for monitoring and fine-tuning to perfect measures to avoid, minimize, and mitigate operation effects on historic resources. Here it is relevant to mention that the features in this area are the same for all three options and that building the lids could therefore take place early and even before the rest of the project is undertaken.

- Note that in the Phased Implementation scenario, said in the SDEIS to be the most likely scenario, lid construction would be deferred indefinitely. We request discussion of the adverse effects of this damaging prospect and treatment of the lid timing issue and construction mitigation in a Memorandum of Agreement.

- The effects of demolition and (re)construction of the three arterial bridges and two lids and ways of avoiding, minimizing, or mitigating the multiple effects should be discussed in the Memorandum of Agreement.

Construction—Demolition and (Re)construction of the Seven-Lane Portage Bay Bridge, Option A

- 140 third para, third sentence Saying “The temporary work bridges, barges, and heavy equipment used for demolition and construction of the Portage Bay Bridge might also introduce visual effects to the area” is unduly tentative. They will introduce adverse visual effects to the area.

- 141 The discussion treats the effects of the 6 years of demolition and construction of the Portage Bay Bridge without mentioning the adverse effects of this six-year period, with views of temporary work structures and barges, demolition noise and vibration, concrete dust and ensuing building erosion and soiling, dusty windows, damage to landscaping from dust and vibration, construction noise, and nighttime construction glare to historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood. Adverse effects of the construction of the Portage Bay Bridge, which in addition to being more than twice as wide or wider, depending on the option chosen, and higher, will be moved to the north in front of more homes in the Roanoke Park Historic District and in the Portage Bay neighborhood, are not discussed. These adverse construction effects on the Roanoke Park Historic District and the Portage Bay neighborhood should be discussed and avoidance, minimization and mitigation taken up in a Memorandum of Agreement.

- Again, we request that identification of the contributing and individually eligible historic resources in the Roanoke Park Historic District be brought to bear on effects findings as the contributing and individually eligible status of historic resources in the Montlake Historic District is routinely brought to bear on effects findings for that historic district.

- 141 Moving from west to east, discuss the effects of Option A construction on the area between I-5 and Portage Bay, presently omitted. Discuss historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood including
historic resources on the north and south hillsides of Delmar Drive East that would be adversely affected by demolition and the construction of Option A’s seven-lane Portage Bay Bridge, which include visual blight, noise, vibration, air pollution and consequent building exterior erosion and soiling, dusty windows, nighttime glare, and vegetation removal and damage.

- Historic properties on East Roanoke Street that would experience adverse effects from the demolition and construction of the seven-lane Portage Bay Bridge of Option A include the contributing and individually eligible Gates-Bass Mansion (A and C, Elmer E. Green, 1909) at 1018 East Roanoke Street, the contributing and individually eligible Booth House (A, 1907) at 1004 East Roanoke Street, and the contributing Roanoke Park (1910). Along the 2600 block of the district’s 10th Avenue East, the contributing and individually eligible Dalley House (C, Huntington & Gould, 1910) at 2608 10th Avenue East, the contributing Gifford House at 2612 (1924), the contributing Fish House at 2616 (1922), the contributing Jenner-Bogue House at 2622 (1923) the contributing Bloxom House (1917) at 2632, and the contributing Horner House (1925) at 2636 10th Avenue East would experience these adverse effects. (9 contributing, 3 of which are also individually eligible)

- In the 2700 block of the Roanoke Park Historic District’s 10th Avenue East, historic properties adversely affected by the demolition and construction of the seven-lane Portage Bay Bridge of Option A would include the contributing and individually eligible Beckwith-Thompson House (A, 1910) at 2700, the contributing and individually eligible Saunders House (A and C, Frederick A. Sexton, 1908) at 2701, the contributing and individually eligible Parshall House (C, Thomas L. West, 1911) at 2706, the contributing and individually eligible Siegley House (C, E. H. Sanders, 1909) at 2712, the contributing and individually eligible Cavanaugh House (C, 1909) at 2722, the contributing and individually eligible Conly House (A, 1916) at 2726, and the contributing and individually eligible Finley House (A and C, 1909) at 2731 10th Avenue East. (7 contributing, of which all 7 are also individually eligible)

- Historic resources in the Portage Bay neighborhood that would be adversely affected by the demolition and construction of the seven-lane Portage Bay Bridge of Option A include the individually eligible Gunby House (C, John T. Jacobsen, 1940), the individually eligible Alden Mason House (A and C, Victor Steinbrueck, 1949), and the individually eligible Kelley House (C, 1909), which will be adjacent to the wider, higher bridge moved farther north of Option A.

- Other potentially eligible resources in the Portage Bay neighborhood have not been surveyed, including the Arthur Loveless, Paul Thiry, and Roland Terry houses on the north side of Delmar Drive East and the architect-
designed houses at the top of the Delmar Drive East south hillside, which might or might not lie within the APE, and the houseboat community in the west end of Portage Bay, the potential historic bungalow district along East Gwinn Street between Harvard Avenue East and Fuhrman-Boyer Avenue East, and historic resources along many of the other streets that make up the point, and many of the other historic resources along both sides of Fuhrman-Boyer Avenue East, which have been left out of the APE. Most of these properties would be affected by hauling and construction, and some of them would be affected by demolition as well.

- Without the lids that have been designed into the project, that are an integral part of the project, and because the “temporary” construction effects would go on for seven-and-a-half to eight years, these construction effects on historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood would be tantamount to permanent effects and ultimately lead to “demolition by neglect” as property values plummeted, and even then visual blight, noise, dust, vibration, and diesel emissions would mean that people would not be able to sell their homes for amounts approaching their present worth. Many of the houses would be rented out to lower income renters, those not in a position to avoid living so close to a mammoth, many-years-long freeway construction project. Many of the houses would become rooming houses. A general deterioration would ensue in the absence of owner-residents who work steadily to improve their historic houses and their communities. Repairs would tend to be done on the cheap, with little regard for the historic integrity that owner-residents have prized and maintained over 100 years. With the deterioration of the social fabric of the communities would come a deterioration of the setting and feeling and characteristic single-family use of the Roanoke Park Historic District and of the historic resources in the Portage Bay neighborhood.

- An accurate perception that the neighborhoods had become unhealthy would mean that many families with young children would move away. A recent snapshot, block-to-block survey of the number of children under the age of 20 conducted by the Portage Bay/Roanoke Park Community Council revealed that the predominantly single-family homes in the Roanoke Park Historic District and the Portage Bay neighborhood shelter 126 young children under the age of 20, of which 79 are under the age of 14. Note that the reluctance of many parents in this day and age to release such information means that these numbers of children are probably higher.

- Finishing and landscaping the lids over I-5 and SR 520 immediately after the replacement bridges have been constructed and put into operation would spare historic resources from many of the further adverse effects of Option A’s seven-lane Portage Bay Bridge project’s six-year construction phase and provide an opportunity for monitoring and fine-tuning to perfect measures to avoid, minimize, and mitigate subsequent permanent operation effects on historic resources.
• Scheduling lid construction for an early part of the Phased Implementation scenario rather than deferring lid construction indefinitely would address some of these adverse construction effects. This question and other means of avoiding, minimizing, and mitigating effects of the construction of the Portage Bay Bridge need to be addressed in a Memorandum of Agreement.

Construction—Portage Bay Bridge and Second Bascule Bridge, Option A, Views

• Views to the east, of Portage Bay, the historic NOAA Fisheries Building, the historic Seattle Yacht Club and marinas, the historic Montlake Cut, the historic Montlake Bridge, Lake Washington, the lights of Bellevue and Kirkland, trees in the foothills, and the Cascade Mountains from many of the contributing and individually eligible houses in the Roanoke Park Historic District and historic resources in the Portage Bay neighborhood both surveyed and unsurveyed would be adversely affected by the construction of Option A’s seven-lane Portage Bay Bridge and second bascule bridge. Construction of the Portage Bay Bridge expected to last 6 years and of the second bascule bridge expected to last 27 months would be both visible and audible. These construction effects would be compounded by Sound Transit’s deep-bore 300-foot-deep twin tunnel project, which is not even mentioned in the Cultural Resources Discipline Report. That project is underway now and is expected to go on until some time in 2016.

• Note that the statement that “only a few” historic resources in the Roanoke Park Historic District enjoy this panoramic view shed of high vividness is a diminution of the number of houses that enjoy this viewshed and of the extent and the quality of the views enjoyed by these historic resources. This misinformation, repeated in the December 2009 Visual Quality and Aesthetics Discipline Report, a reversal of the description in the 2005 VQADR, has contributed to a finding of “no adverse effect” and a consequent refusal to engage in a Memorandum of Agreement. The diminishing language needs to be corrected, the adverse effects need to be acknowledged, and the adverse effects should be taken up in a Memorandum of Agreement.

• The East Edgar Street, East Hamlin Street, and East Shelby Street hills continue to slope at the top of the Roanoke Park Historic District plateau from the east side of 10th Avenue East to the plateau’s high point along Broadway Avenue East. Residents in the large houses at the intersections of the Roanoke Park Historic District as far west as the west side of Broadway Avenue East at some intersections enjoy views east variously including Portage Bay, the historic Fisheries Building, the historic Seattle Yacht Club and marinas, the historic Montlake Cut, the historic Montlake Bridge, Lake Washington, the lights of Bellevue and Kirkland, trees in the foothills, and the Cascade Mountains. Many more historic resources in the Roanoke Park Historic District than “a few” enjoy these memorable “expansive” views of “high vividness.”
o Houses from which these expansive views of high vividness may be enjoyed include most obviously the contributing and individually eligible Gates-Bass Mansion at 1018 East Roanoke Street (A and C, Elmer E. Green, 1909) and most of the houses along the east side of 10th Avenue East: the contributing Gifford House (1924) at 2612, the contributing Fish House (1922) at 2616, the contributing and individually eligible Bogue House (A, 1923) at 2622, the contributing Bloxom House (1917) at 2632, the contributing Horner House (1925) at 2636, the contributing and individually eligible Beckwick-Thompson House (A, 1910) at 2700, the contributing and individually eligible Parshall House (C, Thomas L. West, 1911) at 2706, the contributing and individually eligible Siegley House (C, 1909) at 2712, the contributing and individually eligible Cavanaugh House (C, E. H. Sanders, 1909) at 2722, the contributing and individually eligible Conly House (A, 1916) at 2726, the contributing and individually eligible Mayer House (C, Hunt & Wheatley, 1924) at 2802, the contributing and individually eligible Spencer House (C, Ed Merritt, 1909) at 2808, the contributing Turner House (1903) at 2812, the contributing and individually eligible Richardson House (C, Julian G. Everett, 1912) at 2816, the contributing and individually eligible Phillips-Hyde House (C, Huntington & Gould, 1909) at 2822, the contributing and individually eligible Higgins House (A, 1909) at 2832, and the contributing and individually eligible Patten House (A and C, 1909) at 2836. (The contributing and individually eligible Booth House at 1004 East Roanoke Street [A, 1907] and the contributing and individually eligible Dalley House at 2608 10th Avenue East [C, Huntington & Gould, 1909] have their views impeded by trees and other houses.) (20 contributing, 13 of which are also individually eligible)

o The four houses on the north side of East Shelby Street at its east end that enjoy these views are the contributing and individually eligible Prosser-Dowling House (A and C, Hunt & Jones, 1909) at 912, the contributing and individually eligible Slater House (C, 1910) at 920, the contributing and individually eligible Ross House (A, 1912) at 926, and the contributing Dart House (C, 1909) at 1000. On the south side of East Shelby Street, the contributing and individually eligible Twelves House (A and C, Edwin J. Ivey, 1923) at 817, the contributing and individually eligible Denny House (A and C, 1910) at 2838 Broadway Avenue East, and the contributing Sutherland House (1908) at 2837 10th Avenue East also enjoy these views. (7 contributing, of which 5 are also individually eligible)

o On the north and south sides of East Hamlin Street, the contributing and individually eligible Sullivan-Walker House (A and C, 1899—the oldest house in the district) at 2736 Broadway Avenue East, the contributing and individually eligible Finley House (A and C, 1909) at 2731 10th Avenue East, the contributing and individually eligible Hunter House (A and C,
Frederick A. Sexton, 1909) at 2801 Broadway Avenue East, the contributing and individually eligible Johanson House (A, and C, attributed to Cutter & Malmgren, 1909) at 2800 Broadway Avenue East, and the contributing and individually eligible Wentworth-Elliott House (A and C, Merritt, Hall & Merritt, 1910) at 918 East Hamlin Street enjoy these views east as well. (5 contributing, all 5 of which are individually eligible)

- As do, before leafing out, the contributing and individually eligible Neterer House (A and C, Andrew Willatsen, 1915) at 2702 Broadway Avenue East and the contributing and individually eligible Saunders House (A and C, Frederick A. Sexton, 1908) at 2701 10th Avenue East. (Other houses along the west side of 10th Avenue East have partial views of Lake Washington and the Cascades from their high vantage points.) (2 contributing, both of which are individually eligible)

- All of these 34 contributing resources—more than a third of the Roanoke Park Historic District’s 80 contributing resources and almost half of the district’s 57 individually eligible historic resources—would suffer damage from the adverse effects to the setting and feeling of the Roanoke Park Historic District from the visual blight alone, and from pollution, noise, and nighttime glare at the various sites during the seven-and-a-half-year to eight-year construction project. (The State Historic Preservation Officer will decide finally whether the adversely affected contributing resources identified here include properties also individually eligible for National Register and Washington Heritage Register listing.)

