

Meeting Summary

Subject: Constructability Review

Date: Friday, April 02, 2021

Developing a Phased Construction Plan for the I-205 Improvements Project

The I-205 Improvements Project will significantly reduce congestion on the seven miles of I-205 between OR 213 and Stafford Road by widening and seismically retrofitting the Abernethy Bridge, improving adjacent interchanges, adding an auxiliary lane to OR 213, and adding a third general purpose lane in each direction. The Project will be delivered in two phases: construction will begin with Phase 1, OR 213 to 10th Street including the Abernethy Bridge, and Phase 2 will construct the improvements between 10th Street and Stafford Road.

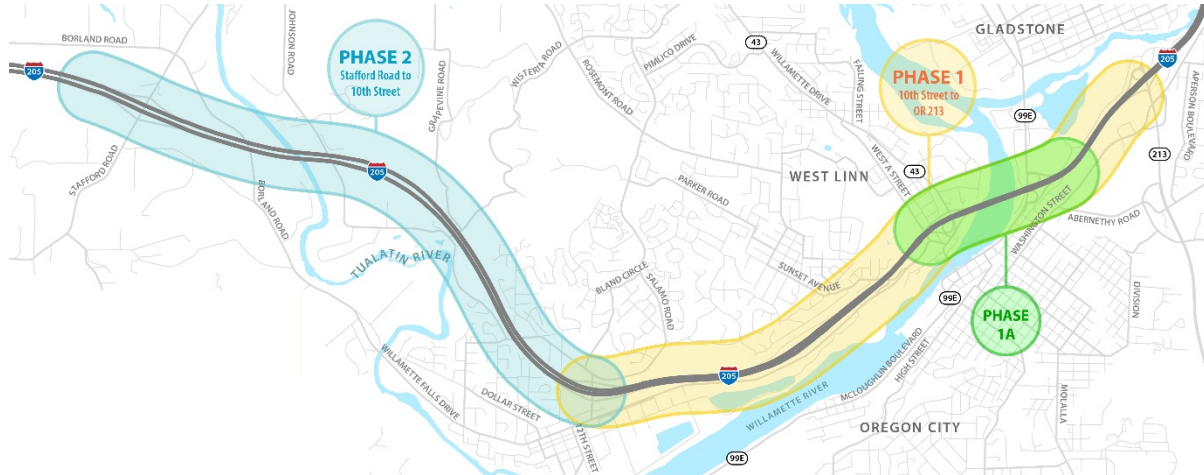
Prior to reaching 90% design for Phase 1, the Project team hosted a Constructability Review Meeting with participation from our construction industry partners to receive input on proposed designs, specifications, and potential risks. The intent of the meeting was to provide to interested contractors, Disadvantaged Business Enterprises (DBE), and subcontractors information about the Project and Tribal Employment Rights Office (TERO) program requirements, and to collect participant input on the procurement, project contracts, scheduling, and other potential challenges not included in the design plans. A summary of questions and comments from this event is included below.

The meeting was held on Friday, April 2nd at 9:00 am via Zoom. Presentation slides can be found online [here](#).

Next Steps

After considering stakeholder and industry input, as well as the technical complexities associated with widening the Abernethy Bridge, we have decided to deliver Phase 1 (OR 213 to 10th Street) through four separate contracts.

Phase 1A is expected to be a \$300+ million project that includes sliding and widening the Abernethy Bridge and completing interchange improvements at OR 43 and OR 99E. We plan to bid this contract in late 2021 so that the contractor can take advantage of the in-water work window in 2022. We will use the A+C+D contract delivery method. The Project is being designed by an A&E consultant after which we will award the construction contract based on price, the contractor's qualifications, and proposed approach. DBE program goals are currently being developed.



Additional Phase 1 contracts are being analyzed with consideration of the industry input collected in early April. Specifically, we are looking at how to sequence the work and ensure coordination between the contractors. We expect to present and get industry input on the other Phase 1 contracts this fall. We anticipate the second Phase 1 contract (1B) to bid by late summer 2022.

