TECHNICAL CAPACITY AND CAPABILITY PLAN

Updated Draft Report

September 2011





Title VI

The Columbia River Crossing project team ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally assisted programs and activities. For questions regarding WSDOT's Title VI Program, you may contact the Department's Title VI Coordinator at (360) 705-7098. For questions regarding ODOT's Title VI Program, you may contact the Department's Civil Rights Office at (503) 986-4350.

Americans with Disabilities Act (ADA) Information

If you would like copies of this document in an alternative format, please call the Columbia River Crossing (CRC) project office at (360) 737-2726 or (503) 256-2726. Persons who are deaf or hard of hearing may contact the CRC project through the Telecommunications Relay Service by dialing 7-1-1.

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Appendices

Appendix A Detailed CRC Organizational Charts

Appendix B Resumes of Key Personnel

ACRONYMS

AA/EEO	Affirmative Action/ Equal Opportunity Employment
AGO	Washington State Office of the Attorney General
BIA	Bridge Influence Area
BNSF	Burlington Northern Santa Fe
CADD	Computer Aided Design and Drafting
CAE	Computer Aided Engineering
CD	Collector/Distributor
CEVP	Cost Estimate Validation Process
СРМ	Critical Path Method
CRC	Columbia River Crossing
C-TRAN	Clark County Public Transportation Benefit Area
DBE	Disadvantaged Business Enterprise
DMV	Department of Motor Vehicles
FAA	Federal Aviation Administration
FEIS	Final Environmental Impact Statement
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
IPS	Integrated Project Sponsors
IT	Information Technology
LPA	Locally Preferred Alternative
LRT	Light Rail Transit
MAX	Metropolitan Area Express
NEPA	National Environmental Policy Act
NPH	North Portland Harbor

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ODOT	Oregon Department of Transportation
OEO	Equal Opportunity Office
PE	Preliminary Engineering
PIP	Project Implementation Plan
PMP	Project Management Plan
PSC	Project Sponsors Council
QA/AC	Quality Assurance/ Quality Control
ROD	Record of Decision
ROW	Right of Way
RTC	Regional Transportation Council
SAFETEA-LU	Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users
SAPD	Systems Analysis and Program Development
SPUI	Single-Point Urban Interchange
TCC	Technical Capacity and Capability Plan
TDD	Transportation Development Division
TEA-21	The Transportation Equity Act for the 21st Century
TriMet	Tri-County Metropolitan Transportation District of Oregon
USC	United States Code
VE	Value Engineering
WES	Westside Express Service
WSDOT	Washington Department of Transportation

1. Approach to the Program

1.1 Key Management Principles for the Columbia River Crossing ("CRC") Program

- All material decisions regarding the funding, design, construction, and operation of the CRC Program require mutual agreement of the DOTs.
- Overall policy direction is provided by an Executive Management Team comprised of Senior/executive level principals from Washington State Department of Transportation (WSDOT) and Oregon Department of Transportation (ODOT).
- Overall management of the CRC Program is provided by one Director from WSDOT and a Deputy Director from ODOT who will be jointly responsible for developing and implementing a multimodal program that achieves the CRC's goals and objectives.
- WSDOT and ODOT staff supported by TriMet and C-TRAN staff have total management involvement and retain control over all aspects and phases of the work. This includes self-performing the management functions of the Program, including, but not limited to, project controls, safety and security, procurement, financial management, real property acquisition management, design management, construction management, and operations of the light rail transit (LRT) system.
- Day-to-day management responsibilities of program management and administration, design oversight, preparation of procurement documents, administration of procurement contracts for equipment and materials, and construction administration including mitigation monitoring reside with functional managers from WSDOT, ODOT, TriMet, and C-TRAN under the direction of the CRC Director and Deputy Director.
- Consultants will act as an extension of WSDOT, ODOT, TriMet, and C-TRAN staff. They will jointly locate with agency staff in the CRC Project office in downtown Vancouver.
- WSDOT and ODOT staff will manage the design and construction of the highway improvements. TriMet and C-TRAN will manage the design of the transit component under the directions of the CRC Director and Deputy Director. The responsibilities for contract bid letting will be carried by WSDOT and ODOT, and possibly TriMet under the oversight of the CRC Director and Deputy Director. The construction administration of all executed contracts will be carried under the oversight of the CRC Program.
- CRC's Project Controls is responsible for developing and maintaining all scheduling, budgeting, cost estimating reviews, cost tracking, and reporting. CRC's Business Services is responsible for document control management, change management,

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> overall quality management, policy, procedures and project management plan management, office information technology management, public disclosure management, and office administrative support management.

• Document controls procedures have been established and strictly observed by all WSDOT, ODOT, TriMet, and C-TRAN and consultant staff working on the project.

1.2 Management Approach

The following describes the compositions and interrelationship of the several high management and advisory groups that the CRC Team relies upon for approval, support, and input:

- **Executive Management Team:** The Executive Management Team is an internal group composed of WSDOT and ODOT top management, including the ODOT Director and the WSDOT Secretary of Transportation. Its focus is providing overall policy and management guidance to the CRC Team on policy and strategy to accomplish the Program's goals and objectives. The Executive Management Team defines the Program position on matters of importance that are destined for other groups such as the Project Sponsors Council. The Technical Capacity and Capability Plan describe the composition and responsibilities of the Executive Management Team.
- **Integrated Project Sponsors Staff**: Stakeholder agencies each appointed a staff delegate to meet on a regular basis as the Integrated Project Sponsors Staff (IPS) to discuss and resolve outstanding Program issues timely in a collaborative manner.
- Advisory Groups: They are external advisory groups established to provide input on corridor and local improvements as the project advances from preliminary planning to refining designs for the corridor, bridge, and local elements and pre-construction planning. The groups are facilitated by consultant staff with ODOT, WSDOT, TriMet, and C-TRAN staff providing oversight and communication. Section 7.2.4 of the Project Management Plan (PMP) discusses the anticipated work plan for advisory groups starting in late 2011.

1.3 **Project Implementation**

The CRC Team will implement an efficient framework for project execution that advances the project post-NEPA – into final design and construction. This will be accomplished through the execution of strategies that address the following four critical needs:

- **Project Sequencing Strategy** that recognizes the changing economic realities and fits the anticipated cash flow.
- **Project Packaging Strategy** that would optimally divide the Program into separate and distinct functional construction packages that meet broad technical, political, and financial needs;

- **Delivery Method Strategy** that would optimally assign roles and responsibilities for the performance of each project package activity design and construction and facilitate the optimal performance of these activities, with respect to the owner's project objectives;
- **Procurement Strategy** that is most suitable in combination with the delivery methods where evaluation and selection of contractors would optimally deliver each project package and would be based on price, technical qualifications, or on a combination of price, technical qualifications, time, and other factors.

Project sequencing, packaging, and delivery method strategies that the CRC Team will implement are discussed in the PMP and in the Project Implementation Plan (PIP).

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2. Program Overview

2.1 Overview

This Technical Capacity and Capability Plan ("TCC") describes the WSDOT and ODOT organizations, co-lead agencies on the CRC Program, in Section 3.0 (Agency Organization) with a description of the interaction between the CRC Program and these divisions for resource and/or approval needs for the highway component of the Program. The TCC also provides a description of the TriMet and C-TRAN organizations, the two transit agencies in the Portland and Clark County metropolitan areas that are partner agencies on the CRC Program and will assume operations and maintenance responsibilities of the CRC's transit facilities and new line.

The CRC Program organization details, including structure and reporting, key personnel, general functions and responsibilities, as well as the Project organization chart are described in Section 4.0 (Project Organization – Roles and Responsibilities).

Project staffing as the Program prepares to enter into Final Design through Full Funding Grant Agreement (FFGA) is discussed in Section 5.0 (Staffing Levels) and will be updated when the Program finalizes the project sequencing, project packaging, and delivery method strategy that form the framework of the Program's delivery. The next update to this plan would reflect the staffing needs for the project packaging and delivery models approved by the Executive Management Team in addition to the Design-Build delivery model selected for the Columbia River Bridge and its touchdowns.

Resumes of key personnel describing their qualifications and relevant experience in highway (roadway and bridge) and light rail planning, project development and implementation are included in Appendix B, Resumes of Key Personnel.

Over the life of the Program, organization lines will be adjusted to meet the needs of each stage of the Program, as will roles and responsibilities. The two DOT's and partner transit agencies will, at some stages, act as partners, and still at other times act as "owner" to procure (bid, advertise, and execute a contract) individual project packages. Appreciating this perspective will be helpful in understanding the dynamic structure of the CRC Team, as described in this TCC.

2.2 Document Purpose

The TCC describes the array of roles and responsibilities of key personnel developing this multibillion dollar, multimodal, bi-state transportation project. This TCC:

- Addresses the requirements of the Federal Transit Administration (FTA) 5309 New Starts Program.
- Establishes the framework for administering this complex project in accordance with the requirements of Title 49 United States Code (USC) §5309(e)(1)(A), FTA's Final

Rule on Major Capital Investment Projects of September 2001 and FTA Circular 5200.1A, "Full Funding Grant Agreements Guidance."

- Follows reporting instructions for the Section 5309 New Starts Criteria, prepared by the FTA pursuant to the Transportation Equity Act for the 21st Century (Public Law 105-178as amended by Title IX of Public Law 105-206).
- Addresses Federal Highway Administration (FHWA) requirements for a PMP contained in section 1904(a) of Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which amends 23 USC 106(h).

2.3 Maintenance and Updating of the TCC

The TCC will be reviewed and revised, as necessary, in application for Final Design, application for FFGA, in Bid/Award and/or Construction by Program Management who will also maintain the TCC and work closely with the functional managers to update it, as necessary, during the life of the Program. Individual functional managers will be responsible for disseminating this TCC to their staff.

2.4 Summary Project Description

As the only continuous north-south Interstate on the West Coast connecting the Canadian and Mexican borders, Interstate 5 (I-5) is vital to the local, regional, and national economies. At the Columbia River, I-5 provides a critical economic connection to two major ports, deep-water shipping, up-river barging, two transcontinental rail lines, and much of the region's industrial land. Truck-hauled freight movement onto, off of, and over the I-5 Columbia River crossing is critical for these industrial centers, for regional employment and to the regional and national economies. The I-5 Crossing provides the primary transportation link between Vancouver and Portland, and the only direct connection between the downtown areas of these cities.

The purpose of the CRC Program is to improve I-5 corridor mobility by addressing present and future travel demand needs in the CRC Bridge Influence Area (BIA). The BIA extends from approximately Columbia Boulevard in the south to SR 500 in the north. The CRC Program is intended to achieve the following objectives:

- Improve travel safety and traffic operations on the I-5 crossing's bridges and associated interchanges;
- Improve connectivity, reliability, travel times, and operations of public transportation modal alternatives in the BIA;
- Improve highway freight mobility and address interstate travel and commerce needs in the BIA; and
- Improve the I-5 river crossing's structural integrity (seismic stability).

The CRC Program is a multimodal project on and near a five-mile segment of I-5 (see Figure 2-1 – Project Area Map) from State Route (SR) 500 in Vancouver, Washington, to approximately

Columbia Boulevard in Portland, Oregon, including the Interstate Bridge across the Columbia River. CRC extends LRT from its current terminus at the Expo Center, Portland, Oregon, to Clark College in Vancouver, Washington. Detailed descriptions of highway, bridge, and transit components are found in the subsections below. 2-4 Technical Capacity and Capability Plan Updated Draft Report

Figure 2-1. Project Area Map



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2.4.1 LRT Improvements Description

The transit element of the Locally Preferred Alternative (LPA) is primarily a 2.9-mile extension of light rail to Clark College in Vancouver from the Expo Center in North Portland, where the MAX Yellow Line currently terminates.

Oregon Light Rail Alignment and Station

A double-track guideway would be constructed from the existing Expo Center station, curve east toward I-5 as it passes beneath a newly reconstructed Marine Drive and rise as the guideway transitions onto a bridge structure to cross North Portland Harbor. The two-way guideway over Hayden Island would be elevated at approximately the height of rebuilt I-5 mainline. A station would be constructed on Hayden Island. The LRT would transition into the new western bridge over the Columbia River, which would service southbound highway traffic on the top deck.

Downtown Vancouver Light Rail Alignment and Stations

After crossing the Columbia River, the LRT curves west, off of the highway bridge and onto its own structure over the Burlington Northern Santa Fe (BNSF), touching down on Washington Street south of 5th Street, and continuing north on Washington Street to 7th Street. Between 5th and 7th Streets, the two-way guideway runs down the center of the street. At 7th Street, the alignment divides into a couplet. The single-track northbound guideway turns east for two blocks, then turns north onto Broadway Street, while the single-track southbound guideway continues on Washington Street. Seventh Street would be converted to one-way traffic eastbound between Washington and Broadway, with LRT operating on the north side of 7th Street. This couplet extends to 17th Street, where the two guideways would join and turn east. There would be two stations on the Washington-Broadway couplet, one pair of platforms near Evergreen Boulevard, and one pair near 15th Street.