In addition, as has been noted, some of these 34 resources both contributing and contributing and individually eligible—and one listed resource along Harvard Avenue East, more contributing and individually eligible resources along the west side of 10th Avenue East, the as yet unmentioned contributing and individually eligible resources along the east and west sides of Broadway Avenue East, and the four historic contributing and individually eligible resources along East Roanoke Street including the contributing Roanoke Park itself—would experience adverse effects from staging, vegetation removal, detours, temporary closures and haul routes, demolition and (re)construction of the three arterial bridges and two lids, demolition and (re)construction of the seven-lane Portage Bay Bridge, and construction of the second bascule bridge of Option A.

- These multiple adverse effects of demolition and (re)construction to so many contributing and individually eligible resources and ways of avoiding, minimizing, or mitigating them should be discussed in a Memorandum of Agreement.

 ording—Demolition and Construction, Option K
• 149. Discuss the construction effects of the six-lane Option K on the historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood.

  o The construction effects on historic resources would come from staging, vegetation removal, detours, temporary closures and haul routes, demolition and construction of three bridges and two lids, and demolition and construction of the six-lane Portage Bay Bridge.

  o Construction effects of the six-lane Portage Bay Bridge would be almost as damaging in its effects as construction of Option A’s seven-lane Portage Bay Bridge. See the earlier discussion of these effects with respect to Option A, and include them here.

  o Construction of Option K’s tunnels under the Montlake Cut, with freezing, boring, and excavation, would be visible and audible for almost four years. Coincident with this part of the SR 520 project in Option K would be Sound Transit’s project to excavate, haul, and construct a 300-foot-deep twin tunnel across the Montlake Cut. This project is underway and is expected to go on until 2016.

  o Option K’s lower profile at various sites in the project as a whole might mean that visual blight from construction might be a less adverse effect over the seven-and-a-half-year construction phase.

• Without the lids that have been designed into the project, that are an integral part of the project, and because the “temporary” construction effects would go on for seven-and-a-half to eight years, these effects on historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood would be tantamount to permanent effects and lead to ultimate “demolition by neglect” as property values plummeted, and even then visual blight, noise, dust, vibration, and diesel emissions would mean that people would not be able to sell their homes for any amount approaching their present worth. Many of the houses would be rented out to lower income renters, those not in a position to avoid living so close to a mammoth, many-years-long freeway construction project. Many of the houses would become rentals and rooming houses. A general deterioration would ensue in the absence of owner-residents who work steadily to improve their historic houses and their communities. Repairs would tend to be done on the cheap, with little regard for the historic integrity that owner-residents have prized and maintained over 100 years. With the deterioration of the social fabric of the neighborhoods, would come a deterioration of the setting and feeling and characteristic single-family use of the Roanoke Park Historic District and of the historic resources in the Portage Bay neighborhood.

• An accurate **perception that the neighborhoods had become unhealthy** would mean that many families with young children would move away. A recent
snapshot, block-to-block survey of the number of young children under the age of 20 conducted by the Portage Bay/Roanoke Park Community Council revealed that
the predominantly single-family homes in the Roanoke Park Historic District and
the Portage Bay neighborhood shelter 126 children, 79 of which are under 14.
Note that the reluctance of many parents in this day and age to release such
information means that these numbers of children are probably higher. A
Memorandum of Agreement should treat avoiding, minimizing, and mitigating
these adverse secondary, or indirect, effects.

- Finishing and landscaping the lids over I-5 and SR 520 immediately after the
replacement bridges have been constructed and put into operation would spare
historic resources from many of the further adverse effects of Option K’s six-lane
Portage Bay Bridge project’s six-year construction phase and provide an
opportunity for monitoring and fine-tuning to perfect measures to avoid,
minimize, and mitigate subsequent permanent operation effects on historic
resources.

- The multiple effects of demolition and (re)construction in Option K and ways of
avoiding, minimizing, or mitigating them should be discussed in a Memorandum
of Agreement.

**Construction—Demolition and Construction, Option L**

- 160. Discuss the construction effects of the six-lane Option L on the historic
resources in the Roanoke Park Historic District and the Portage Bay
neighborhood.

  - The construction effects on historic resources would come from staging,
vegetation removal, detours, temporary closures and haul routes,
demolition and construction of bridges and lids, and construction of the
six-lane Portage Bay Bridge.

  - Construction of Option L’s six-lane Portage Bay Bridge over a six-year
period would be almost as damaging in its effects as construction of
Option A’s seven-lane Portage Bay Bridge. See the earlier discussion of
these effects with respect to Option A, and include them here.

  - Construction of Option L’s second bascule bridge farther to the east and
out of sight of these neighborhoods might have little effect on the
neighborhoods that surround the Portage Bay basin. Note that any noise
from the second bascule bridge construction project that reached the
Roanoke Park Historic District or historic resources in the Portage Bay
neighborhood would be compounded by noise from Sound Transit’s
project to construct a 300-foot-deep twin tunnel across the Montlake Cut.
This project is underway and is expected to last until some time in 2016.
• Option L’s elevated profile at various sites in the project as a whole would mean that visual blight from construction might be a more adverse effect over the seven-and-a-half-year construction phase.

• Without the lids that have been designed into the project, that are an integral part of the project, and because the “temporary” construction effects would go on for seven-and-a-half years, these effects on historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood would be tantamount to permanent and lead to ultimate “demolition by neglect” as property values plummeted, and even then visual blight, noise, dust, vibration, and diesel emissions would mean that people would not be able to sell their homes for any amount approaching their present worth. Many of the houses would be rented out to lower income renters, those not in a position to avoid living so close to a mammoth, many-years-long freeway construction project. Many of the houses would become rooming houses. A general deterioration would ensue in the absence of owner-residents who work steadily to improve their historic houses and their communities. Repairs would tend to be done on the cheap, with little regard for the historic integrity that owner-residents have prized and maintained over 100 years. With the deterioration of the social fabric of the neighborhoods would come a deterioration of the setting and feeling and the characteristic single-family use of the historic district and of the historic resources in the Portage Bay neighborhood.

• An accurate perception that the neighborhoods had become unhealthy would mean that many families with young children would move away. A recent snapshot, block-to-block survey of the number of young children under the age of 20 conducted by the Portage Bay/Roanoke Park Community Council revealed that the predominantly single-family homes in the Roanoke Park Historic District and the Portage Bay neighborhood shelter 126 young children including 79 under the age of 14. Note that the reluctance of many parents in this day and age to release such information means that these numbers of children are probably higher.

• Finishing and landscaping the lids over I-5 and SR 520 immediately after the replacement bridges have been constructed and put into operation would spare contributing and potentially individually eligible historic resources from many of the further adverse effects of Option L’s six-lane Portage Bay Bridge project’s six-year construction phase and provide an opportunity for monitoring and fine-tuning to perfect measures to avoid, minimize, and mitigate subsequent permanent operation effects on historic resources.

• The effects of demolition and (re)construction in Option L and ways of avoiding, minimizing, or mitigating them should be discussed in a Memorandum of Agreement.

• Note that the decline in livability described in many of the SDEIS discipline reports and in the Health Impact Assessment (regretfully, not included in the
would lead to “demolition by neglect” of historic resources in these areas adjacent to the SR-520 Bridge Replacement and HOV Project. The lids designed into the project are integral, not mitigation, but early timing of their completion could be regarded as a construction mitigation of this secondary, indirect, adverse effect in a Memorandum of Agreement.

**Potential Effects of the Project, Operation section p 170**

- Because the report says that less is known of details in the area near the I-5 and SR 520 interchange, treat the two areas, the area near the I-5 and SR 520 interchange and the area between I-5 and Portage Bay, separately.

**I-5 and SR 520 Interchange, Operation, Options A, K, and L**

- Of the I-5 and SR 520 interchange, say something to the effect of “The operation of the SR 520 and I-5 interchange is likely to have an adverse effect on the eligible Chung House at 1980 Harvard Avenue East (1932) and possibly on the eligible Talder House (1909) at 2352 Broadway Avenue East. When design and operation details are known, possible effects of operation of this part of the project on historic resources will be more fully evaluated.”

**Area Between I-5 and Portage Bay, Operation, Options A, K, and L**

*Operation—I-5 and 10th & Delmar Lids, Options A, K, and L*

- Without the lids that have been designed into the project, that are an integral part of the project, the operation effects on historic resources in the Roanoke Park Historic District and Portage Bay neighborhood would lead to ultimate “demolition by neglect” as property values plummeted, and even then noise, air pollution, and visual blight would mean that people would not be able to sell their homes for any amount approaching their present worth. Many of the houses would be rented out to lower income renters, those not in a position to avoid living so close to a mammoth freeway. Many of the houses would become rooming houses. A general deterioration would ensue in the absence of owner-residents who work steadily to improve their historic houses and their communities. Repairs would tend to be done on the cheap, with little regard for the historic integrity that owner-residents have prized and maintained over 100 years. With the deterioration of the social fabric of the neighborhoods, would come a **deterioration of the setting and feeling and characteristic single-family use** of the historic district and the historic resources in the Portage Bay neighborhood.

- An accurate perception that the neighborhoods had become unhealthy would mean that many families with young children would move away. A recent block-to-block, snapshot survey of the number of young children under the age of 20 conducted by the Portage Bay/Roanoke Park Community Council revealed that the predominantly single-family homes in the Roanoke Park Historic District and the Portage Bay neighborhood shelter 126 children including 79 under the age of 14. Note that the reluctance of many parents in this day and age to release such information means that these numbers of children are probably higher. This
demographic would undergo a drastic alteration. A Memorandum of Agreement should treat these adverse secondary, or indirect, effects and ways of avoiding, minimizing, and mitigating them.

**Operation, Portage Bay Bridge, Options A, K, and L**

- **Because the view shed** is so important to the setting and feeling of the neighborhoods on the steep western and southern hillsides of the Portage Bay basin, we urge the writer to make use of the comments that follow here in discussions of the operation effects of Options A, K, and L on historic residences in the Roanoke Park Historic District and the Portage Bay neighborhood including historic residences that should be in the APE along both sides of Fuhrman-Boyer Avenue East, many as yet unsurveyed, an unsurveyed historic bungalow district along East Gwinn Street between Harvard Avenue East and Fuhrman-Boyer Avenue East, and unsurveyed historic resources along the other streets that make up the point, the unsurveyed houseboat community in west Portage Bay, and the as yet unsurveyed historic resources on the north and south hillsides of Delmar Drive East that might or might not be and should be included in the APE.

- We urge consideration of the 2005 *VQADR* because it is more candid with respect to adverse effects findings than the December 2009 *SDEIS* version of the *VQADR*, because the aesthetic principles the earlier report employed in its effects findings have not gone out of date, and because the earlier report’s representations of these neighborhoods and its effects findings have not been tainted by the numerous misrepresentations and omissions in the 2009 *CRDR*, which obviously informed both the later *VQADR*’s account of historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood and the later *VQADR*’s much more sanguine effects findings.

- The *Visual Quality and Aesthetics Discipline Report* of 2005 for the SR 520 Bridge Replacement and HOV project observes of the present Portage Bay Bridge that “the Portage Bay Bridge is a dominant part of many views from the hills around the bay and from the bay itself” (p 19). The report also notes that the present SR 520 structures “are not visually compatible with the natural-appearing landscapes or the smaller scale of the neighborhoods” (p 24) and that “the columns and highway break up the visual composition of natural-appearing areas and neighborhoods” (p 24). The wider, higher prospective bridge, shifted north, and with massive concrete noise walls will be even less compatible with the natural-appearing landscapes and the smaller scale of the neighborhoods. And the higher, wider prospective six- or seven-lane bridge with massive noise walls in Options A and L, moved north in front of these historic resources, will break up the visual composition of natural-appearing areas and small-scale neighborhoods and bays to an extremely damaging degree. This is a cumulative adverse effect.
A section of the 2005 *Visual Quality and Aesthetics Discipline Report* on viewer sensitivity to prospective changes to these views says, “residents around Portage Bay and along the western shore of Lake Washington form the largest viewer group, with views of the roadway in Seattle. This includes East Roanoke Park . . .” The report goes on, “Residents and park and trail users in this [Seattle] area have high sensitivity to landscape aesthetics because they either are in their home community or expect a pleasant, natural-appearing landscape for recreation.” The Portage Bay Bridge demolition and construction over six years and the permanent operation of the higher, wider bridge, shifted north and with noise walls, will degrade views to an extreme extent.

