MULTNOMAH COUNTY

the Sellwood Bridge

Volume 5, Number 1, Fall 2011

Bridge construction set to begin as design work continues

Multnomah County's program to replace the Sellwood Bridge will kick into high gear next month as construction starts. In the most visible sign yet that a new Sellwood Bridge is on the horizon, contractors are scheduled to begin constructing piers for a detour bridge in the Willamette River just to the north of the existing structure. This milestone caps a year of progress that has resulted in the selection of a bridge type (steel deck arch), recommendation of a compressed interchange design at Hwy. 43, hiring a general contractor and architectural/engineering team, reduction in the overall project budget, and approval of a recommended package of design features and funding plan. *(See inside for an advance look at the proposed design.)*

How can construction begin when the design is not yet complete?

The answer lies in the construction method chosen by Multnomah County. The Construction Manager/General Contractor (CM/GC) project delivery method brings the County, the designer and the construction contractor together to discuss and review scheduling, pricing, materials selection and phasing while the design work is still taking place. This lowers costs and risks to the County. The contractor selected for this work is Slayden/Sundt, a joint venture between Slayden Construction of Stayton, OR and Sundt Construction of Tempe, AZ.

Through a combination of design refinements to the bridge and the Westside interchange, as well as innovative approaches to construction, Multnomah County has achieved significant cost savings in the overall project budget. The initial estimate of $331 million has been reduced to $268.8 million. Of this amount, $246.1 million has been secured.

The County is applying for a federal grant to secure the remaining $22.7 million needed. If the funding shortfall is not closed by next spring, project partners will consider eliminating or postponing construction of some elements or building a temporary interchange with Highway 43.

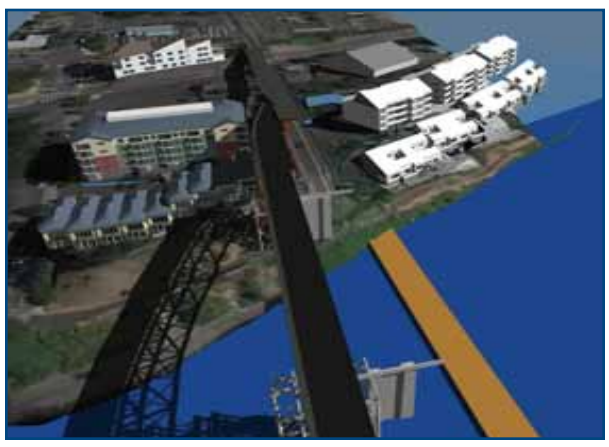
"After five years of planning and design work, we are just a few weeks away from starting construction," said County Commissioner Deborah Kafoury, whose district includes the bridge. "I'm very proud that our community has come together to solve this regional transportation problem. The new bridge will be a huge improvement, whether you cross it by car, bike, truck or on foot."

Shoofly Detour Bridge

The in-water work that starts this December is associated with building the "Shoofly" detour bridge. This winter and spring, temporary piers will be built to the north of the existing bridge piers as supports for the detour bridge. Then, in summer 2012, the entire steel deck truss (river spans) from the existing Sellwood Bridge will slide over onto the temporary piers using hydraulic jacks and rails. Temporary approach spans will be installed at the east and west ends of the truss to link the structure to SE Tacoma Street and Highway 43. The concrete piers of the existing bridge will then be demolished.

The temporary detour bridge will remain in place throughout construction of the new bridge, separating traffic from the bridge construction zone and allowing the contractor to build the new bridge river spans in one phase. Bicyclists and pedestrians will still have use of the existing sidewalk on the detour bridge.

This innovative construction method will shave up to 12 months off the construction schedule and up to $10 million off the project cost. Other advantages include seismic improvement (the temporary detour bridge will be stronger than the existing bridge) and less in-water impact than using staged construction.



Visit www.sellwoodbridge.org to watch an animation of the shoofly process.

Slayden/Sundt has successfully used this Shoofly detour bridge method on other bridge projects.

