

ASCE Seattle Section Local Outstanding Civil Engineering Achievement (LOCEA) Projects 2019

Outstanding Water Resources Project:

Smith Island Estuary Restoration Project

Location: Marysville, WA

Project Team: Snohomish County Public Works, City of Everett, Puget Sound Energy, Otak, Shannon and Wilson

Chinook salmon in the Snohomish River basin are considered threatened under the Endangered Species Act. Snohomish County began planning the Smith Island Estuary Restoration Project in 1997 to meet state, local and federal requirements for improving fish habitat and help make a positive regional impact on endangered salmon. The purpose of the Smith Island Restoration project is to re-establish historic tidal marshlands that provide critical habitat for threatened Chinook salmon, as well as other salmon species, in the Snohomish River basin.

The project included construction of a new setback dike to hold back flood and tidal waters to protect the adjacent properties including farmland, local businesses, and Interstate 5. After the new setback dike was completed, large sections of the existing dike were removed and the ebb and flow of tidal waters returned for the first time in 85 years. A total of 378 acres of estuary habitat were restored. Following two decades of planning, site work and building partnerships with more than 20 separate organizations, the construction project began in 2015 and was essentially completed in late 2018.

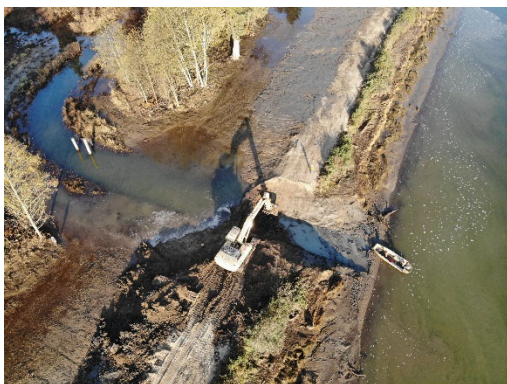


Pre-Construction Project Area (2015)



Post-Construction Project Area (2018)

Construction Photos:



Outstanding Ports and Waterways Project:

Waypoint Park and Central Avenue Pier

Location: Bellingham, WA

Project Team: City of Bellingham, KPFF Consulting Engineers, Walker Macy, Coastal Geologic Services, Aspect Consulting, GeoEngineers

KPFF was the prime consultant, civil and structural engineer for the Waypoint Park and Central Avenue Pier (CAP) project. As prime, KPFF was tasked with coordinating design with numerous stakeholders (Parks Department, Public Works, Port, private developer) and adjacent projects still in development.



WAYPOINT PARK - IN CONSTRUCTION

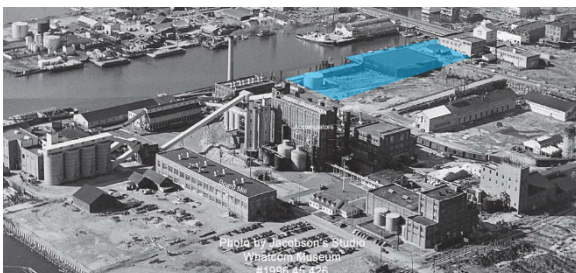
Waypoint Park and CAP complete the first phase in the transformation of the Bellingham waterfront. The old Georgia Pacific (GP) site in Bellingham is approximately 40 acres and has been abandoned since 2007 when it was acquired by the Port of Bellingham. The former superfund site was contaminated from years of industrial activities at the GP pulp mill. The port completed an environmental cleanup of the site opening up redevelopment of the area.



THE PLAN

The 1.7-acre Waypoint Park is located on the northwest corner of the GP site adjacent to the Whatcom Creek Waterway. The park features a beach connecting Whatcom Waterway to the mainland, a play area, meandering paths with seating, and the 32-foot-diameter Acid Ball art piece. The Central Avenue Pier is a 3,060-square-foot, pile-supported "Infill Structure" to bridge the gap between the existing pier and the historic Granary Building. The infill panel helps connect pedestrians with the new park and provide a public amenity featuring new lighting, guardrails, seating, and landscaping.