Under “Potential Effects of the Project,” the 2005 *Visual Quality and Aesthetics Discipline Report* says that effects of the proposed alternatives on the visual quality and aesthetics of a landscape would differ according to changes in width, elevation, addition or removal of structures and vegetation, and the degree to which new structures would contrast or blend with the existing landscape. It rates visual quality changes on the basis of low, moderate, or high contrast. **High contrast is described as “easily noticeable contrast between scale or character of proposed facilities and existing environment in which viewers are sensitive to visual change and expect attractive views or surroundings and substantial changes in shadow levels of light and glare that would be easily noticeable.”**

Of the most modest alterations to the Portage Bay Bridge, in the old Four-Lane Alternative, the 2005 *Visual Quality and Aesthetics Discipline Report* says that the new bridge would shift to the north and be 10 to 20 feet higher and about 50 feet wider than the current 54-foot-wide bridge and that the change in scale would be **very noticeable** to motorists and to viewers looking at the bridge anywhere in the Portage Bay basin. The 2005 *Visual Quality and Aesthetics Discipline Report* also observes that the northward placement of the bridge would **noticeably change** the view eastward from Roanoke Park homes north of the bridge by encroaching on their views to the south. It goes on, “Sound walls in the Portage Bay/Roanoke Park area would result in **very high changes to the visual character of SR 520 and to the quality of views from and toward the roadway.** At 18 to 22 feet along North Capitol Hill, the walls would drastically and negatively alter the motorist’s experience and could block views from residences adjacent to the wall. A 10-foot-high sound wall could encroach on Bagley Viewpoint and obstruct views to the south.”

Of the view from outside the roadway of the Four-Lane Portage Bay Bridge, the 2005 *Visual Quality and Aesthetics Discipline Report* said, “the addition of 8- to 10-foot-high sound walls on the south side of the Portage Bay Bridge would create **a profile that is very different from**
[that of] the existing bridge. The walls, in combination with the taller girders and the greater bridge width, would make the bridge structure more massive and box-like, and would greatly increase the visual presence of the bridge. Moreover, the sound walls would not be consistent with the Scenic Route classification of SR 520 from the driver’s viewpoint because the high sound walls would block lateral views outward from the roadway and would partially obstruct long-distance views of the Cascades.” (Note that according to a February 1, 2010, letter from Julie Meredith, P. E., SR 520 Program Director, WSDOT, and Randolph Everett, Major Projects Oversight Director, FHWA, the designs for Options A and L now include noise walls on both the north and the south sides of the Portage Bay Bridge.)

- Of the Six-Lane Alternative (before Options A, K, and L had been developed and before Roanoke Park had become the Roanoke Park Historic District), the 2005 Visual Quality and Aesthetics Discipline Report said that “sound walls in [the] Roanoke Park [Historic District] would be 12 to 14 feet high on the south side of the highway.” It’s not clear whether sound walls will also be on the north side of the highway.

- Of a new Bagley Viewpoint to be designed into the 10th & Delmar lid in the Six-Lane Alternative (before Options A, K, and L had been developed), the 2005 Visual Quality and Aesthetics Discipline Report said that the placement of 10-foot-high sound walls near the viewpoint could affect the view.

- The 2005 Visual Quality and Aesthetics Discipline Report also said that in the Six-Lane Alternative (Options A, K, and L had not yet been developed) “vegetation below Bagley Viewpoint and in 50-foot-wide swaths on the north and south sides of the roadway would be removed.”

- The 2005 Visual Quality and Aesthetics Discipline Report observed that in the Six-Lane Alternative (before Options A, K, and L had been developed), “the Portage Bay Bridge would be more than twice the width [even wider in the seven-lane Option A] but similar in style” and that the northward alignment and added width would have a moderate to high visual quality effect on views toward and from the roadway. The report also observed that “the roadway would be within 70 to 100 feet of a few homes just below the Bagley Viewpoint” and that “the view eastward from Roanoke Park homes would noticeably change because of proximity of the Portage Bay Bridge.” The 2005 Visual Quality and Aesthetics Discipline Report of course does not say how much closer the then unplanned seven-lane Portage Bay Bridge of Option A would be to the homes below the Bagley Viewpoint or how much more noticeable the view eastward from Roanoke homes would change under the seven-lane Option A.
• The 2005 *Visual Quality and Aesthetics Discipline Report* added, “sound walls on the south [and now north?] side[s] of the Portage Bay Bridge would compound the visual effects of the taller girders and make the highway structure appear more massive when seen from viewpoints outside of the roadway.”

• 170, first para What would be the effect of **variable tolling** in the No Build Alternative, considering both tolling SR-520 alone and tolling I-90 as well as SR-520? Tolling is expected to begin in spring 2011, which means it will initially take place on the four-lane bridge.

• 172 The “6-Lane Alternative” head is out of date. Option A has seven lanes on the Portage Bay Bridge with noise walls. Option K has six lanes on the Portage Bay Bridge with quieter pavement. Option L has six lanes on the Portage Bay Bridge with noise walls.

• 172 Note that the 10th Avenue East & Delmar Drive East lid would visually shield the Roanoke Park Historic District from the wider roadway beneath the lid but that it would not visually shield the Roanoke Park Historic District from the wider and higher Portage Bay Bridge moved north in front of the Roanoke Park Historic District.

• 172, third para, second and third sentences The Andrew Gunby House would not be shielded from noise by the 10th & Delmar lid, nor would it be visually shielded by the lid.

• 172, end of third para Include quieter pavement data here, too.

• 172, ff Were noise levels measured at bedroom height?

• 173 Note that the width of the Portage Bay Bridge would be greater in Option A and that whether sound walls are used would affect the profile of the Portage Bay Bridge.

• 173, next to last para Many more contributing (and individually eligible) houses than those mentioned have views of the Portage Bay Bridge, and those views would be adversely affected by the wider, higher Portage Bay Bridge moved north: houses on the east side of East Shelby Street, for instance, and houses at the intersections of East Hamlin Street and East Edgar Street with the east side of Broadway Avenue East and the west side of 10th Avenue East. See the earlier

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2 In a letter dated February 1, 2010, Julie Meredith, P. E., SR 520 Program Director, and Randolph Everett, FHWA Major Projects Oversight Manager, say that “If noise walls are included on the Portage Bay Bridge under any option, they would run the entire length of the bridge on both sides.” Still to be examined as an alternative to the visual blight of noise walls is the use of quieter pavement, not as mitigation, which the FHWA does not endorse, but as an integral part of any design adopted.
discussion of contributing and individually houses that enjoy these views in the Construction Effects part of these comments, pp 28–31.

- 173, last para An out-of-scale six- or seven-lane higher bridge running beside notable buildings such as the John Graham, Sr.–designed terra-cotta and brick NOAA Fisheries Building and the diminutive John Graham, Sr., Seattle Yacht Club would have an adverse effect on views of those historic buildings, and the scale of the project would visually intrude on views of Portage Bay from many contributing and individually eligible properties in both the Roanoke Park Historic District and theas yet not fully surveyed Portage Bay neighborhood. These historic resources are noted for their views. **The foreseeable effects of the new project added to past and present effects would be a cumulative adverse effect.**

- Once again, note that the operation effects, like the demolition and construction effects, vary in the three options. And note again that Option A is according to WSDOT “the seven-lane option.” The report should treat historic resources in the area between I-5 and Portage Bay as it does the historic resources in the neighborhoods east of Portage Bay with respect to effects from operation of the three different options.

- Discuss operation effects on historic resources in the Roanoke Park Historic District and historic resources in the Portage Bay neighborhood from all three options in the sections devoted to Option A, Option K, and Option L as is done for other historic resources and the other historic district in the APE in this section on the effects of operation of the three different options.

- 174, first para, last three sentences: “Only a small portion of the district has a view of [34 of 80—more than one-third of contributing—and 26 of 57—almost half of individually eligible houses] and would be adversely affected by the replacement bridge. In addition, there is already a bridge there, so its [higher and wider] replacement [moved farther north in front of historic residences] would not be a substantial change from existing conditions. Therefore, the visual effect from the new bridge would not be an adverse effect.” The “therefore” based on false representation of the number of contributing and individually eligible historic resources in the district that have views of the Portage Bay Bridge and on the imprecise words “would not be a substantial change” is not earned. **The new bridge’s greater height and width moved farther north in front of more homes added to past and present effects would be a cumulative adverse effect.**

- 174, bulleted list of effects on the Roanoke Park Historic District needs to consider the effects separately of the seven-lane Option A and the six-lane Options K and L and the effects if the building of the lids is deferred in the Phased Implementation scenario, said in the SDEIS to be the most likely scenario.
• 174, last para, third sentence The seven-lane Portage Bay Bridge of Option A is said to be 35 feet wider than the existing bridge. On p 181, second para, first sentence, the six-lane Portage Bay Bridge of Option K is said to be "approximately 35 feet wider than the existing bridge." Which one will be 35 feet wider—the six-lane or the seven-lane?

• 175, second para, third to last sentence “Only a small portion of the district has a view of, and would be visually affected by, the replacement [Portage Bay] bridge” is simply not true. See the itemized discussion of the number and the status (contributing and individually eligible) of resources from which views east are enjoyed above, pp 30–31, in the Construction section of these comments.

• 175, second para The last three sentences repeat the specious reasoning re the wider and higher new Portage Bay Bridge from p 174: the infamous “there is already a bridge there, so its [wider and higher] replacement [moved north] would not be a substantial change from existing conditions” denies the definition of cumulative effects and denies the effects finding of the 2005 Visual Quality and Aesthetics Discipline Report. (“Would not be substantial” is not substantiated here or elsewhere.)

• 175, last para and 176, first para Changes from the second bascule bridge of Option A to the watery setting and feeling of the delicate span of the Montlake Bridge would also be an adverse effect on views of the historic Carl F. Gould Montlake Bridge from the Roanoke Park Historic District and the Portage Bay neighborhood, including unsurveyed historic resources in the Portage Bay neighborhood. Note that residents of these neighborhoods walk down to East Shelby Street to enjoy the most spectacular view of the Montlake Bridge and Montlake Cut that they have partial views of from their own homes.

• 175, third para The Montlake Bridge is a part of the view from more houses than “on 10th Avenue East between East Hamlin and East Shelby Street.” Large, tall houses along the east and west sides of East Shelby Street and at intersections on Broadway Avenue East and the west side of 10th Avenue East enjoy views of the Montlake Bridge as well. Again a diminution of the number and a disregard for the contributing and individually eligible status of historic resources leads to a finding of no adverse effect in a district known for its spectacular views, where spectacular views contribute “substantially” to setting and feeling.

• 175, third para “Although it would affect the setting and feeling of this edge of the district and of these contributing [!] properties, this effect would not be adverse” under-represents the number of affected properties and those that are both contributing and individually eligible. More resources than those at this “edge” of the district would be affected by the adverse effects on views. The finding that “this effect would not be adverse” is not substantiated in any way.
• 177, third para “primarily visible from the rear of houses on 10\textsuperscript{th} Avenue East” condescends to the decks, terraces, living rooms, and upstairs rooms from which the view is enjoyed along the east side of 10\textsuperscript{th} Avenue East and under-represents the number of contributing and individually eligible historic resources from which the view is enjoyed, including many views from the fronts and sides of houses at intersections.

• 177, third para “The width of Portage Bay geographically separates the Montlake Bridge from the Roanoke Park Historic District” seems like an obvious observation. And of course the views across the beautiful waters of the bay and the cut to the delicate span are prized. Is the remark about the geographic separation meant to suggest that the viewer must be on top of the bridge or underneath it or beside it in order to enjoy views of it? The watery expanse before the view of the bridge is part of the charm of the view from one of the neighborhood’s beloved viewpoints.

• 179, bulleted list The following items similar to the bulleted list of operation effects on the Montlake Historic District describe operation effects on the Roanoke Park Historic District and on historic resources, both surveyed and unsurveyed in the Portage Bay neighborhood:
  
  o “Change to setting caused by wider Portage Bay Bridge”

  o “Change to setting caused by new bascule bridge”

  o “Change to setting caused by widened roadway” on East Roanoke Street

  o “Change to setting” by diminution of Bagley Viewpoint and vegetation removal for widening of the SR 520 roadway “resulting in some loss of landscaped buffer” for the Gates-Bass Mansion and historic houses along at least the 2600 block of 10\textsuperscript{th} Avenue East and Broadway Avenue East and possibly more contributing and individually eligible historic residences in the south part of the district

  o Beneficial change to setting from introducing lid over I-5 at East Roanoke Street and over SR 520 between 10\textsuperscript{th} Avenue East and Delmar Drive East—if the lids are constructed. The statement in the SDEIS that the Phased Implementation scenario, with its indefinite deferral of lids, is the most likely scenario throws the prospect of timely lid construction into doubt.

  o To be added: Adverse multiple and cumulative effects on setting from increased noise, air pollution, vibration, and nighttime traffic glare from a wider highway with more vehicle traffic, particularly from operation of the seven-lane Portage Bay Bridge.
• To be added: Adverse secondary, indirect, effects from perceptions of desirability and healthy livability from the direct effects and a consequent change to setting and feeling and characteristic use of the historic district and the historic resources in the Portage Bay neighborhood.

• These effects and others mentioned on pages 4 through 7 of these comments should be mitigated through stipulations outlined in a Memorandum of Agreement.

• 173–174 See the discussion of the 2005 Visual Quality and Aesthetics Discipline Report above for its perspective on the high contrast changes that even a four-lane or a six-lane alternative would lead to. The minimizing discussion and conclusions here are at the very least debatable, out of touch with the very real adverse effects of Option A’s seven-lane-wide and higher Portage Bay Bridge with noise walls, moved farther north, on views from more of the historic resources than those along the east side of 10th Avenue East. Similar adverse effects would result from the wider and higher six-lane Portage Bay Bridge of Options K and L moved north. Correct the information in the passage here, and move the discussion into the following Option A, Option K, and Option L sections.

