From:	Betteridge, Kelly
To:	Garland, James
Cc:	Saxton, Steve; FTA Region 10 (fta.tro10mail@dot.gov); Lehto, Alan; Boyd, Nancy; Wylder, Lyn; Francis, Carley; Ficek,Gary; King, Wesley; Jones, Doug; document.control
Subject:	CRC 2012 New Starts Update
Date:	Thursday, September 13, 2012 12:54:27 PM
Attachments:	CRC 2012 Annual New Starts Update Cover Memo.pdf Summary of changes in 2012 CRC submittal.docx 7.1 CRC SCC Sheets 2012_09_13.xls 5.1 CRC 2012 NS Update Templates2012_9_13.xls

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Good afternoon James,

The CRC project team has completed our 2012 New Starts update. As requested we have mailed you two hard copies via FedEx for delivery tomorrow morning. In addition, I have attached the following components of the update for your immediate review:

- Summary of changes in the 2012 New Starts Update
- CRC 2012 New Starts Templates
- CRC 2012 SCC Sheets

Please feel free to contact Alan or me with any questions.

All the best,

Kelly

Kelly Betteridge | Transit Team | Columbia River Crossing | 360-816-2195

PROJECT DESCRIPTION TEMPLATE		
PROJECT NAME:	**Columbia River Crossing Project**	
Participating Agencies		
Lead Agency	**Name**	Washington State Department of Transportation
	Contact Person	Nancy Boyd, Washington Project Director
	Address	700 Washington St., Suite 300 Vancouver, WA 98660
	Telephone Number	360-737-2726
	Fax Number	360-737-0294
	Email	boydn@columbiarivercrossing.org
Metropolitan Planning Organization	**Name**	Southwest Washington Regional Transportation Council
	Contact Person	Dean Lookingbill, Executive Director
	Address	1300 Franklin Street Vancouver, WA 98660
	Telephone Number	360-397-6067
	Fax Number	360-397-6132
	Email	dean.lookingbill@rtc.wa.gov
Transit Agency	**Name**	C-TRAN
	Contact Person	Jeff Hamm, CEO
	Address	2425 NE 65th Avenue Vancouver, WA 98661
	Telephone Number	360-696-4494
	Fax Number	360-906-7345
	Email	hammj@c-tran.org
State Department of Transportation	**Name**	Oregon Department of Transportation
	Contact Person	Kris Strickler, Oregon Project Director
	Address	700 Washington St. Suite 300 Vancouver, WA 98660
	Telephone Number	360-737-2726
	Fax Number	360-737-0294
	Email	stricklerk@columbiarivercrossing.org
Other Relevant Agencies	**Name**	TriMet
	Contact Person	Dan Blocher, Executive Director Capital Projects
	Address	4012 SE 17th Avenue, Portland, OR 97202
	Telephone Number	503-962-7505
	Fax Number	503-962-6451
	Email	blocherd@trimet.org
Other Relevant Agencies	**Name**	Metro
	Contact Person	Andy Cotugno, Planning Director
	Address	600 NE Grand Ave., Portland, OR 97232
	Telephone Number	503-797-1700
	Fax Number	503-797-1797
	Email	cotugnoa@metro.dst.or.us
Other Relevant Agencies	**Name**	
	Contact Person	
	Address	
	Telephone Number	
	Fax Number	
	Email	

PROJECT DESCRIPTION TEMPLATE (Page 2)

Project Definition	**Length (miles)**	2.9
	Mode/Technology	Light Rail Transit
	Number of Stations	Extension will serve 5 new stations and 17 existing
	List each station separately, including the number of park and ride spaces at each and whether structured or surface parking	**New Stations** Clark (1,910 structured spaces) *Mill (420 structured (Broadway/Washington) *9th St. (Broadway/Washington) 6th & Washington (570 structured spaces) Hayden Island **Existing Stations** Expo Center (300 surface spaces) Delta Park/Vanport (304 surface spaces) Kenton/N Denver Avenue N Lombard N Portland Blvd (N Rosa Parks Way) N Killingsworth Street N Prescott Street Overlook Park Albina/Mississippi Interstate/Rose Quarter * Union Station/ Glisan & Hoyt (5th/6th) *NW Couch/Davis (5th/6th) *SW Oak/Pine (5th/6th) *Pioneer Place/Pioneer Courthouse (5th/6th) *City Hall/Madison St. (5th/6th) *PSU Urban Center (5th/6th) PSU South Jackson/College (5th/6th) **station includes couplet (2) platforms*
	List each station with major transfer facilities to other modes	**New Stations** Clark - 4 bus routes Mill District - 10 bus routes 9th Street - 6 bus routes 6th & Washington - 6 bus routes Hayden Island - 1 bus route **Existing stations with a direct, no-transfer ride to/from** Expo Center - 1 bus route Delta Park/Vanport - 4 bus routes Kenton/N Denver Ave - 1 bus route N Lombard - 3 bus routes N Portland Blvd - 1 bus route N Killingsworth St. - 1 bus route Albina/Mississippi - 3 bus routes Rose Quarter Transit Center - 4 existing LRT lines and more than 10 bus routes All Portland Transit Mall Stations - 4 existing LRT lines, Portland Streetcar and over 40 bus routes traveling on the Mall or crossing the Mall
	Number of vehicles/rolling stock	19
Type of Alignment by Segment (Number of Miles)	**Above grade**	1.4
	Below grade	0
	At grade	1.5
	Exclusive	Entire alignment is exclusive to LRT
	Mixed Traffic	0
Status of Existing Right of Way	**Ownership – who owns the right of way?**	Mixed right of way: within City of Vancouver it is almost entirely street right of way. Remainder is a mix of WSDOT, ODOT right of way and private property that would need to be purchased.
	Current Use: active freight or passenger service?	Exclusive to light rail use. The northern approach to the Columbia River Bridge will cross the BNSF freight line along with the freeway, with a grade-separated crossing.

PROJECT DESCRIPTION TEMPLATE (Page 3)

Project Planning Dates	**Base Year**	**Opening Year**	**Forecast Year**
		2019	2030
Capital Cost Estimate	**2011 constant dollars**	$	2,498
	Year of Expenditure	$	2,797
Levels of Service	**Headways**		
	Weekday Peak	12 minutes	7.5 minutes
	Weekday Off-peak	15 minutes	15 minutes
	Weekday Evening	15 minutes	15 minutes
	Weekend	15 minutes	15 minutes
	Hours of Service		
	Weekday	19 hours	19 hours
	Weekend	19 hours	19 hours
Opening Year Travel Forecast		13,650	
Fare Policy Assumptions Used in Travel Forecasts [footnote 1]		* see attached fare policy assumptions	

Project Planning and Development Schedule	***Project Schedule***	
	Insert anticipated or actual dates/durations	
	Planning Studies Initiated	South/North Major Investment Study South/North DEIS - 1998 I-5 Transportation and Trade partnership - 2002
	Planning Studies Completed	South/North Major Investment Study South/North DEIS - 1998 I-5 Transportation and Trade partnership - 2002
	LPA selected	7/2008
	LPA included in the financially constrained long range plan	7/2008
	Included in Financially Constrained TIP	7/2008
	Notice of Intent	8/2007
	Publication of DEIS	5/2008
	Publication of FEIS	9/2011
	Record of Decision	12/2011
	Public Referenda (where applicable)	N/A
	Preliminary Engineering (duration – dates of beginning and	12/2009 - 4/2013
	Final Design (duration)	4/2013-5/2014
	FFGA- submit request to award (duration)	9/2013-5/2014
	Construction (duration)	12/2014-4/2019
	Testing (duration)	2/2019-9/2019
	Revenue Operations	2019

Project Management		
Project Manager	**Name**	Nancy Boyd, Washington Project Director
	Address	700 Washington St. Suite 300 Vancouver, WA 98660
	Phone	360-737-2726
	Fax	360-737-0294
	Email	boydn@columbiarivercrossing.org
Agency CEO	**Name**	Paula Hammond, Secretary of Transportation
	Address	PO Box 47316, Olympia, WA 98504
	Phone	360-705-7027
	Fax	360-705-6800
	Email	hammonp@wsdot.wa.gov
Key Agency Staff: Overall New Starts Criteria	**Name**	Alan Lehto, Director of Policy & Planning, TriMet
	Address	4012 SE Center Street, Portland, OR 97202
	Phone	503-962-2136
	Fax	503-962-2281
	Email	lehtoa@trimet.org
Key Agency Staff: Ridership Forecasts	**Name**	Peter Bosa, Metro
	Address	600 NE Grand Avenue, Portland, OR 97232
	Phone	503-797-1700
	Fax	503-797-1797
	Email	peter.bosa@oregonmetro.gov
Key Agency Staff: Cost Estimates	**Name**	Frank Green, WSDOT
	Address	700 Washington St. Suite 300 Vancouver, WA 98660
	Phone	360-816-8855
	Fax	360-737-0294
	Email	greenf@columbiarivercrossing.org

[1] Please summarize fare policy assumptions used for all regional transit services modeled in the forecast year. Attach this summary to the Project Description Template.

PROJECT DESCRIPTION TEMPLATE (Page 4)

Project Management (continued)

Key Agency Staff: Environmental Documentation	**Name**	Heather Wills, Environmental Manager, ODOT
	Address	700 Washington Street, Suite 300 Vancouver, WA 98660
	Phone	360-816-2199
	Fax	360-737-0294
	Email	willsh@columbiarivercrossing.org
Key Agency Staff: Land Use Assessment	**Name**	Elizabeth Mros-O'Hara, Planner
	Address	2100 SW River Parkway, Portland, OR 97201
	Phone	503-499-0385
	Fax	503-223-2701
	Email	mrosoharae@columbiarivercrossing.org
Key Agency Staff: Financial Assessment	**Name**	Steve Siegel, Siegel Consulting
	Address	3787 SW Lyle Ct., Portland, OR 97221
	Phone	503-274-0013
	Fax	503-274-0084
	Email	siegelconsulting@aol.com
Key Agency Staff: Project Maps	**Name**	Jim Koloszar & Craig Hainey, Parametrix
	Address	700 NE Multnomah Street, Suite 1000
	Phone	503-233-2400
	Fax	503-233-4825
	Email	koloszarj@columbiarivercrossing.org
Contractors		
Current Prime Contractor	**Name**	David Evans & Associates, Inc.
	Address	2100 SW River Parkway, Portland, OR 97201
	Phone	800-721-1916
	Fax	503-223-2701
	Email	wylderl@columbiarivercrossing.org
Prime Contractor: Project Manager	**Name**	Lyn Wylder - Consultant Project Manager
	Address	700 Washington Street, Suite 300 Vancouver, WA 98660
	Phone	360-816-8867
	Fax	360-737-0294
	Email	wylderl@columbiarivercrossing.org
Contractor Responsible for Travel Forecasts	**Name**	Scott Higgins, Metro
	Address	600 NE Grand Avenue, Portland, OR 97232
	Phone	503-797-1700
	Fax	503-797-1797
	Email	scott.higgins@oregonmetro.gov
Contractor Responsible for Capital Cost Estimates	**Name**	Roger Kitchin, Kitchin & Associates
	Address	700 Washington Street, Suite 300 Vancouver, WA 98660
	Phone	503-816-2182
	Fax	503-737-0294
	Email	kitchinr@columbiarivercrossing.org

TRAVEL FORECASTS TEMPLATE

PROJECT NAME: Columbia River Crossing Project

Line	Trip-Purpose-Specific Information	Source	HBW	HBS	HBR	HBO	NHW	NHNW	HBC		DAILY TOTAL
1	Daily transit trips, Baseline Alternative	Summit: table 30	220,973	63,030	43,552	69,093	39,958	47,202	36,770		520,578
2	Daily transit trips, Build Alternative	Summit: table 40	224,159	63,226	43,739	69,326	40,496	47,637	37,309		525,892
3	Daily person trips, Build Alternative	Summit: table 20	2,511,380	1,375,520	1,542,673	2,570,367	1,362,595	2,145,909	246,426		11,754,870
4	Daily hours of user benefits (UB)	Summit: table 70 / 60	2,624	234	208	257	331	268	247		4,169
5	Positive UB hours from coverage changes	Summit: (tables 44+47+48) / 60	0	0	0	0	0	0	0		0
6	Change in hours of UBs due to capping	Summit: capping impact / 60	-3	-6	-7	-7	-67	-45	0		-135
7	Daily hours of UBs for transit dependents	Summit: standard report	239	126	101	136	0	0	0		601
	Trip-Purpose-Specific Quality-Control Measures										
8	Daily new transit trips		3,186	196	187	233	538	435	539	0	5,314
9	Daily new transit trips -- distribution (%)		60%	4%	4%	4%	10%	8%	10%	0%	100%
10	Daily user benefits -- distribution (%)		63%	6%	5%	6%	8%	6%	6%	0%	100%
11	Daily transit trips, Baseline Alternative -- distribution (%)		42%	12%	8%	13%	8%	9%	7%	0%	100%
12	Percent change in user benefits due to capping		0%	-2%	-3%	-3%	-17%	-14%	0%	0%	-3%
13	Percent of capped user benefits accruing to transit dependents		9%	54%	48%	53%	0%	0%	0%	0%	14%

Line	Special-Markets Information	Source	I-5 speed adjustment	Steel Br. Improvemen	Events: Waterfront	Events: Esther Short	Events: Portland Int'l	Events: PGE Park	Events: Oregon	Events: Rose	ANNUAL TOTAL
14	Special-market project trips per event-day	Special-market forecasts			902	386	83	83	19	123	82,415
15	Special-market UB hours per event-day	Special-market forecasts	1,216	139	684	277	50	59	11	32	398,922
16	Special-market pass-miles per event-day	Special-market forecasts			1,724	758	160	164	43	241	161,769
17	Annualization factor (event-days / year)	Special-market forecasts	255	324.6	20	15	135	150	220	250	---
	Special-Markets Quality-Control Measures										
18	Annual new transit trips, special markets only -- distribution (%)		0%	0%	22%	7%	14%	15%	5%	37%	100%
19	Annual user benefits, special markets only -- distribution (%)		78%	11%	3%	1%	2%	2%	1%	2%	100%
20	Minutes of user benefits per project trip, special markets only		0.0	0.0	45.5	43.1	36.4	42.7	34.7	15.6	290.4

