows that the recommendation of the legislative work group is sound, based on a careful and thorough review of the facts, guidance from permitting authorities and the regulatory climate, the statutory criteria, the available funds, and the Workgroup's assignment by the 2008 and 2009 legislation; it would be a better design if all direct roadway connections between SR 520 and Lake Washington Boulevard in the Arboretum were ended.

The Montlake Isthmus sits at the natural crossroads of SR 520 and Montlake Boulevard East, the only north-south arterial; it is astride the Montlake Cut, the only passageway for salmon to migrate between the Lake Washington-Lake Sammamish watershed and Puget Sound; it is betwixt the first class wetlands of Union Bay and Portage Bay that serve as the nursing area for threatened species under the endangered species act; and it is flanked by parks. Its strategic location led to building SR 520 and connecting ramps to Montlake Boulevard East there fifty years ago and still controls today. All designs for routing SR 520's on and off ramps around the isthmus cost motorists, buses and transportation efficiency; cause irreparable injury to parks, wetlands, and the environment; move traffic congestion to other neighborhoods and intensify them there, harming much greater numbers of people; and add greatly to the construction expense. A+ provides the Montlake-Portage Bay neighborhoods with lids across SR 520 and transverse lids along SR 520 that mitigate the adverse impacts on the immediate residents.

If all direct roadway connections between SR 520 and Lake Washington Boulevard are removed forever, the A+ design would minimize the harm to the Arboretum to the extent practical; and the McCurdy/East Montlake Park lid and the reversion of the area of the existing R.H. Thomson and Arboretum ramps would go a long way toward mitigating the damage caused to the Arboretum wetlands by widening SR 520 with its added lanes on the north.

## II NEEDED ACCOMPANIMENTS

I-093-005

### A. Corridor Management Agreement

To benefit the corridor communities and the public generally, the SR 520 package contain a "Corridor Management Agreement." It is an avoidance measure and would avoid or mitigate long term adverse land use impacts, SDEIS page 7-19; preserve Air Quality, page 7-29; and reduce greenhouse gas emissions, page 7-31. The SDEIS should discuss and recommend it in a paragraph like this:

The State of Washington will as part of the SR 520 Bridge Replacement and HOV Project execute an

I-093-005

intergovernmental SR 520 corridor management agreement with Sound Transit, King County Metro, the affected municipalities, the Puget Sound Regional Council, and the University of Washington as recommended by the policies and manuals of the United States, Federal Highway Administration, for increasing transportation efficiency and multi-modal coordination and monitoring and reporting performance. Such an agreement would include the subjects in WSDOT's usual project agreements with municipalities, (such as construction of the facility, maintenance, coordination of operations, incident management, surveillance and enforcement, emergency evacuation, and municipal uses of right-of-way) and also encompass off-site elements, such as programs for promoting transit, shuttle services, and carpools, and ride-sharing; coordination of multiple transportation modes; information sharing technology; traveler information; educational programs; traffic demand management; and land use policies oriented toward transit.

The SR 520 Program description, p. 4, prepared for the Seattle City Council, dated November 24, 2009, entitled "SR 520 Bridge Replacement and HOV Program Overview" contains a project entitled "Lake Washington Congestion Management Project." The corridor management agreement would fit in with it. The United States, Federal Highway Administration ("FHWA") website, publishes documents encouraging corridor agreements, e.g. "Federal Management and Operations Handbook" (FHWA Report No. FHWA-OP-09-003), Technical Memorandum, U.S. Department of Transportation, Federal Highway Administration, June 2007 (FHWA-JPO-06-037) and Rule 940.

Corridor management agreements have proven to be effective in clarifying relationships and responsibilities; in integrating the functioning of transportation facilities and systems of different jurisdiction; and in coordinating activities so that the aggregate result is more productive than the sum of the individual efforts of the participants. Such an agreement at the outset also reduces the opportunity for local governments to avoid contributing while their residents would get the benefits of the activities of those agencies that do. This sometimes happens when environmental and conservation programs involve restraint in the use of resources among the participants for the common good; those who make no sacrifice --- sometimes called "free riders" --- reap the benefits and opportunists may move in to take more. Long term monitoring of performance and revisions, if needed, help to keep the performance at a high sustainable level over time and preserve the value of the investment.

The Project Impact Plan, dated December 2008, p. ES-7, identified among the "Long Term Improvement Suggested by Mediation Participants" for all options: "Explore opportunities to develop a SR 520 Corridor Management Agreement with local jurisdictions along the corridor to encourage transit friendly

I-093-005 | land use and other development decisions." The Project Impact Plan, Appendix 10.3, identifies potential Transportation Demand Management Strategies, prepared by WSDOT for the SR 520 Corridor Program. The representative of the Montlake Community Council in the mediation process and a senior member of the Council wrote an opinion piece on SR 520 published in the *Seattle Times*, June 17, 2008, that included a recommendation for a Corridor Management Agreement.

The SDEIS and the 4 (f) Evaluation in their discussion of avoidance and mitigation measures contain provisions appropriate to a Corridor Management Agreement. The Corridor Management Agreement would assemble and integrate them and add additional sections containing promises from the affected municipalities for a comprehensive package guiding the project, future developments and land use.

#### B. Advance Acquisition for Mitigation

I-093-006 | The spokesman for the National Oceanic and Atmospheric Administration, and National Marine Fisheries, during mediation meetings and at the September 22, 2009 session of the Legislative Workgroup urged advance acquisition of properties for protection of threatened fish and for mitigation purposes. The Project Impact Plan, Appendix 10.4, contains five pages of potential wetland mitigation sites for both the eastside and the westside. He had told the mediation panel that acquisition now would take advantage of the downturn in the real estate market, and since replacement wetland is in very limited supply, an economic upturn could quickly increase the price. The 4 (f) Evaluation discusses replacement of park land; it does not cover fish habitat. Advance acquisition should be discussed in the SDEIS under Phased Implementation, page 5-152 et. seq. or at another appropriate place.

### III. MATTERS FOR FURTHER STUDY OR EXPLANATION

I-093-007 | Impacts on the ecosystem as a whole: Pages 5-131 through 5-139 [Page 35, Executive Summary, Permanent Effects, Section of Fish Resources]: A lecture at the University of Washington described Union Bay as a delicately balanced ecosystem in which actions in one area could affect other parts as well, e.g. tampering with University Slough on the north east could impact the Arboretum wetlands, and activity in the Arboretum wetlands could impact the areas north; and the lecture explained that ecosystem is integrated from the bottom of the food chain -- the tiny biota the human eye can not see --- through the predators at the top. Neither the discussion in the SDEIS nor the Executive Summary takes such a "wholistic" approach nor do either of them start at the microscopic level. It should.

I-093-008 | Moreover, the SDEIS neglects a near at hand source of expertise. The University of Washington, College of the Environment, School

I-093-008 | of Fisheries, is renowned among academics for its research into fisheries and contain the foremost experts on Lake Washington, Union Bay, and its flora and fish life. Yet, the SDEIS overlooks it in the proposed further evaluation efforts. This discussion also applies to proposed Mitigation for unavoidable effects, SDEIS page 5-144.

I-093-009 | The crow colony. Page 5-140 and 141, Wildlife and Habitat; Pages 6-95 and 6-96, Construction Effects, Wildlife Habitat [Page 35, Executive Summary, Permanent Effects, Wildlife Habitat; Page 46, Executive Summary, Project Construction, Ecosystems, second paragraph]: The Sections in each document on "Wildlife Habitat" gives no indication of the effects of Option K on avian life on Foster Island. Foster Island is a prime roosting area for crows, and, the place that they congregate at night. *The Street Smart Naturalist: Field Notes from Seattle*, p. 197 describes Foster Island at dusk in these vivid terms:  
"I am in the center of a cosmic crow mailestrom. Birds arrive from the north, east, and west. Most come in groups. Many are playing, chasing each other, dive-bombing their roostmates, enjoying the last flight of the day, ... wave upon flying wave, the birds starting high above the water, then swooping low before a final climb into the leafless trees dotting the shoreline.  
"The winter dispersal and return of crows is perhaps Seattle's grandest daily natural-history display. Nowhere else in the city can one see so many wild, large, living beings at one time, except at certain sporting events."  
Option K would displace them during construction and by removal of the tree cover and vegetation, SDEIS 6-55, SDEIS 6-61. The crows control insect pests in the Seattle area, especially in the Arboretum. See also my note on page SDEIS 4-69, Wildlife Habitat.

I-093-010 | Waterfront Activities Center. Pages 5-39, Operation and Permanent Effects, Option K; Page S-167 Land Use and Economic Activity; Pages 6-45, 6-50, 6-114, and 6-116 Construction Effects; Pages 89, 103 and 153m 4 (f), Evaluation; Page 5, Parks Mitigation Memorandum, UW Open Space [Pages 30, 41, 50, and 54, Executive Summary, Land Use and Economy Activity section, box Option K]: In multiple places, the various documents state that the University of Washington's Waterfront Activities Center (WAC) would be relocated for a multiple-year period for construction of Options K or L. Pages 6-45, 6-114, and 6-116 of the SDEIS, Pages 89, 103, and 153 of the 4 (f) Evaluation, page 5 of the Parks Mitigation Memorandum and pages 41 and 54 of the Executive Summary states that the WAC would be restored in its original location after Options K and L are completed. However, the current docks and buildings are grandfathered under the Shoreline Management Act and various federal statutes and regulations relating to construction over water. Would the "grandfathering" still apply afterwards? Can the docks and buildings, once removed or closed for four years, be replaced in kind? There's no indication of that from the regulatory

I-093-010 | agencies in the various documents.

I-093-011 | Replacement of Park Land. Pages 5-33 and 5-34, Land Use Parks; 5-168, Summary, Recreation Section; [Page 30, Executive Summary, Permanent Effects, Recreation section]: The discussion should mention that Seattle Ordinance 118477, adopted as Initiative 42, and other laws require that park land taken for a project to be replaced in kind. Arguably, some of the acreage taken could be replaced by reversion of areas now occupied by the Arboretum ramps to Arboretum use. However, where would the additional acreage taken by Options K and L come from? How many homes and parcels would be taken to replace McCurdy/East Montlake Park taken by Options K and L? The SDEIS and the Executive Summary discuss park land taken, e.g. pages 5-33 and 5-168 of the SDEIS and page 31 of the Executive Summary, Section 4 (f) Evaluation, but not where replacement in kind of the park land taken will come from. The replacement sites suggested in the Parks Technical Memorandum, pages 25-26, are unsatisfactory as not being available (NOAA), as not being waterfront, and/or not being in the vicinity able to serve the same function. This oversight also applies to loss of property tax revenues. See comment on SDEIS page 5-145 and 146.

I-093-012 | Transportation Omissions: Pages 5-7 through 5-27, Permanent Effects and 5-166 and 5-167, Project Operations, Transportation [Page 35-36, Executive Summary, Summary of project operation and permanent effects] The SDEIS and the Executive Summary omit important information that WSDOT supplied to the Legislative Workgroup on a Data Sheet on November 10, 2009. The public should be furnished the same quality of information that was given to the legislators. This data included a table comparing:

- Local Traffic (AM/PM peak, bi-directional)
  - In the Arboretum (vehicles per hour)
- Freeway Traffic (AM/PM peak, bi-directional)
- Portage Bay Bridge (vehicles per hour)
- Transit (minutes)
  - Local peak travel times (two distances)
  - Peak travel time to/from RTA station
- Number of lanes at Marsh Island

This data shows that Option K is not as efficient as A+ or A; and the number of lanes over Marsh Island shows the much greater width of Option A in the Arboretum wetlands and its greater damage to the fragile wetlands

I-093-013 | Excluding HOV's from the HOV/Transit lanes: The SDEIS and the Executive Summary should discuss limiting the proposed Transit/HOV lanes to rail or bus rapid transit only. In essence, it would close these lanes to carpools and vanpools. This concept was discussed during mediation and rejected. The proposal warrants consideration because the mayor of Seattle, two City Council members, and important environmental organizations seem to support it and have promoted it in the media. This issue is alluded to at page 8-5, Other Considerations, Controversy and in the Executive Summary, p. 60,

I-093-013 | Controversial Issues, fifth bullet.

#### IV. COMMENTARY ON PARTICULAR PARAGRAPHS

I-093-014 | Page 1-3, Introduction, Project Purpose, box [Page 4, Executive Summary, Project Overview, box]: The indented project statement was enacted into state law by Chapter 517, Laws of 2007, Section 2 (4), codified in RCW 47.01.405. The Code citation should be noted inasmuch as a state statute carries governing authority. A study committee or departmental misstatement serves mainly as a guideline. See comment on SDEIS page 1-17.

I-093-015 | Page 1-7, Introduction, Project Accomplish[ment], third bullet [Page 7, Executive Summary, Project Accomplish[ment], third bullet]: The comma after the word, "lanes," makes the phrasing ambiguous: under the last antecedent rule of grammatical construction, it leads to an interpretation that the two HOV lanes also provide for "mobility ... for general purpose vehicles." Either drop the comma or adopt the text of Section 2 (5) of Chapter 517, Laws of 2007, codified in RCW 47.01.405, which makes a much clearer statement. It states that there are "four general purpose lanes and two lanes that are for high occupancy vehicle travel that could also accommodate high capacity transportation." The HOV lanes are not available for general purpose vehicles.

I-093-016 | Pages 1-9 Introduction, Consulting with Tribes; Page 4-65 Project Environment [Page 21, Executive Summary, Coordinating .. with tribes]: Page 4-65, Tribal Fishing Areas: All tribes with fishing rights in Puget Sound need to be consulted about the design of the new SR 520 --- not just about the movement of pontoons from the Straits south. Actions that diminish the fish population in Puget Sound affect all tribes entitled to participate in the catch. The case of *United States v. State of Washington*, U.S. District Court for the Western District of Washington, Northern Division, CV70-9213RSM (August 22, 2007) established that right of Treaty Indians to fish includes an obligation by the State "to refrain from hindering fish passage and diminishing the number of fish that would otherwise be available for Tribal harvest." The Findings state that fish from the several river systems and watersheds in the Puget Sound basin commingle and that therefore any treaty tribe with fishing rights in Puget Sound has standing to contest state practices and actions that may substantially diminish the available catch. Evidence in the case showed that about 8% of the salmon in Puget Sound rely on the Lake Washington/Lake Sammamish watershed. All of those fish pass through the Montlake Cut. Therefore the fishing rights of all tribes with rights to fish in Puget Sound are affected and consultation should occur with all.

I-093-017 | Pages 1-17, Introduction, Happen[ings] since Publication; 1-33, Tolling; 1-43, Next Steps; 2-40, Operational Effects, Mov[ing] Forward et al. [Executive Summary, pages 19 (note funding source), pages 23 (last paragraph), 24 (last sentence, 25 (box upper right hand corner, and 60 (first bullet), ]: The SDEIS and the Executive Summary should use code section numbers in the Revised Code of Washington (RCW) for ready reference. If not available, then it should use Chapter and Section numbers, rather than the bill number. Bill numbers are re-used each biennial session and are more difficult to track. Code sections are found on the internet and in the published code in all the major libraries as well as well equipped lawyer's offices. Chapter numbers identify a law with particularity and are not re-used; and citations using chapter numbers may be more readily found in the published session laws. Just to illustrate the confusion, the grey box of the Executive Summary on page 25 cites the number "ESSB 6099" and one date, December 2008. A lay reader might search for it in the 2008 session laws, but would not find it there. It's in the session laws of 2007.

