

Executive Summary

The purpose of the Interstate 5 (I-5) Willamette River Bridge Project is to improve safety and maintain connectivity and mobility for all users of I-5 over the Willamette River in the Eugene/Springfield Metropolitan Area.

The original I-5 bridge over the Willamette River, Franklin Boulevard and the Union Pacific Railroad and the bridge over the Canoe Canal (also known as “Patterson Slough”) were inspected in 2002 and found to have substantial problems. The bridges were taken out of service and temporary detour bridges were built to carry I-5 traffic. The I-5 Willamette River Bridge Project would build permanent replacement bridges.

The I-5 Willamette River Bridge Project is located on a section of I-5 that runs generally in a north-south direction, with the City of Eugene on the west side and the City of Springfield on the east side.

What is the I-5 Willamette River Bridge Project?

The I-5 Willamette River Bridge Project is a project to replace the existing I-5 bridges that cross the Willamette River and the Canoe Canal. The project is part of the Oregon Transportation Investment Act (OTIA) III State Bridge Delivery Program, which involves the repair and replacement of more than 300 bridges statewide over a ten year period. The I-5 Willamette River Bridge project is the largest in the \$1.3 billion OTIA III program.

The proposed project has the following main components:

- Demolition of the decommissioned Willamette River bridge, Canoe Canal bridge, and detour bridges (salvaged portions of the bridges would be recycled or reused as much as possible);
- Construction of replacement bridges; and
- Reconstruction of the roadway near the bridges including the Franklin Blvd ramps.

The new bridges would be constructed in almost the same location as the existing bridges, there would be relatively minor shifts of alignment, as well as changes to the Franklin Boulevard ramps.

The new bridges would be designed with enough width to eventually carry up to six lanes of traffic (three in each direction) to meet the projected traffic needs for the next 20 years. The new bridges would be striped to carry two lanes in each direction which matches I-5 in this area. Any future widening of I-5 would require a full environmental review.



The I-5 Willamette River Bridge crosses the Willamette River in the Eugene-Springfield area.

How long will the project take?

It is expected that it will take up to four years from start of construction in 2009 until the completion and the opening of the new bridges in 2012.

How much would the project cost?

The entire project would cost \$180 million, which includes National Environmental Policy Act (NEPA) review, design, right-of-way acquisition (if required), demolition, road work, bridges, ramp improvements, and all construction and inspection. Of the overall budget, about \$70 million is just for the bridges crossing the Willamette River, railroad, and Franklin Boulevard. This includes about \$10 million earmarked for additional aesthetics for the bridge. Funding comes from OTIA III program funding (\$150 million) and federal funding authorized in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (\$30 million).

The National Environmental Policy Act of 1970 provides an interdisciplinary framework for federal agencies to consider environmental factors in their decision making. This EA helps the Federal Highway Administration in its review of the I-5 Willamette River Bridge Project.

What are the purpose of and need for this project?

The purpose of the proposed project is to improve safety and maintain connectivity and mobility for all users of I-5 over the Willamette River in the Eugene/Springfield Metropolitan Area.

The need for the project is based on several factors. An inspection of the existing Willamette River Bridge in 2002 identified substantial problems. The bridge is cracked in many places, which affected its structural integrity and safety. The inspection resulted in a sufficiency rating of 20 on a 100 point scale. A bridge qualifies for replacement funding from the Federal Highway Bridge Replacement and Rehabilitation Funding Program if it has a sufficiency rating of less than 50.

In addition, the bridges' designs are no longer sufficient for the size of modern freight trucks that travel on I-5.

Temporary detour bridges were built in 2004 and the old bridges were removed from service.

The temporary detour bridge eliminated a 200-mile detour for heavy haul trucks that could not use the old bridge because of weight restrictions. The 200-mile truck detour had a big economic impact on the state and region.

Further, the current average daily traffic (ADT) volume is about 49,000 vehicles on the interstate facility in the project area and is predicted to increase to roughly 73,000 ADT by 2030.

Upgrading and widening the decommissioned bridge to meet design standards or future traffic would be difficult and costly.

What are the project alternatives?

The Oregon Department of Transportation (ODOT) and the Federal Highway Administration (FHWA) are assessing two project alternatives in the NEPA process: The No Build Alternative and the Build Alternative. The No Build Alternative would include demolishing the decommissioned bridges and upgrading the detour bridges to meet current earthquake standards. It is estimated that upgrades to the detour bridges would cost \$10 million to \$15 million, not including demolition of the decommissioned bridges and other related costs.

The Build Alternative would involve demolishing the existing decommissioned and detour bridges and building new bridges. The Build Alternative would feature two separate parallel bridges – one carrying northbound and another carrying southbound traffic – crossing the Willamette River, Franklin Boulevard, and the Union Pacific railroad. There would be one set of bridge piers near the center of the Willamette River, and one set of piers on or near the shoreline on each side of the river. The new bridges would have much fewer bridge piers in and near the Willamette River than the decommissioned and detour bridges currently in place (11 sets of piers). There would also be bridges crossing the Canoe Canal. The bridges and nearby roadway would be shifted slightly from the existing alignment.