Line	General Information	Source	Entry	General Information	Source	Entry
21	Annualization factor (days/year)	Current/similar guideway	324.6	Person trips by transit dependents	Travel forecasts	446,952
22	Daily project trips, no special mkts	Travel forecasts	22,236	Person trips (stratified trip purposes only)	Travel forecasts	7,999,940
23	Daily project trips, transit dependents	Travel forecasts	2,446	Station-area employees (within 1/2 mile)	Linked from Land Use Template	203,721
24	Daily project pass-miles, no special mkts	Travel forecasts	44,537	Station-area residents (within 1/2 mile)	Linked from Land Use Template	100,196
25	Daily project pass-miles, trn dependents	Travel forecasts	4,058	Project length (miles)	Linked from Project Descrip Template	2.9
	General Quality Control Measures (Excluding Special Markets)		**Value**	**General Quality Control Measures (Excluding Special Markets)**		**Value**
26	Minutes of user benefits per daily project trip (before capping)		11.6	Daily project trips per station area employee		0.11
27	Minutes of user benefits per daily project trip (after capping)		11.2	Daily project trips per station area resident		0.22
28	Percent of user benefits that are coverage related		0%	Daily minutes of user benefits per station area employee		1.23
29	Percent of user benefits that are off-model		23%	Daily minutes of user benefits per station area resident		2.50
30	Percent of project trips that are new transit trips		24%			
31	Project average trip distance / project length		69%			

MOBILITY AND COST-EFFECTIVENESS TEMPLATE

PROJECT NAME: Columbia River Crossing Project

Mobility Improvements

	Column:	A	B	C	D	E	
		Alternative					
Line	Item	New Starts Baseline	New Starts Build	Difference	Annualization Factor	Annual Value	Source/Calculation
1	Transit trips for model-based trip purposes	520,578	525,892	5,314	324.6	1,724,924	Linked from the Travel Forecasts template
2	Transit trips for special markets	---	---	---	---	82,415	Linked from the Travel Forecasts template
3	Transit trips total	---	---	---	---	1,807,339	Sum of lines 1 and 2
4	User benefits for model-based purposes (hrs)	---	---	4,169	324.6	1,353,165	Linked from the Travel Forecasts template
5	User benefits for special markets (hrs)	---	---	---	---	398,922	Linked from the Travel Forecasts template
6	User benefits total (hrs)	---	---	---	---	1,752,087	Sum of lines 4 and 5
7	Project trips for model-based trip purposes	---	---	22,236	324.6	7,217,806	Linked from the Travel Forecasts template
8	Project trips for special markets	---	---	---	---	82,415	Linked from the Travel Forecasts template
9	Project trips total	---	---	---	---	7,300,221	Sum of lines 7 and 8
10	Project passenger-miles for model-based trip purposes	---	---	44,537	324.6	14,456,624	Linked from the Travel Forecasts template
11	Project passenger-miles for special markets	---	---	---	---	161,769	Linked from the Travel Forecasts template
12	Project passenger-miles total	---	---	---	---	14,618,393	Sum of lines 10 and 11
13	User benefits per project pass-mile for all riders (mins)	---	---	---	---	7.2	Line 6 divided by line 12 (times 60 mins/hr)
14	User benefits for transit dependents	---	---	601	324.6	195,047	Linked from the Travel Forecasts template
15	Project trips by transit dependents	---	---	2,446	324.6	793,972	Linked from the Travel Forecasts template
16	Project passenger-miles by transit dependents	---	---	4,058	324.6	1,317,121	Linked from the Travel Forecasts template
17	User benefits per pass-mile for transit dependents	---	---	---	---	8.9	Line 14 divided by line 16 (times 60
18	Share of UBs to transit dependents (percent)	---	---	---	---	11.1%	Line 14 divided by line 6
19	Share of person trips by transit dependents (percent)	---	---	---	---	5.6%	TF template cell L30 / TF template cell L31
20	Transit dependents: (share of UBs) / (share of pers-trips)	---	---	---	---	199.3%	Line 18 divided by line 19

Cost Effectiveness

		Alternative				
Line	Item	New Starts Baseline	New Starts Build	Difference	Value	Source/Calculation
21	Annualized capital cost (millions of constant 2011 dollars)	$ 139	$ 179	$ 40	---	Source: SSC Worksheets
22	Total systemwide annual operating and maintenance cost (millions of constant 2011 dollars)	$ 95	$ 92	$ (4)	---	Source: O&M cost models (attach documentation).
23	Total annualized cost in forecast year (millions of constant 2011 dollars)	$ 234	$ 271	$ 36	---	Sum of lines 21 and 22
24	Annual user benefits total (hours)	---	---	1,752,087	---	Line 6
25	Cost-Effectiveness: incremental annualized cost / annualized user benefits ($/hour)	---	---	---	$20.83	Line 23 divided by line 24
26	Total transit ridership	168,979,619	170,786,958	1,807,339		Linked from Travel Forecasts template
27	Cost Per New Transit Trip: incremental annualized cost / incremental annual transit trips ($/new trip)				$20.19	Line 23 divided by line 26

OPERATING EFFICIENCIES TEMPLATE

PROJECT NAME:	Columbia River Crossing Project

Line	Item	Alternative		Difference	Source/Calculation
		New Starts Baseline	New Starts Build		
1	**Total systemwide annual operating and maintenance cost (millions of constant 2011 dollars)**	$ 95.46	$ 91.88	$ (3.58)	Linked from Mobility & Cost Eff. Template
2	**Total systemwide annual passenger-miles (millions)**	234.01	257.85	23.84	Source: Travel Forecasts
3	**Cost per passenger-mile ($/mi)**	$ 0.41	$ 0.36	$ (0.05)	Line 1 divided by line 2

LAND USE (QUANTITATIVE) TEMPLATE

PROJECT NAME:	Columbia River Crossing Project

Population and Employment – Metropolitan Area, CBD, and Corridor			
Item	**Base Year**	**Forecast Year 2030**	**Growth (%)**
Metropolitan Area			
Total Population	1,659,041	2,262,541	36.4%
Total Employment	972,859	1,547,991	59.1%
Central Business District [see footnote 1]			
Total Employment	145,535	208,713	43.4%
Employment – Percent of Metropolitan Area	0.149595162	0.134828303	---
CBD Lane Area (sq. mi.)	3.888	3.9	
Employment Density (e.g., jobs per sq. mi.)	37,432	53,681	---
Corridor			
Total Population	338,965	516,370	52.3%
Total Employment	331,251	493,213	48.9%
Population – Percent of Metropolitan Area	20%	23%	---
Employment – Percent of Metropolitan Area	34%	32%	---
Corridor Land Area (sq. mi.)	161.5	161.5	---
Population Density (persons per sq. mi.)	2098.9	3197.3	---
Employment Density (jobs per sq. mi.)	2051.1	3054.0	---
Total All Station Areas (1/2-mile radius) [See footnote 2]			
Housing Units	24,834	52,770	112.5%
Population	42,727	100,196	134.5%
Employment	145,900	203,721	39.6%
Land Area (square miles)	9.0	9.0	---
Housing Unit Density (units per sq. mi.)	2759.3	5863.3	---
Population Density (persons per sq. mi.)	4747.4	11132.9	---
Employment Density (persons per sq. mi.)	16211.1	22635.7	---
Station Area 1 [See footnote 3.] **Station Name:**	**New Clark College Station Area Cluster**		
Housing Units	297	398	34.0%
Population	611	760	24.4%
Employment	1,736	2,695	55.2%
Land Area (square miles)	0.6	0.6	---
Housing Unit Density (units per sq. mi.)	495	663	---
Population Density (persons per sq. mi.)	1,018	1,267	---
Employment Density (persons per sq. mi.)	2,893	4,492	---
Station Area 2 **Station Name:**	**New Downtown Vancouver Station Area Cluster**		
Housing Units	1,726	4,573	164.9%
Population	3,338	7,429	122.6%
Employment	11,818	21,473	81.7%
Land Area (square miles)	1.1	1.1	---
Housing Unit Density (units per sq. mi.)	1,569	4,157	---
Population Density (persons per sq. mi.)	3,035	6,754	---
Employment Density (persons per sq. mi.)	10,744	19,521	---
Station Area 3 **Station Name:**	**New Hayden Island Station Area Cluster**		
Housing Units	639	644	0.8%
Population	1,118	1,203	7.6%
Employment	2,667	3,046	14.2%
Land Area (square miles)	0.4	0.4	---
Housing Unit Density (units per sq. mi.)	1,598	1,610	---
Population Density (persons per sq. mi.)	2,795	3,008	---
Employment Density (persons per sq. mi.)	6,668	7,615	---
Station Area 4 **Station Name:**	**Existing Stations: Yellow Line Station Area Cluster**		
Housing Units	8,210	15,031	83.1%
Population	18,842	28,780	52.7%
Employment	24,585	33,948	38.1%
Land Area (square miles)	5.1	5.1	---
Housing Unit Density (units per sq. mi.)	1,610	2,947	---
Population Density (persons per sq. mi.)	3,695	5,643	---
Employment Density (persons per sq. mi.)	4,821	6,656	---
Station Area 5 **Station Name:**	**Existing Stations: Portland Transit Mall Station Area Cluster**		
Housing Units	13,962	32,124	130.1%
Population	18,818	62,024	229.6%
Employment	105,094	142,559	35.6%
Land Area (square miles)	1.8	1.8	---
Housing Unit Density (units per sq. mi.)	7,757	17,847	---
Population Density (persons per sq. mi.)	10,454	34,458	---
Employment Density (persons per sq. mi.)	58,386	79,199	---

LAND USE (QUANTITATIVE) TEMPLATE (page 2)

	Base Year	Forecast Year	Growth (%)
Station Area 6 **Station Name:**			
Housing Units			0.0%
Population			0.0%
Employment			0.0%
Land Area (square miles)		0.0	---
Housing Unit Density (units per sq. mi.)	0	0	---
Population Density (persons per sq. mi.)	0	0	---
Employment Density (persons per sq. mi.)	0	0	---
Station Area 7 **Station Name:**			
Housing Units			0.0%
Population			0.0%
Employment			0.0%
Land Area (square miles)		0.0	---
Housing Unit Density (units per sq. mi.)	0	0	---
Population Density (persons per sq. mi.)	0	0	---
Employment Density (persons per sq. mi.)	0	0	---
Station Area 8 **Station Name:**			
Housing Units			0.0%
Population			0.0%
Employment			0.0%
Land Area (square miles)		0.0	---
Housing Unit Density (units per sq. mi.)	0	0	---
Population Density (persons per sq. mi.)	0	0	---
Employment Density (persons per sq. mi.)	0	0	---
Station Area 9 **Station Name:**			
Housing Units			0.0%
Population			0.0%
Employment			0.0%
Land Area (square miles)		0.0	---
Housing Unit Density (units per sq. mi.)	0	0	---
Population Density (persons per sq. mi.)	0	0	---
Employment Density (persons per sq. mi.)	0	0	---
Station Area 10 **Station Name:**			
Housing Units			0.0%
Population			0.0%
Employment			0.0%
Land Area (square miles)		0.0	---
Housing Unit Density (units per sq. mi.)	0	0	---
Population Density (persons per sq. mi.)	0	0	---
Employment Density (persons per sq. mi.)	0	0	---
Station Area 11 **Station Name:**			
Housing Units			0.0%
Population			0.0%
Employment			0.0%
Land Area (square miles)		0.0	---
Housing Unit Density (units per sq. mi.)	0	0	---
Population Density (persons per sq. mi.)	0	0	---
Employment Density (persons per sq. mi.)	0	0	---
Station Area 12 **Station Name:**			
Housing Units			0.0%
Population			0.0%
Employment			0.0%
Land Area (square miles)		0.0	---
Housing Unit Density (units per sq. mi.)	0	0	---
Population Density (persons per sq. mi.)	0	0	---
Employment Density (persons per sq. mi.)	0	0	---
Station Area 13 **Station Name:**			
Housing Units			0.0%
Population			0.0%
Employment			0.0%
Land Area (square miles)		0.0	---
Housing Unit Density (units per sq. mi.)	0	0	---
Population Density (persons per sq. mi.)	0	0	---
Employment Density (persons per sq. mi.)	0	0	---

LAND USE (QUANTITATIVE) TEMPLATE (page 3)

		Base Year	Forecast Year	Growth (%)
Station Area 14	**Station Name:**			
Housing Units				0.0%
Population				0.0%
Employment				0.0%
Land Area (square miles)			0.0	---
Housing Unit Density (units per sq. mi.)		0	0	---
Population Density (persons per sq. mi.)		0	0	---
Employment Density (persons per sq. mi.)		0	0	---
Station Area 15	**Station Name:**			
Housing Units				0.0%
Population				0.0%
Employment				0.0%
Land Area (square miles)			0.0	---
Housing Unit Density (units per sq. mi.)		0	0	---
Population Density (persons per sq. mi.)		0	0	---
Employment Density (persons per sq. mi.)		0	0	---
Station Area 16	**Station Name:**			
Housing Units				0.0%
Population				0.0%
Employment				0.0%
Land Area (square miles)			0.0	---
Housing Unit Density (units per sq. mi.)		0	0	---
Population Density (persons per sq. mi.)		0	0	---
Employment Density (persons per sq. mi.)		0	0	---
Station Area 17	**Station Name:**			
Housing Units				0.0%
Population				0.0%
Employment				0.0%
Land Area (square miles)			0.0	---
Housing Unit Density (units per sq. mi.)		0	0	---
Population Density (persons per sq. mi.)		0	0	---
Employment Density (persons per sq. mi.)		0	0	---
Station Area 18	**Station Name:**			
Housing Units				0.0%
Population				0.0%
Employment				0.0%
Land Area (square miles)			0.0	---
Housing Unit Density (units per sq. mi.)		0	0	---
Population Density (persons per sq. mi.)		0	0	---
Employment Density (persons per sq. mi.)		0	0	---
Station Area 19	**Station Name:**			
Housing Units				0.0%
Population				0.0%
Employment				0.0%
Land Area (square miles)			0.0	---
Housing Unit Density (units per sq. mi.)		0	0	---
Population Density (persons per sq. mi.)		0	0	---
Employment Density (persons per sq. mi.)		0	0	---
Station Area 20	**Station Name:**			
Housing Units				0.0%
Population				0.0%
Employment				0.0%
Land Area (square miles)			0.0	---
Housing Unit Density (units per sq. mi.)		0	0	---
Population Density (persons per sq. mi.)		0	0	---
Employment Density (persons per sq. mi.)		0	0	---

[1] Optionally, employment for the largest activity center(s) served by the New Start project may be reported.