East-West Light Rail Alignment and Terminus Station

LRT becomes a two-way guideway traveling east-west in the center of 17th Street until G Street, curves north to McLoughlin Blvd. and continues east beneath I-5. The underpass would be widened and the road lowered to accommodate the LRT overhead catenary system. The LRT would end on the western boundary of Clark College.

Park-and-Rides

Three park-and-ride facilities would be built in Vancouver along the light rail transit alignment.

- *Columbia Park-and-Ride* 570 parking spaces located within the block bounded by Washington and Columbia Streets and 4th and 5th Streets.
- *Mill Park-and-Ride* 420 parking spaces located in the block surrounded by Washington and Main Streets and 15th and 16th Streets.
- *Central Park-and-Ride* 910 parking spaces located at the Clark College terminus.

2.4.2 Highway Improvements Description

The LPA for the highway portion of the CRC Program includes a replacement river crossing and improvements to five miles of I-5, including seven interchanges.

Columbia River Bridges – The new eastern structure would accommodate northbound highway traffic on the bridge deck, with a bicycle and pedestrian path underneath; the western structure would carry southbound traffic on the bridge deck, with a two-way light rail guideway below. The assumed bridge type is a composite deck truss design.

North Portland Harbor Bridges – Four new structures would be built across the waterway, three on the west side and one on the east side of the existing I-5 bridge. Three of the new structures would carry on- and off-ramps to and from I-5. The east side ramp structure would also provide for a bicycle and pedestrian path underneath. The fourth would include a two-lane bridge for local traffic to and from Hayden Island with bike lanes, sidewalk, and light rail transit.

Victory Boulevard Interchange – Improvements would be limited to two of the ramps. The Marine Drive to I-5 southbound on-ramp would be braided over the I-5 southbound to Victory Boulevard/Denver Avenue off-ramp.

Marine Drive Interchange – All movements within this interchange would be reconfigured to a single-point urban interchange (SPUI) with a flyover ramp serving the eastbound to northbound movement.

Hayden Island Interchange – The Hayden Island interchange would be reconfigured to a split tight diamond interchange and several local streets are (Hayden Island Drive, Jantzen Drive, and Tomahawk Island Drive) improved.

SR 14 *Interchange* – Direct connections between I-5 and SR 14 would be rebuilt, access to and from downtown relocated. Both north and southbound movements between the Mill Plain interchange and the SR 14 interchange are separated from I-5 on collector/distributor (CD) roads.

Mill Plain Boulevard Interchange – This interchange would be reconfigured into a Tight Diamond Interchange. Northbound I-5 traffic exiting at Mill Plain would travel on a CD ramp to Mill Plain. Mill Plain traffic would enter southbound I-5 from a CD ramp.

Fourth Plain Boulevard Interchange – The southbound I-5 exit to Fourth Plain would be braided under the 39th Street connection to I-5. A southbound road would be added to provide access to the Clark Park-and-Ride from Fourth Plain.

SR 500 Interchange – Improvements would add direct connections to and from I-5. On- and offramps would be built to directly connect SR 500 and I-5 for both of these connections. I-5 southbound traffic is proposed to connect to SR 500 via a new structure underneath I-5. SR 500 westbound traffic would connect to I-5 northbound on a new ramp.

3. Agency Organization

The CRC Program is a bi-state project with joint WSDOT and ODOT ownership. The Program is under the direction of an Executive Management Team comprised of Senior/executive level principals from WSDOT and ODOT. The Executive Management Team includes the WSDOT State Secretary of Transportation and the ODOT Director of Transportation who have ultimate responsibility for design and construction of the highway components of the Project. Since WSDOT is the FTA Grantee for transit grants, WSDOT State Secretary of Transportation has ultimate responsibility for design and construction of the transit component of the Program. Below are detailed descriptions of the two organizations and their divisions with a description of the interaction between the Program and these divisions, as necessary, for resource and/or approval needs.

TriMet and C-TRAN, the two transit agencies in the Portland and Clark County metropolitan areas, are partner agencies. TriMet and C-TRAN will operate and maintain the new extension between the Expo Center in Portland and Clark College in Vancouver. The CRC Program recognizes the size, importance, and multi-jurisdictional nature of the project. Assisting with the LRT planning and design, under the direction of the CRC Director and Deputy Director, will be professionals from TriMet and C-TRAN with expertise in financial planning, bond issuance, revenue management, and risk services. This close coordination between the CRC Program, TriMet and C-TRAN operations staff will ensure compatibility and integration with the existing light rail system. Detailed descriptions of the two transit organizations are included below.

3.1 WSDOT Organization

WSDOT is composed of 14 operating divisions to cover an array of the state's transportation needs. The following is a list of the WSDOT divisions, and a brief description of the responsibilities of those divisions with a potential role on the Project.

Strategic Planning & Finance

- Works with the legislature on planning and development of overall programs and projects. Focus on building and managing the WSDOT program for future biennia, as well as establishing program and subprogram funding levels.
- Will assist CRC in financial planning needs.

Administration

- Responsible for agency administrative needs including accounting, human resources, information technology (IT), and enterprise risk management.
- Will produce payment on CRC's contract invoices. Aid employment, training, and disputes. Maintain CRC's IT needs. The Enterprise Risk Management office will aid

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in Risk Management and Insurance needs as detailed in Chapter 5 - Risk Management and Insurance of the PMP.

Audit Office

- Performs internal audits, ethics investigations, monitors employee use of state resources, and advises management staff.
- Will perform periodic audits on services related to consultant contracts and interagency agreements at pre-award, 14 months into contract, and after final contract completion.

Engineering and Regional Operations

- Responsible for the WSDOT Highway Capital Improvements and Preservation Program including project development and maintenance of the Washington State's highway system. Additionally, responsible for maintaining the biennial program budget and reporting on program development and operations.
- Will review, advise, and approve designs for the highway and bridge components of the CRC project for adherence to standards and quality.

Public Transportation

- Creates an integrated multimodal transportation system to maximize the efficiency and effectiveness of individual, community, and system-wide mobility.
- Will support CRC as grantee for FTA funds and coordination. Assists CRC with implementation of the transit components of the project. Complete the annual self-certification that WSDOT's procurement system complies with FTA requirements.

Aviation

- Manages Washington State's 139 public use general aviation airports.
- Will support CRC in discussions with Pierson Airfield and Federal Aviation Administration (FAA) permitting needs.

Freight Systems

- Provides strategic planning for state freight investments. Manages the state's rail program.
- Will aid CRC in coordination with freight-related issues, communications, agreements, and other needs associated with trucking, rail, and marine systems.

Governmental Relations

• Assists tribes and the department with implementing effective government-to-government relations.

• Will support CRC primarily with tribal-related communications and issues.

Communications

- Keeps the public informed about the activities of the agency.
- Will provide advice and assistance to the CRC Communications Team, as necessary.

Toll Division

- Responsible for the advancement of tolling and innovative funding that improves the transportation system. Develops and operates an integrated network of toll roadways and bridges across the state.
- Will contract the planning, design development, and procurement of the necessary tolling facilities.

Ombudsman

- Responsible for investigating whether decision-making may have been unreasonable, unfair, arbitrary, or improper, and if it has, helping to set matters right.
- Should a dispute arise related to the decision making process at CRC, the Ombudsman will investigate and act on any findings that may occur. May work with or independently of the Washington State Office of the Attorney General (AGO).

Equal Opportunity Office

- Manages and monitors the department's Equal Opportunity, Affirmative Action, Contract Compliance, and Non-Discrimination programs.
- Will advise and aid in the settlement of compliance issues that may arise during the life of the project.

Washington State Office of the Attorney General (AGO)

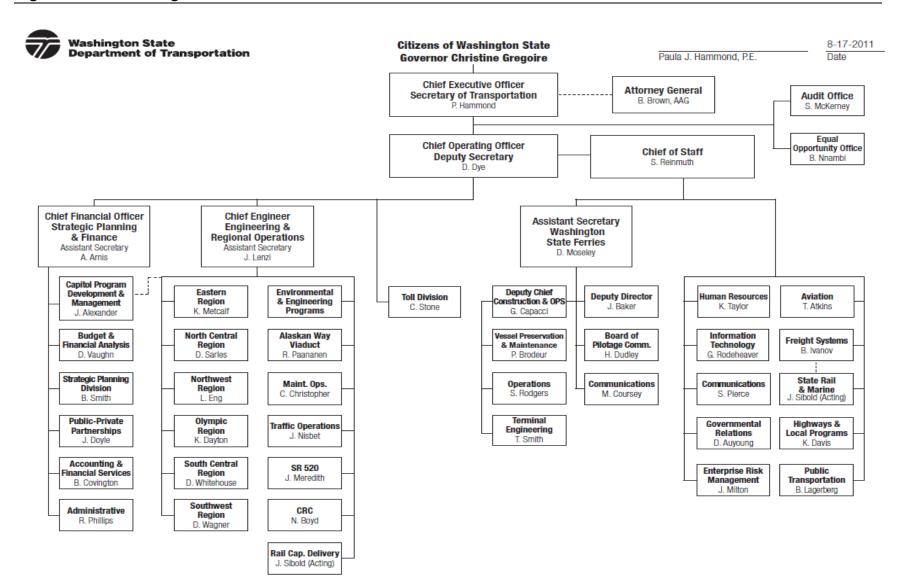
- While not a division of WSDOT, the AGO aids WSDOT in providing legal advice on a variety of issues, including regulatory compliance, tort claims, labor contracts, agreements, and many others.
- Will support CRC in reviewing agreements and disputes. Ensures compliance with state and federal laws.

Highways and Local Programs

Washington State Ferries

Figure 3-1 below provides a high-level overview of the WSDOT Organization in relationship to the CRC Program.

Figure 3-1. WSDOT Organizational Chart



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3.2 ODOT Organization

ODOT is composed of nine operating divisions to cover an array of the state's transportation needs. The following is a list of the ODOT divisions, and a brief description of the responsibilities of those divisions with a potential role on the Project.

Central Services

- Provides Financial Services (including Budget), Human Resources, Information Systems, and Audit Services (including Ethics/Safe Haven).
- Will track and monitor funding and expenses from ODOT. Human Resources will aid in CRC employment, training, and disputes, among other employee-related needs.

Communications

- Responsible for ODOT's internal and external media, and to educate and provide information about ODOT programs and activities.
- Will provide advice and assistance to the CRC Communications Team, as necessary.

Highway

- Responsible for Highway Capital Improvements and Preservation Program including the biennial program budget and program development and operations.
- Will review, advise, and approve designs for the highway and bridge components of the CRC project for adherence to standards and quality.

Motor Carrier

- Responsible for safe, efficient, and responsible commercial transportation industry.
- Will assist CRC in coordination with freight-related issues.

Transportation Development

- Responsible for producing statewide long-range planning.
- Will assist CRC in transportation planning.

Transportation Safety

- Provides information, direct services, grants, and contracts to the public and to partner agencies and organizations.
- Assist in development of CRC's Safety and Security Management Plan.

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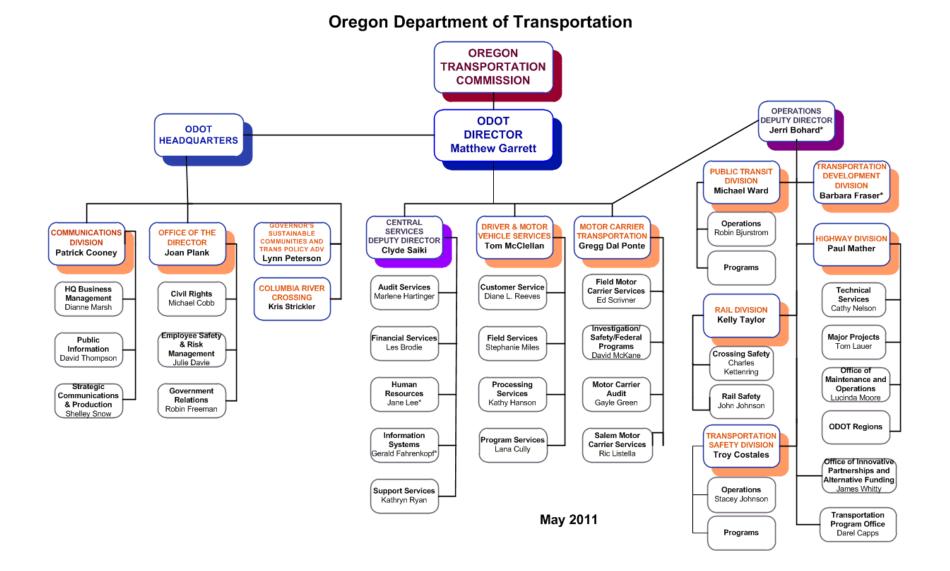
Public Transit

Rail

Department of Motor Vehicle (DMV) Services

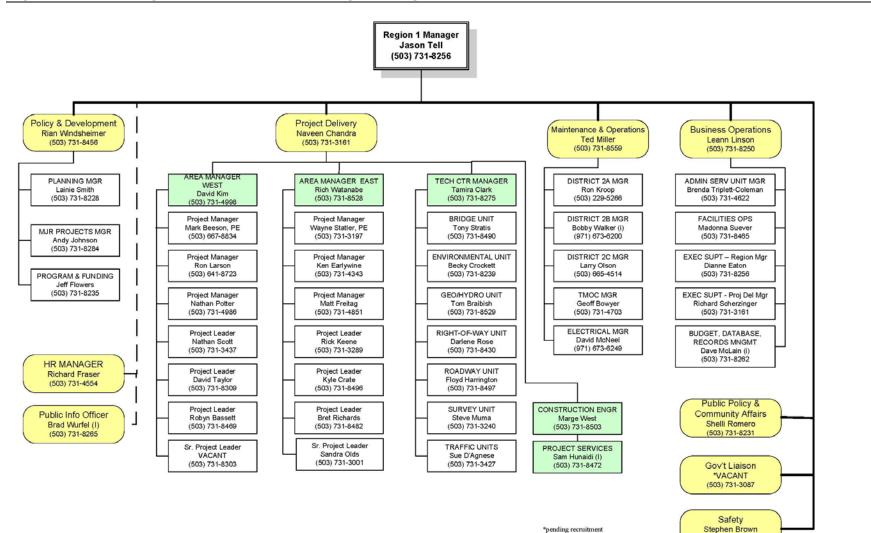
Figure 3-2 below provides a high-level overview of the ODOT Organization in relationship to the CRC Project. Figure 3-3 provides a high-level overview of the ODOT Region 1 Organizational Chart.

