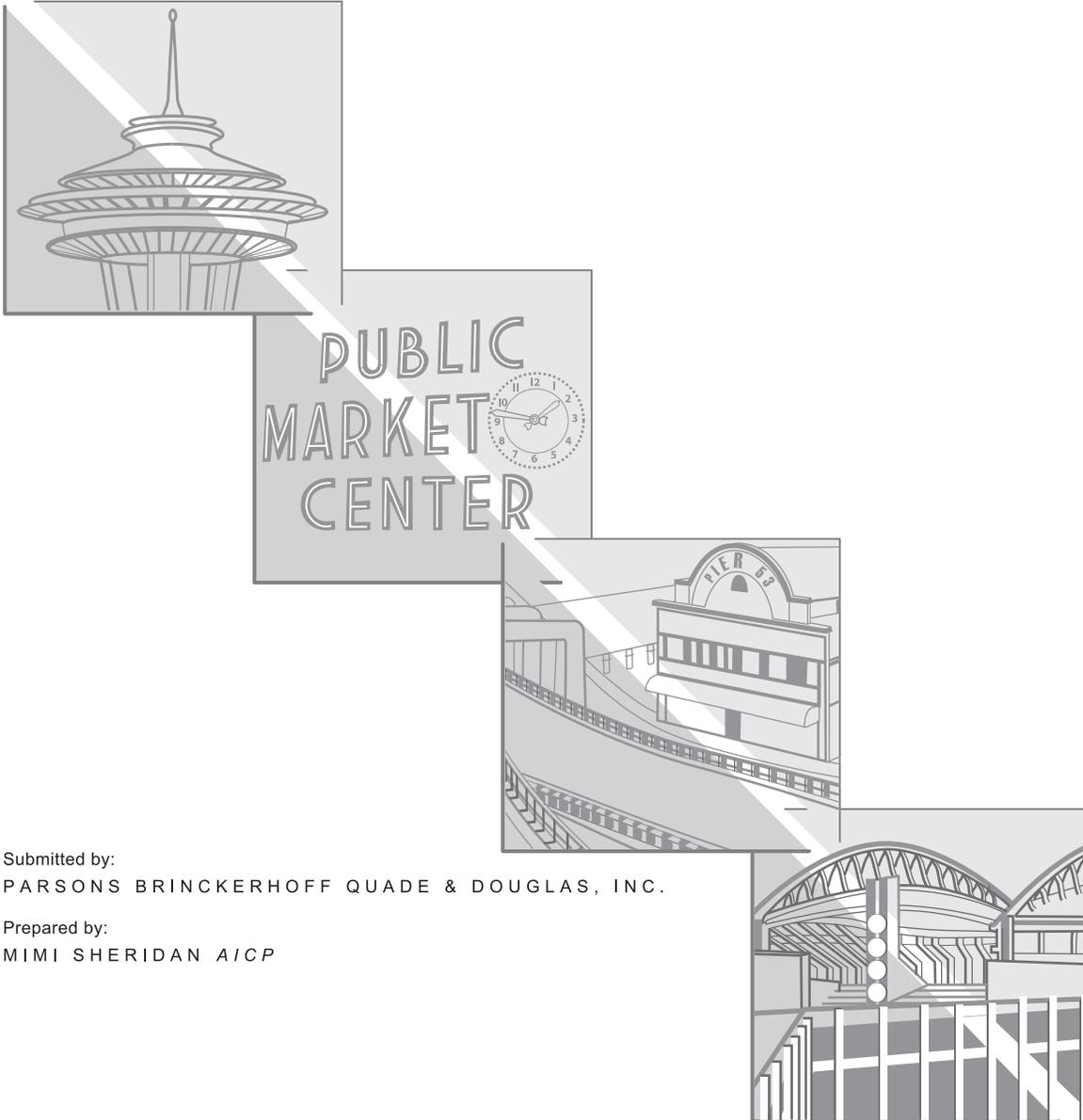


SR 99: ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT

Supplemental Draft Environmental Impact Statement

APPENDIX L

Historic Resources Technical Memorandum



Submitted by:
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JULY 2006

SR 99: ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT

Supplemental Draft EIS Historic Resources Technical Memorandum AGREEMENT No. Y-7888 FHWA-WA-EIS-04-01-DS

Submitted to:

Washington State Department of Transportation

Alaskan Way Viaduct and Seawall Replacement Project Office
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The SR 99: Alaskan Way Viaduct & Seawall Replacement Project is a joint effort between the Washington State Department of Transportation (WSDOT), the City of Seattle (City), and the Federal Highway Administration (FHWA). To conduct this project, WSDOT contracted with:

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ATTACHMENTS

ATTACHMENT A	Inventory of Buildings 40 or More Years Old within the Expanded Area of Potential Effect in the North Section (new additions only)
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ACRONYMS

APE	Area of Potential Effect
AWV	Alaskan Way Viaduct and Seawall Replacement
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
NR	National Register of Historic Places
PSHD	Pioneer Square-Skid Road Historic District (NR)
PSPD	Pioneer Square Preservation District (local)
SL	Seattle Landmark
SODO	South of Downtown
SR	State Route
WOSCA	Washington-Oregon Shippers Cooperative Association
WSDOT	Washington State Department of Transportation

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PREFACE

The technical appendices present the detailed analyses of existing conditions and predicted effects of each alternative. The results of these analyses are summarized and presented in the main text of the Supplemental Draft Environmental Impact Statement (EIS).

The Supplemental Draft EIS appendices are intended to add new information and updated analyses to those provided in the Draft EIS, published in March 2004. Information that has not changed since then is not repeated in these appendices. Therefore, to get a complete understanding of the project area conditions and projected effects, you may wish to refer to the appendices that were published with the Draft EIS. These are included on a CD in the Supplemental Draft EIS. To make it easier to understand where there is new information or analyses, the supplemental appendices present information in the same order as it was presented in the Draft EIS appendices.

The Supplemental Draft EIS and the technical appendices evaluate the effects of three construction plans: the shorter plan, the intermediate plan, and the longer plan. These plans vary in how long SR 99 would be completely closed, in how long the periodic closures may be, and in the total construction duration. For the purposes of the analyses in the technical appendices, two construction plans are evaluated with the Tunnel Alternative and one plan is evaluated with the Elevated Structure Alternative. However, each alternative could be built with any of the three plans. The construction durations and the sequencing would not be the same for a particular construction plan if paired with a different alternative; however, the effects would be within the ranges presented by the analyses.

There are several differences in how the information is presented between the main text of the Supplemental Draft EIS and how it is presented in these appendices. The Supplemental Draft EIS text refers to possible variations within the alternatives as “choices” while these appendices use the term “options.” (For example, Reconfigured Whatcom Railyard versus Relocated Whatcom Railyard is referred to as a design choice in the Supplemental Draft EIS and as an option in the appendices.) In either case, the intent is to describe the various configurations that could be selected and the effects for each design.

One design choice in particular is handled very differently between the Supplemental Draft EIS text and the technical appendices. For the Tunnel Alternative in the central waterfront area, there is a choice between a stacked tunnel alignment and a side-by-side tunnel alignment. In the appendices, to simplify the discussion, these two alignments, as well as the Elevated

Structure Alternative, are each paired with a different set of options throughout the corridor and presented as complete sets that are evaluated separately. The Supplemental Draft EIS text communicates this information differently by describing one Tunnel Alternative and one Elevated Structure Alternative and evaluating the effects of the different design choices (or mix-and-match components) separately. While it may appear that there are three alternatives analyzed in the appendices and two in the Supplemental Draft EIS text, there are in fact only two alternatives. Each alternative has many potential components or design choices that can be made throughout the corridor.

