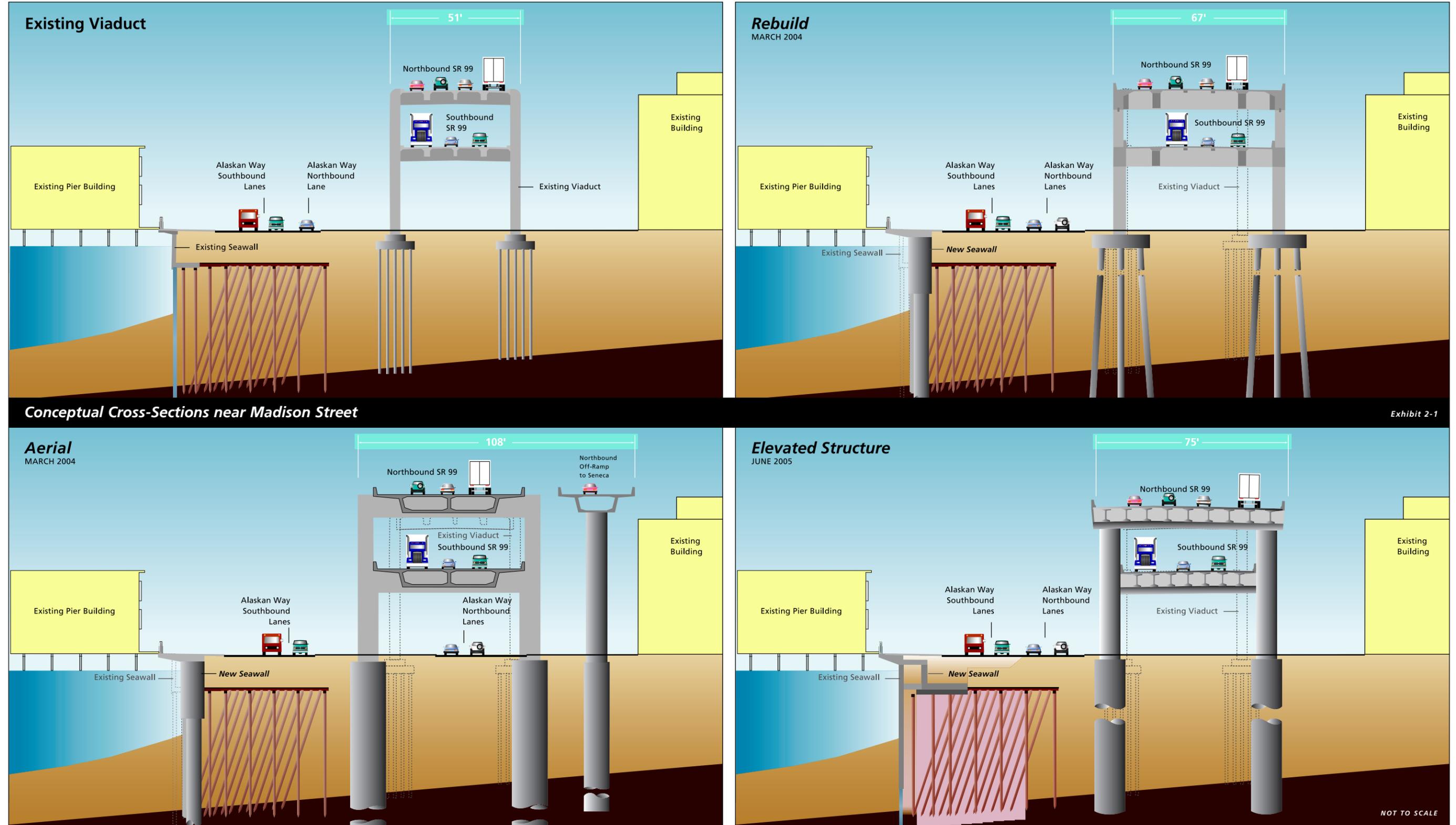


Comparison of Viaduct Replacement Structures



Conceptual Cross-Sections near Madison Street

Exhibit 2-1

NOT TO SCALE

CHAPTER 2 - PROJECT UPDATE

What's in Chapter 2?

This chapter highlights elements of the project that have changed since the Draft EIS was published. It also describes how we have engaged the public and what we have heard from them since the Draft EIS was published.

