

Attachment 1. Errata to the EA and Discipline Reports

The EA is incorporated by reference into the Finding of No Significant Impact (FONSI). Errata are listed in the order they appear in the EA. Text that has been deleted is shown in strikeout and text that has been added is underlined. Revised exhibits are also noted in order and generally included at the end of each chapter.

Executive Summary

Page 1, Exhibit S-1.

The exhibit has been updated to show the revised Build Alternative.

Page 2, fourth and fifth bullets.

Revised Text:

- ~~Providing new frontage roads on~~ Relocate Alaskan Way S. to the east side of SR 99 between S. Atlantic Street and Railroad Way S.
- ~~Provide access from the northbound frontage road to the a~~ new remote holding area for the Seattle Ferry Terminal on the east side of Alaskan Way S., north of S. Royal Brougham Way.

Page 4, second paragraph.

Revised Text:

Trails that pass through the neighborhoods in the project area include the E. Marginal Way Bicycle/Pedestrian Facility, ~~and~~ Waterfront Bicycle/Pedestrian Facility, and ~~the planned~~ Mountains to Sound Greenway Trail. These facilities are primarily considered transportation facilities but are also used for recreation. The Jack Perry Memorial Viewpoint is also located along the water on Pier 36.

Page 5, third, sixth, seventh, and eighth bullets.

Revised Text:

- ~~Providing new frontage roads on~~ Relocating Alaskan Way S. to the east side of SR 99 between S. Atlantic Street and Railroad Way S.
- Widening bike lanes on Alaskan Way S., E. Marginal Way S., and S. Atlantic Street and adding bike lanes on the relocated portion of northbound and southbound Alaskan Way S. ~~frontage roads.~~
- Providing a new 14-foot-wide shared-use bicycle and pedestrian path along the east side of SR 99 between Alaskan Way S. the remote ferry holding area and SR 99. The existing Waterfront Bicycle/Pedestrian Facility would be replaced on the west side of the tail track adjacent to Terminal 46.
- Providing access to the new remote ferry holding area ~~via the northbound along~~ Alaskan Way S. frontage road between S. Royal Brougham Way and Railroad Way S. ~~Ferry traffic in the holding area would connect to the two-way Alaskan Way S. near S. King Street at a signalized intersection. North of Railroad Way S.,~~ ~~f~~Ferry traffic would share Alaskan Way S. with general purpose traffic as it does today.

Page 5, new bullet.

New Text:

- Adding a 10- to 20-foot-wide shared-use bicycle and pedestrian path along the north side of S. Atlantic Street, west of First Avenue S.

Page 6, third paragraph.

Revised Text:

About 418 free on-street long-term spaces would be removed.

Page 8, Exhibit S-4.

The exhibit has been updated to show the construction activities for the revised Build Alternative.

Page 9, after last sentence of first paragraph.

New Text:

Alaskan Way S. would be reduced to one northbound lane and two southbound lanes between S. Atlantic Street and S. King Street.

Page 9, second paragraph.

Revised Text:

Vehicles would experience the most traffic disruption on SR 99 during Stages 3 and 4, when both directions of traffic are detoured onto the Washington-Oregon Shippers Cooperative Association (WOSCA) property for approximately 8 to 11 months.

Page 10, Exhibit S-5.

The exhibit has been updated to show the construction roadway closures, restrictions, and detours for the revised Build Alternative.

Page 11, second paragraph.

Revised Text:

Seven ~~Six~~ properties would require temporary construction easements. These affected properties include Terminal 46, the Coast Guard property on Pier 36, the King County Connecticut Street Regulator, the King County King Street Regulator, Pyramid Alehouse, the Fortune Warehouse, and the BNSF SIG Railyard. Only one easement located on Terminal 46 would be used for the duration of construction. The easement on the SIG Railyard would require multiple nighttime closures (typically lasting 6 hours) over a period of several months. The other easements would be needed for approximately 1 to 4 months for roadway restrictions sidewalk and sewer line utility construction.

Page 12, first paragraph.

Revised Text:

People using the ~~proposed route for the~~ Mountains to Sound Greenway Trail along S. Atlantic Street west of First Avenue S. would also be required to use an alternative route during construction.

Page 12, last sentence of third paragraph.

Revised Text:

Because the project could have an adverse effect on significant, eligible sites, mitigation measures ~~are will be~~ described in a Memorandum of Agreement among WSDOT, the Federal Highway Administration (FHWA), the Washington State Department of Archaeology and Historic Preservation (DAHP), ~~Advisory Council on Historic Preservation (ACHP)~~, interested and affected tribes, and the City of Seattle (see Attachment 6, Memorandum of Agreement).

Page 12, last paragraph.

Revised Text:

The project has the potential to generate approximately ~~222,000~~ 194,000 cubic yards of excavated soil, materials, and spoils that are potentially contaminated. This amount of material would bury a football field just over ~~100~~ 90 feet deep. ~~Approximately 204,000 cubic yards of the material is potentially contaminated.~~

Project Area Map



Exhibit S-4
Construction Activities

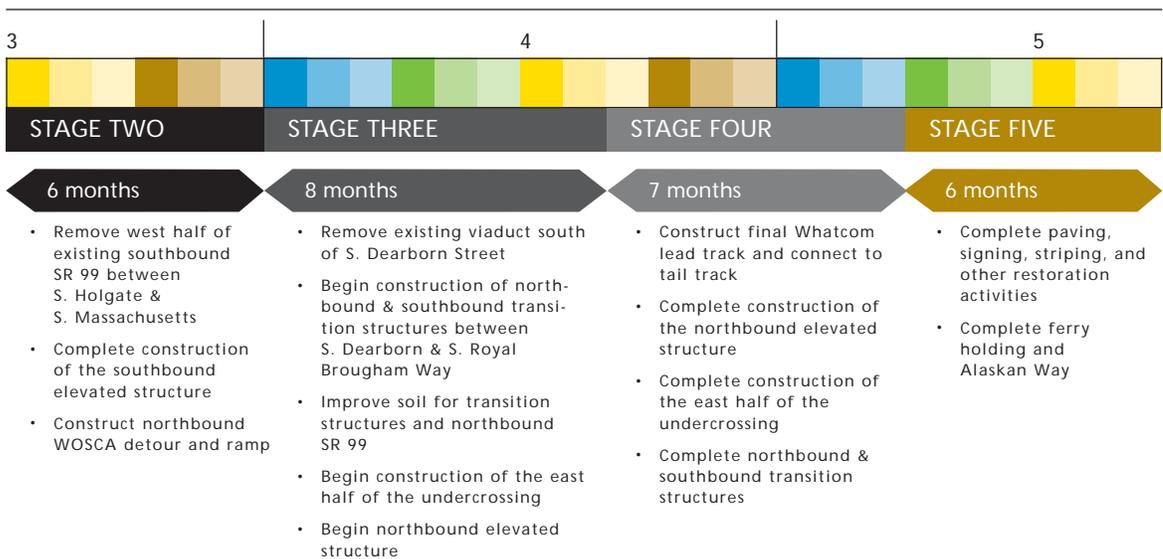
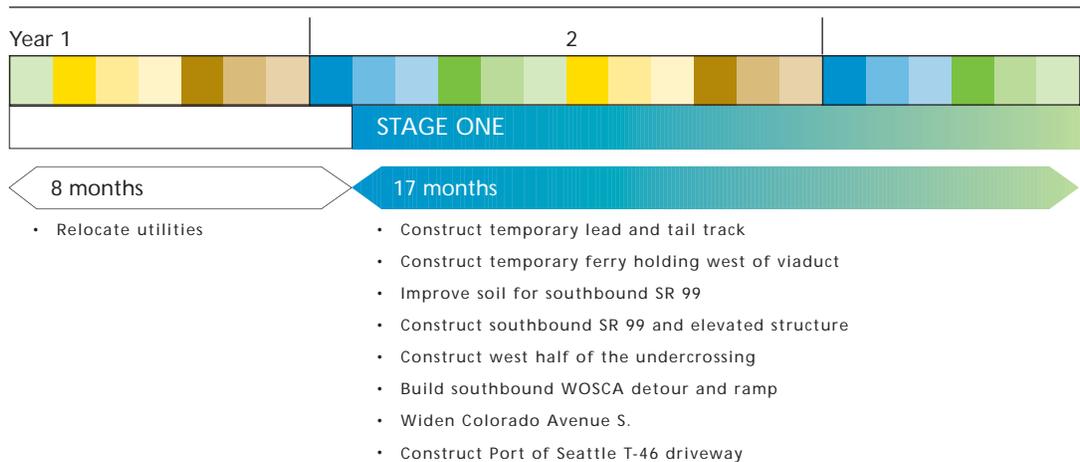
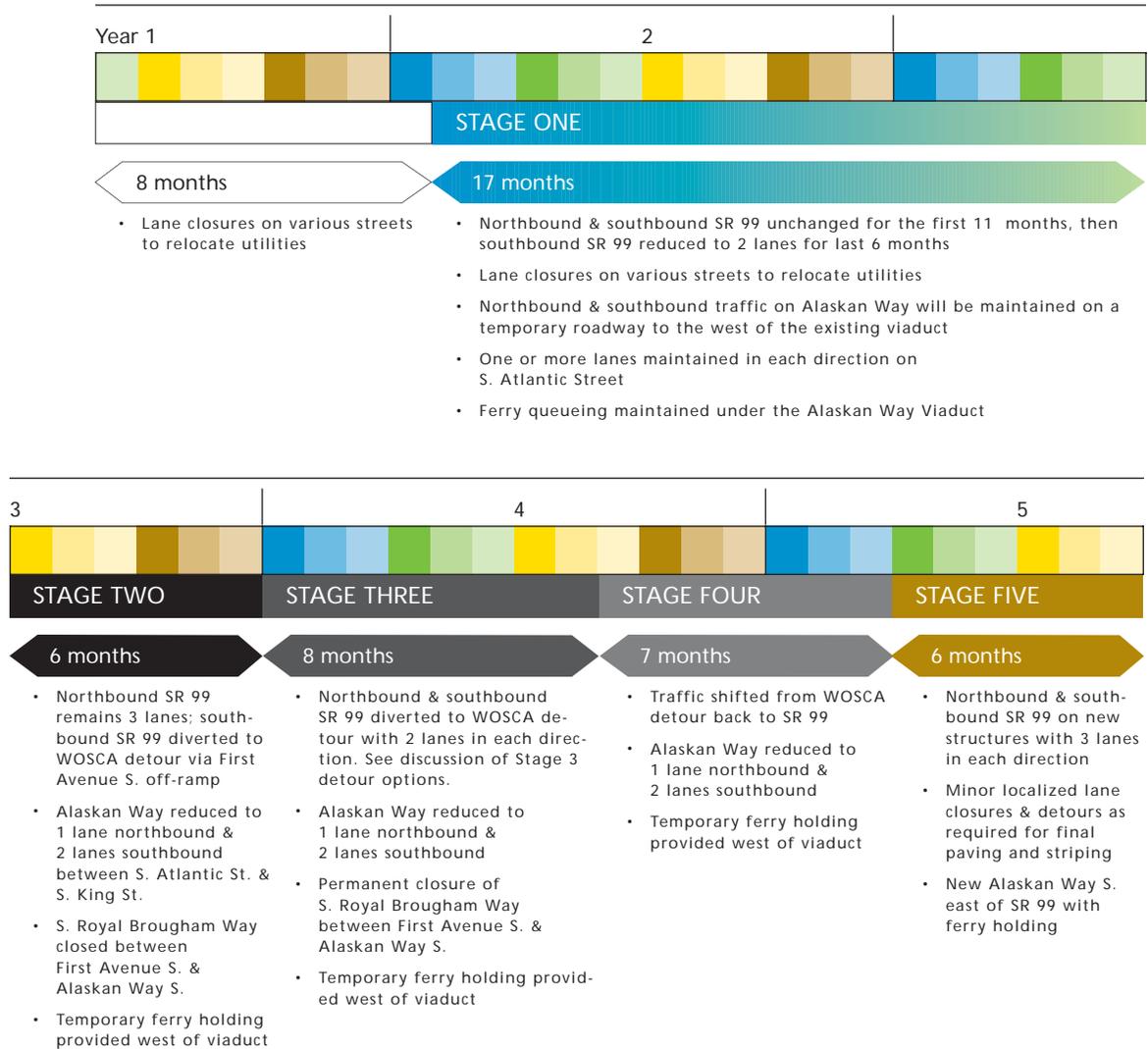


Exhibit S-5

Construction Roadway Closures, Restrictions, and Detours



Chapter 1. Purpose and Need

Page 14, Exhibit 1-1.

Exhibit 1-1 is the same as Exhibit S-1 shown above, which has been updated to show the revised Build Alternative.

Chapter 2. Alternatives Development

Page 22, Exhibit 2-2.

The exhibit has been updated to show the revised Build Alternative.

Page 24, first paragraph.

Revised Text:

Between S. Atlantic Street and Railroad Way S. ~~King Street~~ both the northbound and southbound lanes of Alaskan Way S. would be routed along the east side of SR 99 ~~and the southbound lanes would be along the west side of SR 99.~~ As part of the design, S. Royal Brougham Way would no longer cross SR 99. S. Royal Brougham Way would be permanently closed where it intersects with the reconfigured Alaskan Way S. on the east side of SR 99. ~~between the new northbound and southbound Alaskan Way S. roads.~~

Page 24, third and fourth bullets.

Revised Text:

- ~~Providing northbound and southbound frontage roads that would provide access between Alaskan Way S. and E. Marginal Way S. In addition, the northbound frontage road would provide access from S. Atlantic Street to the new remote holding area for Seattle Ferry Terminal traffic and to Alaskan Way S.~~ Relocating Alaskan Way S. to the east side of SR 99 between S. Atlantic Street and Railroad Way S. would provide access to E. Marginal Way S. via S. Atlantic Street. The northbound roadway would also

provide access to the new remote ferry holding area north of S. Royal Brougham Way.

- Reconfiguring the intersections where S. Atlantic Street meets the new Alaskan Way S. ~~frontage roads~~, the new U-shaped undercrossing, and Colorado Avenue S.

Page 25, first paragraph.

Revised Text:

A remote ferry holding area would be added between S. Royal Brougham Way and Railroad Way S. ~~King Street~~ along the east side of Alaskan Way S. ~~SR 99.~~

Page 30, after last bullet.

New Text:

In 2008, WSDOT hired an independent consultant to evaluate retrofitting the viaduct. The independent consultant evaluation found that the retrofit is not technically or fiscally prudent^{6b, 6c}. A retrofitted structure would still have inadequate lane widths, no emergency shoulders, and substandard acceleration and deceleration lanes, along with a level of seismic safety that is below current standards. Construction of any of the retrofit schemes proposed to date would result in significant and long-term disruptions to traffic both on and around the viaduct. WSDOT has determined that the retrofit alternative is not a fiscally responsible alternative and would not bring the structure up to current safety standards.

References:

^{6b} KPFF Consulting Engineers. 2008a. Executive Summary - Evaluation of Seismic Retrofit Options for the Alaskan Way Viaduct presented to the Stakeholders Advisory Committee Briefing on July 17, 2008 by Andrew W. Taylor, Ph.D., SE, FACI.

^{6c} KPFF Consulting Engineers. 2008b. Evaluation of Seismic Retrofit Options for the Alaskan Way Viaduct Final Report. September 25, 2008.

Proposed Build Alternative



Chapter 3. Permanent Effects and Mitigation

Page 36, Exhibit 3-1.

Exhibit 3-1 is the same as Exhibit 2-2 shown above, which has been updated to show the revised Build Alternative.

Page 37, third bullet.

Revised Text:

- ~~Providing new frontage roads.~~ Relocating Alaskan Way S. to the east side of SR 99 between S. Atlantic Street and Railroad Way S.

Page 37, last sentence under New Undercrossing.

Revised Text:

~~Also, when the undercrossing is occupied, southbound traffic on Alaskan Way S. wanting to continue to E. Marginal Way S. would need to divert to First Avenue S. at S. Atlantic Street and reach E. Marginal Way S. via S. Hanford Street. Because Alaskan Way S. would be relocated on the east side of SR 99 in this area, traffic continuing between Alaskan Way S. and E. Marginal Way S. would also need to use the new undercrossing when the tail track is occupied.~~

Page 38, first paragraph.

Revised Text:

Frontage Roads

~~Northbound and southbound frontage roads would be built parallel to SR 99 to provide access between Alaskan Way S. and E. Marginal Way S. The northbound frontage road would also provide vehicle holding for ferry traffic bound for the Seattle Ferry Terminal.~~

Alaskan Way S.

Both directions of Alaskan Way S. would be relocated on the east side of SR 99 between S. Atlantic Street and Railroad Way S. Access to E. Marginal Way S. would be provided via S. Atlantic Street. Just north of S. Royal Brougham Way, northbound Alaskan Way S. would provide access to the new remote vehicle holding area for traffic bound for the Seattle Ferry Terminal.

Page 38, third paragraph.

Revised Text:

Reconfigured intersections on S. Atlantic Street would be located at the new U-shaped undercrossing, new Alaskan Way S. ~~frontage roads~~, Colorado Avenue S., and Utah Avenue S.

Page 38, fourth paragraph.

Revised Text:

Access to the Seattle Ferry Terminal at Colman Dock would be provided from northbound Alaskan Way S. Vehicles traveling west on S. Royal Brougham Way or S. Atlantic Street would travel ~~on a northbound~~ on the reconfigured Alaskan Way S., which frontage road that would connects to two-way the existing Alaskan Way S. near Railroad Way S. King Street. SR 99 traffic heading to or from the Seattle Ferry Terminal would be able to access the ferry via the new ramps near S. King Street. Ferry traffic would continue north to Yesler Way and enter the terminal, except during peak periods when overflow traffic is held in a new remote holding area.

Page 38, fifth paragraph.

Revised Text:

The new remote holding area will be located along the east side of ~~SR 99 northbound Alaskan Way S.~~ between S. Royal Brougham Way and Railroad Way S. King Street. Access to

ferry holding would be provided via ~~the northbound Alaskan Way S. frontage road~~ and would connect ~~back to two-way~~ Alaskan Way S. near Railroad Way S. ~~King Street~~ at a signalized intersection. Ferry traffic would share Alaskan Way S. with general purpose traffic as it does today.

Page 40, Exhibit 3-2.

The exhibit has been updated to show the bicycle and pedestrian facilities with the revised Build Alternative.

Page 41, Exhibit 3-3.

Since the design for Alaskan Way S. has been revised, Exhibit 3-3 no longer applies and has been deleted.

Page 41, first paragraph.

Revised Text:

~~Exhibit 3-3 shows what the design of the facility could look like on the east side of SR 99 between S. Royal Brougham Way and Railroad Way S.~~ Bike lanes would be widened on Alaskan Way S., E. Marginal Way S., and S. Atlantic Street, and would be added on the relocated portion of ~~northbound and southbound~~ Alaskan Way S. ~~frontage roads~~.

Page 46, first paragraph.

Revised Text:

Exhibit 3-8 shows that with the tail track open, three intersections in the transportation study area would operate poorly with the 2030 No Build Alternative (First Avenue S. and S. Royal Brougham Way, First Avenue S. and S. Atlantic Street, and Colorado Avenue S. and S. Atlantic Street). For the Build Alternative, ~~two~~ no intersections would operate poorly in the year 2030 (~~First Avenue S. and S. Atlantic Street, and Colorado Avenue S. and S. Atlantic Street~~).

Page 46, Exhibit 3-8.

Exhibit 3-8 has been revised to show that none of the intersections studied would be congested in the PM peak hour (rail operations not blocking S. Atlantic Street).

Page 47, first paragraph.

Revised Text:

Especially ~~long~~ traffic signal cycle lengths, as much as 165 ~~to~~ 220 seconds, would be needed to accommodate all movements at this location.

Page 50, second paragraph.

Revised Text:

About 418 free on-street long-term spaces would be removed.

Page 50, third paragraph.

Revised Text:

Generally the City does not replace on-street long-term free parking.

Page 51, third paragraph.

Revised Text:

A planned ~~new~~ development project with Home Plate, located near S. Atlantic Street and First Avenue S., will add about 800 parking spaces when completed ~~by 2010~~; 300 spaces would be designated for events, and 500 spaces would be for the development's occupants.

Page 52, Exhibit 3-10.

This exhibit, which shows the parking spaces permanently removed, has been updated to correct two mistyped numbers.

Page 53, question 4.

Revised Text:

How would the project affect properties located in the area?

A total of ~~four~~ seven properties would be affected by partial property acquisitions and/or utility easements. All of the properties required are zoned for industrial or industrial/commercial uses and are primarily used for terminal operations, warehouses, or parking. None of the acquisitions or easements require residents, businesses, or their employees to be relocated.