The organization of the analysis of the alternatives is also a little different between the main body of the Supplemental Draft EIS and the appendices. In the Supplemental Draft EIS text, we identify two alternatives: a Tunnel Alternative and an Elevated Structure Alternative. The Supplemental Draft EIS text compares these alternatives directly by comparing effects (for example, the effects of both alternatives on water quality are presented together). The appendices present the effects of each alternative separately (for example, all of the effects of the Tunnel Alternative are presented first, followed by all of the effects of the Elevated Structure Alternative). The substance of both discussions is the same. The organization of the Supplemental Draft EIS technical appendices mirrors that of the Draft EIS appendices, allowing you to more easily find comparable information in the Draft EIS appendices.

Chapter 1 SUMMARY

This report is a supplement to Appendix L, the Historic Resources Technical Memorandum, of the Draft Environmental Impact Statement (EIS) for the Alaskan Way Viaduct and Seawall Replacement (AWV) Project, issued in March 2004. This report addresses primarily the changes from the impacts to historic resources identified in that earlier report. The information in that memorandum is not repeated here, except when needed for clarity.

The No Build Alternative and the existing conditions described in the Draft EIS (WSDOT et al. 2004) have not changed and continue to be a basis for the environmental analysis. Please refer to Section 2.4 and Chapter 4 of the 2004 Appendix L for discussion of the affected environment. The No Build scenarios were described in Chapter 4 of the Draft EIS and in the March 2004 Appendix L (Sections 5.1.1 through 5.1.3).

The primary objective of the AWV Project is to replace these two structures along the Seattle waterfront that are at the end of their useful lives and are in danger of failing catastrophically in a seismic event. Two alternatives, the Tunnel and Elevated Structure Alternatives, have been identified for accomplishing this objective. Improvements are also proposed for the Battery Street Tunnel and to street connections across Aurora Avenue N.

In December 2004, the project proponents selected the Tunnel Alternative and the Rebuild Alternative to be carried forward. The Tunnel Alternative was selected as the Preferred Alternative. Since that time, engineering and design has been refined and updated for the Tunnel and Rebuild Alternatives. Due to the magnitude of changes in the design of the Rebuild Alternative, it has been renamed the Elevated Structure Alternative. This document evaluates the changes to these alternatives.

1.1 Alternatives

1.1.1 Tunnel Alternative (Preferred Alternative)

The Tunnel Alternative begins at the south with a side-by-side at-grade roadway at S. Walker Street that would become an overpass structure over the railroad tracks at S. Massachusetts Street. It would then return to grade and connect to State Route (SR) 519 (in the stadium area) with elevated ramps (called the South of Downtown [SODO] Ramps) at S. Atlantic Street and S. Royal Brougham Way. The Whatcom Railyard west of SR 99 would be reconfigured.

An option being studied in this area is to replace SR 99 with an at-grade roadway where the Whatcom Railyard is currently located, with the elevated SODO Ramps at S. Atlantic Street and S. Royal Brougham Way. With this option, the Whatcom Railyard and the tail track would be relocated east of SR 99.

In the central section, two potential tunnel alignments are being studied. The preferred alignment is a double-level stacked tunnel from S. King Street to Pine Street. This structure would unbraid into a side-by-side alignment over the railroad tracks and continue under Elliott and Western Avenues in a retained cut. In order for the new roadway to meet the tunnel portal, the floor of the Battery Street Tunnel would have to be lowered. A walkway would connect Steinbrueck Park to the waterfront (Steinbrueck Park Walkway). This would consist of a lid structure over the entire roadway to about 200 feet past Pine Street, becoming a 20-foot-wide pedestrian walkway east of and elevated above the SR 99 roadway. Both tunnel alignments would also require removal of the decorative concrete surround above the north portal of the Burlington Northern Railroad Tunnel, which has been determined eligible for the National Register.

The other option would replace SR 99 with a side-by-side tunnel from S. Dearborn Street to Pine Street. The connection to the Battery Street Tunnel would be an aerial structure over Elliott and Western Avenues with a lid connecting Steinbrueck Park to the waterfront (Steinbrueck Park Lid). The lid would cover the entire width of the roadway from about Union Street to the north end of the park, approximately 560 feet.

The Battery Street Tunnel would be rebuilt by lowering the roadway to increase the vertical clearance to 16.5 feet and adding fire and life safety improvements. The existing curves would be retained at both portals. Aurora Avenue N. would be lowered in a retained cut from the Battery Street Tunnel to Republican Street, with roadway improvements and widening to Aloha Street. Two city streets, Thomas and Harrison Streets, would be reconnected with bridges crossing over Aurora, while Mercer Street would cross under Aurora Avenue N.

An option being studied for the north section includes widening the curves at both ends of the Battery Street Tunnel, as well as fire and life safety improvements within the tunnel. Additionally, the Lowered Aurora Option would lower Aurora Avenue N. in a retained cut from the tunnel farther north almost to Comstock Street.

1.1.2 Elevated Structure Alternative

The AWV project team has taken elements of the Aerial and Rebuild Alternatives evaluated in the Draft EIS and combined them into a single alternative, called the Elevated Structure Alternative. This alternative begins in the south with the same configuration as described above for the Tunnel Alternative.

In the central section, the existing viaduct would be replaced with a rebuilt double-level aerial structure and rebuilt ramps at Columbia and Seneca Streets and Western and Elliott Avenues. In the central waterfront area, the new Elevated Structure Alternative would be wider than the Rebuild Alternative evaluated in the Draft EIS, but not quite as wide as the Aerial Alternative.

Changes at and north of the Battery Street Tunnel would be the same as described above for the Tunnel Alternative, including increased vertical clearance (16.5 feet) and fire and life safety improvements in the tunnel, retention of the existing curves, and the lowering of Aurora Avenue N. to Aloha Street with three street connections.

1.2 Historic Resources

Historic resources detailed in this memorandum have Section 4(f) status through being listed in the National Register of Historic Places, by being determined eligible for inclusion in the National Register, or by being located in a National Register historic district. Authorized under the National Historic Preservation Act of 1966 and administered by the National Park Service (NPS), the National Register is part of a program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological resources. To be eligible for inclusion in the National Register, properties must meet one or more of the following criteria:

- Criterion A – the property is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B – the property is associated with the lives of persons significant in our past.
- Criterion C – the property embodies distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

- Criterion D – the property has yielded, or may be likely to yield, information important in prehistory or history.

The historic resources in the project vicinity are generally the same as were described in Section 1.1 of the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum. However, two changes have occurred. One of the historic buildings noted in that report (the Catholic Seamen’s Club, 2330 First Avenue) has recently been altered and has been determined to no longer be eligible for the National Register of Historic Places. Secondly, Piers 54 through 58 have been determined eligible for the National Register. These four piers, along with Pier 59 (a City of Seattle landmark) are referred to in this document as the Central Waterfront Historic District.

Exhibit A-1 in the March 2004 report, the complete listing of pre-1963 buildings in the project area, has not yet been entirely updated. Because some structures may have been demolished or altered since that information was compiled, the complete list will be updated in the Final EIS document.

1.3 Impacts

Impacts to historic properties that are listed in or eligible for the National Register are summarized below and in Exhibit 1-1. Exhibits 1-2 and 1-3 show where the resources are located. Chapter 5 discusses the impacts in more detail.

As described in the 2004 Appendix L, the Alaskan Way Viaduct and the seawall, both of which have been determined eligible for listing in the National Register (NR eligible) under Criteria A and C, would be demolished.

Alterations to the Battery Street Tunnel (NR eligible under Criteria A and C) may potentially be greater than discussed in earlier documents; the roadway would be lowered and, under one option, both portals would be rebuilt to widen the curves.

Construction of either alignment of the Tunnel Alternative would require removal of a portion of the headwall at the north portal of the Burlington Northern Railroad Tunnel (previously known as the Great Northern Railway Tunnel), which was determined eligible for the National Register in 1983. This modification would not alter the tunnel’s function or its historic status as a major engineering project. Because the tunnel’s function would not be altered, the historic integrity of the resource would be maintained.

The Washington Street Boat Landing (listed in the National Register under Criterion A) would be removed during construction, restored, and replaced approximately 16 to 35 feet west of its current location, depending on the alternative. The pergola would be placed on the water’s edge as it is today, and this is a lesser distance than discussed previously.