1 What alternatives have been eliminated since the Draft EIS was published?

In addition to the No Build Alternative, the project partners evaluated five viaduct and seawall replacement alternatives in the Draft Environmental Impact Statement (EIS). The five alternatives were named according to the type of roadway proposed through the central waterfront area. The alternatives evaluated in the Draft EIS are listed below:

- **Rebuild** – Rebuild the viaduct in its existing location with a new aerial structure similar to what is there now.
- **Aerial** – Replace the viaduct in its existing location with a new aerial structure. The new structure would provide wider lanes and shoulders to meet current safety standards.
- **Tunnel** – Replace the viaduct with a six-lane tunnel (three lanes in each direction).
- **Bypass Tunnel** – Replace the viaduct with a four-lane tunnel (two lanes in each direction).
- **Surface** – Replace the viaduct and Alaskan Way surface street with a six-lane, at-grade roadway.

Based on information presented in the Draft EIS, public comments, and further study and design, the project partners have reduced the number of alternatives from five to two: the Tunnel and Elevated Structure Alternatives. The Elevated Structure Alternative

incorporates elements of the Rebuild and Aerial Alternatives evaluated in the Draft EIS.

In addition to the Tunnel and Elevated Structure Alternatives, the No Build Alternative is still being carried forward as required by environmental regulations. However, the No Build Alternative is not a viable alternative for this project because the viaduct and seawall are existing structures we rely on to hold up Seattle's waterfront and carry more than 110,000 vehicles a day. If we don't replace these facilities, the viaduct and Alaskan Way surface street would eventually be closed due to failure in an earthquake or deterioration. Federal and Washington State regulations require agencies to evaluate a No Build Alternative to provide baseline information about existing conditions in the project area. The project partners provided this required baseline of information in the Draft EIS to provide a basis for people to compare environmental effects between alternatives. In this Supplemental Draft EIS, this baseline information is only provided in instances such as traffic conditions where there have been changes to the information.

Rebuild and Aerial Alternatives Combined

We have taken elements of the Aerial and Rebuild Alternatives evaluated in the Draft EIS and combined them into a single alternative, called the Elevated Structure Alternative. The Rebuild Alternative evaluated in the Draft EIS proposed to rebuild the existing viaduct in its present location. The rebuilt structure would have been roughly 4 feet wider than the existing facility, which means it wouldn't meet today's safety standards. The project partners want to make sure that any new facility meets today's standards for safety; therefore, a new elevated structure would need to

have standard 4-foot- to 10-foot-wide shoulders and 12-foot-wide lanes in most locations. The increased lane and shoulder widths would improve roadway system reliability by providing a safer roadway for drivers. Wider lanes give drivers adequate space between vehicles, and shoulders provide space for vehicles to safely stop along the road without blocking it in the case of an emergency.

The Aerial Alternative evaluated in the Draft EIS had lane and shoulder widths that would meet today's safety standards, but it also proposed to replace the existing Seneca and Columbia Street ramps with structures that would be wider than they are today. The new elevated structure meets today's safety standards for roadway widths while minimizing the effects to views in downtown.

The Elevated Structure Alternative would still be substantially wider than the existing viaduct, but it proposes ramps to Columbia and Seneca Streets that would have fewer effects than the Aerial Alternative evaluated in the Draft EIS. From south of S. Main Street up to Union Street, the new elevated structure would be 11.5 to 35 feet wider than the existing viaduct. Near S. King Street to south of S. Main Street, the new elevated structure would be 54 to 74 feet wider than the existing viaduct as SR 99 transitions from a side-by-side at-grade roadway in the south to a new double-level elevated structure.

Exhibit 2-1 shows the differences between the existing viaduct, the Elevated Structure Alternative, and the Rebuild and Aerial Alternatives evaluated in the Draft EIS. Exhibit 2-2 identifies the widths for these different facilities along the central waterfront.

Exhibit 2-2
Aerial Structure Widths along the Central Waterfront
in feet

	Existing Viaduct	Rebuild Alternative Draft EIS	Elevated Structure Alternative	Aerial Alternative Draft EIS
Yesler Way	63	67 +4 feet	98 +35 feet	101 +38 feet
Madison Street	51	67 +16 feet	75 +24 feet	108 +57 feet
Union Street	55	59 +4 feet	72 +17 feet	59 +4 feet

Reasons the Bypass Tunnel Was Eliminated

The Bypass Tunnel Alternative was eliminated from further study because, according to analysis contained in the Draft EIS, this alternative would not meet the project’s purpose, which is to “maintain or improve mobility, accessibility, and traffic safety for people and goods along the existing Alaskan Way Viaduct Corridor.” Traffic information presented in the Draft EIS demonstrated that the Bypass Tunnel would increase travel times for through trips, such as trips headed from the Ballard/ Interbay area to the stadium area. In addition, the number of hours each day that SR 99 would have been congested would have increased by 1 to 2 hours per day.