Figure 3-2. ODOT Organizational Chart



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*pending recruitment

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3.3 TriMet Organization

TriMet is organized into six divisions, as shown below. An executive director manages each division and reports to the General Manager.

- Office of the General Manager
- Communications and Technology
- Finance and Administration

- Operations
- Capital Projects and Facilities
- General Counsel/Human Resources

The Executive Director of Capital Projects and Facilities Division is responsible for the planning, design, and construction of LRT projects. Reporting to the Executive Director of Capital Projects are:

- Capital Construction Programs Director
- Program Management Director
- Project Delivery/Engineering Support Director
- Milwaukie West Segment Project Director
- Milwaukie East Segment Project Director

- Project Planning Director
- Community Relations Director
- Facilities Maintenance Director
- Columbia River Crossing Transit Manager
- Commuter Rail Project Director
- Mall Project Director
- I-205 Project Director

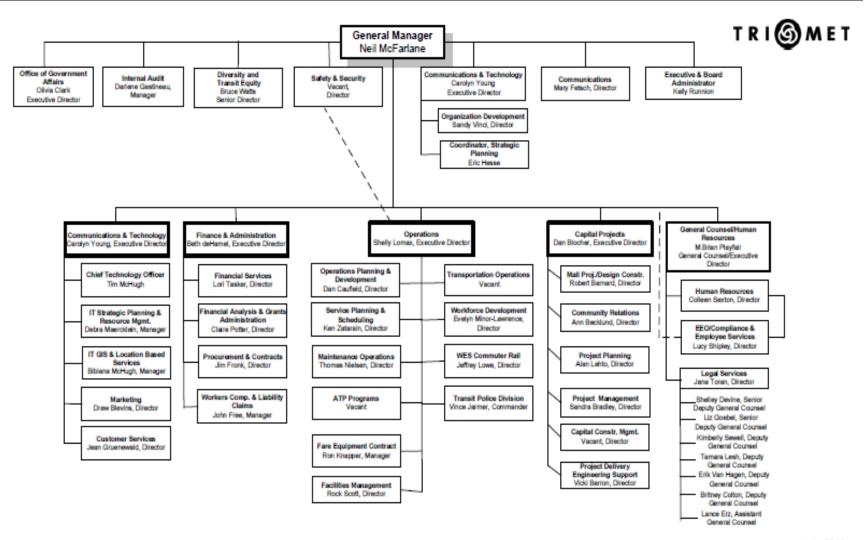
• Systems Engineering Director

In the past two years TriMet completed and put into service two new rail projects: WES Commuter Rail and the South Corridor – Green Line MAX, and completed and put into service a major expansion of LRT in Downtown Portland. Prior to that, TriMet completed and put into service several rail projects including an extension to Gresham, to Hillsboro, to Portland Airport and to Expo Center in North Portland. TriMet recently entered into Final Design on the Portland to Milwaukie LRT extension. TriMet has a matrix organization that allows sharing of resources under a consistent management philosophy. The CRC Program will leverage this experience and unique knowledge, under the direction of the CRC Director and Deputy Director, by assigning key management positions on the Transit Team to TriMet's specialists.

Figure 3-4 and Figure 3-5 are organizational charts for TriMet detailing the aforementioned divisions and personnel.

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Figure 3-4. TriMet Organization Chart

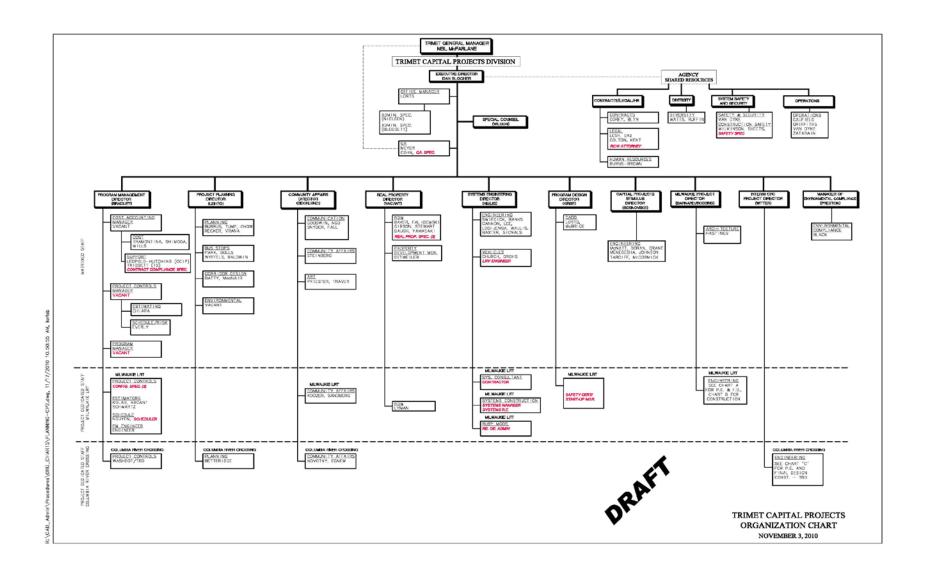


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Figure 3-5. TriMet Capital Projects Organization Chart



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3.4 C-TRAN Organization

C-TRAN is organized in four divisions:

- Operations
- Maintenance and Technology
- Development and Public Affairs
- Administrative Services

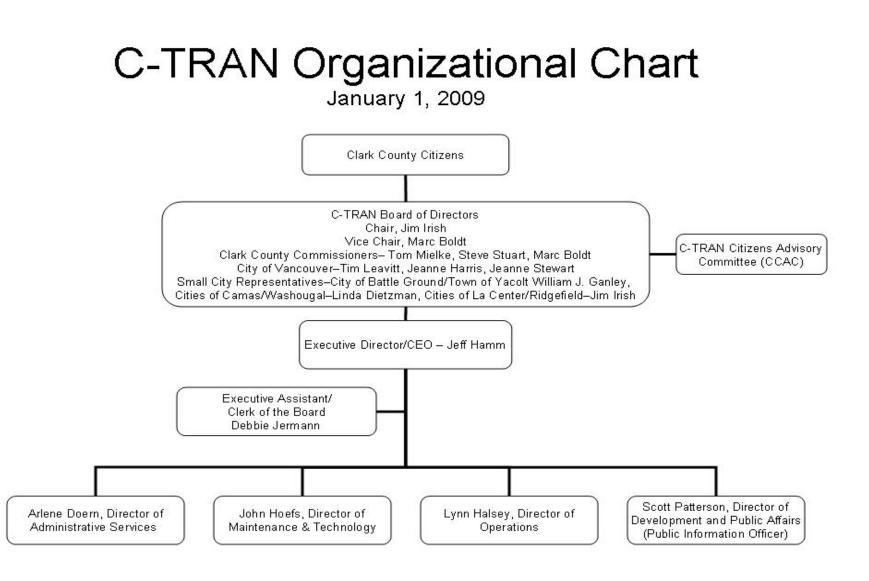
The Development and Public Affairs Division is responsible for planning, design, and construction of LRT. Reporting to the Director of Development and Public Affairs Division is:

- Development Manager
- High Capacity Transit Manager
- Community Involvement Coordinator
- Marketing/Community Outreach Administrator

Figure 3-6 and Figure 3-7 are organizational charts for C-TRAN detailing the aforementioned divisions and personnel.

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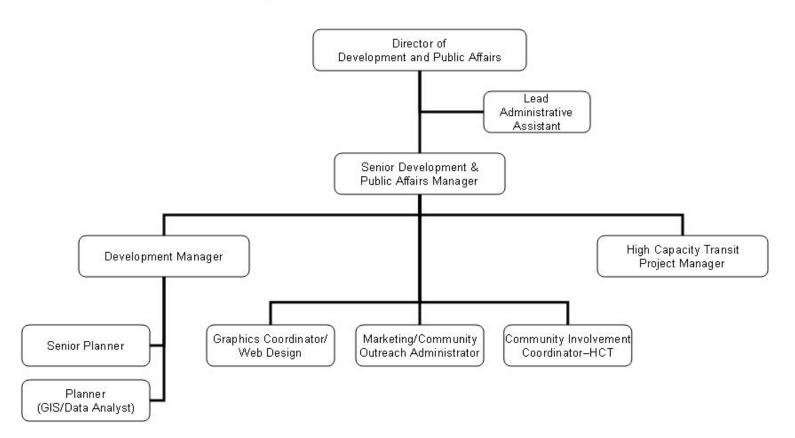
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Development and Public Affairs



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4. Project Organization – Roles / Responsibilities

The CRC Team organization described below is responsible for preparing Preliminary Engineering (PE), Final Design, obtaining environmental permits and performing construction administration. This structure recognizes the following:

- WSDOT and ODOT are co-lead agencies for the multimodal Program. Together they have overall management responsibility of Program design development and implementation including management of environmental compliance during construction.
- WSDOT is the FTA Grantee for transit grants.
- TriMet brings extensive FTA New Starts planning and implementation experience. TriMet will advise WSDOT on grantee requirements for FTA New Starts Application and FFGA process. The CRC Program will leverage the existing technical knowledge by key TriMet staff, under the direction of the CRC Director and Deputy Director, to assist in design development and implementation.
- TriMet and C-TRAN will operate and maintain the new LRT extension. TriMet and C-TRAN will determine the maintenance and operations requirements for transit work.
- WSDOT will execute a procurement contract for the Columbia River Bridge and associated approaches in Oregon and Washington.
- ODOT will execute procurement contracts for highway work in Oregon.
- WSDOT will execute procurement contracts for highway and transit work in Washington.
- TriMet will execute procurement contracts for the transit work in Oregon. WSDOT, as Grantee, will provide oversight on all executed contracts.
- WSDOT's Toll Division will directly contract on behalf of CRC the planning, design development and procurement documents for tolling facilities.
- The CRC Team will perform all the necessary construction contract administration on all contract packages using WSDOT, ODOT, TriMet, and C-TRAN staff assisted by consultant staff.