The bridge will still need to be closed at times during construction. The detour bridge will not change the number of days the bridge will need to be closed (the project's goal remains no more than 30 bridge closure days during the project). In summer 2012, a bridge closure of less than a week is planned to move the detour bridge.

Visit sellwoodbridge.org To watch an animation of the shoofly process, or scan this QR code to watch on your smartphone or mobile device. ►

Pre-Construction Open House set for November 16

A public meeting for the Sellwood Bridge project will be held on Wednesday, November 16, 2011 from 5:30 p.m. to 7:30 p.m. at Llewellyn Elementary School, 6301 SE 14th Avenue in Sellwood. You may drop by at any time.

The goal for this open house is to update the public on the project, review the latest designs and discuss the upcoming construction phase with the project team. Work is scheduled to begin in the river starting December 1, 2011.

Can't make this meeting? Sign up for future construction updates at ***www.sellwoodbridge.org***.

Reasonable accommodations can be made for people with disabilities. Please call (503) 988-6804 at least one week before the meeting.

¿Habla ustéd español? La información en esta publicación se puede traducir para ustéd. Para solicitar los servicios de traducción por favor llamé al (503) 988-6804.

The New Sellwood Bridge

Of the bridge types considered for the new Sellwood Bridge, the deck arch was the most popular with the public and the project's Community Advisory Committee. Steel and concrete were considered for the construction of the main spans. Weathering steel was chosen as the preferred material because it is less expensive than concrete and is easier and less costly to maintain, never needing to be painted.

Sustainability is a major project goal. During construction it's estimated that 95% of the current Sellwood Bridge will be reused or recycled.

Bike Lane and Path Surface Treatments

A colored **bike lane** can help improve safety by emphasizing the presence of bicycles on the roadway shoulder.

Pathway decals and subtle concrete color changes on the **multi-use path** can improve safety for bicyclists and pedestrians by making sure faster travelers are separated from slower travelers.

These treatments can be created by using low maintenance concrete stain or surface textures.

Enhanced Street Lighting

Enhanced street lighting can improve the appearance of what would otherwise be standard cobra-head fixtures by using a more artistic design and highly efficient LED lights. These "dark sky compliant" fixtures would efficiently light the multi-use paths and roadway while eliminating glare into nearby parks and neighborhoods.

Structural Lighting

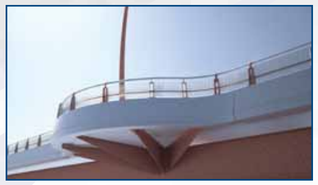
Structural Lighting celebrates the structure of the bridge by using low-power LED lighting to subtly illuminate the outline of the arches and piers.

Several lighting schemes were considered. This "horizontal" lighting design was recommended due to its lower cost and ease of maintenance.

"Architectural lighting of the Sellwood Bridge structure should be integral to its design. The cinnamon-colored steel will not reflect much light; [it is] not bright enough to disturb fish or navigation. However, the water will reflect the arched form of the bridge, and will subtly announce the presence of Sellwood from the west side of the river after dark."

- Paddy Tillett
CAC Member &
Architect

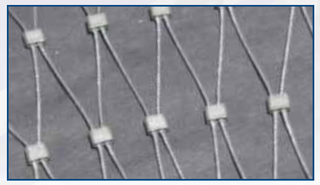
Benches and Belvederes



The word **belvedere** is Italian for "beautiful view." The belvederes provide space off the multi-use paths for bicyclists and pedestrians to safely step out of the flow of pathway traffic to enjoy the incredible views from the bridge. There will be two belvederes on each side of the structure, located above the in-water bridge piers.

A simple **bench** within each belvedere can provide a place for people to rest while they are crossing the 2,000 foot path.

Enhanced Fencing



Fencing is required in areas above Highway 43 on the west and over the railroad tracks on the east and west. At a minimum it will consist of basic chain link fencing.

Enhanced fencing, shown above, is a more artistic, less obtrusive design option.

Structural Element Surface Treatments

Structural Element Surface Treatments refer to color and texture added to the concrete underside of the bridge. These treatments help create design continuity between the rust colored steel spans and the shorter concrete approach spans and beams. They also add visual interest for passersby and residents living near the bridge.