Current proposals for Battery Street Tunnel improvements could potentially affect two NR-eligible buildings, the McGraw Kittenger Case (Blu Canary/MGM) Building at 2331 Second Avenue (eligible under Criteria A and C) and Fire Station No. 2 at 2318 Fourth Avenue; alterations would be below ground level and would not be visible.

Revised utility relocation plans may require that three historic buildings in or near the Pioneer Square Preservation District be altered by the removal of their loading docks; the docks would then be replaced. These buildings are listed in Exhibit 1-1.

Both alignments of the Tunnel Alternative would permanently affect access to two historic buildings (listed in Exhibit 1-1).

The current alternatives avoid two potential impacts that were discussed in the Draft EIS. These alternatives do not involve the demolition of the NR-eligible Washington-Oregon Shippers Cooperative Association (WOSCA) Freight House (801 First Avenue S.) or the proposed relocation of the 1 Yesler Building in the Pioneer Square Historic District (this building is part of the historic district but is not separately listed).

Construction impacts are generally similar in nature to what was described in Chapter 6 of the 2004 Appendix L. Construction would involve a lengthy period of street closures, traffic congestion, limited access, and reduced parking, all of which could potentially have economic impacts on the historic neighborhoods of Pioneer Square, Pike Place Market, and the Central Waterfront Historic District. However, in the central waterfront area, to help maintain pedestrian access along the waterfront, the project partners are considering the feasibility of constructing temporary over-water pedestrian walkways between some piers. This could help offset some of the potential construction effects related to reduced pedestrian traffic in this waterfront section.

These impacts could weaken the economic base that allows owners to maintain their historic buildings properly and could thus diminish the distinctive historic characters of these buildings and the historic districts. These impacts are addressed in more detail in the 2006 Appendix P, Economics Technical Memorandum.

Exhibit 1-1. Direct Impacts on Historic Properties

#	Address	Current Name (Historic Name)	Historic Designation	Direct Impacts		Change from Draft EIS
				Tunnel Alternative	Elevated Structure Alternative	
	Between S. King and S. Columbia Streets (approximately)	Pioneer Square-Skid Road Historic District and Pioneer Square Preservation District	National Register, Local designation	Construction impacts	Construction impacts	Varied periods of construction
	East of SR 99 between Union and Virginia Streets (approximately)	Pike Place Market Historic District	National Register, Local designation	Construction impacts	Construction impacts	Varied periods of construction
	Piers 54 through 59	Central Waterfront Historic District	Determined eligible NR	Construction impacts	Construction impacts	Varied periods of construction
*S34	55-65 S. Atlantic Street	Bemis Building	Determined eligible NR; eligible SL	Alter access	Alter access	No change
*S50	801 First Avenue S.	WOSCA Freight House (Washington & Oregon RR Freight Station/Union Pacific)	Determined eligible NR; eligible SL	No direct impact	No direct impact	Was potentially to be demolished
*C1	Alaskan Way Seawall	Alaskan Way	Determined eligible NR	Demolish	Demolish	No change
*C2	Alaskan Way Viaduct	Alaskan Way	Determined eligible NR; eligible SL	Demolish	Demolish	No change
*C2	Battery Street	Battery Street Tunnel	Determined eligible NR; eligible SL	Alter	Alter	More extensive alterations proposed
*C3	North portal near Virginia Street	Burlington Northern Railway Tunnel (previously known as Great Northern Railway Tunnel)	Determined eligible NR; eligible SL	Would remove a portion of the headwall at the north portal	Construction impact	No impact previously
*C29	Foot of Washington Street	Washington Street Boat Landing	NR, PSPD	Relocate 16 feet west of current site. Side-by-side tunnel would relocate 27 feet west of current site	Relocate approximately 35 feet to west of current site	Future location closer to present location

Exhibit 1-1. Direct Impacts on Historic Properties (continued)

#	Address	Current Name (Historic Name)	Historic Designation	Direct Impacts		Change from Draft EIS
				Tunnel Alternative	Elevated Structure Alternative	
*C49	61 Columbia Street	Polson Building	PSHD	Loading dock removed and replaced	No direct impact	No direct impact previously
*C50	619 Western Avenue	Antique Importers/Snowboard Connection (Western Building)	PSHD	Loading dock removed and replaced	No direct impact	No change
*C61	911 Western Avenue	Maritime Building	Eligible NR, Eligible SL	Loading dock removed and replaced	No direct impact	No direct impact previously
*C73	1201 Western Avenue	Amgen (Olympic Warehouse)	NR, SL	Alter access	No direct impact	No direct impact previously
*C74	51 University Street	Amgen	Eligible NR, Eligible SL	Alter access	No direct impact	No direct impact previously
*C118	2330 First Avenue	Catholic Seamen's Club (Paramount Pictures)	Significantly altered; no longer eligible	Building acquired (potential)	Building acquired (potential)	Previous impact limited to basement alterations
*C128	2331 Second Avenue	Blu Canary (MGM/Loew's)	Determined eligible NR; eligible SL	Construction beneath building (side-by-side tunnel alignment)	No direct impact	No direct impact previously
*C142	2318 Fourth Avenue	Fire Station No. 2	SL, eligible NR	Basement alterations (stacked tunnel alignment)	Basement alterations	No direct impact previously