Reasons the Surface Alternative Was Eliminated

Like the Bypass Tunnel Alternative, the Surface Alternative was eliminated because it didn’t meet the project’s purpose. The Surface Alternative proposed to replace the viaduct with a six-lane surface street on Alaskan Way. A six-lane surface street would reduce roadway capacity in the Alaskan Way Viaduct Corridor by 40 to 50 percent, causing increased travel times and congestion for drivers on SR 99 and other parallel roadways such as city streets and I-5. For some trips, travel times with the Surface Alternative would double, and traffic on Alaskan Way itself would have increased nearly sevenfold.

2 What other things have changed since the Draft EIS was published?

Project Purpose and Need Revised

We revised the project’s purpose and need statement to include improving SR 99 from the Battery Street Tunnel north to Roy Street. This change addresses safety and access needs north of the Battery Street Tunnel and is consistent with current growth and future development plans in the surrounding neighborhoods.

Preferred Alternative Identified

On December 6, 2004, Seattle Mayor Nickels and Doug MacDonald, Washington State Department of

Transportation’s (WSDOT) Secretary of Transportation, signed a joint agreement identifying the Tunnel Alternative as the Preferred Alternative and the Rebuild Alternative (now called the Elevated Structure Alternative) as a contingency plan.¹ On the same day, a resolution was introduced to the Seattle City Council declaring the Tunnel Alternative as the City’s Preferred Alternative for the Alaskan Way Viaduct and Seawall Replacement (AWV) Project. The City Council resolution was adopted on January 10, 2005.² The Federal Highway Administration (FHWA) agreed that the Tunnel Alternative is the Preferred Alternative. The Preferred Alternative continues to be discussed as project design progresses and funding sources are identified. The 2006 Legislature passed into law a series of requirements aimed at resolving the problem of aligning the project’s Preferred Alternative and available project funding.

New Legislation

The 2005 Washington State Legislature passed a major transportation improvement funding package called the Transportation Partnership Act, which allocated \$2 billion for the AWV Project. This contribution represents what the 2005 Legislature determined is the state’s financial responsibility for the AWV Project. This responsibility includes replacing the existing elevated structure with a newer, safer version with investments focused between S. Spokane Street and the north end of the Battery Street Tunnel. By the end of the 2005 legislative session, discussions between the state and city leaders yielded an accord, which continued the Tunnel Alternative as the project’s Preferred Alternative and gave the City some additional time to assemble additional funding.

In early 2006, the Washington State Legislature passed new legislation that applies to the AWV Project.³ The new legislation requires an expert review panel to provide an independent financial and technical review of the project’s financial plan and implementation plan. This includes a review of the project’s costs, risks, design plans, and environmental process. The expert review panel will be selected by the Governor, the chairs of the State Senate and House Transporta-

tion Committees, and WSDOT’s Secretary of Transportation. The expert review panel will report its findings and recommendations to the Governor by September 1, 2006. The Governor will review this information and will issue a finding on the sufficiency of the project’s finance plan to complete the construction of the AWV Project.

Additionally, the new legislation directs the Seattle City Council to do one of two things in the fall of 2006:

- Hold public hearings on the findings and recommendations put forth by the expert review panel. Once the hearings are completed, the City Council must adopt by ordinance a preferred alternative for the AWV Project. The ordinance must be adopted by November 1, 2006.
- OR
- Allow city residents to cast an advisory vote on their preference for replacing the viaduct. The vote must be conducted as part of the November 2006 general election.

Project Received Funding

Since the Draft EIS was issued, the AWV Project has received a total of \$2.45 billion in committed funds from the sources identified below.

Transportation Partnership Act and Other State Funds

The 2005 Transportation Partnership Act provides needed resources for over 270 projects around the state, including \$2 billion for the AWV Project. Most of the funds supporting the Transportation Partnership Act will come from a 9.5-cent gas tax increase phased in gradually over 4 years. The remaining funds will come from a combination of increases to vehicle weight fees and motor home fees.

In addition, the 2003 Nickel Funding Package provides \$177 million. The Nickel package funds 158 WSDOT projects over a 10-year period. Most of the money to fund these projects will come from a 5-cent gas tax increase, and the remaining funds will come from increased heavy truck weight fees and a 0.3-percent increase to the sales tax for vehicles. Other previ-

Revised Project Purpose

The main purpose of the proposed action is to provide a transportation facility with improved earthquake resistance. The project will maintain or improve mobility, accessibility, and traffic safety for people and goods along the existing Alaskan Way Viaduct Corridor, as well as improve access to and from SR 99 from the Battery Street Tunnel north to Roy Street.

The entire revised purpose and need statement is located on page 122 of the **Supplemental Draft EIS**.

¹ Seattle Department of Transportation and WSDOT 2004.

² City of Seattle Resolution 30726, 2005a.

³ Washington State Legislature, March 2006.

ous state fund allocations have provided an additional \$16 million.

FHWA Funding

Federal funding allocations from several sources have earmarked \$239 million for the AWV Project.