As the first phase of the highly anticipated Bellingham waterfront redevelopment, Waypoint Park and Central Avenue Pier helped reclaim the waterfront after years of inactivity and environmental cleanup. Built over top of a former superfund site, the project serves as a testament to public investment in urban renewal of an abandoned industrial property. The new beach provides a much needed waterfront connection in an urban environment while the historic Acid Ball provides a nod to the past while creating a beacon for the future.



Outstanding Geotechnical Project:

SR 520 West Approach Bridge – North

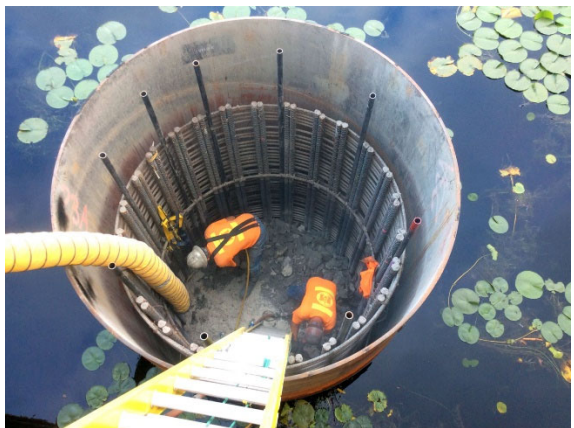
Location: Seattle, WA

Project Team: Washington State Department of Transportation, Shannon and Wilson, HDR, SCSolutions, Parametrix

For more than 50 years, SR 520's 1.2-mile West Approach Bridge North (WABN) was vulnerable to catastrophic failure from earthquakes. Designated an essential bridge by WSDOT, the new, \$200-million WABN is the vital link between the floating bridge and Seattle. Featuring unique seismic isolation bearings and a peer-reviewed seismic study, the new bridge is a marvel of modern engineering.

The state-of-the-art design mitigates the seismic vulnerabilities of its predecessor and features two general purpose lanes, an HOV/transit lane, full shoulders, and completes the regional 14-foot-wide pedestrian/bike path. With regional population expected to grow by 1 million by 2040, the bridge is designed to carry about 10 percent more vehicles and allows for light rail expansion. By using seismic isolation and conditional mean spectra, the team saved more than \$74 million while eliminating 12.5 million pounds of emissions.

As the most ecologically critical phase of the SR 520 corridor project, the team had numerous challenges, from working in shallow waters and wetlands to accounting for endangered fish migration, thick deposits of peat and soft clay, and maintaining traffic throughout construction. With more options for transit, bicyclists and pedestrians, the replacement provides long-term reliability and mobility improvements and addresses important safety concerns.



Outstanding Small Project:

Rhododendron Park Waterfront and Open Space Access Project

Location: Kenmore, WA

Project Team: City of Kenmore, Osborn Consulting, Aspect Consulting, Axis Survey and Mapping, CivilTech Engineering, KBA Construction Management, Northwest Environmental Consulting, Sitts and Hill Engineers, and Ohno Construction

The Rhododendron Park Waterfront and Open Space Access project increased accessibility to the Sammamish River and the Kenmore Boat Launch while protecting and enhancing sensitive wetlands and a Shoreline of State-Wide Significance. A large wetland separates Rhododendron Park from its Sammamish River shoreline, making access from the park difficult. The project constructed new ADA accessible paths and a 234-foot grated boardwalk over the wetland to connect the upland park facilities to the boat launch area and Metro bus route. The project improved walkability for visitors to the Senior Center, play area, restroom, basketball court and picnic facilities. Accessibility for boats and canoes was improved with a floating dock designed for rowing shells and other hand-powered watercraft. Over 1,000 native plants were planted, and invasive knotweed and blackberries were removed. This project was partly funded through the City of Kenmore's "Walkways & Waterways" ballot measure, the result of an extensive "Imagine Kenmore" public outreach initiative. Through this initiative, residents of Kenmore prioritized the desire for safe routes for pedestrians and improving access to the water.

Osborn Consulting led the consultant design team responsible for design, permitting, and development of construction documents for the boardwalk and floating dock on the Sammamish River. The key goal for the project was improved public access to the water while preserving and enhancing ecological functions of existing wetlands and their buffers. The improvements to Rhododendron Park successfully met these goals and more. The new facilities are appreciated daily by surrounding community members, students, and boat enthusiasts.