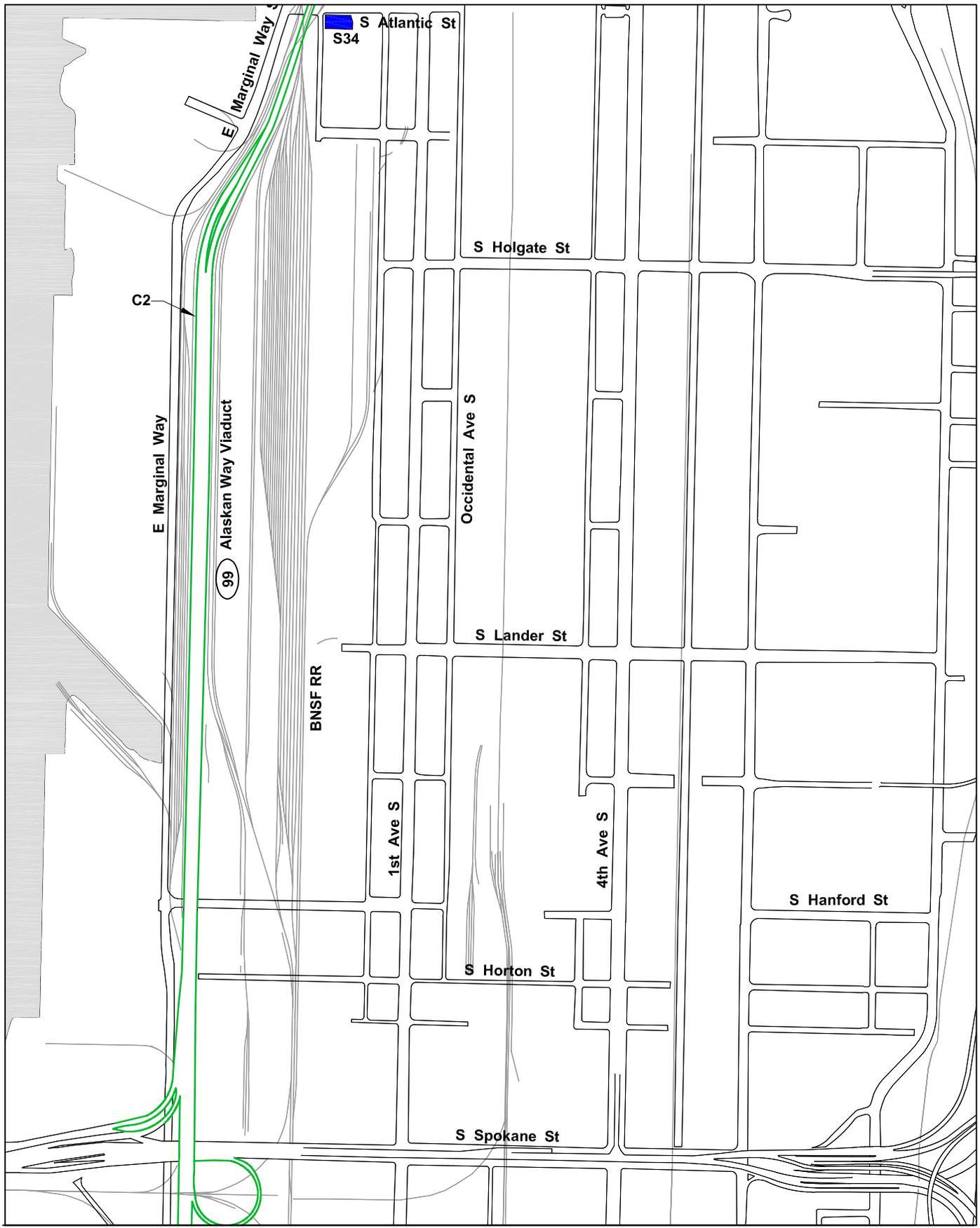
NR = National Register

SL = Seattle Landmark

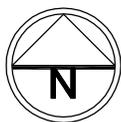
PSHD = Pioneer Square Historic District

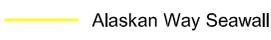
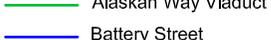
PSPD = Pioneer Square Preservation District

* Building numbers refer to Exhibit A-1 in the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum.

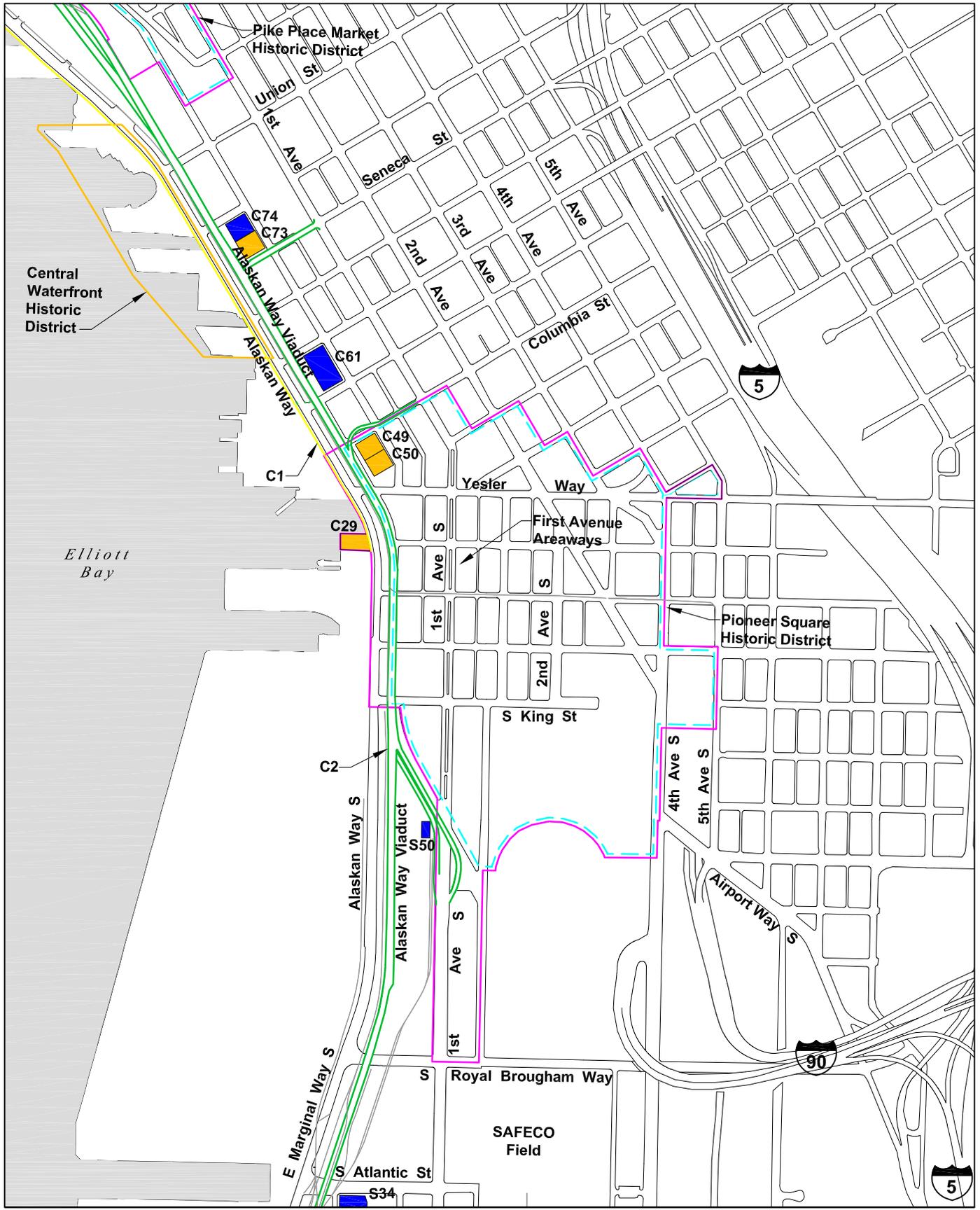


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|--|---|
|  National Register and/or City Landmark |  Central Waterfront Historic District |
|  Landmark Eligible |  Alaskan Way Seawall |
|  Local Historic District |  Alaskan Way Viaduct |
|  National Historic District |  Battery Street |

**Exhibit 1-2
Historic Resources - South**



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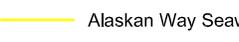
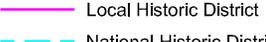
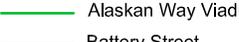
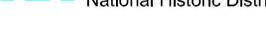
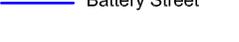
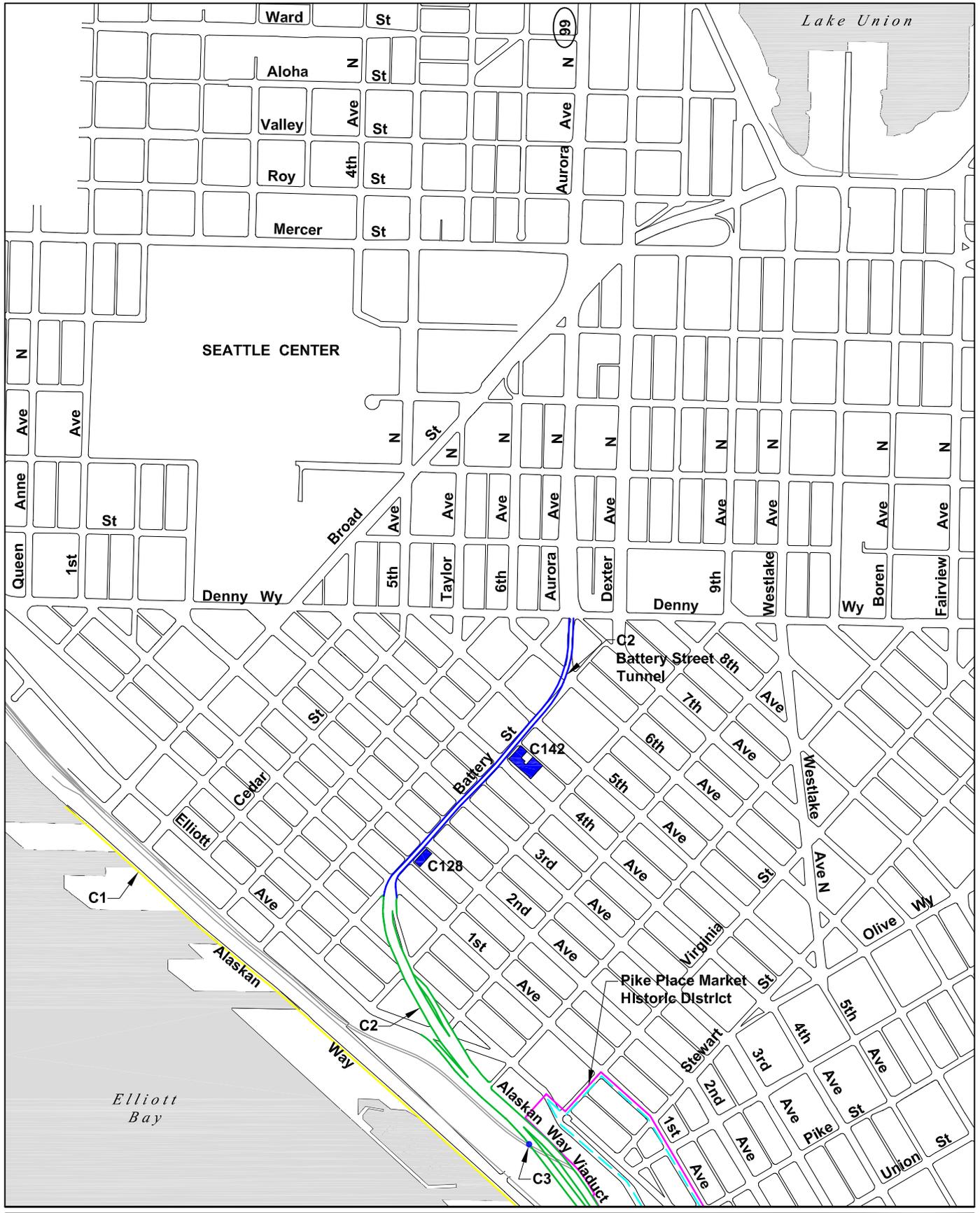
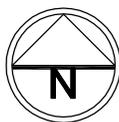
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|---|--|--|--------------------------------------|
|  | National Register and/or City Landmark |  | Central Waterfront Historic District |
|  | Landmark Eligible |  | Alaskan Way Seawall |
|  | Local Historic District |  | Alaskan Way Viaduct |
|  | National Historic District |  | Battery Street |