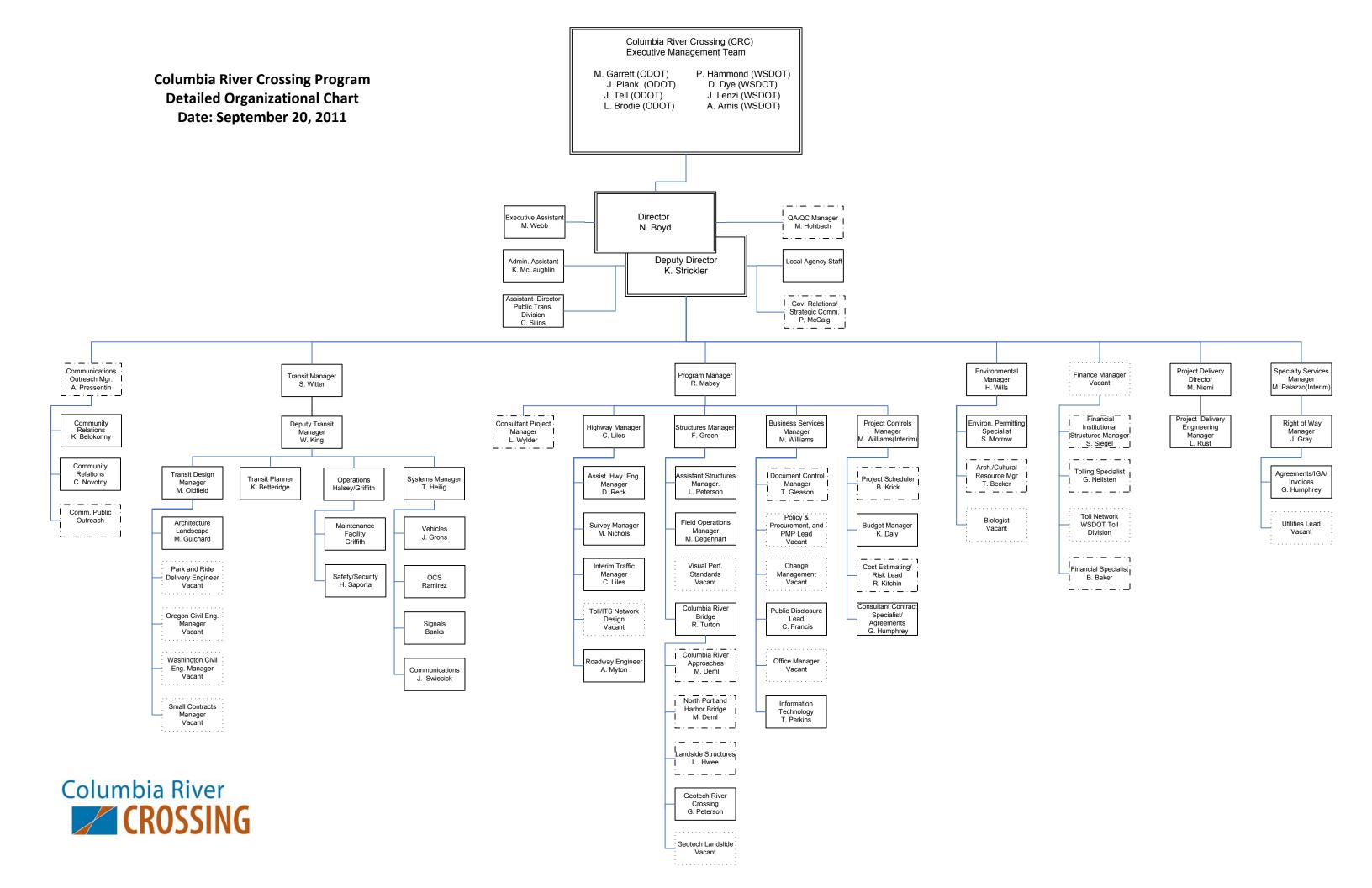
The Program structure includes: Executive Management Team (from WSDOT and ODOT), CRC Director (from WSDOT) and Deputy Director (from ODOT). Management Team that consists of the CRC Director and Deputy Director supported by: Program Manager, Transit Manager,

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Communications Outreach Manager, Environmental Manager, Finance Manager, Project Delivery Director, and Specialty Services Manager from WSDOT, ODOT, and TriMet assisted by agency and consultant staff with expertise in developing and executing large, complex multimodal public projects. The Program, Transit, Communications Outreach, Environmental, Finance, Project Delivery, and Specialty Services managers and their direct reports (functional managers) provide day-to-day project management and leadership to the CRC Team including consultant staff and are responsible for project development and delivery.

The main responsibilities of Key personnel (from WSDOT, ODOT, TriMet, C-TRAN, and consultant staff) during Final Design are described on the following pages. Further definition of each agency's role and responsibilities for procuring materials, procuring construction services and administration of construction contracts will be developed during Final Design.

A detailed organizational chart describing the role of key team members is shown Figure 4-1. Detailed organizational charts for key functional Teams (e.g., Program Management, Transit, Environmental, Finance, Delivery, Specialty Services, and Communications Outreach) are shown on Figures A-1 thru A-15 in Appendix A.



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Executive Management Team

The CRC Executive Management Team is the internal agency leadership group composed of WSDOT and ODOT top management. It is composed of the following WSDOT and ODOT managers:

- Matt Garrett, ODOT Director
- Joan Plank, ODOT Chief of Staff
- Jason Tell, ODOT Region 1 Manager
- Les Brodie, ODOT (Chief Financial Officer)
- Paula Hammond, WSDOT Chief Executive Officer / Secretary of Transportation
- Dave Dye, WSDOT Chief Operating Officer / Deputy Secretary
- Jerry Lenzi, WSDOT Chief Engineer / Engineering & Regional Operations
- Amy Arnis, WSDOT Chief Financial Officer / Strategic Planning & Finance
- Craig Stone, WSDOT Director Toll Division

The CRC Executive Management Team is responsible for:

- Providing oversight and guidance to the CRC Director, Deputy Director, and Project Management Team on policy and strategy to accomplish Program's goals and objectives.
- Defining the project position and recommendations on matters of importance which are destined for external advisory groups such as the Project Sponsors Council.

Project Management Team

• CRC Director – Nancy Boyd (WSDOT)

The CRC Director participates in the CRC Executive Management Team meetings to establish management policy and strategy on major Program issues. The CRC Director is responsible for:

- Developing a program which attains the design and construction objectives of the DOTs.
- Keeping each DOT fully informed of all material design issues, and all material decisions are properly approved by both DOTs. Obligate WSDOT and ODOT resources.
- Ensuring the transit-related design and construction objectives are achieved, and C-TRAN and TriMet are kept fully informed of all material transit design

and construction issues, and all material transit decisions are approved by both transit agencies.

- o Achieving the CRC Program goals, objectives, and schedule milestones.
- Coordinating and communicated policy and technical issues to partnering local jurisdictions, and obtaining approvals where required.
- Providing effective communication to the Executive Management Team.
- Representing WSDOT and ODOT, respectively, to outside agencies and interests including federal, state, and local governments. Serve as agency representative on the Project Sponsors Council.
- Developing the team organization presented on Figure 4-1; Project staffing; definition of project scopes; consultant selection; and contractor procurement.
- Making all approvals required of WSDOT throughout Final Design and Construction phases per the limits of execution authority.
- o Reports to the CRC Executive Management Team.

• Deputy Director – Kris Strickler (ODOT)

The CRC Deputy Director participates in the CRC Executive Management Team meetings to establish management policy and strategy on major Program issues. The CRC Deputy Director is responsible for:

- In collaboration with the CRC Director developing a program which attains the design and construction objectives of the DOTs.
- Keeping each DOT informed of all material design issues, and all material decisions are properly approved by both DOTs.
- Responsible for developing and implementing a government relations and strategic communications strategy to support achieving the Program goals, objectives, and schedule milestones.
- In collaboration with the CRC Director developing the team organization presented on Figure 4-1; project staffing; definition of project scopes; consultant selection; and contractor procurement.
- Making all approvals required of ODOT throughout Final Design and Construction phases.
- Providing effective communication to the Executive Management Team.
- Ensuring applicable ODOT procedures and protocols, by reference in this PMP, are followed.
- Reports to the CRC Director.

• QA/QC Manager – Mike Hohbach

The QA/QC Manager oversees the development and implementation of the QA/QC Plan including conducting quality assurance audits and preparing audit reports and recommendations to the CRC Director. The QA/QC Manager is responsible for:

- Developing, implementing, and maintaining the CRC's QA/QC program during design and construction including conformance to FTA quality requirements.
- Regular team audits to assure general adherence to the defined QA/QC program.
- Regular reporting of status of the quality program to the CRC Director.
- Reports to the CRC Director.

• Program Manager – Raymond Mabey

The Program Manager, supported by functional managers from WSDOT and ODOT, oversees Highway and Structures design in support of preparing project configurations and design oversight reviews for Design-Build delivery; preparing preliminary and final design, and construction documents for Design-Bid-Build delivery; Project Controls; and Business Services. The Program Manager will direct all day-to-day activities needed for successful execution of these functions to Program budget and schedule. The Program Manager is responsible for:

- Providing leadership to the Structures and Highway Design teams, Project Controls, and Business Services including consultant staff.
- Monitoring work progress; ensuring change management procedures are implemented; directing financial accounting and reporting, and ensuring open communications among the team's functional managers. Prioritize agency resources.
- Assisting the CRC Director in: developing the team organization presented on Figure 4-1; project staffing; definition of project scopes; consultant selection; and contractor procurement.
- Achieving the CRC's goals, objectives, and schedule milestones.
- Overseeing the preparation and implementation to Risk and Contingency Management Plan, preparation and updates to Technical Capacity and Capability Plan, and reviews/updates to PMP and Procedures Manual.
- Reports to the CRC Director.

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• Safety Manager – Scott Ouchi

The Safety Manager provides reviews of contractors' safety plans including implementation and formulates safety plans and training for CRC's health and safety program. The Safety Manager is responsible for:

- Reviewing contractor's safety program for all activities pertaining to the CRC Program and ensuring compliance.
- Developing and implementing appropriate project team safety program and training. Review and revise as necessary.
- Coordinating with TriMet's Director of Safety and Security managing the day-to-day implementation of all safety activities identified in the CRC's Safety and Security Management Plan.
- Reports to the CRC Director.

• Transit Manager – Steve Witter

The Transit Manager oversees all activities of the Transit Team including track and systems engineering, parking garages and station design, LRT vehicles procurement, signals and communications, and equipment installation and testing. The Transit Manager is responsible for:

- Providing leadership and day-to-day coordination and management of the Transit Team completing the FEIS, the FTA New Starts/PE application, Final Design, and construction documents. Monitors work plans for all Transit Engineering activities to ensure performance to approved scope, schedule and budget.
- Assisting the CRC Director in: definition of transit project scopes and their implementation; project staffing; consultant selection; and contractor procurement.
- Overseeing the development and implementation of the CRC's Safety and Security Management Plan including the tracking of all hazards from identification through resolution.
- Overseeing the preparation of procurement documents for transit project packages to applicable design criteria, standards and policies for WSDOT, TriMet, C-TRAN, cities of Portland and Vancouver. Support the delivery schedule for letting construction contracts.
- Ensuring qualified LRT operations and maintenance personnel are trained and have the resources needed prior to taking maintenance and operational responsibility of the new CRC facilities and line.
- Serving as liaison with the two transit agencies.

- Coordinating and presenting transit design and cost estimates to project stakeholders, FHWA, FTA, and the public.
- Implementation of the QC Plan.
- Reports to the CRC Director.

• Specialty Services Manager – Mike Palazzo (Interim)

The Specialty Services Manager, supported by functional managers from WSDOT and ODOT, is responsible for Right-of-Way (ROW), Agreements / IGA / Invoices, Utilities, and Access Management services. Oversees the implementation of the Real Estate Acquisition Management Plan. The Specialty Services Manager is responsible for:

- Providing leadership and management to the ROW team responsible for ROW appraisals and acquisition in both states, monitors work plans to ensure performance to approved schedule.
- Providing leadership and day-to-day management of the Agreements/IGA and Utilities team activities to ensure performance to approved schedule.
- Overseeing the preparation and implementation of the Real Estate Acquisition Management Plan to Program schedule.
- Reports to the CRC Director.

• Finance Manager – (Vacant)

The Finance Manager oversees all professional staff managing CRC Finance Plan development and tolling coordination with WSDOT's Toll Division. The Finance Manager is responsible for:

- Providing leadership and guidance to the Financial and Institutional Structures Team developing the CRC Program's Finance Plan.
- Tolling coordination with WSDOT's Toll Division to integrate tolled facility cash flow forecasts including alternative toll rate structures into the Finance Plan.
- Monitoring work plans for all Finance Team activities to ensure performance to approved scope, schedule and budget.
- Reports to the CRC Director.

• Communications Outreach Manager – Anne Pressentin

The Communications Outreach Manager oversees the community outreach efforts to the diverse stakeholders in both states. The Communications Outreach Manager is responsible for:

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- Directing external outreach efforts for the Program including community relations effort focused on residents, businesses, and neighborhoods along the alignment.
- Monitoring work plans for all Communications Outreach activities to ensure performance to approved scope, schedule and budget.
- Coordinating participation by special interest groups in final design activities and staffing advisory groups.
- o Coordinating with CRC Management and WSDOT/ODOT executives.
- Reports to the CRC Director.

• Environmental Manager – Heather Wills

The Environmental Manager oversees the day-to-day preparation of the NEPA documents including FEIS and Record of Decision (ROD). The Environmental Manager is responsible for:

- Overseeing the environmental Team, including development of the FEIS, ROD, and supporting technical documents.
- Overseeing the environmental staffing, budget, and workload planning. Managing Environmental activities to approved scope, schedule and budget.
- Overseeing preparation of environmental permit applications, negotiations with regulatory agencies, and environmental mitigation monitoring.
- Maintaining the Mitigation Measures matrix and manages compliance with commitments in the NEPA documents and federal, state, and local environmental permits.
- Reports to the CRC Director.