The following acquisitions and/or utility easements would be needed:

- Three partial property acquisitions would be needed for the roadway alignment. One of the partial property acquisitions ~~Permanent utility easements~~ would also be required for a permanent utility easement ~~on two of these parcels.~~
- One additional ~~Four~~ parcels would be affected by permanent utility easements only.

The three partial property acquisitions would total approximately ~~2.09~~ 2.07 acres. The permanent utility easements would affect about ~~4.34~~ 0.13 acres.

The partial property acquisitions shown in Exhibit 3-11 consist of a small piece of Coast Guard property on Pier 36, a narrow strips of Port of Seattle land on Pier 36 and Terminal 46, and a narrow strip of Pyramid Alehouse property parallel to the ~~west~~ east side of SR 99. Some parking spaces on these partially acquired parcels would be removed, but existing buildings on these properties would not be altered, and current functions on the remaining portions would not be affected.

The permanent utility easements are located on ~~Port of Seattle land south of S. Massachusetts Street, Pier 36, Terminal 46~~, the Pyramid Alehouse parking lot, and Fortune Warehouse property, ~~and a small piece of vacant BNSF land~~. They are not

expected to affect long-term property use. The purpose of the easements is to allow utility providers limited rights to a specific portion of property that is owned by someone else. The utility easements would allow the utility providers to maintain or upgrade their lines.

Page 55, fourth and fifth paragraphs.

Revised Text:

~~Depending on the type of resource, mitigation of adverse effects will be developed on a case by case basis with the SHPO. When the parties agree on how the adverse effects will be resolved, a Memorandum of Agreement will be signed and implemented. The draft Memorandum of Agreement is included in Appendix H.~~

The completed Memorandum of Agreement is included in Attachment 6 of the FONSI.

~~No permanent effects to archaeological resources are expected. Potential construction effects to archaeological resources are discussed in Question 12 of Chapter 4.~~

Page 56, last sentence of second paragraph.

Revised Text:

The structure would be located southwest of the Pioneer Square-Skid Road National Register ~~H~~historic ~~D~~district and local ~~preservation district~~ Pioneer Square Preservation District in an area that is largely occupied by railyards, parking lots, and industrial buildings.

Page 56, fourth paragraph.

Revised Text:

~~A Memorandum of Agreement is being developed to ensure that adverse effects to historic resources, as defined by Section 106, are avoided, minimized, or mitigated. The draft Memorandum of Agreement is included in Appendix H.~~

Mitigation is described in the signed Memorandum of Agreement, included in Attachment 6 of the FONSI.

Page 56, fifth paragraph.

Revised Text:

~~Before any demolition is done, we will document the viaduct~~
The viaduct was documented with photos, and a narrative history was prepared that describes the viaduct and its role in Seattle's history. ~~The structure was documented~~ in accordance with Historic American Engineering Record (HAER) standards. Photos taken for HAER could be displayed at public venues around Seattle.

Page 59, last sentence of second paragraph.

Revised Text:

Since the new roadway has some at-grade sections, views to the ~~northeast~~west of Elliott Bay and the Olympic Mountains are likely to be more obstructed by stacked shipping containers and other Port of Seattle structures.

Page 60, second paragraph.

Revised Text:

The project would require acquisition of approximately ~~2.09~~2.07 acres of land that is zoned for industrial and industrial/commercial uses, which is currently used for terminal operations, warehouses, and parking. These acquisitions would consist of a small piece of Coast Guard property on Pier 36, a narrow strips of Port of Seattle owned property that is parallel to the west side of SR 99, and a narrow strip of Pyramid Alehouse property parallel to the east side of SR 99, as shown previously on Exhibit 3-11.

Page 60, last paragraph.

Revised Text:

The Southbound ~~access~~ route to the Jack Perry Memorial Viewpoint would change slightly, as vehicles would need to ~~navigate~~ travel through the reconfigured intersection at S. Atlantic Street to reach the viewpoint off of E. Marginal Way ~~Alaskan Way S.~~ Noise reaching the viewpoint from E. Marginal Way S. ~~the new Alaskan Way S. roadway~~ is likely to decrease slightly compared to existing conditions.

Page 61, last sentence of third paragraph.

Revised Text:

In addition, several blocks of free parking with no time limits are currently located near the project south of S. Massachusetts Street on Utah Avenue S. and Occidental Avenue S., although some of these spaces may be affected by parking removals from the Spokane Street and First Avenue S. project.

Page 62, first sentence.

Revised Text:

Because the project would not result in a loss of neighborhood cohesion, no long-term mitigation measures are needed.

Page 63, second sentence of first paragraph.

Revised Text:

The intersection at S. Atlantic Street, ~~the split northbound and southbound lanes of~~ Alaskan Way S., and the new undercrossing could potentially increase travel times to certain destinations.

Page 65, second paragraph.

Revised Text:

Species listed or proposed for listing under ESA who have suitable habitat in the Puget Sound area are the ~~bald eagle,~~

coastal-Puget Sound bull trout, Puget Sound Chinook salmon, Puget Sound steelhead, ~~leatherback sea turtle~~, southern resident killer whale, ~~humpback whale~~, and Steller sea lion. The project is not located near suitable habitat for these species; however, juvenile salmon, steelhead trout, and southern resident killer whales are located in nearby waterbodies. The project is not likely to adversely affect any listed species.

Page 67, third bullet.

Revised Text:

Mountains to Sound Greenway Pro-Parks Project –
The Pro-Parks Project is working to plan and build the missing links in the Mountains to Sound Greenway. One of these links is the short piece between SR 519 and the beginning of the I-90 trail on Beacon Hill. This trail connection would link the Greenway from I-90 to the Seattle waterfront near the stadiums. The SR 519 Intermodal Access Project Phase 2 includes a Greenway trail connection. The missing link from SR 519 downtown to the beginning of the Mountains to Sound/I-90 Trail on Beacon Hill would also be completed.

Bicycle and Pedestrian Area



Congested Intersections

2030 NO BUILD ALTERNATIVE

PM Peak – Rail Operations Not Blocking S. Atlantic Street

2030 BUILD ALTERNATIVE

PM Peak – Rail Operations Not Blocking S. Atlantic Street



Exhibit 3-8

Parking Permanently Removed



Chapter 4. Construction Effects and Mitigation

Page 72, Exhibit 4-1.

Exhibit 4-1 is the same as Exhibit S-4 shown above, which has been updated to show the construction activities for the revised Build Alternative.

Page 74, Exhibit 4-2.

Exhibit 4-2 has been revised to show the updated staging areas and work zones.

Page 80, Exhibit 4-6.

Exhibit 4-6 is the same as Exhibit S-5 shown above, which has been updated to show the construction roadway closures, restrictions, and detours for the revised Build Alternative.

Page 81, Exhibit 4-7.

Revised Table:

Exhibit 4-7
Total Duration of Roadway Restrictions on Key Routes

Affected Roadway	Duration of Roadway Restrictions
SR 99	2 years, 3 months <i>beginning in early 2011</i>
Alaskan Way S.	2 years, 9 months <i>beginning midyear in 2010</i> <u>Alaskan Way S. would be reduced to one northbound lane and two southbound lanes between S. Atlantic Street and S. King Street.</u>
S. Royal Brougham Way	Traffic detoured on S. Royal Brougham Way <u>would be closed briefly, then open for ferry holding for 6 to 10 months, and closed for the last 6 months of Stage 1, at the end of the first 17 months of construction (Stage 4);</u> S. Royal Brougham Way would be closed permanently where it crosses underneath the existing viaduct after Stage 1, midyear in 2011.

Page 82, Exhibit 4-8.

The exhibit for Stage 1 construction has been revised to incorporate the updates to the Build Alternative.

Page 83, third paragraph.

Deleted Text:

~~In addition, relocation of rail lines in the Whatcom Railyard would require an 8-hour rail closure and a weekend closure of S. Atlantic Street. During this brief closure, both motorized and nonmotorized traffic would be detoured to S. Royal Brougham Way.~~

Page 83, WOSCA sidebar.

Revised Text:

What is the WOSCA Detour?

A temporary detour at-grade connection would be built on the WOSCA property between SR 99, and S. Royal Brougham Way, ~~and the WOSCA property~~. Traffic would be at-grade at the south end of the detour near S. Royal Brougham Way, then travel on a temporary bridge roadway across the WOSCA property. At the north end of the detour, traffic would connect to SR 99 via temporary ramps that link up to the existing First Avenue S. ramps. During Stage 2, southbound SR 99 traffic would be diverted off of the existing viaduct between S. Royal Brougham Way and Railroad Way S. During Stage 3, both northbound and southbound SR 99 traffic would use the WOSCA detour in this section, as shown in Exhibit 4 10. ~~At the north end of the detour, traffic would connect to SR 99 via temporary ramps that link up to the existing First Avenue S. ramps.~~

Page 84, Exhibit 4-9.

The exhibit for Stage 2 construction has been revised to incorporate the updates to the Build Alternative.

Page 85, Exhibit 4-10.

The exhibit for Stage 3 construction has been revised to incorporate the updates to the Build Alternative.

Page 86, Exhibit 4-11.

The exhibit for Stage 4 construction has been revised to incorporate the updates to the Build Alternative.

Page 87, Exhibit 4-12.

The exhibit for Stage 5 construction has been revised to incorporate the updates to the Build Alternative.

Page 88, second paragraph.

Revised Text:

Traffic on Alaskan Way S. would be reduced to one northbound lane and two southbound lanes. ~~with a~~ The connection to E. Marginal Way S. would be maintained on a temporary roadway west of the undercrossing construction area by decking over the undercrossing. The temporary remote ferry holding would continue to be located west of the viaduct on the east side of Alaskan Way S.

Page 89, third paragraph.

Revised Text:

Beginning in Stage 1, S. Royal Brougham Way would be permanently closed where it intersects with the reconfigured Alaskan Way S. on the east side of SR 99. between Alaskan Way S. and First Avenue S. beginning in Stage 2 and would remain closed after construction is complete.

Page 93, third, fourth, and fifth paragraphs.

Revised Text:

How would pedestrians and bicycles be affected during construction?

During the first part of Stage 1, the sidewalk on the west side of Alaskan Way S. would be rerouted to a combined pedestrian/bicycle path on the east side of the street. This would allow construction of a new path on the west side of Alaskan Way S. When the path on the west side is completed, the path on the east side of Alaskan Way S. would be closed and bicycles and pedestrians would be directed to use the new separated path on the west side of Alaskan Way S. ~~pedestrians and bicyclists would use the existing combined path south of S. Atlantic Street. Between S. Atlantic Street and S. Royal Brougham Way, the path would cross under the existing viaduct and run along a temporary path east of the viaduct. North of S. Royal Brougham Way, the sidewalk on the west side of Alaskan Way S. would be closed and pedestrians and bicyclists would be routed along the existing combined pedestrian/bicycle path on the east side of the street.~~ Signs would be posted to help direct pedestrians and bicycles through the construction zone.

During ~~the last 6 months of~~ Stage 1 when construction for the southbound bridge structure ~~west half of the undercrossing~~ begins, bicyclists using the bike lane on Alaskan Way S. could be detoured as will vehicular traffic. ~~Traffic on Alaskan Way S. would be detoured to S. Atlantic Street, S. Royal Brougham Way, and First Avenue S.~~ Bicyclists would have the option of sharing the roadway with vehicles on the detour routes or using ~~the existing~~ combined pedestrian/bicycle path on the ~~east-west~~ side of Alaskan Way S.

During Stages 2 through 4, a combined pedestrian/bicycle path would continue to be provided on the west side of Alaskan Way S., close to the location of the existing sidewalk. The existing path located on the east side of Alaskan Way S. would be closed south of S. King Street. A pedestrian/bicycle

connection from the combined pedestrian/bicycle path on the west side of Alaskan Way S. to S. Atlantic Street would be provided. As in Stage 1, bicyclists would need to use the combined pedestrian/bicycle path or share the roadway with vehicles.

Page 94, second paragraph.

Revised Text:

Although the Seattle Ferry Terminal is located north of the project area, many drivers heading to or from the ferry terminal would need to pass through the construction zone. Currently, vehicles traveling to the terminal sometimes overflow under the existing viaduct north of S. Royal Brougham Way when the terminal is full during busy times. ~~There would be no changes to~~ Temporary ferry holding during would be constructed on the east side of the existing Alaskan Way S., west of SR 99, and become available approximately 10 months into Stage 1. During Stages 2 through ~~4~~5, a temporary remote ferry holding area would continue to be located ~~west on the east side of~~ Alaskan Way S. ~~and~~ south of S. King Street. During Stage 5, ferry holding would be moved to its permanent location on the east side of the relocated Alaskan Way S., just east of SR 99.

Page 95, last sentence of fourth paragraph.

Deleted Text:

~~This track would be available when construction is completed.~~

Page 96, second paragraph.

Revised Text:

Vehicles would experience the most traffic disruption on SR 99 during Stages 3 and 4, when traffic on mainline SR 99 is detoured onto the WOSCA property.

Page 97, second paragraph.

Revised Text:

Congested conditions are expected on the SR 99 mainline throughout the construction period, though the most congested conditions are expected during Stages 3 and 4.

Page 99 to 100, last paragraph

Traffic conditions during the 8-15 months of construction for Stages 3 and 4 ~~construction~~ represent the most congested conditions expected during the five construction stages.

Page 103, first paragraph.

Revised Text:

The project team has begun work on identifying candidate projects and programs that could be eligible for funding. Projects planned for implementation are discussed below. In addition, WSDOT is committed to engaging key businesses, agencies, and activity centers (sports and event facilities and the port terminals) in the south end as they refine the current construction staging plan. Thorough planning will reduce the impacts of construction on traffic, parking, access, and mobility in the project area and surrounding neighborhoods. By understanding access and mobility needs in the project area, WSDOT can develop a construction approach that avoids and minimizes temporary disruptions. These specific needs will be incorporated into the staging plan where possible and advisable to help ensure that traffic flows smoothly during construction. WSDOT will maintain communication during construction to monitor the effectiveness of the staging plan and to make reasonable adjustments where necessary., ~~the City of Seattle, and King County are considering establishing an oversight committee called the Downtown Transportation Operations Committee. This committee would be tasked with monitoring and coordinating construction activities in the greater downtown Seattle area. This committee would lead the~~

~~coordination efforts to ensure that transportation operations for all modes (general purpose traffic, transit, and freight) are as effective as possible during downtown construction activities. This committee would provide for real time communications and information linkages to better manage the multimodal transportation system.~~

Page 106, first sentence of third paragraph.

Revised Text:

Construction noise would be bothersome to nearby sensitive noise receptors, such as residents and businesses.

Page 108, second, third, and fifth bullets.

Revised Text:

- Construct temporary noise barriers or curtains around stationary equipment and long-term work areas that must be located close to residences. This would decrease noise levels at nearby sensitive receptors and could reduce equipment noise by ~~5 to 10~~ to 15 dBA.
- Designate specific construction activities as high-impact noise-generating activities ~~and assign noise limits that cannot be exceeded during specific time periods, and limit the noise generated by those activities to specific time periods that meet the City of Seattle Noise Ordinance.~~
- ~~Restrict impact construction activities, such as pile driving.~~

Page 108, second paragraph.

Revised Text:

Depending on project-specific construction methods, other mitigation measures could also be specified in ~~may be required by the City of Seattle and included as part of~~ a noise variance.

Page 109, first paragraph.

Revised Text:

Vibration and settlement caused by construction could damage existing structures and utilities. Construction activities that would result in the highest levels of ground vibration are the demolition of the existing viaduct structure and impact pile driving. During viaduct demolition, jackhammers and hoe rams would cause the highest levels of vibration. These activities could exceed the damage risk criterion for older extremely fragile buildings but would not likely exceed the project's damage risk criterion for newer buildings. Demolition activities conducted 100 feet or more from existing structures would not exceed the damage risk criterion for older extremely fragile buildings. Structures in the study area that may be extremely fragile include unrestored areaways, the spaces beneath the sidewalks of older buildings, and historic buildings that have not been structurally retrofitted. Buildings closer than 100 feet could potentially exceed the vibration damage risk criterion for extremely fragile buildings.

The majority of buildings along the proposed alignment for this project are not considered to be fragile. Two historic buildings are located near the viaduct, the Bemis Building and the Triangle Hotel. The Bemis Building is about 65 feet away from the viaduct, and the hotel is approximately 160 feet away from the viaduct and about 40 feet from the First Avenue S. ramp columns, which will remain in place. ~~For newer buildings, the risk for vibration damage would not be exceeded when construction activities are more than 25 feet away.~~

During impact pile driving, ground vibration levels may substantially exceed the damage risk criteria for older extremely fragile buildings and for newer buildings, depending on the size and force exerted by the pile driver. At distances of 400 feet or more, the damage risk is significantly lower and is expected not to exceed the damage risk criteria.

Page 110, second paragraph.

Revised Text:

WSDOT ~~could implement~~ will require vibration monitoring at the nearest historic structure or sensitive receiver to the construction activities. The monitored data ~~would~~ will be compared to the project's vibration criteria to ensure that ground vibration levels do not exceed the damage risk criteria for historic and non-historic buildings.

Page 115, third paragraph.

Revised Text:

Portions of seven properties would be used for temporary construction easements. Three properties have only temporary construction easements. Six of the seven Four properties ~~where~~ have permanent property acquisitions or utility easements ~~would be required~~ (as described in Chapter 3, Question 4 and Exhibit 3-11) ~~also require a small amount of~~ in addition to the additional property needed for temporary construction easements. Approximately ~~3.04~~ 0.36 acres ~~over and above the permanently affected properties~~ would be needed for temporary construction easements. These affected properties include Terminal 46, the Coast Guard property on Pier 36, a Port of Seattle property south of S. Massachusetts Street, the King County Connecticut Street Regulator, the King County King Street Regulator, Pyramid Alehouse, the Fortune Warehouse, and vacant the BNSF SIG Railyard land.

The SIG Railyard would require multiple nighttime closures (typically 6 hours) over a period of several months. The total area of the construction easement on the railroad property is about 0.57 acre. However, only a portion of the area would be closed at a time.

Page 116, end of third paragraph.

New Text:

The discussion of how to mitigate or minimize the effects of noise (Question 6), vibration (Question 7), dust (Question 8), loss of parking (Question 9), and changes to business access (Question 9) are described previously in this chapter.

Page 117, second paragraph.

Revised Text:

Mitigation measures for historic resources ~~will be~~ are described in a Memorandum of Agreement among WSDOT, FHWA, the Washington State Department of Archaeology and Historic Preservation (DAHP), ~~Advisory Council on Historic Preservation (ACHP),~~ interested and affected tribes, and the City of Seattle. The completed Memorandum of Agreement is included as Attachment 6 of the FONSI.

Page 118, third paragraph.

Revised Text:

Because the project could have an adverse effect on significant, eligible sites, mitigation measures ~~will be~~ are described in a Memorandum of Agreement among WSDOT, FHWA, DAHP, ~~ACHP,~~ interested and affected tribes, and the City of Seattle. The completed Memorandum of Agreement is included as Attachment 6 of the FONSI. ~~The draft Memorandum of Agreement, developed in compliance with Section 106 of the National Historic Preservation Act of 1966, is included in Appendix H. Mitigation measures would consider subsurface conditions and the likelihood of encountering archaeological material during excavation or construction activities. Mitigation may also include a combination of archaeological investigation and monitoring of subsurface excavations and/or borings conducted for geotechnical studies prior to construction.~~

Page 119, last paragraph.

Revised Text:

People using ~~the proposed route for~~ the Mountains to Sound Greenway Trail along S. Atlantic Street west of First Avenue S. would also be required to use an alternate route during construction.

Page 120, last sentence of second paragraph.

Revised Text:

These temporary effects do not require mitigation beyond providing temporary sidewalks and detour routes, informing the public of detour routes, and other measures described in Appendix B.

Page 123, second paragraph.

Revised Text:

The project would partially acquire property ~~of~~ from three parcels and require temporary or permanent easements on ~~four~~ six additional parcels. These parcels contain 32 potentially contaminated sites, a majority of which are associated with the terminals, which have long and varied historical uses. In addition, five parcels with three potentially contaminated sites have already been purchased by WSDOT.

Page 123, third paragraph.

Revised Text:

The project has the potential to generate approximately ~~222,000~~ 194,000 cubic yards of excavated soil, materials, and spoils that are potentially contaminated. This amount of material would bury a football field just over ~~100~~ 90 feet deep. ~~Approximately 204,000 cubic yards of the material is potentially contaminated.~~

Page 124, Exhibit 4-25.

This exhibit has been revised.

Page 125, Exhibit 4-26.