• The East Edgar Street, East Hamlin Street, and East Shelby Street hills continue to slope at the top of the Roanoke Park Historic District plateau from the east side of 10th Avenue East to the plateau’s high point along Broadway Avenue East. Residents in the large houses at intersections of the Roanoke Park Historic District as far west as the west side of Broadway Avenue East enjoy views east variously including Portage Bay, the historic Fisheries Building, the historic Seattle Yacht Club and marinas, the historic Montlake Cut, the historic Montlake Bridge, Lake Washington, the lights of Bellevue and Kirkland, trees in the foothills, and the Cascade Mountains.

• Houses from which these views may be enjoyed include most obviously the contributing and individually eligible Gates-Bass Mansion at 1018 East Roanoke Street (A and C, Elmer E. Green, 1909) and most of the houses along the east side of 10th Avenue East: the contributing Gifford House (1924) at 2612, the contributing Fish House (1922) at 2616, the contributing Bogue House (1923) at 2622, the contributing Bloxom House (1917) at 2632, the contributing Horner House (1925) at 2636, the contributing and individually eligible Beckwick-Thompson House (A and C,1910) at 2700, the contributing and individually eligible Parshall House (C, Thomas L. West, 1911) at 2706, the contributing and individually eligible Siegley House (C, 1909) at 2712, the contributing and individually eligible Cavanaugh House (C, E. H. Sanders, 1909) at 2722, the contributing Conly House (1916) at 2726, the contributing and individually eligible Mayer House (C, Hunt & Wheatley, 1924) at 2802, the contributing and individually eligible Spencer House (C, Ed Merritt,
1909) at 2808, the contributing Turner House (C, 1903) at 2812, the contributing and individually eligible Richardson House (A and C, Julian G. Everett, 1912) at 2816, the contributing and individually eligible Phillips-Hyde House (C, Huntington & Gould, 1909) at 2822, the contributing and individually eligible Higgins House (A, 1909) at 2832, and the contributing and individually eligible Patten House (A and C, 1909) at 2836. All of these contributing and individually eligible resources would suffer degradation of their views and increased noise from the operation of Option A’s seven-lane Portage Bay Bridge and second bascule bridge, not only from the sight of the massive Portage Bay Bridge, with its increased height and view-blocking noise walls, but also from the impairment by the second bascule bridge of views of the delicate span of the Carl F. Gould Montlake Bridge. (Note that the views east of the Booth and Dalley houses at the south end of the historic district are impeded by trees and other houses.)

- The four houses on the north side of East Shelby Street at its east end that enjoy these views are the contributing and individually eligible Prosser-Dowling House (A and C, Hunt & Jones, 1909) at 912, the contributing and individually eligible Slater House (C, 1910) at 920, the contributing and individually eligible Ross House (A and C, 1912) at 926, and the contributing Dart House (1909) at 1000. On the south side of East Shelby Street, the contributing and individually eligible Twelves House (A and C, Edwin J. Ivey, 1923) at 817, the contributing and individually eligible Denny House (A and C, 1910) at 2838 Broadway Avenue East, and the contributing Sutherland House (1908) at 2837 10th Avenue East also enjoy these views.

- On the north and south sides of East Hamlin Street, the contributing and individually eligible Sullivan-Walker House (A and C, 1899—the oldest house in the district) at 2736 Broadway Avenue East, the contributing and individually eligible Finley House (A and C, 1909) at 2731 10th Avenue East, the contributing and individually eligible Hunter House (A and C, Frederick A. Sexton, 1909) at 2801 Broadway Avenue East, the contributing and individually eligible Johanson House (A, and C, attributed to Cutter & Malmgren, 1909) at 2800 Broadway Avenue East, and the contributing and individually eligible Wentworth-Elliott House (A and C, Merritt, Hall & Merritt, 1910) at 918 East Hamlin Street enjoy these views east as well.

- As do the contributing and individually eligible Neterer House (A and C, Andrew Willatsen, 1915) at 2702 Broadway Avenue East and the contributing and individually eligible Saunders House (A and C, Frederick A. Sexton, 1908) at 2701 10th Avenue East. (Other houses along the west side of 10th Avenue East have partial views of Lake Washington and the Cascades from their high vantage points.)
• All of these historic resources in the Roanoke Park Historic District would suffer permanent damage to setting and feeling and characteristic single-family use from the visual blight, pollution, noise, and nighttime glare at various sites during operation of the project.

Operation, Option A

• 174 Option A, Historic Built Environment head Moving from west to east, discuss the permanent effects of Option A operation on the area between I-5 and Portage Bay, presently omitted. Discuss historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood including the unsurveyed historic resources on the north and south hillsides of Delmar Drive East that would be adversely affected by the permanent operation of Option A’s seven-lane Portage Bay Bridge, higher and moved north, with sound walls, which adverse effects would include visual blight, noise, vibration, air pollution and consequent building exterior erosion and soiling, dusty windows, damage to landscaping from air pollution and vibration, nighttime glare, and the loss and damage of vegetation.

• Note that the east end of the Roanoke Park Historic District, including the contributing and individually eligible Gates-Bass Mansion and the contributing and individually eligible houses along 10th Avenue East would suffer permanent blocking of views south from noise walls on the north and south sides of the Portage Bay Bridge. (See the 2005 Visual Quality and Aesthetics Discipline Report.)

• Visitors to the new, much diminished Bagley Viewpoint would have their views permanently impeded by a ten-foot-high noise wall on the south side of the Viewpoint. (See the 2005 Visual Quality and Aesthetics Discipline Report.)

• Note that the 10th & Delmar lid will end at the current Bagley Viewpoint and that the historic resources in the Portage Bay neighborhood north of the new Portage Bay Bridge, including many as yet unsurveyed houses, would have no buffering from the visual blight, noise, air pollution and consequent building exterior erosion and soiling, damage to landscaping from air pollution and vibration, dusty windows, vibration, nighttime traffic glare, and the loss and damage of vegetation in operation of the seven-lane Portage Bay Bridge of Option A.

• In operation, degradation in Option A of the views for which the Roanoke Park Historic District is noted would have a permanent adverse effect on the Roanoke Park Historic District. Historic resources in the Portage Bay neighborhood, including unsurveyed historic resources on the hills along the north and south sides of Delmar Drive East, in the houseboat community, and along both sides of Fuhrman-Boyer Avenue East would suffer permanent adverse effects on views as well.
• 174, last para second and third sentences Says “The new Option A Portage Bay bridge would be seven lanes wide, with an overall width of at least 108 feet, which is 35 feet wider than the existing bridge.” Check the present width of the Portage Bay Bridge (54 feet?) and check the projected width in Option A of the Portage Bay Bridge. The 2005 Visual Quality and Aesthetics Discipline Report says that the Portage Bay Bridge would be 50 feet wider than the present bridge in the Four-Lane Alternative. The new width of a seven-lane bridge would be much wider than the new width of the Four-Lane Alternative, and the seven-lane bridge would be more than the 35 feet wider than the existing bridge that the Cultural Resources Discipline Report claims here.

• The eventual operation of a massive seven-lane bridge with sound walls, a bridge that will be higher than the present bridge, shifted farther north, and more air polluting causing erosion and soiling of historic resources, would be a permanent adverse effect on contributing and individually eligible historic resources in the Roanoke Park Historic District and on individually eligible resources in the Portage Bay neighborhood.

• None of the contributing and individually eligible properties in the Roanoke Park Historic District are noted in Option A operation effects findings even though they will be adversely affected by the operation of the new Portage Bay Bridge, which in addition to being higher and more than twice as wide with noise walls will be moved to the north in front of more homes in the Roanoke Park Historic District—even though contributing historic resource status and individually eligible property status in the Montlake Historic District are routinely brought to bear on operation effects findings.

• In operation, the second bascule bridge would permanently detract from the delicate span of the Carl F. Gould Montlake Bridge visible from many contributing and individually eligible historic houses in the Roanoke Park Historic District. This view is prized by walkers through the district as well.

• Considering in toto these multiple operation effects and the multiple long-term demolition and construction effects of Option A on contributing and individually eligible resources discussed earlier in these comments one would conclude that the Roanoke Park Historic District would be adversely affected by changes to the setting and feeling of the district and its single-family characteristic use.

• Considering in toto the multiple effects from the operation and construction of Option A on individually eligible historic resources in the Portage Bay neighborhood, one would conclude that these eligible historic resources would be adversely affected by changes to their setting and feeling and changes from their characteristic single-family use. Note that individually eligible historic resources along both sides of Fuhrman-Boyer Avenue East including those in the houseboat community, among the bungalows along East Gwinn Street and historic resources and historic resources along the steep hillsides on the north and south sides of
Delmar Drive East have not been identified in the *Cultural Resources Discipline Report’s* survey of historic resources in the Portage Bay neighborhood.

**Operation, Option K**

- 181, second para Moving from west to east, discuss the effects of Option K operation on the area between I-5 and Portage Bay, presently omitted. Discuss historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood including the unsurveyed historic resources on the north and south hillsides of Delmar Drive East that would be adversely affected by the permanent operation of Option K’s six-lane Portage Bay Bridge, which include visual blight, noise, vibration, air pollution and consequent building exterior erosion and soiling, damage to landscaping from air pollution and vibration, dusty windows, nighttime traffic glare, and vegetation removal and damage. Refer to the discussion above of the 2005 *Visual Quality and Aesthetics Discipline Report’s* findings with respect to adverse effects on views from even the old Four-Lane Alternative and from the wider old Six-Lane Alternative.

- At six-lanes, Option K’s Portage Bay Bridge with no noise walls would not be as damaging in its operation effects on views as Option A’s seven-lane Portage Bay Bridge with noise walls. See the earlier discussion of effects on views from Option A. Six lanes, higher and wider and moved farther north would still have a noticeable effect on views, however. Speak also to the noise reduction effects of the quieter pavement designed into Option K.

- 181, second para Note that the 10th & Delmar lid ends at the current Bagley Viewpoint and that with Option K’s quieter pavement and lack of noise walls the historic resources in the Portage Bay neighborhood north and south of the new Portage Bay Bridge, including many as yet unsurveyed historic houses, might have only modest buffering from the noise and no buffering from the vibration, air pollution, eroding and soiling of buildings, dusty windows, and vegetation removal and damage of the six-lane Option K moved closer to these historic resources. The conclusion that the Portage Bay neighborhood historic resources mentioned in this passage would not suffer an adverse effect from the operation of the Portage Bay Bridge moved closer to these resources seems dubious.

- Option K’s quieter pavement might mean that operation of the six-lane project would have the adverse effect of increased noise from buses and autos—moreso than in the operation of Option A, which includes sound walls. The effects of the two kinds of noise deterrents at bedroom levels need to be studied and included in the *Cultural Resources Discipline Report*. Unlivable historic resources would quickly deteriorate.

- The absence of noise walls and the narrower width of the Portage Bay Bridge would mean that the historic viewsshed would be less damaged in Option K than in Option A (or Option L), but viewers of the roadway in the Roanoke Park Historic District and Portage Bay neighborhood would still experience a high contrast
between the new views and the present views and thus a cumulative adverse effect from the movement of a wider and higher Portage Bay Bridge farther to the north in Option K (and in Option A and Option L).

- Option K’s double tunnel under the Montlake Cut would not have a permanent visual effect on historic resources in the Portage Bay basin. Note that construction of Sound Transit’s deep-bore twin tunnel under the Montlake Cut is underway and that staging, excavation, hauling, and construction effects of this project will last until some time in 2016. Understanding that WSDOT will not mitigate this cumulative effect of the construction of the two projects “because it doesn’t have jurisdiction over another agency,” we do expect WSDOT to coordinate with Sound Transit over the effects of the two projects on historic resources in the Portage Bay basin.

- Option K’s lower profile at most sites along the roadway with the exception of the six-lane Portage Bay Bridge, which even then would have a lower profile thanks to the absence of noise walls, would make it the least damaging option as far as views are concerned.

- The absence of noise walls and the use of quieter pavement, however, might have an adverse effect in the form of noise, vibration, air pollution, and nighttime traffic glare in operation of Option K.

- Taking the multiple construction and operation effects in toto, one concludes that even the least damaging Option K would have an adverse effect on these historic resources and require a Memorandum of Agreement.

**Operation, Option L**

- 185, second para Moving from west to east, discuss the permanent effects of Option L operation on the area between I-5 and Portage Bay, presently omitted. Discuss historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood including the individually eligible historic resources on the north and south hillsides of Delmar Drive East that would be adversely affected by the permanent operation of Option L’s wider and higher Portage Bay Bridge with noise walls, moved farther north, which include visual blight, noise, vibration, air pollution and consequent building exterior erosion and soiling, dusty windows, damage to landscaping from air pollution and vibration, nighttime traffic glare, and vegetation removal and damage. Refer to the discussion above of the 2005 Visual Quality and Aesthetics Discipline Report for its perspective on the high contrast with present views that would be a result of even the Four-Lane Alternative and of Option L’s Six-Lane Alternative moved farther north and with noise walls.

- Option L’s six-lane Portage Bay Bridge with its noise walls would be almost as massive and almost as damaging in its operation effects as Option A’s seven-lane
Portage Bay Bridge. See the earlier discussion of these effects with respect to Option A, and include them here.