ESHB 2211 in the 2009 legislative session is correctly Chapter 472, Laws of 2009. The section that creates the Legislative Workgroup is Section 3, identified as RCW 47.01.418

I-093-018 | ESSB 6099 in the 2007 Session became Chapter 517, Laws of 2007. Section 3 (3) of Chapter 517, Laws of 2007, codified as RCW 47.01.405 includes this very important goal that was omitted from the box: "... minimize any increases in additional traffic volumes through the Washington park arboretum and other adjacent neighborhoods." Option K completely defaults on that goal. The goal of prioritizing "travel time, speed, and mobility" concludes with "on the two high-occupancy vehicles lanes." The goal is not general as the editing implies, but rather focuses on transit and van/car pools that would use the HOV lanes.

I-093-019 | Page 1-18, Introduction, box, organizations in mediation [Page 24, Executive Summary, box, organizations in mediation]: The Ravenna-Bryant Community **Association** is a non-profit organization incorporated under the laws of Washington under that name --- not Ravenna Bryant Community *Council*.

I-093-020 | Page 1-21, Introduction, Legislative Workgroup [Page 26, Executive Summary]: The minority report was signed by **two** members of the Legislative Workgroup --- not *three*. Honorables Frank Chopp and Jamie Pedersen, Representatives of the 43rd District, signed it. Representative Dan Roach, 31st District, voted No to the panel recommendation, explaining that the A+ design had too many lids and other amenities for the neighborhoods. He did not sign the minority report, which appears on pages 3-4 of the Final Report. See <http://www.wsdpt.wa.gov/partners/sr520legislativeworkgroup/files/finalreport>.

I-093-021 | Page 1-25, Introduction, Noise Walls; 2-3 and 2-4, Alternatives, Noise Reduction [Page 11, Executive Summary, Noise reduction]: The second paragraph summary on page 1-25 and in

I-093-021 | the paragraph spanning pages 2-3 and 2-4 are too curt with respect to Option A. Option A calls for following the recommendation of the Acoustics Expert Panel retained by WSDOT during mediation (see box, page 1-26). Those recommendations included a variety of techniques at the current state of the art, including treatment of expansion joints, design of retaining walls, etc. Option A also states that noise walls will be subject to the approval of the affected communities. This information should be added to the paragraph and as a footnote to the exhibits showing noise walls along the freeway.

I-093-022 | Page 1-27, Introduction, Design Options; 2-6, Alternatives, Design Options; 2-14 and 15, Alternatives, Option K [Pages 12-13, Executive Summary, Alternative design options]. The description of Option K is like describing the sphinx as a lion without mentioning its head. Option K, as an essential element, builds an interchange in the Husky Stadium south parking lot and the intersection of N.E. Pacific St./Montlake Boulevard N.E. The paragraph should also mention that its approach/exit ramp through wetlands. The description in the Executive Summary wisely defines SPUI for lay readers, which the SDEIS does not do.

I-093-023 | Page 1-28, Introduction Exhibit 1-7 [Page 14, Executive Summary, Exhibit 1-7]:  
The graphic for Option A should show green in the portion of the lots easterly of Montlake Boulevard East of the two properties to be taken for the parallel Montlake Bridge. Those sections may be bermed to reduce noise or include plantings.  
Option A also calls for reversion of the entire right of way occupied by the Arboretum ramps to be removed. This should be noted by adding after "Blvd ramps" "and revert to Arboretum use."  
The graphic for Option A should state that the Portage Bay is six lanes plus an auxiliary lane the same as described on page 16. The auxiliary lane is not a through traffic lane like the other six lanes are. This also applies to the Portage Bay Bridge discussion on page 2-38.  
The graphic of Option A exaggerates the pavement in the Shelby-Hamlin St. area of Montlake Boulevard East. The right-of-way is not widened to the extent shown. Montlake Boulevard East in that area already has paving for four through lanes and two lanes that serve as connectors to the on and off ramps.  
McCurdy-East Montlake Park should be identified on the graphics of the No-Build and of Option A. Options K and L convert those parts to freeway use. Labeling the green tells the public that park area is being taken by those two options.  
The graphic of Option K should show the location of the ventilation towers.

I-093-024 | Page 1-32 Introduction, Project Cost [Page 16, Executive Summary, Project Cost]. The estimates with the bullet points at the top of the page for the three options should be identified as 2008 costs in the lead-in. The text should state that the

I-093-024 | budget limit set by the legislature as year of expenditure, and the note at the bottom of the graphic should be in the text to reconcile the figures. The year of expenditure dollars escalate the low/high end costs of Option A by 33.11/29.78%, K by 21.17/21.3%, and L by 29.9/28.65%. A lay reader ought not to have to backtrack to figure out how to account for the different figures.

I-093-025 | The final paragraph before the Cost Estimates graphic, assumes that legislative action will revise the limit or find additional revenue sources. The Legislative Workgroup also recommended "... the pursuit of cost savings by further refinement of cost estimates and design."

I-093-026 | Page 1-34 and 1-35 Introduction, Assumptions About Tolling: Page 5-1, Project Operation, Section 5.1 Transportation, box and Page 5-2, first paragraph, first complete sentence: The tolling model assumes that HOV's (3+ carpools and buses). The second sentence in the box states "... HOV's (3+ carpools and buses) were assumed to be exempt from the tolling." As the old song goes, "Tain't necessarily so!" The advocates for Option A tried unsuccessfully to persuade the mediation panel and later the Legislative Workgroup to include such a stipulation. Each declined, accepting the proposition that toll setting and toll exemptions were within the purview of the Transportation Commission.

I-093-027 | Page 2-5, Alternatives, Lighting; Page 5-77 and 78, Light and Glare. WSDOT should consult with Dark Skies Northwest about bridge lighting. The lighting needs to prevent sky bound scatter. East Montlake Park has been used by astronomers for viewing the night skies and for invitations to the public to see extraordinary phenomena such as lunar eclipses, Saturn at a close approach, comets etc. Dark Skies points out that lighting affects avian life, their ability to capture insects and small rodents, roosting etc. Lighting should not only limit sideways glare, but also be measured to the luminosity needed, minimize reflection from wet pavement, and meet other standards.

I-093-028 | Page 2-6, Alternatives, Tolls: Provision should be made for motorists to mail in payments before being billed. The billing process may add an administrative charge, which should be unnecessary if a motorist can mail in payment first. This is discussed more fully with respect to Page 5-51.

I-093-029 | Page 2-10, Alternatives, Portage Bay Area first paragraph under the graphic, second sentence: The sentence describing the Portage Bay Bridge and commenting on Exhibit 2-6 concludes with this phrase "...making it [Option A] about 10 feet wider than Options K and L.." The graphic and measurements show that Options K and L start widening toward the western shore. The extra ten feet occur for a section of Portage Bay --- not for the entire distance as implied by the sentence. The quoted phrase should have "at the mid-point" inserted.

I-093-030 | The penultimate sentence should note that Option A calls for

I-093-030 | design competition in consultation with the Seattle Design Commission and the affected neighborhoods.

I-093-031 | Page 2-14, Alternatives, Montlake Area, Option A: The text should provide equal treatment for the lid of Option A to that of the lids in Option K. Option K's text, p. 2-20, explains that its lid would provide "pedestrian connections between the communities north and south of SR 520." So do the lids of Option A and its lids connect McCurdy/East Montlake Park with Washington Park's Arboretum. SR 520 and its Arboretum ramps connect an otherwise bifurcated park.

I-093-032 | Page 2-16 and 2-17, Alternatives, Montlake Area, Exhibits 2-9: The legends should explain that in the cross-sections an orange bus denotes a transit-HOV lane unless noted, and a red car is a general purpose lane.  
With Option A, the remainder of the lot taken for the parallel bridge and not used for highway purposes will be landscaped and should be shown as green.

Page 2-16, Exhibits 2-9 and 2-16 [Page 15, Executive Summary, Exhibit 2-16]:

Option A suboptions should note that "Stormwater treatment facility" may be landscaped or covered.

The coloring should be consistent with Exhibit 1-7: if lids are to be shown as green on Exhibit A-7, the lids should be green on Option A suboptions as well.

The Option A suboptions should note the transit only off ramp westbound.

The Option A suboption should show a pedestrian/bicycle lane to East Hamlin St. and Montlake Boulevard East similar to that of Option K. Cyclists under Option A have both alternatives.

Page 2-17, Alternatives, Montlake Area, Exhibit 2-9: The dotted grid denoted with the number a circled three and a cross-section 3 on the graphic of Option K should be explained in the legend. A lay reader may interpret it as some sort of lidding

The green coloring alongside of the gooseneck southerly extension of the SPUI that resembles a loop road with almost a roundabout --- called by its proponents a "keyhole" --- is landscaping. Landscaping should be shaded differently from lids else lay readers would not be able to distinguish the traverse lid along Lake Washington Boulevard in Alternative A from the green buffering of the gooseneck extension. The transverse lid will be level and usable for recreation; the gooseneck's landscaping will be on a slope like the side slopes of I-5.

I-093-033 | Page 2-20, Alternatives, Montlake Area, Option K: The third paragraph purports to address Lake Washington Boulevard. It is the subject of the first sentence and the last antecedent of the second and third sentences. The last sentence states that " ..it [Lake Washington Boulevard] would have no connection to the interchange..." In fact, Lake Washington Boulevard provides the only access to and from the SPU from the east.

The fourth paragraph should note that traffic from or to the south of the Montlake Cut have the option to use the N.E. Pacific St./Montlake Boulevard East interchange and then recross the Montlake Bridge. It is not strictly local traffic between the University District and Montlake. Traffic projections show a very substantial volume of traffic making this movement. It is encouraged by the north-to-east right turn and the left turning movement west-to-south under the N.E. Pacific St./Montlake Boulevard N.E. lid.

I-093-034 | Page 2-29, Alternatives, Floating Bridge Area, Grey Box, Future Capacity for Light Rail: The text states that "If SR 520 is identified to carry light rail..." State law requires that the design have the capacity for adaptation for light rail. Designing for light rail is a statutory mandate and the text should so state. During mediation, WSDOT explained that light rail requires a more gentle grade than bus rapid transit. Therefore, separation between the pontoons and the roadway surface is a design necessity.

I-093-035 | Page 3-2 and 3-4 Construction, staging: The areas in Exhibit 3-1 and 3-2 do not include Montlake Playfield. Yet, the Executive Summary, page 31, Section 4(f) states that "... all options would temporarily occupy ... Montlake Playfield." However, pages 6-20, Exhibit 6.2-2, and page 6-38, Table 6.4-1, page 6-35. Table 6-4.1, and page 6-41 Exhibit 6.4-3 show a construction easement in Montlake Playfield.

I-093-036 | Pages 3-5, Construction, Haul Routes, Table 3.2, Route Trips on Local Highways, and pages 6-3 through 6-9, Construction effect: The graphic on Page 3-5 should be supplemented with a cross-reference to pages 6-6 and 6.7 and a column of the number of days of construction so that the reader can or readily calculate the total truck trips of the various options. Because of its duration of construction, Option K at least trebles the route trips of the other options --- an important fact for the public to know in evaluating the options.

The text should declare that use of the Portage Bay Bridge will be preferred and N.E. Pacific St., 15th Avenue N.E., to N.E. 45th St. will be the most disfavored:

(a) It interferes with bus travel. Each of those three streets is vital to bus routing, and each of the three streets is beset with traffic lights;

(b) Each of the three has a high volume of pedestrian traffic that should not be subjected to spillage from motor

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vehicles, and their volumes of commuter and business traffic would also suffer;

(c) The three streets have the greatest population density and business traffic, which would be adversely affected. N.E. Pacific St. has hospital patients, who need quiet for their recovery;

(d) Delays caused to and on N.E. 45th St. would impair traffic on I-5. During rush hours and Husky event days, on and off traffic frequently makes the northbound exit lane on I-5 into a holding lane; and the congestion in the far right (east) lane extends across the I-5 freeway bridge reduces the available lanes of I-5 for through traffic flow. As a result, back-ups on mainline I-5 commonly reach Northgate southbound and downtown northbound.

(e) Spillage on these streets will close a lane where there are no lanes to spare.

(f) The University District will host trucks hauling soil from the excavation from the Sound Transit tunnel to the University District Station and later to the Roosevelt Sound Transit Station. Equity among neighborhoods calls for sparing the University District from SR 520 trucking as well.

I-093-037

Page 3-6, Construction Activities, Roadway Closures, Exhibit 3-4, Road Closures: The graphic should note on the site of N.E. Pacific St./Montlake Boulevard N.E. "Options K and L only." True, it's in the text, but many readers scan government documents with particular attention to the graphics.

I-093-038

Page 3-33, Construction Activities, Exhibit 3-15, Construction Elements for Option K: The graphic should show the location of pumping stations.

Page 3-34, Construction Activities, Option K: The text should mention excavation for the pumping stations and it should describe the height and bulk of the platform.

I-093-039

Page 3-36, Construction Activities, Option L Sub-option: The text should also explain that widening 25th Avenue N.E. by the Bank of America Arena (Hec Edmundson Pavilion) would bring the right-of-way up to the curb that protects the plantings in front of the Arena. It may require displacing the donor plaques in the sidewalk. It would greatly narrow the sidewalk width, which is currently used to the fullest for basketball and football games.

I-093-040

Page 4-3, Project Environment, SR 520 Eastbound On-ramp: The traffic congestion extends further than as "far north as 25th Avenue N.E." during peak hours. It extends north to N.E. 45th ST. and eastward on N.E. 45th St. to 5 corners (the intersection of Sand Point Way N.E., N.E. 47th St., Union Bay Pl. N.E. and Mary Gates Way N.E.) and it extends northward on 25th Avenue N.E. to N.E. 49th St.

Exhibit 4 1-2 should show the major area of congestion

I-093-040 | north of the Lake Washington Ship Canal. There are two: N.E. Pacific St. and Montlake Boulevard N.E. and N.E. Pacific Place and Montlake Boulevard N.E. (the Husky Stadium traffic signal). The Husky Stadium light is set to favor vehicles exiting the parking lot. This greatly contributes to the back-ups on Montlake Boulevard N.E. during the peak hours southbound.

I-093-041 | Page 4-22, Project Environment, Distribution of Low Income and Minority Populations, Exhibit 4.3-2: The University District extends west to I-5. The area shown in white between the University District and I-5 south of N.E. 50th St. was included in the University Community Neighborhood Plan. Residents in the area have and do attend meetings of the University District Community Council.

The label, "Laurelhurst," should be moved further east. The maroon area is Union Bay Housing for married university students, owned and operated by the University of Washington Housing, and is not considered part of Laurelhurst.

The shading should show the integrated communities in Madison Valley south of Madison Park, which would be affected by the increased traffic on Madison Street caused by Option K. Option K would make Lake Washington Boulevard the only south access to SR 520 and thereby draw traffic to Madison St. through the Central Area. Much of that traffic now uses 23rd Avenue East.

I-093-042 | Page 4-23, Project Environment, Fire and Emergency Medical: The second paragraph should note that the fireboats would need a minimum clearance height to respond south of the SR 520 Bridge. Alternatively, this section could make a cross-reference to page 4-79, the last paragraph. This lays a predicate for the height of the bridge and its approaches by Madison Point.

I-093-043 | The sentence about the location of the UW Medical Center is anemic. The SDEIS should state the number of beds and teaching facilities and that it abuts directly on N.E. Pacific St. with its emergency entrance subject to closure during construction. See SDEIS p. 3-6. A gross understatement may amount to little more than a quarter truth.

