

ACEC Oregon

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Engineering Excellence Awards 2016

T.Y. Lin International wins Project of the Year for Tilikum Crossing, Bridge of the People

Tilikim Crossing also takes People's Choice Award

T.Y. Lin International, Kiewit Infrastructure West and their client TriMet won the 2016 Engineering Excellence Project of the Year award for Tilikum Crossing, Bridge of the People.

Tilikim Crossing spans the Willamette River as a critical transportation link for the Portland-Milwaukie Light Rail Project. The signature structure is Portland's first cable-stayed bridge and the nation's largest transit-only bridge, carrying only light rail trains, buses, cyclists, pedestrians, and eventually streetcars, but no private vehicles.

Using cantilever construction, Tilikum Crossing was erected using overhead form travelers, accelerated by casting the two towers in parallel using high-performance concrete. Innovative structural solutions were also used to handle large areas of contaminated fill on the west bank, avoiding the risk and high cost of handling hazardous materials. Extensive project coordination enabled completion of all in-water work in the first ten months and allowed the rail systems contractor to begin work six weeks ahead of schedule.

Called the "jewel of the Portland-Milwaukie Light Rail Project," Tilikum Crossing is the first major bridge dedicated to progressive, alternative solutions to meet urban transportation needs.

ENGINEERING EXCELLENCE ISSUE

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PROJECT OF THE YEAR T.Y. Lin International, Tilikum Crossing, Bridge of the People, for TriMet Pictured from left: **David Tertadian, Director, Civil Construction, TriMet; Charlie Stearns, Project Manager, Washington County; Norm Smit, Senior Bridge Engineer, T.Y. Lin; Kevin Almer, Bridge Engineer, T.Y. Lin; Bob Hasting, Agency Architect, TriMet; Steve Barrett (retired), Manager, Structural Construction, Capital Projects, TriMet; Rob Barnard, Managing Director, Design & Construction, TriMet.**

Engineering Excellence Awards 2016

Five EEA projects receive Grand Awards from a field of 17 entries

GRAND AWARD

CORNFORTH CONSULTANTS, INC. Sellwood Landslide - A Slippery Slope for Multnomah County

The one thing you should remember about this project is...When you drive over the new Sellwood Bridge, a forest of buried shear piles and ground anchors protects you from the landslide.

Pictured at right, from left are: **Emily Hale, Multnomah County Bridge Division; Tom Westover and Melinda Wegner, Cornforth Consultants, Inc.**



GRAND AWARD **DAVID EVANS AND ASSOCIATES, INC. Portland-Milwaukie East Segment for TriMet**

This project proves that collaborative partnerships remain key to addressing our region's needs.

Pictured above, from left are: **Teresa Boyle, City of Portland; Adrian Roberts, David Evans and Associates; Amy Fandrich, TriMet; Vicky Smith, David Evans and Associates; Jennifer Lyman, TriMet; and Scott Dreher, City of Hillsboro.**



**GRAND AWARD HDR / BergerABAM
West Vancouver Freight Access -
Rail Trench for Port of Vancouver USA**

The project was completed \$8 million under budget and nearly two years ahead of schedule. Pictured at top left, from left to right are: **Kurt Reichelt, HDR; Monty Edberg, Port of Vancouver; and Hod Wells, BergerABAM.**



**GRAND AWARD INTEGRAL CONSULTING INC.
Cleaning up the Willamette River One Source
at a Time for Retia USA LLC / Legacy Site
Services LLC**

Using only gravity and sand to achieve stormwater cleanup goals at the site, Integral and Legacy Site Services proved that simple and sustainable design approaches can be applied successfully to solve complex environmental challenges.

Pictured at middle left, from left to right are: **Craig Heimbucher, Reid Carscadden and David Livermore, Integral Consulting Inc.; and Todd Slater, RETIA USA, LLC / Legacy Site Services LLC.**



GRAND AWARD INTER-FLUVE, INC.

**Clackamas River Side Channel Salmon
Habitat Restoration for Portland General
Electric**

This project blends age-old engineering practices with current best practices for river restoration. The result is a side channel that is warmer in the winter and cooler in the summer—habitat ideal for a variety of salmonid listed under the Endangered Species Act.

Pictured below, from left to right are: **Kristen Godkin and Mike Brunfelt, Inter-Fluve; John Esler and Nuria Claudio-Mariages, PGE; Emily Alcott, Lon Mikkelsen and Bill Norris, Inter-Fluve.**

SMALL FIRM AWARD

PETERSON STRUCTURAL ENGINEERS, INC.

Maleficent Dragon for Michael Curry Design

The one thing you should remember about this project is... Engineering isn't just a science, it's an art. Pictured at right are: **Gary Peterson, Erik Peterson** and **Donna Freeman, Peterson Structural Engineers.**

HONOR AWARDS

ANDERSON PERRY & ASSOCIATES, INC. Port of Walla Walla Tackles Snake River Wastewater Crossing

While a good design is the backbone of a project, detailed and well-thought out contract documents and diligent construction observation will protect your client's interests and help ensure a successful project.