The contracting approach for Phase 2 (10th Street to Stafford Road) will be evaluated in 2022.

Links to More Information

- [April 2, 2021 Constructability Review Meeting PowerPoint Presentation](#)
- [As-built plans for Abernethy Bridge](#)
- Questions or comments? Email us at 205improvements@odot.state.or.us

Industry Constructability Review Meeting Questions and Comments – April 2, 2021, 9:00 am, Zoom

The Project team hosted a Constructability Review Meeting with participation from our construction industry partners to receive input on proposed designs, specifications, and potential risks. The intent of the meeting was to provide to interested contractors, Disadvantaged Business Enterprises (DBE), and subcontractors information about the Project and TERO program requirements, and to collect participant input on the procurement, project contracts, scheduling, and other potential challenges not included in the design plans. A summary of questions and comments from this event is included below. We have supplemented some answers and responses provided during the meeting with additional and more current information.

Bridges and Structures

Bridge Deck

Q: Have you considered that the transverse top deck rebar will vary in coverage and a sawcut for the edge of deck box girder demo may find rebar?

A: The sawcut depth will be set at the minimum of 1 inch per ODOT standards. Deck rebar has approximately 1.5 inches of cover, so variation in cover should not be that great. If a few bars are cut, they will need to be repaired.

Q: JBE04: What is the purpose for this partial deck demolition on the ramp?

A: This is a gore area between the mainline southbound bridge and the C3 ramp. With mainline being widened approximately 16 feet, the widening encroaches on the existing C3 ramp, which is also descending in this area. The deck must be removed so it can be reconstructed at the higher mainline widening elevation.

Bridge Concrete

Q: There was concern that the widening concrete is heavily restrained by cantilever beam studs and cracking at this location. Consider relieving the restraint with more joints.

A: Joints in the deck must match joints in the existing bridge, so additional joints are not feasible. We are addressing this by requiring concrete to be poured in stages to reduce the amount of locked-in stresses. We are also working on specifications to minimize concrete shrinkage.

Q: JBG19 shows deck pour sequence for Spans 4-6. 25-foot joint requirements are very costly and lead to low quality even with overlay. Really necessary?

A: This is to minimize the deck cracking mentioned above.

Q: Have you considered that the deck pours on the box girder may be during live traffic? The transverse deck bars will translate the vibrations.

A: We are aware and need to work to maintain traffic movement to the best extent possible. It may be possible to schedule the pour during a scheduled road closure.

Q: Arch crossbeam plans (on JBM25, for example) in many locations show new concrete trapped under existing—potential concrete consolidation and air void issue. Mitigate?

A: We are currently developing specifications to allow the possible use of flowable or self-consolidating concrete.

Field Measurements and Shop Drawings

There were requests to have the designer do field measurements on existing steel dimensions to determine a unique bolt pattern. The design team does not have the equipment available to take these measurements during the design phase. The contractor can take the measurements during the year the substructure is built and have time to get shop plans developed and approved for girder fabrication.

Q: Please consider integrated shop drawings to resolve conflicts between the crossbeam post-tensioning and rebar. There appears to be very heavy congestion.

A: The team is currently evaluating the design for conflicts. We will investigate the integrated shop drawing concept for implementation.

Clearance

Q: JA01 Main Street permanent clearance for widening showing a cast-in-place box girder extension. What is the minimum temporary falsework clearance?

A: The minimum clearance must match the clearance on the low (west) side of the bridge, approximately 17 feet. The widening side of the bridge is approximately 10 feet higher than the other side.

Bearings

Q: It would be helpful if layout of both new and existing bearings were shown in plans for bridge slide area. May need this for jacking scheme.

A: These layouts are currently being developed.

Q: In the bearing layout drawings (JBP02, for example), the bearings are replaced. Details currently unclear whether existing pedestals remain or are replaced.

A: Existing pedestals are likely coming out, but we are still working on those details.