I-093-044 | Page 4-28, Project Environment, Recreation, Table 4.4-1, Recreation Resources in the Project Vicinity: The text should list Madison Park, a half mile to the south on Lake Washington at the foot of Madison Street, and North Madison Park on 43rd Ave. N.E. by E. Lynn St. about a quarter mile south of SR 520. Both were impacted by wave action when SR 520 was built.

I-093-045 | Page 4-30 and 31, Project Environment, Foster and Marsh Islands: The description should repeat that Foster Island was a burial ground used by the Indians in pioneer days. This is as important in the history of Foster Island as the

I-093-045

fact that it was made part of the Old Canal Right of Way. Alternatively, there should be a cross-reference to the Cultural Resources in Section 4.8, page SDEIS 4-40, and to page 5-62.

I-093-046

Page 4-37, Project Environment, Recreation, Montlake Landscape Unit: The statement about Rainier Vista --- "In addition, Rainier Vista on the UW Campus offers views toward Lake Washington and Mt. Rainier." --- is a gross understatement like calling the Capitol Mall in Washington, D.C. a green swath. It's much more than that. The Olmsted plan laid out the 1909 Alaska Yukon Pacific Expedition to accentuate the view from the U.S. Pavilion (now Red Square) and Geyser Basin (now Frosh Pond) to Mount Rainier. The UW Campus was developed to retain that view. It's spectacular, featured on postcards, shown on national television when the Huskies play, and photographed by campus visitors. In fact, tour buses stop and lead their tourists to Drumheller Fountain in Frosh Pond to take photos. The UW is concerned that the drawbridge under Option L and the lidding of N.E. Pacific St. and Montlake Boulevard N.E. under Options K and L would intrude into that view --- the one with a raised bridge span and the other with a concrete dome. It's surprising that the SDEIS does not have any photographs down Rainier Vista.

I-093-047

Page 4-69, Project Environment, Wildlife Habitat [Page 35, Executive Summary, and Page 46, Executive Summary, Project Construction]: Foster Island is prime roosting area for crows and the place that they congregate at night by the thousands, Wikimpia.org/1359871/Foster Island; www.welmer.prg2009/05... /militant crows; www.depts.washington.edu/uwcrows; www.seattlepi.com/getaways /141096\_urbanwildlife25html. Option K would displace them both during construction and by removal of the tree cover. The crows control insect pests in the Seattle area, especially in the Arboretum, and do a public service by eating food scraps people drop or carelessly leave about. See comments on matters for further study with a cross reference to pages 5-140 and 5-141.

I-093-048

Page 4-72, Project Environment, Geological Hazards in the Project Area; Pages 5-147 and 148, Construction Effects, Geology and Soils, Geologic Hazards; and Page 6-102, Construction Effects, Geologic Hazards: The United States Geodetic Survey (attachment ) shows the seismic hazards in the Montlake/University of Washington area. It shows that the risk of acceleration of shaking is substantial during an earthquake both in the Husky Stadium and South parking lot area and in East Montlake Park. It's material that should supplement Exhibit 4-12 and makes the tunnel portals by Husky Stadium and in East Montlake Park subject to seismic risk (including liquifaction). This should be noted on pages 5-147 and 5-148 with respect to the tunnel in Option K. Soil

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liquification during a tremor could affect the permanent structure and operations and construction activities.

I-093-049

Page 4-75, Project Environment, Geology and Soils; Pages 6-100 and 101, Construction Effects, Geology and Soils [Page 38, Executive Summary, Geology and Soils; Page 52, Mitigation Measures, Project Operation]. Can the soils sustain the weight of the massive concrete platform between the mainland section of the Arboretum and Foster Island? It's so great that it is called a "land bridge" in Option K. The platform would rise thirty feet in the air with solid walls and back filling. Construction of the Evergreen-Montlake Floating Bridge in the 1960's surcharged the subsoil and caused a sidewise shift into the ship channel. The State Highway Department engaged in dredging to remove potential hazards to navigation. A structure as big as the "land bridge" will have a much greater effect since the load is much greater. When City Light filled some of its property by the Lake Union Steam plant on the east side of Fairview Avenue North, islands popped up in Lake Union on the west side; and City Light dredged the islands to maintain navigability. The Arboretum wetlands are a natural ecosystem --- rather than a working lake front --- so that the displacement, in itself, may have consequences and dredging may not be acceptable as a remedy. This needs to be investigated fully.

I-093-050

Page 4-77, Project Environment, Sediments; and Page 6-103, Construction Effects, Hazardous Materials: From the time of the construction of the North Trunk Sewer to serve North East Seattle until about the 1980's, Seattle maintained a large storm drain/sewer overflow outfall by the Montlake Cut. It received all sorts of wastes from the streets, gutters, and often from homes (until the combined sewers and storm drains were separated). The discharge bubbled up in the Montlake Cut and the heavier particulates settled down in the vicinity and became overlaid with sediments. The particulates may include lead from washing paint cans, household chemicals poured down the drain, lead compounds from tetraethyllead gasoline discharged into the air as exhaust and washed by the rain into storm drains, copper compounds from fungicides and weed killers, etc. Disturbing the sediment risks again dispersing them into the water. It is a matter to note inasmuch as some participants in mediation have proposed a cut-and-cover tunnel under the Montlake Cut (called Option "M").

I-093-051

Page 5-4, Project Operation, Traffic and Transportation, second paragraph, last sentence: Various designs have been published of the Rainier Vista project of the University of Washington for public comment. Not all of the sketches lid over the Burke-Gilman trail. The design should be confirmed before publication of the Final Supplemental Environmental Impact Statement.

I-093-052

The third paragraph should add a sentence noting that

I-093-052 | Option A contemplates that Sound Transit and the University will arrange for a crossing between the Sound Transit Station and the main campus wide enough for both pedestrians and cyclists. See SDEIS page 5-25, Exhibit 5.1-14. Sound Transit has proposed a wide overpass; the University has also suggested an at grade crossing closer to the Sound Transit station protected by traffic lights. Either alternative would accommodate pedestrian and bicycle travel. Option A is not a "do nothing" alternative.

I-093-053 | Page 5-13 to 5-19, Project Operation, Traffic and Local Streets: This section should include Slide 15, the P.M. peak hour cumulative travel time comparison for twenty-four travel paths through the Montlake area presented to the Legislative Workgroup, October 8, 2009, p. 6-12. That chart quantifies the text clearly and simply. Option A with the Lake Washington Boulevard ramps and auxiliary lane is about one-third shorter in travel time than Option K. Option A with the auxiliary lane takes about the same time as Option K. It clearly shows the value of the auxiliary lane.

The presentation is deficient in that it does not extend its analysis of Options K and L further outward. Options K and L increase the traffic on Montlake Boulevard N.E. and its connecting arterials, Sand Point Way N.E. and 25th Avenue N.E. The Transportation Discipline Report, Exhibit 6-3, shows that Alternative A is superior to K/L designs in the A.M. peaks on Montlake Boulevard N.E. north of its intersection with Pacific Place N.E. and on N.E. 45th St. Options K and L are comparable to the Pacific Street Interchange design in the 2006 DEIS in the manner of traffic flow funneling traffic flow. Analysis of the Pacific Street Interchange design showed delays moved further outward. It extended at least to "Five Corners" on Sand Point Way N.E. and to the north driveways of University Village on 25th Avenue N.E. and on N.E. Pacific St. and beyond its intersection with 15th Avenue N.E. Data presented during mediation showed that Options K and L added 30% more vehicles to that intersection. The SDEIS on the inset shows that this intersection will be rated as LOS E. [It is 35 on the inset, but mislabeled in the legend] What about the next succeeding arterial intersection? or N.E. Pacific St. further west?

Data presented during mediation showed that Options K and L shift traffic from the Portage Bay bridge to local streets on the south as well. 81% more vehicles will clog Montlake Boulevard at Boyer Avenue East. This data should be shown too.

I-093-054 | The presentation should put numbers on the diversions for the neighborhood to better understand the impacts. The LOS rating informs about back-ups and waiting time for motorists. Putting numbers on traffic tells a neighborhood how much more noise, debris and other incidents of traffic to expect and it allows inferences on the ability of a pedestrian to cross the street or traffic to enter and often the volume of cut

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through traffic on neighborhood streets. WSDOT presented numbers during mediation that show the diversions of traffic at several locations:

(1) Traffic diversion to Montlake Boulevard at 24th Avenue E. (where 24th Ave. angles north to west, south to east) (vph = vehicles per hour):

Year	Option	vph	Base Year	% change
2008	Current	2,000		
2030	No Build	2,360	+ 450 vph	+ 22.5%
	"A"	2,560	+ 560 "	+ 28 %
	"K" & L	3,620	+1620 "	+ 81 %

Some of the traffic that could use the Portage Bay connection of SR 520 between the Montlake isthmus and I-5 shifts to surface streets (e.g. Fuhrman Ave. E. and E. Boyer St. south of the Ship Canal). The Portage Bay crossing carries 7380 vph now; the "No Build" anticipates 7500 vph in 2030 on the Portage Bay connection (+120); Option A anticipates 8140 (+760); but, Options K and L anticipate 7290 (-90). 850 vph more would use the surface streets under Options K and L than on Option A.

(2) Traffic diversion to Lake Washington Boulevard at Boyer Avenue. (about midway through the Arboretum):

Year	Option	vph	Base Year	% change
2008	Current	1,400		
2030	No Build	1,790	+ 390 vph	21.4 %
	"A"	1,150	- 640	- 45.7 % (minus)
	"K" & L	2,080	+ 680	+ 48.6 %

(The Transportation Discipline Report, Exhibit 6-1, modifies these figures somewhat by rounding the left hand column to 1,400, 1,800, 1,200 and 2,100 respectively.) Some of the traffic from or to the easterly sections of Capitol Hill and neighborhoods more southerly shifts from using 23rd Avenue East to using East Madison St. and Lake Washington Boulevard and the Arboretum interchange to SR 520 in Options K and L. Options K and L make Lake Washington Boulevard the only access to and exit from SR 520 in the Montlake area south of the Ship Canal. "K" and "L" have 80.1%, more vph on Lake Washington Boulevard E. than Option A.

(3) Diversion to Lake Washington Boulevard at E. Park Ave. (overpass to MOHAI):

Year	Option	vph	Base Year	% change
2008	Current	840		
2030	No Build	1020	+ 180	+ 21.4 %
	"A"	1160	+ 340	+ 40.5 %
	"K"	1580	+ 740	+ 88.1 %
	"L"	1090	+ 250	+ 29.8 %.

The "No Build" reflects anticipated growth in vehicular usage (21.4%). "A" experiences additional volumes (19.1%) by closing the Arboretum ramps. Option "K" requires traffic from or to Montlake Boulevard East south of I-5 to use Lake Washington or a frontage road between the arterial and SR 520. That results in a 66.7% increase alone.

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The section on local streets should address the concerns of the Seattle Board of Park Commissioners contained in the Agency Correspondence, Attachment 2, Question 4, about the lack of capacity of Boyer Avenue to handle the traffic that

I-093-055 | would result from increasing the capacity and volumes of Arboretum ramps. See (2) in the preceding paragraph. WSDOT there acknowledges that Boyer Avenue can not handle much additional traffic; it operates now as a one lane road. WSDOT could not give the response it gave in answer to question 5 with respect to either Options K or L since neither have on-ramps to SR 520 on Montlake Boulevard.

I-093-056 | Before proceeding to transit, there should be a section on traffic safety and motorist convenience. This section and the Executive Summary should discuss motorist safety and motorists' comfort in riving under Option K, e.g.

I-093-057 | The SDEIS, p. 3-26 shows the tunnel grade on the north to be 7.1 to 7.8% and on the south to be 8.2 to 8.9%. The discussion here or at the start of Chapter 5 needs to place these numbers in perspective. Figure 940-2 of the WSDOT Design Manual, January 2005, M-22, states that the maximum desirable grade is 5% and the highest grade permissible is 7% for design speeds of 25-30 mph. The tunnel design under Option K does not meet federal standards for grades. The safety hazards are compounded by the curvature of the tunnel. This needs to be stated.

WSDOT noted in its March 18, 2008 analysis noted that "Unconventional interchange design could present safety issues as people try to drive through the interchange." and "A full-time spill control and fire suppression system would be required in the tunnel which would include the potential for water quality impacts from a fire (with no place to discharge fire-fighting materials);

WSDOT also noted that "Stormwater at and near the mouth of the tunnel would require a full-time pumping system." and it told the mediation panel that heavy downpours could overwhelm the pumping capacity, especially if leaves or debris accumulated;

Due to the grades at the tunnel approaches, slippery surfaces at the tunnel approaches --- such as oil deposits during a long dry spell brought to the surface by a light rain, fog frost or ice, a spill of liquids from a vehicles -- - could cause collisions; and

An accident in the tunnel would cause back-ups on the mainline of SR 520 --- perhaps extending across the lake. Accidents in the Battery Street Tunnel have caused blockages on the Alaskan Way Viaduct, extending a mile or more, e.g. Tuesday morning, February 9, 2010. A death would lead to a closure in the direction of travel where the facility occurred.

I-093-058 | Page 5-15, Project Operation, Local Streets, Exhibit 5.1-10 Traffic Congestion: # 22 is labeled in the legend, but not marked on the graphics.

I-093-059 | Pages 5-19 to 5-22, Project Operation, Transit Facilities and Service: This section should include Slide 20 projected at the SR 520 Legislative Workgroup, Westside Subgroup

I-093-059 Meeting # 2 on October 8, 2009. It shows a north bound travel time for transit from Madison St. and 23rd Avenue East to the Montlake Triangle stop at the Sound Transit Station (peak hour) to be 18 minutes under Option A versus 23 under Option K. The same slide shows transit travel time for local buses under Option A for the shorter distance from East McGraw St. to the Sound Transit station stop at 5 minutes versus 3 minutes under Option K. The two sets of figures indicate that the "time saving" of two minutes for Option K between East McGraw St. and the Montlake Triangle stop is more than offset by the increased congestion that it engenders on local streets further south. Local buses under Option K take 20 minutes to get from E. Madison St. to East McGraw St. 129-30; local buses traverse that segment in 13 minutes under Option A [18-5]. (WSDOT traffic studies during mediation indicated that Option K increased congestion at the intersection of Boyer St. and 23rd Avenue N.E. almost a half mile south of E. McGraw St.)

I-093-060 Page 5-28, Project Operation, Non-motorized Transportation: The last sentence should be stricken. It is not borne out by Exhibit 5.1-15 as claimed. Option A is better for pedestrians because it retains more of McCurdy/East Montlake Park and does as well with its lids; the opinion that K is better to the east assumes that climbing up and down a thirty-foot high concrete platform to Foster Island (called a "land bridge") is better than the underpass currently and the one of Option "A." The Exhibit shows the options equal to the west. As to the north, Option A has a bicycle/pedestrian connection to East Hamlin St. from East Montlake Park as currently that is not shown on the exhibit. This analysis applies to bicycles too. The final sentence is based on the writer's opinion that the lid over N.E. Pacific St./Montlake Boulevard E. is a benefit to pedestrians/cyclists over an at-grade crossing with a Sound Transit overpass for those who wish that crossing. The overpass is a necessity under Options K and L; it isn't needed under Option A. During the neighborhood planning process for the University Community Neighborhood Plan in the 1990's, a survey of pedestrians using that intersection found that most of them prefer the current at-grade crossing to climbing up an overpass and down again.

I-093-061 Page 5-30, Project Operation, Non-Motorized Traffic, Lake Washington Boulevard: The first paragraph should note that Option K would increase traffic on Lake Washington Boulevard through the Arboretum by 950 vehicles P.M. peak hour 2030. The volume would be double that under Option A without the Arboretum ramps. The added volume would make travel more difficult for bicyclists.