Revised Table:

**Exhibit 4-26
Duration of Roadway Restrictions During Project Construction**

Affected Roadway	Duration of Roadway Restrictions
SR 99	2 years, 3 months <i>beginning in early 2011</i>
Alaskan Way S.	2 years, 9 months <i>beginning midyear in 2010</i> <u>Alaskan Way S. would be reduced to one northbound lane and two southbound lanes between S. Atlantic Street and S. King Street.</u>
S. Royal Brougham Way	Traffic detoured on S. Royal Brougham Way would be closed briefly, then open for ferry holding for 6 to 10 months, and closed for the last 6 months of Stage 1, at the end of the first 17 months of construction (Stage 4); S. Royal Brougham Way would be closed permanently where it crosses underneath the existing viaduct after Stage 1, midyear in 2011.

Page 126, second, third, and last bullets.

Revised Text:

- **SR 519 Intermodal Access Project, Phase 2** – Construction is planned to begin in fall of 2008 and be completed by ~~2011~~ mid-2010.
- **Spokane Street Viaduct Phase 1**— Construction for ~~widening the Spokane Street Viaduct is expected to begin in June 2009 and be completed in June 2011.~~
- **South Spokane Street Project ~~Spokane Street Viaduct Phase 3, Fourth Avenue S. Loop Ramp~~** – Construction of this ramp is scheduled to begin in October 2008 and be completed in ~~the fall of 2011~~ September 2010.
- **E. Marginal Way Overpass** – Construction for this project is expected between 2007 and late 2010 or early 2011.

Page 127, fourth bullet.

Revised Text:

- **SR 99 Battery Street Tunnel Fire and Safety Improvements** – Construction for this project is expected to begin in ~~June~~ fall 2009 and continue through ~~February~~ spring 2011. This project will require evening and weekend closures of SR 99 through the Battery Street Tunnel.

Construction Staging & Work Zones



Exhibit 4-2

Stage 1 Construction



Stage 2 Construction



Stage 3 Construction



Stage 5 Construction



Draft Section 4(f) Evaluation

Please see the Section 4(f) Evaluation following Chapter 3 of this FONSI.

References

Page 139.

Revised Text:

ISO (International Organization for Standardization). 2003
~~1989~~. *Evaluation of Human Exposure to Whole-Body Vibration in Buildings (1-80 Hz)*. ISO-2631-2.

KPFF Consulting Engineers. 2008a. Executive Summary - Evaluation of Seismic Retrofit Options for the Alaskan Way Viaduct presented to the Stakeholders Advisory Committee Briefing on July 17, 2008 by Andrew W. Taylor, Ph.D., SE, FACI.

KPFF Consulting Engineers. 2008b. Evaluation of Seismic Retrofit Options for the Alaskan Way Viaduct Final Report. September 25, 2008.

Parametrix. ~~2008~~~~2007~~. *South Massachusetts Street to Railroad Way South – Electrical Line Relocation Project; Construction Dewatering Engineering Report – Final-Draft. ~~December 2007~~ February 2008.*

Shannon & Wilson, Inc. 2007. ~~Final-Draft~~ *Geotechnical and Environmental Data Report – Phase 1 Electrical Utilities Explorations, Alaskan Way Viaduct and Seawall Replacement Program. December-October 2007.*

WSDOT (Washington State Department of Transportation). 2008. Environmental Considerations Report – S. Holgate Street to S. King Street Viaduct Replacement Project. Prepared by Shannon & Wilson, Inc. December 2008.

Appendix B. Potential Mitigation Measures

Please see Attachment 4, the Mitigation Commitment List, which is an updated version of the EA's Appendix B.

Appendix C. Agency and Tribal Correspondence

The following pages are copies of correspondence between this project and tribes or the Department of Archaeology and Historic Preservation.

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STATE OF WASHINGTON

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343
(360) 586-3065 • Fax Number (360) 586-3067 • Website: www.dahp.wa.gov

October 23, 2008

Ms. Connie Walker Gray
Cultural Resource Specialist
WSDOT Urban Corridors Office
401 2nd Ave. South
Suite 400
Seattle, Washington 98104

In future correspondence please refer to:

Log: 012908-06-FHWA
Property: Alaskan Way Viaduct Replacement
Re: WOSCA Building DOE

Dear Ms. Walker Gray:

I have reviewed the previous materials you provided to our office for this project, the project correspondence, considered the additional information you provided during our teleconference with Barbara Bundy and Mimi Sheridan, and the site visit on October 22nd.

In my opinion as State Architectural Historian, the WOSCA building needs to be considered as one structure with two build dates, 1911 for the original warehouse/freight house portion, and 1923 for the office/head house addition. From the site visit, I have also noted that there appears to be a later concrete block addition on the southern end of the building. We do not consider the eligibility of additions separately under the guidelines of the National Register of Historic Places.

At this point there appears to be some confusion as to how to interpret Matthew Sterner's initial letter of eligibility dated June 11, 2008 and Greg Griffith's letter from 1996.

Regardless of those various assessments and interpretations, after careful consideration we now consider the WOSCA Building (as a whole) to be NOT ELIGIBLE for the National Register of Historic Places. This is due in part to the loss of character defining features of the property and site; such as the removal of the RR tracks (thus altering the setting), the removal of the cornice and entry doors (thus altering the design and materials) and the enclosure of the loading dock on the west façade.



For some reason it appears that the information on this building and other properties which were evaluated by Mimi Sherdian as part of this project, did not get entered into our historic property inventory database. If you can resend these text files and jpgs it would be much appreciated; then we can close out this project.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800.

Thank you for the opportunity to review and comment. Should you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Houser', written over a light blue rectangular background.

Michael Houser
State Architectural Historian
(360) 586-3076
michael.houser@dahp.wa.gov



**Washington State
Department of Transportation**

Northwest Washington Division
Urban Corridors Office
401 Second Avenue South, Suite 400
Seattle, WA 98104
206-464-1236/Fax 206-716-1101
www.wsdot.wa.gov

October 2, 2008

Allyson Brooks, PhD
Washington State Historic Preservation Officer
Department of Archaeology and Historic Preservation
PO Box 48343
Olympia, WA 98504-8343

Re: Log # 01-29-08-06-FHWA

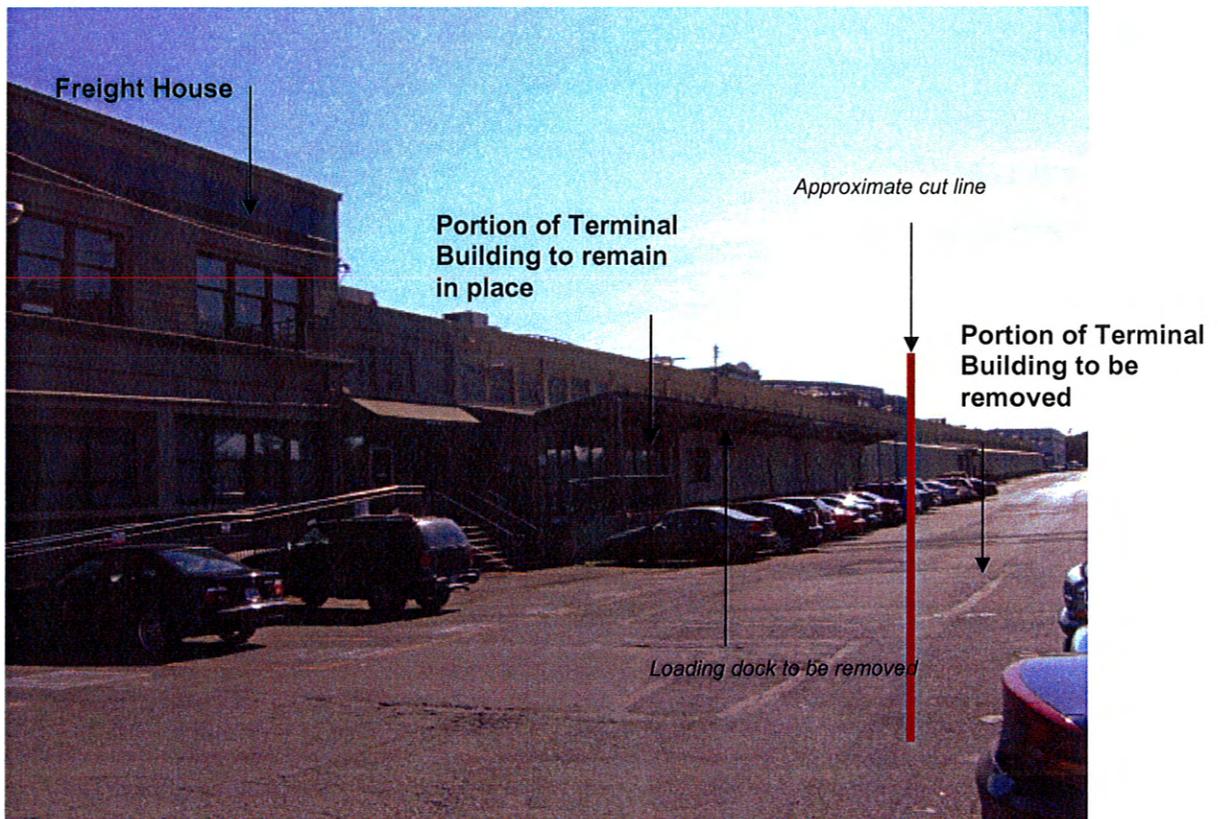
**SR 99: Alaskan Way Viaduct Moving Forward Program
S. Holgate Street to S. King Street Viaduct Replacement Project
No Adverse Effect to WOSCA Freight House Building**

Dear Dr. Brooks:

Per provisions of 36CFR800.3(a), the Washington Department of Transportation (WSDOT), on behalf of the Federal Highway Administration (FHWA), is continuing consultation on this undertaking. As you are aware, WSDOT determined, and SHPO concurred, that the above-referenced project would have an adverse effect on the Alaskan Way Viaduct and Bemis Building, and a Memorandum of Agreement (MOA) is being developed to mitigate those adverse effects.

The project description has recently been updated, and a portion of an additional building—the altered, NRHP ineligible WOSCA freight Terminal Building (“Terminal Building”)—will be removed to provide necessary construction staging. The purpose of this letter is to notify you of the change to the project description, and that there will be no additional adverse effects to historic properties as a result of this new development. This letter provides a thorough description of the planned activities. Also included as attachments are a copy of the Historic Property Inventory (HPI) Form for the Terminal Building and adjacent NRHP-eligible WOSCA freight house (Freight House) and a schematic site map illustrating the project area.

In the updated project description, the southern portion of the 880-foot Terminal Building will be demolished and the land will be used as a construction staging area for all construction-related activities associated with detour routes and bridges in the area. The Terminal Building is immediately adjacent to (south of) the NRHP-eligible Freight House. Approximately 160 feet of the Terminal Building closest to the Freight House will remain in place. The photograph, below, shows the location of the WOSCA Freight House in relation to the WOSCA Terminal Building and the proposed changes to the Terminal Building.



The portion of the Terminal Building that will remain in place comprises nine bays, demarcated by three vertical rows of six-over-six light casement windows, which are flanked by raised pilasters. These nine bays are immediately adjacent to the Freight House, and contribute to the integrity of setting, materials, workmanship, feeling, and association of the Freight House. The partial demolition of the Terminal Building will not constitute an adverse effect to the Freight House.

Retaining the northernmost nine bays of the Terminal Building would also increase usability of the remaining Terminal Building, as the retained bays include a modern entrance with a wheelchair-accessible ramp. The interior of the Terminal Building connects to the Freight House, which has bathrooms and other finished rooms. The new southern exterior wall of the Terminal Building would be compatible with the other concrete exterior walls and will be designed in consultation with an architect who

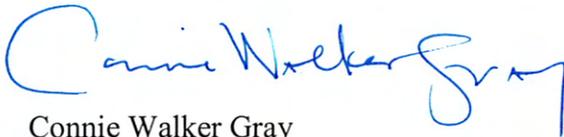
specializes in historic preservation and is familiar with the Secretary of Interior Standards.

Further, as part of this undertaking, the loading dock along the western façade of the Terminal Building will be removed. Currently, the corrugated metal-clad loading dock obscures the west façade of the Terminal Building. Removal of the loading dock will expose the western wall once again, and benefit the physical integrity of the building.

Specific construction staging activities that are planned for the area that is cleared include material and equipment storage, contractor parking and office trailers. All construction staging activities will be temporary, and are anticipated to last approximately two years; they would not constitute an adverse effect to the Freight House.

We would appreciate a letter from your office acknowledging your concurrence that demolition of the southern portion of the ineligible WOSCA Terminal Building will not have an adverse effect on the NRHP-eligible WOSCA Freight House. We would greatly appreciate a response as soon as possible, preferably by **Thursday October 9, 2008**. If you have any questions, or would like additional information, please contact me at 206-716-1138 or grayc@wsdot.wa.gov, or Angela Freudenstein, Project Environmental Manager at 206-382-5230 or freuda@wsdot.wa.gov.

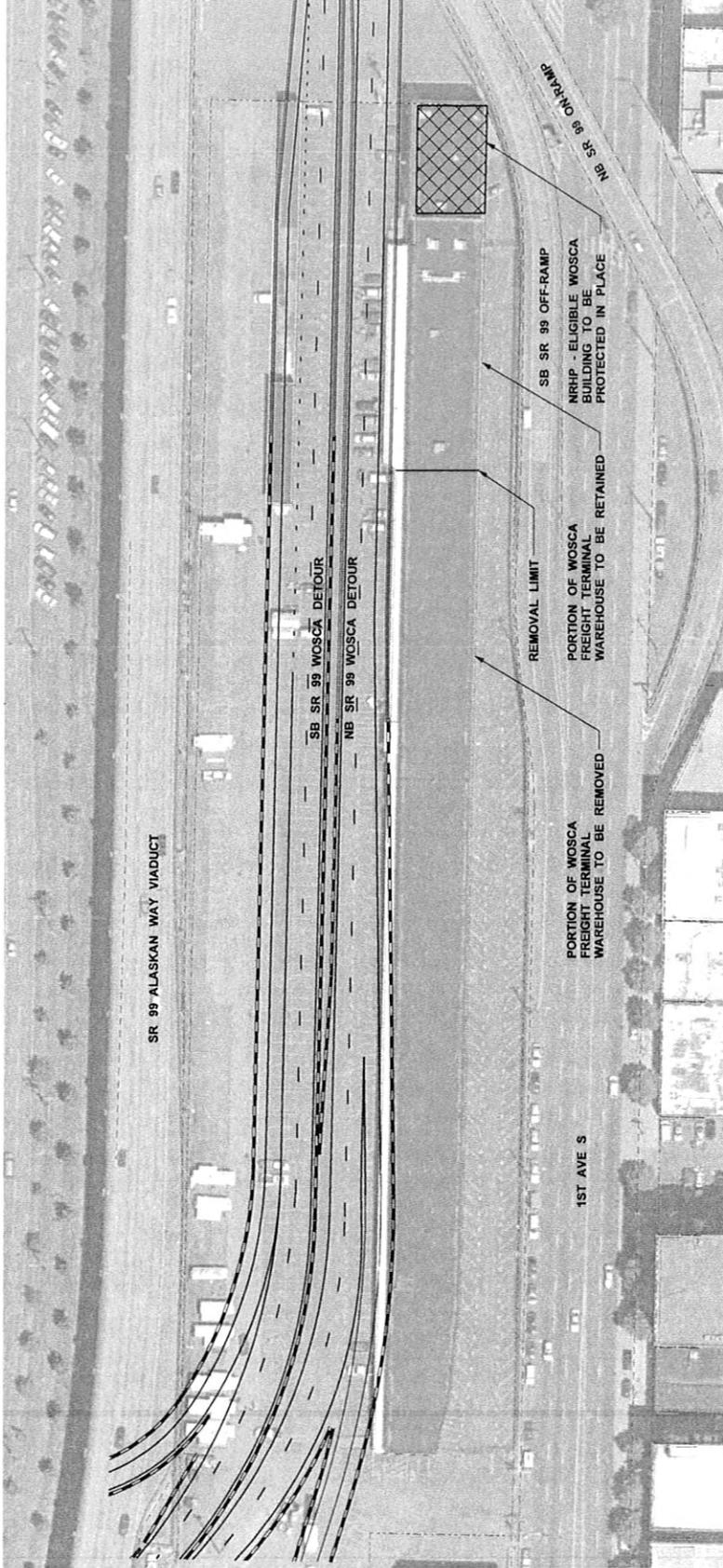
Sincerely,



Connie Walker Gray
Cultural Resources Specialist

Enclosures

Cc: Steve Boch, FHWA
Karen Gordon, City of Seattle
Angela Freudenstein, WSDOT
Allison Hanson, WSDOT
Scott Williams, WSDOT



ALASKAN WAY VIADUCT REPLACEMENT

PARTIAL REMOVAL OF WOSCA TERMINAL BUILDING
OCTOBER 1, 2008

SHT 1

Historic Property Inventory Report for Oregon & Washington Railroad Freight House at 801 1st Ave S, Seattle, WA

LOCATION SECTION

Field Site No. S50 OAHIP No.:

Historic Name: Oregon & Washington Railroad Freight House

Common Name: WOSCA Terminals/Union Pacific Freight House

Property Address: 801 1st Ave S, Seattle, WA

Comments:

County King Township/Range/EW Section 1/4 Sec 1/4 1/4 Sec Quadrangle SEATTLE SOUTH
T24R04E 08 SE

UTM Reference
 Zone: 10 Spatial Type: Point Acquisition Code: Geocoded
 Sequence: 1 Easting: 550075 Northing: 527160

Tax No./Parcel No.
7666206950

Plat/Block/Lot
Seattle, Tidelands Bl 01-376, Bl. 328, Lots 1-7, 13-19, Bl. 329 all

Supplemental Map(s)

Acreage
3.82

IDENTIFICATION SECTION

Survey Name: Holgate-King, AWV

Field Recorder: Mimi Sheridan Date Recorded: 1/30/2008

Owner's Name: WSDOT Owner Address: Olympia, WA 98504
P.O. Box 47338

Classification: Building Resource Status: Comments

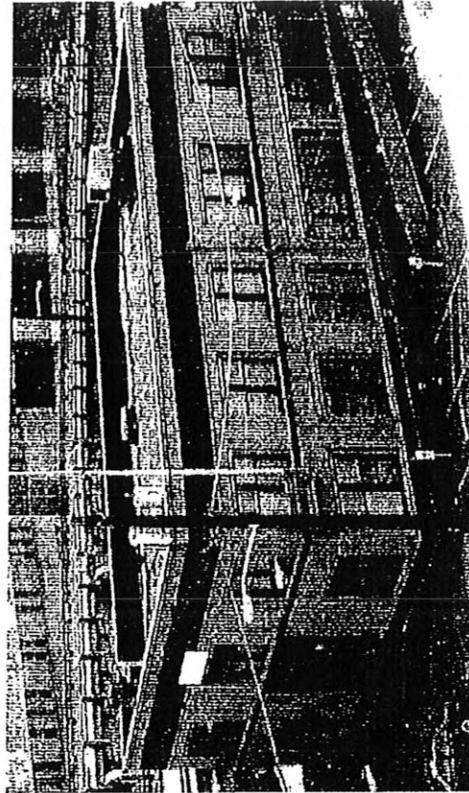
Within a District? No Determined Eligible - SHPO

Contributing?

National Register Nomination:

Local District:

National Register District/Thematic Nomination Name:



DESCRIPTION SECTION

Historic Use: Transportation - Rail-Related

Current Use: Commerce/Trade - Business

Plan: Rectangle No. of Stories: 2

Structural System: Concrete - Poured

Changes to plan: Slight

Changes to original cladding: Intact

Changes to windows: Intact

Changes to interior: Unknown

Changes to other:

Other (specify):

Style
Beaux-Arts - Neo-Classical

Form/Type
Commercial - One-Part Block

View of north and west facades

taken 3/22/2008

Photography Neg. No (Roll No./Frame No.):

Comments:

**Historic Property
Inventory Report for**

Oregon & Washington Railroad Freight House at 801 1st Ave S, Seattle, WA

Cladding Concrete - Poured	Foundation Concrete - Poured	Roof Material Asphalt / Composition - Built Up	Roof Type Flat with Parapet
-------------------------------	---------------------------------	---	--------------------------------

NARRATIVE SECTION

Date of Construction: 1923

Study Unit

Commerce

Transportation

Other

rail & truck

Architect:

Builder:

Engineer: J. Holman

Property appears to meet criteria for the National Register of Historic Places: Yes

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local):

**Statement of
Significance**

This complex consists of two parts. The older, altered portion, the freight terminal, was constructed in 1911. The freight house to the north was added in 1923. It was designed by J. R. Holman, the chief engineer of construction for the Oregon and Washington Railroad and Navigation Company, a subsidiary of the Union Pacific Railroad. The initial construction occurred at the same time as the construction of the nearby Union Pacific passenger terminal (Union Station) and the development of a large rail yard in South Seattle. These sheds were planned as the "inbound" freight house with the intention of constructing a similar adjacent shed to service the "outbound" traffic. The site originally included a yard with tracks for loading and putting together trains. A covered transfer platform built approximately 35 feet west has been removed. In 1941 the main entry of the office portion, the freight house, was moved from the east side to the north side to accommodate operational changes. Once rail freight declined, the building was used by the Washington-Oregon Shippers' Cooperative (WOSCA). In recent years the office has been used for various non-freight businesses and the freight sheds have been used for various warehouse and office tenants. The freight house has been determined eligible for the National Register. It is eligible under criterion A for its association with the early industrial and transportation development of Seattle. The freight sheds are more significantly altered and have been determined not eligible for listing.