Drainage

Q: What is expected for temporary drainage of the bridge shadow during construction? Can the runoff go directly into the river as it does now?

A: Temporary drainage on the bridge can runoff directly into the river as it does today until the new outside shoulder barriers are completed, which occurs prior to the bridge slide.

Flooding and the Work Trestle/Work Bridge

The work trestle clearance for flood was discussed. It was noted that if the work trestle must raise for flood requirements, ODOT access plans will need major revisions.

The OHW elevation shown for the west side is the minimum allowed for permit requirements. This is not requiring the work bridge to be constructed at this elevation, just that it cannot go below this elevation. It will be the contractor's responsibility to select the appropriate elevation for the work bridge.

Traffic Control and Staging

Q: Have you contacted the mobility taskforce about the traffic control, lane closures, etc.?

A: We have not presented the traffic control yet. We will schedule the meeting in June or July 2021.

Q: Does ODOT have any dedicated staging areas included? There's very limited space under Abernethy, so will need considerable staging area elsewhere.

A: The team is looking into potential staging areas. We will include available staging areas in the final plans. Locations could include Jon Storm Park in Oregon City; OR 213, OR 99E, and OR 43 infield ramp areas; as well as other areas.

Q: Suggest that the detour bridge for Phase 2 at Tualatin be installed under a separate contract and in advance of the permanent bridge work to take advantage of an earlier water window.

A: This bridge will be worked on later when Phase 2 resumes design. Regardless, there is no detour bridge at Tualatin River. Once the southbound bridge is widened, traffic will be shifted to one bridge to carry both directions of traffic while the northbound bridge is constructed.

Q: Please specify that highway patrol is required for all night closures for the sake of our night workers' safety.

A: Yes, this will be considered and an option available in the contract.

Easements and Access

Boat Ramp and Marina

Q: Plan sheet JBB01 shows boat ramp clearance. It's only showing 5-foot vertical clearance to OHW, which does not seem right. Coast Guard is OK with this?

A: The elevation shown was agreed to as part of the negotiations with the boat ramp operator. The water elevation during the time the ramp operations are at their highest is well below the OHW elevation, so clearances are much higher. OHW represents a higher flow stage in the river when the boat ramp would be closed.

Q: A work bridge will be built directly over the existing marina but is not even shown in the plans. What are the requirements for building directly over the marina/slips?

A: We are currently working with the Sportcraft Marina owner through the acquisition process. The docks and boat slips in conflict with the temporary bridge will be removed before construction of the Project begins.

Constrained Access in Bridge Area

Constrained access (width, grade, etc.) in the bridge area and the challenges it creates for materials and equipment access was discussed. The design team's construction consultant helped develop work access plans. Some areas are in an environmentally sensitive area and impacts need to be minimized and avoided. Other areas have site constraints, but the team will look at these again.

Easement Windows

Q: The EA-22 Note 1 triangle indicates a four-month easement window. Please clarify limits of this triangle—unclear on the drawing as three triangles are shown and two are in the access road.

A: We will provide more clarity on which parcels the four-month window applies to.

Q: EA-22, Note 4 references a three-month easement window. Need easement for both drilled shaft work and steel erection. Are there two separate three-month windows?

A: We will provide more clarity on easement restrictions.

Miscellaneous

Q: Plans show access off River Road to the west side of Abernethy, which is a residential neighborhood. Are there restrictions on time or size of access?

A: This access is limited to three years; we are working with the City of West Linn on this.

Q: During the permitting process, will you be ensuring that the use of barges is not considered in-water work?

A: Permits will allow barge use year-round.

Project Packaging and Contracting

The desire to break down contracts into smaller packages to allow more Oregon contractors to participate was raised by some participants. Others believed breaking the work into smaller contracts will delay and complicate the Project.

Different opinions were shared about the planned ad time. Someone commented that a one-week ad time is extremely short, even without factoring in the holidays. They wanted more time based on the complexity of the job. Someone else shared that eleven weeks would be adequate time.

