

6. Brief summary of project

The Project will improve the safety, efficiency and reliability of the movement of goods, and operations (including resiliency) through improved cargo access to and from the marine dock facilities at Ko'Kwel Wharf in North Bend, Oregon. The project consists of dock improvement and rehabilitation to: (1) improve access and capacity and be a catalyst for upland industrial development; and (2) add shore power to enhance dock amenities by creating an alternative to the need for idling diesel engine.

7. Project purpose and description

Ko'Kwel Wharf Improvements Project purpose is to improve a dock facility that directly impacts port operations in the Coos County and Coquille Tribal communities. Project components are (a) rehabilitation, improvement and modernization of existing dock including adding a new fendering system to allow for a wider variety in size of vessel served and increase the dock's capacity and longevity, and (b) addition of shore power to reduce idling diesel engines. These components will improve dock infrastructure capacity and access, encourage use of onsite rail spur, reduce greenhouse gas emissions from diesel engines, improve climate resilience, and increase economic opportunity. The project has independent utility, it will be fully functional upon completion.

The Project is part of a larger plan to invest in development of the Ko'Kwel Wharf property. A market study and financial analysis conducted by Johnson Economics in 2021 determined the highest and best use of Ko'Kwel Wharf property and included a preliminary conceptual plan recommending creation of an industrial development area that can benefit from the availability of a deep-water port, rail access and highway access at the Ko'Kwel Wharf.

The Project is designed to address several challenges to the creation of a multimodal industrial development area and to attract new businesses. The dock structure is currently operating under load limits due to the age of the infrastructure and the original design capacity. Improvements to the dock will increase the load capacity of the dock, allowing loaded trucks, conveyors and other service equipment to load and discharge vessels without the current severe operating restrictions. Improvements to the bit, bull rail and fendering system will allow for secure berthing and mooring for a wider size range of vessels and extend the life of the dock. The existing dock does not have typical berthing fenders designed to dissipate energy along the face of the structure. The structure currently relies on the inherent flexibility of the timber structure and careful operation of approaching vessels to absorb the energy of berthing impacts. This requires incoming vessels to approach at velocities an order of magnitude lower than that recommended by current design guidance. Any error in vessel operation is likely to cause structural damage to the existing structure.

The proposed bit, bull rail and fender improvements add steel fender piles and a rubber energy dissipating element every 20 feet along the face of the existing 1000-foot dock, along with a marine camel. The rubber elements act as a cushion to reduce the impact on the structure and the likelihood damage will occur and increase the lateral capacity and longevity of the dock by installing steel battered piles and a reinforced concrete edge beam.

The availability of shore power will improve the competitive position of the Ko'Kwel Wharf by offering the opportunity for vessels to use shore power instead of diesel engines idling in port. This component contributes to the commitment of the Coquille Tribe and State of Oregon to reduce carbon emissions. Due to the age and condition of the existing structure, it is not possible to meet all modern design criteria with these proposed enhancements. But these improvements are expected to allow future use of the structure for more than 20 years and will allow it to withstand berthing velocities much closer to modern recommended design guidance.

The dock improvements will increase opportunities for businesses to import and export cargo from the dock. Cargo can be transported to and from dock using the currently underutilized rail spur at the wharf via the Coos Bay Rail line (CBR). Moving cargo delivery from trucks to rail is a goal of the Port of Coos Bay, owner of CBR.

In 2023, the Ko'Kwel Wharf Improvement Project was awarded US DOT Port Infrastructure Development Program (PIDP) grant funds in the amount of \$7,729,650. The PIDP grant includes \$4,729,650 to improve the existing dock with the remaining \$3 million for planning a dock extension. The \$4,729,650 portion will be matching funds for the Connect Oregon grant and used to improve the dock load and access capacity

including addition of a fendering system. These improvements will significantly increase the dock's longevity and enhance the mooring system to allow a wide variety of vessels to safely moor and lay berth at the dock, ranging from fishing trawlers and barges to HandyMax ships.

8. Useful life (years)

The planned useful life of the Project's improved facility is greater than 20 years per McGee Engineering, Inc.

The useful life of an asset is an estimate of the number of years it is likely to remain in service for the purpose of cost-effective revenue generation. This estimate typically includes routine maintenance and repairs but does not include major reconditioning efforts which would extend the useful life. Damage from events beyond design criteria, such as severe ship impacts, overloading, and extreme weather, are not included because they do not to affect the lifespan as long as adequate repairs are performed promptly after the event.

The baseline useful life of a timber wharf is 40-50 years. The existing timber structure is at least 40 years old. Planned improvements are expected to extend the useful life greater than 20 years. Service life estimates for proposed structure elements include:

- UHMW facing 10 years (assuming heavy use)
- Fenders 20 years (manufacturer data)
- Marine Camel 25 years (manufacturer data)
- Mooring Bollards 20 years (manufacturer data) (note: age of existing bollards unknown, new bollards not currently included in project)
- Concrete beam and steel piles 30 years (design/detailing criteria)

9. Project schedule

Answer whether milestones above have been met; fill in projected start and completion dates. For planning purposes, we anticipate executing funding agreements within 3 months of projects being awarded by the Oregon Transportation Commission. Funding agreements are anticipated to be executed in Summer 2022, with construction needing to begin within one year from agreement execution, and be completed within three years of execution. Project schedule should demonstrate how the project will meet this requirement. Milestones 4 and 5 should reflect the dates the plans are ready and a construction contract is awarded for the first construction contract to complete the project.

- Scoping and planning means the development of the project size and scope, determination of operational requirements, and required public comment periods.
- Right-of-way and land acquisition means the process of securing land for the project site, including purchases, leases, eminent domain/condemnation, and the acquisition of required easements.
- Permits means the process of securing any required permits, approvals, or permission from any local, state, or federal agency.
- Final plans/bidding engineering documents means the development of any structural or operational documents required to advertise and build the project.
- Construction contract award means the securing of a contract to build, install, or otherwise prepare the project for operations or use.
- Project completion means construction or installation is complete and the project is ready for operation or use.

Milestone 1: Scoping and planning

Has the milestone been met?
Yes

Projected start date of milestone work

Projected milestone completion date