- Note that the east end of the Roanoke Park Historic District, including the Gates-Bass Mansion, the contributing and individually eligible houses along 10th Avenue East, and contributing and individually eligible houses at some of the Roanoke Park Historic District’s intersections would suffer view blocking 8-to-10-foot noise walls along the north and south sides of the Portage Bay Bridge.

- Option L’s noise walls would have a permanent adverse effect on views from historic resources in the Portage Bay neighborhood as well.

- 186, first para See discussions of the views and which of many contributing and individually eligible resources in the Roanoke Park Historic District enjoy these views east earlier in these comments (pp 26–29), and change this statement that “only a small portion of the district has a view of, and would be visually affected by, the replacement bridge [the replacement Portage Bay Bridge]. In addition there is already a bridge there, so its replacement would not be a substantial change from existing conditions. Therefore the visual effect from the new bridge would not be an adverse effect on the Roanoke Park Historic District or its contributing elements.” The movement north of the wider, higher bridge with noise walls would affect views from a substantial number of contributing (34 contributing resources, more than a third) and possibly individually eligible (a preliminary count of 26—almost half) resources in the Roanoke Park Historic District that currently enjoy the “expansive” views of “high vividness” that contribute to the setting and feeling as well as the single-family use of resources in the district.

- We object to the minimization of the number of contributing (and individually eligible) historic resources in the district whose desirability would be affected by permanent degradation of these views.

- We object again to the cavalier and oft-repeated conclusion that “there is already a bridge there, so its [wider, higher, with noise walls, moved farther north] replacement would not be a substantial change from existing conditions.” See the 2005 Visual Quality and Aesthetic Discipline Report, which concluded that even a new four-lane or six-lane Portage Bay Bridge with noise walls would appear massive and produce a great alteration to the extent and the nature of views from all sites in the Portage Bay basin.

- Operation of Option L’s second bascule bridge some distance east of the Montlake Bridge would be unlikely to have permanent adverse effects on views of the Montlake Bridge from the historic resources on the west side of the Portage Bay basin. Note, however, that construction of Sound Transit’s deep-bore twin tunnel under the Montlake Cut is underway and that visible and audible staging,
excavation, hauling, and construction effects of this project would last until some time in 2016.

- Option L’s elevated profile at most sites along the roadway would have permanent adverse effects on views from the Roanoke Park Historic District and historic resources in the Portage Bay neighborhood.

- 190, third para, last sentence The new floating portion of the floating bridge is said to be “slightly higher than the existing floating portion.” With a maintenance deck resting on pontoons that rise ten feet out of the water topped by tall columns that are topped by the road deck which in turn is topped by noise walls, the floating bridge would be considerable higher than the current 8 to 10 feet above the water.

- 190, last para on Phased Implementation Scenario “As noted earlier, none of these effects [noise and visual effects] would differ substantially from the existing conditions, and none would be considered adverse” is a flawed a conclusion in this context—even moreso now because of lid construction deferral.

Mitigation, p 191

- 191, first para Refresh the reader’s understanding of direct, indirect, collective or multiple, and cumulative effects here, and refresh the reader’s understanding of the technical meanings of avoid, minimize, and mitigate.

- 191, second para Why the change from “must” to “may” in the second sentence of the passage “Agency officials must provide the public with information about the project and its effects on historic properties, and seek public comment and input. Agency officials may [used to say “must”] involve the public in accordance with the agency’s published NEPA procedures for public involvement in order to comply with this aspect of Section 106.” Which of these obligations and possible inclinations as described is purely discretionary, so much so that “may” rather than “must” is appropriate?

- 191, third para Is data recovery a minimization or a mitigation? Called a minimization here but a mitigation on p 192.

- 192, last para Data recovery called a “mitigation” here. These terms remain fuzzy and should have clear definitions with helpful examples and clear, precise use throughout the Cultural Resources Discipline Report.

- 192, third para "Compensatory mitigation” is used and seems to mean any measure that is not conventional data recovery, at least as far as archeological mitigation is concerned. Is compensatory mitigation open as a mitigation measure for cultural resources and historic resources of the built environment as well? (As on p 193, second bulleted item, in a section on avoiding or minimizing adverse effects on historic properties of the built environment: “Install landscaping or
landscaped buffers to compensate in those areas where buffer zones are being removed or reduced, and where new or relocated traffic lanes intrude on the character of a historic district or the settings of individual historic properties.”

Early installation, during early parts of construction, of landscaped buffering needs to be negotiated in a Memorandum of Agreement.

- 193 second bulleted item Removing buffering vegetation should be delayed as long as possible. Replacing removed buffering vegetation should be an early priority, during construction.

- 194, first bulleted item Clean buildings (and vegetation) periodically and as needed, not just at the conclusion of the long, seven-and-a-half to eight-year project. Also note that operation of more vehicles on the SR 520 highway, on ramps, and exits closer to historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood and on arterials will permanently increase erosion and soiling from air pollution. What can WSDOT do about this adverse effect on historic buildings?

- 194 last bulleted item Say “... and avoid obscuring views of and from historic properties.”

- 195, first para, first bulleted item See replacement this iteration of “positive change” for “beneficial effect” in “These measures have a positive change on the adjacent historic properties by reducing anticipated noise.” Reducing anticipated noise is not a positive change. Reducing present noise would be a positive change. Given the increased size and number of lanes in all alternatives of the project and the lack of good data on noise walls collected at bedroom height and the lack of any information on the ability of quieter pavement to reduce noise coming from this expanded highway project, the statement doesn’t have a sound (no pun) basis.

- 195 In the order established in the document of moving from west to east, speak first of mitigation in the area from I-5 to Portage Bay including North Capitol Hill, the Roanoke Park Historic District, and the Portage Bay neighborhood including the unsurveyed historic resources on the north and south hillsides of Delmar Drive East, in the houseboat community, and along both sides of Fuhrman-Boyer Avenue East. Then speak of mitigation for the Seattle Yacht Club, mitigation for the Montlake Historic District, etc., moving east. Note again that historic resources in the Portage Bay neighborhood’s houseboat community, the potential historic bungalow district along East Gwinn Street from Harvard Avenue East to Fuhrman-Boyer Avenue East, and other historic resources on both sides of Fuhrman-Boyer Avenue East have not been surveyed and included in the APE. And note again that historic resources on the north and south hillsides of Delmar Drive East, which might or might not have been included in the APE, have not been surveyed.
195 first para, fourth bulleted item Lids are designed into the project and are not mitigation. Be sure that lids are described in the Introduction, which seems to be the only place where description of the project is taken up. Not much information on the options is provided there. A construction mitigation measure might include early completion and landscaping of lids to protect historic resources from the long seven-and-a-half-year to eight-year construction project.

A separate letter will follow, containing recommendations for measures to offset the multiple direct, indirect, and cumulative adverse effects that would be visited on historic resources in the Roanoke Park Historic District and the Portage Bay neighborhood by the construction and operation of the SR 520 Bridge Replacement and HOV project.
From: Fran Conley [mailto:fran@roanokecap.com]
Sent: Friday, April 16, 2010 4:01 PM
To: SR 520 Bridge SDEIS
Subject: Additional comment on SDEIS

I would like to add this to the comments of the Coalition for a Sustainable SR 520 on the SDEIS.

I understand that the deadline was yesterday, but this only became available today.
Thank you.

Gov. Gregoire’s statement on City of Seattle’s comments on SR 520 replacement

For Immediate Release: April 15, 2010

OLYMPIA - Gov. Chris Gregoire issued the following statement today on the City of Seattle’s recommendations on the State Route 520 bridge replacement project:

“Delaying 520 is not an option. The forty year old bridge is in danger of sinking in the next earthquake or windstorm and must be replaced. The new bridge will have four lanes plus two carpool and transit lanes to accommodate our region’s current and future transportation needs. When a plan to bring light rail to both ends of the bridge is developed and funded, the new bridge, as designed, will be ready to accommodate it.

“I will not delay the selection of the preferred alternative. We will take all comments into consideration as long as they don’t delay the project—doing so will cost millions of dollars.

“I thank the Mayor and all nine Seattle City Councilmembes for being engaged in the process. I particularly thank the council for their commitment to opening a new bridge on time in 2014.”
Comments Upon the Health Impact Assessment for SR 520, dated September, 2008

Introduction:

“The Puget Sound region has a unique opportunity to build a transportation project that moves people throughout the region while helping to create healthy places to live, work, and play. State Route 520 (SR 520) was constructed in 1963 with little attention to the health problems associated with car emissions, neighborhood disruption, and degradation of the natural environment. Now the region has a chance to correct past oversights and approach the SR 520 Bridge Replacement and HOV Project in a way that embraces the region’s commitment to providing a healthy community for all people.”

Response: This HIA does not reflect these principles. Three general areas of health problems are described; car emissions, neighborhood disruption, and degradation of the natural environment. Of the three, car emissions are the most direct threat to the physical health of the community. The health effects of car emissions are ignored in this HIA.

Who is the community of people affected by traffic control air pollution? A large section of the Puget Sound Community is adversely affected by traffic associated air pollution. While this discussion is currently focused on SR 520, the issues are relevant to all those who live, work, or attend school close to a high traffic volume road. Any road carrying more than 35,000 vehicles per day should be considered high volume. The area, at risk for the adverse health effects of traffic associated air pollution extends out 300 meters from the center of each of those roads. Potentially 30% of the population of Puget Sound is at risk for adverse health effects. The exposure and risk of traffic associated air pollution is potentially greatest near the junction of two or more high volume roadways. SR 520 currently carries approximately 100,000 vehicles daily, I-5 and I-405, 200,000 vehicles per day.
This SR 520 HIA provides no specific evidence for a net reduction in traffic controlled air pollution over current levels. The SR 520 HIA provides no evidence that the vehicle volume will not continue to grow, particularly if added width is used to widen present single occupant vehicle capacity.

The SR 520 offers no plan to measure traffic associated air pollution in the areas most likely to be affected.

There are proven public policy measures that do reduce traffic associated air pollution. These measures are in general disincentives for the use of the single occupant, gasoline fueled vehicle. Measures which are of proven effectiveness include reduction in available lanes for the single occupant, gasoline fueled vehicle, high gasoline taxes, road and bridge tolls, and high urban parking rates.

There is no evidence that traffic associated air pollution is good for the health of the population or that the risk is insignificant. An increasing body of evidence suggests that traffic associated air pollution results in increased health problems and death. So what is the argument?

The argument is that the economic plight of this community is such that people must have access to their cars to travel to work even though the resultant air pollution will adversely affect the health of citizens in ways which include premature death. Is there no other way that people can reach their jobs?

Further, the argument is that the economic plight of Puget Sound is so great that we can ignore the effects of increasing CO₂ emissions upon global warming and the adverse effects upon the rest of the world.

Furthermore the argument is that opponents of the proposal are the sole cause of “analysis paralysis” in asking that the citizens of Puget Sound be provided with answers to relevant issues such as the impact of traffic associated air pollution on Puget Sound citizens.

And still further the argument is that there is a real threat the SR 520 bridge will fail.
The planners need to remain aware that the Coalition for a Sustainable SR 520 is not opposed to the construction of a new bridge using funds already allotted to that project for the replacement of the existing span. The Coalition favors the replacement of the central span with existing funds.

DEFINING HEALTH HAS CHANGED.

Response: While true that the definition of health has changed according to the WHO criteria cited (1946), at its core, health remains focused on the opportunity to develop physically and mentally to our full potential. Health is furthermore the right to live in an environment in which hazards of air and water pollution are recognized, acknowledged, measured and kept within safe limits through responsible public policy. In the case at hand this responsibility begins with the recognition of the risk of air pollution associated with the uncontrolled reliance upon the automobile to move goods and people throughout Puget Sound.

“Seen in this broader context, the SR 520 Project can be designed to support alternatives to the automobile, to reduce emissions that cause pollution, to create community connections, to provide amenities that improve mental well-being, and to contribute to a visually stimulating environment. All these actions help enhance individual health and contribute to health communities.”

Response: The general goals outlined above give rise to the following questions:

1. What avenues were explored to find alternatives to the use of the automobile?
   a. What funding was requested for this purpose? What funding was provided? For what grants were applications made?
   b. What instructions were WSDOT planners given to explore alternatives to the automobile by senior managers or outside supervision?
c. Was Rapid Bus Transportation (RBT) along the lines of the Bogota', Colombia system considered? If so, who participated in the discussion and what were the conclusions?
d. Was light rail considered? If so who participated in the discussion and what were the conclusions?
e. More specifically what were the guidelines given to WSDOT regarding the balance between automobile and high occupancy public transportation and by whom?
f. Were health considerations of vehicle travelers and surrounding citizens considered in weighing the balance between single occupant vehicles and other forms of transportation? What data was considered regarding the potential adverse effects of traffic associated air pollution, on chronic respiratory illnesses, the development of asthma particularly in children, the development of heart disease, the development of cancer, the effects upon the development of children, the particular vulnerability of older people, and the risk to pregnancy. Who presented that data? Who sat in judgment of the data within WSDOT? Who evaluated that data in the preparation of this document SR 520 HIA? The SR HIA contains the names of highly respected experts in the field of Public Health. What is not clear is the role they played in the preparation or the approval of the SR 520 HIA document. It is not clear that the final document is a representation of the advice that they provided. Who ultimately is responsible for the content of this document?
g. In consideration of alternatives to the automobile what opinions were sought outside of WSDOT, from other State of Washington, King County, Bellevue or other Eastside Agencies? What national and international consultation was obtained to consider solutions to the SR 520 project that have been tried elsewhere?