Exhibit 1-3 Historic Resources - Central





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|--|--|--|--------------------------------------|
| | National Register and/or City Landmark | | Central Waterfront Historic District |
| | Landmark Eligible | | Alaskan Way Seawall |
| | Local Historic District | | Alaskan Way Viaduct |
| | National Historic District | | Battery Street |

Exhibit 1-4 Historic Resources - North

1.4 Benefits

The benefits of the project to historic resources would be largely the same as described in Section 1.3 of the 2004 Appendix L. The Tunnel Alternative includes either a lid or a walkway at Victor Steinbrueck Park, which would potentially improve connections between the Pike Place Market and the central waterfront.

1.5 Mitigation

Proposed mitigation measures are discussed in Chapters 8 and 9. These are generally similar to those described in Chapters 8 and 9 of the 2004 Appendix L. Mitigation focuses primarily on preventing physical damage to historic buildings during construction and on alleviating economic impacts.

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Chapter 2 METHODOLOGY

Please refer to Chapter 2 of the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum, for the discussion of the methodology used to prepare this report. The updated information is based on a survey of the expanded project area, which extends two blocks farther north on Aurora Avenue N., from Prospect Street to Comstock Street. There has been ongoing coordination with the decision-making agencies and other interested groups.

For the purpose of this discussion, the project corridor has been divided into four sections. These areas, from south to north, are as follows:

- South – S. Spokane Street to S. Dearborn Street
- Central – S. Dearborn Street to Battery Street Tunnel
- North Waterfront – Pine Street to Broad Street
- North – Battery Street Tunnel to Comstock Street

2.1 Project Development

As in the initial stages of the project, information on historic resources was used to refine the alternatives and avoid impacts on historic resources whenever possible.

2.2 Area of Potential Effect

The Area of Potential Effect (APE) is essentially the same as that used for the Draft EIS. It was extended two blocks to the north along Aurora Avenue N., from Prospect Street to Comstock Street, to accommodate the lowering of Aurora Avenue N. It narrows to one block wide at this point because the work in this vicinity would have minimal impacts. The revised APE is shown on Exhibit 2-1. None of the buildings in the revised APE at the north end of the project area meets the criteria for listing in the National Register or for designation as a City of Seattle landmark (see Attachment A).

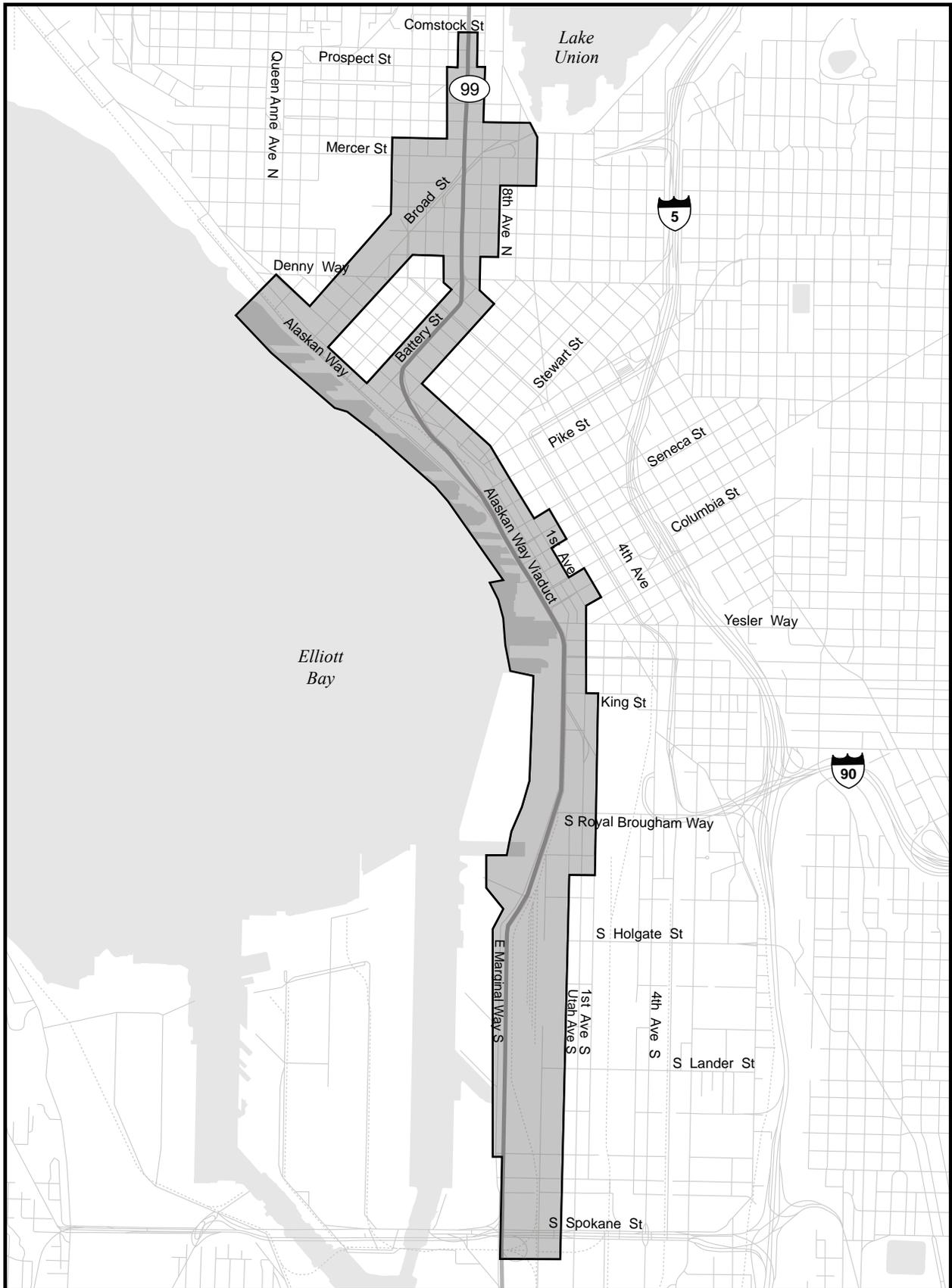


Exhibit 2-1
Alaskan Way Viaduct and
Seawall Replacement Project
Area of Potential Effect
September 2005

Chapter 3 STUDIES AND COORDINATION

Please refer to Chapter 3 of the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum, for the Studies and Coordination section.

