

**Hood River Bridge Replacement Project: EIS Phase
PCE COST RISK REGISTER**

Risk Identification					Risk Analysis			Risk Owner	Risk Response	Monitoring and Control	
ID	Status	Date Identified	Cost Risk	Impact Area	Probability of Occurrence	Magnitude (Impact)	Cost Risk Matrix			Monitoring Interval	Notes
C1	Open	10/21/2021	Immaturity of design; design elements or quantities could increase as design progresses	PCE / Design	25	Medium		PM / Design Lead	Need to further design (beyond 5%) and update schedule at that time.	PCE / Schedule Updates	Foundations are the largest risk item; coupled with contractor access and IWWW timeframe.
C2	Open	10/21/2021	Base estimate assumed the Port Buildings are demolished for contractor use; but contractor may select another venue and not use this property	FEIS / ROW / PCE	25	Medium		Port / PM / FEIS Lead	Port to investigate options and needs to relocate both the Port office building and maintenance facilities. Need to determine use of property after construction. Design team and Env. team to development/coordinate use of larger staging area adjacent to this site and improved construction access to this location; thereby reducing risk of contractor selecting alternative site.	DAP	PCE assumes buildings are required to be removed to build project. Port has included placeholder costs for relocation and demolition in programmatic costs.
C3	Open	10/21/2021	ODOT I-84 interchange and existing bridge work. New configuration works. ODOT may require intersections be brought up to current codes.	PCE / Design	10	Low		PM / Design Lead	Update design and present Draft DAP to ODOT for comments, then incorporate changes in Final DAP.	DAP	ODOT has reconstructed three adjacent I-84 ramps in the last 10 years. The improvements to the Port intersection are not a significant change from current conditions.
C4	Open	10/21/2021	Cofferdams may not be required for some existing bent removal (Piers 1 - 7 on Oregon side & Piers 12 - 15 on Washington Side). FEIS could be adjusted to account for pier removal to mudline, instead of 3ft below mudline	PCE / FEIS	50	Low		PM / Design Lead / FEIS	Work with FEIS to see if either ... 1) pier removal to top of mudline, or 2) will a turbidity curtain be sufficient to remove top 3ft of mud?	DAP / FEIS Updates	This would be a potential cost savings of \$0.5M to \$1.5M
C5	Open	10/21/2021	Subsurface Investigation - Foundation depths and ground improvement	Design	50	Medium		PM / Design Lead / Geotech	Perform subsurface investigations (planned) should be one of the first items conducted by A/E design contractor after award. Could have impact on schedule as well as cost.	A&E Contract	This could impact scope, PCE, and Schedule; but treated here as primary a PCE impact
C6	Open	10/21/2021	Resource (Construction Equipment) Shortage	PCE	10	High		PM / Port	Continue to monitor economical impacts from added construction projects and material shortage from external impacts (such as COVID shutdowns). Update escalation and contingency based on market trends.	Annually	May have to come out of Seattle or even San Diego; but there are tools on the West cost.
C7	Open	10/21/2021	Resource (Worker relocating to Port of Hood River) Shortage	PCE	20	Medium		PM / Port	Continue to monitor economical impacts from added construction projects and labor shortage from external impacts (such as COVID shutdowns). Update escalation and contingency based on market trends. Base Estimate assumed 75% travelers relocate temporarily to project site. Lack of local housing may create challenges if travelers are needed.	Annually	Addressed rates to account for living expenses; may need to be increased.

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C8	Open	10/21/2021	Resource (Construction materials) Shortage	PCE	50	High		PM / Port	Continue to monitor economical impacts from added construction projects and material shortage from external impacts (such as COVID shutdowns). Update escalation and contingency based on market trends. Base estimate assumed no adverse impacts due to supply chain issues as these will occur several years from now.	Annually	Covid or other outside demands that effect material availability and increase costs; not included in PCE currently.
C9	Open	10/21/2021	Tribal Lands - Could require a redesign of Pier locations and bridge configuration	Design	50	Medium		Port / FEIS Lead / PM	Look at alternative configurations of Piers 11 - 14 to move outside of impact area. Aerial easement is required with current alignment either way. Requires early and complete coordination with Tribes.	DAP / FEIS Updates	No costs for this are include in PCE currently
C10	Open	11/1/2021	Phased Construction (several sub-contracts)	Design / PCE	50	Medium		PM / Design Lead	Port to identify if there is a funding benefit to create a phased approach to the project; design team to quantify added engineering and project costs.	A&E Contract	This adds engineering costs for each contact in developing contract documents and administering contract. Construction costs are increased due to mobilization and rework. No costs for this are include in PCE currently
C11	Open	11/5/2021	Impacts to tribal fishing and access to the river	Construction / Cost	75	Medium		Port / FEIS Lead / PM	Ensure contractor understands agreements with treaty tribes and has procedure for tribal fishers to submit claims, adjudicate claims and payouts.	Contract Documents	Will be accounted for in Mitigation costs.
C12	Open	11/24/2021	Getting Material out to the Transi-Lift in an economical fashion	Construction / Cost	25	Medium		PM / Eng Lead	This can be mitigated with improvements to construction access through Port property; requires coordination with FEIS for impacts to parking area and boat lunch access during construction. Design team can look at phasing of Oregon approach roadway and interchange staging to allow contractor more efficient access to Transi-Lift location.	DAP	Reduced efficiency at Transi-Lift location requires increased use of barge and tug vessels; adding cost to the project. Mostly a cost item, but schedule is also a consideration.

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C13	Open	11/24/2021	TERO may be required on project.	Construction / Cost	10	Medium	<p>Probability</p> <p>Impact</p>	POR/ FEIS Lead	Coordinate though FEIS process.	<p>TERO likely does not apply. The ordinance says it applies to employers providing services within the reservation boundaries. https://www.yakama.com/img/pdf/27.pdf</p> <p>71.02.09: EMPLOYER. The term "Employer" includes, but is not limited to, any person who engages in commerce through paid agents or servants, or who is hired through contracts for services, within the exterior boundaries of the Yakama Reservation. The term "employer" includes any person acting as an agent, contractor or subcontractor of any employer, directly or indirectly, but shall not include the United States or any wholly owned Government Corporation of the United States or any state or political subdivision thereof. https://www.yakama.com/employment/tero/</p> <p>It does not mean that the program might decide to have a program to encourage participation by tribes/tribal corporations. FHWA is required to pay for costs related to compensatory agreements and other Sec. 106 commitments.</p>	
C14							<p>Impact</p>				