# Columbia River CROSSING

**Road Map Item #:** 5.18

**Product Name:** **CONFIGURATION MANAGEMENT PLAN**

**PMP Appendix:** APPENDIX R

**Submittal Date:** May 1, 2013

ABSTRACT: This deliverable provides the guidelines for the Configuration Management and Change Management systems for the Columbia River Crossing Program. The Configuration Management and Change Management systems are proactive tools that identify, evaluate and formally document the approval (or disapproval) of changes to scope, cost and schedule for project elements over the engineering and construction life cycle of the CRC Program.

# CONFIGURATION MANAGEMENT PLAN

Draft Report

May 2013

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# ACRONYMS

| | |
|---|---|
| CA | Cost Account |
| CPMS | |
| CRC | Columbia River Crossing |
| EAC | Estimate at Complete |
| EPC | Enterprise Program Control |
| ETC | Estimate to Complete |
| EVM | Earned Value Methods |
| FFGA | Full Funding Grant Agreement |
| FTA | Federal Transit Administration |
| IGA | Interagency Agreement |
| NTP | Notice to Proceed |
| ODOT | Oregon Department of Transportation |
| PEF | Pre-Existing Funds |
| TEAMS | Transportation Environment Accounting and Management System |
| TRAINS | Transportation Reporting and Accounting Information System |
| WBS | Work Breakdown Structure |
| WSDOT | Washington Department of Transportation |

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# 1. Introduction

## 1.1 Purpose

This document provides the guidelines for the Configuration Management and Change Management systems for the Columbia River Crossing Program (CRC Program). The Configuration Management and Change Management systems are proactive tools that identify, evaluate and formally document the approval (or disapproval) of changes to scope, cost and schedule for project elements over the engineering and construction life cycle of the CRC Program. These tools not only evaluate scope, cost and/or schedule impacts to a particular project or element, but also evaluate secondary impacts to other projects or elements. Risk and risk management are critical components to this process.

The Configuration Management System is the process of documenting and gaining the proper approvals for changes to the initially approved baseline arrangement of the physical features and elements (the "configuration") of a project within the overall CRC Program. The configuration includes, but is not limited to, project termini; horizontal and vertical alignments; ramp and roadway geometry; fire; life and safety systems; electrical; hydraulic; and any other features that define the look and function of the Program. Configuration Management is an on-going process that continues through the design and construction phases of project delivery.

Configuration Management provides the mechanism by which project changes are identified; reviewed; evaluated for cost and schedule impacts; evaluated for risks to the project; controlled and incorporated into the project design. Configuration Management is essential to ensuring that all parties working on the design, and ultimately, the construction of the project, are working to the current project configuration, making sure that there are no unintended gaps, overlaps or discontinuities across projects.

The Configuration Management process works in concert with the Change Management process and the Construction Change Order process. The Configuration Management process controls the physical aspects of what is to be built. The Change Management process controls the financial and schedule implications, if any, resulting from the physical changes.

Once a configuration change has been approved, if certain schedule and/or budget thresholds are exceeded, the change is advanced through the Change Management process. The purpose of the Change Management process is to bring significant changes relating to scope, schedule and budget to CRC Program Senior Management's attention for review and adjudication. Thus, configuration changes exceeding scope, schedule and budget thresholds would be elevated to the Change Management process. The response of CRC Program Change Control Board, consisting of the Senior Management and others as designated by Senior Management, formalizes the decisions on relevant project changes.

Consistent implementation of the Configuration and Change Management processes (both approved and unapproved items) will provide an accurate and useful record of key project decisions for the CRC Program. This consistency will also ensure that proper and timely

approvals of changes to scope, schedule and budget occur and that risk management is integrated into the CRC Program delivery system.

## 1.2    Definitions

This guidance document makes extensive use of Washington State Department of Transportation (WSDOT) project controls and reporting terms. For a complete listing and definition of the terms reference WSDOT Project Management Glossary of Terms. This can be found on the WSDOT internal website:

http://www.wsdot.wa.gov/publication/fulltext/ProjectMgmt/PMOG/PM_Glossary.pdf

**Configuration Change** – A revision to the physical aspects of a project that would result in significant scope, schedule and/or budget changes, or would generate a risk of gaps, overlaps or discontinuities between or across adjacent projects. Such revisions may include, but are not limited to, changes to individual project termini, horizontal and/or vertical alignments, roadway sections, material type, electrical or hydraulic system components and so forth.

**Project Change Request** – A document that describes the need for the change, evaluates alternatives, and seeks management approval for significant changes in the scope, cost, or schedule of a project compared to the currently approved project baseline.

