

Item	Item Description	Quantity	Unit	Sections					Total Cost	Potential Min.	Potential Max.	
				Royal Brougham-King-Yesler	Yesler-Pike	Pike-Battery	N. Waterfront Pike-Blanchard	BST and North of BST				
I	Construction (CN)								%	\$	%	\$
1.0	Preparation											
1.1	Demolish Viaduct King-BST	1	LS	\$ 0	\$ 0	\$ 0		\$ 0				
	Subtotal - Preparation							\$ 0				
2.0	Civil/Roadway							\$ 45,000,000	10%	\$ 40,500,000	25%	\$ 56,250,000
	Subtotal - Civil/Roadway							\$ 45,000,000				
3.0	Structures											
3.4	Waterfront Seawall - Central ²	1	LS		\$ 0			\$ 0				
3.5	South Tunnel Entry	1	LS	\$ 37,564,000				\$ 37,564,000	10%	\$ 33,807,600	25%	\$ 46,955,000
3.6	Bored Tunnel structure ³	1	LS					\$ 380,000,000	20%	\$ 304,000,000	15%	\$ 437,000,000
3.7	North Tunnel Entry	1	LS					\$ 41,814,000	10%	\$ 37,632,600	25%	\$ 52,267,500
3.11	Allowance at SB Off Ramps ⁴			\$ 20,000,000				\$ 20,000,000	10%	\$ 18,000,000	35%	\$ 27,000,000
	Subtotal - Structures							\$ 479,378,001		\$ 393,440,200		\$ 563,222,500
4.0	Public Utilities Relocation at the Portals											
	Subtotal - Utilities							\$ 39,662,000	20%	\$ 31,729,600	35%	\$ 53,143,700
5.0	Traffic											
	Subtotal - Traffic							\$ 20,000,000	0%	\$ 20,000,000	500%	\$ 120,000,000
6.0	Specialty Items											
6.4	Environmental Allowance	1	LS	\$ 4,000,000	\$ 0	\$ 0		\$ 5,000,000	50%	\$ 2,500,000	50%	\$ 7,500,000
6.5	BST Phase II ⁵	1	LS					\$ -				
6.7	Bored Tunnel Systems	1	LS		\$ 160,000,000			\$ 160,000,000	20%	\$ 128,000,000	10%	\$ 176,000,000
	Stormwater and Groundwater (Temp and Permanent)							\$ 5,000,000	50%	\$ 2,500,000	50%	\$ 7,500,000
	Subtotal - Specialty Items							\$ 175,000,001		\$ 135,500,000		\$ 198,500,000
	Subtotal Direct Cost w/o Allowance for Undefined Items							\$ 759,040,000		\$ 621,150,000		\$ 991,516,000
7.0	Allowance for undefined items							\$ 121,446,000				
7.1	(Within the scope this is the unknown knows)		16.0%	of Subtotal Direct Cost				\$ 121,446,000				
	Subtotal - Allowance for Undefined Items							\$ 121,446,000	20%	\$ 97,156,800	80%	\$ 218,602,800
	Total Direct Cost with Allowance for Undefined Items							\$ 880,486,000		\$ 718,327,000		\$ 1,210,119,000
8.0	Contractor Markup Cost											
8.1	Shift premiums and overtime		4.0%	of Total Direct Cost				\$ 17,609,500	0%	\$ 17,609,500	0%	\$ 17,609,500
8.2	Taxes		5.4%	of Total Direct Cost				\$ 23,773,000	10%	\$ 21,395,700	10%	\$ 26,150,300
8.3	Mobilization		5.0%	of Total Direct Cost				\$ 22,423,000	10%	\$ 19,810,800	15%	\$ 25,313,800
	Subtotal - Contractor Markup Cost							\$ 63,805,500		\$ 58,816,000		\$ 69,073,600
	Engineer's Estimate (before Owner's Cost, Prel Eng/ Admin, ROW, Escalation & Contingency/ Risk)							\$ 943,880,500		\$ 777,143,000		\$ 1,279,192,600
9.0	Owner's Markup Cost											
9.1	Construction engineering		8%	of Engineer's Estimate				\$ 75,510,000	20%	\$ 60,408,000	25%	\$ 94,387,500
9.2	Programmatic allocations		4.5%	of Engineer's Estimate				\$ 42,475,000	25%	\$ 31,856,250	0%	\$ 42,475,000