With breaking up the contracts, and a push to break up more, ODOT needs to make sure the work, access, and traffic phasing fits.

Participants suggested different contracting options such as contracting the Abernethy Bridge as a separate, standalone project with no approach work, or having the Abernethy Bridge as a separate project with another project to the south and one to the north. However, the existing interchanges at OR 99E and OR 43 are incompatible with the widened Abernethy structure. The widened structure removes existing ramps and modifies the existing exit locations to an extent that the work items are not mutually exclusive.

Q: Has any thought been given to keeping Phase 1 as a single contract and including an Oregon contractor use goal? (Similar to DBE goals.)

A: This Project has FHWA funding. FHWA funds must be available to everyone equally unless it is allowed by law for a federal program such as DBE.

Q: When does each Project in Phase 1 advertise? There is work in 1C that must be complete prior to certain times in 1A.

A: Once the packaging decision is made, a detailed schedule for each package and how the work is sequenced will be developed.

Q: Will all Phase 1 contracts be A+C+D?

A: No. Currently, only Phase 1A will be A+C+D.

Q: How does ODOT intend to mitigate the schedule risk created by breaking 1A and 1B into separate contracts? The 1A contractor will have no control of their schedule.

A: Some current ideas include placing interim completion dates in the specifications, creating buffer zones between packages to align traffic in correct lane for the next Project, and requiring adjacent contractors to have reoccurring coordination meetings.

Funding

Q: Is the I-205 Project fully funded at this point?

A: The design is fully funded, and our team is actively working to identify construction funding. Toll revenue is expected to be part of the finance plan for completion of the full project. This decision will be made once the tolling analysis is complete and approved by FHWA.

Q: Will federal funds be in this job?

A: Yes, this project has federal funding.

Q: What is the estimate on each phase?

A: At this point we have preliminary estimates. Over the next few months, we are refining our cost estimates. Based on current information, we estimate the following: Phase 1A, about \$300+ million; Phase 1B, less than \$50 million; Phases 1C and 1D, between \$50-80 million each.

Q: How is pricing escalation of permanent and temporary steel being handled? Has ODOT considered an escalation clause for temporary material on temporary structures?

A: We will take that under advisement and consider it moving forward as we develop the construction packages.

DBE and TERO

TERO goals were discussed. A participant stated that TERO hiring goals need to match the scope and size of the contract(s).

Q: As a local DBE Quality Control and Quality Assurance firm specializing in steel bridge fabrication, what is the DBE carve-out percentage for DBE firms?

A: The DBE program goals are currently being developed.

Q: Will there be separate TERO goals for each tribe (Grand Ronde/Warm Springs)? Will there be separate TERO fees for each tribe?

A: TERO goals and fees are to be determined and evaluated at a future date once the packages are finalized. This will include which specific tribe will participate on each future project contract opportunity, since the project is located within the TERO Memorandum of Understanding (MOU) overlap area for Warm Springs and Grand Ronde.

Q: How does the Native American population in Oregon match up with the 10% goal on the project?

A: The TERO goal has not yet been determined for the project. The goal will be evaluated at a later date, based on opportunities specific to each contract package.

General

Q: Designed ground improvement work requires level ground for the drill rig. There are ground contours showing over twenty feet of original ground grade difference. Is construction reviewing with GI contractors?

A: This portion of the project is still in development. The plan is to provide benches down the slope to create a flat surface to work on.

Q: Are landscape architects involved in the design process? Especially after the engineering is complete?

A: Yes, a landscape architect sub-consultant is on the design team preparing roadside development plans.

Q: IS the rock cut work in Phase 1C? What time of day (night) is the rock blast?

A: Based on current plans, the rock blasting will be included in Phase 1C as I-205 is widened. The bid date for this contract will be determined later this year. We are still working on permitting with the City of West Linn but expect a Sunday morning timeframe for blasting and related rolling traffic slowdowns.