• Project Delivery Director – Mike Niemi

The Project Delivery Director is responsible for the project construction including construction administration and materials procurement administration following the execution of construction or procurement contracts. The Project Delivery Director will participate in constructability reviews, construction schedule reviews and construction documents reviews. The Project Delivery Director is responsible for:

 Overseeing the preparation of procurement documents for Design-Build project packages in compliance with applicable state and federal (FHWA/FTA) procurement laws and policies. Ensures performance to approved bid let schedule milestones.

- Providing leadership and directing the activities of the CRC Construction Administration Team overseeing the construction of the Transit and Highway components of the CRC Program.
- Overseeing the safety, quality, cost, schedule, scope, and day-to-day administration of construction contracts.
- Providing leadership to staff preparing and implementing the Project Implementation (procurement) Plan defining project packaging, delivery methods and procurement strategy to meet the Program performance goals.
- Ensuring contractor's compliance with Affirmative Action (AA)/Equal Opportunity Employment (EEO) and DBE contract requirements, construction claim action, and contract close out.
- Facilitating field communication between the design team and construction staff to enhance the attainment of facility and environmental project commitments.
- Assisting the CRC Director in construction project staffing, consultant selection, and contractor procurement.
- During the design phase, participate in developing specifications and special provisions for project contracts; respond to questions during the bid ad period; conduct and participate in pre-bid meetings.
- Overseeing the preparation and implementation of the Project Implementation Plan and updates, as necessary.
- Reports to the CRC Director.

Transit Engineering Team

The Transit Engineering Team is under the direction of the Transit Manager – (**Vacant**). He/she reports to the CRC Director. He is supported by a Deputy Transit Manager – Wes King (C-TRAN) assisted by TriMet, C-TRAN, and consultant staff with expertise in developing and executing large, complex multimodal public projects. The responsibilities of key members of the Transit Engineering Team are described below.

- Transit Manager Vacant (Responsibilities described above)
- Deputy Transit Manager Wes King

The Deputy Transit Manager assists the Transit Manager in managing the activities of the Transit Team supporting preparation of the FEIS and preparing Preliminary and Final Design for all aspects of the transit portion of the CRC Project. Reports to the Transit Manager. The Deputy Transit Manager is responsible for:

• Preparing and implementing the Risk and Contingency Management Plan.

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- Guiding technical experts from TriMet and consultant staff supporting preparation of the FEIS and preparing preliminary and final design to ensure deliverables meet applicable design standards and policies for WSDOT, ODOT, TriMet, C-TRAN, FTA, cities of Portland and Vancouver and support the delivery schedule for letting construction contracts.
- Assisting in monitoring work plans for all Transit Engineering activities to ensure performance to approved scope, schedule and budget.
- Attending working groups and public meetings to present transit design and gather input.
- Reports to the Transit Manager.

• Transit Design Manager – Meghan Oldfield

The Transit Design Manager oversees the day-to-day management of the production of light rail preliminary engineering and final design plans including producing construction documents for urban design and civil engineering of light rail facilities. The Transit Design Manager is responsible for:

- Managing and day-to-day design direction to the Transit Team, including agency and consultant staff. Responsible for delivery of design of light rail elements including urban design and civil engineering.
- Assisting the Transit Manager and Deputy Transit Manager in overall coordination of transit team work progress, resource review and allocation, update look-ahead schedule, and issues matrices. Managing Transit Engineering activities to approved scope, schedule, and budget.
- Ensuring adherence to CRC Transit Design Criteria. Coordinate requirements with other project disciplines and agency stakeholders. Scope and cost management to meet schedule and funding goals, QA/QC compliance.
- Managing Technical Advisory Committee with project stakeholders. Participating in public meetings and presentations and providing guidance in project messaging as related to transit work. Support project communications team as needed.
- Identifying permits required for construction. Obtain, or assist others to obtain, permits required for transit work.
- Reports to the Transit Manager.

• Systems Lead – Thomas Heilig

The Systems Lead oversees all aspects of systems engineering including light rail vehicle procurement and development, traction electrification, signals, communications, and fare collection. The Systems Lead is responsible for:

- Managing the day-to-day work of agency and consultant staff performing systems engineering and communications design. Ensuring adherence to contract requirements.
- Managing vehicle, traction electrification, signals, and communications engineers preparing procurement documents.
- Reports to the Transit Manager.

• Operations Leads – John Griffiths and Lynn Halsey

The Operations Leads oversee the integration of operational requirements of TriMet and C-TRAN into final design documents. The Operations Leads are responsible for:

- Integrating operational requirements of each respective Agency into final design documents.
- o Participating in the Technical Advisory Committee meetings.
- Reports to the Transit Manager.

• Architecture Landscape Lead – Marc Guichard

The Architecture Landscape Lead oversees the day-to-day preparation of preliminary engineering and final design plans for station streetscape and shelters, park-and-ride garages, transit systems buildings, and integrating Public Art infrastructure into project design. The Architecture Landscape Lead is responsible for:

- Station Architectural design, including development of streetscape and shelter design in Vancouver and Portland. Ensuring design is compliant with applicable jurisdictional requirements. Obtaining design review approvals. Developing architectural design for park and ride garages in Vancouver. Ensuring design is compliant with applicable jurisdictional requirements. Obtaining design review approvals.
- Integrating Public Art infrastructure into project design and contract documents.
- Developing architectural design for the transit systems buildings in Vancouver and Portland. Ensuring design is compliant with applicable jurisdictional requirements. Obtaining design review approvals.
- Reports to the Transit Design Manager.

• Safety and Security – Harry Saporta

The Safety and Security Lead oversees the development and implementation of the Safety and Security Management Plan. The Safety and Security Lead is responsible for:

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- Coordinating the system safety effort with systems engineering, civil engineering, quality assurance, and integration and testing functions.
- Reviewing system safety tasks, prioritizes safety risks, and recommending engineering, procedural, or other changes necessary to reduce the safety risk to an acceptable level.
- Participating in all major activities to review and accept the delivered project, system, sub-system or component, and providing a safety assessment and a safety certification package, with any exceptions documented.

Program Management Team

The Program Management Team is under the direction of Program Manager – Ray Mabey (ODOT). He reports to the CRC Director. He is supported by Highway Engineering Manager – Casey Liles (WSDOT), Structures Engineering Manager – Frank Green, Business Services Manager – Mike Williams, Project Controls Manager - Mike Williams (Interim), and Consultant Project Manager – Lyn Wylder, assisted by ODOT, WSDOT, and consultant staff with expertise in developing and executing large, complex multimodal public projects. The responsibilities of key members of the Program Management Team are described below.

Highway Engineering Team

The Highway Engineering Team is under the direction of Highway Engineering Manager – Casey Liles (WSDOT). He reports to the Program Manager. He is supported by an Assistant Highway Manager– Devin Reck (WSDOT) assisted by ODOT, WSDOT, and consultant staff with expertise in developing and executing large, complex public projects. The responsibilities of key members of the Highway Engineering Team are described below.

• Highway Engineering Manager – Casey Liles

The Highway Engineering Manager oversees all aspects of roadway and interchange engineering including stormwater, utilities, lighting, illumination, traffic control, traffic engineering, and surveying. The Highway Engineering Manager is responsible for:

- Providing leadership and day-to-day coordination and management of the Highway Team completing the FEIS, Final Design documents for D-B-B project packages, and design oversight for D-B project packages. Monitors work plans for all Highway Engineering activities to ensure performance to approved scope, schedule and budget.
- Ensuring documents meet applicable design standards and policies for WSDOT, ODOT, FHWA, and FTA and support the delivery schedule for letting construction contracts.

- Assisting the Program Manager in: definition of highway project scopes and their implementation; project staffing; consultant selection; and contractor procurement.
- Coordinating development of Toll Network design with WSDOT's Toll Division.
- Coordinating and presenting highway design and cost estimates to project stakeholders, FHWA, FTA, and the public.
- o Implementation of the QC Plan.
- Reports to the Program Manager.

• Assistant Highway Manager – Devin Reck

The Assistant Highway Engineering Manager assists the Highway Engineering Manager in the day-to-day management of the Highway Team and manages the utilities work. The Assistant Highway Engineering Manager is responsible for:

- Providing leadership and day-to-day coordination and management of the Highway Engineering Team completing the FEIS, appraisals and acquisition, Final Design and construction documents for D-B-B project packages, and design oversight for D-B project packages.
- Ensuring documents meet applicable standards and policies for WSDOT, ODOT, FHWA, and FTA and support the delivery schedule for letting contracts.
- Assisting the Highway Engineering Manager in: definition of highway project scopes and their implementation; project staffing; consultant selection; and contractor procurement.
- Assisting in monitoring work plans for all Highway Engineering activities to ensure performance to approved scope, schedule and budget.
- Coordinating and presenting highway design and cost estimates to project stakeholders, FHWA, FTA, and the public.
- Implementation of the QC Plan.
- Reports to the Highway Engineering Manager.

• Traffic Manager – Casey Liles (Interim)

The Traffic Manager oversees the traffic engineering services. The Traffic Manager is responsible for:

 Managing the team of transportation engineers (agency and consultant staff) responsible for developing travel demand forecasts, preparing traffic operations assessments, evaluating impacts and identifying solutions for automobile, truck, bicycle, and pedestrian mobility, and Preparing Final Design and construction documents for D-B-B project packages, and design oversight for D-B project packages.

- Supporting the preparation of the FEIS document.
- Monitoring work plans and managing Traffic Engineering activities to approved scope, schedule and budget.
- Developing traffic simulation for freeway and local street operations and coordinating with engineering staff on different designs.
- Developing traffic forecasts for different alternatives and different toll rates. Supporting agency staff with presentations, reports, findings, and public outreach events.
- Reports to the Highway Engineering Manager.

• Traffic Lead – Ryan LeProwse

The Traffic Lead oversees traffic modeling and simulation. The Traffic Lead is responsible for:

- Coordinating with design engineering staff on different designs.
- o Developing traffic forecasts for different alternatives and different toll rates.
- Supporting agency staff with presentations, reports, findings, and public outreach events.
- Reports to the Traffic Manager.

Structures Team

The Structures Team is under the direction of Structures Manager – Frank Green (WSDOT). He reports to the Program Manager. He is supported by Assistant Structures Manager - Laura Peterson (WSDOT), Field Operations Manager - Mark Degenhart, River Crossing Lead – T. Moore, Hydraulics Lead – Vacant, Geotechnical lead – Vacant, and Visual Perf. Standards Lead – Vacant, and consultant staff with expertise in developing and executing large, complex multimodal public projects. The responsibilities of key members of the Structures Engineering Team are described below.

• Structures Manager – Frank Green

The Structures Manager oversees all aspects of structures engineering including the Columbia River Bridge, the Portland Harbor crossings and other structures serving both the transit and highway components of the Program. The Structures Manager is responsible for:

• Providing leadership and day-to-day coordination and management of the Structures Team completing the FEIS, Final Design documents for D-B-B

project packages, and design oversight for D-B project packages. Monitors work plans for all Structures Engineering activities to ensure performance to approved scope, schedule and budget.

- Oversight to professional staff responsible for geotechnical drilling and preparation of design recommendations for marine and land bridges.
- Ensuring construction documents meet applicable design standards and policies for WSDOT, ODOT, FHWA, and FTA and support the delivery schedule for letting construction contracts.
- Assisting the Program Manager in definition of structures project scopes and their implementation; project staffing; consultant selection; and contractor procurement.
- Coordinating and presenting structures design and cost estimates to project stakeholders, FHWA, FTA, and the public.
- Coordinating and conducting the Value Engineering (VE) and Cost Estimate Validation Process (CEVP) workshops.
- o Implementation of the QC Plan.
- Reports to the Program Manager.

• Assistant Structures Manager – Laura Peterson

The Assistant Structures Manager assists the Structures Manager in the day-to-day management of the Structures Team and design development for all bridges and structures. The Assistant Structures Manager is responsible for:

- Providing agency oversight and review of development for all bridges and structures including ensuring conformity to agency design standards and policies, uniformity and constructability of design details, cost-effectiveness of structural types, adherence to architectural and environmental goals, technical review of structural plans and specifications.
- Assisting in monitoring work plans for all Structures Engineering activities to ensure performance to approved scope, schedule and budget.
- Assisting the Structures Manager in oversight of both consultant and agency staff responsible for geotechnical recommendations, including day-to-day coordination of agency-led geotechnical work, as well as communications and permitting coordination for consultant-led geotechnical work.
- Assisting Structures Manager in coordination efforts for VE and CEVP workshops.
- Reports to the Structures Manager.

• Field Operations Manager – Mark Degenhart

The Field Operations Manager assists the Assistant Structures Manager in day-to-day activities related to coordination and inspection for all field work in support of final design. The Field Operations Manager is responsible for:

- Communication and coordination with contractors, agencies and the public related to field operations.
- Coordinates procurement of rights of entry and permits related to all field work.
- o Performs constructability reviews.
- o Coordinates and manages inspection for all field work.
- Reports to the Structures Manager.