Several design options are part of the Build Alternative:

- There are two pier location options that feature slightly different locations for the bridge piers; and
- There are four bridge type options: girder, box segmental, through arch; and deck arch.

These options would allow the ultimate selection of a bridge that is within the available project funding, minimizes bridge piers in the Willamette River, and provides opportunities for aesthetic bridge treatments as part of the final design.

ODOT intends to select the bridge type after the NEPA process is finished to allow the selected design firm and the contractor to provide input into the bridge type. Their expertise on design and construction would help in choosing a bridge that is aesthetically pleasing, meets community goals, and is within budget. This provides a greater opportunity for ODOT to obtain and consider additional public input on bridge types.

How has the public been involved in the project?

Public outreach and involvement for the I-5 Willamette River Bridge project has included: project information provided to the public through newsletters and the project website; public open house meetings in Eugene and Springfield to provide project information and gather public input; briefings to neighborhood and civic groups and local elected bodies; and meetings of the project's Community Advisory Group (CAG). The CAG has helped to develop project goals and objectives, gave input on alternatives development, and will continue to help shape the project into final design and construction. In addition, a member of the CAG is a voting member of the Project Development Team (PDT). The PDT is the main decision-making body for the project, and is made up of representatives of ODOT, FHWA, the cities of Eugene and Springfield, Lane County, and the CAG.

Public involvement activities

- Open house meetings in 2006 and 2007
 - Newsletters
 - Community Advisory Group
 - Website
 - Briefings to community groups and local elected bodies
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How would the project affect the environment?

Both the No Build and Build Alternatives would involve construction activities, though the scope of those activities would be greater for the Build Alternative. Neither the No Build nor the Build Alternative would result in changes in traffic volumes, as neither would affect the capacity of I-5.

The following sections highlight the findings of this analysis.

Air Quality

Roadway construction activities can temporarily create dust and small amounts of other pollutants. Heavy trucks and construction equipment powered by gasoline and diesel engines would generate exhaust emissions. These effects would be reduced by following applicable state regulations. The project would not result in long term air quality impacts.

Archaeological and Historic Resources

The area has been surveyed for archaeological sites and none were found within the area potentially affected by the project. The Eugene Mill Race and Dam is eligible for listing in the National Register of Historic Places. A study of possible project impacts to the Mill Race was prepared and submitted to the Oregon State Historic Preservation Office (SHPO). The SHPO concurred with a finding that the proposed project would have no adverse effects on the Mill Race.

Biology

The project would temporarily disturb wildlife and habitat in the project area during construction. In-water work would temporarily affect aquatic species. The adjacent heron

rookery would be affected by construction noise and activities. These effects would be minimized by using construction best management practices (BMPs) to reduce erosion, minimize impacted areas, and reduce construction noise. The project would result in fewer piers in the Willamette River and surrounding areas in comparison to the existing condition, thus providing an increase in river and terrestrial habitat.

Geology

Construction activities would disturb soil and involve excavation of foundations within the bedrock that is below the Willamette River. These effects would be localized and there would be no long term effects to geological resources from the project.

Hazardous Materials

Several sites with known environmental contamination are present within the project area. Demolition and excavation activities could affect two of the areas of concern that have been identified. No long term effects on hazardous materials sites are anticipated.

Land Use (including Sections 4(f) and 6(f))

Alton Baker Park, which includes the Whilamut Natural Area and the Eastgate Woodlands, is located on both sides of I-5 in the project area. Adjacent land uses include transportation, industrial, residential, and open space uses. The project would not change existing land use in the project area. The project would need the following land use actions: Willamette Greenway (statewide planning goal #15) exception; amendments to Eugene-Springfield Metropolitan Area Plan and the Willakenzie Area Plan; and land development permits.

Alton Baker Park is a public park, which qualifies it for protection under Section 4(f) of the Department of Transportation Act of 1966. Land and Water Conservation Fund Act (LWCF) grant money may have been used in the development of the park. If LWCF funds were used “conversion” of park property would need to be replaced with similar property.

Portions of Alton Baker Park would be temporarily used during construction for a haul road (via Leo Harris Parkway and North Walnut Street southeast of Autzen Stadium) and for materials and equipment storage, but no permanent new right of way is expected to be needed for the project. ODOT is working with the City of Eugene and Willamalane Park and Recreation District on measures to minimize construction effects on the park.

Section 4(f) of the Department of Transportation Act of 1966 states that publicly-owned park and recreation sites, wildlife and waterfowl refuges and significant historical sites cannot be used for transportation purposes unless there is no feasible and prudent alternative and the action includes all possible planning to minimize harm to the property.

Section 6(f) of the Land and Water Conservation Fund Act states that act prohibits the conversion of property acquired or developed with these grants to a non-recreational purpose without the approval of the National Park Service.