[2] See Appendix A for a sample methodology for estimating station area population, households, and employment.

[3] Reporting of data by individual station area is required.

FINANCE TEMPLATE

PROJECT NAME:	Columbia River Crossing Project		
Total Capital Cost of Project in Millions of Constant 2011 Dollars (from the SCC Main Worksheet)	$2,498	**Total Capital Cost of Project in Millions of YOE dollars (including finance charges, cost of PE and FD, and construction):** (from SCC Main Worksheet)	$2,797
Section 5309 New Starts Funding Anticipated (YOE $):	$850	**Section 5309 New Starts Share of Project Cost:**	30.4%
Estimated Cost of Preliminary Engineering (YOE $):	$123	**Estimated Cost of Final Design (YOE $):**	$127
Total Finance Charges Included in Capital Cost (include finance charges that are expected prior to either the revenue operations date or the fulfillment of the Section 5309 New Starts funding commitment, even if the financing charges are incurred by a funding partner that is not the project sponsor): (from SCC Main Worksheet)			$67

Other Federal Capital Funding Sources (Non-5309 New Starts Funds such as FTA Section 5307, Surface Transportation Program (STP), Congestion Mitigation and Air Quality (CMAQ), Section 5309 Rail Modernization,	**Type of Funds**	**Dollar Amount (millions of YOE dollars)**	**% of Total Capital Cost**
Existing Federal Funds: Oregon	Federal	$65	2.3%
Existing Federal Funds Washington	Federal	$58	2.1%
3)			0.0%
4)			0.0%
State Capital Funding Sources (Funds provided by State agencies or legislatures such as bonds, dedicated sales tax, annual legislative appropriation, transportation trust funds, etc.)	**Type of Funds**	**Dollar Amount (millions of YOE dollars)**	**% of Total Capital Cost**
Existing State Funds: Oregon	State	$5	0.2%
Existing State Funds: Washington	State	$19	0.7%
Additional Funds: Oregon	State	$440	15.7%
Additional Funds: Washington	State	$260.100	9.3%
Local Capital Funding Sources (Municipal, City, County, Township, or Regional funding such as bonds, sales tax, legislative appropriation, transportation trust funds, etc.)	**Type of Funds**	**Dollar Amount (millions of YOE dollars)**	**% of Total Capital Cost**
Toll-Backed Borowing Proceeds	Local	$1,100	39.3%
			0.0%
			0.0%
			0.0%
Private Sector/In-kind match/Other (Donations of right-of-way, construction of stations or parking, or funding for the project from a non-governmental entity, business, or business assoc.)	**Type of Funds**	**Dollar Amount (millions of YOE dollars)**	**% of Total Capital Cost**
1)			0.0%
2)			0.0%
3)			0.0%
TOTAL NON-SECTION 5309 FUNDING (millions of YOE dollars)		$1,947	69.6%
QA/QC CHECK: TOTAL CAPITAL COSTS LESS SECTION 5309 FUNDING LESS NON-SEC. 5309 FUNDING (SHOULD EQUAL		$0	---

FINANCE TEMPLATE (page 2)			
New Starts Project Financial Commitment			
Other Federal Sources (Linked from page 1)	**Specify Whether New or Existing Funding Source**	**Specify Status of Funds -- Committed, Budgeted, or Planned (See notes below)**	**Identify Supporting Documentation Submitted to Verify Funding Source**
Existing Federal Funds: Oregon	Existing	Committed	Funding received and available to project
Existing Federal Funds Washington	Existing	Committed	Funding received and available to project
3)			
4)			
State Sources (Linked from page 1)			
Existing State Funds: Oregon	Existing	Committed	Funding received and available to project
Existing State Funds: Washington	Existing	Committed	Funding received and available to project
Additional Funds: Oregon	New	Planned	See finance plan section 2.4.2.2
Additional Funds: Washington	New	Planned	See finance plan section 2.4.2.3
Local Sources (Linked from page 1)			
Toll-Backed Borowing Proceeds	New	Planned	See finance plan section 2.4.6
0			
0			
0			
Private Sector/In-kind Match/Other (Linked from page 1)			
1)			
2)			
3)			

Reference Notes: The following categories and definitions are applied to funding sources:

Committed: Committed sources are programmed capital funds that **have all the necessary approvals** (legislative or referendum) to be used to fund the proposed project **without any additional action**. These capital funds have been formally programmed in the MPO's TIP and/or any related local, regional, or state CIP or appropriation. Examples include dedicated or approved tax revenues, state capital grants that have been approved by all required legislative bodies, cash reserves that have been dedicated to the proposed project, and additional debt capacity that requires no further approvals and has been dedicated by the transit agency to the proposed project.

Budgeted: This category is for funds that have been budgeted and/or programmed for use on the proposed project but remain uncommitted, i.e., the funds have not yet received statutory approval. Examples include debt financing in an agency-adopted CIP that has yet to receive final legislative approval, or state capital grants that have been included in the state budget, but are still awaiting legislative approval. These funds are almost certain to be committed in the near future. Funds will be classified as budgeted where available funding cannot be committed until the Full Funding Grant Agreement (FFGA) is executed, or due to local practices outside of the project sponsor's control (e.g., the project development schedule extends beyond the TIP period).

Planned: This category is for funds that are identified and have a reasonable chance of being committed, but are neither committed nor budgeted. Examples include proposed sources that require a scheduled referendum, reasonable requests for state/local capital grants, and proposed debt financing that has not yet been adopted in the agency's CIP.

FINANCE TEMPLATE (page 3)

Innovative Financing Methods
(Unconventional sources of funding which may include TIFIA, State Infrastructure Banks, Public/Private partnerships, Toll Credits, revenue finance methods, etc.)

Innovative Funding Source	Anticipated Funding Amount	Identify Supporting Documentation Submitted

Summary Information from the Operating Finance Plan

New Starts Project Annual Operating Cost in the Forecast Year (YOE$):	$12,809,466	**Total Transit System (including New Starts Project) Annual Operating Cost in the Forecast Year (YOE$)**		$1,265,454,371
Proposed Sources of Operating Funds (Proposed sources of operating funds that are anticipated to support operating expenses of the transit system.)	**Dollar Amount**	**Type of Funding Source**	**Annual/Dedicated**	**Specify Whether New or Existing Funding Source**
Farebox Revenues (TriMet and C-TRAN)	$376,656,768	Local	dedicated	Existing with fare increase
Sales Tax (C-TRAN only)	$90,348,828	Local	dedicated	Existing with increase
Payroll and Self-employed Tax (TriMet only)	$668,540,000	Local	dedicated	Existing with increase
State in-lieu (TriMet only)	$6,628,000	Local	dedicated	Existing with increase
Other Operating Revenue (TriMet and C-TRAN)	$28,001,878	Local	dedicated	Existing with increase
Grants (TriMet and C-TRAN)	$80,451,685	Mix of Federal and State	dedicated	Existing with increase
Interest (TriMet and C-TRAN)	$10,594,212	Local	dedicated	Existing with increase
Other (TriMet)	$4,233,000	Mix of state and local	dedicated	Existing with increase
Total	$1,265,454,371			

Transit System Operating Characteristics

Current Systemwide Characteristics (Can be the same data as reported to the FTA for the National Transit Database)	**Number/Value**	**Future Transit System with New Starts Project** (Systemwide characteristics at completion of the New Starts Project)	**Number/Value**
Farebox Recovery Percent	22%	**Farebox Recovery Percent**	28.0%
Number of Buses	204	**Number of Buses**	212
Number of Rail Vehicles	42	**Number of Rail Vehicles**	61
Current Annual Passenger Boardings	108,515,300		
Daily Passenger Boardings	346,425		
Average Fare	$1-1.50 (see report)	**Average Fare**	$1.50-3 (see report)
Average Age of Buses	8-12 (see report)		
Average Age of Rail Vehicles	11		
Revenue Miles of Service Provided	8,911,680	**Revenue Miles of Service**	9,405,300
Revenue Hours of Service Provided	539,700	**Revenue Hours of Service**	581,200

Attachment 3
Baseline Cost Estimate

Project Sponsor Name
Project Name

Table 3 - BCE by Source of Funding

	Total Project Cost in YOE Dollars (X000)	Double Check Total (X000)	Federal 5309 New Starts	Federal Other	Local
10 GUIDEWAY & TRACK ELEMENTS (route miles)	1,102,668	1,102,668	202,646	0	900,022
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	124,211	124,211	124,211	0	0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	44,619	44,619	44,619	0	0
40 SITEWORK & SPECIAL CONDITIONS	575,033	575,033	111,986	0	463,047
50 SYSTEMS	84,993	84,993	54,881	0	30,112
60 ROW, LAND, EXISTING IMPROVEMENTS	203,754	203,754	40,201	0	163,553
70 VEHICLES (number)	108,589	108,589	108,589	0	0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	444,679	444,679	76,000	122,700	245,980
90 UNALLOCATED CONTINGENCY	41,496	41,496	20,000	0	21,496
100 FINANCE CHARGES	66,867	66,867	66,867	0	0
Total Project Cost (10 - 100)	**2,796,909**	**2,796,909**	**850,000**	**122,700**	**1,824,210**

Sources of Federal Funding and Matching Share Ratios

	Costs Attributed to Source of Funds (X000)	Federal/ Local Matching Ratio within Source	All Federal Funds (X000)	Local Funds (X000)
Federal 5309 New Starts	850,000	32.1/67.9	850,000	1,798,000
Federal Other (Interstate Maintenance Discretionary, formula federal, Corridors of the Future)	122,700	82.4/17.6	122,700	26,210
Total	**972,700**		**972,700**	**1,824,210**
Overall Federal Share of Project		34.78%		
New Starts Share of Project		30.39%		

Standard Cost Categories for Capital Projects

(Rev.14, August 5, 2011)

10 GUIDEWAY & TRACK ELEMENTS (route miles)

- 10.01 Guideway: At-grade exclusive right-of-way
- 10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)
- 10.03 Guideway: At-grade in mixed traffic
- 10.04 Guideway: Aerial structure
- 10.05 Guideway: Built-up fill
- 10.06 Guideway: Underground cut & cover
- 10.07 Guideway: Underground tunnel
- 10.08 Guideway: Retained cut or fill
- 10.09 Track: Direct fixation
- 10.10 Track: Embedded
- 10.11 Track: Ballasted
- 10.12 Track: Special (switches, turnouts)
- 10.13 Track: Vibration and noise dampening

20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)

- 20.01 At-grade station, stop, shelter, mall, terminal, platform
- 20.02 Aerial station, stop, shelter, mall, terminal, platform
- 20.03 Underground station, stop, shelter, mall, terminal, platform
- 20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.
- 20.05 Joint development
- 20.06 Automobile parking multi-story structure
- 20.07 Elevators, escalators

30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS

- 30.01 Administration Building: Office, sales, storage, revenue counting
- 30.02 Light Maintenance Facility
- 30.03 Heavy Maintenance Facility
- 30.04 Storage or Maintenance of Way Building
- 30.05 Yard and Yard Track

40 SITEWORK & SPECIAL CONDITIONS

- 40.01 Demolition, Clearing, Earthwork
- 40.02 Site Utilities, Utility Relocation
- 40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments
- 40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks
- 40.05 Site structures including retaining walls, sound walls
- 40.06 Pedestrian / bike access and accommodation, landscaping
- 40.07 Automobile, bus, van accessways including roads, parking lots
- 40.08 Temporary Facilities and other indirect costs during construction

50 SYSTEMS

- 50.01 Train control and signals
- 50.02 Traffic signals and crossing protection
- 50.03 Traction power supply: substations
- 50.04 Traction power distribution: catenary and third rail
- 50.05 Communications
- 50.06 Fare collection system and equipment
- 50.07 Central Control

60 ROW, LAND, EXISTING IMPROVEMENTS

- 60.01 Purchase or lease of real estate
- 60.02 Relocation of existing households and businesses

70 VEHICLES (number)

- 70.01 Light Rail
- 70.02 Heavy Rail
- 70.03 Commuter Rail
- 70.04 Bus
- 70.05 Other
- 70.06 Non-revenue vehicles
- 70.07 Spare parts

80 PROFESSIONAL SERVICES (applies to Cats. 10-50)

- 80.01 Preliminary Engineering
- 80.02 Final Design
- 80.03 Project Management for Design and Construction
- 80.04 Construction Administration & Management
- 80.05 Professional Liability and other Non-Construction Insurance
- 80.06 Legal; Permits; Review Fees by other agencies, cities, etc.
- 80.07 Surveys, Testing, Investigation, Inspection
- 80.08 Start up