2. What is the evidence that any of the SR 520 proposals will reduce traffic associated air pollution?
a. The document reflects a lack of understanding of the concept of “to reduce emissions that cause pollution.” The only conjecture offered is that elimination of standing, idling traffic will reduce the emissions of a single vehicle. There is no consideration of the effect of SR 520 upon the emissions per person transported or per unit of goods transported or of the total effect upon emissions of building a highway with greater capacity and leaving the volume of traffic unregulated. Why does not the effect of SR 520 decisions upon climate change enter into the equation?

b. How can WSDOT and the authors of the HIA SR 520 provide assurances that the plan will reduce traffic associated air pollution without making provision for measurement of such emissions at intervals within the 300 meter zone expected to be affected (the HIA seems to prefer “emissions that cause pollution over traffic associated air pollution” for some reason)?

c. Please describe the location of instruments used to measure traffic associated air pollution to include distance from the center of the highway, the traffic volumes currently associated with those highways. Include the measurements taken, the frequency of those measurements, and the method of arriving at the levels reported (i.e. method of determining the mean or other value used.) Include the measurements taken?

d. Please describe how emissions will be monitored going forward.

e. Describe whether or not emissions are being measured at the junction of two or more high use roads (greater than 35,000 vehicles per day). If not describe the reasons for not doing so.

f. Current evidence suggests that the health effects of traffic associated air-pollution are a function of the age and underlying state of health of citizens, of the vehicular volume on a given road, of the composition of vehicles (i.e. how many diesel propelled vehicles), HOV use, RPT use, and light rail use, distance from the center of the road, height of a person relative to the road, and local climate and geography relative to the road. Furthermore the
duration of exposure through the day and over time may be important. Please describe whether the authors of the HIA have taken these factors into consideration and the conclusions reached.

g. What emission standards of traffic associated air pollution does WSDOT adhere to and did the authors of the SR 520 use as benchmarks?

h. Does SR 520 meet current EPA standards for traffic associated air pollution? Please cite the measurement levels and locations in responding to this question.

i. Does EPA specify where measurement of those standards should take place relative to the center of the roadway, what traffic volume roadway must be measured, and the conditions of measurement relative to peak volume etc?

j. Which roadways have required measurement of traffic associated air pollution in the Puget Sound area?

k. Who does the measurements required by the EPA?

l. Are there any specific types of epidemiologic data relative to the relationship between highway associated air pollution and illness with possible death that WSDOT or the preparers of the SR 520 reject from consideration as invalid? If so, please explain why?

m. Current published traffic associated air pollution data appears to be lacking in the SR 520 area, particularly gradients within the zone lying within 300 meters of the highway and at the confluence of two or more high volume highways. Is such data available? If not, describe the thinking on this matter? Is the apparent lack of data due to economic or other constraints? Please specify.

n. The authors of the SR 520 HIA did not include analysis of the various design proposals for the project at the time of publication. At this time those proposals are available and such an analysis seems mandatory? Are there plans to provide the public with such an analysis particularly in regard to the relative traffic associated air pollution that might be expected from each of the original three
proposals. Please include an analysis of any additional proposal that has been sent out to bid.

3. What is the evidence that the SR 520 proposal will create community connections? The responses on this document are focused upon the direct, measureable effects upon physical and mental health. WSDOT and those responsible for the SR 520 HIA are referred to the responses of others for those comments. The concern here is that “community connections” may be offered here as substitutes for acknowledgement of direct health effects which are negotiable desirables and not mandatory features of the plan.

4. What is the evidence that the SR 520 proposals provide amenities that improve mental well-being? The response here is the same as to question 3 with the additional comment that noise is likely to have a direct adverse effect upon mental health which through physiologic responses may cause long term adverse affects upon physical health, particularly hypertension, cardiomyopathy, and coronary artery disease. Did the authors of the HIA proposal consider this data and if so what were their conclusions? What standards of noise measure does WSDOT and the author’s of this SR 520 adhere to?

5. What is the evidence that the SR 520 proposals contribute to a visually stimulating environment? This area while important is not the focus of this document.

Defining Transportation Has Changed:

“The four-county Puget Sound region will gain two million people in the next 50 years, and while roads cannot accommodate all of these people, a transportation system that moves people and not just cars will be better equipped to meet their needs. In addition, a shift in how people travel is already occurring because of the rising cost of gasoline, concerns about global climate change, and the increasing use of non-motorized transportation. These changes are occurring at the same time that 76 million baby boomers reach retirement age and telecommuting and other work alternatives become more common. National reports indicate that
American are driving fewer miles, consuming less oil and using transit more. This supports the need to redefine how to plan transportation systems.”

Response: Here is a missed opportunity to consider the options for adopting transportation policies that effect climate change. Here is a missed opportunity to describe and consider the merits of various options.

It is stated that Puget Sound will grow by 2 million in the next 50 years. Other estimates have stated that the population of Puget Sound will grow by 30% by 2020.

What is the goal envisioned by planners: reducing the emissions associated with movement of individuals or goods per unit? From the global perspective a higher, more appropriate goal is to reduce the region’s emissions absolutely. Current thought suggests that with the will, such a goal is attainable. Switching to non CO₂ producing energy sources requires that will in terms of acceptance of change and the necessary capital expenditures. Many jobs should arise from this change.

The SR 520 HIA refers generally to national data that people are driving fewer miles. While this is hopeful it is unclear whether this reflects the downturn of the economy or a willeful switch to alternative travel and transportation. More interesting is the SR 520 data from 2006 through 2008 suggesting a small downturn in vehicular traffic. What does this represent: loss of jobs in the area, policies of large corporations such as Microsoft to encourage travel to and from work with alternative means of transportation instead of the single occupant vehicle, individual decisions resulting from SR 520 gridlock, or fear of SR 520 collapse? What has happened to bus ridership over the same period? What is known about the trends in people working by computer from home?

The authors note that current trends support the need to redefine how to plan a transportation system. Please describe how the information provided altered the current SR 520 Project planning process which is similar in concepts to the planning for the 1963 bridge designed primarily to meet the perceived needs of private vehicular traffic.
Please describe how the SR 520 HIA was used in the decision making process to choose the A+ option. Describe calculations estimating the medical morbidity and mortality associated with the A+ option as compared to other options. Describe the calculations used in estimating the effect of the A+ option upon traffic associated air pollution and particularly upon CO2 emissions.

Reduction in CO2 production and other traffic associated air pollution is brought about by educational processes and by applying disincentives to travel and transportation by gas powered vehicles. Please describe efforts by the State of Washington to educate the population about these issues. Please describe any efforts to measure the effects of such educational efforts. Please clarify the issue of how federal dollars are supplied for highway construction. Is the number of vehicular miles traveled within Washington (VMT) used in issuing federal dollars? If so does not source of funding represent a conflict of interest for WSDOT in planning for alternatives to automobile transportation? Please comment.

“In the August 2006 SR 520 Bridge Replacement and HOV Project – Draft Environmental Impact Statement, the Washington State Department of Transportation (WSDOT) proposed many excellent infrastructure elements (e.g. landscaped lids, pedestrian and bicycling connections, visual design elements, and transit facilities) that would reduce vehicle emissions, create opportunities for physical activity and reconnect communities. The SR 520 mediation process and alternatives being considered continue to include these elements. To embrace the opportunity for creating healthy places to live, work and play, it is critical that these elements be made integral to the project and not viewed solely as mitigation or expendable amenities. This report presents the findings of the health impact assessment report and recommendations that can be incorporated into the mediation process and impact plan. These elements along with other discussed in this report would contribute to creating healthy communities for generations to come.”

Response: The above statement is deaf to the health consequences of traffic associated air pollution. As the financing of the SR 520 project is currently
inadequate it is unlikely that all of the above amenities will survive the budget process. In such a situation what are the plans to weigh the merits of each proposal? Please describe the economic analysis used in making the necessary choices. Is there economic consideration being made for traffic associated morbidity and mortality? What is the cost to State to care for additional cases of asthma, chronic lung disease, hypertension, heart attacks, additional cancers, and complications of pregnancy? What is the economic consideration of years of lost productivity to a family or the premature loss of life? What is the economic cost of paying for the consequences of continued dependence upon oil productions to move services and goods in the present manner?

THE REPORT: “The report explains how a transportation project can affect health and what measures can be taken to avoid unfavorable community health consequences.”

RESPONSE: The report does not describe who is affected, how many are affected, nor discuss the data in such a way so as to allow Puget Sound citizens to know if they themselves are potentially affected or the affects of their driving habits on the health of others.

The measures that might mitigate community health consequences are not listed in such a way as to permit informed choices. The necessary background information is lacking.

“The goal for this report is to help the SR 520 Mediation Group, WSDOT, and the Washington Legislature evaluate the alternatives based upon their potential health impacts.”

RESPONSE: How will this goal be reached? The extent of health impacts is not quantified in terms of pollutant level or of adverse health effects at present. There are no projections of traffic and pollution by adopting any of the alternatives. The SR 520 Group has been painted as obstructionist. Examples of responsiveness of WSDOT to SR 520 Mediation Group concerns are lacking. Where are health impacts discussed in quantitative terms?

“WSDOT, Sound Transit, and King County Depart of Transportation are the primary agencies responsible for implementing the recommendations, but other agencies and municipalities, such as the University of Washington and the City of Seattle are necessary partners.”

RESPONSE: Please describe how these entities function together, in what forum and how decisions are made. How are differences in opinion resolved?

“Community participation in the SR 520 Project has been part of its long planning history and continues today with the mediation process.”
RESPONSE: If there is a mediation process who is the mediator and what are his/her powers? Have the affected jurisdictions considered bringing in an outside mediator with national experience in planning such effects?

EXECUTIVE SUMMARY:

RESPONSE: The authors mention the impact of chronic disease on health in the 21st century. They would better serve the public interest in this document by restricting their comments to the impact of traffic associated air pollution upon citizens of Puget Sound.

"It is clear from research that public projects impact health."

RESPONSE: How are drivers and persons located near highways, (specifically SR 520) affected by present roads and the impact of the roads planned? Tell us the likely effects of mitigation outlined in the proposal. Tell us the relative benefits of mitigation relative to the encouragement and development of alternative means of travel. Tell us why proven measures to mitigate adverse health effects are not discussed.

WASHINGTON GOVERNOR AND LEGISLATURE MANDATE HEALTH IMPACT ASSESSMENT:

In 2007, Governor Gregoire signed Senate Bill 6099, a legislative directive to develop a SR 520 interchange design and plan for the Westside of Lake Washington through mediation for a more reliable replacement of the existing SR 520 Bridge. The directive also asked Public Health – Seattle and King County and the Puget Sound Clean Air Agency to conduct a health impact assessment (HIA) of the SR 520 Bridge Replacement and HOV Project, focusing on air quality, greenhouse gas (GHG) emissions, and other public health issues, with final recommendation to be incorporated into the Mediation Group’s Project Impact Plan. The HIA research and the following report indicate that choosing the right set of features for the SR 520 Project – regardless of which of the three plans under consideration is adopted – can contribute significantly to improving the health of people in communities adjacent to the corridor and the livability of their neighbors.

RESPONSE: The literature of health effects associated with traffic-associated air pollution raises issues not addressed in the HIA report. Goals are not set for limiting air pollution and greenhouse emissions. There is money available for the necessary replacement of the central SR 520 span. That should happen while discussion of the issues of connecting to East and West side highways in a manner that will protect the health and well-being of East and West side citizens continues.

WHAT IS A HEALTH IMPACT STATEMENT?
“A HIA is a tool to help decision-makers recognize the health consequences of the decisions they make and provide a healthier living environment. HIAs use a combination of procedures and methods by which a policy or project may be evaluated regarding its potential effects on the health of the population and the distribution of those effects within the population. A HIA is much like an Environmental Impact Statement, but it focuses on population health.”

RESPONSE: Please describe the combination of procedures and methods by which the potential effects on the health of the population are described.

1. What measurements were made of traffic-associated health pollution and the state of health of persons living, working, or going to school in the zone of potential effects on the East and West side?
2. Describe the projected change in total greenhouse gases and traffic associated air-pollution over the projected live span of the SR 520 bridge.

Historically it is unlikely that high occupancy vehicle lanes are converted to more dense, efficient traffic conduits. For example if an HOV lane is designated for 2 person occupancy and buses, it is unlikely that it will be converted to 3 person occupancy, bus only or light rail systems.

3. Please compare the relative effect upon Greenhouse emissions and traffic associated air-pollution if added capacity were make available only to rapid bus transport or light rail from the beginning.
4. Please compare the relative effect upon Greenhouse emissions and traffic associated air-pollution if additional capacity were used for rapid bus transport or light rail versus used for 2 occupant HOV with mitigation by trees and some liding.

“In the early steps of the SR 520 HIA, analysis identified nine health focus areas for research, including air quality, a water quality, green space, physical activity, noise, mental well-being, safety, social connections, and emergency medical services.”

RESPONSE: This response focuses on air quality and related health effects. Where is the research to which reference is made in the above paragraph? Of the nine elements what are the most important areas to the HIA response committee?