Funding from the City of Seattle and Other Sources

The City has provided \$15.8 million to the project. Additionally, the U.S. Army Corps of Engineers has provided \$1.3 million to study aspects of the seawall. The Puget Sound Regional Council has authorized \$1.2 million.

Potential Funding

The project partners are working to secure additional funds to build the project. Specifically, the Mayor of the City of Seattle has committed to providing up to \$500 million if the Tunnel Alternative is built. The City would most likely fund utility work on city utilities. Other City funding could come from sources such as a local improvement district. In addition, the project partners are working to secure a financial commitment of up to \$200 million from the Port of Seattle. Other potential funding sources include a regional transportation ballot measure, funding from the United States Army Corps of Engineers through the Water Resources Development Act (seawall only), future federal transportation appropriations, and federal emergency relief funding.

Monorail

On November 8, 2005, Seattle residents voted against building a 10-mile monorail line connecting West Seattle, downtown, and Ballard/Interbay. This change won't have much of an effect on the AWV Project once the existing facility is replaced; however, during construction of the AWV Project, commuters won't have the monorail as a transit option. The monorail would have provided West Seattle and Ballard residents with an efficient and reliable way to get into and through downtown during construction of the AWV Project. The project partners are committed to developing and funding strategies to efficiently manage transit and provide reliable transit service to and through downtown during construction. Construction

traffic management strategies currently proposed are discussed in Chapters 3 and 7 of the Supplemental Draft EIS.

Railroads Convey that the Whatcom Railyard Cannot Be Closed During Construction

SR 99 is currently located between two major rail-yards between S. Hanford Street and S. Atlantic Street. The Burlington Northern Santa Fe Railway (BNSF) Seattle International Gateway (SIG) Railyard is located on the east side of SR 99, and the Whatcom Railyard (which contains railroad tracks for both BNSF and the Union Pacific Railroad) is located on the west side of SR 99.

In the Draft EIS, the project partners assumed that the Whatcom Railyard could be closed for several years while SR 99 was being rebuilt. However, since the Draft EIS was issued, the railroads have conveyed that closing the Whatcom Railyard is not feasible. This means that at least one direction of SR 99 may need to be routed to First Avenue S. between Railroad Way S. and S. Spokane Street for several months during construction. If traffic is detoured down First Avenue S., more cars would be routed to First Avenue S. and possibly other surface streets than originally described in the Draft EIS. This would increase congestion on First Avenue S. between Railroad Way S. and S. Spokane Street and would require removing parking along that section of First Avenue S.

3 What have we heard from the public since the Draft EIS was published?

As previously discussed in Chapter 1, many people asked the project partners to evaluate the effects and tradeoffs of more than one construction plan. To respond to this request, we are replacing the one construction plan evaluated in the Draft EIS with three different construction plans evaluated in the Supplemental Draft EIS. Additionally, a number of people have requested that we reconsider concepts previously eliminated. Specifically, people have asked:

- Can the viaduct be torn down and replaced with a four-lane surface roadway?

- Can we fix the viaduct, or does it really need to be replaced?
- What would happen if we built the tunnel under a different city street such as Western Avenue?
- What would happen if we replace the viaduct with a single-level aerial structure?
- What would happen if we replaced the viaduct with a bridge across Elliott Bay?

Can the viaduct be torn down and replaced with a four-lane surface roadway?

Many people continue to ask the project partners to consider an alternative that would remove the viaduct and replace it with a new seawall and a four-lane surface roadway along the Alaskan Way surface street. This concept is often called the “No Replacement” concept.

In the Draft EIS, the project partners evaluated the Surface Alternative, which proposed removing the viaduct and replacing it with a new seawall and a six-lane surface roadway along Alaskan Way. Traffic projections in the Draft EIS showed that the Surface Alternative would reduce roadway capacity by 40 to 50 percent in the Alaskan Way Viaduct Corridor, causing substantial increases in traffic and congestion on SR 99, city streets, and I-5 through downtown.

A four-lane roadway would obviously have less capacity than a six-lane roadway along Alaskan Way; therefore, traffic congestion on I-5 and other downtown city streets would be even worse than projected for the Surface Alternative in the Draft EIS. Specifically⁴:

- Replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. These congested conditions are predicted to occur even if improvements were made to downtown streets and transit ridership substantially increased.
- I-5 through Seattle doesn't have room for additional trips since it's already congested through much of the day and into the evening. However, under the No Replacement concept, many trips that currently use the viaduct would shift to I-5, causing it to become even more congested.

Where can I learn more about the First Avenue S. Detour and its effects?

Chapter 7 in the *Supplemental Draft EIS* explains the First Avenue S. Detour and identifies possible effects.