# 2. Configuration Management Process

## 2.1 Goals

The CRC Configuration Management process works in concert with the CRC Change Management process, the CRC Risk Management process and the Construction Change Order Approval process. CRC Configuration Management will facilitate the overall implementation and execution of the Configuration Management Plan. Steps include:

- Develop, document and gain approval of the initial configuration of the project,

- Ensure discipline in the project development process such that:

  o Design proceeds with constant attention to avoid any and all physical scope gaps and overlaps,

  o Projects are developed so that all elements, both within and between contracts, physically match and correctly interface,

  o Risks associated with the proposed changes are identified, assessed, and an appropriate mitigation strategy developed,

  o During the design or construction phase of project delivery, all proposed changes to the initial configuration or to the latest approved configuration are not implemented until such changes are documented and duly approved by the appropriate level of project management, and

  o Construction Change Orders are consistent with the approved configuration;

- Communicate approved changes to all affected project staff so that they are aware of actions on their part to implement the change;

- Ensure that electronic and physical files of approved configuration changes are maintained as an important part of the project record;

- Ensure that advancements in the project configuration as a result of approved changes are versioned in a disciplined way that is also available and communicated to the project staff. In this way, the entire project team understands and is working on the current approved project configuration basis; and

- Ensure that for all applicable risk threats and opportunities associated with the changes, a comprehensive response strategy is developed.

## 2.2    Organization

All project staff has a stake in the disciplined management of configuration. Those individuals who have primary Configuration Management responsibilities include:

- **Configuration/Change Manager** – Responsible for the documentation and maintenance of such for the overall project configuration. Serves as the Chair of Configuration/ Change Meetings

- **Operations Technical Director** – Responsible for ensuring that those Configuration Changes that are elevated to CRC Program Senior Management for consideration and approval are initiated in the Change Management process, if required. Responsible for ensuring the implementation of the approved changes that affect the baseline project configuration.

- **Transit Manager, Program Manager, and Project Delivery Director** – Responsible for ensuring the implementation of the approved changes that affect the baseline project configuration.

- **Environmental Manager** – Responsible for making sure that all Configuration Changes and Changes are in conformance with project environmental documentation and permitting requirements/commitments.

- **Design and Construction Engineers** – Responsible for vetting the configuration change prior to submitting it for action by the Configuration Change Committee, advocating for, and implementing those proposed configuration changes that affect their respective contracts only.

- **CRC Program Senior Management** – Responsible for the support for implementation of a Configuration Management process; and proactively participating in the process in the review and approval cycle.

- **All Project Staff** - Responsible for the initiation of a Configuration Change Request (further discussed below) if a need to change project configuration is detected. Such change requests are not intended to cover routine design development, but rather any fundamental revisions in the physical arrangement of project elements that could affect the work of other disciplines within a contract, and/or the arrangement of elements within other interfacing contracts. Any project staff, regardless of role or level of authority in the organization is empowered to initiate such requests; however, they are expected to submit it through their respective supervisor and/or applicable Project Engineer.

## 2.3    Establishment of Baseline Scope and Configuration

The Establishment of Baseline Scope and Project Configuration will be defined and documented in one or more engineering deliverables, including, but not limited to, the Project Development and Procurement Plan (PDPP), drawings, profiles, cross-sectional details and any other required

media describing the dimensions and physical arrangement of project elements, as part of the contract plans or by construction change order.

The Baseline Scope and Project Configuration will be as approved by CRC Program Senior Management as part of the Change Management system.

Once the Baseline Scope and Project Configuration has been established, changes to the baseline (whether during the design or construction phase) can be tracked through the Configuration Management Process. Below are the steps in this process, which are included in *Figure 1: Configuration Management Program Flow Chart*.

**FIGURE 2-1. CONFIGURATION MANAGEMENT PROGRAM FLOW CHART**



Baseline Established

Design/Construction Development

Configuration Change

Non-Configuration Change

Meets Change Thresholds?

Initiate CCR

End

Coordinate CCR with PE and Configuration Manager

Project Engineer Re-assess

Yes

No

No

Change Confirmed Through Vetting Process?

Yes

Yes

Cost/Schedule impacts? Other projects impacted? Risk actions?

Coordinate w/ Disciplines, Contracts, PE Offices, Environmental, Program Mgmt, Risk Mgmt, etc

Change Process

See Change Management Chapter

Submit Completed CCR to Configuration Manager

Configuration Change Meeting

REJECTED

APPROVED

DEFERRED

Begin Change Process

Note:
PE: Project Engineer
CCR: Configuration Change Request

Step 1 - Identify Configuration Change and Initiate Configuration Change Request

Upon detecting the need to change project configuration, any project staff member can initiate a request to implement the change through the use of a Configuration Change Request (CCR) form (Appendix A of this report). The CCR must go through the staff member's supervisor and applicable Project Engineer (PE) for vetting prior to any further action. Configuration changes, whether they occur during the Design or Construction phases, must follow the configuration change management process.

Step 2 - Coordination of the Configuration Change

Once a configuration change has been vetted, the PE will coordinate the CCR with the Configuration Manager. As shown on the CCR, the PE is also responsible for communicating and coordinating with all technical engineering disciplines, environmental documentation and permitting, right of way, applicable Project Engineering Offices, Program Management, Risk Management, and other affected parties such as local transportation agencies and regulatory agencies.

An important purpose of the CCR form is to provide a methodical, checklist-oriented means for addressing all coordination issues relevant to a given configuration change issue. As such, much of the processing of the CCR prior to submittal for approval will serve to complete needed coordination actions among the various disciplines within a contract and/or with other interfacing contracts.

During the Construction phase of Project Delivery, configuration changes implemented by Construction Change Order will first be vetted through the Configuration Management process. The intent is not to add another layer but rather to provide an early alert to the program/project management that a change is imminent and to allow transparency with adjacent contracts. This is critically important because of the aggressive schedules, shared work areas, and competition for work space. All parties need to be involved at the earliest time possible.