• Principal Bridge Engineer / Columbia River Bridge Lead – Rob Turton

The Principal Bridge Engineer oversees the technical design development of all bridges and structures on the Project, including the landside structures. The Principal Bridge Engineer / Columbia River Bridge Lead is responsible for:

- Developing preliminary and final designs for D-B-B project packages to agency design standards and policies including meeting architectural and environmental goals.
- Overseeing the structural design criteria, consultant geotechnical work, and preparing recommendations for structure types throughout the project.
- Design oversight for D-B project packages, including the Columbia River Bridge, to approved scope, schedule and budget.
- Interfacing with agency management on all bridges and structures technical issues.
- Reports to the Structures Manager.

• Columbia River Bridge Approaches and North Portland Harbor Br. Lead –Matt Deml

The Columbia River Approaches and North Portland Harbor Bridge Lead oversees the day-to-day technical design development of the Columbia River Bridge Approaches and the North Portland Harbor Bridges. He is responsible for:

• Design oversight for the D-B Columbia River Bridge Approaches project package to agency design standards and policies including meeting architectural and environmental goals.

- Preparing recommendations for bridges and structures types for the North Portland Harbor Bridges project package.
- Coordinating with the Columbia River Bridge Lead and the Landside Structures Lead on interface issues.
- Overseeing the Structures team schedule for both landside and marine structures.
- o Reports to the Principal Bridge Engineer / Columbia River Bridge Lead.

• Landside Structures Lead – Lwin Hwee

The Landside Structures Lead oversees the technical design development of all landside bridges and structures. He reports to the Columbia River Bridge Lead. The Landside Structures Lead is responsible for:

- Overseeing the day-to-day development of preliminary and final designs for D-B-B landside bridge project packages, and design oversight for D-B project packages to agency design standards and policies including meeting architectural and environmental goals.
- Preparing recommendations for bridges and structures types for the landside bridges and structures.
- Coordinating with the Columbia River Approaches and North Portland Harbor Br. Lead and the Columbia River Bridge Lead on interface issues.
- Reports to the Principal Bridge Engineer / Columbia River Bridge Lead.

• Senior Bridge Design Engineer – Chester Werts

- Lead engineer responsible for design oversight on the D-B Columbia River Bridge project package.
- o Reports to the Principal Bridge Engineer / Columbia River Bridge Lead.
- Senior Bridge Design Engineer Jimin Huang
 - Design engineer responsible for design oversight on the Columbia River Bridge project package.
 - o Reports to the Principal Bridge Engineer / Columbia River Bridge Lead
- Senior Bridge Design Technical Advisor John Clark
 - o Serves as technical advisor to Columbia River Bridge Team.
 - Reports to the Principal Bridge Engineer / Columbia River Bridge Lead.

Business Services Team

The Business Services Team is under the direction of the Business Services Manager – Mike Williams. He reports to the Program Manager. The responsibilities of key members of the Business Services Team are described below.

• Business Services Manager – Michael Williams

The Business Services Manager oversees Document Control, Policy & Procurement and PMP, Information Technology, Change Management, Public Disclosure, and Administrative Support services. The Business Services Manager is responsible for:

- Monitoring work plans for Business Services activities to ensure performance to approved scope, schedule and budget.
- Providing leadership and guidance to Document Control and Public Disclosure Teams. Ensuring timely response to public disclosure requests.
- Ensuring Change Management procedures are in place and properly followed. Responsible for initiating, documenting and executing changes to the Program with input from functional managers and Task Leads. Maintains Change Management documentation throughout the Program phases.
- Overseeing regular updates to the Project Management Plan, sub-plans, and Procedures.
- Assisting the Program Manager in definition of project scopes, project staffing and consultant selection.
- Reports to the Program Manager.

• Document Control Manager – Tonja Gleason

The Document Control Manager is responsible for managing, distributing, and keeping records on all documents that are either developed internally or externally issued reference documents used in the development of the CRC Program while adhering to strict approval processes and version control. The Document Control Manager is responsible for:

- Establishing and implementing document control procedures, and coordinating the administration, distribution, and control of key Program documents and records.
- Ensuring the author of each controlled document define and update, as needed, the appropriate distribution, administration, and revision procedure for that document or record.
- Ensuring each CRC discipline and staff are developing and issuing documents in accordance with established document control procedures.

• Change Management Manager – (Vacant)

The Change Management Manager oversees the day-to-day implementation of the Change Management systems. The Change Management Manager is responsible for:

- Initiating, documenting, and securing approvals to and executing changes to the CRC Program. Some typical issues handled are changes to scope, budget, schedule, funding, and project configuration during the design and construction phases.
- Coordinating closely with the Design and Construction functions on all changes that may impact Program scope, budget and schedule. Ensuring documentation is prepared for effect of changes on scope, budget and schedule.
- Maintaining Change Management documentation throughout design and construction phases.
- Preparing monthly progress reports to present all current Change Management information to CRC Management and stakeholders.

• Policy & Procurement and PMP Lead – (Vacant)

The Policy & Procurement and PMP Lead is responsible for responsible for:

• Annual review and update, if needed, of the Project Management Plan, and Procedures Manual.

Project Controls Team

The Project Controls Team is under the direction of the Project Controls Manager – Mike Williams (Interim). He reports to the Program Manager. He is supported by Budget Manager – Keith Daly, Project Scheduler Lead – Bill Krick, Consultant Contract/Agreements Lead, and agency and consultant staff with expertise in developing and executing large, complex multimodal public projects. The responsibilities of key members of the Project Controls Team are described below.

• Project Controls Manager – Michael Williams (Interim)

The Project Controls Manager oversees all professional staff managing cost control, estimating, risk management, scheduling, and documentation for New Starts submittals for PE and Final Design. Key responsibilities:

- Providing leadership and guidance to Schedule, Cost Estimating, Risk Management, and Budget Teams. Monitors work plans for all Project Controls activities to ensure performance to approved scope, schedule and budget.
- Assisting the Program Manager in: definition of project scopes, agreements and permits and their implementation; project staffing; consultant selection; and contractor procurement.

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- Grantee oversight of CRC Program estimating, scheduling, cost control, and risk management systems.
- Overseeing the preparation of FFGA documentation, grant amendments, tracking grant budget, analyzing variances and implementation of recovery strategies.
- Overseeing the preparation and implementation of the risk and contingency management plan.
- Ensuring compliance with WSDOT and ODOT policies and procedures, state and federal laws and regulations, and agreement terms and conditions.
- Reports to the Program Manager.

• Budget Manager – Keith Daly

The Budget Manager supports the Project Controls Manager and is the day-to-day liaison with WSDOT's and ODOT's financial entities. The Budget Manager is responsible for:

- Program funding liaison between WSDOT and ODOT.
- Cost Accounting.
- Ensuring compliance with WSDOT and ODOT policies and procedures, state and federal laws and regulations, and agreement terms and conditions.
- Overseeing CRC Program invoice management.
- Oversight on term sheets and intergovernmental agreements between the two DOT's, between WSDOT and local jurisdictions including TriMet, C-TRAN, City of Portland and City of Vancouver, and between WSDOT and third parties.
- Reports to the Project Controls Manager.

• Project Scheduler – Bill Krick

The Project Scheduler Lead has primary responsibility for Project schedule development and management for all phases of project delivery, including construction. The Schedule Lead is responsible for:

- Developing and maintaining the Critical Path Method (CPM) Master Project Schedule for the Program during the FEIS, Preliminary Engineering, and Final Design.
- Developing Critical Path Method (CPM) Detail Construction Schedules for specific project packages during Final Design.

- Review and monitor contractors' Critical Path Method (CPM) Schedules for specific construction and procurement contracts. Identifies potential delays. Assist in schedule-related claim reviews.
- Reports to the Project Controls Manager.

• Cost Estimating / Risk Lead – Roger Kitchin

The Cost Estimating / Risk / Force Account Lead is responsible for preparing Program capital cost estimates that meet FTA and FHWA requirements. Overseeing and managing the day-to-day risk management process for the project. The Cost Estimating / Risk / Force Account Lead is responsible for:

- Developing the Excel workbooks and spreadsheets used to generate base cost estimates for WSDOT's CEVP, and for the FTA New Starts program.
- Tracking and monitoring effectiveness of risk response actions. Preparing and updating the project risk management plan, including: schedule for key checkin milestones for the risk management plan, risk workshops, and appropriate preparation is accomplished prior to the workshops. Insuring quality of risk data and analysis.
- Coordinating with design staff to develop the scopes of work and quantities for the cost estimates.
- Unit and lump sum costs developed for the project by cost estimators.
- o Developing and updating, as needed, the Force Account Plan.
- Reports to the Project Controls Manager.

Consultant Staff

Consultant staff is an extension of agency staff with expertise in developing and executing large, complex multimodal public projects. The Consultant Project Manager will oversee all consultant staff assisting ODOT, WSDOT, TriMet, and C-TRAN completing the FEIS, preparing project configuration and procurement documents for Design-Build contracts; and preparing final design and construction documents for Design-Bid-Build contracts.

• Consultant Project Manager – Lyn Wylder

- Assisting the Project Management Team and the functional managers in the day-to-day coordination and management of the Consultant staff. Monitors work plans for all Consultant staff activities to ensure performance to approved scope, schedule and budget.
- Overseeing the administrative support for assigning and scheduling work, monitoring progress, and managing change on approved task works of the Consultant staff.

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• Reports to the Program Manager.

Specialty Services Team

The Specialty Services Team is under the direction of Specialty Services Manager – Mike Palazzo (WSDOT). He reports to the CRC Director. He is supported by Right of Way – Joe Gray (ODOT), Agreements /Intergovernmental Agreement (IGA)/Invoices Lead – George Humphrey, Utilities Lead – Vacant, and Access Management Lead assisted by ODOT, WSDOT, and consultant staff with expertise in developing and executing large, complex multimodal public projects. The responsibilities of key members of the Specialty Services Team are described below.

- Specialty Services Manager Mike Palazzo (Interim) (Responsibilities described above)
- Right-of -Way Manager Joe Gray

The Right-of -Way Manager oversees the preparation and day-to-day implementation of the Real Estate Acquisition Management Plan. This will be accomplished through close collaboration with and by leveraging TriMet staff knowledgeable in FTA requirements. He manages the ROW function supported by ROW staff from WSDOT, ODOT, and qualified consulting staff with expertise in ROW negotiation, acquisition and relocation on large, complex multimodal projects. The Right-of –Way Manager is responsible for:

- Coordinating closely with TriMet staff the development and implementation of the Real Estate Acquisition Management Plan to FTA's and FHWA's requirements.
- Overseeing the appraisal and acquisition of property parcels needed for the transit portion of the project in accordance with the procedures outlined in the Real Estate Acquisition Management Plan.
- Overseeing the appraisal and acquisition of property parcels needed for the highway portion of the project in accordance with applicable provisions and procedures of the current versions of WSDOT's and ODOT's Right of Way Manuals.
- Managing Right-of-Way activities to approved scope, schedule and budget.
- Reports to the Specialty Services Manager.

Finance Team

The Finance Team is under the direction of the Finance Manager – (Vacant). He/she reports to the CRC Director. He is supported by Financial Institutional Structure Manager – Steve Siegel, Tolling Network (WSDOT Toll Division), and tolling/financial specialists. The responsibilities of key members of the Finance Team are described below.

• Finance Manager – (Vacant) (Responsibilities described above)

• Financial Institutional Structure Manager – Steve Siegel

The Financial Institutional Structure Manager leads the financial and institutional structures team responsible for preparation of the CRC Finance Plan and required FFGA documentation. The Financial Institutional Structure Manager is responsible for:

- Preparing Capital and Operations Finance Plan Report for New Starts submittals for PE and Final Design. Assists in preparing application materials for federal discretionary grant opportunities.
- Developing the CRC Finance Plan including financial/funding risk analysis and preparing strategy to manage risks and mitigate revenue shortfalls. Making presentation to jurisdictional partners.
- Preparing financial plan materials to incorporate into the FEIS.
- Resolving institutional, intergovernmental and administrative/regulatory/statutory issues affecting the CRC Finance Plan.
- Reports to the Finance Manager.

Communications Outreach Team

The Communications Outreach Team is under the direction of the Communications Outreach Manager – Anne Pressentin. She reports to the CRC Director. The responsibilities of key members of the Communications Outreach Team are described below.

• Communications Outreach Manager – Anne Pressentin

The Communications Outreach Manager oversees the community outreach efforts to the diverse stakeholders in both states. The Communications Outreach Manager is responsible for:

- Directing external outreach efforts for the Program including community relations effort focused on residents, businesses, and neighborhoods.
- Monitoring work plans for all Communications Outreach activities to ensure performance to approved scope, schedule and budget.
- Coordinating participation by special interest groups in final design activities and staffing advisory groups.
- o Coordinating with CRC Management and WSDOT/ODOT executives.
- Reports to the CRC Director.