What issues did the project partners consider when developing the replacement alternatives for the AWV Project?

We considered several issues when developing the alternatives for the project. The first goal that had to be met by any proposed alternative was that the alternative would fix the seismic deficiencies of both the viaduct and the seawall. The second goal was that mobility, accessibility, and safety in the corridor had to be maintained or improved.

Additional considerations were:

- Not degrading operations on other major roadways, such as I-5.
- Supporting bicycle and pedestrian mobility.
- Compatibility with transit.
- Supporting land use plans.
- Supporting improved habitat for fish and wildlife.

⁴WSDOT 2004.

- Downtown street traffic would increase by 30 percent, though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent.
- With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic would make it difficult for patrons to get to waterfront businesses and would create more conflicts between vehicles and the many bicyclists and pedestrians that use Alaskan Way.
- Neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would have less direct connections to and through downtown; therefore, travel times for trips to and through downtown would increase for drivers from these areas.

A four-lane Alaskan Way would create more congestion on I-5 and downtown streets than the Surface Alternative evaluated in the Draft EIS. The project partners dropped the Surface Alternative because it didn't meet the AWV Project's purpose, which is to "maintain or improve mobility, accessibility, and traffic safety for people and goods along the existing Alaskan Way Viaduct Corridor." The project partners have a responsibility to maintain travel conditions through the corridor because the viaduct provides vital roadway capacity that cannot be provided elsewhere in the region. Together, I-5 and SR 99 through Seattle carry over \$80 billion in goods each year.⁵ Without these facilities, roadway congestion in and around Seattle would significantly increase, and the region's economy could falter with workers and freight unable to move in and out of the Seattle area efficiently.

Can we fix the viaduct, or does it really need to be replaced?

Ever since this project began in 2001, people have asked the project partners, "Why can't the viaduct be fixed or retrofitted?" The project partners recognize that retrofitting highways, roadways, and bridges is often a viable option to counter earthquake threats. WSDOT first began studying retrofit concepts for the viaduct back in the mid-1990s after the 1989 Loma Prieta earthquake in San Francisco. Unlike other bridges and structures in the area, it isn't practical to

retrofit the viaduct by only strengthening one or two structural elements. Fundamentally, such fixes transfer the forces from one weak point in the structure to another, and the viaduct is weak in too many places. The concrete frames, columns, foundations, and even the soil under the structure don't provide enough strength by today's standards. The project partners have extensively studied various retrofitting concepts, and all of these concepts fail to provide a cost-effective, long-term solution that adequately addresses the weakened state of the viaduct.

Each time various retrofitting concepts have been evaluated, the conclusion has been the same—feasible retrofitting options cost almost as much as replacing the structure, but a new structure would be safer, far more reliable, and would last much longer. Replacing the viaduct is superior to retrofitting it when seismic performance, aesthetics, cost, and risk are balanced.⁶

To double-check our work and assumptions, in 2002 the project partners had an independent panel of engineering experts examine the feasibility of retrofitting the structure. In their 2002 report, the independent panel made the following recommendation: "WSDOT and the City of Seattle should proceed with evaluation of options to replace the Alaskan Way Viaduct. Retrofitting the 50-year-old facility is not the technically preferred solution since it is doubtful that retrofitting is an effective approach to fully satisfying current design standards."⁷

Put simply, the viaduct and seawall were not built to withstand major earthquakes, they were damaged during the 2001 Nisqually earthquake, and they continue to rapidly deteriorate. A viaduct study completed in 2005 concluded that the viaduct's deterioration has accelerated since the Nisqually earthquake.⁸ The earthquake imposed extreme forces on the viaduct, and these forces were well beyond those the structure was designed for in the 1950s when it was built. According to the study, there are at least two consequences of the extreme forces imposed on the viaduct during the earthquake that continue to accelerate its deterioration today:

- **Increasing cracks and crack widths** – Cracks in the concrete structural support members of the

viaduct continue to grow. These cracks grow when the reinforcing steel embedded into concrete slips due to vehicle loads and other forces. Reinforcing steel used in roadway projects today is designed to prevent slippage and withstand much greater loads than the reinforcing steel commonly used in the 1950s.

- **Continued settlement of the viaduct's foundations** – The earthquake caused soil underneath the viaduct to shift in some places. In some cases, these shifts are placing additional demands on the viaduct, which further weakens the structure.

Because of these deficiencies, the viaduct simply cannot be "made new" again through a retrofit. The only way to remove these structural deficiencies is to replace them by building a new facility.