90 UNALLOCATED CONTINGENCY

100 FINANCE CHARGES

Standard Cost Categories for Capital Projects D E F I N I T I O N S (Rev.14, August 5, 2011)		**NOTE:** The SCC cost breakdown is based on a traditional Design Bid Build model. If your project is Design Build, to the best of your ability, separate construction costs from design, administration, testing, etc. Put all construction costs in 10 through 50. Put design, administration, testing, etc. in *80 Professional Services*.
10 GUIDEWAY & TRACK ELEMENTS (route miles)		Include guideway and track costs for all transit modes (Heavy rail, light rail, commuter rail, BRT, rapid bus, bus, monorail, cable car, etc.) The unit of measure is route miles of guideway, regardless of width. As associated with the guideway, include costs for rough grading, excavation, and concrete base for guideway where applicable. Include all construction materials and labor regardless of whom is performing the work. In your written description of the scope and in supporting graphic diagrams, indicate whether busway or rail track is single, double, triple, relocated, etc. Put guideway and track elements associated with yards in *30 Support Facilities* below.
10.01	Guideway: At-grade exclusive right-of-way	
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	
10.03	Guideway: At-grade in mixed traffic	
10.04	Guideway: Aerial structure	Include foundation excavation; guideway structures including caissons, columns, bridges, viaducts, cross-overs, fly-overs.
10.05	Guideway: Built-up fill	Include construction of earthen berms.
10.06	Guideway: Underground cut & cover	Include excavation, retaining walls, backfill, underground guideway structure and finishes.
10.07	Guideway: Underground tunnel	Include tunneling by means of a tunnel boring machine, drill blasting, mining, and immersed tube tunneling; tunnel structure and finishes.
10.08	Guideway: Retained cut or fill	Include excavation, retaining walls, backfill, underground guideway structure and finishes.
10.09	Track: Direct fixation	Include rails, connectors.
10.10	Track: Embedded	Include rails, ties; ballast where applicable
10.11	Track: Ballasted	Include rails, ties and ballast.
10.12	Track: Special (switches, turnouts)	Include transitional curves.
10.13	Track: Vibration and noise dampening	Include upcharge for vib/noise dampening to any track condition above.
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)		As associated with stations, include costs for rough grading, excavation, station structures, enclosures, finishes, equipment; mechanical and electrical components including HVAC, ventilation shafts and equipment, station power, lighting, public address/customer information system, safety systems such as fire detection and prevention, security surveillance, access control, life safety systems, etc. Include all construction materials and labor regardless of whom is performing the work. Put guideway and track associated with stations in *10 Guideway & Track Elements* above.
20.01	At-grade station, stop, shelter, mall, terminal, platform	
20.02	Aerial station, stop, shelter, mall, terminal, platform	Include station structures including caissons, columns, platforms, superstructures, etc.
20.03	Underground station, stop, shelter, mall, terminal, platform	Include retaining walls, backfill, structure.
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	
20.05	Joint development	Per FTA's Joint Development Guidance, "Joint development is any income-producing activity with a transit nexus related to a real estate asset in which FTA has an interest. . .Joint development projects are commercial, residential, industrial, or mixed-use developments that are induced by or enhance the effectiveness of transit projects. . ."
20.06	Automobile parking multi-story structure	Include retaining walls, backfill, structure.
20.07	Elevators, escalators	
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		As associated with support facilities, include costs for rough grading, excavation, support structures, enclosures, finishes, equipment; mechanical and electrical components including HVAC, ventilation shafts and equipment, facility power, lighting, public address system, safety systems such as fire detection and prevention, security surveillance, access control, life safety systems, etc. Include fueling stations. Include all construction materials and labor regardless of whom is performing the work. Where a support facility shares the structure with a station, its cost may be included with station cost. Identify this with a note. Except for guideway and track associated with a yard, include all guideway and track costs associated with support facilities in *10 Guideway & Track Elements* above.
30.01	Administration Building: Office, sales, storage, revenue counting	
30.02	Light Maintenance Facility	Include service, inspection, and storage facilities and equipment.
30.03	Heavy Maintenance Facility	Include heavy maintenance and overhaul facilities and equipment.
30.04	Storage or Maintenance of Way Building	
30.05	Yard and Yard Track	Include yard construction, guideway and track associated with yard.

40 SITEWORK & SPECIAL CONDITIONS		Include all construction materials and labor regardless of whom is performing the work.
40.01	Demolition, Clearing, Earthwork	Include project-wide clearing, demolition and fine grading.
40.02	Site Utilities, Utility Relocation	Include all site utilities - storm, sewer, water, gas, electric.
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	Include underground storage tanks, fuel tanks, other hazardous materials and treatments, etc.
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	Include other environmental mitigation not listed.
40.05	Site structures including retaining walls, sound walls	
40.06	Pedestrian / bike access and accommodation, landscaping	Include sidewalks, paths, plazas, landscape, site and station furniture, site lighting, signage, public artwork, bike facilities, permanent fencing.
40.07	Automobile, bus, van accessways including roads, parking lots	Include all on-grade paving.
40.08	Temporary Facilities and other indirect costs during construction	As a general rule and to the extent possible, appropriately allocate indirect costs among the construction costs in Categories 10 through 50. Where that is not possible, include in *40.08 Temporary Facilities* costs for mobilization, demobilization, phasing; time and temporary construction associated with weather (heat, rain, freezing, etc.); temporary power and facilities; temporary construction, easements, and barriers for storm water pollution prevention, temporary access and to mitigate construction impacts; project and construction supervision; general conditions, overhead, profit. **NOTE: Include contractor's general liability and other insurance related to construction such as builder's risk in Cats. 10 - 50, not in 80 Professional Services below.**
50 SYSTEMS		Include all construction materials and labor regardless of whom is performing the work.
50.01	Train control and signals	
50.02	Traffic signals and crossing protection	Include signal prioritization at intersections.
50.03	Traction power supply: substations	
50.04	Traction power distribution: catenary and third rail	
50.05	Communications	Include passenger information systems at stations and on vehicles (real time travel information; static maps and schedules). Include equipment to allow communications among vehicles and with central control.
50.06	Fare collection system and equipment	Include fare sales and swipe machines, fare counting equipment.
50.07	Central Control	
Construction Subtotal (10 - 50)		

60 ROW, LAND, EXISTING IMPROVEMENTS		**Include professional services associated with the real estate component of the project. These costs may include agency staff oversight and administration, real estate and relocation consultants, legal counsel, court expenses, insurance, etc.**
60.01	Purchase or lease of real estate	If the value of right-of-way, land, and existing improvements is to be used as local match to the Federal funding of the project, include the total cost on this line item. In backup documentation, separate cost for land from cost for improvements. Identify whether items are leased, purchased or acquired through payment or for free. Include the costs for permanent surface and subsurface easements, trackage rights, etc.
60.02	Relocation of existing households and businesses	In compliance with Uniform Relocation Act.
70 VEHICLES (number)		**Include professional services associated with the vehicle component of the project. These costs may include agency staff oversight and administration, vehicle consultants, design and manufacturing contractors, legal counsel, warranty and insurance costs, etc.**
70.01	Light Rail	Include light rail and streetcar rail using electric, diesel or other power supply.
70.02	Heavy Rail	
70.03	Commuter Rail	Include locomotives (diesel, electric, or other), trailer cars, self-propelled multiple units (EMU electric or DMU diesel, or other power supply)
70.04	Bus	Includes "rubber-tired" buses and trolleys including new, used, historic replica, articulated, using electric, diesel, dual-power, or other power supply.
70.05	Other	Include Vans, Sedan/Station Wagon, Cable Car, People Mover, Monorail, Car/Inclined Railway, Ferry Boat, Transferred Vehicle
70.06	Non-revenue vehicles	
70.07	Spare parts	
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		Cat. 80 applies to Cats. 10-50. Cat. 80 includes all professional, technical and management services related to the design and construction of fixed infrastructure (Cats. 10 - 50) during the preliminary engineering, final design, and construction phases of the project. This includes environmental work, design, engineering and architectural services; specialty services such as safety or security analyses; value engineering, risk assessment, cost estimating, scheduling, Before and After studies, ridership modeling and analyses, auditing, legal services, administration and management, etc. by agency staff or outside consultants. Include professional liability insurance and other non-construction insurance on 80.05 unless insurance for the agency and its consultants is already included in other lines. Include costs associated with professional services related to real estate and vehicles in Cats. 60 and 70. *(Note that costs for alternatives analysis and NEPA work done before FTA approval to enter preliminary engineering (PE), <u>regardless of funding source,</u> are not included in an FFGA and therefore, should not be included in the Standard Cost Category worksheets. For example, on one and the same grant, costs incurred prior to FTA approval to enter PE should be omitted from these worksheets whereas costs incurred after FTA approval to enter PE should be included.)*
80.01	Preliminary Engineering	
80.02	Final Design	
80.03	Project Management for Design and Construction	
80.04	Construction Administration & Management	
80.05	Professional Liability and other Non-Construction Insurance	
80.06	Legal; Permits; Review Fees by other agencies, cities, etc.	
80.07	Surveys, Testing, Investigation, Inspection	
80.08	Start up	Include start up and training. Include in Cats. 10 - 50 above access and protection work by agency staff or outside contractors.
Subtotal (10 - 80)		
90 UNALLOCATED CONTINGENCY		Includes unallocated contingency, project reserves. Document allocated contingencies for individual line items on the Main worksheets.
Subtotal (10 - 90)		
100 FINANCE CHARGES		Include finance charges expected to be paid by the project sponsor/grantee prior to either the completion of the project or the fulfillment of the New Starts funding commitment, whichever occurs later in time. Finance charges incurred after this date should not be included in Total Project Cost. (See FFGA Circular FTA C5200.1A Chapter III for additional information.) Derive finance charges from the New Starts project's financial plan, based on an analysis of the sources and uses of funds. The amount and type of debt financing required and revenues available determine the finance charges. By year, compute finance charges in year-of-expenditure (YOE) dollars. On the Inflation Calculation to YOE worksheet enter the finance charges for the appropriate years.
Total Project Cost (10 - 100)		

14-Series TEAM Scope / Activity Line Items

Required for <u>all grants</u> that serve a Capital Project

(Rev.14, August 5, 2011)

1. HOW DO THE SCC AND TEAM RELATE?

TEAM is for grants management. Many grants can serve a capital project -- e.g. CMAQ, 5307, 5309, etc. The Standard Cost Categories (SCC) are for cost management, day to day as well as at important milestones.

To manage capital project costs use the SCC worksheets, back up sheets, detailed cost estimates, etc. At important milestones, "paperclip" the SCC worksheets to the applicable grants in TEAM.

TEAM and the SCC support each other but TEAM doesn't duplicate the level of information in the SCC. Grant budgets will have just the ten lines.

2. WHEN SHOULD I USE THE 14-SERIES?

Use it for capital projects. For a New Starts project, use it from the very first grant that funds Preliminary Engineering, and include all grants issued through the FFGA; these grants may be small or large and may derive funding from diverse sources such as CMAQ, 5307, 5309 Fixed Guideway Mod, 5309 New Starts, Federal Non-Transportation funding from HUD, Defense, etc.

3. HOW IS THE 14-SERIES ORGANIZED AND WHY?

The 14-Series has one Scope and 10 ALIs.
The organization is intentionally simple.
Put guideway costs under the Guideway ALI,
station costs under the Station ALI.
If the costs are organized simply,
the information will be consistent
program-wide and will produce
a reliable database.
For Vehicles, use the 13-Series ALIs.

140-00 PROJECT NAME - (this is the one Scope)

14.01.10	**GUIDEWAY & TRACK ELEMENTS**		.01 Bus STD 40 FT
			.02 Bus STD 35 FT
			.03 Bus 30 FT
14.02.20	**STATIONS, STOPS, TERMINALS, INTERMODAL**		.04 Bus < 30 FT
			.05 Bus School
			.06 Bus Articulated
14.03.30	**SUPPORT FACILITIES: YARDS, SHOPS, ADMIN BLDGS**		.07 Bus Commuter / Suburban
			.08 Bus Intercity
			.09 Bus Trolley STD
14.04.40	**SITEWORK & SPECIAL CONDITIONS**	Engineering & Design	.10 Bus Trolley Artic.
		13.11.XX	.11 Bus Double Deck
			.12 Bus Used
14.05.50	**SYSTEMS**	Purchase - Replacement	.13 Bus School Used
		13.12.XX	.14 Bus Dual Mode
			.15 Vans
14.06.60	**ROW, LAND, EXISTING IMPROVEMENTS**	Purchase - Expansion	.16 Sedan / Station Wagon
		13.13.XX	.20 Light Rail Cars
			.21 Heavy Rail Cars
13____	**VEHICLES - use the 13-Series ALIs for vehicles.**	Rehabilitation / Rebuild	.22 Commuter Rail Self Propelled Electric
		13.14.XX	.23 Commuter Rail Car Trailer
			.24 Commuter Rail Locomotive Diesel
14.08.80	**PROFESSIONAL SERVICES**	Mid Life Rebuild (Rail)	.25 Commuter Rail Locomotive Electric
		13.15.XX	.26 Commuter Rail Cars Used
			.27 Commuter Rail Locomotive Used
14.09.90	**UNALLOCATED CONTINGENCY**	Lease - Replacement	.28 Commuter Rail Self Propelled - Diesel
		13.16.XX	.30 Cable Car
			.31 People Mover
14.10.10	**FINANCE CHARGES**	Lease - Expansion	.32 Car, Incline Railway
		13.18.XX	.33 Ferry Boats
			.39 Transferred Vehicles
		Vehicle Overhaul	.40 Spare Parts/Assoc.Capital
		13.17.00	/ Maintenance Items

MAIN WORKSHEET - BUILD ALTERNATIVE

(Rev.14, August 5, 2011)