Step 3 - Submit Completed CCR to Configuration Manager

The PE will submit the completed CCR, along with all applicable supporting documentation, to the WSDOT Configuration Manager for review, comments and revision, as necessary, prior to taking it to the Configuration Change meeting. Once satisfied with quality and content, the Configuration Manager will enter the CCR into the Configuration Management/Change log and place it on the agenda for the next Configuration/Change meeting. Completion of the Environmental Triggers Checklist on the CCR form will be required, regardless of whether the project is in the design or construction phase of project development.

Attachments to the CCR should include the documents necessary to justify the change. As a minimum, the following should be included with the CCR package:

- Sketch/Drawings showing proposal, including impacts to other/adjacent projects

- Approximate cost impacts, if applicable

- Approximate schedule impacts, if applicable

- Identification of Risk, if applicable

Step 4 - Configuration Change Meeting

Acting as the Chair for the Configuration Change meetings, the Configuration Manager will:

- Convene the meeting, as needed, to process configuration changes in a timely manner

- Develop and distribute, in advance, the Agendas for Configuration Change meetings

- Invite all CCR presenters and other appropriate individuals to the meeting who are not already regularly scheduled to attend

- Ensure the orderly conduct of the Configuration Change meeting

- Prepare and distribute meeting minutes and follow up action items

The Configuration Change meeting includes applicable staff, as needed:

- Configuration Change Committee: Required

  o Configuration Manager

  o Applicable Program Director(s)

  o Applicable Design and/or Construction Engineer/Manager(s)

  o Environmental Manager

- Presenters: Required

  o Design or Construction Project Engineer

  o Critical Support Staff, as determined by Project Engineer

The meeting will be the primary forum where CCRs will be considered and acted upon.

Step 5 - Configuration Change Requests: Dispositions

The Configuration Change Committee can make three possible dispositions on the Configuration Change Request. The three possible dispositions to a given CCR are:

- Approved

  o Not elevated to Change Management

    ▪ Signatory level is Configuration Manager, applicable Engineering Manager, and/or Environmental Manager

  o Elevated to Change Management

- ▪ Signatory level in addition to Configuration Manager must include the Engineering Manager for the affected Project(s) and the Environmental Manager

  - ▪ CCRs elevated to a Change notice do not require re-initiation of coordination process

- Rejected

  - o Signatory level is Configuration Manager

- Deferred – Additional information required

  - o Signatory level is Configuration Manager

Approved configuration changes may be elevated to the Change Management process, due to one or more of the following:

- Configuration changes that cause significant changes in the scope, cost, or schedule of a project compared to the currently approved project baseline

- Impacts to Critical Milestones on affected and/or other Contracts

- Impacts the scope or budget of other projects

- Risk actions, such as retiring risks because they have occurred or were avoided by the configuration change. Unused risk reserve dollars could be returned to the overall program via the Change Management process.

Step 6 - Configuration Change Meeting Follow Up Actions

- The Configuration Manager will:

  - o Update the Configuration Management/Change log with the status arising from a given meeting.

  - o Place the CCR into the Configuration Management files.

    - ▪ Issues copies of the CCR to the affected supervisory staff members for their information and/or action.

  - o When all change actions have been completed as required for a given CCR, save the new project configuration under the next version name or number and treat the new version as the baseline to which all future CCR's will be applied.

- The Project Engineer will implement the changes stated in the approved CCR, and coordinate with interfacing Project Engineers Offices, as required. Other responsibilities include:

  - o Prepare a Change Request, if required

- o Prepare and submit updated engineer estimates and project schedules, as appropriate, to CRC Program Senior Management

- o Update the project risk register and provide a copy to the Program Risk Manager

- The Engineering Manager for the affected project will be responsible for ensuring that all newly identified threats or opportunities will be captured in the respective project risk register.

In the event that an approved CCR is elevated to the Change Management process, the PE will be responsible for preparing the Project Change Request and including the approved CCR as an attachment to a new Change Notice form. The Change Management procedures outlined in pages 10-16 will apply to the CCR in this instance.

# 3. Change Management Process

The Change Management process monitors changes to the baseline budgets and schedules for the CRC program. The Change Management process works in conjunction with the Configuration Management process, the Construction Change Order Approval process, and the Risk Management process to bring changes that exceed budget, schedule, and risk thresholds to Executive Management's attention. However, Change Requests may be derived from actions outside the Configuration Management process.

Table 1 below provides thresholds for cost, schedule and scope as defined by the WSDOT Project Change Request Form (PCRF) process. It has been modified to clarify when Changes should be created. A useful maxim is "Not every Change is a PCRF, but every PCRF should be a Change."

The Change Management Process is summarized in Appendix B-2 of this report*: PCRF Flow Chart*.