Additionally, the viaduct was not built to withstand major earthquakes. When the viaduct was built more than 50 years ago, engineers had a lot less information about how to design elevated structures to withstand major earthquakes, and they didn't know that the Seattle fault ran east-west through the project area near S. Holgate Street. Over the last 50 years, engineers have learned a lot more about earthquake hazards in the Seattle area and how to design and build structures that can withstand the major earthquakes that have shaken the area in the past. Engineers now know that to withstand a major earthquake, the viaduct needs to have foundations that extend much deeper into competent soil, and it needs to be built of stronger materials and support components. Again, in the case of the viaduct, the only way to properly address these deficiencies is to replace the existing structure with a new one.

What would happen if we built the tunnel under a different city street such as Western Avenue?

In early 2006, at the request of several business owners, the project partners reconsidered the feasibility of building a tunnel under Western Avenue. This idea was first considered in 2003 and was dropped because building a tunnel elsewhere in the city would not replace the city's failing seawall along the waterfront unless a separate seawall construction project was completed. Building a tunnel under Western Avenue

If SR 99 can be closed during construction, why can't it be closed forever and replaced with a surface street?

Construction of either of the alternatives evaluated in this *Supplemental Draft EIS* will affect thousands of people who travel to or through downtown Seattle each day. During construction we know that congestion will increase and it will take people longer to get from one place to another. Some people may even decide to avoid traveling through the affected areas. In any case, these effects will be temporary and at the end of construction SR 99 will be more reliable and will provide efficient, direct connections to and through downtown. Not replacing SR 99 would extend these effects indefinitely, permanently degrading access to and through downtown.

Chapters 3 and 7 of the *Supplemental Draft EIS* explain what happens to traffic patterns in downtown Seattle during construction. The project partners are looking for ways to minimize the duration and magnitude of effects to SR 99 during construction. In addition, we are also studying ways to manage mobility by evaluating and testing more than 130 possible traffic management strategies. Implementing many of these strategies will provide travel alternatives, but we won't be able to fully mitigate traffic effects when SR 99 is under construction. Further, many of the measures that are likely to be implemented may be acceptable on a short-term basis, but could have undesirable long-term consequences like removing parking on downtown city streets.

How is retrofitting the viaduct different from replacing it?

Retrofitting the viaduct would involve strengthening the viaduct's existing structural support system, such as its joints, beams, columns, and foundations. Building a new facility is different because the viaduct's existing structural components would be replaced.

⁵ Larsen, Rick et al. 2005.

⁶ Parsons Brinckerhoff 2002 and 2003.

⁷ ASCE Expert Team 2002.

⁸ TY Lin International, 2005.

and building a separate seawall would cost more than building a tunnel under Alaskan Way, which offers a solution that addresses the deficiencies of both the failing viaduct and seawall.

This idea is problematic not only because it doesn't address the seawall's deficiencies, but also because Western Avenue is much narrower than Alaskan Way. Because of the narrow width, it would be much more difficult to actually build a cut-and-cover tunnel in this area. Also, a number of buildings, several of which are historic, would need to be removed to accommodate the alignment, particularly in the area where it would need to connect to the Battery Street Tunnel. Even if these properties were acquired, the tunnel couldn't be as wide as a tunnel under Alaskan Way, which means that mobility for drivers would be reduced because travel speeds would be lower for a tunnel under Western Avenue than for a tunnel under Alaskan Way. Finally, the connection between a tunnel under Western Avenue and the Battery Street Tunnel would be awkward and steep, which could further reduce travel speeds for drivers, especially trucks. For these reasons, the project partners do not plan to continue to study this idea.

What would happen if we replace the viaduct with a single-level aerial structure along Alaskan Way?

In 2003 the project partners first considered replacing the viaduct with a single-level aerial structure that would have a total of six lanes (three lanes in each direction). This idea was not carried forward as a potential solution to replace the viaduct along the central waterfront because⁹:

- Views in this area would be substantially affected due to the width required. The width of the existing viaduct varies, but it is 51 to 63.5 feet wide along the central waterfront. A single-level aerial structure would need to be more than twice as wide as the existing viaduct to accommodate six lanes and have adequate shoulders for driver safety. Replacing the viaduct with a structure twice as wide would not be consistent with the City's existing land use and shoreline plans, which is one of the project's screening criteria.

- The project's goals and screening criteria were better met by other alternatives (such as Rebuild, Aerial, and now the Elevated Structure Alternative) that propose to replace the viaduct with a double-level structure, minimizing the width required for an aerial structure along the central waterfront.

What would happen if we replaced the viaduct with a bridge across Elliott Bay?

Two different Elliott Bay Bridge concepts were considered in 2003. One idea proposed to replace the existing viaduct with a single-level bridge over Elliott Bay connecting West Seattle and downtown. The second idea proposed to build a bridge over Elliott Bay connecting the stadium area, downtown, and Belltown. Either bridge would provide three lanes in each direction.