Environmental Team

The Team is under the direction of the Environmental Manager – Heather Wills (ODOT). She reports to the CRC Director. She is supported by the Environmental Permitting Specialist – Steve

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Morrow (ODOT), Archeologist/Cultural Resource Manager – T. Becker, Tribal Liaison – M. Cotton. The responsibilities of key members of the Environmental Team are described below.

• Environmental Manager – Heather Wills (Responsibilities described above)

Project Delivery Team

The Project Delivery Team is responsible for managing the preparation of procurement documents for D-B contracts and performing all aspects of day-to-day construction administration of CRC executed construction contracts (Transit and Highway). The Team is under the direction of the Project Delivery Director – Mike Niemi. The Project Delivery Manager reports to the CRC Director.

- **Project Delivery Director Mike Niemi** (Responsibilities described above)
- Project Delivery Engineering Manager Lynn Rust

The Project Delivery Engineering Manager is responsible for:

- Assisting the Project Delivery Director in definition of project scopes and contractor procurement for D-B project packages.
- Overseeing the preparation and implementation of the Project Implementation (procurement) Plan.
- Assisting the Project Delivery Director in directing the activities of the CRC Project Delivery Team completing the construction of the Transit and Highway components of the CRC Program.
- Assisting the Project Delivery Director in ensuring contractor's compliance with Affirmative Action (AA)/ Equal Opportunity Employment (EEO) and DBE contract requirements, construction claim action, and contract close out.
- Providing day-to-day oversight of construction staffing, budget, and workload planning.
- Reports to the Project Delivery Director.

[Further definition of the Project Delivery Team will be prepared during Final Design.]

5. Staffing Level Summary

The anticipated full time WSDOT, ODOT, TriMet, C-TRAN, and consultant staff to work on the CRC Program will vary during Final Design, Construction, and Start-up (Transit) phases to meet the needs of the approved project sequencing and delivery strategy for Transit and Highway work elements. Earlier staffing projections assumed the project packaging strategy discussed in the draft Project Implementation Plan would use the traditional Design-Bid-Build (D-B-B) delivery model to advance the CRC Program post-NEPA – into final design and construction. These earlier staffing projections (through Final Design) are summarized on subsequent pages and in Figure 5-1. Staffing Distribution Chart.

The CRC Management Team has selected the Design-Build (D-B) delivery model for the design and construction of the Columbia River Bridge and touchdowns (which are yet to be defined). The CRC Team is developing a project sequencing strategy that adapts to available resources and fits into today's economic reality. The CRC Team will finalize the sequencing strategy with input from the Management Executive Team and local partners based on cash flow projections. Once approved, the project sequencing strategy will guide finalizing the project packaging strategy that would divide the CRC Program into separate and distinct functional construction (and procurement – for equipment and material) packages. The CRC Team will also build on the decision to deliver the Columbia River Bridge and touchdowns using the D-B model and finalize the program's delivery model strategy for all project packages.

The staffing projections discussed below will be refined once the project packaging and delivery model strategy approved.

It should be noted that the staffing levels discussed below do not include resources that transition in and out of the project to perform services such as geotechnical drilling. Additionally, the TCC does not include staffing levels for the following needs. These services, however, have been accounted for in the Program budget.

- Ruby Junction and LRT Vehicles design Services to be contracted between the CRC and TriMet.
- Tolling facilities planning, design development and procurement Services to be contracted between the CRC and WSDOT's Tolling Division.
- Construction Administration Staffing levels will be forecasted during Final Design.

CRC Director and Deputy Director (2)

- Administrative Assistant
- QA/QC Manager
- Safety Manager

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Transit Engineering Team

- Transit Manager
- Deputy Transit Manager
- Transit Design Manager
- Deputy Design (Transit) Managers (5)
- Design Systems Manager
- Transit Systems Agency Staff (4)
- Transit Senior Planner
- Transit Planner
- Transit Operations and Maintenance staff (7)
- Safety Specialist
- Transit Oriented Development
- Legal Council (2)
- Consultant project managers Civil & Systems (2)
- Architectural (2)
- Art Coordinator
- Designers track (2)
- Designers civil (5)
- Park & Ride Designer
- Landscape Designer
- Irrigation Designer
- Electrical Engineers
- Mechanical Engineers
- Systems Designers (6)
- Traffic Designers (2)
- Structural Designers (2)

- Signage and Graphics Designer
- Permit Support
- Utility Coordination
- CADD Technicians (5)

Program Manager (1)

- Consultant Project Manager
- Deputy Consultant Manager

Highway Engineering Team

- Highway Manager
- Assistant Highway Manager
- Traffic Manager
- Traffic Forecasting (2)
- Engineers civil (8)
- Designers civil (11)
- Designers utilities (1)
- Designers stormwater (2)
- Designers landscape (2)
- Survey Manager
- Survey Technicians (10)
- Specifications Writer (2)
- CAE Manager
- CADD Technicians (5)

Structures Engineering Team

- Structures Manager
- Deputy Structures Manager
- Field Operations Manager

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- Principal Bridge Engineer /Columbia River Bridge Lead
- Columbia River Approaches / North Portland Harbor Br. Lead
- Landside Structures Lead

Columbia River Bridge¹ Team

- Project Engineers structures (8)
- Designer Engineers structures (30)
- CADD Technicians (10)

¹Total reduces to 28 FTEs (after completing final design on the Columbia River Bridge) to prepare final design documents for the Portland Harbor Bridges

Landside Bridges Team

- Project Engineers structures (10)
- Designers structures (10)
- Specifications Writer (2)
- CADD Technicians (12)

Project Controls Team

- Project Controls Manager
- Budget Manager
- Budget and Agreements Support (3)
- Schedule Lead
- Project Scheduler (2)
- Estimator/Trend estimating & Forecasting Lead
- Cost Engineer (3)
- Risk Assessment & Mitigation Lead

Business Services Team

- Business Services Manager
- Procurement Lead
- Document Control Manager

• Document Controls Support (3)

Finance Team

- Finance Manager
- Financial Institutional Structure Lead
- Tolling Specialist
- Financial Specialist

Environmental Team

- Environmental Manager
- Environmental Coordinator
- Permit Assistant
- Senior Biologist
- Tribal Liaison
- Archeological/Cultural Specialist

Specialty Services Team

- Specialty Services Manager
- Right-of-Way Manager
- Right-of-way Agents (2)

Communications Outreach Team

- Communications Manager
- Communications Specialist (8)

Project Delivery Team

- Project Delivery Director
- [Further definition of the Construction Administration Team will be prepared after the Project enters into Final Design.]

An earlier staffing (labor) distribution chart over the program's final design life is shown in Figure 5-1. This chart assumed the traditional Design-Bid-Build (D-B-B) delivery model would be used to advance the CRC Program post-NEPA – into final design and construction. As

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discussed above, this chart will be updated to reflect the staffing need that is a best match to the project packaging and delivery model strategy approved by the Executive Management Team including the decision to use the D-B model to deliver the Columbia River Bridge and its touchdowns.

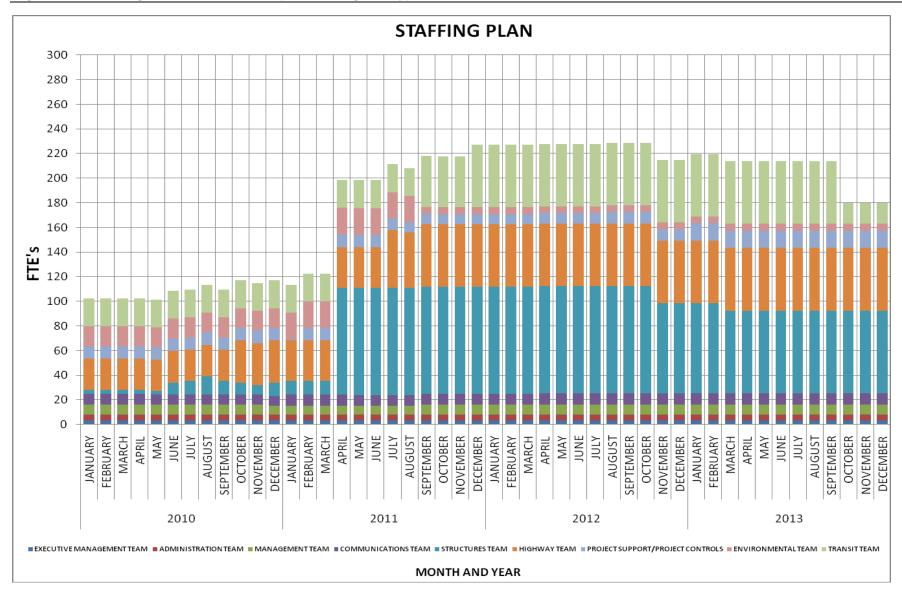


Figure 5-1. Staffing Distribution Chart (Final Design Only)

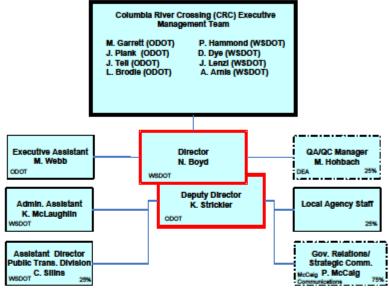
5-8 Technical Capacity and Capability Plan Updated Draft Report

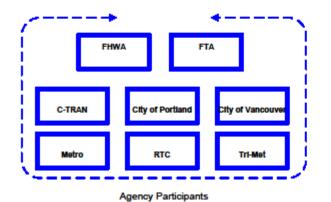
Appendix A

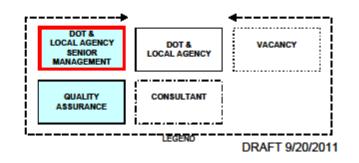
Detailed CRC Organizational Charts



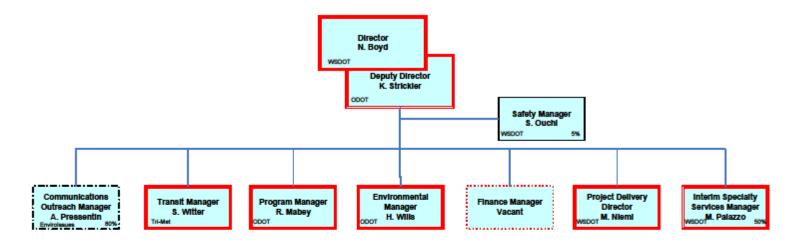
Columbia River Crossing Executive Management

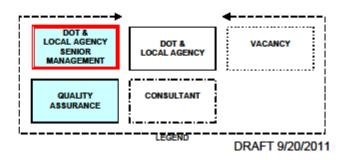






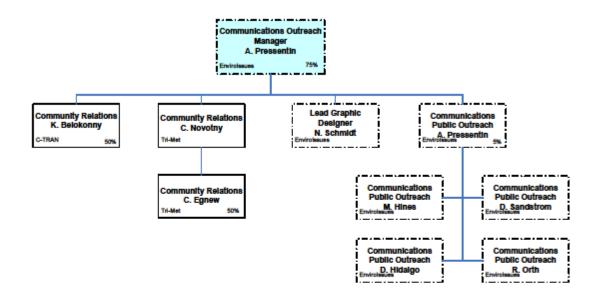
Columbia River Crossing Project Management Team

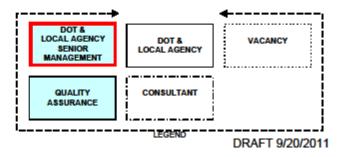






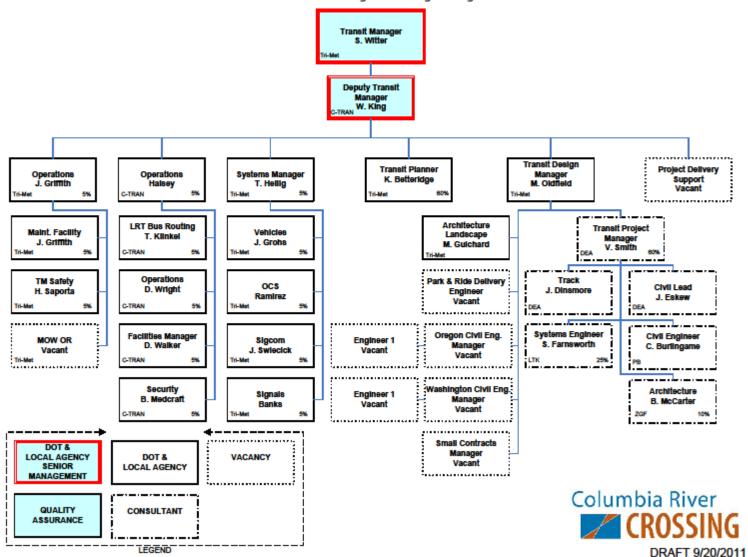
Columbia River Crossing Communications Team