## 3.1 Change Manager Function

The Configuration/Change Manager will be responsible for implementing and maintaining the Change Management process. Tasks include:

- Update the Change form

- Work with CRC personnel to initiate Changes for scope, budget and schedule changes to their projects

- Assist Change preparers in formalizing documentation that supports the Change

- Maintain Configuration Change/ Change Log Program

- Ensure the project teams are working with Project Controls Manager, Operations Technical Director, Transit Manager, Environmental Manager, Program Manager, and Project Delivery Director on reviewing and updating Change drafts

- Prepare Change agenda for the Change Control Board  (CCB) meeting

- Prepare Change meeting minutes

- Work with project teams to finalize documents

- Obtain Senior Management signatures on final documents

- Update Configuration Change/ Change Log Program

- Update Action Item List

## Table 3-1. PCRF Thresholds for Cost, Schedule and Scope

### Change Management Thresholds

| Category | Type | Description | Approval Level | PCRF Required |
|---|---|---|---|---|
| Budget | Minor PEF | Changes < $200K for PEF Project < $2 million<br>Changes < 10% for PEF project > $2 million & $10 million<br>Changes < $1 million for PEF projects < $10 million<br>Transfer of appropriation from PE / RW to CN<br>Creation of a RW Phase for other than purchase of Real Estate | HQ Approval not required | No |
| | | Changes > $200K & < $400K for PEF projects < $2 million<br><br>Changes up to $2 million for PEF projects > $10 million | Assistant Program Delivery Managers (APDM) | Yes |
| | | Changes to PEF projects above HQ APDM Level < $3 million<br>Transfer of appropriation from CN to PE / RW<br>Creation of RW phase for purchase of Real Estate | Program Delivery Managers (PDM) | Yes |
| | Major PEF | Changes to PEF projects > $3 million | Director, PC&R / Chief Engineer | Yes |
| | TPA | Cash flow changes < $200K for subproject<br>Transfer of appropriation from PE / RW to CN<br>Creation of a RW Phase for other than purchase of Real Estate | HQ Approval not required | No |
| | | Cash flow changes < $200K & < $400K for subproject | Assistant Program Delivery Managers (APDM) | Yes |
| | | Cash flow changes to subprojects > $400K & < $3million<br>Transfer of appropriation from CN to PE / RW<br>Creation of RW phase for purchase of Real Estate | Program Delivery Managers (PDM) | Yes |
| | | Cash flow changes to subprojects > $3million<br>Transfer of appropriation into the future biennium | Director, PC&R / Chief Engineer | Yes |
| | | Transfer of appropriation into current biennium for all project changes not included in a Supplemental Budget | OFM | Yes |
| | | All TPA project cost increases<br><br>Transfer of appropriation into current biennium for project under construction (BIN Level) | Legislature | Yes |
| | CRC | Dollar shift between WINs | Senior Management | Yes |
| Schedule | Minor PEF | AD date changes that do not impact biennial expenditures | HQ Approval not Required | No |
| | | Advances or delays of PEF project AD Dates that change construction seasons within the current biennium | Program Delivery Managers (PDM) | Yes |
| | Major PEF | Advances that cannot be accommodated by the current biennial cash flow and delays the defer the AD out of the current biennium | Director, PC&R / Chief Engineer | Yes |
| | TPA | TPA projects delayed from current biennium | OFM | Yes |
| | | TPA projects advanced from current biennium | Legislature | Yes |
| | CRC | Delays of intermediate milestone dates > 30 CD | Senior Management | Yes |
| Scope | Minor PEF | Changes to baseline configuration on PEF that do not alter the functional intent of the project as funded by the Legislature | Senior Management | Yes |
| | Major PEF | Changes to baseline configuration on PEF that significantly alter the functional intent of the project as funded by the Legislature | Director, PC&R / Chief Engineer | Yes |
| | TPA | All changes to baseline configuration of TPA projects | Legislature | Yes |
| | CRC | All changes to baseline configuration | Senior Management | Yes |

## 3.2     Change Detected or Elevated Configuration Change Request (CCR)

Each project team member needs to know their project and understand their baseline documents. These include basis scope, baseline target budget, design and construction check estimate, right of way parcel needs, environmental requirements, target design and construction schedules.

As with the Configuration Management process, any project staff, regardless of role or level of authority in the organization is empowered to initiate a Project Change Request (PCR) when they become aware of an impact to the base scope, the target budgets and/or schedule. The initiator should submit a completed PCR Form (refer to Appendix B of this report) to the Work Order Manager, typically this would be the Project Engineer.

As noted earlier, PCRs can be initiated from an elevated Configuration Change Request and/or as a result of Project Management, Risk Management, Construction changes, and/or Project Review meetings.

## 3.3     Cost, Schedule, and Risk

A Project Change Request is needed if an anticipated change from the baseline scope, schedule, and budget of a project is significant, or if the delays will adversely affect the critical path of the project. During the engineering/PE phase of a project the threshold for initiating a PCR is a budget change of $50,000 or more and/or a schedule impact of more than 7 days to standard/ key project milestones. During the Construction/CN phase the budget and time thresholds are as described in the WSDOT Construction Manual, Figure 1-5, Change Order Checklist, of the WSDOT Construction Manual (M 41-01.08, July 2011), see Figure 2 below.

The PCR must also clearly identify any changes to each of the project's standard milestones (these milestones are determined when the Project Identification Number (PIN) is established) and include:

1.  Project Definition Complete

2.  Begin Preconstruction Engineering

3.  Environmental Documentation Complete

4.  Right of Way Certification

5.  Advertisement Date

6.  Operationally Complete

A Change is also needed to address risk management actions. The Change process will be used both during design and construction phases to fund allocated risks that occur, retire risks and transfer risk reserves to or from the unallocated risk reserve pools.