Washington State DOT — Today's Date **9/5/12**

Columbia River Crossing — Yr of Base Year $ 2012

PE — Yr of Revenue Ops 2020

	Quantity	Base Year Dollars w/o Contingency (X000)	Base Year Dollars Allocated Contingency (X000)	Base Year Dollars TOTAL (X000)	Base Year Dollars Unit Cost (X000)	Base Year Dollars Percentage of Construction Cost	Base Year Dollars Percentage of Total Project Cost	YOE Dollars Total (X000)
10 GUIDEWAY & TRACK ELEMENTS (route miles)	**2.90**	803,751	177,366	**981,117**	**$338,316**	**57%**	**39%**	**1,102,668**
10.01 Guideway: At-grade exclusive right-of-way	0.15	433	65	498	$3,317			559
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)		0	0	0				0
10.03 Guideway: At-grade in mixed traffic	1.60	9,947	1,492	11,439	$7,150			12,857
10.04 Guideway: Aerial structure	1.07	735,840	165,350	901,189	$842,233			1,012,838
10.05 Guideway: Built-up fill		0	0	0				0
10.06 Guideway: Underground cut & cover	0.01	2,290	458	2,748	$274,785			3,088
10.07 Guideway: Underground tunnel		0	0	0				0
10.08 Guideway: Retained cut or fill	0.07	35,987	7,113	43,101	$615,723			48,440
10.09 Track: Direct fixation		5,721	858	6,579				7,394
10.10 Track: Embedded		6,715	1,007	7,722				8,679
10.11 Track: Ballasted		2,735	410	3,145				3,534
10.12 Track: Special (switches, turnouts)		3,858	579	4,436				4,986
10.13 Track: Vibration and noise dampening		227	34	261				293
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	**5**	95,142	14,336	**109,478**	**$21,896**	**6%**	**4%**	**124,211**
20.01 At-grade station, stop, shelter, mall, terminal, platform	4	12,788	1,949	14,737	$3,684			16,720
20.02 Aerial station, stop, shelter, mall, terminal, platform	1	1,029	164	1,193	$1,193			1,353
20.03 Underground station, stop, shelter, mall, terminal, platform		0	0	0				0
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		0	0	0				0
20.05 Joint development		0	0	0				0
20.06 Automobile parking multi-story structure		81,325	12,223	93,548				106,138
20.07 Elevators, escalators		0	0	0				0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	2.90	33,670	6,734	**40,404**	**$13,932**	**2%**	**2%**	**44,619**
30.01 Administration Building: Office, sales, storage, revenue counting		0	0	0				0
30.02 Light Maintenance Facility		33,670	6,734	40,404				44,619
30.03 Heavy Maintenance Facility		0	0	0				0
30.04 Storage or Maintenance of Way Building		0	0	0				0
30.05 Yard and Yard Track		0	0	0				0
40 SITEWORK & SPECIAL CONDITIONS	2.90	429,496	77,276	**506,772**	**$174,749**	**30%**	**20%**	**575,033**
40.01 Demolition, Clearing, Earthwork		52,501	7,898	60,399				68,534
40.02 Site Utilities, Utility Relocation		29,719	5,944	35,663				40,466
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		11,726	2,345	14,072				15,967
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks		36,446	7,289	43,736				49,627
40.05 Site structures including retaining walls, sound walls		0	0	0				0
40.06 Pedestrian / bike access and accommodation, landscaping		9,992	1,652	11,644				13,212
40.07 Automobile, bus, van accessways including roads, parking lots		99,141	14,871	114,013				129,370
40.08 Temporary Facilities and other indirect costs during construction		189,970	37,277	227,247				257,857
50 SYSTEMS	2.90	62,083	11,433	**73,517**	**$25,351**	**4%**	**3%**	**84,993**
50.01 Train control and signals		9,093	1,819	10,912				12,615
50.02 Traffic signals and crossing protection		12,645	1,897	14,541				16,811
50.03 Traction power supply: substations		2,708	542	3,250				3,758
50.04 Traction power distribution: catenary and third rail		12,318	2,464	14,782				17,089
50.05 Communications		11,547	2,067	13,614				15,739
50.06 Fare collection system and equipment		11,048	2,101	13,149				15,202
50.07 Central Control		2,724	545	3,268				3,778
Construction Subtotal (10 - 50)	2.90	1,424,143	287,145	**1,711,288**	**$590,099**	**100%**	**69%**	**1,931,524**
60 ROW, LAND, EXISTING IMPROVEMENTS	2.90	142,850	49,997	**192,847**	**$66,499**		**8%**	**203,754**
60.01 Purchase or lease of real estate		142,850	49,997	192,847				203,754
60.02 Relocation of existing households and businesses		0	0	0				0
70 VEHICLES (number)	**19**	87,075	8,708	**95,783**	**$5,041**		**4%**	**108,589**
70.01 Light Rail	19	87,075	8,708	95,783	$5,041			108,589
70.02 Heavy Rail		0	0	0				0
70.03 Commuter Rail		0	0	0				0
70.04 Bus		0	0	0				0
70.05 Other		0	0	0				0
70.06 Non-revenue vehicles		0	0	0				0
70.07 Spare parts		0	0	0				0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	2.90	379,946	25,501	**405,447**	**$139,809**	**24%**	**16%**	**444,679**
80.01 Preliminary Engineering		109,985	2,418	112,403				123,280
80.02 Final Design		104,878	10,488	115,366				126,529
80.03 Project Management for Design and Construction		108,716	10,872	119,587				131,159
80.04 Construction Administration & Management		50,557	856	51,413				56,387
80.05 Professional Liability and other Non-Construction Insurance		2,946	295	3,241				3,554
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.		0	0	0				0
80.07 Surveys, Testing, Investigation, Inspection		0	0	0				0
80.08 Start up		2,865	573	3,438				3,770
Subtotal (10 - 80)	2.90	2,034,014	371,352	**2,405,366**	**$829,436**		**96%**	**2,688,546**
90 UNALLOCATED CONTINGENCY				**37,000**			**1%**	**41,496**
Subtotal (10 - 90)	2.90			**2,442,366**	**$842,195**		**98%**	**2,730,042**
100 FINANCE CHARGES				**55,599**			**2%**	**66,867**
Total Project Cost (10 - 100)	2.90			**2,497,964**	**$861,367**		**100%**	**2,796,909**
Allocated Contingency as % of Base Yr Dollars w/o Contingency				18.26%				
Unallocated Contingency as % of Base Yr Dollars w/o Contingency				1.82%				
Total Contingency as % of Base Yr Dollars w/o Contingency				20.08%				
Unallocated Contingency as % of Subtotal (10 - 80)				1.54%				
YOE Construction Cost per Mile (X000)								$666,043
YOE Total Project Cost per Mile Not Including Vehicles (X000)								$927,007
YOE Total Project Cost per Mile (X000)								$964,451

INFLATION WORKSHEET

(Rev.14, August 5, 2011)

Washington State DOT — Today's Date **9/5/12**

Columbia River Crossing — Yr of Base Year $ 2012

PE — Yr of Revenue Ops 2020

Insert comments, notes, etc.

BASE YEAR DOLLARS (X$000)	Base Yr Dollars	Double-Check Total	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
10 GUIDEWAY & TRACK ELEMENTS (route miles)	981,117	981,117	0	0	0	0	0	0	0	0	0	0	0	0	0	114,367	222,725	230,435	242,920	89,728	34,814	33,401	12,727	0	0	0	0	0	0	0	0	0	0
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	109,478	109,478	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,873	39,313	52,858	14,433	0	0	0	0	0	0	0	0	0	0	0	0	0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	40,404	40,404	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,048	16,356	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 SITEWORK & SPECIAL CONDITIONS	506,772	506,772	0	0	0	0	0	0	0	0	0	0	0	9,990	15,638	30,893	89,904	104,179	111,037	34,206	19,841	26,049	50,150	14,884	0	0	0	0	0	0	0	0	0
50 SYSTEMS	73,517	73,517	0	0	0	0	0	0	0	0	0	0	0	0	0	2,663	6,622	5,750	3,863	21,151	32,082	967	417	0	0	0	0	0	0	0	0	0	0
60 ROW, LAND, EXISTING IMPROVEMENTS	192,847	192,847	0	0	0	0	0	0	0	0	0	0	0	0	92,927	93,826	2,061	1,643	1,808	582	0	0	0	0	0	0	0	0	0	0	0	0	0
70 VEHICLES (number)	95,783	95,783	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17,796	23,946	23,880	23,880	6,281	0	0	0	0	0	0	0	0	0	0	0	0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	405,447	407,314	0	0	0	0	0	0	0	0	0	19,678	29,718	27,611	21,575	52,323	58,320	68,408	71,719	25,223	8,234	10,427	10,505	3,573	0	0	0	0	0	0	0	0	0
90 UNALLOCATED CONTINGENCY	37,000	37,000	0	0	0	0	0	0	0	0	0	0	0	0	0	3,936	7,141	10,255	11,005	4,467	197	0	0	0	0	0	0	0	0	0	0	0	0
100 FINANCE CHARGES	55,599	55,599	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,371	1,455	4,364	10,496	13,642	11,579	8,569	4,123	0	0	0	0	0	0	0	0
Total Project Cost (10 - 100)	2,497,964	2,499,831	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19,678**	**29,718**	**37,601**	**130,140**	**298,008**	**431,489**	**501,657**	**520,546**	**218,035**	**111,945**	**84,486**	**85,378**	**27,026**	**4,123**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Inflation Rate												0.028	0.028	0.028	0.031	0.045	0.015	0.026	0.017	0.015	0.020	0.018	0.016	0.014									
Compounded Inflation Factor			1.086	1.086	1.086	1.086	1.086	1.086	1.086	1.086	1.086	1.057	1.028	1.000	1.031	1.077	1.093	1.121	1.141	1.157	1.181	1.201	1.220	1.238	1.238	1.238	1.238	1.238	1.238	1.238	1.238	1.238	1.238
YEAR OF EXPENDITURE DOLLARS (X$000)	YOE Dollars		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
10 GUIDEWAY & TRACK ELEMENTS (route miles)	1,102,668		0	0	0	0	0	0	0	0	0	0	0	0	0	123,207	243,420	258,345	277,080	103,850	41,107	40,129	15,529	0	0	0	0	0	0	0	0	0	0
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	124,211		0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,140	44,075	60,291	16,704	0	0	0	0	0	0	0	0	0	0	0	0	0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	44,619		0	0	0	0	0	0	0	0	0	0	0	0	0	0	26,282	18,337	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 SITEWORK & SPECIAL CONDITIONS	575,033		0	0	0	0	0	0	0	0	0	0	0	9,990	16,129	33,281	98,258	116,797	126,651	39,590	23,428	31,297	61,192	18,421	0	0	0	0	0	0	0	0	0
50 SYSTEMS	84,993		0	0	0	0	0	0	0	0	0	0	0	0	0	2,869	7,237	6,447	4,407	24,480	37,882	1,162	509	0	0	0	0	0	0	0	0	0	0
60 ROW, LAND, EXISTING IMPROVEMENTS	203,754		0	0	0	0	0	0	0	0	0	0	0	0	95,845	101,079	2,253	1,842	2,063	674	0	0	0	0	0	0	0	0	0	0	0	0	0
70 VEHICLES (number)	108,589		0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,449	26,846	27,238	27,639	7,416	0	0	0	0	0	0	0	0	0	0	0	0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	444,679		0	0	0	0	0	0	0	0	0	18,621	28,909	27,611	22,253	56,367	63,739	76,693	81,804	29,193	9,722	12,527	12,818	4,422	0	0	0	0	0	0	0	0	0
90 UNALLOCATED CONTINGENCY	41,496		0	0	0	0	0	0	0	0	0	0	0	0	0	4,240	7,804	11,497	12,552	5,170	232	0	0	0	0	0	0	0	0	0	0	0	0
100 FINANCE CHARGES	66,867		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,537	1,660	5,051	12,393	16,390	14,128	10,605	5,103	0	0	0	0	0	0	0	0
Total Project Cost (10 - 100)	2,796,909		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18,621**	**28,909**	**37,601**	**134,227**	**321,044**	**471,582**	**562,416**	**593,746**	**252,351**	**132,181**	**101,504**	**104,176**	**33,448**	**5,103**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P R O J E C T D E S C R I P T I O N - B U I L D A L T E R N A T I V E

(Rev.14, August 5, 2011)

Washington State DOT

Today's Date **9/5/12**

Columbia River Crossing

PE

Describe the project elements to explain the unit costs shown on the Main Worksheet. Example: A 20-mile new light rail project has its guideway entirely on grade except for a one-eighth mile bridge over a river. The bridge or aerial structure may have a relatively high unit cost because there is little economy of scale.

Mention precedents and reference points used in the development of costs for this project. Mention other aspects of this project that were important considerations in estimating costs. These could include the physical context, site constraints; design parameters; institutional, contracting and procurement conditions; project schedule, etc.

Please see Basis of Capital Cost Estimate Report and Capital Cost Estimate Detail for details of the Project

10 GUIDEWAY & TRACK ELEMENTS (route miles)	
10.01 Guideway: At-grade exclusive right-of-way	
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)	
10.03 Guideway: At-grade in mixed traffic	
10.04 Guideway: Aerial structure	
10.05 Guideway: Built-up fill	
10.06 Guideway: Underground cut & cover	
10.07 Guideway: Underground tunnel	
10.08 Guideway: Retained cut or fill	
10.09 Track: Direct fixation	
10.10 Track: Embedded	
10.11 Track: Ballasted	
10.12 Track: Special (switches, turnouts)	
10.13 Track: Vibration and noise dampening	
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	
20.01 At-grade station, stop, shelter, mall, terminal, platform	
20.02 Aerial station, stop, shelter, mall, terminal, platform	
20.03 Underground station, stop, shelter, mall, terminal, platform	
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	
20.05 Joint development	
20.06 Automobile parking multi-story structure	
20.07 Elevators, escalators	
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01 Administration Building: Office, sales, storage, revenue counting	
30.02 Light Maintenance Facility	
30.03 Heavy Maintenance Facility	
30.04 Storage or Maintenance of Way Building	
30.05 Yard and Yard Track	
40 SITEWORK & SPECIAL CONDITIONS	
40.01 Demolition, Clearing, Earthwork	
40.02 Site Utilities, Utility Relocation	
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks	
40.05 Site structures including retaining walls, sound walls	
40.06 Pedestrian / bike access and accommodation, landscaping	
40.07 Automobile, bus, van accessways including roads, parking lots	
40.08 Temporary Facilities and other indirect costs during construction	
50 SYSTEMS	
50.01 Train control and signals	
50.02 Traffic signals and crossing protection	
50.03 Traction power supply: substations	
50.04 Traction power distribution: catenary and third rail	
50.05 Communications	
50.06 Fare collection system and equipment	
50.07 Central Control	
Construction Subtotal (10 - 50)	
60 ROW, LAND, EXISTING IMPROVEMENTS	
60.01 Purchase or lease of real estate	
60.02 Relocation of existing households and businesses	
70 VEHICLES (number)	
70.01 Light Rail	
70.02 Heavy Rail	
70.03 Commuter Rail	
70.04 Bus	
70.05 Other	
70.06 Non-revenue vehicles	
70.07 Spare parts	
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	
80.01 Preliminary Engineering	
80.02 Final Design	
80.03 Project Management for Design and Construction	
80.04 Construction Administration & Management	
80.05 Professional Liability and other Non-Construction Insurance	
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.	
80.07 Surveys, Testing, Investigation, Inspection	
80.08 Start up	
Subtotal (10 - 80)	
90 UNALLOCATED CONTINGENCY	
Subtotal (10 - 90)	
100 FINANCE CHARGES	
Total Project Cost (10 - 100)	