This building is associated with the rapid development of rail transportation in Seattle in the first quarter of the 20th century, encouraged by the construction of the passenger terminals and the filling of the tidelflats. Increased trade with the arrival of transcontinental rail service and the 1897 Klondike Gold Rush led to a demand for more land. Filing of the tidelflats began in the 1880s and accelerated in 1900 to provide space for railroads and for commercial and industrial expansion. Eventually over 1,400 acres of tidelflats were reclaimed. Access from the north was provided in 1905 with the completion of a railroad tunnel that allowed trains to avoid the congested waterfront. Soon, the city's first passenger terminal was built at South King Street, followed by Union Station in 1911. Between 1906 and 1914, the Milwaukee, Great Northern, Union Pacific, and Northern Pacific railroads all developed railyards and support facilities on the reclaimed tidelflats. The increased industrial land and the greatly expanded rail facilities encouraged the development of manufacturing and distribution industries that could take advantage of the rail and maritime network for the import and export of raw materials and finished products.

**Description of
Physical
Appearance**

The headhouse is a two-story concrete building measuring approximately 50 feet wide and 100 feet long. Although basically utilitarian, it has a Neoclassical appearance with a cornice and a cap accentuated by continuous horizontal bands at window sill level. The large cornice has been replaced with painted sheet metal, probably due to earthquake damage. The main entrance near the center of the north facade is recessed, with modern doors. Windows are regularly spaced along the three main facades. Most are original one-over-one double-hung wood sash in pairs. The viaduct off-ramp is only a few feet from the building's northeast corner.

The three connected sheds to the south of the freight house extend 460 feet along 1st Avenue S. On the east side of the northern shed is a loading dock with approximately 15 bays, each with its own roll-up door. A concrete canopy with steel trusses shelters the loading dock. The southern extension has approximately 12 additional bays, but no exterior loading dock. Above the canopy are regularly spaced multipaned windows admitting light to the interior. On the west side, the loading dock is entirely enclosed with corrugated metal, with multipaned wood windows above. The northern end has several angled bays for trucks. This end, near the freight house, has been converted for office use, with new windows, stairs and a concrete entry ramp extending along the side of the building. Farther south, toward the center of this very long shed, are two newer loading doors and a pair of entries with wood stairs. A similar entry is at the south end, with a small freight entry with a concrete ramp.

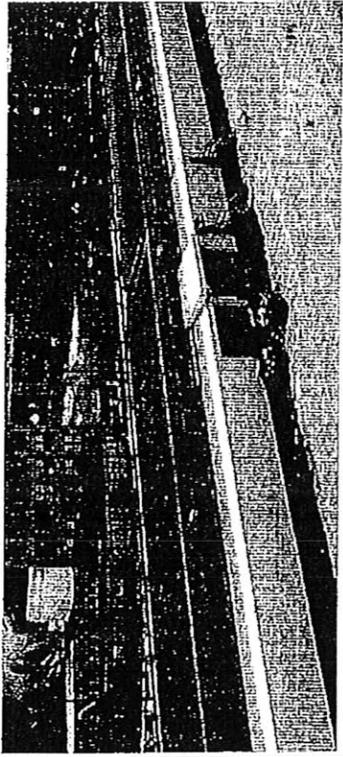
Historic Property Inventory Report for Oregon & Washington Railroad Freight House **at** 801 1st Ave S, Seattle, WA

Major Bibliographic References

- King County Property Record Card (c. 1838-1972). Washington State Archives.
- King County Tax Assessor Property Records, 2008.
- Poik's Seattle Directories, 1890-1996.
- Dodrill Consulting. 2007. Livable south downtown planning study draft environmental impact statement. Appendix H: Historic resources. Prepared for City of Seattle Department of Planning and Development.
- Link, K. 2005. Pioneer Square-Skid Road National Historic District. National Register Form.
- Washington State Major League Baseball Stadium Public Facilities District. 1996. Washington State major league baseball stadium project draft environmental impact statement. Seattle, Washington.

Additional Photos for: Oregon & Washington Railroad Freight House

at 801 1st Ave S, Seattle, WA

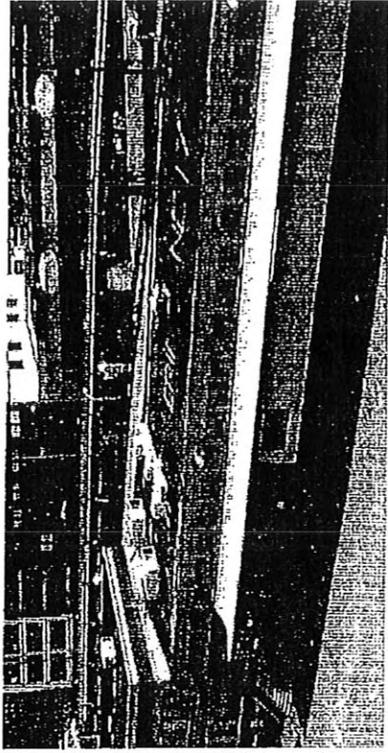


View of west

taken 3/22/2008

Photography Neg. No (Roll No./Frame No.):

Comments:

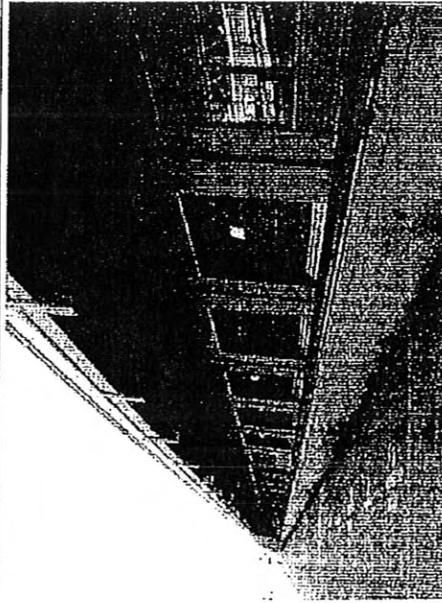


View of northwest section

taken 3/22/2008

Photography Neg. No (Roll No./Frame No.):

Comments:

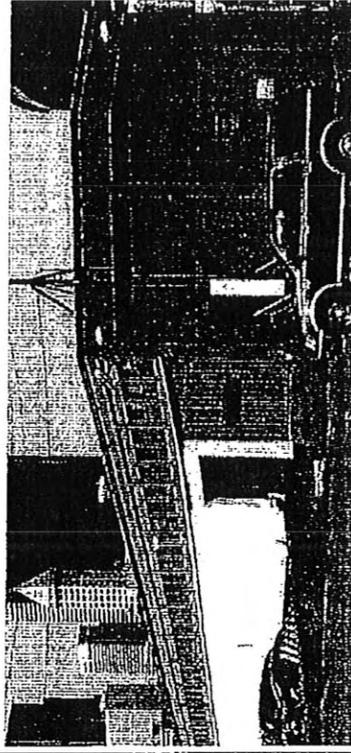


View of east facade

taken 5/2/2008

Photography Neg. No (Roll No./Frame No.):

Comments:



View of south end

taken 5/2/2008

Photography Neg. No (Roll No./Frame No.):

Comments:

Appendix D. Draft Section 4(f) Parts A, B, and C

Page Part B-10, Mountains to Sound Greenway Trail.

Revised Text:

Resource: Mountains to Sound Greenway Trail

Site Identification No.: R-3

Location: The location of the ~~planned~~ trail is shown on Exhibit B-3. The Project would be adjacent to the trail.

Size: 9- to 16-foot-wide multi-purpose trail.

Site Plan or Photograph: The location of the ~~planned~~ trail and relation to the Project is shown in Exhibit B-3.

Ownership: City of Seattle.

Type of resource: Multi-use trail.

Available activities or functions: Multi-use ~~Planned~~ trail.

Type of access to the resource: Pedestrian and bicycle.

Usage: ~~Planned, no current use.~~ Pedestrian and bicycle counts have not been taken. There has been no characterization of patterns of use. Pedestrian use is presumed to vary by season, with the peak use during summer afternoons.

Relationship to other similarly used lands in the vicinity: Will connect to the Waterfront Bicycle/Pedestrian Facility.

Applicable clauses affecting the ownership: None known.

Funding under Section 6(f) of the Land and Water

Conservation Fund Act: None identified by the Washington State Recreation and Conservation Office.

Conclusion regarding Section 4(f) use: This trail is not considered a recreational trail protected by Section 4(f). The trail is on the street right-of-way and is primarily a transportation facility.

Page Part B-19, WOSCA Freight House.

Delete page. Resource is no longer considered eligible (see letter included in errata for Appendix C).

Page Part B-23, Exhibit B-5.

Revised Table:

Exhibit B-5. Historic Resources Evaluated Relative to the Requirements of Section 4(f)

Map Code Number	Section 4(f) Resource Description					
	Location	Facility Name	Owner	Section 4(f) Status	Primary Use	Potential Effects
S32	1518 First Ave. S.	Bogart Golf (Frederick & Nelson Warehouse)	Private	Determined eligible NRHP	Retail	No use or substantial impairment; proximity effects are unlikely
S34	55-65 S. Atlantic St.	Bemis Building	Private	Determined eligible NRHP	Offices, studios	No use; significant proximity effects are unlikely
S43	1020-22 First Ave. S.	E.O. Graves Building	Private	Determined eligible NRHP	Undetermined	No use or substantial impairment; proximity effects are unlikely
S44	1014 First Ave. S.	Olympic Reprographics (M.F. Backus Warehouse)	Private	Determined eligible NRHP	Printing	No use or substantial impairment; proximity effects are unlikely
S45	1000 First Ave. S.	A.L. Palmer Building	Private	NRHP listed	Undetermined	No use or substantial impairment; proximity effects are unlikely
S48	900 First Ave. S.	Roebing Building	Private	Determined eligible NRHP	Undetermined	No use or substantial impairment; proximity effects are unlikely
S50	801 First Ave. S.	WOSCA (Oregon & Washington RR Freight Station/Union Pacific House)	WSDOT	Determined eligible NRHP	Office	No use; potential for damage during construction mitigated by normal practices
S57	551 First Ave. S.	Triangle Hotel (Flatiron Building)	Private	NRHP listed, PSHD	Retail	No use; potential for damage during construction mitigated by normal practices

NRHP = National Register of Historic Places

PSHD = Pioneer Square National Register Historic District

Appendix E. Air Quality Discipline Report

Chapter 5 of the Air Quality Discipline Report is included here for context. Additions to the chapter are underlined.

Chapter 5 Operational Effects, Mitigation, and Benefits

5.1 Operational Effects

5.1.1 Mobile Source Analysis

The results of the screening-level mobile source analysis that was conducted using the WASIST model are shown in Exhibit 5-1. The values provided are the highest 1-hour and 8-hour CO concentrations predicted at any of the receptor sites near the selected intersections for 2013 and 2030 conditions. The estimated CO concentrations for both the No Build and Build Alternatives are all below the 1-hour and 8-hour NAAQS of 35 and 9 ppm, respectively. Because the predicted results were all below the NAAQS, the results of this analysis indicate that a more in-depth mobile source air quality analysis is not required. See Attachment B for the WASIST output data tables.

Exhibit 5-1. Opening and Design Year Maximum Predicted CO Concentrations (ppm)

Intersection	Peak Period (AM or PM)	2013	2030	2013	2030
		No Build	No Build	Build	Build
		1 hr/8 hr	1 hr/8 hr	1 hr/8 hr	1 hr/8 hr
Alaskan Way S./S. King Street	PM	NS	NS	6.1/5.2	5.3/4.6
Colorado Avenue S./Alaskan Way S. (SB) & S. Atlantic Street	AM	NS	NS	4.6/4.1	4.2/3.8
Colorado Avenue S./Alaskan Way S. (SB) & S. Atlantic Street	PM	NS	NS	5.0/4.4	4.3/3.9
E. Marginal Way S./T-46 Driveway & S. Atlantic Street	AM	NS	NS	4.3/3.9	3.9/3.6
E. Marginal Way S./T-46 Driveway & S. Atlantic Street	PM	NS	NS	4.5/4.0	4.1/3.8
First Avenue S. & S. Royal Brougham Way	PM	7.4/6.1	6.3/5.3	7.0/5.8	5.9/5.0
First Avenue S. & S. Atlantic Street	PM	7.6/6.2	6.3/5.3	7.6/6.2	6.3/5.3
First Avenue S./S. Lander Street	PM	6.2/5.2	5.6/4.8	6.2/5.2	5.6/4.8

Notes: 2013 is the opening year and 2030 is the design year.
 All values include a conservative background concentration of 3 ppm.
 The 1-hour NAAQS is 35 ppm; the 8-hour NAAQS is 9 ppm.
 SB = Southbound T-46 = Terminal 46
 NS – For the No Build Alternative, the intersection at Colorado Avenue S. is not signalized.

The configuration of some intersections in the study area has changed due to project design changes. Southbound Alaskan Way traffic now runs parallel to the northbound Alaskan Way on the east side of SR 99, instead of running along the west side of SR 99 with an intersection at Colorado Avenue S. Also, there is a new intersection at the SR 99 on- and off-ramps, just south of S. King Street. The level of service (LOS) of these new or altered intersections is found in Exhibit 5-1a, and the intersections with an LOS of D or worse were modeled using the Washington State Intersection Screening Tool (WASIST). All other intersections in the study area have the same configuration and traffic volumes; therefore, the previous modeling results would not change.

Exhibit 5-1a. New or Altered Intersection LOS

<u>Intersection</u>	<u>AM Peak LOS</u>	<u>PM Peak LOS</u>
<u>Alaskan Way S. & SR 99 on- and off-ramps (frontage road/ferry holding)</u>	<u>B</u>	<u>B</u>
<u>Colorado Avenue S. & S. Atlantic Street</u>	<u>E</u>	<u>C</u>
<u>Alaskan Way S. & S. Atlantic Street</u>	<u>D</u>	<u>C</u>

The results of the screening-level mobile source analysis that was conducted using the WASIST model are shown in Exhibit 5-1b. The values provided are the highest 1-hour and 8-hour CO concentrations predicted at any of the receptor sites near the additional modeled intersections for the 2013 and 2030 Build Alternative. These intersections are not signalized under existing conditions or the No Build Alternative. The estimated CO concentrations are all below the 1-hour and 8-hour NAAQS of 35 and 9 ppm, respectively. Because the predicted results were all below the NAAQS, the results of this analysis indicate that a more in-depth mobile source air quality analysis is not required.

Exhibit 5-1b. Opening and Design Year Maximum Predicted CO Concentrations (ppm)

<u>Intersection</u>	<u>Peak Period (AM or PM)</u>	<u>2005 Existing Conditions</u>	<u>2013 No Build</u>	<u>2030 No Build</u>	<u>2013 Build</u>	<u>2030 Build</u>
		<u>1 hr/8 hr</u>	<u>1 hr/8 hr</u>	<u>1 hr/8 hr</u>	<u>1 hr/8 hr</u>	<u>1 hr/8 hr</u>
<u>Colorado Avenue S. & S. Atlantic Street</u>	<u>AM</u>	<u>NS</u>	<u>NS</u>	<u>NS</u>	<u>4.3/3.9</u>	<u>4.0/3.7</u>
<u>Alaskan Way S. & S. Atlantic Street</u>	<u>AM</u>	<u>NS</u>	<u>NS</u>	<u>NS</u>	<u>4.7/4.2</u>	<u>4.3/3.9</u>

Notes: 2013 is the opening year and 2030 is the design year.
 All values include a conservative background concentration of 3 ppm.
 The 1-hour NAAQS is 35 ppm; the 8-hour NAAQS is 9 ppm.
 NS – For the No Build Alternative and existing conditions, the intersection is not signalized.

5.1.2 PM₁₀ Analysis

Section 176(c) of the Clean Air Act requires that federally supported highway and transit project activities be consistent with state air quality goals found in the State Implementation Plan (SIP). The process to ensure this consistency is called Transportation Conformity. Conformity to the SIP means that transportation activities will not cause new violations of the NAAQS, worsen existing violations of the standard, or delay timely attainment of the relevant standard.

Transportation Conformity is required for federally supported transportation projects in areas that have been designated by EPA as not meeting a NAAQS. These areas are called nonattainment areas if they currently do not meet air quality standards or maintenance areas if they have previously violated air quality standards but currently meet them and have an approved Clean Air Act Section 175A maintenance plan. Project-level conformity may require an assessment of localized emission effects, known as a hot-spot analysis, for certain projects.

Because a portion of the southern end of the study area is designated as a maintenance area for PM₁₀, the Project is required to demonstrate compliance with the Transportation Conformity requirements in 40 CFR Part 93. This analysis must determine whether the Project could significantly affect localized PM₁₀ levels in the maintenance area. On March 10, 2006, EPA issued amendments to the Transportation Conformity Rule to address localized effects of particulate matter, entitled “PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-level Transportation Conformity Determinations for the New PM_{2.5} and Existing PM₁₀ National Ambient Air Quality Standards” (71 FR 12468).

A qualitative project-level hot-spot assessment was conducted following the joint EPA and FHWA Transportation Conformity Guidance to assess whether the Project would cause or contribute to any new localized PM₁₀ violations, increase the frequency or severity of any existing violations, or delay timely attainment of the PM₁₀ NAAQS.

Following the methodologies provided in the March 2006 guidance, future average annual daily traffic (AADT) volumes on SR 99 were compared to existing AADT volumes on roadways near the Project and the concentrations measured at the ambient PM₁₀ monitors to determine whether the Project could cause or exacerbate a violation of the PM₁₀ NAAQS. The monitor selected for this analysis is located along the SR 99 corridor south of the study area at 4401 E. Marginal Way S. (see Exhibit 3-2).

The Project would not cause or contribute to any new localized PM₁₀ violations, increase the frequency or severity of any existing violations, or delay timely attainment of the PM₁₀ NAAQS because:

- No exceedances of the 24-hour PM₁₀ NAAQS have been recorded at the representative (E. Marginal Way S.) monitor in approximately 20 years.
- The highest 24-hour PM₁₀ value recorded at the monitor is well below the NAAQS, and the projected increase in AADT is not expected to cause an exceedance, even without the mandated vehicular emission reduction requirements.
- PM₁₀ effects from diesel truck emissions on a per vehicle basis should significantly decrease between 2005 and 2030 because national diesel engine and diesel sulfur fuel regulations would be implemented that are expected to cut heavy-duty diesel emissions. This reduction should offset the emission increases resulting from the 10 percent increase in traffic volumes.

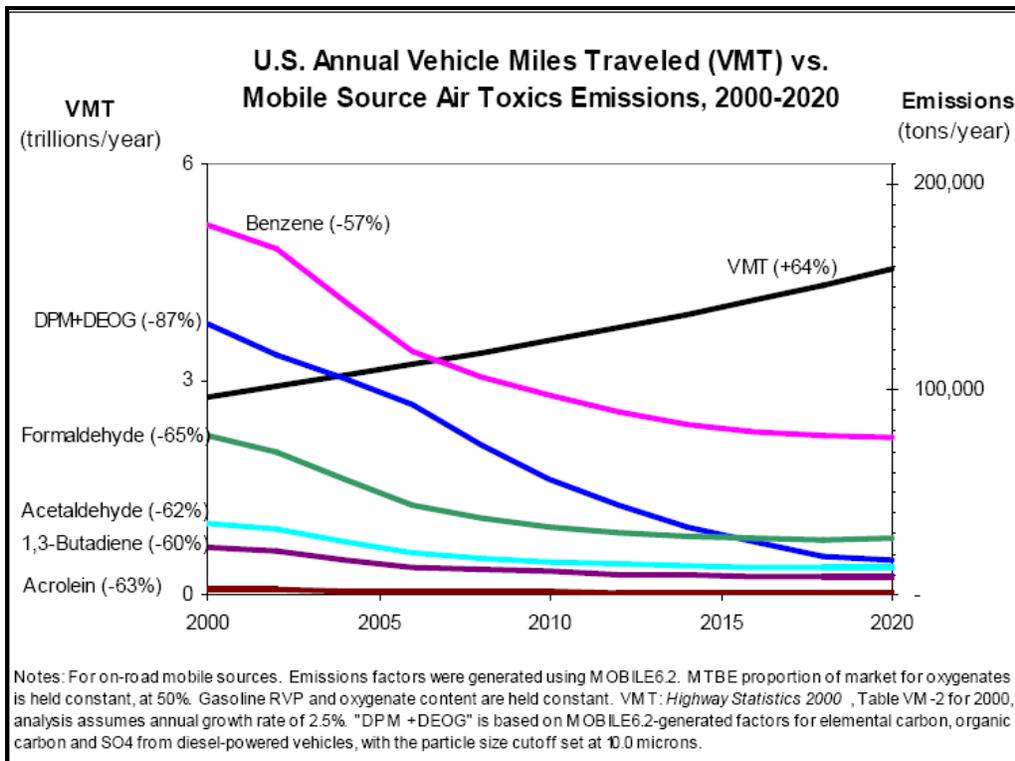
There would be no change in traffic volumes or truck percentages as a result of the project design changes. Therefore, the analysis would not change and the Project would not cause or contribute to any new localized PM₁₀ violations, increase the frequency or severity of any existing violations, or delay timely attainment of the PM₁₀ NAAQS.