I-093-062 Page 5-31, Project Operation, Parking, and Page 5-41 and 5-42, Parking Removal; Page 6-45 Construction Effects.. University of Washington, Option K: The discussion should

I-093-062 | indicate that Option K will also affect access to the University's Husky Stadium E-11 parking lot. It reduces the grade of Montlake Boulevard N.E. in front (west) of Lot #-11 so that motor vehicles may no longer enter at N.E. Pacific St. as currently. Moreover, the trench for N.E. Pacific St. continues north to its intersection with N.E. Pacific Place. This affects another access to Husky Stadium parking. Finally, if Option K widens Montlake Boulevard N.E. further northward, the driveways to the parking lots north of the pedestrian overpass by the Bank of America Arena (Hec Edmundson Pavilion) may be affected.

I-093-063 | Page 5-33, Project Operation, Right of Way Requirements, Key Points; 5-37, Exhibit 5.2-5, Affected Structures, University of Washington area; 5-39, Project Operation, Structure removal, Option K; 5-57, Project Operation, University of Washington Recreational Facilities [Page 30, 41, and 50 Executive Summary]: Page 5-33 in the box, entitled Key Point, Right of Way Requirements, and the Executive Summary Page 30, Land Use and Economy Activity section, box Option K states: "... the University of Washington's Waterfront Activities Center (WAC) would be relocated for a multiple-year period." On page 41, the Executive Summary states that the WAC would be restored in its original location. Page 54 of the Executive Summary, Project Construction, Land Use and Economic Activity, second paragraph also assumes a temporary relocation of the WAC for Options K and L. However, the current docks and buildings are grandfathered under the Shoreline Management Act. Would the "grandfathering" still apply afterwards? Can the docks and buildings, once removed or closed for four years, be replaced in kind?

I-093-064 | Page 5-39, Project Operation, Structure Removal or Relocation, Options K and L; Page 5-41, Project Operation, Table 5-2.4 Estimated Annual Property Tax Effects: The discussion needs to qualify its statement about taking the least structures and about property to be acquired. The text on page 5-30 assumes that no structures will be taken to replace park land taken for the project or to relocate the Waterfront Activities Center; and the Table assumes no land will be replaced. These are debatable assumptions --- see comment about page 5-33 above.

I-093-065 | Page 5-41, Project Operation, Parking Removal, second paragraph: This paragraph needs correction. The Transportation Discipline Report, pages 9-7 and 9-8, states that the Hop-In Grocery has 17 parking stalls to the west in its side lot. Alternative A takes 8 leaving 9 spaces. 22nd Avenue East, a public street, offers 10 parking stalls; these would become part of the expanded intersection. Option A therefore takes 47% of the privately-owned parking, and if on street parking is counted, two-thirds. The lot now is full during peak shopping periods. Loss of eight spaces on the

I-093-065

westside lot would affect primarily peak periods. The smaller lot may be less convenient during off-peak periods. That falls short of making them "difficult to find." The Hop-In Grocery with nine spaces would still have more spaces than many other neighborhood stores.

I-093-066

Page 5-42, Project Operation, Local Land Use Plans and Policies: The Growth Management Act requires that transportation projects be consistent with local land use plans. The text should mention two other land use plans and policies:

(1) The University Community Urban Center Plan forbids increasing traffic on Montlake Boulevard, N.E. Pacific Street, and 15th Avenue N.E. The planning process rejected a proposal for a pedestrian overpass at the intersection of N.E. Pacific St. and Montlake Boulevard N.E.; and

(2) The amendments to the City-University agreement, adopted four years ago, specifically call for joint action toward reducing traffic at the intersection of N.E. Pacific Street and Montlake Boulevard N.E. Appendix K, p. 19. Those paragraphs should have been set out in an appendix.

The approved Arboretum Master Plan has a map and text. Overlay of Option K shows a clear conflict in its interchange and in the proposed "land bridge" to Foster Island.

Option K also disrupts Seattle's shoreline master plan. That plan too contains text and maps. Neither envision the interchanges of Option K or its "land bridge" to Foster Island.

I-093-067

Page 5-45, Project Operation, Community Cohesion: The paragraph should note that Options K and L would trisect the University of Washington Campus with major arterials. It would add 4,240 more vehicles per hour during the P.M. Peak Hour in 2030 to the intersection of N.E. Pacific St. and Montlake Boulevard N.E. A WSDOT Exhibit, presented at the November 18, 2008, Mediation meeting, entitled "Montlake Vicinity Traffic Volumes" showed Options K and L adding 1,140 vehicles per hour, P.M. peak hour in 2030 to Montlake Boulevard N.E. north of the N.E. Pacific St. intersection to a gross volume of 6040 or 25% more than Option A; and to N.E. Pacific St. west of the intersection another 440 more to a total of 3480. Many of the additional vehicles will pass through the UW West Campus by its dormitories. (A large portion of the vehicles going through the intersection of N.E. Pacific St. and Montlake Boulevard N.E. under Option K come from or go to the south across the Montlake Bridge)

I-093-068

Page 5-46, Project Operation, Community Cohesion fourth paragraph: Forced relocation is a burden on MOHAI. While relocation "could ... benefit" MOHAI "as a community resource", the burdens to MOHAI should be noted. Were it not for SR 520 expansion, MOHAI would plan and phase its relocation at its own schedule and, perhaps, maintain two

I-093-068 | locations as the Seattle Art Museum does. SR 520 requires it to start fund raising for its new facility and shift its exhibits and archives by a fixed deadline.

I-093-069 | Pages 5-46 through 5-50, Project Operation, Potential Effects on low-income and minority populations; Page 5-167, Summary, Social Elements [Pages 30, 41, 52, and 54, Executive Summary, Social Elements Section]: This section (and the corresponding social elements sections of the Executive Summary) should evaluate the impacts of the increased traffic caused by Option K on N.E. Pacific Street, through the West Campus, and on Madison Valley. The traffic volumes on Lake Washington Boulevard in the Arboretum and easterly are double those under Option A and almost double on N.E. Pacific St. by 15th Avenue N.E. The University campus and Madison Valley are integrated communities and house many residents of low income, especially students at, and staff of, the University. University Hospital abuts N.E. Pacific Street. Hospital patients are a sensitive population with illness and ailments and need special protection from noise and impaired air quality. The disproportionate effects of the increase in traffic under Option K should be noted.

I-093-070 | The comment should also note that if the increased cost of Option K results in higher tolls or tolls for a longer duration --- a likely prospect --- the impact on low income populations will be greater than under other designs. This discussion also applies to the "Social elements section" during construction page 40 and 54 of the Executive Summary.

I-093-071 | In the summaries (Construction Effects, Table 6:16-1, second paragraph in the Option K and L box and Executive Summary, p. 41, first sentence in the box on Options K and L), this sentence should replace "could" with the verb "would:" "Closure of NE Pacific Street ... could affect response times and emergency accesses to UW Medical Center." The SDEIS pages 3-6 and 6-2 to 6-3 states that the closure would extend to just west of the Hospital's access driveway and it proposes a temporary access along a paved road that runs along the south side of the medical center. An effect is more than a possibility; it is a probability. The uncertainty relates to how much the effect will be.

I-093-072 | Page 5-51, Project Effect, Mitigation [Page 52, Executive Summary, Mitigation Measures, Social elements]. The draft should set out measures for comment with specificity. Deferral to the final environmental impact statement deprives the public of an opportunity to comment or make recommendations.

I-093-073 | The measures should allow for mail-in of tolls without penalty. WSDOT's current planning contemplates that owners of vehicles without transponders will be sent a bill for the toll and an administrative fee for tracking the owner by the license plate, for handling and for mailing. Estimates for the amount of the fee are greater than the toll. In Illinois, some traveler rest stops and hotels/motels that

I-093-073 | cater to tourists have envelopes among the materials or racks for tourist brochures with preprinted addresses for motorists to send in payment of tolls due. It's a burden for tourists and others who rarely cross the bridge to buy a transponder and store it in a car. People of low income are more likely to have to pay the administrative fee than those with more means. A motorist ought to be able to send in the required fee within a grace period --- say three days --- and thereby escape administrative costs imposed on non-payment.

I-093-074 | Page 5-53, Project Operation, Parks and Recreational Resources, Key Point: The statistics presented do not correlate with the table presented at the September 22, 2009 meeting of the Legislative Workgroup by the Director of the Recreation and Conservation Office, entitled 6f Park Impacts - Full Build Out. It showed:

	Option A	Option K	Option L
Number of Acres			
Permanently Converted	3.06	5.84	3.97
Number of Acres			
Temporarily Converted			
Due to Construction	2.99	5.20	4.28
Total Acres	6.05	10.54	8.25

A note to the table stated that "All temporary impacts over six months must also be mitigated." On a graphic, Option K was shown with pavement bulges at East Montlake Park, along the mainline eastward from there to Foster Island due to its greater number of lanes, the Foster Island land bridge, and at the SPUI, located where Lake Washington Boulevard connects with East Calhoun St. just south of the isolated "R.H. Thomson ramps to nowhere." A note added that the Foster Island land bridge option "could create a conversion of the entire 6f park." The entire set of materials is available on the Legislative Workgroup website, [http://www.wsdot.wa.gov/partners/sr520legislative work group](http://www.wsdot.wa.gov/partners/sr520legislative%20work%20group).

I-093-075 | Page 5-55, Project Operation, Parks and Recreational Resources, East Montlake and McCurdy Parks: The paragraph should note that Option A constructs a lid over SR 520 immediately contiguous. It could repeat the sentences from the "Roanoke Park" paragraph about "creating a more continuous stretch of open space south of the park.." and "would include pathways to improve connectivity and to provide access across SR 520 improving safety for pedestrians and bicyclists." Option A alone of all the design options removes all ramps to SR 520 so that East Montlake Park would have continuous park and wetlands to the entire Arboretum. Options K and L interpose an interchange (SPUI) and its extensions. Option A also allows for covering and landscaping the drainage ponds if the community so desires. That would not be workable with either Options K or L.

I-093-076 | Page 5-62, Project Operation, Park and Recreational Resources, Washington Park Arboretum, Option K; Page 73-74,

I-093-076 | Visual Quality, Option K.; Page 5-97, Cultural Resources, Arboretum, Option K [Executive Summary, Pages 30, 41, 52, 54, and 55, Recreation Sections, Project Construction, Mitigation under captions such as Visual Quality, Cultural Resources]: The description is a gross understatement of the adverse impacts of the massive "land bridge" to Foster Island contained in Option K. It would be a raised concrete platform the size of a football field looming like a monolith with a ground cover and a mounding of soil on the flank crossed by a ramp/stairway. The trees that the birds now use to nest and roost will be gone and the avian colonies forced to relocate or disperse. The pastoral quality that now befits an Indian burial ground will be lost forever. Native American culture teaches that burial sites should remain undisturbed and as such available for quiet meditation by descendants at any and all times.

This Section should note that Option K converts Lake Washington Boulevard in the Arboretum to a freeway access roadway and thereby changes its character from "park drive and boulevard use" for which it was platted under the Olmsted Plan. This also applies to the Section 4(f) statements relating to construction on page 42, 52 and 54 of the Executive Summary. See also the comment on page 4-31.

I-093-077 | Page 5-63, Project Operation, Mitigation Box, Seattle Ordinance 118477: Enacted as Initiative 42, Ordinance 118477 permits conversion to another use only if necessary; it requires that the replacement precede acquisition and that the replacement be of at least equal size, value, and suitable for the purpose and be in close proximity.

These two pages need a disclaimer/warning. The promises to work with the University of Washington and the City on mitigation does not constitute mitigation on the ground. As experience shows, performance often achieves much less than a statement of intention promises.

I-093-078 | Page 5-66, Project Operation, Visual Quality, Portage Bay [Page 52, Executive Summary, Mitigation Measures, Project Operation, Visual Quality]: The lead paragraph should note that Option A adopts design guidelines in WSDOT's design manuals, calls for design competition of the Portage Bay Bridge, and calls for consultation with the Seattle Design Commission. Neither Options K nor L do so and this should be noted as an advantage of Option A.

I-093-079 | Page 5-67, Project Operation, Visual Quality, Exhibit 5.5-2. It should add to the fourth square under Option A at the end "... through design competition."

I-093-080 | Pages 5-75 and 5-76, Project Operation, Visual Quality, Lake Washington, west side: The proximate neighborhoods have asked that the bridge profile be as low as practical and City officials have asked that they be consulted about the design of the structure.

I-093-081

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Pages 5-80 and 5-81, Project Operation, Mitigation, SR 520 Corridor [Page 52, Executive Summary, Mitigation Measures, Project Operation]: During mediation, the University District Community Council ("UDCC") proposed a list of measures to reduce adverse impacts of the project and of construction; and the Ravenna-Bryant Community Association along with the UDCC proposed a variety of measures to encourage use of transit. These measures should be considered and would go a long way to avoiding and reducing harm that might otherwise occur to the environment and the surrounding communities. Option A included measures to reduce and/or mitigate noise impacts recommended by the Acoustics Expert Review Panel, which had been retained in mediation. These might include noise walls (Page 5-81, third asterisk), but were no so limited.

I-093-082

Pages 5-84; 5-85; 5-87; 5-90, 5-91, and 5-92, 5-93 Cultural Resources, Montlake Area, Exhibit 5-6-3, Option A Suboptions, second and third asterisks; 5-99, Minimizing effects, second asterisk; and 5-100, fourth asterisk (twice); Page 5-162, Cultural Resources, second paragraph (twice); Page 5-169, Summary, Cultural Resources, and Page 5-179 (Option K column); Page 6-57, Construction Effects, Key Point Box; Page 6-59, Construction Effects Cultural Resources; Page 6-118, Construction Effects, Summary, Cultural Resources, third paragraph; 7-27, Cumulative Effects, Cultural Resources, third paragraph [Page 33, Executive Summary, Summary of Project Operations and permanent effects, Cultural Resources; Page 42, Section 4 (f) Evaluation; Page 44, Cultural Resources, third paragraph; and page 55] The 4(f) and 6(f) Evaluation treats it as if were a recognized historical district, except for a single disclaimer in a box on page 1: There is **no** existing "Montlake Historic District." The properties are eligible for listing but not yet on the state or federal register. The statement should therefore be qualified as "possible," "presumed," or "NRHP eligible" as done under the Suboptions paragraph. Declaring it a Historic District is a misstatement of fact. Repeating "Montlake Historic District" after acknowledging the outlined area is only "NRNP eligible" is not abbreviating so much as it is betting on the come. It's like saying a product has been patented when the application is pending, or affixing PHD to a candidate for a doctoral degree or putting a UL seal on an electrical appliance while the application is still in process.

The SDEIS, the Executive Summary, and the 4(f) 6(f) Evaluation in particular show a disparity of treatment between the NRHP-eligible Montlake Historic District and Foster Island Indian burial ground. Both inject the word "presumed" between "Foster Island" and "Traditional Cultural Property" e.g. Executive Summary, fourth paragraph on page 44. Foster Island was a burial ground used by the Indians until pioneer days. It was called stéétcHee in Whulshootseed, the native language. See *Native Seattle* by Coll Thrush, page 250.

I-093-083

Pages 5-58 to 5-90, Project Operation, Effects on Historic Properties, Montlake Area, Option A: The parallel bridge of

I-093-083 | Option A may extend the life of the existing historic Montlake Bridge. The parallel bridge would reduce the traffic load on the current bridge by  $\frac{1}{2}$ . The historic bridge now carries four lanes; it would carry three lanes after the parallel bridge is built. Moreover, the current City maintenance practice defers major repairs until an aggregate builds up to warrant closing the arterial entirely. With the parallel bridge maintenance may occur more frequently since traffic may be diverted to the alternate span without closing the entire arterial.

