



October 26, 2015

## **2012 Bond Project-by-Project Analysis**

The bond program team has conducted an analysis to determine what, if any, additional funds are needed to supplement specific projects within the 2012 bond program.

The result of this review shows that up to \$212.4 million in additional dollars could be needed to complete projects as originally proposed when the 2012 bond program was approved. However, it should be noted that this amount could be less, depending on market conditions and actual costs, once bids are received and contracts negotiated.

The baseline for the analysis was looking at every project's original construction budget on a per-square-foot basis. On average, most projects were originally budgeted at \$160 per square foot, with some specialty schools – including HSPVA and DeBakey – receiving higher amounts because of their unique programmatic needs.

The team then considered all of the recent data on current market conditions, informed by actual bids, current research and data, as well as projected inflation estimates. For projects currently under construction, the difference between the original budgets, plus reserves and inflation, and the awarded contract costs, was calculated. Those projects include Barnett, Butler, DeBakey, Delmar, Furr, Grady, Lee, Mandarin, Mark White, Mickey Leland, Milby, North Early, South Early, Sterling, Waltrip and Worthing (Phase 2).

For projects about to start construction, the average square foot cost was recalculated at \$222, up 38.75 percent from the original. For those projects slated to begin construction in the second quarter of 2016 or later, the average square foot cost was calculated at \$235 – an increase of 46.8 percent from the original. The spike in costs can be attributed to the region's construction boom over the last several years, which has created a huge demand for workers and materials. HISD is not alone in this situation, as other districts throughout the area are facing similar challenges with their building programs.

The district already has taken some steps to mitigate these higher costs, including moving inflation and some reserve dollars to each project's construction budget. However, there is still a shortfall, and this supplemental funding proposal would ensure that all original commitments made in the bond program are fulfilled, based on all known conditions as of Oct. 26, 2015.

To develop the projected inflation estimates, the bond team did an analysis, looking at actual bids and other data. In early 2014, some of the first bond projects to be bid were coming in below \$192 per square foot.

However, by the end of 2014, HISD was seeing design estimates and bids in the range of \$210 per square foot. At this point in time, industry analysts were reporting higher than anticipated costs in construction materials and labor as well as higher markups by contractors. As further confirmation of the \$210 per-square-foot number for new construction, the Annual School Construction Report from School Planning & Management magazine, published in February 2015, listed the 2014 median cost for high school construction in Region 9 (AR, LA, OK, and TX) as \$209.84 per square foot. This represented an



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increase of \$18 per square foot above the amount available in the 2012 Bond Program. (\$210 - \$192 = \$18)

By mid-2015, commercial construction in the Houston area was reported to be increasing at a rate of 5.69% for labor and 5.71% for materials (As a general rule, labor is 45% of the total cost and materials are 55% of the total). This was based on a survey of Houston area contractors conducted and reported by Associated General Contractors Houston. Based on this information, the team used 5.7% as the inflation rate for 2015.

Using this amount, the team multiplied the 2014 cost of \$210 per square foot by 5.7% to arrive at the 2015 cost of \$222 per square foot

For 2016 cost projections, the team again used 5.7% as the inflation rate. This was based on market conditions that indicate the rate going forward will be about the same as for 2015.

Therefore, if you increase the 2015 rate of \$222 per square foot by 5.7%, the 2016 projection would be \$235 per square foot

In a few cases, the team found projects that require no supplemental funding. Others require significant infusions. It should be noted that all projects not under construction are subject to market influences, and any current projections and assumptions may need to be updated. For the purpose of this analysis, the budgets (noted in Column A) for the following projects were recalculated at the lower inflation rate of 38 percent: Dowling, Eastwood, HSPVA, Kashmere, Lamar, Parker, Sharpstown High, Sharpstown International, Washington, Worthing (Phase 2), Young Women's, and Yates.

All other projects were recalculated at the higher projected inflation rate of 46.8 percent, including Bellaire, Davis, Askew, Sam Houston, Jordan, Austin, Garden Oaks, Jones, Madison, Pilgrim Academy, Scarborough, Westbury, Wharton Dual Language, and Wilson Montessori.

The district's Finance Department has identified a way to fund the additional construction-inflation needs should the Board of Education approve the proposal. However, it should be emphasized that no new monies would be allocated until the time that they are needed. The hope is that market conditions may improve and that some needs may be met through other board-approved mechanisms, including future 2012 program reserves, if available.

Finally, this document should be considered a working realignment of the 2012 bond program and may be updated with board approval as new information becomes available.