5.1.3 Mobile Source Air Toxic Emissions Analysis

As shown in Exhibit 5-2, emissions will likely be lower than present levels in the design year as a result of EPA’s national control programs that are projected to reduce MSAT emissions by 57 to 87 percent between 2000 and 2020. As shown in Exhibit 5-3, MSAT in the study area are predicted to dramatically decrease in the future as compared to existing conditions, even though the VMT of SR 99 is predicted to increase by 25 percent. This trend echoes the national trend illustrated in Exhibit 5-2. Local trends differ slightly from national trends due to fleet mix and turnover, VMT growth rates, and local control measures.

As shown in Exhibit 5-4, VMT is expected to increase approximately 8 percent within the study area for the Build Alternative as compared to the No Build Alternative. MSAT levels are predicted to increase approximately 8 percent for the Build Alternative as compared to the No Build Alternative. Though there are increases with the Project, future MSAT levels are predicted to be lower than existing levels even with increased VMT.

Exhibit 5-2. Vehicle Miles Traveled vs. Mobile Source Air Toxics



Source: FHWA 2006

Exhibit 5-3. Predicted MSAT Levels (Tons/Year) – Existing vs. Future No Build

Condition	Year	Vehicle Miles Traveled (VMT)	% VMT Change from Existing	Pollutant (tons/year)						% Change from Existing					
				Acetaldehyde	Acrolein	Benzene	1,3-Butadiene	DPM	Formaldehyde	Acetaldehyde	Acrolein	Benzene	1,3-Butadiene	DPM	Formaldehyde
Existing	2005	93,585	NA	0.180	0.026	2.23	0.196	1.25	0.478						
No Build	2030	118,284	26%	0.084	0.011	1.034	0.075	0.077	0.214	-53%	-57%	-54%	-62%	-94%	-55%

Note: DPM = diesel particulate matter
 NA = not applicable

Exhibit 5-4. Predicted MSAT Levels (Tons/Year) – Future No Build vs. Future Build

Condition	Year	Vehicle Miles Traveled (VMT)	% VMT Change from No Build	Pollutant (tons/year)						% Change from No Build					
				Acetaldehyde	Acrolein	Benzene	1,3-Butadiene	DPM	Formaldehyde	Acetaldehyde	Acrolein	Benzene	1,3-Butadiene	DPM	Formaldehyde
No Build	2030	118,284	NA	0.084	0.011	1.034	0.075	0.077	0.214						
Build	2030	127,670	8%	0.091	0.012	1.11	0.081	0.083	0.230	8%	8%	8%	8%	8%	8%

Note: DPM = diesel particulate matter
 NA = not applicable

There would be no substantial change in traffic volumes or vehicle miles traveled (VMT) as a result of the project design changes. Therefore, the analysis is valid and future MSAT levels are predicted to be lower than existing levels even with increased VMT as a result of the Project.

5.1.4 Greenhouse Gas Analysis

Quantitative modeling tools to evaluate greenhouse gas emissions at the project level are limited at this time, but better tools are under development and will be available from the EPA within the next several years.¹

This Project would replace a section of the Alaskan Way Viaduct with a new, seismically sound structure, but through capacity on SR 99 would not change. The Project would also provide new southbound on- and northbound off-ramps to SR 99. These new ramps would allow drivers to move into and out of the Seattle street system more directly, reducing stop and go travel and thereby reducing fuel consumption. In addition to improvements to SR 99, the Project would improve important freight connections at S. Atlantic Street. This would reduce congestion and idling time for many trucks moving between the BNSF SIG Railyard and the Port of Seattle's Terminal 46. Together, these changes would create more efficient driving conditions and reduce the amount of fuel consumed by drivers; therefore, the Project would not increase and could slightly reduce greenhouse gas emissions from transportation in the area.

There would be no substantial change in traffic volumes or VMT as a result of the project design changes. Therefore, the analysis is valid and the Project would not increase greenhouse gas emissions from transportation in the area.

5.2 Operational Mitigation and Benefits

Because the mesoscale MSAT emissions are not expected to increase and no exceedances of the NAAQS are anticipated, no significant adverse air quality effects are expected from the Project. Therefore, no mitigation measures would be required. Any transportation demand control measures that reduce traffic volumes and levels of congestion within the study area, such as improving transit connections into downtown, would reduce traffic-related air pollutant emissions.

¹ Some projects have applied EPA's equation: fuel consumed (FC) is the amount of fuel that would be used to operate a vehicle or bus. The emission factor (EF) is the amount of CO₂ that would be emitted during combustion of a gallon of fuel. This equation does not take into account the speed of vehicles on the roadway and is not a recommended analysis method for transportation projects. Light duty vehicles are most efficient at moderate speeds in the range of 40 to 55 miles per hour. Current modeling systems available in Washington State are not able to account for speed. The result is that we are unable to show the effect of this improvement in traffic flow on emissions until future EPA tailpipe emission models are issued.

Appendix F. Transportation Discipline Report

Section 1.3.2, Page 3, second bullet.

Revised Text:

- Alaskan Way S. would be realigned from the west side of SR 99 to the east side of SR 99 by constructing a new roadway from S. Atlantic Street north to approximately S. Dearborn Street. The new NB SR 99 off-ramp and new SB SR 99 on-ramp would connect to Alaskan Way S. west of SR 99, at approximately S. Dearborn Street. This new intersection would be signalized to facilitate traffic flow to and from SR 99 and the newly reconfigured Alaskan Way S.
- ~~NB and SB frontage roads to connect S. Atlantic Street and S. Royal Brougham Way to Alaskan Way S. NB Alaskan Way S. would also provide access to the remote holding area for the Seattle Ferry Terminal. S. Royal Brougham Way would no longer provide the direct, at-grade east-west connection between First Avenue S. and Alaskan Way S. that it does today.~~

Section 1.4.1, Page 4, third bullet.

Delete Bullet:

- ~~While travel patterns would change to some degree, the Project elements are not expected to substantially affect traffic conditions at the First Avenue S. and S. Atlantic Street intersection, which is expected to experience similar conditions (level of service (LOS) E during the PM peak) under the 2030 Baseline conditions as with the Project.~~

Section 1.4.2, Page 6, first partial paragraph.

Revised Text:

The new undercrossing would result in a complex set of intersections at the convergence of E. Marginal Way S., Terminal 46 (T-46), ~~Alaskan Way S.~~, Colorado Avenue S., and S. Atlantic Street. ~~Especially~~ Long traffic signal cycle lengths would be needed to accommodate all movements at this location. As a result, average vehicle delays at this location are expected to be relatively high during the 2030 AM peak hour.

Section 1.4.2, Page 6, first paragraph.

Revised Text:

- Generally, the most severe travel effects would occur during Traffic ~~Stage 3~~ Stages 3 and 4, when SR 99 capacity would be reduced to the greatest extent and construction activities would continue to affect nearby surface roadways:

Section 1.4.2, Page 6, first through fourth bullets.

Revised Text:

- Traffic ~~Stage 3~~ Stages 3 and 4 traffic estimates developed for the AM and PM peak hours generally reflected a 30 to 35 percent reduction in normal base year traffic on SR 99.
- Traffic simulation indicates that detour of SR 99 during Traffic ~~Stage 3~~ Stages 3 and 4 can operate reasonably and accommodate most of the projected demand (roughly 65 to 70 percent of normal peak traffic) during both the AM and PM peak hours. Speeds through the detour itself would be in the 8 to 20 miles per hour (mph) range.
- During Traffic ~~Stage 3~~ Stages 3 and 4, the Alaskan Way S./S. Atlantic Street/Colorado Avenue S. intersection is projected to operate at LOS F conditions during the AM peak hour. Resulting congestion would form along SB Alaskan Way S., NB E. Marginal Way S., and NB Colorado Avenue S. The neighboring T-46 intersection would

operate at LOS D during the AM peak hour. These intersections would operate somewhat better during the PM peak hour (LOS E and D), and resulting congestion would be lighter.

- Traffic simulation analysis shows stable flow along First Avenue S. during Traffic ~~Stage 3~~ Stages 3 and 4. All intersections along First Avenue S. in the study area are forecasted to operate at LOS D or better, except for First Avenue S./S. Royal Brougham Way (LOS E during the PM peak hour) and First Avenue S./S. Main Street (LOS F during the PM peak hour).

Section 4.2.5, Page 37, following the fourth paragraph.

New Paragraph:

The SR 99/E. Marginal Way corridor in the project area is recognized as being the safest and primary connection for bicyclists from the West Seattle, White Center, Arbor Heights, and Burien areas to the downtown central business district. This corridor also serves as a key conduit to allow bicyclists access to other neighborhoods and communities in the region.

Section 4.2.8. Page 41, last sentence on the page.

Revised Text:

The Port of Seattle's East Marginal Way Grade Separation Project is currently under construction and will provide a grade separation at this location when completed in late ~~2009~~ 2010 or early 2011.

Section 4.2.8. Page 42, third paragraph.

Add a sentence to the end of the paragraph:

However, trucks serving T-46 will also continue to access the main SIG gate and potentially the Union Pacific Railroad ARGO Yard.

Section 4.2.9, Page 45, bulleted text.

Replace the bullets with the following text:

- ~~Legal vehicles 30 feet long and longer may apply for a permit to travel within the zone from 9:00 a.m. to 3:00 p.m., but do not need a permit from 7:00 p.m. to 6:00 a.m. Curfews are in effect from 6:00 to 9:00 a.m. and 3:00 to 7:00 p.m. except on Saturdays and Sundays.~~
- ~~On Saturdays, a permit is required for legal vehicles 30 feet long and longer to travel in the zone, but curfews are not in effect.~~
- ~~The above restrictions are not in effect on Sundays.~~
- ~~Over legal vehicles are not allowed to move within the Downtown Traffic Control Zone between the hours of 6:00 a.m. and 7:00 p.m. An over legal permit and/or validation number is required for movement within the zone between the hours of 7:00 p.m. and 6:00 a.m.~~
- Vehicles over 30 feet in length are restricted Monday through Saturday between the hours of 6:00 a.m. and 7:00 p.m. Special permission is required for movement during these hours.
- Over-legal loads are not permitted in the Downtown Traffic Control Zone between the hours of 6:00 a.m. and 7:00 p.m., Monday through Friday. Special permits must be obtained for any movement in this area.
- State permitted over-legal loads and vehicles must also obtain a special one-day permit for movement in the Downtown Traffic Control Zone.

Section 4.3.1, Page 57, first paragraph.

Revised Text:

Currently, study area intersections operate at LOS D or better, with the exception of the unsignalized intersection of First Avenue S. and S. Massachusetts Street, which operates at LOS E F during the AM and PM peak. ~~The other exception is the~~

~~unsignalized intersection at Alaskan Way S. and S. King Street, which operates at LOS F during the PM peak period.~~
Additionally, the unsignalized intersection of Colorado Avenue S. and S. Atlantic Street operates at LOS F during both the AM and PM peak hours.

Section 4.3.1, Page 57, Exhibit 4-20.

Exhibit 4-20 has been replaced with the following:

Exhibit 4-20. Existing (2005) AM and PM Peak-Hour Detailed Traffic Operations

Street	Cross Street	AM Peak Hour		PM Peak Hour	
		LOS	Avg Veh Delay (sec)	LOS	Avg Veh Delay (sec)
Alaskan Way S.	S. King Street ¹	A	9	A	9
First Avenue S.	S. Royal Brougham Way	B	19	C	24
First Avenue S.	S. Atlantic Street	C	31	C	30
First Avenue S.	S. Massachusetts Street ¹	D	44	F	84
First Avenue S.	S. Holgate Street	B	10	B	12
First Avenue S.	S. Lander Street	B	16	C	21
Alaskan Way S.	S. Royal Brougham Way	C	27	C	21
Alaskan Way S	S Atlantic Street ¹	C	28	C	32
Colorado Avenue S.	S. Atlantic Street ⁴	F	115	F	110

1. Intersections that are unsignalized under existing conditions, but are expected to be signalized in the future.

Section 4.3.1, Page 57, last paragraph.

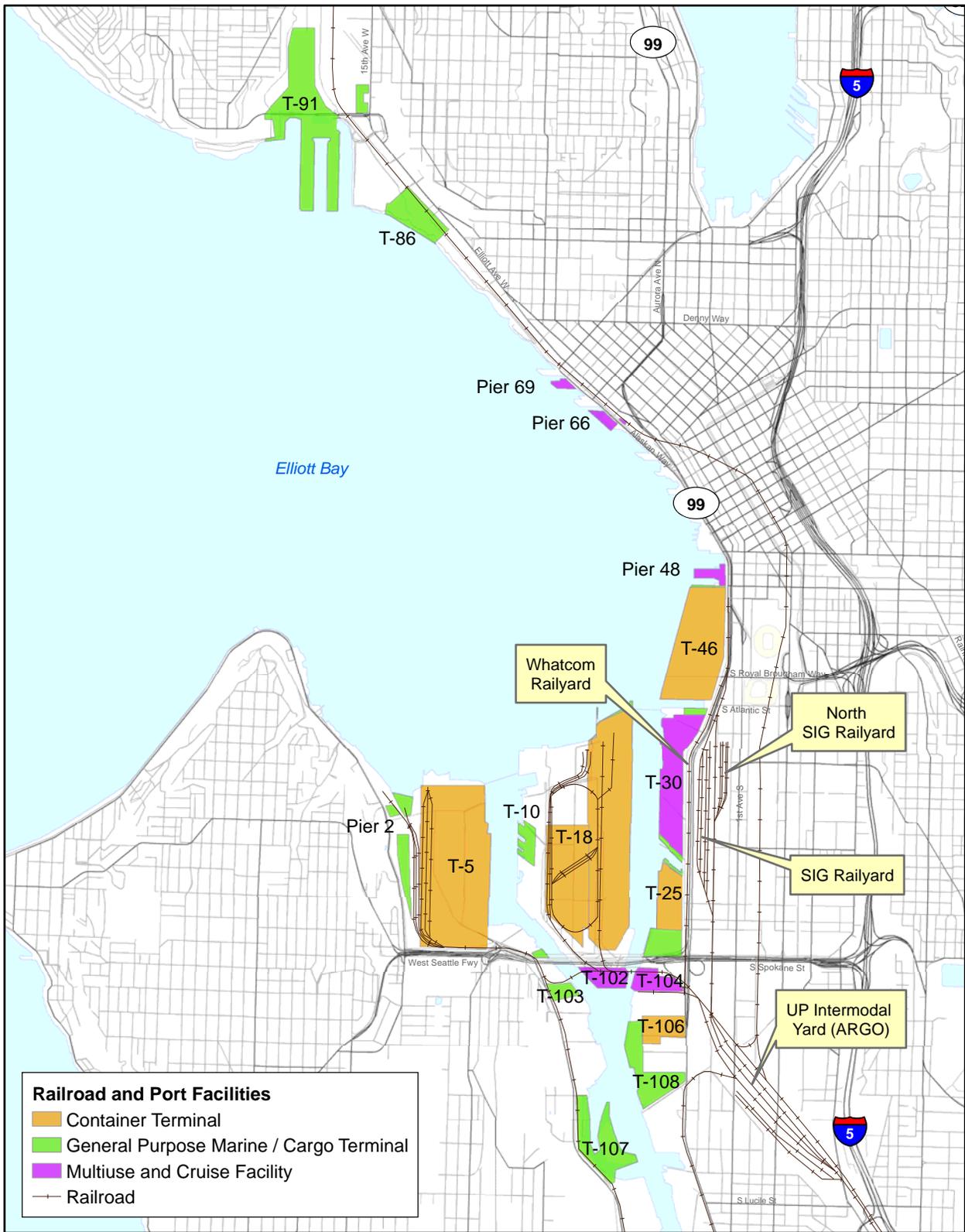
Revised Text:

~~Intersection traffic operations analysis does not specifically account for potential effects associated with train crossings on the BNSF tail track east of E. Marginal Way S. at S. Atlantic Street. Currently, these train crossings on the BNSF tail track east of E. Marginal Way S. at S. Atlantic Street crossings have minimal effect on traffic operations on First Avenue S., but can affect conditions on Alaskan Way S. and E. Marginal Way S. to a greater extent.~~

Section 4.3.2, Page 64, Exhibit 4-24.

The shading of the Port of Seattle property shown on Exhibit 4-24 has been revised.

FILE: \\stfiv\product\GIS\le-3\Maps\EA\Ex 4-24 Port and Rail Facilities.mxd



0 0.5 1 Miles

Basemap Data Source: City of Seattle, 2006. Port of Seattle, 2008.

**Exhibit 4-24
Railroad Yards and Port
of Seattle Facilities**

Section 5.1.2, Page 80-89, whole section.

The following text replaces the entire Section 5.1.2:

5.1.2 Traffic Operations

Key Findings

- Additional trips drawn to SR 99 by the S. King Street ramps are not expected to substantially affect traffic flow along SR 99 south of the new ramps, and operations on SR 99 north of S. King Street may improve somewhat due to redistribution of traffic to the new ramp locations.
- Project elements would change travel patterns and operating conditions in the study area. The S. King Street/ Alaskan Way S. and First Avenue S./S. Royal Brougham Way intersections are expected to particularly benefit from improved traffic operations as a result of the Project.
- Changes in surface street operations are not expected to affect SR 99 or ramp traffic conditions.
- The Project would provide a new, grade-separated connection under the BNSF tail track. This undercrossing would provide for continuous access across the tracks, which is not possible today or under the future baseline conditions. The new undercrossing would result in a complex set of intersections at the convergence of E. Marginal Way S., T-46, Colorado Avenue S., and S. Atlantic Street. Long traffic signal cycle lengths would be needed to accommodate all movements at this location. As a result, average vehicle delays at this location are expected to be relatively high during the 2030 AM peak hour. However, overall conditions are expected to be improved relative to the 2030 Baseline given the uninterrupted availability of access across the tail track.

SR 99 Mainline Level of Service

This section presents the AM and PM peak-hour LOS for corridor segments under the 2030 Baseline Scenario and the Build Alternative. As described in Chapter 2, LOS is a standard measure of intersection performance that describes the degree of congestion forecasted. LOS is measured on a scale from A (best level of service, representing free-flow conditions), to F (very congested breakdown conditions).

Mainline traffic performance was modeled using VISSIM simulation software. LOS for mainline and ramp operations is calculated based on speed and density, as observed in the VISSIM model. Although LOS can indicate how a facility performs overall, it is not always a straightforward means of comparing scenarios, because ramp and segment arrangements vary among the scenarios.

2030 Baseline Level of Service

Exhibits 5-3 and 5-4 show the SR 99 mainline LOS by segment for the existing facility for year 2030 travel demands during the AM and PM peak hours, respectively. These findings generally reflect the existing conditions described in Chapter 4, but with some increases in congestion due to growth in travel demand. Under most conditions, this corridor is expected to operate under LOS D or E conditions by 2030. The exception is during the AM peak hour in the SB direction south of the First Avenue S. ramps, where LOS B conditions are forecasted.

Exhibit 5-3. 2030 Baseline AM Peak Hour SR 99 Segment LOS

Southbound		Northbound	
Columbia On to First Avenue S. Off	E	D	First Avenue S. On to Seneca Off
First Avenue S. Off to S. Spokane Street	B	D	S. Spokane Street to First Avenue S.

Exhibit 5-4. 2030 Baseline PM Peak Hour SR 99 Segment LOS

Southbound		Northbound	
Columbia On to First Avenue S. Off	E	D	First Avenue S. On to Seneca Off
First Avenue S. Off to S. Spokane Street	D	D	S. Spokane Street to First Avenue S.

Build Alternative Level of Service

The Build Alternative includes a number of changes that are expected to affect traffic operations, including new access to/from the SR 99 mainline in the stadium area. As shown in Exhibits 5-5 and 5-6, LOS D, E, and F conditions are forecasted for peak travel directions under the Build Alternative: NB in the AM peak, SB in the PM peak. The other travel direction operates at LOS C or D during the AM peak and LOS D during the PM peak.