I-093-084 | Page 5-91, Project Operation, Effect on Historic District, Option K [Page 33, Executive Summary, Summary of Project Operations and Permanent effects, Cultural Resources] This statement in the third paragraph of the SDEIS is badly in error: "The new ramps and traffic turnaround would be completely separated from Lake Washington Boulevard East ... retaining Lake Washington Boulevard for local traffic only.." Currently, the Arboretum ramps allow motorists from SR 520 to turn right (west) to Lake Washington Boulevard as well as left (east).

Its context relates to the proposed SPUI of Option K westward. Exhibit 5.3-1, Option K, shows Lake Washington Boulevard connecting to the SPUI of Option L and Exhibit 2-9 shows that Lake Washington Boulevard is the only south access for traffic from or to the south in the Montlake/Arboretum area. Accord: 4(f), 6 (f) Evaluation, page 93, Exhibit 43.

Option K more than doubles the traffic volumes on Lake Washington Boulevard between their Arboretum ramps and East Madison St. The strongly adverse effects of Option K on Lake Washington Boulevard more than offset any "benefits" to the immediate abutters.

I-093-085 | WSDOT needs to research the Olmsted plan for a park drive and boulevard system through Seattle and the ordinances implementing it. Under the plan, Lake Washington Boulevard is a continuous park drive under the jurisdiction of Seattle's Department of Parks and Recreation from Seward Park to Montlake Boulevard except for a brief interruption for Lakeside Avenue. No Seattle park boulevards dead-end as local streets. Disconnecting a segment effectively converts the part cut off from park drive to local street in all but name and would amount to a taking of park property. The SDEIS needs to explain the full implications of severing the major park boulevard in Seattle and add a discussion of its to its 4(f) Statement.

I-093-086 | WSDOT would be grossly remiss if it were to declare that WSDOT will issue a *de minimis* determination for Option K with respect to the presumed Montlake Historic District. The Montlake Historic District includes McCurdy/East Montlake Park and the westerly section of the Arboretum including Lake Washington Boulevard. Option K takes over most of McCurdy/East Montlake Park --- much more than Option A. Option K builds its SPUI between Lake Washington Boulevard and the lagoon --- and thereby invades the presumed Montlake Historic District. Option K like the other Options takes and destroys the Museum of History and Industry, a structure which won architectural prizes

I-093-086 | and for decades was featured on Seattle promotional literature; it would be eligible for listing on the national and state historic register in its own right. In fact, Option K takes more acreage from the historic district than Option A.

I-093-087 | Page 5-92, Project Operation, Effects on Historic District, Option L: The statement about retaining Lake Washington Boulevard for mostly local traffic errs. It has the same faults as Option K. Exhibit 5.3-1, Option L shows Lake Washington Boulevard connecting to the Lake Washington Boulevard and Exhibit 2-9 shows that Lake Washington Boulevard is the only south access for traffic from or to the south in the Montlake/Arboretum area. Like Option K, Option L more than doubles the traffic volumes on Lake Washington Boulevard between its SR 520 ramps and East Madison St. Here too the adverse effects on Lake Washington Boulevard more than offset any "benefits" to the immediate abutters.

I-093-088 | Page 5-101 to 5-104, Project Operation, Noise: There should be analysis and discussion of the tunnel portal noise under Options K from the portal of the north tunnel at N.E. Pacific Street and Montlake Boulevard N.E. that would be projected toward University Hospital like shot from an old cannon barrel.

I-093-089 | Page 5-111 and 5-112, Project Operation, Noise [Acoustics] Expert Review Panel; 5-170, Summary Operation Effect, Noise [Page 52, Executive Summary, Mitigation Measures, Noise]: The Panel's report was posted on the internet and a citation to the website should be included at page 511-512. The summations at page 5-170 of the SDEIS and at page 52 of the Executive Summary mention noise walls, but not the other recommendations of the report. The Acoustics Expert Review Panel report recommendations (presented during mediation) included measures such as design of expansion joints to reduce the noise of tires interacting with them, designs of the retaining walls to reflect tire noise toward the pavement rather than outward, designs of barriers or medians that separate traffic lanes coming from different directions, techniques for smoother traffic flow, and other methods for reducing noise that reflect the state of the art.

I-093-090 | Page 5-134, Project Operation, Fish Resources, West Approach Area; Page 8-5, Controversy second asterisk: In a poem in English Bards and Scotch Reviewers, Lord Byron wrote of those "with just enough of learning to misquote." This is true of the last sentence in Fish Resources, West Approach Area: "Based on discussions to date with resource agencies, the amount of in-water fill could result in difficulties in permitting Option K as it is currently configured." The testimony at the hearing of the Legislative Workgroup by several resource agencies was that it will result in difficulties in permitting. Ms. Muffy Walkers, the chief of the Regulatory Branch of the Seattle District, U.S. Army Corps of Engineers was that Alternative K "is very unlikely to get through the permitting process" for this and other

I-093-090 | reasons.

I-093-091 | Page 5-145 to 5-146, Project Operation, Mitigation for Unavoidable effects; Page 7-24, Cumulative Effect, Recreation; Pages 7-33 and 34 et seq., Cumulative Effect, Wetlands: The discussion in Chapter 5 should note that mitigation and replacement for Option A will be difficult due to the scarcity of wetlands of equivalent quality anywhere on the Seattle shoreline. Removal of the Arboretum connection between SR 520 and Lake Washington Boulevard is the best bet and replacement possible.

I-093-092 | For Option K, the quantity and quality of wetlands taken or damaged make it virtually impossible. Section 7 on Irrecoverable losses should state that Option K takes first class wetlands that will be gone forever and its pages 7-33 and 7-34 should state that Option K violates the "no net loss" rule because the precious wetlands, which it destroys, are irreplaceable.

I-093-093 | Page 5-150, Project Operation, Hazardous Materials, first full paragraph, last two sentences; Page 5-172, Project Operation, Hazardous Materials, Option K [Page 36, Executive Summary, Hazardous Materials Option K]: During mediation, WSDOT stated that vehicles carrying flammables, explosives, hazardous wastes, and radioactive wastes would be banned from the tunnel under the Montlake Cut under Option K, and use by vehicles with over-sized loads would be severely regulated. The sentences use the verb form, "may be" and "could result." That plays down the actuality. The Montlake Cut tunnel would be hazard prone because it has grades down and up exceeding WSDOT and federal standards and has an "s" curve creating limited sight distances.

I-093-094 | Page 5-151, Project Operation, Navigation; Page 5-173, Summary of Operations, Navigation [Page 36, Executive Summary, Summary of Operations, Navigation]: The discussion of local street impacts, bridge openings, or navigation should indicate that under Option A, a single tender can handle both bridges, but under Option L it would take two; that both bridges must remain open until a vessel clears both and that will take longer with Option L because of the distance that the vessel will have to travel; and that of the duration that motor vehicles wait, most of the time is used in the process of raising and lowering the bridge --- not in the interval while a vessel is passing underneath. Thus, a second parallel bridge would add just the incremental time for a vessel to travel an additional one hundred feet.

I-093-095 | Page 5-159, Project Operation, Economic Activity, Table 5.15-7: The Table should have a footnote stating that the figures for Option K do not include property that would need to be taken to replace park land absorbed in the project. See discussion on replacement of park land, page 6 above.

I-093-096 | Page 5-166, Project Operation, Summary Comparison of

I-093-096

Operation Effects, Local Traffic Volumes (Page 29, Executive Summary, Permanent Effects, Local Traffic Volumes]. All that the SDEIS tells the reader about traffic volumes at N.E. Pacific Street and Montlake Boulevard N.E. is this sentence: "Under Options K and L, traffic volumes north and south of the Montlake Cut would increase compared to the No Build and Option A." It most certainly would --- so large an amount that the dimensions need to be stated. Page 5-17 of the SDEIS discloses that Options K and L would add 4,200 vehicles per hour P.M. peak hour, 2030, to the intersection. The volumes fan out. Exhibit 6-1 shows these increases:

(a) At Montlake Boulevard N.E. north of North East Pacific Place peak hour:

	A.M.		P.M.	
Now	3,000	----	4,100	---
No Build	3,500	+ 16.66 %	5,000	21.95 %
Alternative A	3,100	+ 3.33 %	4,700	14.64 %
Alternatives K/L	4,100	+ 36.66 %	6,100	48.78 %

Using the No Build as the base, Alternative A would be a 11.43% decrease A.M. and K/L a 17.14 % increase during the morning peak and Alternative A would be a 6% decrease in the afternoon, while K/L would be a 22% increase. Options K/L bring 32.24% more traffic than A in the morning and 29.78% more in the evening peak.

(b) At N.E. Pacific Street west of N.E. Pacific Place in front of UW Hospital these figures are shown:

Now	2,100	----	2,500	----
No Build	2,300	+ 9.52 %	3,100	24 %
Alternative A	2,100	---	3,000	20 %
Alternative K/L	2,500	+ 19.05	3,500	40 %

Using the No Build as the base, Alternative A would a 9.5% decrease and Options K/L would be a 9.5% increase during the morning peak and Alternative A would be a 3.33% decrease while Options K/L would be a 19.9 % increase. K/L bring 19.4 % more traffic in the morning peak and 16.66 % more in the evening peak.

Silence is deceptive when there is a duty to disclose and the matter is significant. The word, "increase," alone leaves those making the decision in the dark about the size of the change, and since public officials may assume that an honest, objective statement would make disclosure if that increase is substantial, those officials may infer that the increase would not be significant --- although it most certainly is very significant with far reaching repercussions.

I-093-097

Page 5-167, Project Operation, Summary of Operational Effects, Transit: The paragraph on the Montlake Flyer Stop should note that METRO as mitigation seeks additional bus and

I-093-097 | financial assistance for an interim. During mediation, the advocates for Option A also submitted precise proposals for assisting transit. See comment on pages 5-80 and 5-81

I-093-098 | Page 5-167, Project Operation, Summary of Operational Effects, Social Elements: The first paragraph of the description should note that Option A contains a transverse lid along Lake Washington Boulevard on the south side, and it has landscaping on the flanks of Montlake Boulevard East at its crossing of SR 520, which Option K lacks. This omission should be corrected. Option A provides more compensatory amenities than Option K when all things are considered.

I-093-099 | Page 5-168, Project Operation, Summary of Operational Effects, Visual Quality [Page 31, Executive Summary, Summary of Operational Effects, Visual Quality]: The Section on Visual Quality should note that Option K creates a much greater impairment of the Arboretum experience than Option A. Its massive concrete platform to Foster Island --- rising some 30 to 40 feet over water level --- would be at tree level on the southerly part of Foster Island. Those on the island would see a concrete wall to the south.  
Under mitigation, the column for Option K should note that none is available. The injury is irreparable as noted on the comment on the impact of the "land bridge" on Foster Island with respect to SDEIS page 5-62.

I-093-100 | Page 5-169, Project Operation, Summary of Operational Effects, Visual Quality [Page 52, Executive Summary, Mitigation Measures, Project Operation, Visual Quality]: Option A adopts design guidelines in WSDOT design manuals, calls for design competition of the Portage Bay Bridge, and calls for consultation with the Seattle Design Commission. Neither K nor L do so and this should have been noted as an advantage of A.

I-093-101 | Page 5-170, Project Operation, Summary of Operation Effects, Noise, mitigation: Mitigation opportunities go beyond noise walls. See comment on SDEIS pages 5-111 and 5-112.

I-093-102 | Page 5-170, Summary of Operational Effects, Air Quality. [Page 34, Executive Summary, Operational Effects, Air Quality, paragraph under suboptions at the top of the page]: The paragraph in each under suboptions should be stricken or totally rewritten. It is not supported by the text and therefore does not belong in a "summary." CO2 is not singled out in the text for the various options. The text under Greenhouse Gases states "Adding the potential suboptions to Options A, K or L could result in minor changes to greenhouse gas emissions described above ... However the relative effects of the three options would still be similar." SDEIS page 5-174 shows that Option A reduces greenhouse gas emissions, including CO2, more than Options K or L.

I-093-103 | Page 5-171, Project Operation, Summary of Operation Effects,

I-093-103 | Fish Resources [Page 35, Executive Summary, Summary of Operational Effects, Fish Resources] The Section on Fish Resources should be followed by a separate section or include a sub-section calling out "Endangered Species." Pages 4-64 et seq. identify the chinook salmon, steelhead, and bull trout as threatened species of fish that rely on the Montlake Cut as a passageway. The Arboretum wetlands are very important to their continued survival. During mediation and in the proceedings of the Legislative Workgroup, the resource agencies made very clear that Option A is more favorable for them than Option K and this should be noted. The fill of Option K affects the biota at the base of the food chain. This impact also needs to be studied and described. See the discussion of SDEIS pages 6-85 through 6-95 relating to construction.

I-093-104 | Page 6-11, Construction Effects, Montlake Boulevard Transit Stops: The paragraph should note that Option A restores local bus stops on Montlake Boulevard East after construction; Options K and L remove them permanently in the Shelby-Hamlin St. area.

I-093-105 | Page 6-13, Construction Effects, Foster Island and Arboretum: The paragraph should note that the Waterfront Trail will be closed for a year or more longer under Option K than Option A and it will be a very different trail when reopened.

I-093-106 | Page 6-15 through 6-19, Construction Effects, Minimizing Negative Effects during construction: All of these techniques in a modified format should be considered as methods of reducing negative effects of the project. During mediation, the advocates for Option A had proposed them as well as methods for increasing the efficiency of the facility and for encouraging the use of transit. At that time, WSDOT said that it would consider adopting them as permanent features during its supplemental environmental review process. Many of them are standard procedures, recommended in federal manuals, and reflect a good neighbor attitude by the highway authorities.

I-093-107 | Page 6-22, Construction Effects, Construction Affecting Land Use, first full paragraph [Page 40, Executive Summary, Land Use and Economic Activity]: The discussion of the impact of construction activity near Husky Stadium should go beyond stating that it "could deter some patrons from attending .. events and loss of parking would affect event attendees and campus visitors." It needs to discuss the full impact of Options K and L. Options K and L would cause more than an "inconvenience" to "event attendees." Husky Stadium hosts football games that draw 70,000 people and graduation exercises. Options K and L put a limited access line within ten feet of the Stadium itself and takes over the entire lot for construction. It also runs a limited access line along the westerly frontage. During mediation, the UW stated that it anticipates having to relocate football games to another site if Option K or L were selected, and depending on how construction is coordinated, basketball games at the Bank of America Arena might have to move

I-093-107 | too. Options K and L would cost the University revenues from day-of-game parking and deprive UW athletic programs of financial support that it can not afford to lose.

Insofar as construction deters people from attending Husky sporting events with admission charges, Seattle's admission taxes would be reduced. Sales of programs, refreshments, and merchandise (and the concomitant sales tax) would be less. This should be noted here or in the SDEIS page 5-41 with respect to effects on municipal revenues.

I-093-108 | Page 6-23 et seq., Construction Effects, Construction Affecting Economic Activity [Page 40, Executive Summary, Land Use and Economic Activity]. The comment on government spending as boosting the economy and creating jobs needs a qualification. Construction for unproductive facilities --- and extravagances --- drain an economy by taking tax revenues better spent elsewhere, using scarce resources, misallocating labor, and driving up prices without providing value. Option K's tunnel and land bridge fall into the category of imprudent expenditures that reduce funds for needed highway projects elsewhere in Washington.