The bridge connecting to West Seattle was screened out because:

- It would not be possible to include ramps into downtown from the facility. The specific connection to West Seattle coupled with the lack of downtown ramps means that the bridge would not have met all of the travel needs currently served by the viaduct. While it would serve the West Seattle community, the facility would not serve other communities to the north and south that also rely on the viaduct. These communities include Ballard/Interbay, Magnolia, and areas south of downtown.
- A bridge over Elliott Bay would restrict navigation within Elliott Bay, which would affect both the Port of Seattle and ferry operations at Colman Dock. This would negatively affect Port operations and the regional economy, since the Port of Seattle is one of the largest ports on the West Coast.
- The bridge would not address the deficiencies of the seawall unless paired with another project to replace the seawall.
- Permitting and Endangered Species Act requirements due to in-water bridge construction, over-water shading, and state shoreline regulations would make this bridge extremely difficult if not impossible to build.
- The bridge would replace the visual effects of the existing viaduct with a new single-level bridge

over Elliott Bay. A single-level bridge would need to be more than twice as wide as the existing viaduct to accommodate six lanes and have adequate shoulders for driver safety. Replacing the viaduct with a structure twice as wide would not be consistent with the City's existing land use and shoreline plans, which is one of the project's screening criteria.

The bridge over Elliott Bay between the stadium area and Belltown was screened out for similar reasons. The only difference is that this bridge proposal would better serve Ballard/Interbay, Magnolia, and communities south.

4 What opportunities have we provided for people to be engaged in the project?

Since the Draft EIS was published, the project partners have provided many opportunities for people to ask questions and learn updated information about the project. Specifically, we:

- Held three formal public hearings for the Draft EIS in April 2004. Over 260 people attended these hearings.
- Invited people to submit comments on the Draft EIS and overall project. Over 650 people or groups submitted comments on the Draft EIS.
- Hosted three public meetings (open houses) in June 2005 to give people an opportunity to see the current project designs, ask questions, and give feedback on construction planning. Over 400 people came to these open houses.
- Held two business workshops on June 9 and June 21, 2005. At these workshops, we provided project updates, presented the viaduct's emergency closure plan, and discussed how best to communicate with businesses if the Alaskan Way Viaduct were restricted or closed due to an emergency.
- Gave project briefings at 108 community meetings between April 2004 and March 2006. These briefings were presented to various neighborhood groups, business organizations, interest groups, and social service organizations.
- Assembled the project's leadership group for one meeting. The leadership group is a volunteer group of civic, business, freight, downtown, and neighborhood representatives who provide input

What do you get if you retrofit the existing viaduct?

Retrofitting the existing viaduct could extend the life of the current facility, but it would not be strong enough to survive a high-magnitude earthquake without it most likely sustaining extensive damage that would require it to be replaced. This means that if the project partners were to retrofit the existing viaduct to get a few more years of service, they would be risking more than a billion dollars of taxpayer money on a facility that could be extensively damaged in the types of high-magnitude earthquakes that history shows hit the region every few hundred years.

Additionally, retrofitting the existing facility would not make the roadway wider, safer, and more reliable for drivers as proposed with the Elevated Structure Alternative.

2006 Appendix A

*Appendix A, the 2006 Agency and Public Coordination, provides an update on the project's efforts to engage the public since the **Draft EIS** was published.*

⁹ Parametrix 2003.

to the project partners on behalf of the communities and organizations they serve.

- Attended several community fairs and festivals where we passed out updated project information and answered questions.
- Continued to provide updated project information on our project website, via email messages to interested citizens on our project email list, and through brochures and fact sheets. Many brochures and fact sheets have been translated into languages other than English to reach a larger audience.

How have we been engaging businesses and residents located adjacent to the project?

In addition to the activities described in the previous section, the project partners have provided information and solicited input from the property owners, tenants, and businesses directly adjacent to the project area. To help keep these people informed since the Draft EIS was published, we have:

- Continued to refine business and residential mitigation measures addressing noise, air quality, parking, access, economics, and related issues. Additional information about mitigation is provided in Chapter 7 Question 23 and 24 of the Supplemental Draft EIS.
- Conducted a survey of businesses located on the east and west sides of the Alaskan Way surface street. Businesses surveyed included those located on the waterfront piers. The purpose of the survey was to gather information about existing businesses located closest to the project so we can better understand the current and future needs of these businesses.
- Conducted a freight survey in coordination with the Manufacturing Industrial Council. Approximately 50 businesses in the Ballard/Interbay and Duwamish areas participated in this survey. The purpose of the survey was to gather information from the freight community to better understand their needs and concerns.
- Mailed notices and/or met with property owners and tenants adjacent to the corridor when crews were investigating existing conditions in the project area. Since the Draft EIS was published, these information gathering activities have included surveying and mapping utilities and testing soil to

learn more about groundwater levels and potential groundwater and soil contamination.