Exhibit 5-5. Build Alternative (2030) AM Peak Hour SR 99 Segment LOS

Southbound		Northbound	
Columbia On to First Avenue S. Off	D	D	First Avenue S. On to Seneca Off
S. King Street On to S. Spokane Street	C	F	S. Spokane Street to S. King Street Off

Exhibit 5-6. Build Alternative (2030) PM Peak Hour SR 99 Segment LOS

Southbound		Northbound	
Columbia On to First Avenue S. Off	E	D	First Avenue S. On to Seneca Off
S. King Street On to S. Spokane Street	E	D	S. Spokane Street to S. King Street Off

As a whole, mainline traffic operations for the Build Alternative would be comparable to the 2030 Baseline Scenario. The main exception is from S. Spokane Street to S. King Street, where higher volumes (attracted to SR 99 due to new access at S. King Street) would cause the LOS to deteriorate to LOS F. Although the LOS indicates congestion at this location, the speed would still be relatively high (40 mph). Therefore, although the density of vehicles on the roadway would be relatively high (contributing to the degraded LOS), traffic would still move at a reasonable speed, and breakdowns in flow are not expected.

SR 99 Mainline Speeds

This section presents the AM and PM peak-hour travel speeds for corridor segments for the 2030 Baseline Scenario and the Build Alternative. Mainline traffic speeds were modeled using VISSIM simulation software. Travel speed results for the corridor segments confirm the LOS findings for the 2030 Baseline Scenario: they show congested conditions causing slower speeds on the existing

facility in 2030 NB during the AM peak (Exhibit 5-7), and in both directions during the PM peak (Exhibit 5-8).

Under the Build Alternative (Exhibits 5-9 and 5-10), peak-period travel speeds are generally expected to be the same, although some slowing is expected to occur on the southern segment (from S. King Street to S. Spokane Street) due to increased volumes and exiting movements to the NB off-ramp at S. King Street, which would provide improved access from the south. The additional traffic is expected to come from parallel arterial routes such as First Avenue S. Conversely, travel speeds are expected to improve on the northern segment (from Columbia Street to First Avenue S.), because fewer vehicles would be traveling this segment due to the new access at S. King Street. Therefore, these vehicles would travel in a more direct route to their destination.

Exhibit 5-7. 2030 Baseline AM Peak Hour SR 99 Segment Speeds

	Southbound	Northbound	
Columbia On to First Avenue S. Off	40	40	First Avenue S. On to Seneca Off
First Avenue S. Off to S. Spokane Street	50	50	S. Spokane Street to First Avenue S.

Exhibit 5-8. 2030 Baseline PM Peak Hour SR 99 Segment Speeds

	Southbound	Northbound	
Columbia On to First Avenue S. Off	30	20	First Avenue S. On to Seneca Off
First Avenue S. Off to S. Spokane Street	45	50	S. Spokane Street to First Avenue S.

Exhibit 5-9. Build Alternative (2030) AM Peak Hour SR 99 Segment Speeds

	Southbound	Northbound	
Columbia On to First Avenue S. Off	40	40	First Avenue S. On to Seneca Off
S. King Street On to S. Spokane Street	45	40	S. Spokane Street to S. King Street Off

Exhibit 5-10. Build Alternative (2030) PM Peak Hour SR 99 Segment Speeds

	Southbound	Northbound	
Columbia On to First Avenue S. Off	40	40	First Avenue S. On to Seneca Off
S. King Street On to S. Spokane Street	40	45	S. Spokane Street to S. King Street Off

Arterial Traffic Performance

To assess the effects of the 2030 Baseline Scenario and the 2030 Build Alternative on the surface street network, traffic operations at study area signalized intersections have been evaluated. Traffic operations at these locations can be affected by redistribution effects caused by (1) changes to street grid connections, (2) changes to the intersection configurations or traffic control (signals), or (3) relocation of access points to the SR 99 corridor, which affects how traffic distributes to and from the SR 99 corridor.

All intersections directly affected by, or created as a result of, implementation of the Build Alternative are analyzed. Other major, signalized intersections within the study area are assessed as well; these are concentrated along First Avenue S., Alaskan Way S., and S. Atlantic Street.

The traffic analysis software package VISSIM was used to quantify the LOS and average vehicle delays at selected intersections in the project area for projected AM and PM peak hour conditions under anticipated 2030 traffic demand. Traffic routing would vary at the new undercrossing location, depending on whether a train is present in the railroad crossing. Traffic operations were evaluated for the average peak hour with three 10-minute tail track blockages during the hour. Results of this analysis are shown in Exhibits 5-11 and 5-12.

Exhibit 5-11. Intersection Level of Service

Street	Cross Street	2005	2030	2030	2005	2030	2030
		Existing	Baseline	Build	Existing	Baseline	Build
		AM PEAK HOUR			PM PEAK HOUR		
Alaskan Way S.	S. King Street ¹	A	B	A	A	B	B
Alaskan Way S.	Ferry Holding	-	-	B	-	-	B
First Avenue S.	S. Royal Brougham Way	B	C	B	C	D	C
First Avenue S.	S. Atlantic Street	C	C	C	C	C	D
First Avenue S.	S. Massachusetts Street ²	D	B	A	F	B	B
First Avenue S.	S. Holgate Street	B	B	C	B	B	C
First Avenue S.	S. Lander Street	B	B	B	C	C	C
Alaskan Way S.	S. Royal Brougham Way	C	C	C	C	E	D
Alaskan Way S.	S. Atlantic Street	C	-	-	C	-	-
Colorado Avenue S.	S. Atlantic Street ³	F	F	E	F	F	C
E. Marginal Way S.	T-46 Driveway/ S. Atlantic Street ³	-	D	E	-	D	D

¹ This intersection is unsignalized for existing conditions and the 2030 Baseline Scenario, and signalized in the 2030 Build Alternative.

² This intersection is currently unsignalized but is assumed to be signalized in both the 2030 Baseline and 2030 Build Alternative.

³ These intersections are unsignalized for the existing condition, signalized for the Baseline and Build conditions, and have different configurations for the existing conditions, 2030 Baseline Scenario, and 2030 Build Alternative.

Exhibit 5-12. Intersection Average Vehicle Delay (seconds)

Street	Cross Street	2005	2030	2030	2005	2030	2030
		Existing	Baseline	Build	Existing	Baseline	Build
		AM PEAK HOUR			PM PEAK HOUR		
Alaskan Way S.	S. King Street ¹	9	14	6	9	13	11
Alaskan Way S.	Ferry Holding	-	-	17	-	-	11
First Avenue S.	S. Royal Brougham Way	19	20	16	24	45	20
First Avenue S.	S. Atlantic Street	31	38	31	30	34	45
First Avenue S.	S. Massachusetts Street ²	44	11	5	84	19	15
First Avenue S.	S. Holgate Street	10	11	11	12	18	21
First Avenue S.	S. Lander Street	16	14	17	21	22	23
Alaskan Way S.	S. Royal Brougham Way	27	33	31	21	66	48
Alaskan Way S.	S. Atlantic Street	28	-	-	32	-	-
Colorado Avenue S.	S. Atlantic Street ³	115	116	69	84	102	23
E. Marginal Way S.	T-46 Driveway/ S. Atlantic Street ³	-	46	68	-	40	50

¹ This intersection is unsignalized for existing conditions and the 2030 Baseline Scenario, and signalized in the 2030 Build Alternative.

² This intersection is currently unsignalized but is assumed to be signalized in both the 2030 Baseline and 2030 Build Alternative.

³ These intersections are unsignalized for the existing condition, signalized for the Baseline and Build conditions, and have different configurations for the existing conditions, 2030 Baseline Scenario, and 2030 Build Alternative.

The project team made the following observations based on the results of the VISSIM analysis:

- The proposed intersection of Colorado Avenue S./ S. Atlantic Street would operate with a delay rating of LOS E during the AM peak hour and LOS C during the PM peak hour, an improvement over the Baseline condition of LOS F. This intersection is unsignalized and configured differently today, hence a direct LOS comparison to baseline conditions is not a useful comparison. However, the simulation model did indicate that the level of traffic

volumes expected at this intersection under future baseline conditions would make truck movements from NB Colorado Avenue S. to WB S. Atlantic Street very difficult given that the intersection is unsignalized.

- The remaining study intersections would operate at LOS D or better conditions during the AM and PM peak hours. Operations at First Avenue S. and S. Royal Brougham Way are expected to improve compared to baseline conditions.

LOS E represents traffic operations that are at or near capacity. For this reason, a discussion of operations at these locations follows.

Colorado Avenue S./Undercrossing/S. Atlantic Street

This intersection is projected to operate at LOS E during the 2030 AM peak hour, an improvement over the LOS F conditions forecasted for the 2030 Baseline Scenario. Although signal phasing and timing has been optimized at this intersection, vehicles in some lanes with high volumes would still experience delays due to the expected large number of trucks traveling to T-46 from the North SIG Railyard. Movements that are expected to experience high delays are the Colorado Avenue S. NB left/through lane and the left/through lane of the undercrossing (when in use).

These LOS results in part reflect the need to use a long cycle length to accommodate all movements. The signal system for this location must provide not only for movements that occur specifically at this intersection, but also for those at the adjacent E. Marginal Way S./T-46 driveway/S. Atlantic Street intersection as well. Further, the signal system includes provisions to accommodate rail crossings on the BNSF tail track while diverting traffic to the new undercrossing.

E. Marginal Way S./S. Atlantic Street/T-46 Driveway

This intersection is projected to operate at LOS E during the 2030 AM peak hour. Similar to the Colorado Avenue S./S. Atlantic Street intersection, the LOS results reflect the need to use a long cycle length to accommodate all movements.

Estimating Effects of the Tail Track Crossing

Mainline and surface street traffic performance was observed using VISSIM simulation for the 2030 Baseline and Build scenarios. A review of the final optimized simulation shows that at a systemwide level, traffic flows are stable. However, higher than normal vehicle delays and queuing are expected to occur at times at the locations noted below.

Baseline Observations

Alaskan Way S./S. Royal Brougham Way

During the PM peak hour, some relatively large delays and queues are expected along SB Alaskan Way S. during tail track blockages by trains. The tail track crosses S. Royal Brougham Way to the east of Alaskan Way S., and traffic from Alaskan Way S. heading EB must wait until the track clears, causing queues and delays. Operation under normal conditions when the tail track is clear experiences little delay.

Alaskan Way S./T-46 Driveway

During the AM peak hour, relatively long queues are anticipated for truck traffic heading EB along the T-46 driveway. While it is assumed that a traffic signal will be in operation by 2030, delays are still anticipated, particularly when the tail track is blocked.

Colorado Avenue S./S. Atlantic Street

Significant delay and queues are projected to occur for the NB stop-controlled movement, especially during the AM peak hour with an expected large number of trucks traveling to T-46 from the North SIG Railyard.

Build Observations

E. Marginal Way S./S. Atlantic Street/T-46 Driveway

During the AM and PM peak hours, some queuing occurs NB on E. Marginal Way S. and EB at the T-46 driveway. The signal system for this location must provide for movements that occur specifically at this intersection and also for those at the adjacent Colorado Avenue S./S. Atlantic Street and Alaskan Way S./S. Atlantic Street intersections. The proposed signal system design provides phase sequencing and overlaps that keep the tail track

clear during typical operation. Further, the signal system includes provisions to accommodate rail crossings on the BNSF tail track while also diverting traffic to the new undercrossing. As a result, travelers are expected to face delays at this location as the traffic signal cycles through all necessary signal phases.

Colorado Avenue S./S. Atlantic Street/Undercrossing

During the AM peak hour, with the tail track bypass in use, some queuing and delay would occur for trucks traveling from Colorado Avenue S. into the undercrossing. This is due to the expected large number of trucks traveling to T-46 from the North SIG Railyard.

Tail Track Bypass (Undercrossing)

In both the morning and evening peak hours, the tail track bypass is anticipated to fill up due to high vehicle volumes and limited capacity within the undercrossing. During the AM peak hour, overall vehicle volumes are not expected to be very high, but a large percentage of those vehicles will be trucks. Because trucks are, on average, much longer than typical passenger autos and have reduced operational characteristics, queues form with fewer vehicles. During the PM peak hour, overall volumes are projected to be high. However, volumes are expected to have a vehicle composition that has a greater proportion of passenger vehicles. As a result, queues are expected to be similar to the AM peak hour rather than larger.

S. Atlantic Street/First Avenue S.

During both the AM and PM peak hours, vehicles approaching this intersection from the east are expected to experience some delay due to heavy WB left-turn movements from S. Atlantic Street onto SB First Avenue S. The queue for left turns is expected to extend beyond the left-turn pocket, impeding vehicles wishing to travel through the intersection or make right turns onto northbound First Avenue S.

Effects to Specific Sensitive Areas

Fire Station No. 5 on Alaskan Way S. near the Seattle Ferry Terminal is an important emergency services facility. Although it is outside the study area, traffic operations on Alaskan Way S. and

on connecting east-west arterials could affect response time and egress from this waterfront fire station. The Build Alternative would not degrade traffic conditions along the waterfront, and it is not expected to affect fire station operations compared to the 2030 Baseline Scenario.

Fire Stations No. 10 (located near Fifth Avenue S. and S. Washington Street) and No. 14 (at about S. Hanford Street and Fourth Avenue S.) also respond to incidents in the vicinity of the Project. Fire and emergency services are described in more detail in the Public Services and Utilities Technical Memorandum in Appendix G.

Section 5.2.1, Page 91, first paragraph.

Revised Text:

The project design changed after an initial traffic analysis was completed. The new design includes a reconfiguration of the SR 99 off-ramp, the remote holding area for the Seattle Ferry Terminal, and ~~the frontage road (NB Alaskan Way S.)~~.

Section 5.2.5, Page 95, second bullet.

Delete Bullet:

- ~~▪ Due to the proposed roadway configuration, the connection between S. Atlantic Street and E. Marginal Way S. would become more complicated for bicyclists and pedestrians.~~

Section 5.2.5, Page 95, last paragraph.

Revised Text:

A 10- to ~~12-~~20-foot-wide bicycle/pedestrian mixed-use path would be added along the north side of S. Atlantic Street, west of First Avenue S., ~~as part of the Mountains to Sound Greenway Trail~~. This path would connect to the sidewalks and bike paths on the west side of SR 99. On the south side of S. Atlantic Street, the existing sidewalk would be replaced ~~increased to a width of 12 feet~~. Similarly, the sidewalk ~~width~~

on the east side of Colorado Avenue S., south of S. Atlantic Street, would be replaced ~~increased to 12 feet.~~

Section 5.2.5, Page 96, Exhibit 5-15.

Exhibit 5-15 is the same as Exhibit 3-2 in the EA, which is shown above in the Chapter 3 errata. The exhibit has been updated to show the bicycle and pedestrian facilities with the revised Build Alternative.

Section 5.2.5, Page 97, first paragraph.

Revised Text:

The connection between S. Atlantic Street and E. Marginal Way S. would occur under the elevated SR 99 roadway. As currently designed, the intersection configuration would be slightly complicated for bicyclists ~~heading EB on S. Atlantic Street and for NB bicyclists. EB bicyclists would need to use the pedestrian/bicycle trail on the north side of S. Atlantic Street, or would share the road with vehicles.~~ NB bicyclists approaching this intersection would remain in the bicycle lane, which would transition to a center lane to the left of the right-hand turn lane. The location of this bike lane would allow cyclists to continue NB without conflicting with right-turning vehicles. ~~are proposed to have their own signal that would operate at the same time as the NB left turn, which would operate with no other movements allowed, reducing the potential conflicts between bikes and vehicles. However, cyclists would still need to use caution at this location due to the potential that drivers may still turn right on a red light, even though that movement is prohibited. One design modification currently under consideration is to have NB cyclists cross to a widened bike path on the west side of E. Marginal Way S. and use the proposed crosswalk system at the intersection.~~

Section 5.2.5, Page 97, second paragraph.

Revised Text:

North of S. Atlantic Street, on the west side of SR 99, a bicycle/pedestrian path would be provided on either side of the undercrossing. At about S. Royal Brougham Way, these two paths would join to form a 14-foot-wide bicycle/pedestrian path in the greenway corridor ~~on the west side of Alaskan Way S.~~, west of the relocated tail track (in accordance with the City of Seattle Bicycle Master Plan). A 14-foot-wide bicycle/pedestrian path also would be provided in the greenway corridor on the east side of SR 99 ~~between the remote holding area and SR 99~~. Additionally, there would be a sidewalk on the east side of NB Alaskan Way S.

Section 5.2.5, Page 97, fourth paragraph.

Deleted Text:

~~Between S. Atlantic Street and S. Royal Brougham Way, in addition to the shared path, a 5-foot-wide bike lane would be provided on the west side of SB Alaskan Way S., east of the relocated tail track. This would be west of the SR 99 roadway. This bike lane would allow connections with S. Atlantic Street and E. Marginal Way S.~~

Section 5.2.5, Page 98, second through fourth paragraphs.

Revised Text:

Between S. Royal Brougham Way and S. King Street, in addition to the 14-foot-wide bicycle/pedestrian path, a 5-foot-wide bike lane would be provided in ~~the NB~~ each direction ~~along on the east side of NB Alaskan Way S. (west of the SR 99 roadway).~~

On the east side of SR 99, a 14-foot-wide bicycle/pedestrian path would be added west of Alaskan Way S. ~~the remote holding area for the Seattle Ferry Terminal. A 5-foot-wide NB and SB bike lanes~~ would be provided ~~on the east side of NB Alaskan Way S.~~ (east of the SR 99 roadway). Additionally, a

~~10-foot wide~~ sidewalk would be provided on the east side of ~~NB~~ Alaskan Way S., to the east of the bike lane.

Just south of S. King Street, the bike lanes, greenway corridor, and sidewalks on the east side of SR 99 would pass under the viaduct and merge into the existing shared-use path on the east side of Alaskan Way S. The shared-use path on the west side of Alaskan Way S. would connect with the existing sidewalk. The bike lanes would end ~~north~~ just south of S. King Street, and bicycles would share the roadway with vehicles or use the shared-use path on the east side of Alaskan Way S., as they do today.

Section 5.2.6, Page 100, first paragraph.

Revised Text:

A private development is also scheduled to occur near S. Atlantic Street and First Avenue S., with Home Plate Development adding about 790 parking spaces by 2010 when complete.

Section 5.2.6, Page 100, first paragraph.

Revised Text:

The closest on-street unrestricted parking is located just south of the project area, along S. Massachusetts Street west of First Avenue S. and on Utah Avenue S. south of S. Massachusetts Street, although some of these spaces may be affected by parking removals from other projects that affect S. Spokane Street and First Avenue S.

Section 5.4.2, Page 105, third bullet.

Revised Text:

- Traffic analysis results are consistent with those described previously for conditions in 2030. In most cases, ~~notably the First Avenue S. and S. Atlantic Street intersection,~~ traffic operating conditions are uniformly (though moderately) better than reported for 2030 due to less

projected growth in peak traffic volumes (continued regional and local increases in population and employment will result in higher traffic volumes in 2030 than in 2013).

Section 5.4.2, Page 109, fifth and sixth paragraphs.

Revised Text:

This section reports the results of the ~~Synchro~~ VISSIM analysis and traffic simulation observations for the Year of Opening Build Alternative.

~~Synchro~~ VISSIM Analysis

To assess the Year of Opening conditions for the surface street network, traffic operations at study area signalized intersections have been evaluated in the same manner as for the 2030 conditions presented previously.

Section 5.4.2, Pages 110 and 111, Exhibits 5-28 and 5-29.

Replace Exhibits 5-28 and 5-29 with the following exhibits:

Exhibit 5-28. Year of Opening Intersection Level of Service

Street	Cross Street	2005 Existing	Year of Opening Baseline	Year of Opening Build	2005 Existing	Year of Opening Baseline	Year of Opening Build
		AM PEAK HOUR			PM PEAK HOUR		
Alaskan Way S.	S. King Street ¹	A	B	A	A	B	B
Alaskan Way S.	Ferry Holding	-	-	B	-	-	B
First Avenue S.	S. Royal Brougham Way	B	C	B	C	C	B
First Avenue S.	S. Atlantic Street	C	C	C	C	C	D
First Avenue S.	S. Massachusetts Street ²	D	A	A	F	B	A
First Avenue S.	S. Holgate Street	B	B	B	B	B	B
First Avenue S.	S. Lander Street	B	B	B	C	B	B
Alaskan Way S.	S. Royal Brougham Way	C	E	C	C	F	B
Alaskan Way S.	S Atlantic Street	C	-	-	C	-	-
Colorado Avenue S.	S. Atlantic Street ³	F	F	E	F	E	C
E. Marginal Way S.	T-46 Driveway/ S. Atlantic Street ³	-	C	E	-	C	D

¹ This intersection is unsignalized for existing conditions and the Year of Opening Baseline Scenario, and signalized in the Year of Opening Build Alternative.