I-093-109 | Page 6-24, second paragraph, last sentence: The word, "would" should supplant "might" and the sentence end with "visitors to patients and the campus." The impact of the loss of parking is not a possibility -- it's a certainty.

I-093-110 | Page 6-28, Construction Effects, Exhibit 6.3-1, Community Resources Relating to Construction: The graphics should locate the UW Waterfront Activities Center.

I-093-111 | Page 6-29, Construction Effects, Neighborhoods, Transit Service: The auxiliary verb "may" in this sentence is a gross understatement with respect to Options K and L: Road closures, detours, and station closures during construction "...may result in effects on transit riders." It definitely will affect them by closing the intersection of N.E. Pacific St. and Montlake Boulevard N.E. for up to a year. Some of the routes that travel through that intersection will have to use University Bridge about one mile westerly. That will add travel time or walking distance depending upon the rider's origin and destination.

I-093-112 | Pages 6-32 and 6-33, Construction Effects, Populations/ Neighborhoods: The analysis makes a subtle slip betwixt the question (".. affect populations...") and the start of its response ("neighborhoods.") Populations describes people, wherever residing; neighborhoods covers residents of a geographic area. The shift left University Medical Center and its patients out of consideration. University Hospital accepts patients from every walk of life and is integrated -- much more so than Montlake, Portage Bay-Roanoke, or Madison Park. The patients may be sensitive to noise, unclean air, vibrations from construction or haulage of materials and the impact on them needs to be considered --- rather than passed over without comment.

I-093-113 | Pages 6-33 and 34, Construction Effects, Tribal Fishing: During mediation, questions were asked about how pile driving would affect fingerlings through the vibrations, through turbidity induced, and through disturbance of settled precipitates in the sediment, such as heavy metals and toxic compounds? WSDOT replied that these subjects were being researched. The SDEIS should report the results of that research, especially with respect to Option K and its "boat section." Option K has not only a higher "risk" or "potential" of adverse consequences to fish resources, but also a substantially greater degree of harm than Options A or L.

I-093-114 | Pages 6-37 and 6-38, Construction Effects, Public Services and Utilities: The listing should include working with the University of Washington Medical Center and Sound Transit, which will likely be doing construction of its UW Husky Stadium Station. In the case of Options K and L, the consultation and coordination should include private ambulance companies, inasmuch as those options will close the intersection of N.E. Pacific St. and Montlake Boulevard N.E.

I-093-115 | Page 6-42, Construction Effects, ... University of Washington: The text of the third paragraph understates the construction on the UW south parking lot and the open space south of it. It states that the green space "could be used as staging areas." The Exhibit 6.4-4 shows the yellow construction limit as enclosing most of the green space and construction of stormwater facilities there. The verb form "would" or "will" is more appropriate, especially if Options K or L were selected. The yellow line encloses an area of the green open space for Options K and L that seems over twice that of Option A and this too should be noted.

I-093-116 | Page 6-42, Construction Effects, Exhibit 6-4.4: The Waterfront Activities center should be noted. The construction limit should be shown in a bolder color than the pale yellow used. It is hard to see where the yellow line on the light green. The faint yellow line also fades into the grey on Exhibit 3-8, page 3-19, and should be made stronger.

I-093-117 | Page 6-45, Construction Effects, Option K: The text should note that lowering N.E. Pacific St. and Montlake Boulevard N.E. would affect access to Husky Stadium.

I-093-118 | Page 6-46, Construction Effects, Option L: The widening of Montlake Boulevard N.E. would move the right-of-way line to within 10 feet of the Bank of America Arena (Hec Edmundson Pavilion) and severely restrict pedestrian passage. It would take the tiles of donors to Husky Athletics imbedded in the current sidewalk.

I-093-119 | Page 6-47, Construction Effects, Exhibit 6.45 Washington Park Arboretum: The lanes within the construction area marked

I-093-119 | "Lake Wash Blvd" and "Montlake Blvd" should be designated as ramps to those arterials. Otherwise, readers might interpret them as underlying roadways.

I-093-120 | Page 6-73, Construction Effects, Air Quality Changes [Page 45 Executive Summary, Construction Effects, Air Quality]: The SDEIS should estimate the construction emissions of the alternatives or give a basis for the reader to do so. It should not defer such information until the final SEIS and thereby preclude reviewers from correcting errors or making a better informed comment. In General, emissions vary with the amount of construction and haulage of materials. Under this general principles, Option K does the worst of the options and this should be noted.

I-093-121 | Page 6-76, Construction Effects, Water Resources: The text should note that Options K and L would require substantial excavation in the Husky Stadium parking lot and for the "SPUI" in East Montlake Park and with their approaches. Much of it likely to be below the water table. This would require dewatering and the disposal of large volumes of water. The water from the Husky Stadium parking lot may contain dissolved droppings from the motor vehicles carried by water percolating into the soil, which filtration is not likely to remove. Moreover, the outlets from the pumping may generate turbidity in Lake Washington or Union Bay at the outlets and a scouring action that could release contaminated sediments.

I-093-122 | Pages 6-76 and 6-78, Construction Effects, Groundwater, dewatering [Page 46, Executive Summary, Project Construction, Water Resources, Option K box; and Page 48, Project Construction, Geology and Soils, Option K box]: This section and its companion at Page 6-101, Geology and soils, need to address settlement of Husky Stadium through dewatering. In the Executive Summary, the two Option K boxes should add the Husky Stadium south parking lot to the sites where construction of the Montlake Cut tunnel and approaches risks ground settlement. During mediation, WSDOT stated that construction of the tunnel through the Husky Stadium parking lot would require dewatering the site since the cut-and-cover method of construction would be used. The tunnel is below the water table there. The University expressed concerns that dewatering the site would cause subsidence under Husky Stadium, which already has structural problems. The construction team stated that the contractor would use soldier piles and other techniques to retain lateral support. However, seepage can be expected. This problem should be noted.

I-093-123 | Page 6-97, Construction Effects, Effects on Wildlife Habitat, Seattle Project Area: The use of the subjunctive mode is inappropriate in the second paragraph. Wildlife definitely will avoid this area and denizens would be forced to relocate from Foster Island and other locations within the construction easement. It's not noise alone: wildlife would be subject to

I-093-123 | ground disturbance, heavy equipment in the immediate vicinity, busy human activity and night lighting. The use of "could" is an understatement that is misleading.  
As to the third paragraph, Option K will --- not "may" --- generate more noise than Option A because it undertakes more construction activity and for a longer duration.

I-093-124 | Page 6-100, Construction Effects, Effects on Geology and Soils, Key Point and Soils: The text should modify the sentence that begins: "Option K would require substantially more cubic yards of excavation and fill material than Options A and L .." Option K would require almost triple the excavation and fill material of Option A..." Table 6.12-1 shows the volumes of the various options.

I-093-125 | The text also needs to address the difficulties of construction of Option K. During mediation, the construction review panel described the site as challenging, as approaching the state of the art, and risky in some respects. An earthquake during the duration could readily set construction back for many months and cause large cost overruns.

I-093-126 | Page 6-104, Construction Effects, Hazardous Materials, Table 6.13-1 Hazardous Material Sites Potentially Affected by Construction; Page 6-125, Construction Effects, Mitigation Summary, Hazardous Materials, Option A; Page 6-127, Construction Effects, Quantitative comparison, Hazardous Materials [Page 49 Executive Summary, Construction Effects, Hazardous Materials, Option A; Page 50, Executive Summary, Quantitative comparison, Hazardous Materials: The table on page 6-104 identifies an Exxon Mobil station and the Circle K Station # 1461 with the notation for each "Contaminated groundwater could affect construction of Option A." This is probably an error. The two stations are shown on SDEIS page 4-76. Both service stations are located on 24th Avenue East south of McGraw Street. Option A does not widen the right-of-way there although may change the signalization within the right-of-way.  
If these two sites were added to Option A erroneously, the number in the box for Option A should be revised downward to 5. Only the five named in the opening paragraph on page 6-127 (Page 49 of the Executive Summary) apply to Option A.

I-093-127 | Page 6-113, Construction Effects, Summary, Transportation [Page 39 Executive Summary, Effects of Project Construction] The Transportation Section should give an indication of the truckloads of traffic generated by each option. Page 48 of the Executive Summary indicates that Option K would have about four times the volume of excavation and fill of Option A (SDEIS, p. 3-18 states 3.5 to 6 times as much). The difference in scale is so great that it becomes a difference in kind, and the summary should disclose that Option K will have several times the impact of Option A. See the comment on SDEIS pages 3-5 and 3-18.

I-093-128 | Page 6-114, Construction Effects, Summary, Land Use and Economic Activity, Mitigation: The two sentences present a

I-093-128 | contrast in verb forms. The first sentence says "WSDOT will coordinate with business owners..." The second sentences says "WSDOT would coordinate with the UW..." The one verb form is definite; the second conveys a sense of uncertainty or perhaps, desire as in the phrase "I would if I could.") All designs affect the UW in some respect: Option A takes some parking area for the parallel bridge across the Montlake Cut; Options K and L cut through the parking lot and takes most of the parking and impair access.

I-093-129 | Page 6-118, Construction Effects, Summary, Visual Quality, Mitigation [Page 55, Executive Summary, Mitigation, Project Construction, Visual Quality]: The note on Option K should go further. It is doubtful that Foster Island could be restored. It is now a pastoral site befitting an Indian burial ground. Under Option K, the southerly portion would look like a large looming monolith, with a ground cover and viewing platform atop and a mounding of soil on the flank crossed by ramp/stairway. The trees that the birds now nest in will be gone and the avian colony probably will relocate or disperse.

I-093-130 | Page 6-118, Construction Effects, Summary, Cultural Resources, third paragraph [Page 44, Executive Summary], Cultural Resources third paragraph.] The second sentence should be followed with a cross-reference to Haul Routes, SDEIS page 6-113, and Executive Summary, page 39 respectively. The Haul routes cited put Options K and L in a box while the space for Option A is blank. Page 6-118 makes the sentence about haul routes east of Montlake Boulevard East on Shelby-Hamlin Sts. apply to all options. Option A's parallel bridge is adjacent to Montlake Boulevard E. and would not need to run trucks through the Shelby-Hamlin St. circuit of one-way streets.

I-093-131 | Page 6-119, Construction Effects, Summary, Cultural Resources, Mitigation [Page 55, Executive Summary, Mitigation, Project Construction, Cultural Resources]: The second sentence uses the subjunctive mode ("If were... could be.."). The text treats the presence of an archaeological site as a hypothetical; and it suggests that the ground sensors will be used **after** the site is determined to be archaeologically significant. The subjunctive mode is particularly inappropriate in light of the first sentence of fourth bullet point on page 8-2 of the SDEIS and page 60 of the Executive Summary: "Foster Island and other nearby areas have a high probability for the discovery of archaeological sites."

I-093-132 | Page 6-120, Construction Effects, Mitigation Summary, Noise Mitigation [Page 56, Executive Summary, Mitigation, Project Construction, Noise Section: The second sentence of the SDEIS and the Executive Summary use the subjunctive, "could be implemented," to limit construction noise. Both should use the indicative. During mediation, WSDOT promised to follow the recommendations of its Acoustics Expert Review Panel. The subjunctive mode in this section contrasts with the indicative

I-093-132 | in the Ecosystems and Geology and Soils section on page 57 and on Page 60, fourth bullet.

I-093-133 | Page 6-121, Construction Effects, Summary, Air Quality, Mitigation: The most appropriate verb form in both sentences is "will" rather than "would" or the present indicative. Government agencies are expected to comply with their agreements, and the future tense is more consonant with the style of the document as to work to be undertaken.

I-093-134 | Page 6-121, Construction Effects, Summary, Greenhouse Gases [Page 45, Executive Summary, Project Construction, Energy and Greenhouse gases]: The 34,299,000 MBtu is 2.285 times that of Option A. It is more than double the average of Options A and L. The comment should therefore state "more than double the average of Options A and L." rather than "about double of Options A and L."

I-093-135 | Page 6-121, Construction Effects, Mitigation Summary, Water Resources [Page 56, Executive Summary, Mitigation, Project Construction. Water Resources]: These sections need a separate box for Option K explaining that the cut-and-cover technique will be used for the tunnel approaches in McCurdy/East Montlake Park and on the Husky Stadium south parking lot on the UW Campus. This method of construction increases the likelihood of scattering dust and debris, of run-off, and of pumping water with particulates and dissolved substances into the water under accepted construction practices.

I-093-136 | Page 6-125, Construction Effects, Mitigation Summary, Hazardous Materials, Option K: Option K contemplates construction in the former Miller Landfill shown on SDEIS page 4-76. While the SDEIS identifies the risk as low, Option A without Arboretum ramps would avoid that risk.

I-093-137 | Option L widens Montlake Boulevard up to at least North East 45th St. and, by bringing in up to 1,000 more vehicles per hour peak hour than currently, it might require a partial taking from the University Village 76 at the intersection of 25th Avenue N.E. and N.E. Blakeley St. to assist right turns from west to north.

I-093-138 | Page 7-11, Cumulative Effects, Exhibit 7-A, Seattle Land Use: The map should identify University Village and Children's Hospital as sites for pending further development. University Village is circulating an environmental impact statement for comment on a development contemplating more buildings and an added parking garage. Children's Hospital is now completing an institutional master planning process involving a major expansion, including a new garage.

I-093-139 | Page 7-17, Cumulative Effects, Transportation: The discussion needs to discuss the long term impact on the community of the greatly increased traffic volumes that Options K and L would bring north of N.E. Blakeley St.:

I-093-139

(a) Seattle City planning has already anticipated that SR 520 would generate greater volumes in N.E. Seattle and published plans for public discussion: The City of Seattle, Department of Transportation recently conducted a University District Transportation Study in anticipation of increased volumes of traffic during the next twenty years. Its section on 25th Avenue N.E. calls for taking parts of the corners of properties at 25th Avenue N.E. and N.E. 55th St. in order to assist free right turns and thereby help the flow of north-south traffic. The Ravenna-Bryant Community Association opposes widening the intersection. The plan also calls for ending parking on 25th Avenue N.E. south of N.E. 65th St. The residents and the community association vigorously oppose that. If Options K or L were adopted, that change would be necessary to accommodate the greatly increased traffic flow.

(b) The increased volumes under Options K and L, the dirt, debris and noise that attends the traffic, the prohibition of parking --- taken together --- would change the character of the street. Compare the housing pattern there now with the streets on 23rd Avenue N.E. between E. Madison St. and E. Lynn St. The southerly homes show the impacts of living on a major arterial: parking in the front lawn; high rates of rental housing; deferred maintenance etc. That too would occur on 25th Avenue N.E. over the long term. Back in the mid 1960's, City planners laid out the R.H. Thomson Expressway to run from an interchange in the Arboretum to Lake City Way N.E. by way of 25th Avenue N.E. and Ravenna Ave. N.E. While that project was alive, the properties along 25th Avenue N.E. deteriorated, and had the project gone forward, the downward trend would have continued.

(c) Options K and L make 25th Avenue N.E. and Ravenna Avenue N.E. a shorter direct route from Lake City Way N.E. to SR 520. This was the route of the abandoned R.H. Thomson Expressway (called the "R.H. Thomson route" here). WSDOT surveys have shown that a substantial volume of traffic travels between Lake Forest Park and southerly neighborhoods and the East side by way of Lake City Way N.E., I-5 and SR 520. The congestion of Montlake Boulevard N.E. discourages using the R.H. Thomson route. If Options K or L were to reduce travel time on Montlake Boulevard N.E., more traffic would shift to the R.H. Thomson route. That would increase congestion along the length of the route and prompt widening Ravenna Avenue N.E. from two to four lanes, reconfiguring the intersections along the way, ending all parking, reducing the time for pedestrian crossing, etc. Ultimately it would create a 23rd Avenue N.E. throughway. Major through routes often come about in step-by-step increments without acknowledging the transformation slowly taking place. Such a new arterial would be a major detriment to the communities along its route and contravene Seattle policy against building new major arterials.