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Chapter 4 AFFECTED ENVIRONMENT

Please refer to Chapter 4 of the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum, for the Affected Environment section. The area covered in this document is generally the same as that discussed in the Draft EIS.

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Chapter 5 OPERATIONAL IMPACTS AND BENEFITS

The potential operational impacts and benefits to historic resources (as defined by Section 106) from the Tunnel (Preferred) and Elevated Structure Alternatives are generally similar to those described in Chapter 5 of the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum, and are discussed below.

The affected buildings are listed in Exhibit 1-1 and shown in Exhibits 1-2 and 1-3.

5.1 Tunnel Alternative (Preferred Alternative)

5.1.1 South – S. Spokane Street to S. Dearborn Street

Reconfigured Whatcom Railyard

In the south section, the project would have less impact on historic resources than the alternatives discussed in the 2004 documents.

- The major impact, as noted in previous documents, is that the Alaskan Way Viaduct, which is eligible for listing in the National Register, would be demolished.
- As described in the Draft EIS, access to and views of the National Register-eligible Bemis Building (55-65 S. Atlantic Street) may be altered by new ramps.
- The proposed south tunnel portal has been moved one block south from S. King Street to S. Dearborn Street, slightly farther from the Pioneer Square Historic District.
- The current alternatives would not require demolition of the WOSCA Freight House (801 First Avenue S.), as was previously proposed.

Option: Relocated Whatcom Railyard

This option would cause no additional impacts to historic resources.

5.1.2 Central – S. Dearborn Street to Battery Street Tunnel

- As noted in earlier documents, the Alaskan Way Seawall, which is eligible for the National Register, would be demolished.
- The Washington Street Boat Landing pergola would be removed during construction, renovated, and relocated. The new location would be closer to the existing location than was proposed in the Draft

EIS. With the stacked tunnel alignment, the pergola would be relocated at the edge of the new seawall, approximately 16 feet west of its current site. With the side-by-side tunnel alignment, the pergola would be moved approximately 27 feet west of its current site. In either case, it would be at the water's edge, similar to its current orientation, but it would no longer hang over the water.

The two buildings listed below may be altered for utility easements and relocation. The work would involve removing the loading docks, which do not appear to be part of the original building fabric, and replacing them in kind following construction. The building façades would not be altered.

- Polson Building (61 Columbia Street, in the Pioneer Square Historic District)
- Maritime Building (911 Western Avenue, eligible for the National Register)

These two nearby buildings would have altered access on the Alaskan Way (rear) side:

- Amgen/Olympic Warehouse (1201 Western Avenue, listed in the National Register)
- 51 University Street (eligible for the National Register)

The Western/Antique Importers building (619 Western Avenue), in the Pioneer Square Historic District, would also have minor alterations. Any exterior alterations to buildings in the historic district must be reviewed and approved by the Pioneer Square Preservation Board.

Following tunnel construction, the area beneath today's viaduct and on Railroad Way, which is now used for parking and roadway, would be improved with sidewalks and landscaping flanking the new roadway. Access to businesses would not be permanently altered. Streetscape changes are subject to review by the Pioneer Square Preservation Board.

The 1 Yesler Building would experience no direct impacts, rather than being relocated, as was proposed earlier. Vent structures originally proposed for Spring Street and Union Street adjacent to the Pike Place Market Historic District have been relocated, which may reduce the impact on the adjacent historic resources.

Improvements to the Battery Street Tunnel may include minor alterations to two Belltown buildings:

- Tunnel construction may occur beneath the McGraw Kittenger Case (Blu Canary/MGM) Building at 2331 Second Avenue, possibly involving minor alterations.

- The National Register-eligible Fire Station No. 2 (2318 Fourth Avenue) may have an emergency tunnel exit constructed in its basement with the stacked tunnel alignment; the exit would not be at this location for the side-by-side tunnel alignment.

Steinbrueck Park Walkway

The stacked tunnel alignment includes a walkway connecting Victor Steinbrueck Park and the waterfront, which would improve pedestrian access between the Pike Place Market Historic District and the waterfront. The Steinbrueck Park Walkway would not have any other impacts on historic resources.

Option: Steinbrueck Park Lid

The optional side-by-side tunnel alignment includes a lid connecting Victor Steinbrueck Park with the waterfront, which would improve access between the Pike Place Market Historic District and the waterfront. The lid would not have any other impacts on historic resources.

5.1.3 North Waterfront – Pine Street to Broad Street

There are no additional impacts on historic resources in this section. The only impact, described in earlier documents, is the demolition of the seawall, which is eligible for listing in the National Register.

5.1.4 North – Battery Street Tunnel to Comstock Street

The only impact on historic resources in this segment would be alterations to the Battery Street Tunnel, which has been determined eligible for the National Register. It would be altered by lowering the roadway, increasing vertical clearance to 16.5 feet. Fire and life safety improvements would also be made within the tunnel.

An option being studied would include widening the curves at both ends of the Battery Street Tunnel, which would include significant changes to both portals of the structure.

5.2 Elevated Structure Alternative

Impacts of the Elevated Structure Alternative are similar to those described for the Tunnel Alternative described above, with the following exceptions.

5.2.1 South – S. Spokane Street to S. Dearborn Street

Reconfigured Whatcom Railyard

Impacts of this alternative are the same as those described for the Tunnel Alternative above, except that there would be no tunnel portal.

Option: Relocated Whatcom Railyard

This option would cause no impacts to historic resources.

5.2.2 Central – S. Dearborn Street to Battery Street Tunnel

In the central section, impacts of the Elevated Structure Alternative would be as described above for the Tunnel Alternative, and as described for the Rebuild Alternative in the Draft EIS and Section 5.2 of the 2004 Appendix L, with these exceptions:

- The Washington Street Boat Landing pergola would be relocated approximately 35 feet to the west of the existing seawall following construction.
- No historic buildings would have their access permanently altered.
- Less extensive surface improvements would be done to the area below the viaduct and on Railroad Way.
- No alterations would be made to the McGraw Kittenger Case Building (2331 Third Avenue).

5.2.3 North Waterfront – Pine Street to Broad Street

There are no additional impacts on historic resources in this section. The only impact, described in earlier documents, is the demolition of the seawall, which is eligible for listing in the National Register.

5.2.4 North – Battery Street Tunnel to Comstock Street

There would be no impact on historic resources in this segment, other than those to the Battery Street Tunnel described above in Section 5.1.4.

Chapter 6 CONSTRUCTION IMPACTS

The Draft EIS assumed that at least two lanes in each direction on SR 99 would remain open for most of the construction period. This document evaluates the impacts on historic resources of three other construction plans. Two plans, the intermediate plan and shorter plan, are discussed below for the Tunnel (Preferred) Alternative. One plan, called the longer plan, is discussed for the Elevated Structure Alternative.

Direct construction impacts potentially endanger the physical integrity of older buildings within 50 feet of certain construction activities. Indirect impacts, such as road closures that last a long time, can threaten the economic viability of a historic district or of a particular building, as the prolonged loss of tenants and customers may threaten the owner's ability to maintain the building properly. See the 2006 Supplemental Draft EIS appendices for Transportation, Noise and Vibration, Economics, and Air Quality for further information on potential effects (Appendices C, F, P, and Q).