² This intersection is currently unsignalized but is assumed to be signalized in both the Year of Opening Baseline and Year of Opening Build Alternative.

³ These intersections are unsignalized for the existing condition, signalized for the Baseline and Build conditions, and have different configurations for the existing conditions, Year of Opening Baseline Scenario, and Year of Opening Build Alternative.

Exhibit 5-29. Year of Opening Intersection Average Vehicle Delay (seconds)

Street	Cross Street	2005 Existing	Year of Opening Baseline	Year of Opening Build	2005 Existing	Year of Opening Baseline	Year of Opening Build
		AM PEAK HOUR			PM PEAK HOUR		
Alaskan Way S.	S. King Street ¹	9	6	6	9	11	10
Alaskan Way S.	Ferry Holding	-	-	16	-	-	19
First Avenue S.	S. Royal Brougham Way	19	27	16	24	29	18
First Avenue S.	S. Atlantic Street	31	32	30	30	30	44
First Avenue S.	S. Massachusetts Street ²	44	9	5	84	11	9
First Avenue S.	S. Holgate Street	10	11	10	12	17	18
First Avenue S.	S. Lander Street	16	14	16	21	19	17
Alaskan Way S.	S. Royal Brougham Way	27	75	32	21	86	20
Alaskan Way S.	S Atlantic Street	28	-	-	32	-	-
Colorado Avenue S.	S. Atlantic Street ³	115	90	67	84	69	24
E. Marginal Way S.	T-46 Driveway/ S. Atlantic Street ³	-	35	64	-	20	45

¹ This intersection is unsignalized for existing conditions and the Year of Opening Baseline Scenario, and signalized in the Year of Opening Build Alternative.

² This intersection is currently unsignalized but is assumed to be signalized in both the Year of Opening Baseline and Year of Opening Build Alternative.

³ These intersections are unsignalized for the existing condition, signalized for the Baseline and Build conditions, and have different configurations for the existing conditions, Year of Opening Baseline Scenario, and Year of Opening Build Alternative.

Section 5.4.2, Page 111, first paragraph.

Revised Text:

Traffic analysis results are consistent with those described previously for conditions in 2030. In most cases, ~~notably the First Avenue S. and S. Atlantic Street intersection,~~ traffic operating conditions are uniformly (though moderately) better than reported for 2030 due to less projected growth in peak

traffic volumes (continued regional and local increases in population and employment will result in higher traffic volumes in 2030 than in 2010).

Section 6.1.1, Page 114, second paragraph.

Revised Text:

- NB and SB traffic on Alaskan Way S. would be maintained between S. King Street and E. Marginal Way S. with two lanes in the SB direction and one lane in the NB direction. ~~until construction of the undercrossing between E. Marginal Way S./T 46 and S. Atlantic Street/Colorado Avenue S. During construction of the undercrossing, Alaskan Way S. would be detoured on S. Royal Brougham Way, First Avenue S., and S. Atlantic Street.~~

Section 6.1.2, Page 114, last bullet.

Deleted Bullet:

- ~~A new temporary access point for transit use only is proposed from Alaskan Way S. to the SB SR 99 detour route north of S. Royal Brougham Way.~~

Section 6.1.3, Page 115, first paragraph.

Revised Text:

Traffic Stage 3 ~~is~~ and Traffic Stage 4 are expected to have the largest effect on traffic operations in and through the project construction work zone.

Section 6.1.4, Page 116, first paragraph.

Revised Text:

Traffic Stages 3 and 4 are expected to have the largest effect on traffic operations in and through the project construction work zone. Construction activities planned during the expected 7 months of Traffic Stage 4 are:

Section 6.1.4, Page 116, sixth and seventh bullets.

Revised Text:

- NB and SB traffic would remain diverted to the WOSCA detours as in Traffic Stage 3. ~~NB and SB traffic would be diverted to the new transition structures and the new SB-SR 99 bridge, with two lanes available in each direction.~~
- Alaskan Way S. traffic would remain reduced to one lane in the NB direction and two lanes in the SB direction. ~~Alaskan Way S. would be reduced to one lane in each direction, with a connection to E. Marginal Way S. maintained by decking over the undercrossing.~~

Section 6.2, Page 117, first paragraph.

Revised Text:

Generally, the most severe travel effects would occur during ~~Traffic Stage 3~~ Stages 3 and 4, when SR 99's capacity would be reduced to the greatest extent and construction activities would also affect nearby surface roadways. This section discusses peak effects during ~~Traffic Stage 3~~ Stages 3 and 4 and summarizes how conditions may vary during other construction stages.

Section 6.2.1, Page 117, second paragraph.

Revised Text:

This traffic analysis specifically assesses traffic revisions proposed for the ~~Traffic Stage 3~~ Stages 3 and 4 construction detour, because traffic disruption would be greatest during ~~this stage~~ these stages.

Section 6.2.1, Page 117, fourth paragraph.

Revised Text:

~~Traffic Stage 3~~ Stages 3 and 4 traffic estimates for the AM and PM peak hours were developed, which generally reflected a

30- to 35-percent reduction in normal base year (2010) traffic on SR 99, as shown in Exhibit 6-1.

Section 6.2.1, Page 121, fifth paragraph.

Revised Text:

Traffic simulations for the AM and PM peak hours were conducted to help estimate maximum throughput and typical travel conditions during Traffic ~~Stage 3~~ Stages 3 and 4.

Section 6.2.1, Page 125, end of the first paragraph.

New Text:

There is currently an AM peak parking restriction in both directions along First Avenue S. north of S. King Street, so only the PM peak restriction would be new.

Section 6.2.1, Page 125, last paragraph.

Revised Text:

Transportation Disruptions During Traffic Stages 1, 2,-4 and 5

During the first 11 months of Traffic Stage 1, NB and SB traffic on SR 99 would not experience any change. A reduction from three to two lanes of SB SR 99 traffic during the next 6 months is expected to affect travel times and choices to some extent. During construction of the undercrossing, Alaskan Way S. traffic would ~~interact with traffic on S. Royal Brougham Way, First Avenue S., and S. Atlantic Street~~ be diverted slightly to the west onto the widened portion of Alaskan Way S. Signal timing adjustments may be needed at the S. Royal Brougham Way/First Avenue S. and S. Atlantic Street/First Avenue S. intersections.

Section 6.2.1, Page 126, second paragraph.

Deleted Text:

~~During Traffic Stage 4, two lanes would be available for traffic flowing in each direction. Capacity would~~

~~continue to be low compared to the existing structure, influencing travel times to some extent. However, congestion effects on local arterial traffic are unlikely to be as severe as during Traffic Stage 3.~~

Section 6.2.2, Page 128, first and second paragraphs.

Revised Text:

King County Metro bus services using SR 99 would be affected by lane reductions on SR 99 during the construction period. As described in Section 6.2.1 *Mobility*, congestion is expected to increase and result in slower travel speeds on SR 99. Therefore, the buses that use SR 99 (primarily those that travel between West Seattle and downtown) would experience longer travel times. Although transit access routes would be maintained (SR 99 would remain open, as would all ramps used by buses), King County Metro may decide to make some routing changes to help lessen the expected congestion effects.

Buses that currently travel on First Avenue S. and Fourth Avenue S. would be expected to experience similar conditions as described previously in Section 6.2.1. Traffic that is projected to divert from SR 99 and use either First or Fourth Avenues S. would affect overall traffic operations. If no specific transit priority strategies are implemented as part of the construction mitigation program, transit operations on First and Fourth Avenues S. would likely experience degraded operations.

~~Although transit access routes would be maintained (SR 99 would remain open, as would all ramps used by buses), King County Metro may decide to make some routing changes to help lessen the expected congestion effects.~~ Additionally, during corridor closures on nights and weekends during construction, buses would need to use alternate routes. Potential alternate transit routes were identified in coordination with WSDOT, SDOT, and King County Metro staff. Options include SR 99, First Avenue S., and Fourth Avenue S., each

with various possible transit priority treatments along ~~each~~ the alignment.

~~These options are in the process of being refined.~~ Please see Section 6.3.2, *Transit Priority Routes and Strategies* for a discussion of the possible alternative routes and transit priority treatments under consideration ~~for~~ during the construction period.

Section 6.2.2, Page 129, last partial paragraph.

Revised Text:

During the first part of Traffic Stage 1 of construction, the sidewalk on the west side of Alaskan Way S. would be rerouted to a combined bike/pedestrian path on the east side of the street to allow construction of a new path on the west side of Alaskan Way S. When the path is completed, the path on the east side of Alaskan Way S. would be closed and bicycles and pedestrians would be directed to use the new bike/pedestrian path on the west side of Alaskan Way S. ~~This path would~~ detour around construction activities between S. Atlantic Street and S. Royal Brougham Way. The reroute would cross under the existing viaduct and run along a temporary path east of the viaduct between S. Royal Brougham Way and S. Atlantic Street. During construction of the undercrossing in Traffic Stage 1, Alaskan Way S. would be detoured, which would also necessitate changes to the bicycle lane. Alaskan Way S. would be detoured to S. Royal Brougham Way, First Avenue S., and S. Atlantic Street. Bicyclists would have the option of sharing the roadway with vehicles or using the combined bike/pedestrian path on the west side of Alaskan Way S.

During Traffic Stages 2 through 4, a combined bike/pedestrian path would continue to be provided on the west side of Alaskan Way S., close to the location of the existing sidewalk. The path currently located on the east side of Alaskan Way S. would be closed south of S. King Street and combined with the bike/pedestrian path on the west side of Alaskan Way S. A bike/pedestrian connection from the combined bike/pedestrian path

on the west side of SR 99 to S. Atlantic Street would be provided. As in Traffic Stage 1, bicyclists would need to use the combined bike/pedestrian path or share the roadway with vehicles.

Section 6.2.2, Page 131, second paragraph.

Revised Text:

In addition to the spaces shown in Exhibit 6-5, during Traffic Stages 3 and 4 parking restrictions may be needed during the PM peak period along First Avenue S. from S. Royal Brougham Way to Yesler Way.

Section 6.3.1, Page 134, last paragraph and Page 135, first paragraph.

Revised Text:

~~*Downtown Transportation Operations Committee*~~

~~WSDOT, the City of Seattle, and King County have identified the need for ongoing coordination of the various construction activities. A new committee, the Downtown Transportation Operations Committee, may be created to support construction activities in the greater downtown Seattle area. It would likely be charged with the monitoring and coordination of transportation construction activities, as well as multimodal operational responses to address the effects of that construction.~~

~~This Downtown Transportation Operations Committee would lead the coordination efforts to ensure multimodal transportation operations are as effective as possible during downtown project construction activities. This committee would provide for real-time communications and information linkages to better manage the multimodal transportation network.~~

WSDOT is committed to engaging key businesses, agencies, and activity centers (sports and event facilities and the port terminals) in the south end as they refine the current construction staging plan. Thorough planning will reduce the

impacts of construction on traffic, parking, access, and mobility in the project area and surrounding neighborhoods. By understanding access and mobility needs in the project area, WSDOT can develop a construction approach that avoids and minimizes temporary disruptions. These specific needs will be incorporated into the staging plan where possible and advisable to help ensure that traffic flows smoothly during construction. WSDOT will maintain communication during construction to monitor the effectiveness of the staging plan and to make reasonable adjustments where necessary.

Section 6.3.1, Page 141, third paragraph.

Add the following sentence at the end of the paragraph describing Downtown Transportation Demand Management:

Additionally, this effort would include downtown parking management and strategies to shift long-term monthly parkers to other modes, opening up spaces for building owners and parking operators to provide as short-term parking.

Section 6.3.3, Page 146, first bullet.

The first bullet has been incorporated into the construction plans, so it should be deleted from the list of potential mitigation:

- ~~▪ Temporary widening of the proposed Alaskan Way S. from S. Atlantic Street to S. King Street, to accommodate three lanes of traffic during Traffic Stages 2 through 4 for ferry traffic (two lanes) as well as northbound traffic.~~

Section 7.1, Page 150, last bullet.

Revised Text:

- **Mountains to Sound Greenway Pro-Parks Project** – The Pro-Parks Project is working to plan and build the missing links in the Mountains to Sound Greenway. One of these links is the short piece between SR 519 and the beginning of the I-90 trail on Beacon Hill. This trail connection would link the Greenway from I-90 to the Seattle

waterfront near the stadiums. The SR 519 Intermodal Access Project Phase 2 includes a Greenway trail connection. The missing link from SR 519 downtown to the beginning of the Mountains to Sound/I 90 Trail on Beacon Hill would also be completed.

Section 7.2, Page 151, second bullet.

Revised Text:

- E. Marginal Way Overpass (mid-2007 to ~~fall 2010~~ early 2011) – The Port of Seattle will construct a grade-separated crossing of the BNSF rail lines (used by both BNSF and UPRR) and an improved intersection between E. Marginal Way and S.W. Spokane Street (to Harbor Island and West Seattle).

Section 7.2, Page 152, fourth, fifth, and sixth bullets.

Revised Text:

- SR 99 Battery Street Tunnel Fire and Safety Improvements (~~September-Fall 2009 to December 2010~~ Spring 2011) – This project is one of the AWVSRP Moving Forward projects. Closures of SR 99 through the Battery Street Tunnel are expected to take place during weeknights and on up to two weekends per month.
- ~~Spokane Street Viaduct Phase 3, Fourth Avenue S. Loop Ramp (October-South Spokane Street Project (Fall 2008 to September 2010~~ Fall 2011) – A new EB off-ramp (loop ramp) would touch down on Fourth Avenue S. south of S. Spokane Street. The project also includes widening of the Spokane Street Viaduct upper roadway and a new WB on- and off-ramp at First Avenue S.
- ~~Spokane Street Viaduct Phase 1 (June 2009 to June 2011)–~~ Widening of the S. Spokane Street upper roadway from SR 99 to First Avenue S.

Section 7.2, Page 152, first paragraph following bullets.

Revised Text:

In addition, the SR 520 Bridge Replacement and HOV Project ~~may begin construction as early as 2010 and run through 2014~~ is scheduled to begin construction on both sides of Lake Washington in 2012 and to be completed in 2018.

Construction on the central waterfront portion of the AWVSRP may begin in 2012. However, construction along the central waterfront is not specifically addressed below because coincident construction schedules would require different construction staging and traffic stages than are assumed for the Project.

Section 7.2, Page 152, last paragraph.

Revised Text:

Construction of the South Spokane Street Project ~~Fourth Avenue S. loop ramp~~ would also be underway, ~~and widening of the Spokane Street Viaduct would begin in June 2009.~~ Bridge work on Airport Way S. over the Argo Railyard would occur between mid-2009 and mid-2010. E. Marginal Way Overpass construction would be ~~complete in early 2010~~ ongoing.

Section 7.2, Page 153, first paragraph.

Revised Text:

SR 99 Battery Street Tunnel Fire and Safety Improvements would be ongoing from ~~June-fall 2009~~ until ~~February~~ spring 2011, with evening and weekend closures of SR 99 through the Battery Street Tunnel.

Section 7.2, Page 153, third paragraph.

Revised Text:

SR 99 Battery Street Tunnel Fire and Safety Improvements would be ongoing until ~~December 2010~~ spring 2011. Weeknight and some weekend closures of SR 99 are anticipated, with SB traffic detoured off of SR 99 at the Denny

Way ramp and back onto SR 99 at the Elliott Avenue on-ramp and NB SR 99 traffic exiting at the Western Avenue off-ramp and re-entering SR 99 using the Denny Way on-ramp. The Battery Street Tunnel project is scheduled to be complete in December 2010-spring 2011, which would result in overlap for about 4 months with ~~be before~~ SB lane reductions ~~begin~~ on SR 99 associated with the SR 99: S. Holgate Street to S. King Street Viaduct Replacement Project.

Section 7.2, Page 153, fourth paragraph.

Deleted Text:

~~The resurfacing work on Fourth Avenue S. could encourage some traffic to divert to First Avenue S. This may coincide, for several months, with the closure of Alaskan Way S. between S. King Street and E. Marginal Way S. due to the construction of the undercrossing. Traffic detoured from Alaskan Way S. would likely also use First Avenue S.~~

Section 7.2, Page 153, fifth paragraph.

Revised Text:

The South Spokane Street Project would be ongoing. ~~Construction of the Fourth Avenue S. loop ramp would be finished in September 2010, and widening of the Spokane Street Viaduct would be complete in June 2011.~~ Pavement repair work would occur on downtown streets between March and September 2011. This would include Pine, Pike, Union, University, Seneca, Spring, Madison, Marion, Columbia, Cherry, and James Streets, and Yesler Way, Airport Way S., and S. Dearborn Street. Bridge work on Airport Way S. over the Argo Railyard would occur between mid-2009 and mid-2010, overlapping with Traffic Stage 1. E. Marginal Way Overpass construction would be complete in ~~the fall of 2010~~ early 2011. The Port of Seattle Terminal 25 conversion project would end in mid-2010.

Section 7.2, Page 154, end of the second paragraph.

New Text:

The South Spokane Street Project would be complete in the fall of 2011.

Section 7.2, Page 154, third paragraph.

Revised Text:

Both NB and SB traffic on SR 99 would be reduced to two lanes on the WOSCA detour during ~~Traffic Stage 3~~ Stages 3 and 4. As described in Chapter 6, the most severe traffic effects would occur during ~~this stage~~ ~~Traffic Stage 3~~ Stages 3 and 4, when SR 99's capacity would be reduced and construction activities would also affect nearby surface streets.

Section 7.2, Page 154, fifth paragraph.

Revised Text:

If the S. Lander Street Overcrossing project is underway during ~~Traffic Stage 3~~ Stages 3 or 4, coordination would be needed to minimize or avoid potential disruptions to traffic on First or Fourth Avenues S. due to the S. Lander Street Overcrossing project.

Section 7.2, Page 154, sixth paragraph.

Revised Text:

During Traffic Stage 4, NB and SB traffic on SR 99 would continue to be reduced to two lanes on the WOSCA detour ~~be diverted to the new transition structures and the new SB SR 99 bridge, with two lanes available in each direction.~~

Section 7.2, Page 155, following the first paragraph.

For "Other Construction Effects," add the following paragraph after the first paragraph:

Construction activity related to private development in the stadium area may occur concurrently with project construction

and could affect the supply of parking in off-street (pay) parking lots. Coordination with the private developer projects will occur on a case-by-case basis as construction plans are refined.

Appendix G. Technical Memoranda

Geology and Soils

Section 5.1.4, Page 36, first paragraph.

Revised Text:

Spoils consist of soil or other debris that is removed from a construction activity. Based on the project plans, about ~~222,000~~ 194,000 cubic yards of material would be generated from site demolition, excavations, foundation installation, and ground improvement activities in the project area.

Hazardous Materials

Section 1.3, Page 4, first paragraph.

Revised Text:

The Project would generate an estimated ~~222,000~~ 194,000 cubic yards (cy) of spoils, ~~and approximately 90 percent of that (204,000 cy)~~ which could be contaminated or require special handling.

Section 6.1, Page 70, second paragraph.

Revised Text:

For the Project, the estimated volume of material that would be excavated or generated as spoils is ~~222,000~~ 194,000 cy. ~~About 90 percent of the material (204,000 cy), which~~ could be considered potentially contaminated or require special handling. A summary of the volume of soil that would be removed during construction, by construction activity, is presented in Exhibit 6-1. These volumes were estimated based on design parameters and are estimated to be within 30 percent of actual volumes.

Section 6.1, Exhibit 6-1, Page 71.

Revised Table:

Exhibit 6-1. Estimate of Total and Potentially Contaminated Excavation Quantities (in Cubic Yards)¹

	Railroad Excavation²	Roadway Excavation³	Retained Cut	Drilled Shafts	Deep Soil Mixing Spoil⁴	Jet Grout Spoil⁵	Site Excavation⁶	Structural Excavation⁷	Total Excavation
Total	28,000 <u>9,000</u>	61,000 <u>41,000</u>	30,000	24,000 <u>37,000</u>	45,000	1,000	9,000	24,000 <u>22,000</u>	222,000 <u>194,000</u>
Potentially Contaminated	28,000	61,000	30,000	6,000 ⁸	45,000	1,000	9,000	24,000	204,000

Notes:

- 1 Quantities shown are for the SR 99: S. Holgate Street to S. King Street Viaduct Replacement Project, dated ~~March~~ September 2008.
- 2 Railroad Excavation: Estimated quantity to clear existing railyard ballast and ties. Assumed depth equal to 2'-6".
- 3 Roadway Excavation: Estimated quantity to clear existing roadway pavement and miscellaneous structures. Assumed depth equal to 2'-0".
- 4 Deep Soil Mixing Spoil: Estimated spoil from deep soil mixing ground improvement. Deep soil mixing spoil volume assumes ground improvement equal to 35% of the total improved soil mass and that of this volume, 30% returns to the surface as soil-cement spoils.
- 5 Jet Grout Spoil: Spoil volume is calculated assuming 100% coverage of improved soil mass and that of this volume, 25% returns to the surface as soil-cement spoil.
- 6 Site Excavation: Estimated quantity of general site excavation, not otherwise classified.
- 7 Structural Excavation: Estimated excavation quantity of excavation for structures, abutments, large utility vaults, etc.
- 8 ~~Assume 25% of drilled shafts are contaminated to a depth of 50 feet because of creosote treated piles or general wood debris (piles and logs).~~

Assumptions:

For the purposes of this estimate, quantities have been calculated for the cut items noted. Actual import and export quantities may be less than those indicated, as portions of these materials may be stored on-site and reused. Quantities do not include on-site grading and backfilling quantities for roadway finish grading, utility trenching, and backfilling, except as noted.