S C H E D U L E

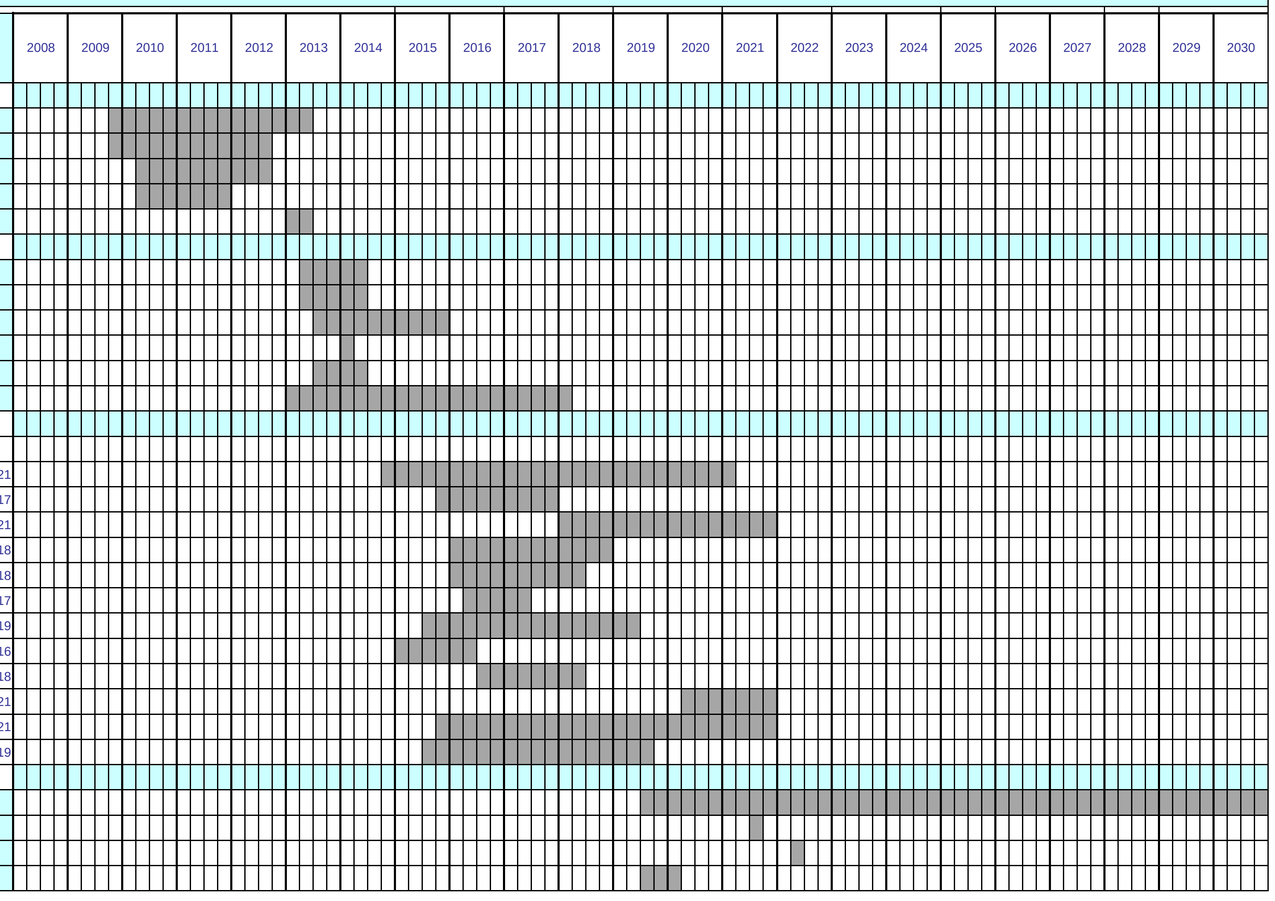
(Rev.14, August 5, 2011)

Washington State DOT — Today's Date **9/5/12**

Columbia River Crossing — Yr of Base Year $ 2012

PE — Yr of Revenue Ops 2020

Insert comments, notes, etc.	Start Date	End Date
Preliminary Engineering	12/11/09	04/16/13
Design		
Develop cost estimate, schedule, ridership forecast		
Conduct reviews		
Develop FEIS, receive Record of Decision		
Submit request / receive FTA approval to enter Final Design		
Final Design	04/16/13	05/29/14
Develop the contract documents for the Build Alternative		
Develop cost estimate, schedule		
Acquire real estate; relocate households and businesses		
Conduct reviews		
Submit request / receive FTA approval for FFGA		
Issue requests for bids, make awards of construction contracts		
Construction	12/02/14	10/21/21
Construct fixed infrastructure		
River Crossing	12/02/14	01/14/21
Mainland Connector	10/28/15	11/24/17
Marine Drive	03/02/18	10/08/21
Oregon Transit	02/22/16	10/16/18
Washington Transit	02/19/16	05/31/18
Park and Ride	06/08/16	05/16/17
Transit Systems	07/07/15	04/16/19
Ruby Junction	01/02/15	05/27/16
Owner Furnished Materials	08/24/16	04/11/18
Bridge Demolition	04/02/20	10/21/21
Finalize real estate acquisitions and relocations	12/01/15	11/14/21
Acquire and test vehicles	07/01/15	09/04/19
Revenue Ops / Closeout of Project	09/05/19	
Revenue Operations		
Before and After Study: Two years post Rev Ops		
Fulfillment of the New Starts funding commitment		
Completion of project close-out, resolution of claims		



A N N U A L I Z E D C O S T - B U I L D A L T E R N A T I V E

(Rev.14, August 5, 2011)

Washington State DOT — Today's Date **9/5/12**

Columbia River Crossing — Yr of Base Year $ 2012

PE — Yr of Revenue Ops 2020

	Quantity	Total Base Year Dollars (X000)	Cat. 80 Prof. Svc. spread proportionally over Cats. 10 - 50 (X000)	Spread Cat. 90 Unalloc. Cont. according to perceived risks (X000)	Revised Total Base Year Dollars (X000)	Years of Useful Life	Annualization Factor (based on 7% rate) [.07/1 - (1.07)^-no. yrs]	**Annualized Cost (X000)**
10 GUIDEWAY & TRACK ELEMENTS (route miles)	**2.90**	**981,117**	**232,451**	**28,000**	**1,241,569**			**88,023**
10.01 Guideway: At-grade exclusive right-of-way	0.15	498	118		615	125	0.0700	43
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)	0.00	0	0		0	30	0.0806	0
10.03 Guideway: At-grade in mixed traffic	1.60	11,439	2,710		14,150	20	0.0944	1,336
10.04 Guideway: Aerial structure	1.07	901,189	213,514	28,000	1,142,704	80	0.0703	80,348
10.05 Guideway: Built-up fill	0.00	0	0		0	80	0.0703	0
10.06 Guideway: Underground cut & cover	0.01	2,748	651		3,399	125	0.0700	238
10.07 Guideway: Underground tunnel	0.00	0	0		0	125	0.0700	0
10.08 Guideway: Retained cut or fill	0.07	43,101	10,212		53,312	125	0.0700	3,733
10.09 Track: Direct fixation		6,579	1,559		8,138	30	0.0806	656
10.10 Track: Embedded		7,722	1,829		9,551	20	0.0944	902
10.11 Track: Ballasted		3,145	745		3,890	35	0.0772	300
10.12 Track: Special (switches, turnouts)		4,436	1,051		5,487	30	0.0806	442
10.13 Track: Vibration and noise dampening		261	62		322	30	0.0806	26
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	**5**	**109,478**	**25,938**	**6,000**	**141,416**			**10,211**
20.01 At-grade station, stop, shelter, mall, terminal, platform	4	14,737	3,492		18,228	70	0.0706	1,287
20.02 Aerial station, stop, shelter, mall, terminal, platform	1	1,193	283		1,475	70	0.0706	104
20.03 Underground station, stop, shelter, mall, terminal, platform	0	0	0		0	125	0.0700	0
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	0	0	0		0	70	0.0706	0
20.05 Joint development		0	0		0	70	0.0706	0
20.06 Automobile parking multi-story structure		93,548	22,164	6,000	121,712	50	0.0725	8,819
20.07 Elevators, escalators		0	0		0	30	0.0806	0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		**40,404**	**9,573**	**3,000**	**52,977**			**3,839**
30.01 Administration Building: Office, sales, storage, revenue counting		0	0		0	50	0.0725	0
30.02 Light Maintenance Facility		40,404	9,573	3,000	52,977	50	0.0725	3,839
30.03 Heavy Maintenance Facility		0	0		0	50	0.0725	0
30.04 Storage or Maintenance of Way Building		0	0		0	50	0.0725	0
30.05 Yard and Yard Track		0	0		0	80	0.0703	0
40 SITEWORK & SPECIAL CONDITIONS		**506,772**	**120,067**	**0**	**626,839**			**47,696**
40.01 Demolition, Clearing, Earthwork		60,399	14,310		74,709	125	0.0700	5,231
40.02 Site Utilities, Utility Relocation		35,663	8,449		44,112	125	0.0700	3,088
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		14,072	3,334		17,405	125	0.0700	1,219
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks		43,736	10,362		54,098	125	0.0700	3,788
40.05 Site structures including retaining walls, sound walls		0	0		0	80	0.0703	0
40.06 Pedestrian / bike access and accommodation, landscaping		11,644	2,759		14,403	20	0.0944	1,359
40.07 Automobile, bus, van accessways including roads, parking lots		114,013	27,012		141,025	20	0.0944	13,312
40.08 Temporary Facilities and other indirect costs during construction		227,247	53,841		281,088	100	0.0701	19,699
50 SYSTEMS		**73,517**	**17,418**	**0**	**90,935**			**7,613**
50.01 Train control and signals		10,912	2,585		13,497	30	0.0806	1,088
50.02 Traffic signals and crossing protection		14,541	3,445		17,986	30	0.0806	1,449
50.03 Traction power supply: substations		3,250	770		4,020	50	0.0725	291
50.04 Traction power distribution: catenary and third rail		14,782	3,502		18,284	30	0.0806	1,473
50.05 Communications		13,614	3,226		16,840	20	0.0944	1,590
50.06 Fare collection system and equipment		13,149	3,115		16,264	25	0.0858	1,396
50.07 Central Control		3,268	774		4,043	30	0.0806	326
Construction Subtotal (10 - 50)		**1,711,288**	**405,447**	**37,000**	**2,153,735**			**157,381**
60 ROW, LAND, EXISTING IMPROVEMENTS		**192,847**		**0**	**192,847**			**13,502**
60.01 Purchase or lease of real estate		192,847			192,847	125	0.0700	13,502
60.02 Relocation of existing households and businesses		0			0	125	0.0700	0
70 VEHICLES (number)	**19**	**95,783**		**0**	**95,783**			**8,219**
70.01 Light Rail	19	95,783			95,783	25	0.0858	8,219
70.02 Heavy Rail	0	0			0	25	0.0858	0
70.03 Commuter Rail	0	0			0	25	0.0858	0
70.04 Bus	0	0			0	12	0.1259	0
70.05 Other	0	0			0	12	0.1259	0
70.06 Non-revenue vehicles	0	0			0	12	0.1259	0
70.07 Spare parts	0	0			0	12	0.1259	0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		**405,447**						
80.01 Preliminary Engineering		112,403						
80.02 Final Design		115,366						
80.03 Project Management for Design and Construction		119,587						
80.04 Construction Administration & Management		51,413						
80.05 Professional Liability and other Non-Construction Insurance		3,241						
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.		0						
80.07 Surveys, Testing, Investigation, Inspection		0						
80.08 Start up		3,438						
Subtotal (10 - 80)		**2,405,366**						
90 UNALLOCATED CONTINGENCY		**37,000**						
Subtotal (10 - 90)		**2,442,366**	405,447	37,000	**2,442,366**			**179,102**
XX.XX Insert here other components req'd in Annualized Cost		0		0	0	125	0.0700	0
XX.XX Insert here other components req'd in Annualized Cost		0		0	0	125	0.0700	0
XX.XX Insert here other components req'd in Annualized Cost		0		0	0	125	0.0700	0
XX.XX Insert here other components req'd in Annualized Cost		2		0	2	125	0.0700	0
TOTAL		**2,442,368**		37,000	**2,442,368**			**179,102**

F U N D I N G S O U R C E S B Y C A T E G O R Y

(Rev.14, August 5, 2011)

Washington State DOT

Today's Date **9/5/12**

Columbia River Crossing

PE

	Cost		Funding Summary									
	YOE Cost (X000)	Double-check Total	Federal 5309 New Starts Funds	Federal Other Funds	Local Funds	Federal 5309 New Starts	Existing State Funds	Existing Federal Funds	Additional Oregon/Washington	Toll-Backed Borrowing Proceeds		
10 GUIDEWAY & TRACK ELEMENTS (route miles)	1,102,668	1,102,668	202,646	0	900,022	202,646			171,867	728,155		
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number	124,211	124,211	124,211	0	0	124,211						
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	44,619	44,619	44,619	0	0	44,619						
40 SITEWORK & SPECIAL CONDITIONS	575,033	575,033	111,986	0	463,047	111,986			263,047	200,000		
50 SYSTEMS	84,993	84,993	54,881	0	30,112	54,881				30,112		
60 ROW, LAND, EXISTING IMPROVEMENTS	203,754	203,754	40,201	0	163,553	40,201			160,000	3,553		
70 VEHICLES (number)	108,589	108,589	108,589	0	0	108,589						
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	444,679	444,679	76,000	122,700	245,980	76,000	24,296	122,700	100,000	121,684		
90 UNALLOCATED CONTINGENCY	41,496	41,496	20,000	0	21,496	20,000			5,000	16,496		
100 FINANCE CHARGES	66,867	66,867	66,867	0	0	66,867						
Total Project Cost (10 - 100)	2,796,909	2,796,909	850,000	122,700	1,824,210	850,000	24,296	122,700	699,914	1,100,000	0	0
Percentage of Total Project Cost	100%		30.4%	4.4%	65.2%	30.4%	0.9%	4.4%	25.0%	39.3%	0.0%	0.0%
			30.4%	69.6%								
			100.00%									