## FIGURE 3-1. CHANGE ORDER CHECKLIST

**CHANGE ORDER-CHECKLIST**

| Cont. #: _____  Cont. Title: _____<br>C.O. #: _____  C.O. Title: _____ | | | If yes, State Construction Office Approval Required. |
|---|---|---|---|
| **I. Executed by the State Construction Office** | | | |
| 1. Cost or credit equal to or exceeding $500,000.*1 | ☐ Yes | ☐ No | X |
| 2. Change in the contract documents beyond the scope, intent or termini of the original contract.*2 | ☐ Yes | ☐ No | X |
| 3. Any proposed revision or deletion of work that affects the condition of award requirements. | ☐ Yes | ☐ No | X |
| 4. Change in contract time greater than 30 working days, or a change in contract time not related to any change order. | ☐ Yes | ☐ No | X |
| **II. Executed by the Region** | | | |
| 5. Cost or credit greater than $100,000 but less than $500,000. *1 | ☐ Yes | ☐ No | |
| 6. Change in contract time greater than 10 and less than or equal to 30 working days (must be related to changes implemented by change order). | ☐ Yes | ☐ No | |
| **III. Executed by the Project Engineer** | | | |
| 7. Determination of impacts and/or overhead. | ☐ Yes | ☐ No | X |
| 8. Specification change involving Headquarters generated specification.*(Includes Region generated specification requiring State Construction Office Approval)* | ☐ Yes | ☐ No | X |
| 9. Specification change involving Region generated specifications. | ☐ Yes | ☐ No | |
| 10. Material or product substitution. | ☐ Yes | ☐ No | X |
| 11. Structural design change in the roadway section.*(Requires State Materials Lab approval)* | ☐ Yes | ☐ No | |
| 12. Determination of changed condition.*(Section 1-04.7 of the Standard Specifications)* | ☐ Yes | ☐ No | X |
| 13. Settlement of a claim.*(Section 1-09.11(2) of the Standard Specifications)* | ☐ Yes | ☐ No | X |
| 14. Repair of damage regarding "acts of God" or "acts of the public enemy or of government authorities".*(Section 1-07.13 of the Standard Specification)* | ☐ Yes | ☐ No | X |
| 15. Structural change to structures.*(See BTA authority as shown in the Construction Manual)* | ☐ Yes | ☐ No | X |

**Approvals obtained:** Project Engineer (**Required**): _____ Date: _____

Region (**Required if yes marked**): _____ Date: _____

State Construction Office: _____ Date: _____

State Materials Lab: _____ Date: _____

Other (Local Agency, FHWA, Surety, etc.): _____ Date: _____

*To be completed by the Project Engineer :*

CO Reason(s) (See "2008 Codes and Definitions" on HQ Construction SharePoint): _____

Change Order Prepared By: _____ Date: _____

Has change been entered as lesson learned? ☐ Yes ☐ No    Has design documentation been updated? ☐ Yes ☐ No

Is this project under full FHWA stewardship oversight? *1    ☐ Yes ☐ No

*To be completed by the Region :*

Is the change eligible for Federal participation where applicable?    ☐ Yes ☐ No

Change Order Reviewed by: _____ Date: _____

*1  Change (Cost or Credit) greater than $200,000 or greater than 30 days on Full Federal Stewardship Oversight projects requires FHWA approval. (see Construction Manual - Chapter 1-2.4C(3), Chapter 1-3.4, and http://www.wsdot.wa.gov/biz/construction/Stewardship/Stewardship.xls)

*2  Per RCW 47.28.050, any change beyond $7,500 that is beyond the original scope shall go through the competitive bidding process.

This form represents the **minimum** information required by the State Construction Office. If you wish to supplement this information, you may do so on a separate sheet of paper.

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## 3.4    Completing Project Change Request Form

If project staff (any individual on the project) has identified a potential change in the current project definition, scope, schedule or budget a Project Change Request (PCR) form should be completed and processed. It is recommended that the PCRF be completed with the assistance of the Configuration/Change Manager and the relevant project controls team members

All the fields on the Project Change Request Form must be completed.

1. Level of Approval Requested

   *Check the level of approval that is being requested.*

2. *Description of the Proposed Change*

   *This section outlines the proposed change in detail. The detail provided should provide enough information about the potential change to enable the individuals reviewing it from a technical and/or business perspective to make an informed decision and offer sound recommendations.*

3. *Justification for the Change:*

   a. Why are we requesting approval of this Change, and what are the benefits?

      *The detail provided should provide enough information about the potential change to enable the individuals reviewing it from a technical and/or business perspective to make an informed decision and offer sound recommendations.*

   b. If the Change is approved, what are the drawbacks? Identify and discuss any negative impacts.

      *The detail provided should provide enough information about the potential change to enable the individuals reviewing it from a technical and/or business perspective to make an informed decision and offer sound recommendations.*

   c. Identify and discuss any risks, probability of occurrence and mitigation strategies.

      *The detail provided should provide enough information about the potential change to enable the individuals reviewing it from a technical and/or business perspective to make an informed decision and offer sound recommendations.*

   d. Discuss Coordination effort for Change. List all coordinating parties.