	Subtotal - Owner's Markup Cost							\$ 117,985,000		\$ 92,264,000		\$ 136,863,000
	Construction Cost (before Prel Eng/ Admin, ROW, Escalation & Contingency/ Risk)							\$ 1,061,865,500		\$ 869,407,000		\$ 1,416,055,600
II	Preliminary Engineering (PE)											
	Design and Administration ⁹		12%	of Engineer's Estimate				\$ 113,266,000	10%	\$ 101,939,400	25%	\$ 141,582,500
	Programmatic Allocations		4.5%	of Design and Administration				\$ 5,097,000	25%	\$ 3,822,750	0%	\$ 5,097,000
	Total Preliminary Engineering Cost							\$ 118,363,000		\$ 105,762,150		\$ 146,679,500
III	Right-Of-Way (RW)											
	Acquisition and Relocation ⁶							\$ 130,000,000	10%	\$ 117,000,000	25%	\$ 162,500,000
	Administration and Condemnation Risk		10%	of Acquisition and Relocation				\$ 13,000,000	10%	\$ 11,700,000	25%	\$ 16,250,000
	Programmatic Allocations		4.5%	of Acquisition, Relocation and Administration				\$ 6,435,000	50%	\$ 3,217,500	0%	\$ 6,435,000
	Total Right-of-Way Cost							\$ 149,435,000		\$ 131,917,500		\$ 185,185,000
	Total Installed Cost (TIC) of Project (without Escalation & Contingency/ Risk)							\$ 1,330,000,000		\$ 1,107,000,000		\$ 1,748,000,000
	Contingency/Risk to get to a "reasonable and prudent" amount							\$ 332,500,000	20%	\$ 266,000,000	30%	\$ 432,250,000
	Contingency/Risk addition to get to "accepted" value ^{10,11}							\$ 85,250,000		\$ (115,625,000)		\$ (255,312,500)
	Escalation							\$ 166,250,000	10%	\$ 149,625,000	50%	\$ 249,375,000
	Total Installed Cost (TIC) of Project (with Escalation & Contingency/ Risk)							\$ 1,914,000,000		\$ 1,407,000,000		\$ 2,174,312,500
	Total Installed Cost (TIC) of Project (with Escalation & Contingency/ Risk-Rounded)							\$ 1,900,000,000		\$ 1,400,000,000		\$ 2,200,000,000

Foot Notes:

- 6th Avenue Harrison to Roy and Mercer 5th to Dexter not included and will be performed by City of Seattle
- Central Seawall - S Washington to Madison & Union to Pine - Anchored Soils Improvement (ASI) Type A; and Madison to Union ASI Type B (North Seawall \$140 million **not** included)
- Single Bored 52' dia 9,000 lf long Tunnel and associated South and North Tunnel Portals - Costs revised per Ken Fiorentino HCSS estimate 3 Dec 08
- Allowance at South End for grade separation between NB On-Off Ramps (which connect into Royal Brougham) and Frontage/ AW Surface Streets
- BST Phase II assumed to be deleted
- ROW Costs have been reduced as the single bored tunnel alignment is shorter by 2000' and a lesser number of properties need to be acquired. However all of the WOSCA site will need to be acquired.
- Changes noted and coded green
- Specialty Items associated with the portals and ventilation buildings including landscaping.
- This includes all of the pre-design efforts, EIS, and design and geotechnical engineering and owner's management costs.
- This color code shows the changes made on 8Jan09 to reflect the discussions held among various WSDOT managers.
- This color code shows the changes made on 9Jan09 to reflect the commitment by Dave Dye for connectivity north of the North Portal.