The Pioneer Square, Pike Place Market, and Central Waterfront Historic Districts all depend on tourist and entertainment traffic, so either actual or perceived lack of access can potentially have notable economic impacts. A prolonged period of construction could have long-term economic effects on historic districts or individual buildings if building owners have difficulty restoring profitability and their ability to maintain their historic properties is diminished. Social impacts could occur in historic districts if there are changes of use for a large number of properties, if a significant number of owners are forced to sell, or if long-time tenants are forced to vacate due to construction disruption. The resulting economic impact on property owners, including the Pike Place Market Preservation and Development Authority, could potentially force them to defer maintenance and necessary improvements, thus threatening the integrity of historic buildings.

Construction activities, especially along the central waterfront, would likely interfere with access to businesses and properties adjacent to the project on either side of the right-of-way. A primary goal of construction planning is to maintain adequate access to all businesses so they can continue to operate. As construction phasing and staging is refined in the coming months, it may be determined on a case-by-case basis that it is neither reasonable nor feasible to maintain access to some businesses. If adequate access cannot be maintained, impacts to affected businesses will be mitigated under policies to be identified in the project's Business Mitigation Plan. If provisions of the Uniform Relocation Act are met, then relocation assistance would be provided.

6.1 Tunnel Alternative (Preferred Alternative)

6.1.1 Intermediate Plan

Stacked Tunnel Alignment

In the intermediate plan, the total construction period for the stacked tunnel alignment would be approximately 8.75 years, slightly longer than the shorter plan's 7-year duration. Access to waterfront businesses would be restricted during much of the construction period, particularly during Traffic Stage 1 (about 30 months or 2.5 years), when the initial relocation of utilities would take place. Other utility relocations would be required throughout the construction period. Access to Pioneer Square businesses (especially those located in the western part of the district) would also be affected, but to a lesser extent. Parking beneath the viaduct would be eliminated at the beginning of construction, which could affect businesses on the waterfront, in Pioneer Square, and to a lesser degree, in the Pike Place Market vicinity. Downtown and waterfront parking would be affected to some extent during the entire construction period, as construction focuses on certain areas in the corridor. It is likely that construction would take place concurrently in different sections of the corridor.

SR 99 would be closed for approximately 27 months, less than the 42 months in the shorter plan. This includes periods when only the northbound lanes or southbound lanes would be closed, with the other direction remaining open. During these closures, traffic would be diverted primarily to other downtown streets. Traffic between Railroad Way (located near the southwest corner of the Pioneer Square Historic District) and S. Spokane Street would be diverted onto First Avenue S. Increased traffic and congestion from these periodic and extended closures would potentially affect businesses in Pioneer Square. Congestion may also extend farther north, affecting businesses in the Pike Place Market area and in other historic buildings in the western portion of downtown.

In addition, parking may be eliminated on First Avenue/First Avenue S. as a traffic mitigation measure. This could affect Pioneer Square businesses. Higher traffic levels and more heavy vehicles in the lanes closer to the sidewalk could potentially increase the possibility of damage to the areaways. These are structural components of historic buildings that lie beneath the sidewalks, especially along First Avenue S.

Several historic buildings are located on or close to Battery Street and could experience indirect impacts of the construction of improvements to the Battery Street Tunnel.

Side-by-Side Tunnel Alignment

Impacts from the side-by-side tunnel alignment would be similar in nature to those described above. However, the total construction period would be shorter (8 years versus 8.75 years). SR 99 would be closed for 18 months rather than 27 months.

6.1.2 Shorter Plan

Impacts from this construction plan would be similar in nature to those described above. The overall construction period would be the shortest of any of the plans, approximately 7 years. However, the SR 99 corridor would be completely closed for 42 months, longer than with the other construction plans. Accordingly, there might be greater impacts on the Pioneer Square vicinity.

Stacked Tunnel Alignment

Impacts of this alignment would be as described above in Section 6.1.1, except that the total construction period would be 7 years rather than 8.75 years. This would potentially reduce the impacts on the Central Waterfront Historic District. However, SR 99 would be closed for a considerably longer period—42 months rather than 27 months, resulting in somewhat greater impacts on Pioneer Square.

Side-by-Side Tunnel Alignment

The construction period and the length of time during which SR 99 is closed are the same for this alignment as for the stacked tunnel alignment. Impacts would be as described above in Section 6.1.1, except that the total construction period would be 7 years rather than 8 years, and SR 99 would be closed for 42 months rather than 18 months. This would potentially increase the impacts on Pioneer Square and slightly decrease the impacts on the Central Waterfront Historic District.

6.2 Elevated Structure Alternative

6.2.1 Longer Plan

Only one construction plan, the longer plan, is evaluated for the Elevated Structure Alternative. Construction impacts would be similar to those described above for the Tunnel Alternative. SR 99 would be closed to all traffic for a shorter period, approximately 3 months, but the expected duration of construction would be approximately 10 years, longer than for either tunnel alignment. The considerably longer construction period would potentially result in greater impacts to the Central Waterfront, Pike Place Market, and Pioneer Square Historic Districts. At the same time, the short period of closure would potentially reduce the impacts caused by congestion. This alternative no longer includes construction of the large temporary detour structure that the Draft EIS described near the Central Waterfront Historic District.

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Chapter 7 SECONDARY AND CUMULATIVE IMPACTS

7.1 Effects Common to Both Alternatives

7.1.1 Secondary Impacts

Please refer to Section 7.1.1 of the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum, for a discussion of potential secondary impacts. These impacts are those effects that may be caused by a particular action but occur in the future or some distance away. Potential causes of such effects on historic resources could be changes in waterfront land use due to the removal of the viaduct structure and changes in economic activity in the downtown area because of traffic congestion.

7.1.2 Cumulative Impacts

Cumulative impacts on historic resources may occur in conjunction with other projects planned for the same vicinity as this project. These impacts are largely similar to those discussed in the Draft EIS. While it is difficult to foresee future projects or their effects accurately, some possible cumulative impacts can be discussed. Each of the projects mentioned here has, or will have, environmental documents discussing potential changes to historic resources.

Colman Dock Ferry Terminal Expansion: Washington State Ferries (part of Washington State Department of Transportation [WSDOT]) is currently working with the City of Seattle on plans to expand operations at the Colman Dock Ferry Terminal (Pier 52). Improvements to the ferry terminal are independent of the AWV Project, but work on both projects is being closely coordinated within WSDOT.

Currently, Colman Dock accommodates approximately 600 vehicles. The proposed dock will be expanded to accommodate between 1,000 and 1,300 vehicles. Construction of the new terminal is expected to begin as early as 2009 and will be phased over a period of 5 to 7 years.

WSDOT plans to purchase Pier 48 for use as construction staging for both the AWV and Colman Dock projects. A temporary bridge would be built between Colman Dock and Pier 48 to provide vehicle access to and from Colman Dock during construction. WSDOT is also considering the removal of the over-water portion of Pier 48 and a portion of the upland fill area.

Both projects require in-water construction work in Elliott Bay and may involve long-term changes to the aquatic environment (such as fill in Elliott

Bay). Both projects are also located within the usual and accustomed fishing areas of the Muckleshoot and Suquamish Tribes. WSDOT is participating in regular project coordination meetings, providing information on both projects at public meetings, and consulting with tribes on treaty fishing rights and historic and cultural resources protected under Section 106 of the National Historic Preservation Act.

Waterfront Planning: Seattle Parks and Recreation is undertaking the study of four build alternatives for the removal and/or reconstruction of Pier 62/63 and short-term improvements to and eventual removal of Waterfront Park. Each build alternative would include replacing subtidal habitat with shallow intertidal habitat. The resulting overall improvements could change the character of the historic sections of the central waterfront and the western edge of Pioneer Square. It is expected that the project will be coordinated with the AWV Project.

Seattle Aquarium and Waterfront Park: The Seattle Parks and Recreation Department and the Seattle Aquarium Society have proposed to expand the Seattle Aquarium at Pier 59 and develop a new waterfront park on Pier 62/63. The changes have been approved by the Seattle Landmarks Preservation Board.

The first phase of the Aquarium project is currently being constructed and will be completed before the AWV Project begins. Timing of future phases is unknown.