## Proposed Supplemental Funding 2012 Bond Program

DRAFT - For Internal Discussion Purposes Only

A	B	C	D	E	F	G	H	I	J
Project	Budgeted Construction Dollars	Reserves and Inflation Dollars	Total Budgeted Dollars <small>(Column B + Column C)</small>	Awarded Construction Contract	Contracts Pending Award	Variance btw Budgeted and Awarded Costs <small>(Column E or Column F - Column D)</small>	Unbudgeted Additional Costs	Total Supplemental Funding Needed	Comments
<b>Projects Under Construction</b>									
DeBakey High School	\$41,483,501	\$5,581,920	\$47,065,426	\$48,282,232		\$1,216,806	\$1,366,000	\$2,582,806	Additional Costs needed to address TMC standards, unforeseen underground conditions, and reimbursement of TECO equity fees.
Delmar Fieldhouse	\$34,348,455	\$3,267,897	\$37,616,357	\$38,661,450		\$1,045,093	\$0	\$1,045,093	Original construction budget in Column B includes the addition of 2007 Bond Program funds.
Grady Middle School	\$8,816,000	\$1,394,635	\$10,210,641	\$10,473,381		\$262,740	\$0	\$262,740	Supplemental funding needed to replenish previously reallocated budget items.
Mandarin Chinese Immersion Magnet School	\$19,138,988	\$3,563,640	\$22,702,633	\$26,313,215		\$3,610,582	\$0	\$3,610,582	Supplemental funding needed to replenish previously reallocated budget items.
Milby High School	\$40,162,694	\$8,069,639	\$48,232,338	\$52,452,182		\$4,219,844	\$6,014,400	\$10,234,244	Additional costs needed to address significant hidden underground conditions and unforeseen existing building conditions. Supplemental funding needed to replenish previously reallocated budget items.
North Houston Early College High School	\$10,522,082	\$1,549,221	\$12,071,306	\$11,256,724		-\$814,582	\$0	\$0	Supplemental funding is not requested.
South Early College High School	\$10,450,000	\$1,549,221	\$11,999,224	\$11,022,441		-\$976,783	\$750,150	\$0	Supplemental funding is not requested.
Sterling High School	\$41,198,668	\$10,373,184	\$51,571,857	\$45,380,795		-\$6,191,062	\$0	\$0	Supplemental funding is not requested.
Waltrip High School	\$18,116,239	\$3,022,485	\$21,138,729	\$23,262,690		\$2,123,961	0	\$2,123,961	Supplemental funding needed to replenish previously reallocated budget items.
Worthing High School (Ph. 2)	\$16,773,441	\$3,602,248	\$20,375,689		\$23,273,149	\$2,897,460	0	\$2,897,460	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Furr High School	\$29,792,812.00	\$9,448,811	\$39,241,628	\$40,500,152		\$1,258,524	\$0	\$1,258,524	Supplemental funding needed to replenish previously reallocated budget items.
Lee High School	\$43,626,429.00	\$9,194,086	\$52,820,515	\$53,887,147		\$1,066,632	\$0	\$1,066,632	Supplemental funding needed to replenish previously reallocated budget items.
Mickey Leland College Prep	\$24,845,504.00	\$4,977,452	\$29,822,956	\$30,974,000		\$1,151,044	\$500,000	\$1,651,044	Additional costs needed to address athletic field development on purchased property.
Mark White Elementary School	\$13,920,000.00	\$2,758,814	\$16,678,814	\$16,049,020		-\$629,794	\$0	\$0	Supplemental funding is not requested.
<b>Subtotal (Under Construction):</b>								<b>\$26,733,084.90</b>	