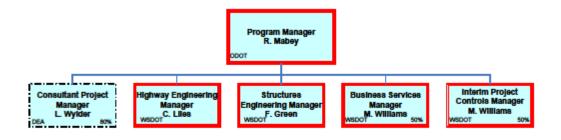


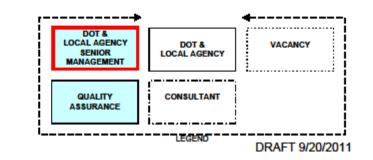
Columbia River Crossing Transit Engineering Team



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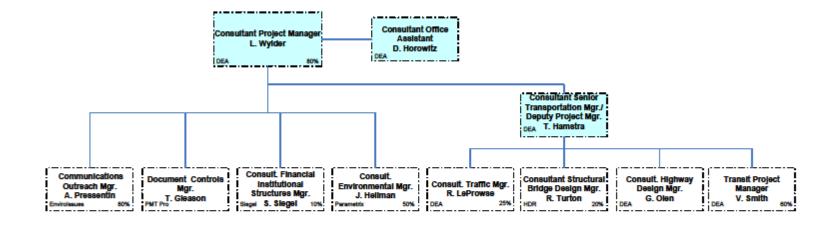
Columbia River Crossing Program Management Team

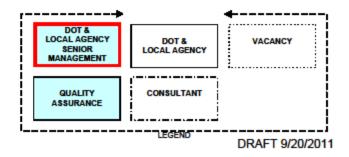






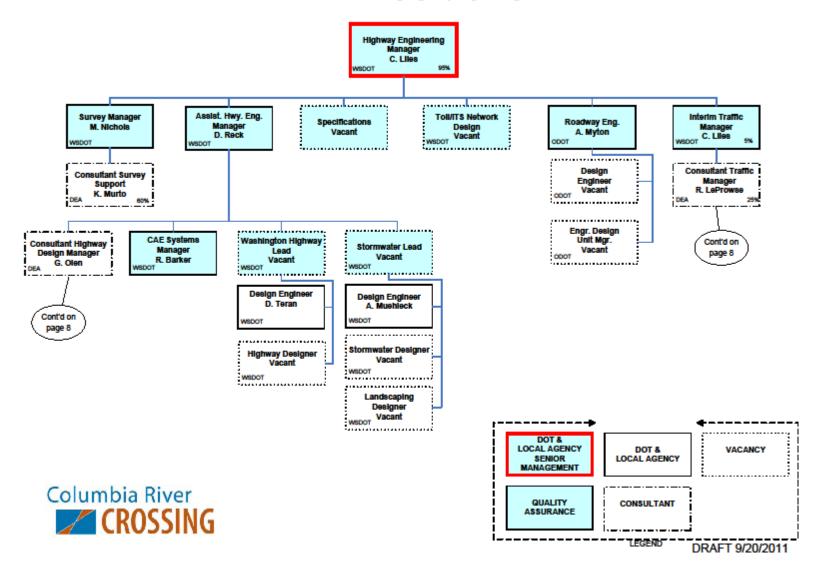
Columbia River Crossing Consultant Staff





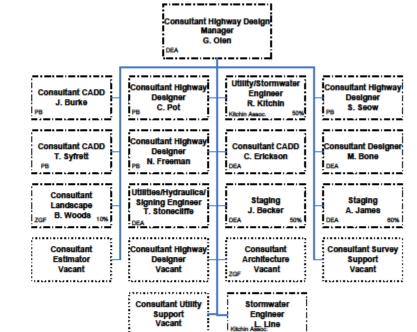


Columbia River Crossing Highway Engineering Team

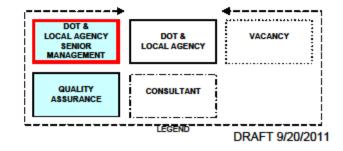


Columbia River Crossing Consultant Highway and Traffic Engineering Staff

Consultant Traffic Manager R. LeProwse DEA 25%	
Consultant Traffic	Consultant Traffic
Support	Support
_{DEA} J. Replinger _{80%}	DEA Vacant
Consultant Traffic	Consultant Traffic
Support	Support
DEA C. Grile	DEA J. Clark 9%
Consultant Traffic Support DEA ^S . Alexander 5%	Consultant Traffic Support DEA J. Anderson 5%
Consultant Traffic	Consultant Traffic
Support	Support
DEA S. Harmon 5%	Vacant

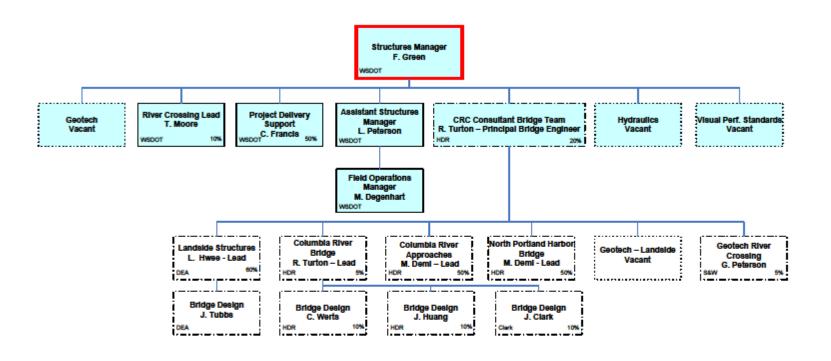


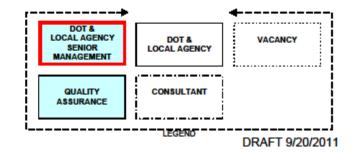
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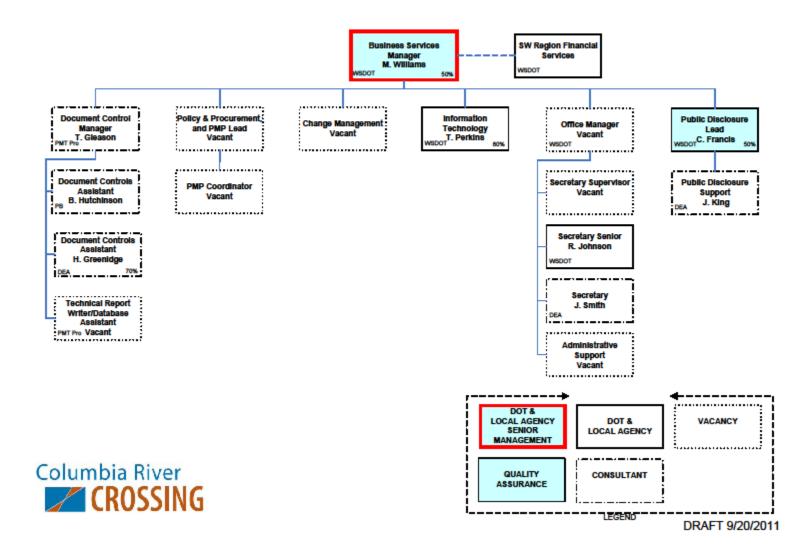
Columbia River Crossing Structures Engineering Team



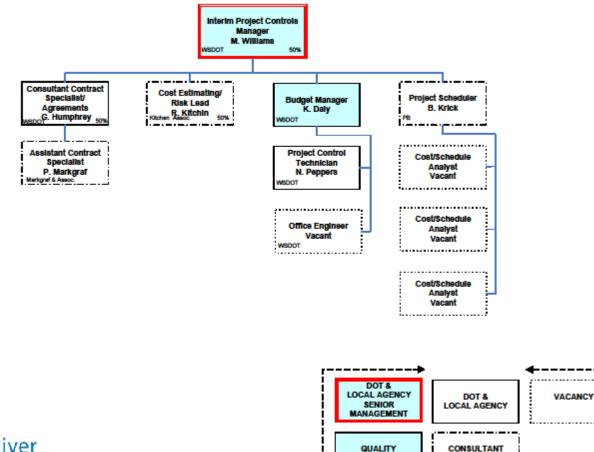




Columbia River Crossing Business Services Team



Columbia River Crossing Project Controls Team



ASSURANCE

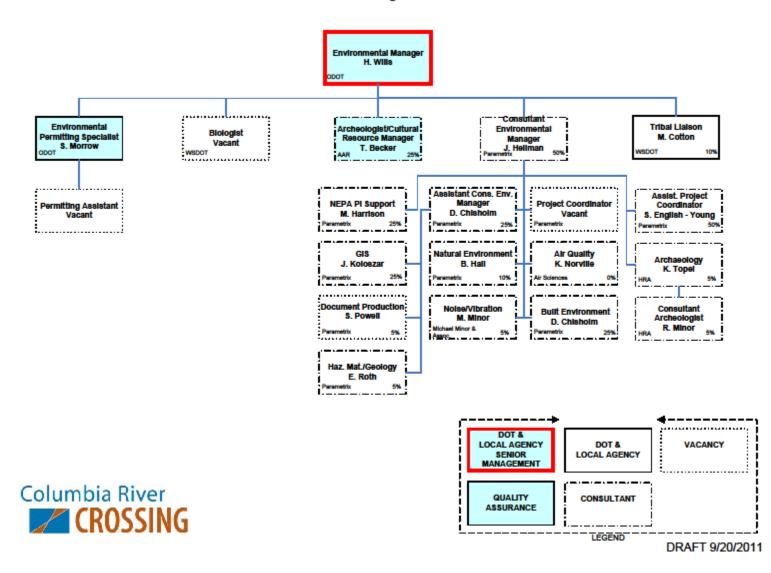
LEGEND

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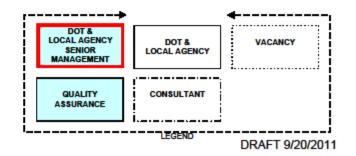
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Columbia River Crossing Environmental Team



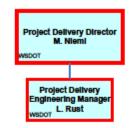
Columbia River Crossing Finance Team

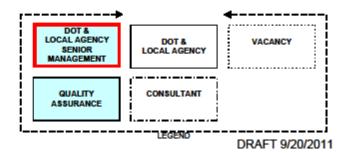






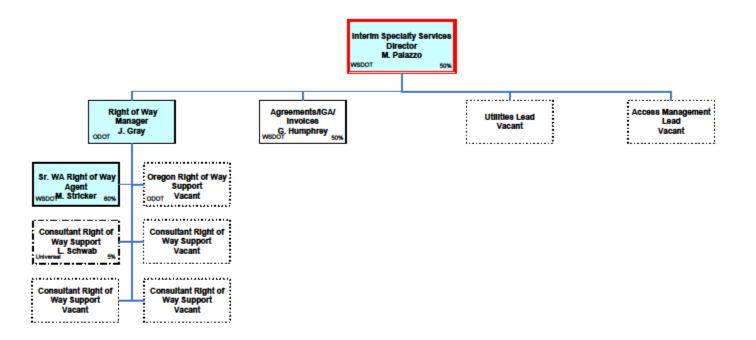
Columbia River Crossing Delivery Team

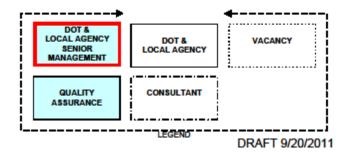






Columbia River Crossing Support Services Team







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Appendix B

Resumes of Key Personnel

Columbia River Crossing Technical Capacity and Capability Plan One-Page Resumes of Key CRC Team Members

NAME	TITLE
Nancy Boyd	CRC Director
John Clark	Senior Bridge Design technical advisor
Keith Daly	Budget Manager
Mark Degenhart	Field Operations Manager
Matt Deml	Columbia River Bridge Approaches and North Portland Harbor Br. Lead
Tonja Gleason	Document Control Manager
Joe Gray	Right-of -Way Manager
Frank Green	Structures Manager
John Griffiths	Operations Leads
Marc Guichard	Architecture Landscape Lead
Lynn Halsey	Lynn Halsey
Thomas Heilig	Systems Lead
Mike Hohbach	QA/QC Manager
Jimin Huang	Senior Bridge Design Engineer
Lwin Hwee	Landside Structures Lead
Wes King	Deputy Transit Manager
Roger Kitchin	Cost Estimating / Risk / Force Account Lead
Bill Krick	Project Scheduler
Ryan LeProwse	Traffic Lead
Casey Liles	Highway Engineering Manager
Casey Liles (Interim)	Traffic Manager
Raymond Mabey	Program Manager
Mike Niemi	Project Delivery Director
Meghan Oldfield	Transit Design Manager
Scott Ouchi	Safety Manager
Mike Palazzo	Specialty Services Manager
Laura Peterson	Assistant Structures Manager
Anne Pressentin	Communications Outreach Manager
Devin Reck	Assistant Highway Manager
Lynn Rust	Project Delivery Engineering Manager
Harry Saporta	Safety and Security
Steve Siegel	Financial Institutional Structure Manager
Kris Strickler	Deputy Director
Rob Turton	Principal Br. Eng. / Columbia River Bridge Lead
Chester Werts	Senior Bridge Design Engineer
Steve Witter	Transit Manager
Heather Wills	Environmental Manager
Mike Williams	Business Services Manager
Mike Williams (Interim)	Project Controls Manager
Lyn Wylder	Consultant Project Manager