      *The detail provided should provide enough information about the potential change to enable the individuals reviewing it from a technical and/or business perspective to make an informed decision and offer sound recommendations.*

4. *Impacts of this Change:*

Each sub-section should include a narrative discussing the impacts for the proposed change.

a. Schedule Impacts to QPR Milestones:

*This section discusses the positive and negative impacts to the current QPR dates. The ripple effects of the impact should be addressed.*

b. Schedule Impacts to Other Milestones:

*This section discusses the positive and negative impacts the change causes. The ripple effects of the impact should be addressed. What additional pieces of the project are affected, and how does this impact the current schedule. Specific schedule activities should be included with a discussion of the project and program critical path.*

c. Cost Impacts

*This section discusses the financial aspects of the change. Enough detail should be provided that allows for a cost analysis to be performed on the project. Any data that will facilitate the decision process should be provided.*

d. Aging Summary Table

*This section discusses the cash flow aspects of the change. Enough detail should be provided that allows for a cost analysis to be performed on the project. Any data that will facilitate the decision process should be provided.*

- Sketches/Drawings, as appropriate;

5. Priority

Clearly identify urgency of approval. If additional information is warranted regarding timing of approval please provide outline description of impacts of approval delays.

6. Impacts of Rejecting

Provide clear information of adverse impacts, if any, to cost and schedule if this PCR is rejected.

## 3.5    Steps for Processing the PCR Form – See Flowchart Appendix B-2

Step 1 – Complete Project Change Request Form (PCRF)

- Upon identification of a potential change in scope, schedule, or budget; a PCRF needs to be initiated. The individual that is initiating the PCRF, Change Initiator, completes the table at the top of Page 1, and items 1 and 2.

- The initiator reviews the PCRF with the Work Order Manager for approval prior to completing the PCRF.

- The Initiator identifies changes and reviews with the Work Order Manager. If the Work Order Manager approves, the PCRF is completed and gets a log number. The PCRF is submitted to the Work Order Manager for final review and approval. If the initiator does not know the current information for any section, he/she is responsible for meeting with those individuals responsible for the data.

Step 2 – PCRF Work Order Manager Review

- If the Work Order Manager reviews and requests additional information the PCRF is returned to the Change Initiator for re-submittal.

- The Work Order Manager rejects PCRF and it is returned to the Change Initiator.

- After the Work Order Manager reviews, and approves, PCRF is submitted to the CRC Change Manager.

Step 3 – PCRF CRC Change Manager Review

- The CRC Change Manager reviews, and approves. The PCRF is submitted to the Project Controls for review.

  o If Project Controls reviews, and approves. The PCRF is returned to the CRC Change Manager.

  o Project Controls comments / revises / rejects – PCRF returned to Initiator.

Step 4 – PCRF Reviewed by CRC Change Manager

- If the CRC Change Manager reviews, comments and/or requires additional information

  o Return to the initiator for re-submittal.

- If the CRC Change Manager reviews, and approves.

  o Prepare Change Package, distributes to members of the Change Control Board and schedules CCB Meeting.

Step 5 – Presentation to Change Control Board

- The CRC Change Manager facilitates CCB Meeting

- The Work Order Manager presents Change Package to the CCB

- If CCB approves Change and change is below WSDOT's Change Process threshold, return to Work Order Manager who implements Change.

- If CCB approves Change and it is above WSDOT's Change Process threshold Change is given to Project Controls for implementation through WSDOT Change Process.

## 3.6    CCB Meeting and Change Approval

The Change approval process will include the CRC Program Change Control Board members, typically comprised of Senior Management Team members:

Configuration/change Manager will chair the CCB meeting. If the Chair cannot attend, the Project Controls Manager will chair the meeting. Change meetings can occur as part of the CRC Program Senior Management Team Meeting or may be scheduled separately if needed. Additional meeting may be necessary to coincide with logical times in the WSDOT budget development exercises to transfer funds and balance the CRC Program financial plan.

At the discretion of the members, other attendees at the meeting may include:

- Relevant CRC Program Staff

- Other Program partners, as applicable

The Configuration/Change Manager will set the agenda, issue the meeting announcement, conduct the meeting and follow the agenda. Also, the Configuration/Change Manager will supply any materials and special equipment for the meeting.

After presentation of each PCR, the Chair may enter into discussion with the members about the recommendation. Following the discussion, the members will recommend to "Elevate," "Approved Scope Only," "Defer Approval," "Fully Approved" or "Rejected" the PCR. The Chair will record the final decision based on the recommendations of the members.

- **Elevate:**  Means the PCR recommendation will be presented to ODOT's Director of Transportation and WSDOT Secretary of Transportation for final adjudication.

- **Fully Approved:**  Initiates an update to the baseline budgets and schedules, as well as contract task orders and amendments. If Capital Program Management Systems (CPMS) information (budget or schedule milestones) is changed by a "Fully Approved" PCR, then a PCRF or a 603 Form may be initiated. Otherwise, CPMS input may simply be updated to reflect the current plan. A "Fully Approved" Change must be signed by the CCB and the relevant impacted Director(s).