I-093-140

Page 7-19, Cumulative Effects, Land Use. Option K has major long term impacts on the University Campus:

(a) The tunnel transects the Husky Stadium parking lot. The University regards all its parking lots as potential building

I-093-140

sites, whether or not the location is so designated in its institutional master plan. Only locations that are marked as green open space are protected, e.g. Parington green (also known as "hippy hill") and Denny green. The Sound Transit station makes that location a prime development site due to the heavy foot traffic and for health care, its proximity to the medical school. The tunnel would decrease its utility as a building site. Option K further closes off access to the South Stadium Parking lot from N.E. Pacific St. at its intersection with Montlake Boulevard N.E. Option K will dig a trench for traffic on Montlake Boulevard N.E. to descend to the tunnel level and then up again. Its only access will be from the north east --- the Sound Transit Station effectively closes off access from the north. That materially reduces its potential as a building site.

(b) Both Options K and L convert the intersection of N.E. Pacific St. and Montlake Boulevard N.E. into a meeting of major arterials. Twenty nine (29) separate lanes of traffic will pass through. Page 90, 4(f) Evaluation, Exhibit 10. No other intersection in Seattle outside of the industrial zones has so many lanes coming together. It will change the character of the south east corner of Campus. The doughnut hole overpass can not compensate for, or overcome, the ambiance of an industrial-zone resulting from Options K or L.

(c) Both Options K and L effectively trisect the UW Campus with major arterials. Montlake Boulevard N.E. is currently a north-south state highway that carries a large load; N.E. Pacific Street is a south easterly/north westerly arterial that runs between Montlake Boulevard N.E. and Roosevelt Way N.E. It meanders through the West Campus by various dormitories. Options K and L would add 4,240 vehicles per hour peak hour in 2030 to the intersection of N.E. Pacific St. and Montlake Boulevard N.E. Most of the vehicles would cross the Campus, e.g. Options K and L would increase evening rush hour traffic from 4050 per hour now to 6040 in 2030 on Montlake Boulevard N.E. at 25th Avenue N.E. by 51.3% overloading it. The arterials become, in effect, major arterials, and, in order to cross, pedestrians will need to use overpasses. This would break up the coherence of the campus, tending to segment it. A University should be integrated for sharing of knowledge and getting the benefit of multiple disciplines working together.

I-093-141

Page 7-23, Cumulative Effects, Recreation: The positive effects would occur with Option A only. Options K and L would be devastating to the Arboretum as noted and to McCurdy/East Montlake Parks.

I-093-142

Overall: The Cumulative Effects section needs to discuss and recommend a corridor management agreement as both an avoidance and mitigation measure. This is particularly pertinent to Pages 7-19, Land Use; 7-29 Air Quality; and 7-31 Greenhouse gases.

I-093-143

Page 8-2, Irretrievable Resources, first and second asterisks; Pages 153-54 4(f) Evaluation: Options K and L take

I-093-143 | prime wetlands in the Union Bay wetlands and the Arboretum that can not be replaced and do irreparable damage. No replacement exist and no mitigation is adequate. The replacement sites suggested in the Parks Technical Memorandum, pages 25-26, are unsatisfactory as not being available (NOAA), not being waterfront, or not being in the vicinity and serving the same function. See comment on Pages 5-33 and 5-168 above. Since no replacement can be provided, the prudent course is to avoid injury or at least minimize it by selecting Alternative A.

V. SECTION 4(f) 6(f) Evaluation

--- Recurrent Errors ---

I-093-144 | The document mistakenly upgrades the *proposed* Montlake Historical District *into an actual one*. The box on page 1, Box is the only disclaimer in the entire document to recognize that the so-called "Montlake Historic District" is at best *eligible* for listing and in process, but not in fact listed. By foregoing the qualification, it misrepresents the status, much as advertizing a product with a Good Housekeeping Magazine seal when the product has only been submitted for testing. It jumps the gun. The single disclaimer does not cure the constant puffery. See commentary on SDEIS Page 4-22.

I-093-145 | The analysis fails to recognize that Options K and L in fact convert Lake Washington Boulevard from park, drive and boulevard into the only south freeway access road from and to the east. The acreage of the right-of-way of Lake Washington Boulevard should be counted in computing the taking of Options K and L. If Options K or L were built, a majority of the traffic would be destined to or come from SR 520. Lake Washington Boulevard has serpentine curves to encourage leisurely motoring -- more so than the Natchez trace. It's not designed or intended to be a truck route or a major Seattle arterial. Option K would route the highest risk cargoes -- flammables, explosives, hazardous wastes, radioactive materials, over-sized loads --- to Lake Washington Boulevard and double its traffic. It would also disconnect a portion of its west end, substituting for park users a wide, straight multi-lane access road to its SPUI on its lid; the disconnect from the historical route diminishes the experience that the Olmsted Plan had envisioned. These changes amount to a conversion of Lake Washington Boulevard in the Arboretum from park use to highway use. Neither the 4(f) Evaluation nor the Parks Mitigation take the conversion of use into account although it is as profound on surface use and on the adjacent acreage as the impacts of shading under the project's spans.

--- Commentary on Particular Paragraph ---

I-093-146 | Page 30, 94, and 99 and Page 9, Parks Mitigation, Exhibit 2, [proposed] Montlake Historic District: WSDOT will make an

I-093-146 | egregious error if it issues a *de minimis* determination of Option K with respect to the presumed Montlake Historic District. The presumed Montlake Historic District includes McCurdy/East Montlake Park and the westerly section of the Arboretum including Lake Washington Boulevard. Page 11, Exhibit 4; Page 24, Exhibit 10A & and C. Page 34 states that East Montlake Park was deeded by the plat, and therefore would be an inherent part of the plan for the Montlake residential district and part of its ambiance; Washington Park and the Olmsted plan for Lake Washington Boulevard preceded construction of the homes facing the lagoon and the boulevard adds to the historical feeling of the abutting properties. Option K takes over most of McCurdy/East Montlake Park for highway use --- much more than Option A. Page 11, Exhibit 4; Page 88, Exhibit 40. Option K builds its SPUI between Lake Washington Boulevard and the lagoon (Page 11, Exhibit 4) and thereby invades the presumed Montlake Historic District, Exhibits 10 A and C. Option K like the other options takes and destroys the building of the Museum of History and Industry ("MOHAI"). MOHAI's building won architectural prizes for its design and for decades was featured on Seattle promotional literature; MOHAI's building would be eligible for listing on the national and state historic register in its own right. In fact, Option K takes more acreage from the presumed historic district than Option A. These effects exceed the threshold criteria at SDEIS pages 59-60. The park areas are an integral part of the proposed district and are "contributing elements" to creating its "feeling" of an earlier era. If this were not so, WSDOT and the State Historic Preservation Officer should have drawn the proposed district in a much narrower fashion to enclose just the residential structures.

I-093-147 | Moreover, some drawings of Option K disconnect the historic Lake Washington Boulevard and substitute a frontage road west of the SPUI. In addition, Alternative K almost doubles the traffic flow on Lake Washington Boulevard past the Japanese Tea Garden. Repose and tranquillity is an important element for a full appreciation of its beauty. Doubling the traffic increases the noise level. The Japanese Tea Garden is eligible for listing on historic registers. The increase in traffic volumes and noise should require a 4(f) analysis with respect to the Japanese Tea Garden too.

I-093-148 | Page 43, [Proposed] "Montlake Historic District", second sentence: The boundaries in the text differ from those on Exhibits 10a and 10 c.

I-093-149 | Page 89, Option K, and Page 103, Option L. University of Washington Open Space, respectively: The second paragraph assumes that the Waterfront Activities Center can be re-established after its removal. That proposition is not yet established. See comment on SDEIS p. 5-39.

I-093-150 | Page 89-90, Option K, Waterfront Park and Arboretum Waterfront Trail. The last sentence of page 89 (continued over to page 90) needs a qualification to point out the downsides of

I-093-150 | climbing up and down over a concrete platform to cross SR 520: namely it's not the natural experience of the swale and shoreline; it'll be a denuded landscape without the avian life; it'll be an ascent that starts way back on the south, up a dirt berm to a soil-covered concrete platform, and down quickly to the north. Handicapped access may be a problem. Alternatively, the text may make a cross reference to pages 96-97 which give a more accurate and complete portrayal. This is supplemented by the comment on page 166.

I-093-151 | Page 150, [Proposed] "Montlake Historic District," second sentence: The lids differ with respect to the design alternatives. Alternative A's lid extends further east to 25th Avenue East and connects East Montlake Park with the Arboretum; it leaves an open gap on the north over the northerly lanes of SR 520 about 325 feet long between Montlake Boulevard East and 24th Avenue East to provide for off-ramps and the eastbound bus ramps. See Exhibit 37. Option K ends its lid at 24th Avenue East, but overlays a frontage road over the top to connect to its SPUI and another parallel road to connect to its crossing of 24th Avenue East. See Exhibit 6.1, p. 6-46 of the Transportation Discipline Report. This greatly restricts its utility for park and recreation purposes.

I-093-152 | Page 152, Mitigation Measures, second paragraph: The word, "additional," does not apply to Option L. The lid area provided falls far short of replacing the amount of acreage taken from McCurdy/East Montlake Park and from the Arboretum.

I-093-153 | Page 166, Section 6 (f) Resources, Option K: The text should disclose and state that the "land bridge" converts the waterfront trail from a natural waterside experience to at best a walk on a service road to a WSDOT drainage facility, which road climbs a man-made mound. The feel of communing with nature will be lost. See also comment on pages 89-90. Slide 24, entitled 6(f) Park Impacts to the SR 520 Legislative Workgroup meeting on September 22, 2009 states it benignly that Option K "... changes the recreational experience from waterfront trail to a land based trail."

#### PARKS MITIGATION MEMORANDUM

I-093-154 | Page 24, Parks Mitigation Guidelines, Values and Search Parameters: Initiative 42, Ordinance 118477, sets criteria for taking of park land. It stipulates that park land converted to another use must be replaced by "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." Page 7-25, SDEIS. Analysis should begin with replacement of park land in kind, in the same vicinity, serving the same function. If that be impossible, then payment should be at replacement cost. The Washington Constitution, Amendment 9, requires just compensation. For parks, Just Compensation

I-093-154 | measures "market value" as the replacement cost -- sometimes called the "substitution value." The City of Seattle has consistently applied this approach to value in intragovernmental transfers, property exchanges, and transactions with other agencies. It was applied in the property exchanges toward establishing I-90 and cited in the litigation relating to the R.H. Thomson Expressway in the Arboretum. See the City Council's brief in *State ex rel Duvall v. City Council of Seattle (1967)*.

I-093-155 | "Parameters" in the caption "Search Parameters" should be replaced by "Qualifications." Ordinance 118477 sets requirements, not factors subject to variation.

I-093-156 | Page 25, Mitigation Property: None of the three sites would serve as replacement for the portion of East Montlake Park or the Union Bay wetlands. The NOAA site is not available. The other two are not waterfront. The six listed on page 26 do not serve the University District/Montlake nor have any like ambiance. Since replacement is impossible, government needs to adopt the alternative that does the very least damage, i.e. Alternative A without Arboretum ramps.

I-093-157 | The Parks Mitigation, Technical Memorandum, page 33, excludes the portion of Montlake Playfield currently under water as not qualifying for Section 4(f) Treatment. The SDEIS Page 5-53/5-54 and 7-24/7-25 defer to the 4 (f) Evaluation. As a result, the City's submerged shorelands seem to have just dropped out of sight without even a grin left like the Cheshire Cat in Alice in Wonderland. However, the wider bridge and its pilings are taking of property platted under either the First or Second Supplemental Plat of Lake Union Shorelands and owned by the City. WSDOT's duty to make a replacement in kind or compensation for the taking should be stated somewhere in the documents.

--- WSDOT RESPONSE TO SEATTLE BOARD OF PARK COMMISSIONERS ---

I-093-158 | Attachment 2, Agency Correspondence is not dated, and the reader can only surmise when it occurred. The contents seem to address the 2006 DEIS and much of the information is outdated. It needs a preface or an editor's note to tell the reader the dates of the correspondence and warn that much of the discussion does not apply to the current options, particularly Alternative A, e.g. the response to Questions 7 and 8. The Pacific Street Interchange concept has many similarities to Options K and L so that the discussion is still pertinent in many respects.

I-093-158

Response to Introduction: This sentence is now out of date: "None of the alternatives would diminish traffic through the Arboretum." WSDOT presented to the mediation panel the volume of traffic on Lake Washington Boulevard at Boyer St. (about midway through the Arboretum) as follows for the evening peak hour:

2009	Current	1,400 vph	Change over Base Year	
2030	No Build	1,790 vph	+ 390	+ 21.42 %
	"A"	1,150 vph	- 250	- 17.86 %
	"K" & "L"	2,470 vph	+ 1070	+ 76.42 %

Traffic on Lake Washington Boulevard under K and L would be over double that over Alternative A. The quoted statement applies to Alternative A in the 2006 DEIS, which included ramps between SR 520 and Lake Washington Boulevard.

Questions 4 and 5: See discussion on pages 5-13 to 5-19 of the SDEIS.

### VI. EXECUTIVE SUMMARY

These comments pertain to the Executive Summary apart from the SDEIS.

I-093-159

Page 37 and 42, Executive Summary, Section 6(f) Evaluation: Option K converts more than "portions of East Montlake Park." It converts the three-quarters of it. That is why East Montlake Park is not mentioned for Option K in the lower box on temporary conversions. It would be helpful for the casual reader if that were noted. The comparison would be more meaningful if it set out the acreage taken.

I-093-160

Page 39, Executive Summary, Road Closures and Detours. The box for Options K and L is very deficient in failing to discuss the impact on University Hospital of the construction of Option K. The SDEIS, p. 3-28, states "... the portion of Pacific Street from Montlake Boulevard to just west of the University of Washington Medical Center access driveway would be closed for 9 to 12 months..." This will have a very significant impact on emergency access by ambulances, on disabled patients who use that entrance, and on visitors. The Hospital is an essential service for Seattle. Access from the south is not practical.

I-093-161

Page 51, Executive Summary, Avoiding and minimizing impacts, fourth bullet point: The last sentence should strike these last five words, "including incorporating construction mitigation plans." The Project Impact Plan barely touches on construction practices at its page 6-21 and page 7-1. Page 6-21 lists three general goals; page 7-1 recites that WSDOT will follow governing laws and regulations and its own Environmental Procedures Manual. WSDOT rejected and the Project Impact Plan excluded detailed recommendations made by advocates for Alternative A in mediation stating that such matters should await the EIS process. The DEIS contains many more construction mitigation measures than the Project Impact Plan suggests.

I-093-162 | Page 52, Executive Summary, Mitigation Measures, Project Operation, Social Elements: The text should set out measures for comment. Deferral to the final environmental impact statement deprives the public of an opportunity to comment or make recommendations. Option K attracts traffic to East Madison and through the Arboretum; it thereby bears disproportionately upon the integrated community in the Madison Valley. It also shift SR 520 traffic to N.E. Pacific St. by University Hospital and the University's dormitories. The former have a sensitive population with illness and ailments and need special protection from noise and impaired air quality; the latter are another integrated community. This needs to be mentioned and addressed.