Additionally, the Seattle Parks and Recreation Department is working on developing a Draft EIS for the Central Waterfront Master Parks Plan, which will evaluate options to repair, replace, and renovate Pier 62/63.

At this time, no cumulative effects are expected, though the project partners will continue to coordinate with the Seattle Parks and Recreation Department and Seattle Aquarium Society.

Mercer Corridor: The City of Seattle is planning improvements along Mercer and Valley Streets in the South Lake Union area. Environmental review is underway, including analysis of potential impacts on historic properties. Final design may be done in 2007, with construction between 2008 and 2010. Construction near Dexter Avenue N. could overlap with the AWV Project's proposed north end improvements along Aurora Avenue N., which is scheduled to start in 2009. This could exacerbate effects on historic buildings in the vicinity.

Seattle Monorail Project: The Monorail Green Line that was discussed in the Draft EIS was rejected by voters in the November 2005 election, so no cumulative impacts will occur.

7.2 Tunnel Alternative (Preferred Alternative)

Please refer to Sections 7.1.1, 7.1.2, and 7.4 of the 2004 Appendix L for the discussion of the secondary and cumulative impacts of the Tunnel Alternative.

7.3 Elevated Structure Alternative

Please refer to Sections 7.1.1 and 7.1.2 of the 2004 Appendix L for the discussion of secondary and cumulative impacts, which would not be different for the Elevated Structure Alternative.

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Chapter 8 OPERATIONAL MITIGATION

8.1 Mitigation Common to Both Alternatives

Please refer to Chapter 8 of the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum, for proposed operational mitigation measures.

Three general types of mitigation are proposed: minimizing direct impacts through project design, documenting demolished and affected properties in various ways, and developing interpretive materials and displays. Potential impacts in this technical memorandum are generally similar to those described in the Draft EIS, and no additional measures are proposed.

Further development of mitigation measures will be closely coordinated with the Federal Highway Administration (FHWA), the WSDOT Cultural Resources Coordinator, the Seattle Historic Preservation Officer, and the Washington State Historic Preservation Officer. These mitigation approaches will then be the basis for discussion leading to a Section 106 Memorandum of Agreement or Programmatic Agreement among these parties to ensure that historic resources are adequately protected.

8.2 Tunnel Alternative (Preferred Alternative)

Please refer to Sections 8.1 and 8.4 in the 2004 Appendix L for proposed mitigation measures. Potential impacts in this technical memorandum are generally similar to those described in the Draft EIS, and no additional measures are proposed.

8.3 Elevated Structure Alternative

Please refer to Sections 8.1 and 8.3 in the 2004 Appendix L for proposed mitigation measures. Potential impacts in this technical memorandum are generally similar to those described in the Draft EIS, and no additional measures are proposed.

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Chapter 9 CONSTRUCTION MITIGATION

Construction impacts are described in Chapter 6 of the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum, and, to a lesser extent, in Chapter 6 of this document. The impacts are generally similar for both alternatives: noise and vibration, dust and mud, traffic congestion, limited access, reduced parking, and the economic effects due to these conditions. The long period of construction presents the potential that economic impacts to owners and tenants of historic buildings may threaten their financial ability to maintain and repair their buildings appropriately.

The potential impacts would likely be greatest for the central waterfront, which may experience the longest period of construction due to the extensive utility relocations required for the project. Buildings on the west side of Pioneer Square would also be affected. Owners of buildings in the Pike Place Market area would be affected because of the close ties between the market and waterfront attractions. Numerous potential mitigation measures have been proposed to address these indirect impacts. Business mitigation measures are also discussed in the 2006 Appendix P, Economics Technical Memorandum.

Further development of mitigation measures will be closely coordinated with the FHWA, the WSDOT Cultural Resources Coordinator, the Seattle Historic Preservation Officer, and the Washington State Historic Preservation Officer. These mitigation approaches will then be the basis for discussion leading to a Section 106 Memorandum of Agreement among these parties to ensure that historic resources are adequately protected during construction.

The primary difference between the alternatives being discussed in this document and the discussion in the March 2004 document is that construction activities vary significantly, as described in Chapter 6. Construction activities, especially along the central waterfront, would likely interfere with access to businesses and properties adjacent to the project on either side of the right-of-way. A primary goal of construction planning is to maintain adequate access to all businesses so they can continue to operate. As construction phasing and staging is refined in the coming months, it may be determined on a case-by-case basis that it is neither reasonable nor feasible to maintain access to some businesses. If adequate access cannot be maintained, impacts to affected businesses will be mitigated under policies to be identified in the project's Business Mitigation Plan. If provisions of the Uniform Relocation Act are met, then relocation assistance would be provided.

Mitigation might include the following measures:

- For those businesses for which access cannot be maintained, evaluating whether the businesses or property owners would be eligible for either relocation or other financial assistance during construction.
- Ensuring funding for construction monitors and outreach staff to act as liaisons between contractors and businesses/property owners and residents.
- Developing a business community outreach program and materials specifically for businesses, including accurately explaining the degree of disruption during each construction phase.
- Implementing public information campaigns on the progress of construction activities to reassure people that businesses are open during construction and to encourage their continued patronage (including such measures as news releases, project information lines, newsletters, and print and electronic advertising).
- Scheduling construction activities, when possible, to minimize impacts on tourism and peak shopping periods.
- Minimizing construction traffic in historic areas.
- Providing clear detours and alternate routes and avoiding, whenever possible, placing detour routes through historic areas.
- Installing signage, lighting, wayfinding aids, and other information to indicate that businesses are open.
- Minimizing utility disruptions by scheduling them during off hours and providing adequate advance notice.
- Providing alternative parking and instructions where parking is lost due to construction.
- Supporting related projects to improve the affected neighborhoods, such as public space improvements, clean-up programs, or restoration of specific historic features.
- Providing a contingency fund to repair damage to historic buildings due to construction.
- Monitoring the buildings and areaways adjacent to construction activities for vibration impacts (before, during, or after construction) and reinforcing them to prevent damage. The reinforcement would be done in compliance with the Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings.

- Use best management practices to minimize effects of pile driving within 200 feet of sensitive structures.
- Using best practices to control noise, including using quieter equipment and techniques and, if needed, constructing noise walls or other barriers to block noise from historic buildings.
- Using best practices to control air pollution and mud.

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Chapter 10 REFERENCES

Please refer to Chapter 10 of the 2004 Draft EIS Appendix L, Historic Resources Technical Memorandum for references. No additional references were used for this document.

WSDOT (Washington State Department of Transportation), City of Seattle, and U.S. Department of Transportation, Federal Highway Administration. 2004. SR 99: Alaskan Way Viaduct & Seawall Replacement Project Draft Environmental Impact Statement. Washington State Department of Transportation, Urban Corridors Office, Seattle, Washington.

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ATTACHMENT A

**Inventory of Buildings 40 or More Years
Old within the Expanded Area of
Potential Effect in the North Section**

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ATTACHMENT A

SR 99: ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT

HISTORIC PROPERTIES

Inventory of Buildings 40 or More Years Old within the Expanded Area of Potential Effect (North Section)

Number	Address	Current Name	Historic Designation	Tunnel	Elevated Structure
N1	1207 Aurora Avenue N.	Single family residence	Not eligible	No direct impact	No direct impact
N2	1217-19 Aurora Avenue N.	Single family residence	Not eligible	No direct impact	No direct impact
N3	1223 Aurora Avenue N./ 625-627 Comstock Street	Duplex	Not eligible	No direct impact	No direct impact
N4	615 Comstock Street	Single family residence	Not eligible	No direct impact	No direct impact
N5	619 Comstock Street	Four-plex	Not eligible	No direct impact	No direct impact
N6	610 Highland Drive	Tartan Arms Apartments	Not eligible	No direct impact	No direct impact
N7	620 Highland Drive	Triplex	Not eligible	No direct impact	No direct impact
N8	606 Prospect Street	Single family residence	Not eligible	No direct impact	No direct impact
N9	610 Prospect Street	Single family residence	Not eligible	No direct impact	No direct impact

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