



## CAPITAL CONSTRUCTION PROJECT ESTIMATING MODEL

June 6, 2012

Portland Public Schools uses Portland Metro area cost estimates to develop preliminary or “conceptual design” budgets for major capital improvements including planned building “replacements” and “full modernizations”

### A. “Hard” cost estimates

Rider Levett Bucknall’s (RLB) USA Report profiles “hard construction” cost estimates for regions around the U.S. For first quarter 2012, their published cost ranges for the Portland Metro area were:

School type	Low	Midpoint	High
Elementary (PreK-8)	\$180/SF	\$208/SF	\$235/SF
High Schools (9-12)	\$190/SF	\$220/SF	\$250/SF

Costs vary as a consequence of factors such as site conditions, standards of specification, market conditions, etc. RLB’s values represent “hard construction” costs based on dollars per square foot of gross floor area on “greenfield” sites. PPS has selected the “midpoint” values. They do not include costs of demolition, hazardous material abatement or exterior site work (walkways, outdoor learning areas, play fields/equipment, parking, exterior signage, storm drain systems, lighting, athletic facilities, etc.). These costs are accounted for as “on-site” improvements and are estimated using \$8.00 per square foot (of site not building) based on local experience.

### B. “Soft” cost estimates

Project costs associated with contracts for architectural/engineering & other planning/design consultants, fees for permitting & systems development charges paid to the local jurisdiction and project management costs for District staff & supporting consultants are added as a percentage of “hard construction” costs. PPS selected 20% based on local Portland Metro School District experience although this figure can vary based on specific project requirements. Here is a range of soft cost percentages based on planning criteria used by other Portland Metro School Districts:

	Low	Midpoint	High
School District “soft costs”	12%	20%	27%

### C. “Contingency” cost estimates

Project costs associated with unknowns such as unforeseen conditions, unexpected jurisdiction requirements, design error/omission and changes in work scopes. Typically 10% of the sum of “soft” and “hard” costs are used for new construction and 15% for major alterations/modernizations. These costs are consistent with industry practice based on two professional cost consultant recommendations and local experience.

### D. Furniture, Fixtures & Equipment (FF&E) cost estimates

District estimating methodologies strive to account for a complete & usable facility to ensure readiness for student & staff use. Therefore, various items including desks, chairs and other items not intrinsic to the building need to be incorporated. 12.00\$/SF is used for K12 public improvements based on local experience although this figure can vary based on specific project requirements.

	Sandy Budget 2010	Sandy Actual 2012	PPS Budget A Replacement Budget Equivalent 2012
<b>Sandy HS</b>			
Site, SF (30ac)	1,306,800	1,306,800	
Bldg, SF	310,000	310,000	
<i>Construction delivery method - CM/GC</i>			
<b>COMPONENT</b>			
Hard (bldg)	\$ 72,714,000	\$ 72,714,000	\$ 68,200,000
Calc \$/SF Bldg	\$ 234.56	\$ 234.56	\$ 220.00
Hard (site)	\$ 10,800,000	\$ 10,800,000	\$ 10,454,400
Calc \$/SF Site	\$ 8.26	\$ 8.26	\$ 8.00
<b>HARD SUBTOTAL</b>	<b>\$ 83,514,000</b>	<b>\$ 83,514,000</b>	<b>\$ 78,654,400</b>
Soft	\$ 10,268,200	\$ 10,268,200	\$ 15,730,880
Calc % of Hard	12%	12%	20%
<b>HARD &amp; SOFT SUBTOT</b>	<b>\$ 93,782,200</b>	<b>\$ 93,782,200</b>	<b>\$ 94,385,280</b>
Contingency (1)	\$ 7,157,000	\$ 1,157,000	\$ 9,438,528
Calc % of sub	8%	1%	10%
<b>SUBTOTAL</b>	<b>\$ 100,939,200</b>	<b>\$ 94,939,200</b>	<b>\$ 103,823,808</b>
FF&E	\$ 6,200,000	\$ 5,750,000	\$ 3,720,000
Calc \$/SF Bldg	\$ 20.00	\$ 18.55	\$ 12.00
<b>TOTAL (2)</b>	<b>\$ 107,139,200</b>	<b>\$ 100,689,200</b>	<b>\$ 107,543,808</b>

(1) Initially budgeted at 8%. However, due to a lower than expected bid and fewer change orders, construction phase "saved" \$6M.

(2) Construction cost index for Portland Metro area increased by 2.2% from Spring 2011 to Spring 2012. Expect it to increase another 3% over the next year.