I-093-163 | Page 60, Executive Summary, What issues are controversial?, first bullet, last sentence: This statement is an editorial injection that is not at all supported by the SDEIS: "However, broad public and political consensus has not been reached in support of this recommendation." It purports to summarize Section 8.4, B-5 of the SDEIS. That section lists areas of controversy and notes accurately "... some residents of communities adjacent to SR 520 are strongly opposed to this choice [Option A+]." The Executive Summary leaps to the assertion that some opposition means a lack of broadly based public and political support. The sentence should be stricken.

The word, "consensus," has a dual meaning. Its preferred meaning is unanimity. In common parlance, it means a super-majority allowing for some dissent. The adjective makes sense only if the second usage is intended. (Unanimity is all-inclusive and therefore inherently broad). The statement as written implies that Options A+/A lack broadly-based public and political support.

Options A+/A enjoys broad public and political support as manifest by the large volume of letters, e-mail, and testimony at hearings, and of support from citizens and community groups in the files of the Legislative Workgroup. Attachment B contains a letter to Governor Gregoire, Senator Haugen, and Representative Clibborn from a host of organizations supporting Options A+/A+. All the eastside communities affected, King County Metro, Sound Transit and the University of Washington support A+. Of the 15 voting members of the Legislative Workgroup, eleven favored Option A+; one member absented himself from all the meetings, one voted "No" because the plan had too many lids and amenities, and two signed a dissent for fewer lanes. The City of Seattle is still developing its opinion. The overwhelming portion of the opposition to A+/A+ comes from "some residents of the communities adjacent to SR 520," who are well organized.

Major public projects commonly incur objections from the immediate neighbors. The phenomenon is so frequent that it prompted coining the acronym "MIMBY", Not In My Backyard.

I-093-164 | Page 61, Executive Summary, Permits, State and Regional:

I-093-164

The certification is for "Clean Air Conformity."

I-093-165

Page 64, Executive Summary, Abbreviations. The Executive Summary should follow the SDEIS, Attachment 1, and use the combined title, "Acronyms and Abbreviations". Some of the items in the listing are abbreviations --- not acronyms, e.g. , CFR, cy, mph, dB. An acronym is a word formed from the initial letters or syllables of the successive parts of a compound term, e.g. scuba, radar.

SDEIS and the Executive summary should use RCW citations and define RCW in the abbreviations table as Revised Code of Washington.

### Conclusion

I-093-166

The essence of an environmental impact statement is full disclosure of the facts, especially the adverse impacts of the alternatives and irreversible losses to the environment. Full disclosure draws the attention of the decision makers to the adverse impacts, lets them know the trade-offs as they are, and helps them address avoidance and mitigation. The writers of an environmental document ill serve the government decision-makers and the public when they soft-pedal the harms caused and risks taken.

I-093-167

As shown by my commentary, the SDEIS clips off the harsh edges of Option K presented in the discipline reports, in the materials to the Legislative Workgroup, and in information furnished mediation; at the same time, the SDEIS tones down the virtues of Alternative A contained in those materials. The Executive Summary goes even further. It continually makes general statements about the options. Those statements ignore the many shortcomings of Option K, uplifting it; and they disregard the superior characteristics of Option A. It often softens the verb form to make harms caused by Option K seem less probable. The editing process resembles an airbrushing that reduces a color portrait to a black silhouette.

I-093-168

The merits of Alternative A shine through nonetheless. Alternative A without the Arboretum ramps is the best choice. Alternative A with the ramps is the next best. Options K and L would be an irresponsible selection from almost all perspectives. Alternative A meets all the statutory criteria; it fulfills the federal requirements for a permit; it moves traffic the most efficiently and safely; it does the most for transit (including a bus only ramp, direct access between Montlake Boulevard East and mainline transit/HOV lanes; a transit only lane on N.E. Pacific St.); it protects parks, public spaces, the Union Bays wetlands and threatened species to the extent such a project permits; it causes the least construction disturbance; it fits in best with City planning and offers the most lidding and amenities to the immediate abutters; and it can be built within the statutory budget. No other option can make any of these statements.

*in Montlake*  
✓

I-093-169

The project would be better if it were accompanied by a Corridor Management Agreement.

Respectfully submitted



Jørgen Bader

Attachments:

- A Seattle Urban Seismic Hazard
- B Letter to Governor Gregoire, et. al



Hon. Christine Gregoire  
Governor  
PO Box 40002, Olympia, WA 98504

January 21, 2010



Hon. Mary Margaret Haugen  
Senate Transportation Committee Chair  
PO Box 40410, Olympia, WA 98504



Hon. Judy Clibborn  
House Transportation Committee Chair  
PO Box 40600, Olympia, WA 98504



**RE: Moving forward with the SR 520 Bridge Replacement and Corridor project**

I-093-170

WASHINGTON  
ROUNDTABLE

The University Park  
Community Club



Ravenna-Bryant



Dear Governor Gregoire, Sen. Haugen, and Rep. Clibborn:

Together, the signatories below represent a broad group of labor, neighborhood, parks, civic, governmental and business interests on the west and east sides of Lake Washington that believe it is critical to move 520 forward. We believe that the 520 project is essential to our region's quality of life and economic vitality, and its significant risk of structural failure requires decisive leadership. We believe a new 520 bridge and corridor has the potential to improve transit connections and mobility, enhance safety and the environment, and create good construction jobs at a time when they are needed most.

Finally, we believe sufficient time has been devoted to the process, and we wish to work with legislators, government agencies and stakeholders to play a constructive role in expediting any remaining decision-making. It's important that we move forward because as we all know, the longer we wait the more expensive it gets.

We join together in urging you to pass 2010 legislation that moves the 520 project forward.

Sincerely,

*Virginia K. Gunby*

**Virginia Gunby**  
Ravenna/Bryant neighborhood leader

*Don Davidson*

**Hon. Don Davidson**  
Mayor, City of Bellevue

*David Freiboth*

**David Freiboth**  
Executive Secretary, King County Labor Council

*Mark A. Emmert*

**Dr. Mark Emmert**  
President, University of Washington

*Steve Mullin*

**Steve Mullin**  
President, Washington Roundtable

*Phil Bussey*

**Phil Bussey**  
President & CEO, Greater Seattle Chamber of Commerce

*Earl Bell*

**Earl Bell**  
University Park representative

*David D'Hondt*

**David D'Hondt**  
Exec. VP, Assoc. General Contractors

*Betty Nokes*

**Betty Nokes**  
President and CEO, Bellevue Chamber of Commerce

*Charles Liekweg*

**Charles Liekweg**  
President and CEO, AAA Washington

*Kirk Nelson*

**Kirk Nelson**  
Pres., Qwest WA, Seattle Chamber Chair

*Jim Warjone*

**Jim Warjone**  
CEO and Chairman, Port Blakely Companies

*George Martin*

**Hon. George Martin**  
Mayor, City of Clyde Hill

*Grant Degginger*

**Hon. Grant Degginger**  
Councilmember, City of Bellevue

*David Cooper*

**Hon. David Cooper**  
Mayor, Town of Yarrow Point

*Joan McBride*

**Hon. Joan McBride**  
Mayor, City of Kirkland

*Mark Weed*

**Mark Weed**  
Laurelhurst neighborhood resident

*Fred McConkey*

**Hon. Fred McConkey**  
Mayor, City of Hunts Point

*John Marchione*

**Hon. John Marchione**  
Mayor, City of Redmond

*Bret Jordan*

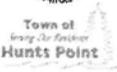
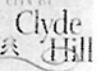
**Hon. Bret Jordan**  
Mayor, City of Medina

*Lee Newgent*

**Lee Newgent**  
Exec. Secty., Seattle/King Building & Construction Trades



Yarrow Point







# Seattle Urban Seismic Hazard Maps

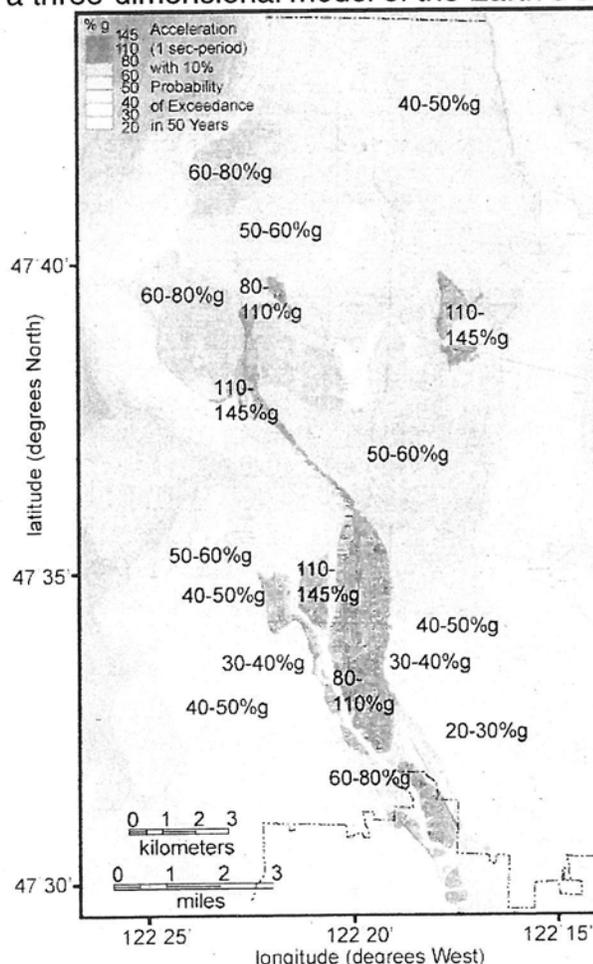
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The USGS has produced a new series of earthquake hazard maps for the City of Seattle. These 'urban seismic hazard' maps provide a much higher-resolution view of the potential for strong earthquake shaking than previously available. This new view is particularly important for Seattle, which sits atop a sedimentary basin that strongly affects the patterns of earthquake ground shaking and therefore, of potential damage. These new hazard maps incorporate shaking effects not captured in the National Seismic Hazard Maps, such as:

- *The subsurface geologic structure* of the Seattle basin and its environs can amplify and lengthen the duration of strong shaking in some places. The seismic waves that shake the ground may be focused and diffused by the shape of and materials within subsurface geologic structures.
- *Surficial and shallow deposits* of artificial fill and young alluvium (river deposits) may strongly amplify earthquake waves.
- *The earthquake rupture process* can also cause higher ground shaking in certain directions from a fault. A large earthquake grows like a propagating crack, radiating seismic waves along the way. This can lead to a pile-up of wave energy in front of the fault and spread it out behind.

The new Seattle Urban Seismic Hazard Maps include all of these effects. They are based on 540 computer simulations of earthquakes in a three-dimensional model of the Earth's crust.

The maps are 'probabilistic' – that is, they portray the ground shaking with a certain probability of occurring or being exceeded. The map on the right depicts the ground shaking in Seattle with a 10% chance of being exceeded during a 50-year period (motions shown have an oscillation period of 1 second). These maps include the expected shaking from earthquakes that could impact Seattle: large earthquakes on the Seattle and other shallow faults, great earthquakes on the Cascadia subduction zone, and deep ones like the 2001 Nisqually earthquake. The geologic record tells us that these earthquakes occur repeatedly, but with differing intervals between them. The maps account for these different recurrence rates. Other maps of the suite show the shaking expected with a 5% and 2% probability of being exceeded in 50 years.

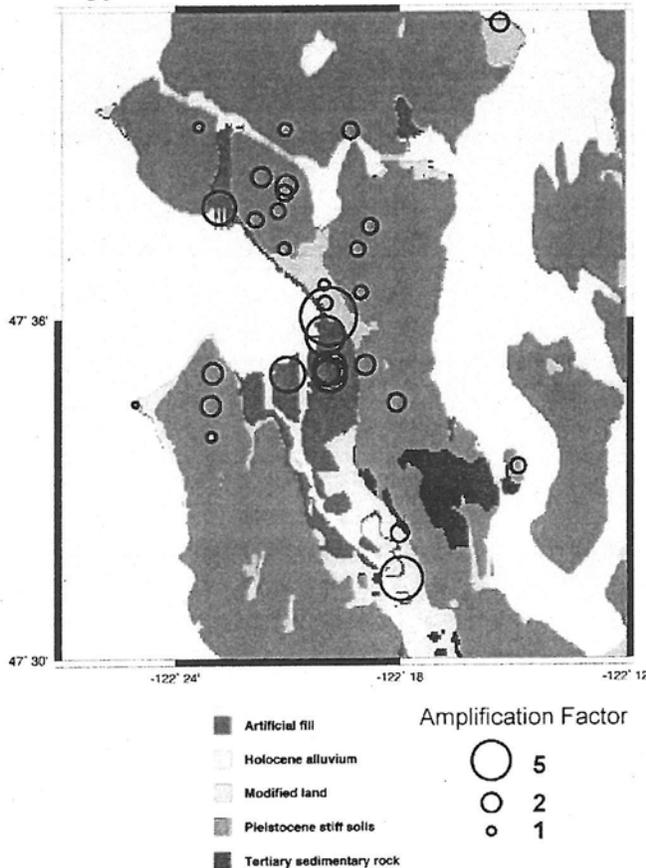


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The highest hazard within the Seattle basin is found in areas of artificial fill and young alluvium (soils and sands), including Harbor Island, Pioneer Square, and in portions of the Interbay, Fremont and Montlake-University Village neighborhoods. Other areas above the basin on firmer soils, such as downtown Seattle, show elevated hazard compared to similar sites outside of the basin. Outside the Seattle basin very high hazard also is predicted in the alluvial Duwamish valley.

Studies attempting to verify independently the variations in predicted shaking levels are ongoing. For example, scientists have shown that during the Nisqually earthquake focusing of damaging waves at the southern edge of the Seattle basin likely caused the enhanced damage to chimneys in West Seattle, and ground motions recorded throughout the city show the largest motions near Harbor Island and Pioneer Square.

### Amplification of Ground Shaking by Site Geology Measured for the Nisqually Earthquake



The simulations done for the Seattle maps are based on a three-dimensional model of the crust in the region constructed from geophysical and geological data. Information on the depth of artificial fill and alluvium compiled by the University of Washington's GeoMap Northwest project was critical to making the hazard maps.

Seismometers deployed throughout Seattle by the USGS and the University of Washington provide key recordings of earthquakes that we use to verify the simulations. On the left, we show the observed amplification of seismic waves produced by the 2001 M6.8 Nisqually earthquake measured at seismic stations. The shaking was stronger at sites on artificial fill and alluvium, as indicated by the larger circles. These areas also had more building damage from the earthquake. Soil sites in the Seattle basin were also observed to have higher levels of shaking than sites with shallow bedrock south of the Seattle basin. Our simulations also predict strong shaking in these places.

The production of the Seattle urban seismic hazard maps represents a vast improvement in our understanding of earthquake hazards. Nonetheless, they are not a substitute for hazard assessments for locations where detailed soil profiles with depth have been determined.

The Seattle maps may be downloaded from the website <http://earthquake.usgs.gov/regional/pacnw/hazmap/seattle/index.php>. For more information see <http://earthquake.usgs.gov> or contact Craig Weaver or Joan Gomberg at 206-553-0627, 206-616-5581, [craig@ess.washington.edu](mailto:craig@ess.washington.edu), [gomberg@usgs.gov](mailto:gomberg@usgs.gov). The Seattle maps are the work of A. Frankel, W. Stephenson, D. Carver, R. Williams, J. Odum, and S. Rhea.