RECOMMENDATIONS:

“The SR 520 bridge Replacement and HOV Project Draft Environmental Impact Statement published in August 2006 proposes many excellent elements that would contribute to a healthy community. These elements include pedestrian
and bicycling amenities, transit improvements, design improvements, landscaped lids and green spaces, and noise reduction strategies.”

**RESPONSE:** Is reduction of traffic-associated air pollution on equal footing with bicycling amenities?

“No single action will solve our chronic disease challenges. Multiple actions are needed to create healthy communities. For this reason, it is critical that these elements are integral to the project and that they are supported, despite challenging budget times, for optimal health effects.”

**RESPONSE:** Optimal health effects within the communities within the zone of influence of traffic associated air pollution are the result of recognition of the health effects of traffic-associated air pollution, good planning for the use of transportation corridors, individual health habits within the zone, and adequate health care delivery services. All are important. The factor most readily affected by the SR 520 project is the control of traffic associated air pollution. That should be the primary focus of this document. Sadly it is not.

**TRANSIT, BICYCLING AND WALKING:**

“1) Increase and improve transit service to meet increased demand, attract more riders, and reduce air pollution.”

**RESPONSE:** The ideas presented in this HIA do nothing to curtail the inevitable increase in traffic-associated air pollution. Six landscaped lids are of unproven ability to control the traffic associated air pollution already existing along SR 520 and other high occupancies highways in Seattle. What chance to these lids have against the anticipated population rise in Puget Sound uncontrolled by policies designed to limit use of automobiles and provide rapid bus transport and light rail options?

The communities surrounding SR 520 should require four elements:

1. measurement of current levels of air pollution in appropriate places using appropriate methods
2. Data proving the effectiveness of the lid designs proposed.
3. Assurances that traffic planning will limit traffic associated air pollution to the design limits of those lids.
4. Treatment of mitigation strategies as mandatory

**Project Guiding Principles:**

- Ensure health elements are integral to the project plan.
Support all recommendation in difficult budget times for optimal health benefits.

RESPONSE: Lacking the four points above the Guiding Principles lack the reassurances necessary for support of the project by surrounding communities.

Health Impact Assessment Background:

“The SR 520 Replacement and HOV Project have the potential to affect the health of individuals and communities from the beginning of construction through its entire existence.

The SR 520 Health Impact Assessment (HIA) examines these effects from a human health perspective. An example is the effect that environmental pollutants have on human health, such as toxic air emissions’ link with cancer. This is a different focus than examining and mitigating environmental impacts.”

RESPONSE: The SR 520 HIA here acknowledges potential effects of toxic air emissions (referred to in this response as traffic associated air pollution). However the HIA never examines this potential.

GOAL OF SR 520 HEALTH IMPACT ASSESSMENT:

“The goal of the SR 520 HIA is to protect public health by raising the awareness of the Mediation Group and other decision makers about the relationship between health and transportation systems. This will help ensure health consequences are considered in their decision-making process for the development of an environment that supports health people and communities.

RESPONSE: As stated in other responses

1. The SR 520 HIA fails to present data relating health and transportation systems.
2. Adequate measurements of traffic associated air pollution are not presented and raise questions as to whether they are available.
3. No data is presented regarding the health of communities likely to be affected by SR 520 or any heavily used highway in the region.
4. There is no significant review and criticism of the literature pertaining to health and transportation raising the question as to whether authors are familiar with the data available accumulating over a number of years.

“This section of the report outlines the HIA procedures and health focus areas investigated, then moves on to the recommendations that A Puget Sound Clear Air Agency and Public Health – Seattle & King County put forth to the Medication Group for Review.”
RESPONSE: Restricting the focus to health and transportation systems please respond to the following questions:

For Puget Sound Clean Air Agency:

1. Describe current practices for measurements of particle air pollution within 300 meters of highways carrying more than 35,000 vehicles daily. Specifically describe the methods of measurement within that zone as to distance from the center of the highway, what particles are measured, and in what form the data is summarized over periods of time.
2. Describe current practices for measurements of volatile compounds within 300 meters of highways carrying more than 35,000 vehicles daily.
3. Please describe the results of these measurements of a period of time when the traffic volume has been growing.
4. Please make special note of population areas at the confluence of large traffic systems such as SR 520 and I 405 and SR 520 and I 5.
5. Please describe who is making such measurements and where such data is available for public inspection.

For Public Health – Seattle and King County

1. Describe any data available on the health of individuals living, working, or attending school within 300 meters of any highway carrying greater than 35,000 vehicles per day within the Puget Sound region.
2. Is any such data available for the SR 520 corridor on the East or Westside of the bridge?
3. Specifically describe data or plans to acquire data at the confluence of highways carrying more than 35,000 vehicles daily.
4. Please provide references to literature covering the questions cited above.
5. Is the data requested provided in unpublished data and available for review?
6. If no data is available on the health of individuals living, working, or attending school within 300 meters of any highway carrying greater than 35,000 vehicles per day, what literature from other cities was used to evaluate the health effects of traffic associated air pollution in developing the HIA statement?
7. Specifically please relate the opinions reached as to the relevance and quality of the literature suggesting an association between traffic associated air-pollution and asthma, retarded lung development of lung capacity in young children, complications of pregnancy, higher incidence of hypertension, higher incidence of Cardiomyopathy, higher incidence of myocardial infarction, and an increased risk of developing various kinds of cancer.
DEFINING HEALTH:

“The long-term goal of Public Health – Seattle and King County and Puget Sound Clean Air Agency is for the SR 520 corridor design to support health people and health, sustainable communities. “

RESPONSE: This section is so general as to be meaningless. The highest priority of the SR 520 plan must be to protect the health of citizens who live, work, and go to school within the range of 300 meters. The population of all those who live within 300 meters of all highways with large vehicle volumes (>35,000) need to be reassured that environmental conditions resulting from traffic associated air pollution are not going to give them at risk for a serious health condition affecting the heart, lungs, their pregnancies, nor put them at risk for a variety of cancers. No amount of walking, bicycling, or other individual lifestyle choices can be expected to overcome the effects of traffic associated air pollution.

THE HEALTH IMPACT ASSESSMENT MANDATE:

“Senate Bill 6099, passed by the Legislature and signed by Governor Gregoire in 2007, directed the Office of Financial Management to hire a mediator to work with interested parties directly affected by the SR 520 Bridge Replacement and HOV Project (SR 520) to develop a SR 520 interchange design and plan for the Westside of Lake Washington. This plan (due December 2008) is to address the effects of the project on Seattle neighborhoods and parks, including the Washington Park Arboretum, and institutions of higher education. The bill also directed Public Health – Seattle & King County and the Puget Sound Clean Air Agency to conduct a HIA of the SR 520’s effects on air quality, greenhouse gases (GHG), and other public health issues, with recommendations to be incorporated into the mediation project impact plan. “

RESPONSE: The HIA of SR 520 does not describe the effect of present or future traffic effects upon air quality. The HIA of SR 520 does not address the health hazards of the existing SR 520 bridge nor does it outline a method by which future impacts may be measured. Mitigation of traffic associated air pollution is not quantified nor guaranteed in the present Westside proposal for the Westside of Lake Washington.

WHAT IS A HEALTH IMPACT ASSESSMENT?

“HIA is a combination of procedures and methods by which a policy or project may be judged as to its potential effects on the health of the population, and the distribution of those effects within the population. It is a tool to help decision-makers recognize the health consequences of the decisions they make so they can contribute to a healthier living environment. HIAs have been used widely internationally, in places such as Europe, Canada, and Australia. HIA methodology is still evolving in the United States. Because the nature of the action being
analyzed influences the HIA, detail in these assessments can vary from a simple checklist to a more extensive review of research and other relevant information. HIA strives to anticipate potential consequences for decision-makers and to deliver a set of recommendations intended to minimize and maximize health benefits. “

RESPONSE: The issue is not what an HIA ought to be but rather the data showing the present state of health of those affected by the present SR 520 and how plans for a new HR 520 are likely to affect green house admissions and the health of the surrounding communities. “A simple checklist” is not an adequate response under circumstances where the health and lives of citizens are at stake.

HEALTH IMPACT ASSESSMENT PROJECT AREA DESCRIPTION:

“The HIA focused on the project design mandated by the Legislature in which the SR 520 will be a 4 + 2 configuration – six lanes, with two general-purpose lanes and one carpool lane in each direction. The bridge will be designed to withstand major earthquakes and windstorms up to 95 mph. The new SR 520 will have increased transit serviced that will make bus trips more frequent and reliable. It is also planned to have a bridge pathway for walking or bicycling across the lake, shoulder lanes to keep traffic flowing in the event of stalled vehicles, and new interchanges to reduce traffic impact on communities near the corridor. “

RESPONSE: Simply stated, the health of the surrounding communities is not taken into consideration. Effects on global warming are not considered.

THE WORK OF THE SR 520 MEDIATION GROUP

“The 33-member Mediation Group representing parties interested in the SR 520 Project began meeting in September 2007. Since that time, it has developed three design alternatives specific to the Westside – known as A, K, and L – for further evaluation in the SDEIS”

“The three alternatives are similar in many ways, except for how the Westside interchange is designed and the consequent cost of construction. The health impact differences are difficult to estimate until the specific designs are developed. For these reasons SR 520 review focused on a broad view of the SR 520 Project’s design features (including the alternatives’ common elements” as indicated in the Senate Bill 6099. The specific design decisions have have important implications for individual and community health.”

RESPONSE: A broad view of the SR 520 HIA Project’s design features does not meet the need of citizens to be informed about the health risk of present and future SR 520 traffic-associated air pollution. The HIA is its present form is not responsive to the needs of citizens and those making decisions about the project.
THE RESEARCH STEPS

1) “SCOPING: to identify health focus areas to be researched in the analysis: Through a review of previous HIA reports, the SR 520 DEIS*, and public and Mediation Group comments, the SR 520 HIA team selected the following nine health focus areas to review air quality, water quality, green space, physical activity, noise, mental well-being, safety, social connections, and emergency medical services.”

2) “ASSESSMENT of how population health could be affected by the transportation project: As the HIA progressed, literature and report reviews and discussions with stakeholders were summarized in background papers for the nine health focus areas. A greenhouse gas analysis was also completed. These reports demonstrated that the initial focus areas were highly interrelated and connected.”

RESPONSE: the literature reviews are superficial, failing to summarize what is known about the health of those located near SR 520, failing to point out the deficiencies in that data assessing both the health and the traffic associated air pollution, failing to document the effect of increased single vehicle traffic in the SR 520 corridor, and failing to provide best estimates of the possible positive effects of utilizing extra lane capacity for Rapid Bus Transport or Light Rail.

3) “RECOMMENDATIONS: Development to identify project features that benefit population health: The recommendations were organized into the following critical health elements: Construction Period; Transit, Bicycling and Walking: Landscaped lids and Green Spaces; and Design Features: Specific recommendation were then developed within each of these categories.”

RESPONSE: Project features benefiting project health are submitted with no data indicating effectiveness. Features which might effectively benefit health such as rapid bus transport or light rail or features designed to curtail single occupant vehicle transport are ignored.

4) “REPORTING: of the assessment findings and recommendations to the Mediation Group and other decision makers through this report

“The general premises used when review the areas were:

AIR QUALITY – Clean, health air is important for public health, quality of life, and climate protection.

RESPONSE: Why is this comment made when so much useful data for the public is lacking?

Health Impact Assessment Recommendations

Transit, Bicycling, and Walking
Introduction

“Increasing and improving transit service and providing bicycling and walking facilities in the corridor will provide multiple health benefits by reducing greenhouse emissions and other air pollutants through the use of alternative to single-occupant vehicles, increase opportunities for physical activity, and improved social connections.”

RESPONSE: Please respond to the following questions?

1. Project the total greenhouse admissions 5 years after completion of the SR 520 project using the plan proposed as compared to the present greenhouse admissions, and as compared to the greenhouse admission of SR 520 using the HOV lanes for Rapid Bus Transport or Light Rail.

2. Describe an example from anywhere in the United States where a similar project with four lanes of uncontrolled traffic and 2 lanes for HOV occupancy was later converted changed from HOV occupancy to Rapid Bus Transport or Lite Rail.

3. Compare the effect upon total traffic associated air pollution and greenhouse gas admission between building biking and walking facilities and using addition bridge capacity exclusively for Rapid Bus Transport or Light Rail.

AUTOMOBILES, TRANSIT, BICYCLING AND WALKING AND AIR QUALITY

The concepts introduced in this HIA make no effort to estimate the net effect on pollution and carbon dioxide production in each of the alternative plans and furthermore in some of the even larger solutions sent out to bid. It is fine to assert that Americans are driving less but there is no connection between that assertion and current A+ version of SR 520. It is disingenuous to assert that there is a connection.

The authors pride themselves on the “. . . proposed many excellent infrastructure elements (e.g. landscaped lids, pedestrian and bicycling connections, visual design
elements, and transit facilities, that would reduce vehicle emissions, create opportunities for physical activity and reconnect communities.” There is no reality to these statements. There are no measures to control use of gas consuming vehicles, no priority to alternatives to gas-powered vehicles and in particular no priority to the development of light-rail. Many of the so-called infrastructure elements are already under siege by cost cutting initiatives which will to downgrade the importance of protection the health of the surround affected population. The report states that “... it is critical that these elements be made integral to the project and not be viewed solely as mitigation or expendable amenities.” This is a promise already reneged upon.