- **Approved Scope Only:**  Means that the actions contained within the PCR may proceed, but there may be various follow up budget and/or schedule actions that may be required in order to mitigate the Change's impact to a project's biennium and/or lifetime budget and/or schedule. The mitigation may reach the threshold for a WSDOT or ODOT PCRF action, or the mitigation may be handled without a PCRF. Once these mitigations are agreed to, the PCR may be presented to the CCB again for final approval.

- **Defer Approval:** Means that there may be merit in the recommendation, but more study will be needed to verify impacts to the project. When the study is complete, the PCR recommendation will be presented to the CCB again.

- **Rejected:** The reasons for and consequences of not approving this PCR will be noted.

The Configuration/Change Manager will be responsible for preparing the meeting minutes of each CCB meeting and sending them out for review and approval.

## 3.7    Change Control Board Meeting Follow Up Actions

After the CCB meeting, the Configuration/Change Manager will initiate the following actions:

- Decision to Elevate – arrange with Program Directors to set meeting(s) with ODOT's Director of Transportation and WSDOT Secretary of Transportation expeditiously to reach a final decision on the proposed change.

  o Approval – handle as regular CCB approval process

  o Rejection – note reasons and close PCRF

- Decision to Fully Approve - distribute the "Fully Approved" PCR to all the affected groups, including: Project Controls, Business Management,  and CRC Document Control.

  o The Work Order Manager will implement the changes stated in the approved PCR, and coordinate with interfacing contracts, if required. Other responsibilities include:

    ▪ The distribution of the "Fully Approved" PCR among the Project Office team will take place by the Project Engineer.

    ▪ Prepare a PCRF, if needed, and submit to Project Controls for changes that affect the overall program budget or schedule

    ▪ Prepare and submit updated engineer estimates and project schedules, as appropriate, to Program Management

    ▪ Update the project risk register and provide a copy to the Program Risk Manager

  o The Project Delivery Director will be responsible for ensuring that all newly identified threats or opportunities will be captured in the respective project risk register.

- Decision to Approve for Scope Only – return to Initiator and Work Order Manager to implement approved actions and prepare for resubmittals to CCB

- Decision to Defer Approval - return to Initiator and Work Order Manager to perform required study/research and prepare for resubmittals to CCB

- Decision to Reject – return to Initiator and Work Order Manager with reasons for decision.

## A.  Configuration Change Request

**Columbia River CROSSING**

CONFIGURATION CHANGE REQUEST

| Log Number: | Date: |
|---|---|
| **Title:** | |
| Prepared By:<br><br>_____<br>Name / Date | Preparer's Supervisor:<br><br>_____<br>Name / Date |

1. *Nature of Change:* (Check all that apply)

   ☐ Scope          ☐ Design Criteria          ☐ VE Study          ☐ Third Party/Regulatory

2. *What Disciplines are affected by the change request?*

3. *List all Design and/or Construction packages affected by this change request?*

4. *Description of Configuration Change Request:*

   a.  Discuss benefit of the configuration change request

   b.  Identify and discuss any negative impact

   c.  Identify and discuss any risks, probability of occurrence and mitigation strategies

   d.  Discuss Coordination effort for configuration change request.  List all coordinating parties

   CCR Number

## Columbia River CROSSING

### CONFIGURATION CHANGE REQUEST

Complete the Environmental Trigger Checklist, below, and provide details for any "Yes" response.

**ENVIRONMENTAL TRIGGER CHECKLIST**

| | | |
|---|---|---|
| Conditions below are indicators that additional environmental review or permit modifications May be required which will have cost or schedule impacts.* | ☐ Yes | ☐ No |
| Expansion of the Project Footprint? | ☐ Yes | ☐ No |
| New Activities, Property Acquisition or Staging Areas? | ☐ Yes | ☐ No |
| Any of the above within 200' of the shoreline? | ☐ Yes | ☐ No |
| Considerably louder construction activities or nighttime work | ☐ Yes | ☐ No |
| Identification of historic property or that over 50 years old? | ☐ Yes | ☐ No |
| Change in total impervious surface square footage? | ☐ Yes | ☐ No |
| Changes in dewatering or storm water discharge locations? | ☐ Yes | ☐ No |
| Change in conveyance of storm water during construction/operation? | ☐ Yes | ☐ No |
| Additional or increased depth of ground disturbing activities? | ☐ Yes | ☐ No |
| Work within Pavement Moratorium Areas? (Concrete streets/sidewalks <3 years old) | ☐ Yes | ☐ No |
| Construction between November and January (Holiday Moratorium) | ☐ Yes | ☐ No |

Configuration Change Cost Impact ($x1000):
*(Note: Elevate to Change if Impact > $100,000)*

Configuration Change Schedule Impact (Days/ Months)
*(Note: Elevate to Change if Impact > 30 Calendar Days to Major Milestone)*

List and Description of Attachments:

# Columbia River CROSSING

## CONFIGURATION CHANGE REQUEST

Approval Status:

☐     Approved

☐     Elevate to Change

☐     Defer Approval Pending Receipt of Additional Information (See Instructions Below)

☐     Rejected

Approval Authority (Name / Date):

| | |
|---|---|
| Configuration/Change Manager | / |
| Operations Technical Director | / |
| Transit Manager | / |
| Environmental Manager | / |
| Program Manager | / |
| Project Delivery Director | / |

Additional Information as Needed:

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## B.  Project Change Request