Noise

The proposed project would result in minor increases in noise in the surrounding area, primarily due to anticipated traffic increases over time. The results of the noise analysis of the No Build Alternative for the year 2030 predict that noise levels would increase by 1 to 2 decibels, or dBA, over existing conditions, and that 60 homes, 1 business, 1 park, and 1 cemetery would have noise levels that exceed the ODOT noise impact standards. For the Build Alternative it is predicted that changes in noise levels would range from a reduction of 1 dBA to an increase of 3 dBA over existing conditions. The Build Alternative results also show that changes in noise levels are predicted to range from a reduction of 2 dBA to an increase of 1 dBA over the No Build Alternative noise levels. Changes in noise levels are due to minor changes in roadway alignment and changes in shielding of noise from receptors. Under the Build Alternative, 67 homes, 3 businesses, 1 park, and 1 cemetery are predicted to have noise levels in excess of the ODOT noise impact standards.

Noise levels measured in A-weighted decibels, or dBA, approximate the response of the human ear by filtering out some of the low and high frequency ranges that the ear does not detect well. A-weighting is used in most environmental ordinances and standards.

Right of Way

The project would only require temporary use of areas adjacent to the existing roadway and bridges. No property would be acquired for new permanent right of way. The area on the south side of the river that would be used during construction is ODOT and other publicly-owned property. The area on the north side of the river would be on ODOT right of way and Alton Baker Park. ODOT would obtain agreements with the City of Eugene and Willamalane Park and Recreation District regarding the temporary occupancy of the park areas during construction, including measures to maintain park functions and restore the areas. ODOT will also work with the parks agencies to determine if LWCF funds were used in the park and, if they were, to satisfy the requirements of Section 6(f)(3) of the LWCF.

Socio-economics

The project would temporarily increase employment and economic activity in the Eugene-Springfield area due to construction jobs and spending. Local roadways and bicycle/pedestrian paths would be kept open during construction and access to local residences and businesses would be maintained. The project would involve a traffic management plan to ensure that all traffic, including pedestrian and bicycle, are maintained and safe during construction.

Transportation

The project would cause some traffic delays during construction. The project will include implementation of a traffic management plan to ensure that all traffic, including

pedestrian and bicycle, are maintained and safe during construction. The Build Alternative would result in wider bridges that could be re-striped in the future to carry additional travel lanes, but future expansion would only happen if I-5 north and south of the bridges is widened, which is not currently planned. The Build Alternative would provide bridges that meet current design standards and that would support long-term regional and statewide traffic needs.

Visual Quality

The project would have temporary impacts on the visual quality of the project area during construction. The park setting on the north side of the river would be affected by the presence of construction equipment and materials. The Build Alternative would provide a long term visual improvement by replacing the existing bridges, which have inconsistent appearance and numerous piers. The new bridges will have a consistent design and only three piers per bridge in the river and near shore areas. Plus, the project provides flexibility in final treatments, such as pier shape, textures, and colors which will be addressed during final design with input from the local community.



Visual simulations of bridge types were used to estimate impacts

Wetlands and Water Resources

Construction activities that involve earth movement and placement of fill material could temporarily affect water quality and wetlands from an increase in erosion, sedimentation and turbidity caused by these activities. In addition, the project would require work during up to four “in-water work periods.” In-water work timing and guidelines are intended to avoid and minimize fish impacts and will be coordinated with the Oregon Department of Fish and Wildlife.

How would environmental impacts be avoided and minimized?

Construction best management practices will be implemented to minimize the effects of construction activities, such as dust, noise, and soil erosion. Traffic on roads and trails and park activities will be maintained during construction, although there will probably be short term closures during certain construction activities. Disturbed areas will be restored and ODOT will work with the community throughout the design and construction process to get input and advice on ways to avoid and minimize environmental impacts.

The project would meet the OTIA III Environmental Performance Standards in order to meet the requirements of the programmatic environmental permits that apply to the statewide bridge program. These performance standards define the level of effect that a project may have upon the environment, thereby limiting or avoiding impacts to the

environment through the use of proper planning, design, and construction activities.

Noise walls that meet the ODOT criteria for noise reduction and cost effectiveness are proposed to reduce noise impacts.

What are the benefits of the project?

The main benefit of the project would be the continued mobility and connectivity and improved safety of the users of I-5 and the regional transportation system. The proposed bridges would be modern facilities that would meet long-term traffic demands, as well as allow any future expansion of Franklin Boulevard, I-5 and the railroad. The proposed project would reduce the number of bridge piers in the Willamette River and surrounding areas.

How can the public provide comments on the project?

Public input is essential to understanding project issues and making decisions. ODOT and the Federal Highway Administration welcome your comments on the project and this environmental assessment. You can provide written comments to:

Jim Cox, Assistant Branch Manager
Oregon Department of Transportation
680 Cottage Street NE
Salem, OR 97301

You may also submit comments via the project website:

<http://www.oregon.gov/ODOT/HWY/REGION2/I-5WRB.shtml>