Washington State Department of Transportation

SR 520 Bridge Replacement and HOV Program

SR 520, I-5 to Medina: Bridge Replacement and HOV Project
Queen City Yacht Club Slip and Pier Modifications Technical Memorandum

Prepared for

Washington State Department of Transportation

Lead Author

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Consultant Team

HDR

November 2, 2022

We have reviewed and agree with the contents of this memorandum.

Region/Mode Official	**Date**
FHWA Official	**Date**

1. Introduction and Background

The purpose of this memorandum is to document National Environmental Policy Act (NEPA), State Environmental Policy Act (SEPA), Endangered Species Act (ESA), and Section 106 and 4(f) compliance for the SR 520, I-5 to Medina: Bridge Replacement and HOV Project associated with the relocation of an existing slip and associated pier modifications owned by the Queen City Yacht Club. Environmental documentation for the SR 520, I-5 to Medina: Bridge Replacement and HOV Project includes the Final Environmental Impact Statement (EIS) (June 2011) and supporting discipline reports, the Record of Decision (August 2011), SEPA Addenda (October and November 2011), NEPA Environmental Reevaluations (December 2011, January 2012, July 2012, October 2012, February 2013, April 2016, October 2016, July 2018, August 2018, October 2019, and February 2021), and other memoranda. The proposed changes have been compared to findings in the Final Environmental Impact Statement, Record of Decision (ROD), and other existing reports and documentation and are described below.

2. Slip and Pier Modifications

The 2011 Final EIS identified the relocation of moorage slips at the Queen City Yacht Club during construction of the Portage Bay Bridge; however, the relocation location was not identified at that time. As identified in the Final EIS and ROD, the bridge alignment and pier 4 location encroach into the moorage slips requiring relocation. Design refinements since issuance of the Final EIS require shifting the moorage slips outside of the previously analyzed impact area (Exhibit A). This memorandum evaluates the design refinements which were not previously considered in the 2011 Final EIS.

Three existing moorage slip floats would be repositioned from their existing location to the end of the same pier in deeper water outside of the project limits. The existing pier is 6-feet wide, composed of solid wood stringers and planking, and founded on wood piles and pile caps. To support the repositioned slips, the existing pier will require some structural retrofits. This includes splicing steel pile stubs to 16 existing wood piles, the installation of 18 new 12-inch diameter steel piles and replacement of select stringers. These structural enhancements would all occur within the existing pier footprint. The total over-water area of the pier and slip floats would not change.

The work is expected to take up to 4 weeks. The general construction sequence and methods are as follows:

- Materials will be brought to site by barge.
- A containment boom will be installed around the pier where the work is being performed.
- The existing deteriorated framing and decking will be demolished with hand tools and stored on the barge for upland disposal.
- The new pier piles will be driven by a vibratory hammer.
- The existing wood piles that need to be spliced will be cut below the water line and a new pile stub will be installed using drills and hand tools.
- The new decking, bullrails and emergency ladders will be installed using hand tools.
- The existing floats will be detached from the pier using hand tools and will be brought

to the new location using a small tugboat and will be re-attached to the pier using hand tools.

- The floating containment boom will be removed once all work is complete.

3. Environmental Analysis

FHWA and WSDOT have evaluated the proposed design change, changes to the affected environment, and potential changes to the environmental effects as previously described in the Final EIS. FHWA and WSDOT have concluded that no new significant environmental impacts, beyond those described in the Final EIS and ROD, would result from the changed conditions. Changes pertaining to specific resources that have the potential to be affected are described below.

Ecosystems

The proposed design refinements would increase the footprint of benthic fill by 14.2 square feet within the footprint of the existing pier. However, the addition is so small, that it does not change the net impact values that trigger compensatory mitigation. Impact values are reported out to 0.001 acre, and this addition does not register within those significant figures. The addition of 960 square feet of new grated decking will also provide a net ecological benefit from the proposed work. Temporary construction impacts would result in only localized short-term increases in turbidity during vibratory pile installation. Vibratory pile driving would result in elevated underwater noise levels, but consistent with the project's ESA consultation, therefore; underwater noise levels would not reach a level considered harmful to fish. Reinitiation of ESA consultation was not required, and WSDOT/FHWA provided an administrative update to the NMFS and UWFWS for the proposed design refinements on October 25, 2022. Therefore, the impacts described in Sections 5.11 and 6.11 of the Final EIS would not change. A WSDOT biologist has reviewed and concurred with this analysis.