How have we been engaging low-income people and social service providers?

The project partners have also been working with social service organizations that provide services to disadvantaged, minority, and low-income people in and near the project area. Outreach to these groups is part of an ongoing effort that began in 2002.

Since publication of the Draft EIS, we have conducted 19 interviews with social service organizations. The purpose of the interviews is to communicate project alternatives and potential impacts, learn about the agencies and the groups they serve, and identify ways to keep environmental justice populations engaged in the project. Many service providers cited construction and traffic impacts as primary concerns. Other examples of our coordination with environmental justice groups include leading community briefings, providing project information in languages other than English, attending fairs and festivals, and targeting outreach efforts to minority-owned businesses.

How have we been coordinating with agencies?

We continue to proactively involve several agencies in ongoing discussions about the project. This agency group, called the Resource Agency Leadership Forum (RALF), began meeting in November 2001. This group consists of 11 federal, state, and local regulatory agencies and two tribes. Since the Draft EIS was issued in 2004, we have met with this group 12 times to discuss various project issues and updates. RALF members were given the opportunity to concur and comment on the project's purpose and need statement and the alternatives evaluated in this Supplemental Draft EIS, and RALF members concurred with both. We will continue to work with the RALF to coordinate various regulatory issues related to the project.

How have we been coordinating with tribes since the Draft EIS?

The project partners seek to address the concerns of tribal nations using the process outlined in Section 106 of the National Historic Preservation Act and the WSDOT Tribal Consultation Policy adopted in 2003 by the Transportation Commission as part of the WSDOT Centennial Accord Plan.¹⁰

Section 106 requires federal agencies to consult with tribes where projects could affect tribal areas with historical or cultural significance. As such, we are consulting with tribes that have active cultural interests in the project area. These tribes are the Duwamish, Muckleshoot, Snoqualmie, Suquamish, Tulalip, and Yakama Nation. We are also consulting with the Muckleshoot and Suquamish Tribes on potential effects to their treaty fishing rights because the project area intersects their usual and accustomed fishing areas.

Since the Draft EIS was published, the project partners have continued to communicate with tribes by providing project updates, coordinating and attending meetings, and soliciting feedback from the tribes. We have held six meetings with tribes since the Draft EIS was published. Additionally, the project partners hosted a one-day meeting for tribal council chairs and representatives to meet with the project partners and jointly discuss the project. The purpose of these meetings is to communicate project alternatives and potential impacts, discuss cultural resources issues and concerns, and identify tribal concerns and work to address them prior to construction. The project partners will continue to meet with the tribes throughout project development to provide project updates and consult on Section 106 and fishing rights issues.

We understand that the project area has cultural and historical significance for local tribes as well as the city of Seattle. In addition to tribal consultation, the project team is conducting additional archaeological studies of the area to better understand where cultural sites or sensitive cultural resources may be located. As part of this work, we will use historical accounts and geotechnical information to identify high-probability

What is environmental justice?

Environmental justice is a term used in a federal executive order issued in 1994. The executive order requires federal agencies to provide affected minority and low-income populations opportunities to be involved in projects. The executive order also requires federal agencies to make sure projects do not disproportionately affect these traditionally underserved groups.

What is the Colman Dock Project and how has WSDOT been coordinating efforts with the AWV Project?

WSDOT's Washington State Ferries (WSF) division is planning to expand Colman Dock to accommodate future growth in passenger volumes and to upgrade the facility to meet current design standards and security requirements. Colman Dock improvements are independent of the AWV Project, but both projects are located in close proximity to one another, and their construction periods may overlap.

Both projects require in-water construction work in Elliott Bay and may involve long-term changes to the aquatic environment (such as fill in Elliott Bay). Both projects are also located within established treaty fishing areas for the Muckleshoot and Suquamish Tribes. For these reasons, WSDOT is closely coordinating efforts on the two projects by participating in regular project coordination meetings, providing information on both projects at public meetings, and consulting together with tribes on treaty fishing rights and historical and cultural resources protected under Section 106 of the National Historic Preservation Act.

What are "usual and accustomed" areas?

Usual and accustomed areas are places located within and outside of a tribe's reservation lands where federal treaties safeguard tribal rights, such as fishing rights.

¹⁰ WSDOT 2003.

areas where archaeological resources may be located. The purpose of this work is to focus on what can be done to avoid or minimize potential effects to archaeological resources before construction begins. We will use the information gathered from these studies as we work with the tribes and State Historic Preservation Officer (SHPO) to develop a monitoring and treatment plan for properly addressing any inadvertent discoveries found during construction. Any historically significant discoveries encountered during construction would be subject to provisions under Section 4(f).