The surface treatments will also include an anti-graffiti coating to help reduce future maintenance costs.

Gateway Feature

In addition to serving as a neighborhood focal point and opportunity for public art, a **gateway feature** is a visual cue to drivers that they are no longer on a highway and are entering a residential neighborhood and business district.

The gateway feature may be funded through the City of Portland's "Two Percent for Art" program.

*"CAC members have prioritized a gateway feature primarily because of safety. Such a feature, even without words, tells people '**Welcome, you are entering our neighborhood**.' In doing so, it both consciously and unconsciously helps people to understand appropriate, safe, neighborhood speeds."*

- Heather Koch
CAC Member &
Sellwood Resident

Recommended Bridge Features

The package of recommended design features for the Sellwood Bridge was informed by public feedback gathered through surveys, public comments, agency input and committee discussion. These features have been recommended for their practicality in enhancing safety, the experience of using the bridge and livability of the surrounding neighborhoods.

The design elements shown here were recommended by the project Community Advisory Committee (CAC) and Public Stakeholder Committee (PSC) and approved by the Multnomah County Board of Commissioners in October 2011. The images are largely conceptual; final designs will be developed this winter. The architect is Safdie Rabines Architects of San Diego, who have designed signature bridges throughout the U.S. The firm is part of a design team led by engineering firm T.Y. Lin International.

Proposed Construction Timeline (subject to change)

November 2011
- **Contractor mobilizes at east and west staging areas**

December 2011
- **Temporary pier placement for detour (shoofly) bridge**
  Impacts: In-water construction →

January 2012

February 2012
- **Remove Staff Jennings buildings**
  Impacts: Flagging on Hwy. 43 for trucks entering/exiting

March 2012
- **Modifications to eastside condos near bridge**
- **Staging area prepared on SE Tacoma block across street from Brinsfield Boats**
- **Begin work on Hwy. 43 landslide area**
- **East- and westside bank temporary columns and approaches for shoofly**
  Impacts: Residential accesses temporarily changed but not eliminated in select areas; temporary lane closures on Hwy. 43 →

Summer 2012
- **Shift traffic to detour bridge**
  Impacts: Full bridge closure of less than a week
- **Demolish existing bridge piers**
- **Stephens Creek culvert construction**
  Impacts: Footbridge removal; Bike/Ped detour in place along Hwy. 43
- **Install temporary work bridges for new bridge construction** →
- **Begin work on new bridge** →

Fall 2012

This timeline focuses on activities through summer 2012 and is subject to change. Schedule updates will be shared throughout the project, which is scheduled to be completed in late 2015.

Sign up for construction updates at www.sellwoodbridge.org

Construction will mean changes to Westside access

Construction starting next month will have varying degrees of impact for neighbors, commuters and visitors, especially on the West end of the Sellwood Bridge where geography constrains the work zone. Progress often means temporary inconvenience and this project is no exception. This map illustrates the primary activities taking place through April 2012. Construction will last through 2015 and updates will be provided as work progresses.

► Construction Zone Established
The green shaded area will be off limits to the public with the exception of the sidewalk along Hwy. 43 to maintain bike/pedestrian access onto the bridge. The contractor must keep people out of this work area as the Staff Jennings buildings are removed, in-water work begins for the detour bridge piers and landslide stabilization work occurs. The area to the north of the bridge will be a primary staging area for construction.

► Powers Marine Park Impacts
Eliminating Staff Jennings will also remove parking for Powers Marine Park. The park, which is mostly a natural and re-vegetated area along the Willamette River, will be closed from spring 2012 through 2015.

► River Navigation Impacts
The Sellwood Ferry boat ramp will be closed for recreational use starting in December 2011. A work zone will be established around the pier construction in the river – river traffic will be limited to the main channel only.