Transportation

No impacts to transportation would occur from the proposed design refinements. Impacts to operations at the QCYC are discussed under recreation. The impacts described in Sections 5.1 and 6.1 of the Final EIS would not change.

Land Use

Land use would not be affected by the proposed design refinements. The impacts described in Sections 5.2 and 6.2 of the Final EIS would not change.

Section 4(f) Resources

The proposed design refinements would not constitute a transportation use of Section 4(f) Resources and would not require revisions to the 2011 Section 4(f) evaluation. The expanded work area does not include Section 4(f)-protected property. The impacts described in Chapter 9 of the Final EIS would not change.

Section 6(f) Resources

No Section 6(f) Resources would be impacted by the proposed design refinements; therefore, no impacts are anticipated. The impacts described in Chapter 10 of the Final EIS would not change.

Recreation

Construction of the proposed slips at the QCYC would result in temporary construction impacts to the dock and would render the dock inaccessible during construction. This is consistent with the impact that was described in the Final EIS; no additional impacts are anticipated. The impacts described in Sections 5.4 and 6.4 of the Final EIS would not change.

Visual Resources

No impacts to visual resources would occur from the proposed design refinements. The impacts described in Sections 5.5 and 6.5 of the 2011 Final EIS would not change.

Noise and Vibration

Potential additional impacts to fish from vibratory pile driving are described under Ecosystems. No impacts from noise and vibration outside of those described in the 2011 Final EIS would occur from the proposed design refinements. The impacts described in Sections 5.7 and 6.7 of the 2011 Final EIS would not change.

Cultural Resources

No impacts to cultural resources are anticipated. A WSDOT Cultural Resources Specialist has reviewed the proposed plan and determined that no additional Section 106 consultation is required. The expanded work area is within the existing APE established for the Project. The impacts described in Sections 5.6 and 6.6 of the 2011 Final EIS would not change.

Air Quality

The proposed design refinements would not impact air quality. The impacts described in Sections 5.8 and 6.8 of the Final EIS would not change.

Hazardous Materials

No impacts associated with hazards materials are anticipated. The impacts described in Sections 5.13 and 6.13 of the Final EIS would not change.

Navigation

The slips would be installed along an existing dock and would not result in conflicts with navigable waterways; therefore, no impacts to navigation are anticipated. The relocation would allow for navigation to and from and use of the slips during construction, as identified in the Final EIS as the need to relocate the slips. The impacts described in Sections 5.14 and 6.14 of the Final EIS would not change.