F U N D I N G S O U R C E S B Y Y E A R

Washington State DOT

Columbia River Crossing

PE

			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030
Total Project Cost In YOE Dollars Below insert funding sources and amounts for each year.	2,420,497	double check	0	0	18,621	28,909	37,601	134,227	321,044	471,582	562,416	593,746	252,351	132,181	101,504	104,176	33,448	5,103	0	0	0	0
Federal 5309 New Starts	850,000	850,000									100,000	100,000	100,000	100,000	100,000	100,000	125,000	125,000				
Local	1,824,210	1,824,210			18,621	13,561	14,378	116,974	275,203	450,547	462,416	493,746	152,351	32,181	1,504	4,176	-91,552	-119,897				
Federal Other	122,700	122,700				15,348	23,223	17,253	45,841	21,035												
Total Project Cost (10 - 100)	2,796,909	2,796,909	0	0	18,621	28,909	37,601	134,227	321,044	471,582	562,416	593,746	252,351	132,181	101,504	104,176	33,448	5,103	0	0	0	0

MAIN WORKSHEET - BASELINE ALTERNATIVE

(Rev.14, August 5, 2011)

Washington State DOT — Today's Date **9/5/12**

Columbia River Crossing — Yr of Base Year $ 2012

PE — Yr of Revenue Ops 2020

	Quantity	Base Year Dollars w/o Contingency (X000)	Base Year Dollars Allocated Contingency (X000)	Base Year Dollars TOTAL (X000)	Base Year Dollars Unit Cost (X000)	Base Year Dollars Percentage of Construction Cost	Base Year Dollars Percentage of Total Project Cost	**Baseline** Alternative Cost Parameters (X000) see New Starts Reporting Instructions for additional info
10 GUIDEWAY & TRACK ELEMENTS (route miles)	**0.00**	702,570	158,746	**861,316**		**64%**	**45%**	
10.01 Guideway: At-grade exclusive right-of-way			0	0				
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)			0	0				1273/route mile
10.03 Guideway: At-grade in mixed traffic			0	0				
10.04 Guideway: Aerial structure		668,742	151,980	820,722				
10.05 Guideway: Built-up fill		0	0	0				
10.06 Guideway: Underground cut & cover		2,290	458	2,748				
10.07 Guideway: Underground tunnel		0	0	0				
10.08 Guideway: Retained cut or fill		31,538	6,308	37,846				
10.09 Track: Direct fixation			0	0				
10.10 Track: Embedded			0	0				
10.11 Track: Ballasted			0	0				
10.12 Track: Special (switches, turnouts)			0	0				
10.13 Track: Vibration and noise dampening			0	0				
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	**0**	69,557	14,734	**84,291**		**6%**	**4%**	
20.01 At-grade station, stop, shelter, mall, terminal, platform		1,179	314	1,493				238/station
20.02 Aerial station, stop, shelter, mall, terminal, platform		0	0	0				
20.03 Underground station, stop, shelter, mall, terminal, platform		0	0	0				
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		0	0	0				
20.05 Joint development		0	0	0				
20.06 Automobile parking multi-story structure		68,377	14,420	82,797				
20.07 Elevators, escalators		0	0	0				
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	0.00	11,921	3,988	**15,909**		**1%**	**1%**	
30.01 Administration Building: Office, sales, storage, revenue counting		0	0	0				
30.02 Light Maintenance Facility		11,921	3,988	15,909				
30.03 Heavy Maintenance Facility		0	0	0				
30.04 Storage or Maintenance of Way Building		0	0	0				
30.05 Yard and Yard Track		0	0	0				
40 SITEWORK & SPECIAL CONDITIONS	0.00	310,006	57,042	**367,048**		**27%**	**19%**	
40.01 Demolition, Clearing, Earthwork		5,034	778	5,812				
40.02 Site Utilities, Utility Relocation		28,551	5,710	34,261				
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		10,330	2,066	12,396				
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks		27,241	5,448	32,689				
40.05 Site structures including retaining walls, sound walls		0	0	0				
40.06 Pedestrian / bike access and accommodation, landscaping		2,307	432	2,739				
40.07 Automobile, bus, van accessways including roads, parking lots		79,665	11,950	91,615				6/on-grade space
40.08 Temporary Facilities and other indirect costs during construction		156,878	30,659	187,536				
50 SYSTEMS	0.00	15,794	2,870	**18,664**		**1%**	**1%**	
50.01 Train control and signals		0	0	0				
50.02 Traffic signals and crossing protection		992	152	1,144				30/intersection
50.03 Traction power supply: substations		0	0	0				
50.04 Traction power distribution: catenary and third rail		0	0	0				
50.05 Communications		4,842	726	5,568				14.4/bus and 14.4/sign
50.06 Fare collection system and equipment		9,960	1,992	11,952				11.8/bus
50.07 Central Control		0	0	0				18 - 30/bus
Construction Subtotal (10 - 50)	0.00	1,109,847	237,380	**1,347,227**		**100%**	**71%**	
60 ROW, LAND, EXISTING IMPROVEMENTS	0.00	122,402	42,841	**165,243**			**9%**	
60.01 Purchase or lease of real estate		122,402	42,841	165,243				
60.02 Relocation of existing households and businesses		0	0	0				
70 VEHICLES (number)	**0**	22,920	5,376	**28,296**			**1%**	
70.01 Light Rail		0	0	0				
70.02 Heavy Rail		0	0	0				
70.03 Commuter Rail		0	0	0				
70.04 Bus		22,920	5,376	28,296				530 conventional 798 articulated 1060 hybrid
70.05 Other		0	0	0				
70.06 Non-revenue vehicles		0	0	0				
70.07 Spare parts		0	0	0				
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	0.00	309,227	20,018	**329,246**		**24%**	**17%**	25-35% of Construction 10-50
80.01 Preliminary Engineering		92,782	2,378	95,160				
80.02 Final Design		84,482	8,448	92,930				
80.03 Project Management for Design and Construction		77,354	7,735	85,090				
80.04 Construction Administration & Management		49,888	789	50,677				
80.05 Professional Liability and other Non-Construction Insurance		2,765	276	3,041				
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.		0	0	0				
80.07 Surveys, Testing, Investigation, Inspection		0	0	0				
80.08 Start up		1,957	391	2,348				
Subtotal (10 - 80)	0.00	1,564,397	305,615	**1,870,012**			**98%**	
90 UNALLOCATED CONTINGENCY				37,000			**2%**	
Subtotal (10 - 90)	0.00			**1,907,012**			**100%**	
100 FINANCE CHARGES				NA				
Total Project Cost (10 - 100)	0.00			**1,907,012**			**100%**	
Total Base Year Cost per Mile Not Including Vehicles (X000)					#DIV/0!			
Allocated Contingency as % of Base Yr Dollars w/o Cont.				19.54%				
Unallocated Contingency as % of Base Yr Dollars w/o Contingency				2.37%				
Total Contingency as % of Base Yr Dollars w/o Contingency				21.90%				
Unallocated Contingency as % of Subtotal (10 - 80)				1.98%				

A N N U A L I Z E D C O S T - B A S E L I N E A L T E R N A T I V E

(Rev.14, August 5, 2011)

Washington State DOT — Today's Date **9/5/12**

Columbia River Crossing — Yr of Base Year $ 2012

PE — Yr of Revenue Ops 2020

	Quantity	Total Base Year Dollars (X000)	Cat. 80 Prof. Svc. spread proportionally over Cats. 10 - 50 (X000)	Spread Cat. 90 Unalloc. Cont. according to perceived risks (X000)	Revised Total Base Year Dollars (X000)	Years of Useful Life	Annualization Factor (based on 7% rate) [.07/1 - (1.07)^-no. yrs]	**Annualized Cost (X000)**
10 GUIDEWAY & TRACK ELEMENTS (route miles)	**0.00**	**861,316**	**210,495**	**28,000**	**1,099,811**			**77,317**
10.01 Guideway: At-grade exclusive right-of-way	0.00	0	0	0	0	125	0.0700	0
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)	0.00	0	0		0	30	0.0806	0
10.03 Guideway: At-grade in mixed traffic	0.00	0	0		0	20	0.0944	0
10.04 Guideway: Aerial structure	0.00	820,722	200,574	28,000	1,049,297	80	0.0703	73,780
10.05 Guideway: Built-up fill	0.00	0	0		0	80	0.0703	0
10.06 Guideway: Underground cut & cover	0.00	2,748	672		3,419	125	0.0700	239
10.07 Guideway: Underground tunnel	0.00	0	0		0	125	0.0700	0
10.08 Guideway: Retained cut or fill	0.00	37,846	9,249		47,095	125	0.0700	3,297
10.09 Track: Direct fixation		0	0		0	30	0.0806	0
10.10 Track: Embedded		0	0		0	20	0.0944	0
10.11 Track: Ballasted		0	0		0	35	0.0772	0
10.12 Track: Special (switches, turnouts)		0	0		0	30	0.0806	0
10.13 Track: Vibration and noise dampening		0	0		0	30	0.0806	0
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	**0**	**84,291**	**20,600**	**6,000**	**110,890**			**8,032**
20.01 At-grade station, stop, shelter, mall, terminal, platform	0	1,493	365		1,858	70	0.0706	131
20.02 Aerial station, stop, shelter, mall, terminal, platform	0	0	0		0	70	0.0706	0
20.03 Underground station, stop, shelter, mall, terminal, platform	0	0	0		0	125	0.0700	0
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	0	0	0		0	70	0.0706	0
20.05 Joint development		0	0		0	70	0.0706	0
20.06 Automobile parking multi-story structure		82,797	20,235	6,000	109,032	50	0.0725	7,900
20.07 Elevators, escalators		0	0		0	30	0.0806	0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		**15,909**	**3,888**	**3,000**	**22,797**			**1,652**
30.01 Administration Building: Office, sales, storage, revenue counting		0	0		0	50	0.0725	0
30.02 Light Maintenance Facility		15,909	3,888	3,000	22,797	50	0.0725	1,652
30.03 Heavy Maintenance Facility		0	0		0	50	0.0725	0
30.04 Storage or Maintenance of Way Building		0	0		0	50	0.0725	0
30.05 Yard and Yard Track		0	0		0	80	0.0703	0
40 SITEWORK & SPECIAL CONDITIONS		**367,048**	**89,702**	**0**	**456,750**			**34,857**
40.01 Demolition, Clearing, Earthwork		5,812	1,420		7,232	125	0.0700	506
40.02 Site Utilities, Utility Relocation		34,261	8,373		42,634	125	0.0700	2,985
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		12,396	3,029		15,426	125	0.0700	1,080
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks		32,689	7,989		40,678	125	0.0700	2,848
40.05 Site structures including retaining walls, sound walls		0	0		0	80	0.0703	0
40.06 Pedestrian / bike access and accommodation, landscaping		2,739	669		3,408	20	0.0944	322
40.07 Automobile, bus, van accessways including roads, parking lots		91,615	22,390		114,005	20	0.0944	10,761
40.08 Temporary Facilities and other indirect costs during construction		187,536	45,832		233,368	100	0.0701	16,355
50 SYSTEMS		**18,664**	**4,561**	**0**	**23,225**			**2,045**
50.01 Train control and signals		0	0		0	30	0.0806	0
50.02 Traffic signals and crossing protection		1,144	280		1,424	30	0.0806	115
50.03 Traction power supply: substations		0	0		0	50	0.0725	0
50.04 Traction power distribution: catenary and third rail		0	0		0	30	0.0806	0
50.05 Communications		5,568	1,361		6,929	20	0.0944	654
50.06 Fare collection system and equipment		11,952	2,921		14,873	25	0.0858	1,276
50.07 Central Control		0	0		0	30	0.0806	0
Construction Subtotal (10 - 50)		**1,347,227**	**329,246**	**37,000**	**1,713,473**			**123,902**
60 ROW, LAND, EXISTING IMPROVEMENTS		**165,243**		**0**	**165,243**			**11,569**
60.01 Purchase or lease of real estate		165,243			165,243	125	0.0700	11,569
60.02 Relocation of existing households and businesses		0			0	125	0.0700	0
70 VEHICLES (number)	**0**	**28,296**		**0**	**28,296**			**3,562**
70.01 Light Rail	0	0			0	25	0.0858	0
70.02 Heavy Rail	0	0			0	25	0.0858	0
70.03 Commuter Rail	0	0			0	25	0.0858	0
70.04 Bus	0	28,296			28,296	12	0.1259	3,562
70.05 Other	0	0			0	12	0.1259	0
70.06 Non-revenue vehicles	0	0			0	12	0.1259	0
70.07 Spare parts	0	0			0	12	0.1259	0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		**329,246**						
80.01 Preliminary Engineering		95,160						
80.02 Final Design		92,930						
80.03 Project Management for Design and Construction		85,090						
80.04 Construction Administration & Management		50,677						
80.05 Professional Liability and other Non-Construction Insurance		3,041						
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.		0						
80.07 Surveys, Testing, Investigation, Inspection		0						
80.08 Start up		2,348						
Subtotal (10 - 80)		**1,870,012**						
90 UNALLOCATED CONTINGENCY		**37,000**						
Subtotal (10 - 90)		**1,907,012**	329,246	37,000	**1,907,012**			**139,034**