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<b>Projects in Design or Pricing Phase</b>									
HSPVA	\$48,397,050.00	\$10,585,997	\$58,983,047		\$67,150,907	\$8,167,860	\$0	\$8,167,860	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Sharpstown High School	\$34,166,925.00	\$5,350,098	\$39,517,023		\$47,406,608	\$7,889,585	\$0	\$7,889,585	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Washington High School	\$29,975,845.00	\$6,767,706	\$36,743,551		\$41,591,485	\$4,847,934	\$0	\$4,847,934	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Bellaire High School	\$69,708,764.00	\$11,885,555	\$81,594,319		\$102,384,747	\$20,790,428	\$4,500,000	\$25,290,428	Unbudgeted Additional Costs needed to address projected construction start date of 3rd quarter 2017 and associated cost escalation. Calculation in Col. F is based on a construction cost escalation of 46.875%.
Davis High School	\$26,600,884.00	\$5,449,507	\$32,050,391		\$39,070,048	\$7,019,657	\$12,614,000	\$19,633,657	Unbudgeted Additional Costs needed to address unforeseen conditions in existing building, and alignment of needed scope with project budget. Calculation in Col. F is based on a construction cost escalation of 46.875%.
Dowling Middle School	\$35,294,856.00	\$6,556,900	\$41,851,756		\$48,971,613	\$7,119,857		\$7,119,857	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Eastwood Academy	\$4,940,000.00	\$2,377,600	\$7,317,600		\$6,854,250	-\$463,350		\$0	Calculation in Col. F is based on a construction cost escalation of 38.75%. Supplemental funding is not requested.
Lamar High School	\$69,418,950.00	\$11,972,378	\$81,391,328		\$96,318,793	\$14,927,465		\$14,927,465	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Parker Elementary School	\$17,525,453.00	\$3,266,070	\$20,791,523		\$24,316,566	\$3,525,043		\$3,525,043	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Yates High School	\$34,614,584.00	\$7,788,880	\$42,403,464		\$48,027,735	\$5,624,271		\$5,624,271	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Askew Elementary School	\$15,755,841.00	\$2,946,350	\$18,702,191		\$23,141,391	\$4,439,200		\$4,439,200	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Jordan High School	\$21,461,136.00	\$4,305,360	\$25,766,496		\$31,521,044	\$5,754,548		\$5,754,548	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Sam Houston High School	\$60,649,140.00	\$11,253,326	\$71,902,466		\$89,078,424	\$17,175,958		\$17,175,958	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Young Women's College Prep	\$17,419,606.00	\$2,740,908	\$20,160,514		\$24,169,703	\$4,009,189		\$4,009,189	Calculation in Col. F is based on a construction cost escalation of 38.75%.

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Austin High School	\$39,899,550.00	\$7,541,235	\$47,440,785		\$58,602,464	\$11,161,679		\$11,161,679	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Garden Oaks K-8 Academy	\$15,183,862.00	\$2,921,479	\$18,105,341		\$22,301,297	\$4,195,956		\$4,195,956	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Jones High School	\$706,893.00	\$35,345	\$742,238		\$1,038,249	\$296,011		\$296,011	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Kashmere High School	\$10,167,706.00	\$1,886,257	\$12,053,963		\$14,107,692	\$2,053,729		\$2,053,729	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Madison High School	\$47,765,288.00	\$11,196,861	\$58,962,149		\$70,155,267	\$11,193,118		\$11,193,118	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Pilgrim K-8 Academy	\$3,840,000.00	\$839,519	\$4,679,519		\$5,640,000	\$960,481		\$960,481	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Scarborough High School	\$7,354,863.00	\$1,369,967	\$8,724,830		\$10,802,455	\$2,077,625		\$2,077,625	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Sharpstown International School	\$3,866,127.00	\$689,745	\$4,555,872		\$5,364,251	\$808,379		\$808,379	Calculation in Col. F is based on a construction cost escalation of 38.75%.
Westbury High School	\$22,686,890.00	\$4,376,882	\$27,063,772		\$33,321,370	\$6,257,598		\$6,257,598	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Wharton Dual Language School	\$18,928,600.00	\$5,251,047	\$24,179,647		\$27,801,381	\$3,621,734		\$3,621,734	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Wilson Montessori K-8 Academy	\$12,522,720.00	\$61,992	\$12,584,712		\$18,392,745	\$5,808,033		\$5,808,033	Calculation in Col. F is based on a construction cost escalation of 46.875%.
Barnett Fieldhouse	\$3,581,791.00	\$233,351	\$3,815,142	\$3,502,597		-\$312,545	\$1,300,000	\$987,455	Unbudgeted Addl. Costs needed to address needed press box renovations, field lighting, and other capital improvements.
Butler Fieldhouse	\$3,423,403.00	\$226,973	\$3,650,376	\$3,502,597		-\$147,779	\$1,850,000	\$1,702,221	Unbudgeted Addl. Costs needed to address needed press box renovations, field lighting, and other capital improvements.
<b>Subtotal (Design &amp; Pricing Phase):</b>									<b>\$179,529,016</b>
Associated Program Soft Costs:								\$6,187,863	Additional soft costs include program management fees, and other cost associated with the increase in construction budgets.
<b>Program Total:</b>								<b>\$212,449,963.98</b>	