Ground improvements that include earthquake drains and stone columns located to the east of the deep soil mixing areas are expected to generate little to no spoils and thus were left out of the quantity calculations.

Section 6.3, Page 77.

Revised Text:

The project would acquire portions of three parcels. One of the partial property acquisitions would also be required for a permanent utility easement. ~~and temporary or permanent easements on four additional parcels.~~ One additional parcel would be affected by permanent utility easements only. The partial acquisitions ~~would primarily consist of a small piece of Coast Guard property on Pier 36, a narrow strips of Pier 36 and Terminal 46 land that includes the King County sewer regulators parallel to the west side of SR 99,~~ and portions of the Pyramid Alehouse (Blocks 380.2 and 380.3) parking lots. These parcels contain 32 potentially contaminated sites, primarily located on the large terminal parcels. ~~No buildings are being modified or acquired for the Project.~~

WSDOT has already acquired five parcels that contain three of ~~the potentially contaminated these sites,~~ including large portions of the WOSCA property (Sites 370.1-1 and 370.1-2) and the parcel directly north (Site 360.15-1) of WOSCA. A Phase I ESA was conducted for Site 360.15-1, and Phase I and II ESAs were conducted for Sites 370.1-1 and 370.1-2 (WOSCA property).

Historic Resources

Section 1.2, Page 2, third paragraph.

Revised Text:

The APE contains two buildings listed in the National Register of Historic Places (NRHP), ~~five-six~~ industrial buildings that have been identified as eligible for listing in the NRHP, and the Alaskan Way Viaduct itself, also determined eligible for listing in the NRHP.

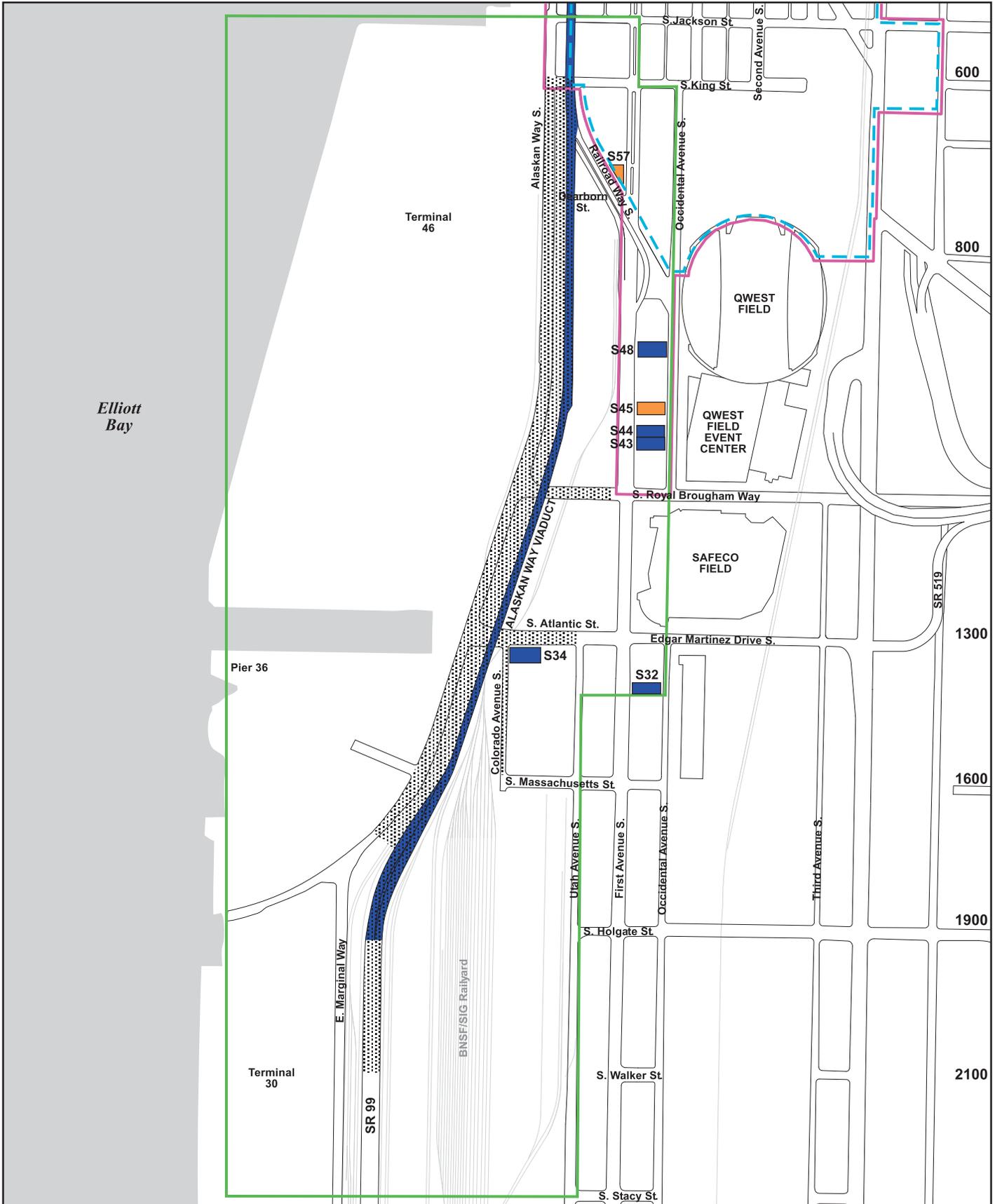
Section 1.4, Page 3, third paragraph.

Deleted Text:

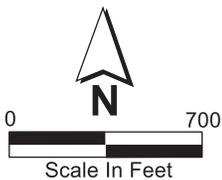
~~Tenants of the Washington Oregon Shippers Cooperative Association (WOSCA) Freight House would also potentially experience noise and dust during construction, with reduced parking and limited building access at times during the construction period. These access and parking limitations may cause short term economic effects. However, construction effects are not anticipated to be an adverse effect, as they would not be severe enough or of long enough duration to have an effect on the building's economic viability or historic integrity.~~

Chapter 2, Exhibit 2-1

Exhibit was revised to remove the WOSCA building (S50) because it is no longer considered eligible.



AMV/554-1586-030/BW(01) 11/4/08



- Landmark Status - National Register Eligible
- Landmark Status - National Register Listed
- Pioneer Square Preservation District
- National Register Historic District
- Area of Potential Effects (APE)
- Projects Limits

Exhibit 2-1 Historic Resources

Section 3.1, Pages 9 and 10, last paragraph and final bullets.

Revised Text:

~~Three~~Two buildings that are outside of both districts have been determined eligible for the NRHP. The Frederick & Nelson Warehouse (S32, 1518 First Avenue S.) is located some distance from construction activities, south of S. Atlantic Street on the east side of First Avenue S. The other ~~two~~ eligible buildings ~~are~~ is closest to construction activities:

- The Bemis Building (S34, 55-65 S. Atlantic Street) is a four-story masonry building that was constructed in 1904 as a manufacturing plant for cotton and burlap bags for grain, flour, feed, and other products. The building, which is no longer used by Bemis, is one of Seattle's last relatively intact industrial facilities from the early 20th century. It currently has 32 artists' living units as well as a variety of business activities. These tenants regularly use the loading docks along the west side of the building, facing Colorado Avenue S. Parking is behind the building, which is located at the southeast corner of S. Atlantic Street and Colorado Avenue S., immediately east of the viaduct.
- ~~The WOSCA Freight House (S50, 801 First Avenue S.) is a brick masonry office building that is part of a former rail freight complex. The adjacent freight shed has been significantly altered, but the freight house has sufficient integrity that it has been determined eligible for listing in the NRHP. It is located at the southwest corner of First Avenue S. and Railroad Way S.~~

Section 5.1.1, Page 18, second bullet.

Deleted Text:

- ~~Construction of the southbound detour route on the western portion of the WOSCA site could potentially affect occupants of the WOSCA Freight House, with short term changes in access and increased noise and dust. However,~~

~~the effect would not be severe enough to be considered an adverse effect, and no threat to the economic viability of the building is expected.~~

Section 5.1.3, Page 18, first bullet.

Revised Text:

- Demolition of the existing viaduct south of S. Dearborn Street and construction of new structures could cause effects similar to those described above for occupants of ~~the WOSCA Freight House and the Bemis Building~~ (reduced access to buildings and loading docks and increased noise and dust). Reduced street parking would also continue.

Attachment A, Page A-2, sixth line.

Revised Text:

S50	801 1 st Ave. S.	WOSCA Terminals (Oregon & Washington RR Freight Station/Union Pacific House)	Eligible NR & SL Not eligible
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Land Use and Shorelines

Section 1.2.1, Page 1.

Revised Text:

The Project would not cause any permanent effects on land use other than acquiring the approximately ~~2.09~~ 2.07 acres of right-of-way necessary to build the Project and converting property zoned Industrial General 1 (IG1) and Industrial General 2 (IG2) to transportation use.

Section 1.3.1, Page 2, fourth paragraph.

Revised Text:

Approximately ~~3.04~~ 0.36 acres of land would be needed for temporary construction easements (see Exhibit 4-1).

Section 1.3.1, Page 2, sixth paragraph.

Revised Text:

The middle stages (Traffic Stages ~~2 and 3~~ through 4), when traffic is diverted to the Washington-Oregon Shippers Cooperative Association (WOSCA) detour route, would result in the greatest changes in access to adjacent land uses.

Section 4.2, Page 24, first sentence.

Revised Text:

The Project would not cause any permanent effects on land use other than acquiring the approximately ~~2.09~~ 2.07 acres of right-of-way necessary to build the Project and converting property zoned Industrial General 1 (IG1) and Industrial General 2 (IG2) to transportation use.

Section 4.2, Exhibit 4-1, Page 24.

Revised Table:

Exhibit 4-1. Property Acquisitions and Easements (in Square Feet)

Parcel	Existing Ownership	Existing Land Use*	Property Acquisition	Permanent Utility Easement	Temporary Construction Easement
S51	Pyramid Alehouse	Terminal/Warehouse	2,635 <u>910</u>	5,600 <u>5,635</u>	5,600 <u>1,725</u>
S54/S213	Fortune Warehouse	Terminal/Warehouse	<u>0</u>	195 <u>140</u>	195 <u>140</u>
Pier 36/ Terminal 46	USCG Facility/ Port of Seattle Operations; King County Utilities Facility; BNSF vacant land	Terminal/Warehouse	88,270 <u>1,540</u>	51,420 <u>0</u>	10,085 <u>4,500</u>
<u>Terminal 46</u>	<u>Port of Seattle Operations</u>	<u>Terminal/Warehouse</u>	<u>87,580</u>	<u>0</u>	<u>100,900</u>
<u>Terminal 46</u>	<u>King County Connecticut Street sewage regulator</u>	<u>King County Utilities Facility</u>	<u>0</u>	<u>0</u>	<u>110</u>
<u>Terminal 46</u>	<u>King County King Street sewage regulator</u>	<u>King County Utilities Facility</u>	<u>0</u>	<u>0</u>	<u>235</u>
<u>SIG Railyard</u>	<u>BNSF</u>	<u>Railyard</u>	<u>0</u>	<u>0</u>	<u>25,000¹</u>
Total			<u>90,905</u> (2.09 acres) <u>90,030</u> (2.07 acres)	<u>57,215</u> (1.31 acres) <u>5,775</u> (0.13 acre)	<u>15,880</u> (0.36 acre) <u>132,610</u> (3.04 acres)

Note: *Existing Land Uses, City of Seattle, 2007.

Quantities are subject to change as the Urban Design Plan for the Project evolves.

- 1 The SIG Railyard would require multiple nighttime closures (typically 6 hours) over a period of several months. Only a portion of the total area would be closed at a time.

Section 5.1, Page 27, third paragraph.

Revised Text:

The middle stages (Traffic Stages ~~2 and 3~~ through 4), when traffic is diverted to the WOSCA detour route, would result in the greatest changes in access to adjacent land uses.

Section 5.1, Page 27, fifth paragraph.

Revised Text:

Approximately ~~3.04-0.36~~ acres of land would be needed for temporary construction easements (see Exhibit 4-1).

Section 5.1, Page 28, after first sentence.

New Text:

The construction easement on the SIG Railyard would require multiple nighttime closures (typically 6 hours) over a period of several months. Only a small portion of the total area would be closed at a time.

Noise and Vibration

Section 5.2, Page 29, after last paragraph.

New Text:

The configuration of the Build Alternative has changed due to project design changes. Southbound Alaskan Way traffic will now run parallel to the northbound Alaskan Way on the east side of SR 99, instead of running along the west side of SR 99 with an intersection at Colorado Avenue S. Also, there is a new intersection at the SR 99 on- and off-ramps, just south of S. King Street.

There would be no change in traffic volumes or truck percentages as a result of the project design changes. The design changes would not affect the noise levels experienced at any of the modeled locations.

Section 5.2.2, Page 32, after third paragraph.

New Text:

The design changes would not affect the noise levels experienced at any of the modeled locations.

Chapter 8, Page 43.

Revised Text:

ISO (International Organization for Standardization). 2003
~~1989~~. *Evaluation of Human Exposure to Whole-Body
Vibration in Buildings (1-80 Hz)*. ISO-2631-2.

Public Services and Utilities

Section 1.4.2, Pages 4 and 5.

Revised Text:

- Perform field observation/inspection as utilities are constructed.
- Construct utility relocations if such relocations (such as private sector utility relocations) are not constructed by Washington State Department of Transportation (WSDOT).
- Coordinate project status and temporary utility shut-offs with utility customers.
- Perform specialized tasks such as connections to existing utility systems.
- Perform emergency repairs, if needed, due to inadvertent utility strikes during construction.

Utility relocation plans will be coordinated so that utilities relocated first will not interfere with subsequently relocated utilities. Final electrical duct bank design plans will provide for other utilities crossings. Other coordination between the agencies has resulted in the following preliminary construction planning:

- WSDOT agrees that SPU will coordinate all service interruptions for water customers.

- Specialized tasks, such as connections to existing utility systems, will be performed by SPU for existing water lines.
- SPU will need to perform emergency repairs, if needed, due to inadvertent utility strikes during construction.

Section 4.1.2, Page 22, Added paragraph at end of section.

New Text:

Utility relocation plans will be coordinated so that utilities relocated first will not interfere with subsequently relocated utilities. Final electrical duct bank design plans will provide for other utilities crossings.

Section 5.2.1, Page 33, Added second paragraph at end of section.

New Text:

This public service contact plan would be put in place to minimize the effects of unanticipated events during construction that may unexpectedly restrict emergency service access to a segment of roadway, or other types of incidents that may require a route modification for emergency services. If such an event occurs, the two contacts for each public service provider (e.g., Seattle Police, Seattle Fire, or EMT services) would be available so that WSDOT could alert the providers to the special circumstances occurring. This plan would allow for the contingency that a second contact could be reached if the first contact proved unavailable. This would allow for the provider to set up route modifications, so that emergency service responses would not be compromised.

Relocations

Section 1.3.1, Page 2.

Revised Text:

As much as possible, the Project design has attempted to use land that is currently within the existing Washington State Department of Transportation (WSDOT) right-of-way. Where

property acquisitions would be needed, the proposed improvements have been designed to minimize the amount of property affected.

The Project would require only three partial property acquisitions (approximately ~~2.09~~ 2.07 acres total) from adjacent land owners; no full acquisitions would be required. These properties would be acquired in Industrial General 1 (IG1) or Industrial General 2 (IG2) land use zones.

The partial acquisitions would consist of narrow strips of Pier 36 and Terminal 46 land that is parallel to the west side of SR 99 and a portion of the Pyramid Alehouse parking lot. These acquisitions would result in the removal of parking spaces and/or a slight modification of vehicle circulation patterns. ~~No buildings are expected to be demolished on the acquired properties.~~ One additional parcel, the Fortune Warehouse, would be affected by permanent utility easements only. ~~Acquisitions would also include~~ The permanent utility easements on six these four properties totaling approximately ~~1.31~~ 0.13 acres. The proposed utility easements are not expected to affect long-term property use.

Section 4.1, Page 9, first sentence.

Revised Text:

The Project would require only three partial property acquisitions (approximately ~~2.09~~ 2.07 acres) from adjacent land owners; no full acquisitions would be required.

Section 4.1, Page 9, second paragraph.

Revised Text:

Approximately ~~1.31~~ 0.13 acres of land would require permanent utility easements.

Section 4.1, Exhibit 4-1, Page 10.

Revised Table:

Exhibit 4-1. Parcel Acquisitions and Easements

Parcel	Existing Land Use	Existing Zoning ¹	Property Acquisition (square feet)	Permanent Utility Easement (square feet)	Temporary Construction Easement (square feet)
S51	Pyramid Alehouse parking lot	IG2	2,635 <u>910</u>	5,600 <u>5,635</u>	5,600 <u>1,725</u>
S54/S213	Fortune Warehouse	IG2	<u>0</u>	195 <u>140</u>	195 <u>140</u>
Pier 36	U.S. Coast Guard facility; Port of Seattle operations	IG1	1,520 <u>1,540</u>		715 <u>4,500</u>
Terminal 46	Port of Seattle terminal/warehouse	IG1	86,750 <u>87,580</u>	44,500 <u>0</u>	8,800 <u>100,900</u>
Terminal 46	King County <u>Connecticut Street</u> sewage regulator	IG1	<u>0</u>	800 <u>0</u>	<u>110</u>
<u>Terminal 46</u>	<u>King County King Street</u> sewage <u>regulator</u>	IG1	<u>0</u>	<u>0</u>	<u>235</u>
Port of Seattle south of S. Massachusetts St.	Port of Seattle terminal/warehouse	IG1		6,050	450
S132	BNSF <u>SIG Railyard</u> vacant land	IG1	<u>0</u>	70 <u>0</u>	120 <u>25,000</u>
Total			90,905 (2.09 acres) <u>90,030</u> (2.07 acres)	57,215 (1.31 acres) <u>5,775</u> (0.13 acre)	15,880 (0.36 acre) <u>132,610</u> (3.04 acres)

Notes:

¹ Zoning classifications are IG1: Industrial General 1 or IG2: Industrial General 2. These classifications are described in the Land Use and Shorelines Technical Memorandum.

Section 5.1, Page 13, third paragraph.

Revised Text:

Temporary construction easements would total approximately 3.04 ~~0.36~~ acres (see Exhibit 4-1).

Water Resources

Section 3.1, Page 9, item number 2.

Revised Text:

~~(approximately 10 percent of the average annual volume)~~

Section 3.2.1, Page 11, last paragraph.

Revised Text:

Currently, stormwater runoff in the Lander Sub-basin is collected in a separated stormwater collection system and discharged to the East Waterway of the Duwamish River. ~~The larger Lander Basin is still served by a combined sewer system, and King County manages the Lander outfall as an overflow for the combined sewer system.~~

Section 3.3.1. Page 12, middle of last paragraph.

Revised Text:

~~(approximately 10 percent of the average annual volume)~~

Chapter 4, Page 17, third paragraph.

Revised Text:

...or (2) by detaining it with detention BMPs and discharging to the combined sewer system, as defined and required in the 2000 Seattle Stormwater Grading and Drainage Code.

Section 4.2.2, Page 18, second paragraph.

Revised Text:

The final water quality BMPs have not been determined; however, the types of water quality BMPs being considered for these areas include wet vaults, StormFilters with ZPG™ media, or other BMPs that achieve basic treatment (~~see Section 4.2.1~~).

Chapter 7 References, Page 25 to 28.

New References:

WSDOT. 2007. Website for Biological Assessment - BA Guidelines. <http://www.wsdot.wa.gov/Environment/Biology/BA/default.htm#writing>.

King County. 2001. Water quality effect assessment – Characterization of WRD Data: South and West Point Treatment Plants Influent/Secondary Treatment Effluent/ Reclaimed Water. King County Department of Natural Resources. October 2001.

Appendix H. Draft Memorandum of Agreement

The Memorandum of Agreement was signed in February 2009 and is included as Attachment 6 to the FONSI.