BLACK & VEATCH and OBEC CONSULTING ENGINEERS River Intake Pump Station (RIPS) for Lake Oswego-Tigard Water Partnership

The RIPS is not just a pump station. Rather it is a symbol of the human spirit and the teamwork necessary to overcome a multitude of challenges and leave a lasting legacy of reliable water supply for the citizens of Lake Oswego and Tigard.

HARPER HOUF PETERSON RIGHELLIS

■ 915 Building Laser Scan for Ankom Moisan Architects

This project brings history and technology together to document the past and facilitate the designs of the future.

■ NW Friberg Street / NE Goodwin Road for City of Camas

This entry shows that roadway widening projects can increase capacity and improve safety without adversely impacting private property or the environment.

■ **SW Multnomah Boulevard Pedestrian/Bicycle Improvements for City of Portland Bureau of Transportation** - This project successfully demonstrates the use of multiple cycle track treatments to integrate the varying conditions along the corridor into a single, continuous facility that supports all modes.



HART CROWSER, INC. with WALKER MACY and KPFF CONSULTING ENGINEERS South Waterfront Greenway Park for City of Portland Parks & Recreation

This project turned a blighted industrial area into a vibrant outdoor space by removing contamination and enhancing the river ecosystem with state of the art engineering and science.

INTER-FLUVE, INC. Horsetail Creek Floodplain Restoration for Lower Columbia Estuary Partnership

This project restores floodplain habitat and reduces water temperatures to benefit migrating salmon as well as red-legged frogs, great blue heron and other wild-life that use the area. The project location is important because it's one of the last areas for salmon to rest and feed before they travel through the Portland metro area where habitat diminishes greatly.

KPFF CONSULTING ENGINEERS and SHANNON & WILSON, INC.

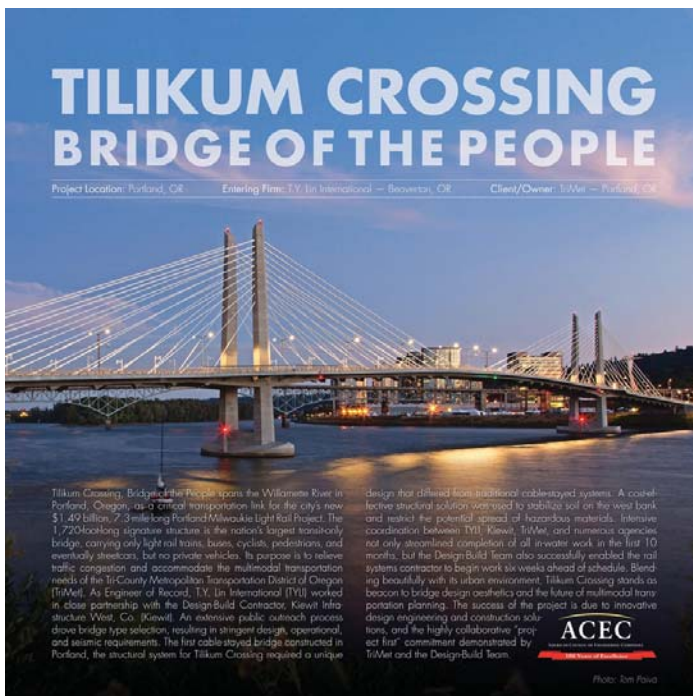
Oregon Zoo Elephant Lands for Metro Oregon Zoo - You can design for landslide movement, storm water drainage, energy efficiency, construction phasing, and re-opening the train in time for Zoo Lights, but whatever you do, don't forget to keep plants and trees at least eight feet clear of the fence if you hope to keep them!

SHANNON & WILSON, INC. OR 212/224 Sunrise Corridor JTA: Geotechnical Design for Oregon Department of Transportation

Even in a Superfund site, with the worst of the worst contamination, the Shannon & Wilson team proved that not only could construction be completed, but it could be done practically and economically.

TETRA TECH Karlson Island Tidal Restoration Project for Columbia River Estuary Study Taskforce (CREST)

Removal of 2,000 feet of historical levees restored natural processes that bolstered the recovery of threatened and endangered fish.



2016 PEOPLE'S CHOICE AWARD

Pictured above is **T.Y. Lin International's** photographic display panel for Tilikum Crossing, Bridge of the People. It won the popular vote at the awards dinner as most favorite display panel.

WHAT IS ENGINEERING EXCELLENCE?

The Engineering Excellence Awards (EEA) is an annual design competition that recognizes engineering achievements which demonstrate the highest degree of merit and ingenuity.

A panel of judges selected the best engineering projects of the year based on criteria such as uniqueness and/or innovative application of new or existing techniques; social, economic and sustainable development considerations; complexity; and successful fulfillment of client/owner's needs, including schedule and budget.

These projects attest to the continuing impact ACEC Oregon firms have on the quality of life in Oregon, southwest Washington and throughout the world.

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