Social Elements

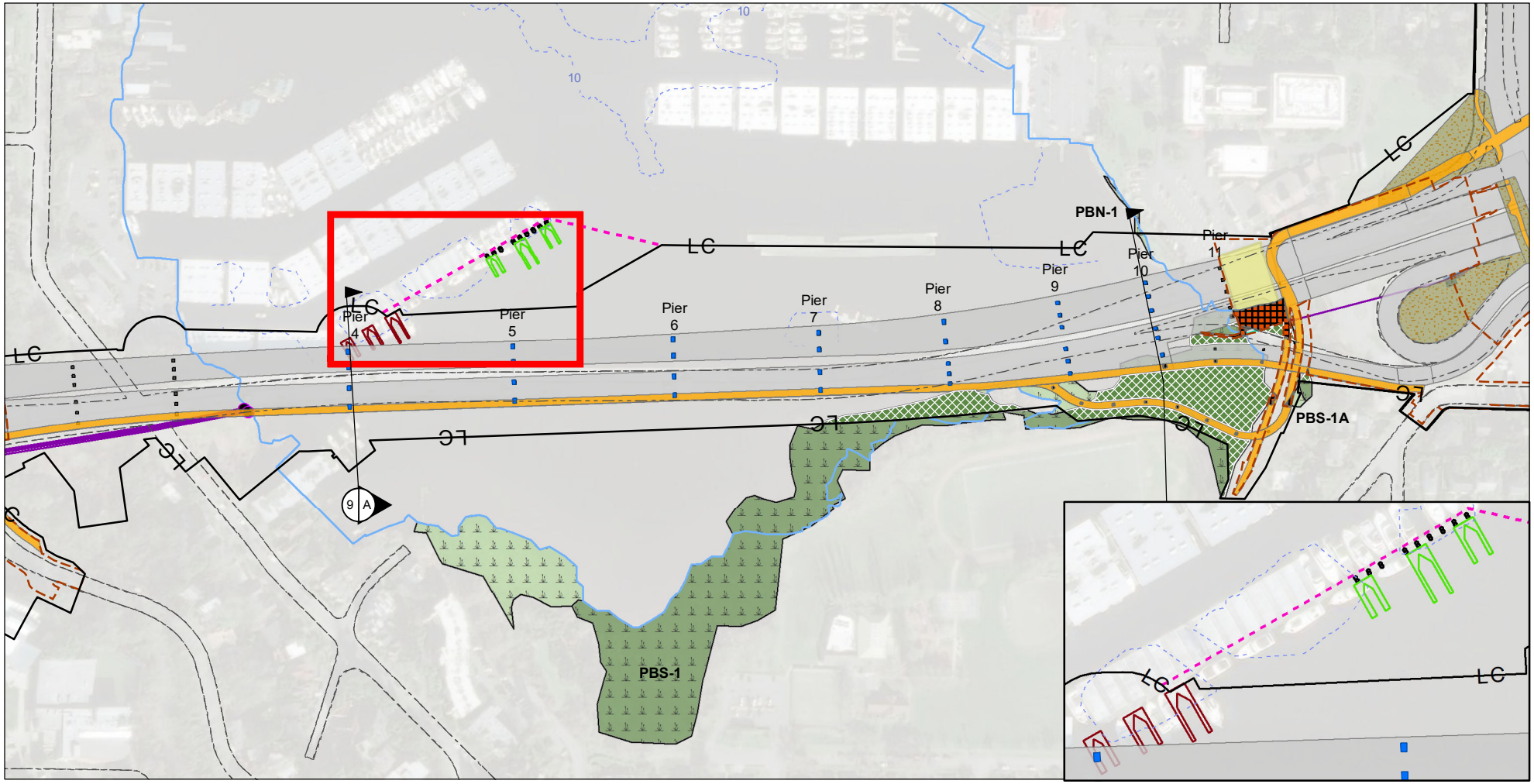
The proposed design refinements would not change the conclusions regarding community cohesion, demographics, environmental justice communities, tribal fishing, or recreation from the Final EIS. Public parks and recreation facilities would remain open and available to all. The impacts described in Sections 5.3 and 6.3 of the Final EIS would not change.

4. Conclusion

The changes described above will not result in additional effects beyond those described in the Final EA, FONSI, and subsequent Environmental Reevaluations. Therefore, the project remains compliant with current federal, state, local, and departmental regulations and directives with regard to NEPA/SEPA processes, Section 106 and 4(f), and the Endangered Species Act.

Exhibits

A. Proposed QCYC Dock and Slip Design Refinements



Proposed Roadway
Greenspace
Shared Use Path
NOAA Parking Lot
Ditch
Stormwater Pipe
Outfall
Proposed Cut/Fill Line

LC Limits of Construction
Proposed Limits of Construction
OHW Ordinary High Water Mark (21.85')
5-ft Bathymetry
Existing Edge of Pavement
QCYC Existing Slips
QCYC Repositioned Slips
QCYC New Pile Locations

Wetland Class
Emergent
Forest/Shrub

Impact Type
Permanent Wetland Impact
Permanent Lakebed Impact
Temporary Wetland Clearing

Impact Table (acre)

	PBS-1 Total	PBS-1A Total	PBN-1 Total	PIER 4-10
Permanent Wetland Impact	0.02	0.01		0.10
Permanent Lakebed Impact				
Temporary Wetland Clearing		0.31	0.16	0.55

SR520 - I-5 TO MEDINA
I-5 to Medina: Bridge Replacement and HOV Project
Washington State Department of Transportation

PERMIT DRAWINGS
PURPOSE: To improve mobility for people and goods across Lake Washington within the SR 520 corridor in a manner that is safe, reliable, and cost-effective, while mitigating impacts on affected neighborhoods and the environment.
REFERENCE: NWS-2008-1246
APPLICANT: WSDOT

IN: Wetlands, Streams, and Lake WA
AT: Cities of Seattle and Medina
COUNTY: King **STATE:** WA
DATE: October 28, 2022

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Feet
HORIZONTAL DATUM: nad 83/91
VERTICAL DATUM: COE - 1919