### B.1      Project Change Request Form

# Project Change Request

**Columbia River CROSSING**

| Title: | Date: |
|---|---|
| Log Number: | WIN / Name: |
| Prepared by: | |

| Nature of Change: | ☐ Scope | ☐ Schedule | ☐ Budget |
|---|---|---|---|

| Does change impact legislative funding allocations? | Does change impact biennium dates? |
|---|---|
| ☐ Yes    ☐ No | ☐ Yes    ☐ No |

1. *Level of Approval Requested:*

   ☐ Full Approval

   ☐ Approval for Scope Only; Additional Study / Justification to follow

2. *Description of the Change:*

3.  *Justification for the Change:*

    a.  Why are we requesting approval of this Change, and what are the benefits?

    b.  If the Change is approved, what are the drawbacks? Identify and discuss any negative impacts.

    c.  Identify and discuss any risks, probability of occurrence and mitigation strategies.

    d.  Discuss Coordination effort for Change.  List all coordinating parties.

4. *Impacts of this Change:*

    a.  Schedule Impacts to QPR Milestones:

       *(Insert notes and comments)*

| Milestone Description | Last Approved Date (a) | # Calendar Days Impact (b) | Revised Change Date (c=a+b) |
|---|---|---|---|
| Project Definition Complete | | | |
| Begin Preconstruction Engr. | | | |
| Cultural Resource Eval. Complete | | | |
| Environmental Doc. Compl. | | | |
| Permitting Complete | | | |
| RW Certification | | | |
| Advertisement Date | | | |
| Operationally Complete | | | |

    b.  Schedule Impacts to Other Milestones:

       *(Insert notes and comments)*

| Milestone Description | Last Approved Date (a) | # Calendar Days Impact (b) | Revised Change Date (c=a+b) |
|---|---|---|---|
| Bid Opening | | | |
| Award | | | |
| Execution | | | |
| Construction Start | | | |
| Final Contract Completion | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

c. Cost Impacts (x $1,000)

   (*Insert notes and comments*)

| Project Phase | Last Approved Budget (a) | Amount for this Change Only (b) | Revised Budget |
|---|---|---|---|
| PE | | | 0 |
| RW | | | 0 |
| CN | | | 0 |
| Total | 0 | 0 | 0 |
| | | Total Estimated Impact | 0 |

d. Aging Summary Table (x $1,000)

| Phase | Cost | Prior | 11-13 | 13-15 | 15-17 | 17-19 | 19-21 | Total |
|---|---|---|---|---|---|---|---|---|
| Preliminary Engineering | Last Approved Budget | | | | | | | - |
| | Amount this Change Only | | | | | | | - |
| | Revised Budget | - | - | - | - | - | | - |
| Right of Way | Last Approved Budget | | | | | | | - |
| | Amount this Change Only | | | | | | | - |
| | Revised Budget | - | - | - | - | - | | - |
| Construction | Last Approved Budget | | | | | | | - |
| | Amount this Change Only | | | | | | | - |
| | Revised Budget | - | - | - | - | - | | - |
| Total | Last Approved Budget | - | - | - | - | - | | - |
| | Amount this Change Only | - | - | - | - | - | | - |
| | Revised Budget | - | - | - | - | - | | - |

5.  *Priority:*

☒  Immediately – Required to start work

☐  Approval required < 2 weeks

☐  Approval required within 2 – 4 weeks

☐  Discuss timing

*(Provide outline description of impacts for delayed approval)*


6.  *Impacts of Rejecting:*

a.  *Schedule:*

Without funding schedule will slip.


b.  *Cost:*

Funding for future work orders will be in jeopardy.

*7. PCRF Review(s) and Approval(s)*

*Work Order Manager(s) Approval:*

Work Order Manager            _____

Work Order Manager            _____

Work Order Manager            _____

*Project Controls Review:*

Project Controls Manager        _____

Cost Control                    _____

Scheduling                     _____

*Senior Management Approval:*

☐    Program Manager            _____

☐    Director – ODOT            _____

☐    Director - WSDOT          _____

*Approval Status:*

☐    Elevate

☐    Fully Approved

☐    Approved for Scope Only; Additional Study / Justification Required (See "Instructions" Below)

☐    Defer Approval Pending Receipt of Additional Information (See "Instructions" Below)

☐    Rejected

*Instructions:*

*List and Description of Attachments:*

**B.2     Project Change Request Process Flow Chart for Preliminary Engineering and Right of Way Phases**



Project Change Request (PCR) Process Flow Chart
Preliminary Engineering and Right of Way (Only)

## B.3    Change Management Flow Chart for Preliminary Engineering and Right of Way Phases

Change Management - Preliminary Engineering and Right of Way Phase (Only)
Flow Chart

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 |
|---|---|---|---|---|---|---|---|---|

Change in Scope / Schedule / Budget

PCR Process (See Detailed Flow Chart}

Task Order Manager (A)

Business Services Task Order / Agreements Request Process

WSDOT Contracting Process

Start Work

Approved WSDOT Project Change Process Required

Task Order Manager (A)

Business Services Task Order / Agreements Request Process

WSDOT Contracting Process

Start Work

Approved No 603 Required

Project Controls Initiates WSDOT TEIS Project Change Process

Approved 603 Form Required

OFM Review / Approval Process

Reference Item (A}