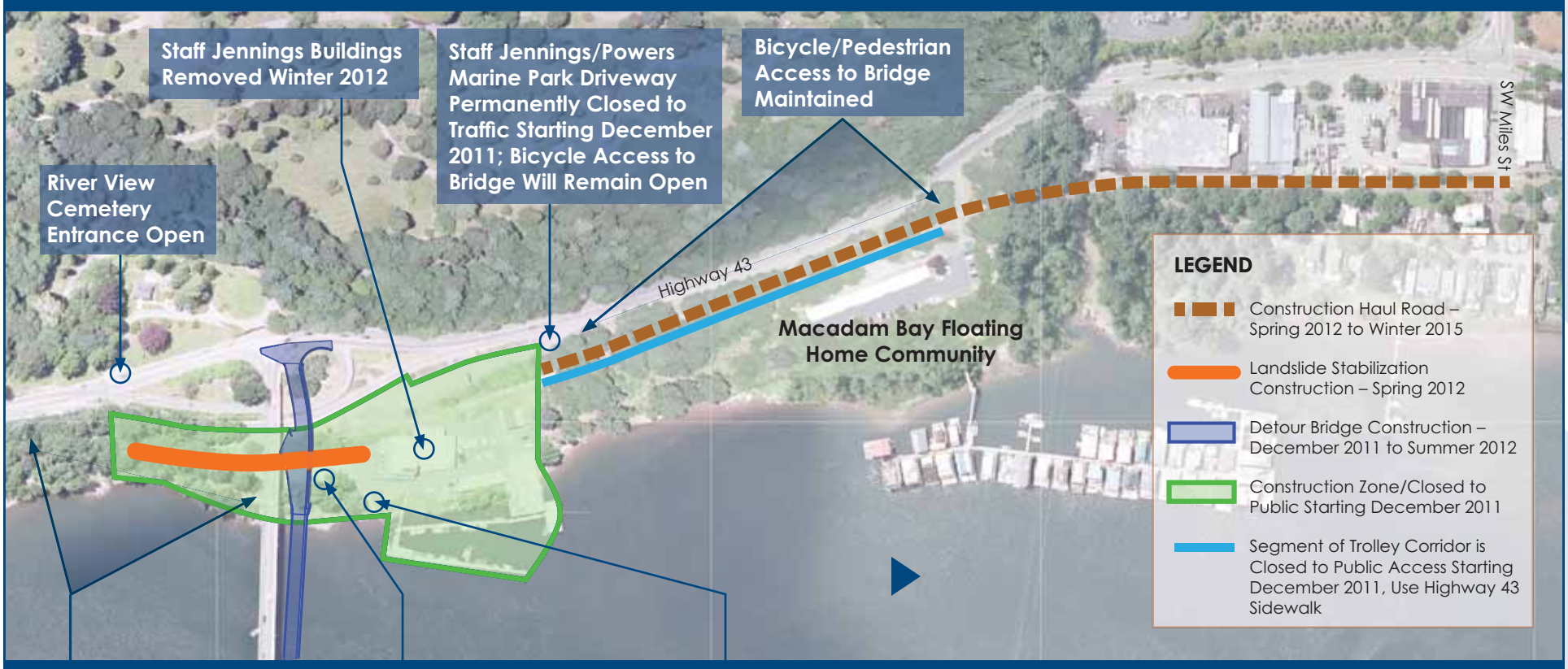
► Bicyclist/Pedestrian Changes
As noted, bicycle and pedestrian access to the Sellwood Bridge will remain via the sidewalk along Hwy. 43 south of the Macadam Bay driveway. The trolley corridor between the bridge and Macadam Bay will be closed to public access starting in December 2011. A portion of the trolley corridor between SW Miles Street and the bridge will be used as a construction haul road starting in spring 2012.

► Limited Hwy. 43 Impacts
Some utilities along Hwy. 43 will be relocated for this project. This requires occasional, short-term lane restrictions while the utility companies move the poles. It is anticipated that this will take place during off-peak drive time.

► River View Cemetery Access Open
Existing public access to River View Cemetery and the Superintendent's House will be maintained.

Construction on the East end of the Sellwood Bridge will also bring impacts. Watch for an update on that in the spring 2012 issue of this newsletter.

Westside construction activities through April 2012



SELLWOOD BRIDGE Project
MULTNOMAH COUNTY

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Read more inside or at www.sellwoodbridge.org