Attachment 3
Baseline Cost Estimate

Project Sponsor Name
Project Name

Table 1 - BCE by Standard Cost Category

Applicable Line Items Only	YOE Dollars Total (X000)
10 GUIDEWAY & TRACK ELEMENTS (route miles)	**1,102,668**
10.01 Guideway: At-grade exclusive right-of-way	559
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)	0
10.03 Guideway: At-grade in mixed traffic	12,857
10.04 Guideway: Aerial structure	1,012,838
10.05 Guideway: Built-up fill	0
10.06 Guideway: Underground cut & cover	3,088
10.07 Guideway: Underground tunnel	0
10.08 Guideway: Retained cut or fill	48,440
10.09 Track: Direct fixation	7,394
10.10 Track: Embedded	8,679
10.11 Track: Ballasted	3,534
10.12 Track: Special (switches, turnouts)	4,986
10.13 Track: Vibration and noise dampening	293
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	**124,211**
20.01 At-grade station, stop, shelter, mall, terminal, platform	16,720
20.02 Aerial station, stop, shelter, mall, terminal, platform	1,353
20.03 Underground station, stop, shelter, mall, terminal, platform	0
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	0
20.05 Joint development	0
20.06 Automobile parking multi-story structure	106,138
20.07 Elevators, escalators	0
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	**44,619**
30.01 Administration Building: Office, sales, storage, revenue counting	0
30.02 Light Maintenance Facility	44,619
30.03 Heavy Maintenance Facility	0
30.04 Storage or Maintenance of Way Building	0
30.05 Yard and Yard Track	0
40 SITEWORK & SPECIAL CONDITIONS	**575,033**
40.01 Demolition, Clearing, Earthwork	68,534
40.02 Site Utilities, Utility Relocation	40,466
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatmen	15,967
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks	49,627
40.05 Site structures including retaining walls, sound walls	0
40.06 Pedestrian / bike access and accommodation, landscaping	13,212
40.07 Automobile, bus, van accessways including roads, parking lots	129,370
40.08 Temporary Facilities and other indirect costs during construction	257,857
50 SYSTEMS	**84,993**
50.01 Train control and signals	12,615
50.02 Traffic signals and crossing protection	16,811
50.03 Traction power supply: substations	3,758
50.04 Traction power distribution: catenary and third rail	17,089
50.05 Communications	15,739
50.06 Fare collection system and equipment	15,202
50.07 Central Control	3,778
Construction Subtotal (10 - 50)	**1,931,524**
60 ROW, LAND, EXISTING IMPROVEMENTS	**203,754**
60.01 Purchase or lease of real estate	203,754
60.02 Relocation of existing households and businesses	0
70 VEHICLES (number)	**108,589**
70.01 Light Rail	108,589
70.02 Heavy Rail	0
70.03 Commuter Rail	0
70.04 Bus	0
70.05 Other	0
70.06 Non-revenue vehicles	0
70.07 Spare parts	0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	**444,679**
80.01 Preliminary Engineering	123,280
80.02 Final Design	126,529
80.03 Project Management for Design and Construction	131,159
80.04 Construction Administration & Management	56,387
80.05 Professional Liability and other Non-Construction Insurance	3,554
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.	0
80.07 Surveys, Testing, Investigation, Inspection	0
80.08 Start up	3,770
Subtotal (10 - 80)	**2,688,546**
90 UNALLOCATED CONTINGENCY	**41,496**
Subtotal (10 - 90)	**2,730,042**
100 FINANCE CHARGES	**66,867**
Total Project Cost (10 - 100)	**2,796,909**

Attachment 3
Baseline Cost Estimate

Project Sponsor Name
Project Name

Table 2 - Inflated Cost to Year of Expenditure

	Base Year Dollars w/o Contingency (X000)	Base Year Dollars Allocated Contingency (X000)	Base Year Dollars TOTAL (X000)	Inflation Factor	YOE Dollars TOTAL (X000)
10 GUIDEWAY & TRACK ELEMENTS (route miles)	803,751	177,366	981,117	0	1,102,668
20 STATIONS, STOPS, TERMINALS, INTERMODAL (numbe	95,142	14,336	109,478	0	124,211
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	33,670	6,734	40,404	0	44,619
40 SITEWORK & SPECIAL CONDITIONS	429,496	77,276	506,772	0	575,033
50 SYSTEMS	62,083	11,433	73,517	0	84,993
60 ROW, LAND, EXISTING IMPROVEMENTS	142,850	49,997	192,847	0	203,754
70 VEHICLES (number)	87,075	8,708	95,783	0	108,589
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	379,946	25,501	405,447	0	444,679
90 UNALLOCATED CONTINGENCY			37,000	0	41,496
100 FINANCE CHARGES			55,599	0	66,867
Total Project Cost (10 - 100)			**2,497,964**	0	**2,796,909**

Attachment 3A
Project Budget

Project Sponsor Name
Project Name

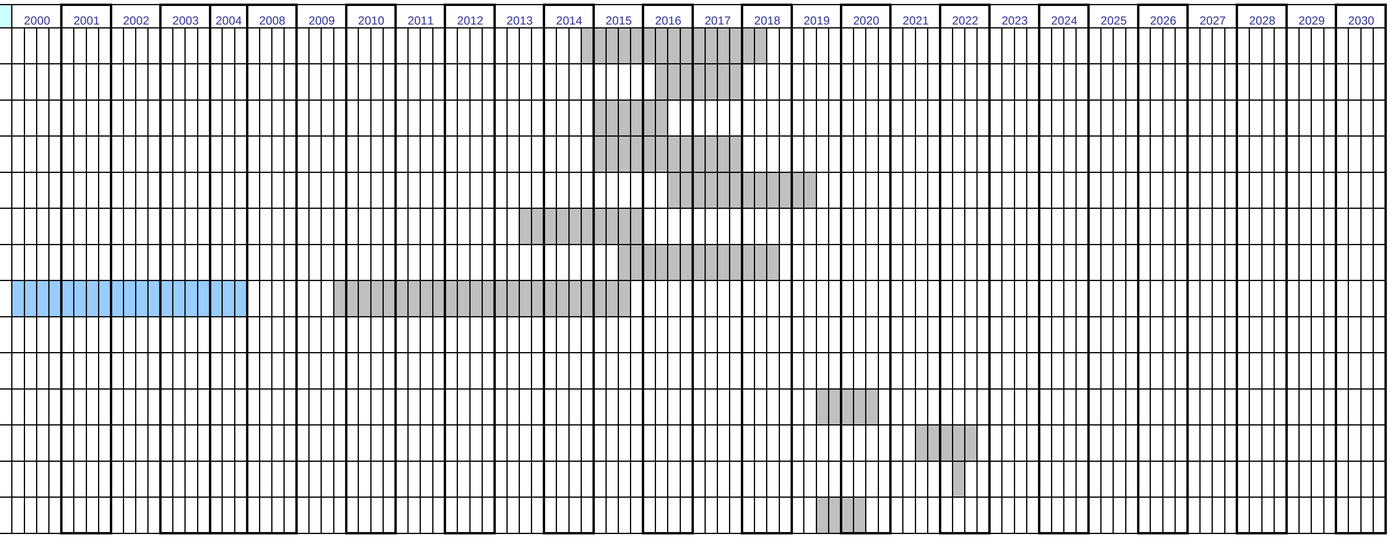
Scope and Activity Description

Scope Code	ALI Code	Scope and Activity Line Item Descriptions	Qty		Federal 5309 New Starts			Federal Other			Project Totals			Check Total Project Cost in YOE Dollars (X000)
				Total Federal %	Federal	Local	Total	Federal	Local	Total	Federal	Local	Total	
14010	140110	GUIDEWAY & TRACK ELEMENTS	2.90	18.38%	202,646	900,022	1,102,668		0	0	202,646	900,022	1,102,668	1,102,668
14020	140220	STATIONS, STOPS, TERMINALS, INTERMODAL	5	100.00%	124,211		124,211	0		0	124,211	0	124,211	124,211
14030	140330	SUPPORT FACILITIES, YARDS, SHOPS, ADMIN. BLDGS.		100.00%	44,619		44,619	0	0	0	44,619	0	44,619	44,619
14040	140440	SITEWORK & SPECIAL CONDITIONS		19.47%	111,986	463,047	575,033	0	0	0	111,986	463,047	575,033	575,033
14050	140550	SYSTEMS		64.57%	54,881	30,112	84,993	0	0	0	54,881	30,112	84,993	84,993
14060	140660	ROW, LAND, EXISTING IMPROVEMENTS		19.73%	40,201	163,553	203,754	0	0	0	40,201	163,553	203,754	203,754
14070		VEHICLES	19	100.00%	108,589		108,589	0	0	0	108,589	0	108,589	108,589
	13.13.20	Light Rail Cars	19		108,589									
	13.__.__													
14080	140880	PROFESSIONAL SERVICES		44.68%	76,000	219,770	295,770	122,700	26,210	148,910	198,700	245,980	444,679	444,679
14090	140990	UNALLOCATED CONTINGENCY		48.20%	20,000	21,496	41,496	0	0	0	20,000	21,496	41,496	41,496
14100	141010	FINANCE CHARGES		100.00%	66,867		66,867	0	0	0	66,867	0	66,867	66,867
Total Project Cost (10 - 100)				34.78%	850,000	1,798,000	2,648,000	122,700	26,210	148,910	972,700	1,824,210	2,796,909	2,796,909

Attachment 4
Project Schedule

Project Sponsor Name
Project Name

SCHEDULE	Start Date	End Date
10 GUIDEWAY & TRACK ELEMENTS (route miles)	12/01/14	05/01/18
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	06/01/16	12/01/17
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	01/01/15	05/01/16
40 SITEWORK & SPECIAL CONDITIONS	03/01/15	12/01/17
50 SYSTEMS	08/01/16	04/01/19
60 ROW, LAND, EXISTING IMPROVEMENTS	07/01/13	12/01/15
70 VEHICLES (number)	07/01/15	07/01/18
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	12/11/09	07/01/15
90 UNALLOCATED CONTINGENCY		
100 FINANCE CHARGES		
Revenue Ops / Closeout of Project	09/09/19	09/01/20
Before and After Study: Two years post Rev Ops	09/01/21	09/02/22
Fulfillment of the New Starts funding commitment	06/01/22	
Completion of project close-out, resolution of claims	09/01/19	06/15/20



Columbia River CROSSING

700 WASHINGTON STREET
SUITE 300
VANCOUVER, WA 98660
360-737-2726 | 503-256-2726

September 12, 2012

James Garland
Federal Transit Administration
Office of Planning and Environment
1200 New Jersey Avenue, SE
East Building, E-45-328
Washington, DC 20590

Subject: CRC 2012 New Starts Update

Dear Mr. Garland:

As requested, enclosed are the Columbia River Crossing Project's 2012 New Starts Update materials, including the following:

- Project Map
- Project Description
- Local Financial Commitment Checklist
- Finance Plan
- New Starts Templates
- Certification of Technical Methods and Planning Assumptions
- Capital Cost Information
- Travel Forecasts

If you have any questions or need any additional information please contact me at boydn@columbiarivercrossing.com or 360-816-8865.

Sincerely,

Nancy Boyd
Washington Project Director

NB:kb
Enclosures

cc: Rick Krochalis, FHWA
Dan Mathis, FHWA
Phil Ditzler, FHWA
J.C. Lenzi, WSDOT
Steve Saxton, FTA Region 10
John McAvoy, FHWA
Kris Strickler, CRC
Document Control

CRC 2012 UPDATE SUBMITTAL

SUMMARY OF CHANGES IN THIS SUBMITTAL, SEPTEMBER 12, 2012

The following lists all of the contents of this submittal, briefly describes changes and notes those items that have not changed recently. Items with any substantive changes (e.g., finance plan) have additional detailed documentation of changes since the prior submittal which are included in the front of the relevant section.

Table of Contents
- Updated to reflect several new items added

1. Project Map
   - Map of ICP included.
2. Project Description
   - Updated to reflect ICP.
3. Local Financial Commitment Checklist
   - No changes since 2011 submittal other than updating for 2012 date-sensitive materials

4. Finance Plan

4.1 Columbia River Crossing Capital and Operating Finance Plan

- Updated to reflect current design and schedule

4.1.1 Changes in Columbia River Crossing Capital and Operating Finance Plan

- Updated to reflect updates to design and schedule

4.2 Appendices A – J

- Updated information to include 2011-2012 where available

5. New Starts Templates

5.1 New Starts Templates

- Project Description
  - Updates to project team and schedule
- Travel Forecasts
  - Updated for this submittal to reflect new calculations
- Mobility and Cost Effectiveness
  - Updated for this submittal to reflect new calculations
- Operating Efficiencies
  - Updated for this submittal to reflect new calculations
- Land Use
  - No changes in base data from September 2008.
- Finance
  - Updated for this submittal to reflect new calculations

5.2 Project Description Supporting Information

5.2.1 Fare Policy Assumptions

- No updates since 2011 submittal

5.2.2 Transit Fare Methodology Memo

- No updates since 2011 submittal

5.2.3 Addendum to the Metro Travel Forecasting March 2008 Trip-Based Demand Model Methodology Report

- No updates since 2011 submittal

5.3 Mobility and Cost Effectiveness Supporting Information

5.3.1Changes in Cost Effectiveness

- Updated for this submittal to reflect new calculations

5.4 Land Use Supporting Information

5.4.1 Land Use Template from September 2008 Submittal

- No changes in base data from September 2008.

5.4.2 Land Use Supplemental Template (originally submitted 9/2008)

- No changes from September 2008 – there have been no substantial changes that would cause a material difference in the contents

5.4.3 Land Use List of Supporting Documents

- No change from September 2008

5.4.4 Land Use Supporting Documents Table of Contents (originally submitted 9/2008)

- No change from September 2008

5.5 Travel Forecasts Supporting Information

5.5.1 Annualization Factor Documentation

- Updated to reflect current year

5.5.2 Baseline Description 2008 to Present

- Updated for 2012 with inclusion of Portland-Milwaukie Light Rail Project as required by FTA

5.6 Finance Template Supporting Information

5.6.1 Fare Recovery Ratio Explanation

- Included since 2010 to respond to FTA comment

6. Certification of Technical Methods and Planning Assumptions

- No substantive changes since last submittal

7. Capital Cost Information

7.1 CRC SCC Sheets

- Updated for this submittal to reflect new calculations based on updated capital cost

7.2 Changes in CRC Capital Cost Estimate

- Updated for this submittal

7.3 Capital Cost Estimate Detail Spreadsheet

- Updated for this submittal to reflect current design

7.4 Basis of Capital Cost Estimate

- Updated for this submittal

7.5 Basis of Capital Cost Estimate – Changes Tracked from Previous Submittal

- Updated for this submittal

7.6 Capital Cost Allocation Methodology

- Updated to reflect current design assumptions

7.7 Capital Cost Allocation Methodology - Changes Tracked from Previous Submittal

- Updated to reflect current design assumptions

8. Travel Forecasts

- No updates since early submittal 8/30/12

8.1 Thematic Maps

- No updates since 8/30/12 submittal

8.2 SUMMIT Reports in Excel and Text

- No updates since 8/30/12 submittal

8.2.1 RCS Reports for Each Trip Purpose

- No updates since 8/30/12 submittal

8.2.2 RCU Reports for Each Trip Purpose

- No updates since 8/30/12 submittal

8.2.3 RPT Summary Roll-up Reports

- No updates since 8/30/12 submittal

8.2.4 TLF Reports

- No updates since 8/30/12 submittal

8.3 2012 Travel Forecast Changes Memo

- No updates since 8/30/12 submittal