The Report: “The report does not recommend one alternative over another since it is difficult to differentiate among the alternatives until the specific designs are developed.” Specific designs have now been developed and even larger proposals put out to bid. No comparison between alternatives in terms of health protection for those living near SR520. That analysis is past due.

“The goal for this report is to help the SR 520 Mediation Group, WSDOT, and the Washington Legislature.” The role of the SR Mediation Group has been undermined by the recent statements of the governor pressing for cessation of the mediation process and negating the stated goal of the report. Please cite any available examples where WSDOT has responded with proposals incorporating concepts introduced by the legislature or the SR 520 Mediation Group in their planning process.

How is it that when “This HIA is the latest in a series of coordination, collaboration, and partnership efforts to successfully complete the SR 520 Project. The measures recommended will require continued coordination, collaboration, and partnerships.” If there is in fact such coordination why is there no effective connection between the University Washington light rail station and mass transportation systems across SR 520? Community participation in the SR 520 project has been effectively proscribed by the recent statements of the governor.
“It is clear from research that public projects impact health.” Yes, it is clear that the current form of SR 520, an open invitation to more traffic and air pollution will affect health, negatively.

**What is a Health Impact Assessment?**

“A HIA is a tool to help decision-makers recognize the health consequences of the decisions they make and provide a healthier living environment.” How is this HIA which fails to compare alternatives, fails to make mitigation a requirement, and fails to prioritize mass transit is carrying out its mission.

**EXECUTIVE SUMMARY:**

Paragraph one is redundant

**Washington Governor and Legislature Mandate Health Impact Assessment:** Senate Bill 6099 mandated the preparation of an HIA. It did not mandate that its spirit would be carried through to the end of the process. At this point it is an empty promise.

How can the HIA focus on air quality and greenhouse emissions without presenting any data regarding present air quality and greenhouse emissions or projections about the effects of each of the three alternatives upon future changes? No relevant measurements have been presented from the impacted areas particularly in areas affected by the junction of two large highway systems on both sides of Lake Washington.

**What is a Health Impact Assessment?** Between 10 and 30% of the population of greater Puget Sound areas are potentially impacted in terms of their health by traffic associated air pollution. These citizens have a right to expect that an HIA will help them to make an intelligent choice between alternative proposals and between choosing to ride in their automobile or on one of several mass transportation systems. This report does not provide this information.

**Recommendations:** “The SR 520 Bridge Replacement and HOV Project Draft Environment Impact Statement published in August 2006 propose many excellent elements that would contribute to a healthy community. These elements include
pedestrian and bicycling amenities, transit improvements, design improvements, landscaped lids and green spaces, and noise reduction strategies." I doubt that anyone living within the shadow of any highway in Puget Sound would trade a significant reduction of air-traffic associated pollutants for the uncertain benefits of the amenities mentioned above. There is no reason why all the mentioned elements should not be included in the proposal as necessities.

Health Impact Assessment for HR 520, written in September, 2008 acknowledged a broad list of potential impacts on the health of the affected communities.

While acknowledging the potential impact of highways about the quality of life in a city, the reports fails to consider specific health issues:

1. The direct effects of highway traffic associated air pollution upon the health of citizens who live, work, and attend school in the vicinity of highways. Specific entities for investigation include chronic diseases such as asthma, chronic lung disease, heart disease, pregnancy complications and cancer.
2. The potential reduction of exposure to traffic pollutants possible by substituting non-automobile means of transportation the transport of goods.
3. The potential difference in traffic associated air pollution associated with each of the proposed design solutions to SR 520, for example 6 lanes of automotive traffic as opposed to 4 lanes of traffic with two lanes of high occupancy vehicles as opposed to two lanes of traffic and 4 lanes of high occupancy vehicles as utilized in Bogota, Colombia.
4. The potential effects of processes such as lid ding upon the exposure of citizens to air traffic pollutants.

The report does not acknowledge that the health risks of highways in an urban environment are related to distance of an individual from that highway, local weather and geographical patterns, and the length of time exposure.
The report does not acknowledge recent research that implicates traffic associated air pollution in a higher incidence of asthma, a higher incidence of coronary artery disease, and a higher incidence of cancer.

The report does not acknowledge that there are specific age-groups that are likely more vulnerable to the effects of traffic associated air-pollution.

**Specific Recommendations Regarding the Assessment of the Health Impact of SR 520 at this time.**

1. Place a specific cap on the number of car - miles that will be accommodated upon Seattle highways, roads and bridges.
2. Plan for alternative means of transportation for the anticipated growth in population.
3. Assign a dollar value for the morbidity and death of individuals so that the mortality and morbidity associated with automobile accidents and air pollution might be more rationally weighed against the initial costs of highway and SR 520 design features which mitigate accidents and traffic associated air-pollution.
4. Ask a group of Public Health scientists to evaluate the current state of research regards the effects of traffic associated air pollution upon lung development, asthma, hypertension, coronary artery disease, childhood and adult cancers.

5. Ask a group of Public Health scientists to recommend future research and public policy initiatives needed to reduce the effects of air traffic pollution.

6. Ask a group of Public Health scientists to define acceptable levels of traffic associated air pollution?

The concern for the health impact of highways and bridges runs into the desire for preserve personal freedom and choice, the desire to relieve the economic stresses upon the community, the influence of various lobbying groups upon the
decision of public officials, and a variety of opinions regarding how to deal with transportation problems. For exactly these realities, placement of an economic value for traffic associated mortality and morbidity would allow more rational consideration of the various choices. For example how much of the health care costs of traffic accidents and traffic associated medical illness is paid for out of public funds? Use of public funds for the construction of car-based transportation systems results in a public subsidy to the individual who insists upon traveling alone or with a small group of people often for long distances while producing pollutants that adversely affect the health of all of us.

APPENDIX A: Project Area Demographic and Health Information

Demographics: “The SR 520 study area tends to have less diversity in race/ethnicity, a high proportion of whites, and a higher income as compared to King County. Fewer children and more young adults reside in this area. This can influence the health conditions in the area.” The reality of this characterization is acknowledged. The disregard of health implications of the SR 520 project take on greater importance when one considers how many people live within 300 meters of traffic with even larger numbers of and greater percentages of diesel powered vehicles. The concerns of these comments are for the estimated 30 percent of metropolitan Seattle residents who live within 300 meters of high volume polluting roads. The issues listed here are advanced on behalf of all of these effected citizens.

HEALTH INDICATORS: While the statements listed in this section are true, they are advanced in place of the more cogent discussion of the effects of traffic induced air-pollution upon those citizens who live and work and attend school within 300 meters of busy highways and roads. Whether citizens have sedentary jobs or not the point of concern is whether they are being showered by particles and volatile chemicals being showered upon them 24 hours per day for purposes and values which have not been justified.

I do not feel that questions as to whether neighbors are trustworthy are relevant to the issues under discussion.
That life expectancy of the SR 520 area is slightly higher than the rest of King County is not reassuring unless such a statement is adjusted for traffic volume, distance from that traffic, degree of pollution, exposure and duration of exposure. The authors have not taken advantage of much more sophisticated types of analysis that are available. Such states reflect the lack of active participation by serious scientists interested in the study of traffic associated air-pollution and consideration of their findings.

The statements that “Heart disease, diabetes, and asthma are health conditions in which changes in the built environment can impact through encouraging increase physical activity. Residents of the study area are less likely to be hospitalized or to die from heart disease or diabetes as compared to King County.” The first state is true but unrelated to the discussion of the dangers of traffic associated air pollution. The second statement displays ignorance of the epidemiologic methods required to understand the dangers of traffic associated air pollution and the need to control for the many of factors that affect heart disease and diabetes.

The fact that rates of childhood asthma hospitalization in higher in the study are than in King County is particularly disturbing since other factors of the SR 520 would lead one to expect a lower rate.

I am curious as to who the authors of this particular section of the HIA SR 520 are who would associate themselves with the quality of data and argument submitted in this section.

APPENDIX B: Air Quality Issue Paper

Comments on page 45 of Appendix B summarize known effects of Traffic-associated air pollution. Will the authors of the HIA please discussion in detail how they have incorporated these concern in assurances to the population of Seattle as to have these risks are to be measured, reduced, and mitigated in a guaranteed manner by offering alternatives to increased vehicle volume and the development of alternative means of transportation.
On page 46, the authors allude to the effects of mitigation on traffic-induced air pollution through construction of lids and the planting of urban trees. Will the authors please discuss the relative benefits of planting trees versus the reduction of vehicular traffic and the track records of trees and lids in such endeavors and the means by which the State intends to monitor pollution effects in areas most likely to be effected, that is near to the high volume highways, specifically at the junctions between several busy highways.

“Design alternatives that create walk able environments and locate the light rail station and the transfer centers near each other are likely to produce more transit ridership, less single-occupancy vehicle use, and fewer mobile-source air pollutants.” Will the authors please describe how the location of the Montlake transfer centers and the light-rail station at the University of Washington Stadium are examples of the planning principles outlined in the above statement.

TYPICAL EMISSIONS DURING CONSTRUCTION INCLUDE:

All of the potential mediating steps listed in this section are strongly negated by announced plans to drive large diesel trucks up the steep hills of the Roanoke neighborhood day and night during the planned closure of Del Mar Way. What are the plans to measure noise and pollutants along this intended route during the periods of construction.” “Covering dirt, debris, and gravel piles to reduce dust” is not reassuring and is testimony to the superficiality of the HIA assessment.

The public affected by the construction of SR 520 is more likely to be reassured by good planning for alternative transportation, measurement of pollution based upon sound scientific principals than by promises to make best efforts to reduce pollution during construction. These most effective reassurances are lacking. If economic considerations are threatening to deprive us of light-rail, highway lids and other effective mitigation, how is the public to be assured that money will be available to use “...all new diesel equipment and vehicles or installing emission reduction equipment on existing diesel vehicles and equipment.”
The land side haul routes will occur on approximately a dozen streets in both commercial and residential areas and average 2-5 trips per hour with increase to 3-12 trips per hour during periods of peak activity. As written this sounds like a particularly heavy impact on those areas affected particularly the residential areas. What times of day are anticipated? What relief from the noise, disruptions, and exposure to air-pollutants is offered to those affected? – compensation to obtain alternate housing to those who reside with 300 meters of the affected areas?

The first paragraph of page 48 is typical of the document in the acknowledgment of known facts without related them to the proposed project or specifying data which assures to population effected that these effects are being adequately mitigated.

“The project will reduce emissions compared to not building it because it will reduced future travel times for buses, carpools, and single-occupant vehicles” This italicized stated is my favorite of the entire document. It is totally devoid of supporting facts or projections of likely traffic and emissions data likely to result in pouring 3 or more lanes of traffic each way east and west into traffic corridors already jammed beyond capacity and moving at well below planned traffic speeds. The statement does not enter into consideration of the effect of providing more single vehicle capacity on the subsequent growth of single vessel travel. WSDOT is requested to provide data supporting the above statement.

“The project will be able to reduce emissions compared to not building it because more people will be traveling in buses and carpools.” WSDOT is requested to provide support for this statement. This statement is likely to be true only if the number of travelers stays the same and shift from cars to buses and carpools. Present plans for SR 520 do not guarantee better access to buses and carpools and are likely to encourage more traffic as a whole. Logically a net benefit would accrue is capacity for single person vehicle traffic remained constant, and plans for increase travel were limited to carpools, buses and light rail. Again where is the data analyzing the relative effect upon air pollution and global warming associated with each of these modes of traffic.
If tolls and congestion are the tools to encourage migration for single vehicle travel, why are not those steps being taken at the present time?

**SUMMARY:** “Because air pollution produces some of the most significant adverse health effects associated with major transportation projects, it is essential that air quality be a central focus of the SR 520 Project”

This highly principled phrase is without meaning in the context of the plans presented. Even the plans presented for mitigation of air pollution are already considered negotiable to reduce costs. The assertions that new construction will reduce pollution are without support. There is no recognition that the dangers to the health of metropolitan citizens are already adversely affected both in the SR 520 corridor but likely to an even greater degree in other neighborhoods lying beside high occupancy highways. There are no plans to measure pollutants in areas likely affected at the present time with existing roads. There is no balance of the proven morbidity and mortality of traffic associated pollution and effects upon global warming against the reputed economic value of greater vehicle traffic density in the Puget Sound Region.

The references provided with the SR HIA statement are grossly lacking in their lack of references relative to the health consequences of air traffic pollution.

*Appendix A Cut from Defining Health Has Changed.*

**THE END**

The authors of the HIA are invited to cite examples where they have “... supported and prioritized alternatives to the automobile.” Light rail is not a priority for the latest plan. Where have plans been instituted such that “...
emissions that cause pollution” will be reduced. When subsequently citing that more rapid movement of traffic will reduce pollution, please cite evidence that widening of SR520 will speed entry into I-5 at the terminus of 520 or that widening of SR 520 will not simply entice more private vehicles onto SR 520. There is less traffic on SR 520 over the last three years from 2006 to 2008. Where is the courage to introduce further measures that will reduce emissions and improve health: a higher tax on gasoline, immediate introduction of bridge tolls, and higher parking fees in our metropolitan areas? Where is the will to use added capacity on SR 520 to allot lanes to the most efficient and least polluting means of transportation with the following priorities: Light rail> rapid bus transportation> multi-occupant vehicles of other kinds, electric and hybrid cars, and lastly gasoline combustion vehicles?