

**Hallandale High School
Roof Replacement
P.000889**

EXHIBIT 4

Staff Analysis

Total Program Management (TPM) Delivery vs. Hard Bid Delivery

Project Chronology: On September 9, 2008, The School Board of Broward County, Florida (SBBC) solicited Total Program Management Services (TPM) for Roof Replacement Projects – Bid No. 2008-35-FC. TPM is similar to a Design/Build delivery of construction services that combines the design function and the construction function into one entity, the TPM Construction Manager. This combination is helpful with transferring design and construction errors, omissions, delay claims and change order cost overrun risks from the SBBC to the TPM Construction Manager. The Hard Bid delivery may place some of the design and construction risk with the SBBC as SBBC may be under contract separately with an architect, engineer, and general contractor.

Hallandale High School was one of the projects identified to be delivered utilizing the TPM construction method. On December 15, 2009 the Board awarded National Roofing of South Florida, Inc. a construction and design budget of \$2,479,352. Final cost estimating and negotiations reduced the cost of construction by \$879,674 and resulted in a Guaranteed Maximum Price (GMP) of \$1,599,678. Re-permitting costs under the 2010 Florida Building Code will be minimal and are incorporated within the GMP. Staff is presently recommending Board approval to award the GMP for the project as it has the most value and least risk among the options illustrated on the attached Table 1.

This item was presented to the May 30, 2012 Board meeting and was postponed to the June 19, 2012 Board meeting which was then voted down. Staff is ready to pursue the Hard Bid delivery method discussed during the June 19, 2012 Regular School Board Meeting. There exists the possibility that hard bids may not render a square foot cost of less than or equal to the \$6.49 per square foot and the Board thereby assumes the risk that the costs may increase (Table 3). Factors such as change-orders, delays, or non-performance could result in higher costs. Also, the TPM is obligated to return any buy-out savings and unspent contingency to the Board while such a requirement is not feasible and does not exist in a hard bid procurement method.

Staff is aware of the potential savings that a traditional Design/Bid/Build (Hard Bid) construction delivery **may or may not** accrue to the SBBC. It is Staff's opinion that the TPM GMP of \$1,599,678 could be exceeded if the project were to be advertised for a Hard Bid delivery based on the comparable project roofing square foot costs detailed in the attached Table 2.

Should this item not be approved, the total cost to terminate the TPM Contract is \$69,619. Fees for the pre-design and design phases paid to date total \$65,808. The TPM is due \$3,811 for the Bidding and Award phase. Fees to complete the project under a hard bid contract would range between \$30,000 and \$50,000. The resulting potential costs to hard bid could approach \$1,731,485, about \$131,807 more than the proposed GMP. (See Table 4)

Because the roof currently leaks and results with consequential damage to the interior of the building, there is also the potential for additional costs to maintain the facility until the hard bid contractor were to commence work. It is estimated that work under a hard bid would not commence until March 2013, or two months later than the TPM contractor should commence work. (See Table 1).

TABLE 1 - Schedule and Cost Comparisons - Hallandale HS
Re-Roofing Options

	COMPARISON OF OPTION COST AND SCHEDULES			
	1	2	3	4
OPTION / EVENT	Award TPM Re-Roofing GMP	Select New A/E and Hard Bid	Use Open End A/E and Hard Bid	Hard Bid TPM Documents
Authorize RFQ for New A/E	N/A	8/7/12	N/A	N/A
Advertise RFQ for New A/E	N/A	8/14/12	N/A	N/A
Receive Responses to RFQ	N/A	9/13/12	N/A	N/A
Short-List A/E Responses	N/A	9/27/12	N/A	N/A
Interview A/E Respondents	N/A	10/11/12	N/A	N/A
Select A/E for Award	N/A	10/18/12	N/A	N/A
Negotiate Agreement	N/A	11/1/12	N/A	N/A
Award A/E Agreement	N/A	12/4/12	N/A	N/A
Issue ATP and PO	N/A	1/3/13	7/17/12	N/A
Prepare 50% Constr Docs	N/A	3/4/13	9/15/12	N/A
Review 50% Constr Docs	N/A	6/2/13	12/14/12	N/A
Prepare 100% Constr Docs	N/A	8/1/13	2/12/13	N/A
Review 100% Constr Docs	N/A	10/30/13	5/13/13	N/A
Authorize Bidding	N/A	12/3/13	5/14/13	7/24/12
Advertise for Bids	N/A	12/10/13	5/21/13	8/14/12
Receive Bids	N/A	1/7/14	6/11/13	9/4/12
Award GMP or Contract	8/7/12	2/4/14	7/16/13	10/16/12
Receive Post Award Docs	N/A	2/24/14	8/5/13	11/5/12
Issue NTP - Permitting	8/21/12	3/3/14	8/12/13	11/12/12
Review Shop Drawings	11/19/12	6/1/14	11/10/13	2/10/13
Issue Permit	11/24/12	6/6/14	11/15/13	2/15/13
Issue NTP - Construction	12/1/12	6/13/14	11/22/13	2/22/13
Construction (125 days)	4/5/13	10/16/14	3/27/14	6/27/13
Final Completion	6/4/13	12/15/14	5/26/14	8/26/13
ESTIMATED COST	\$ 1,599,678	\$ 2,019,604	\$ 1,908,789	\$ 1,731,485
Notes:	The maximum cost is known and there exists a potential for cost savings accruing to the district.	Cost is based on Option 4, plus 8% A/E fees, and then inflated to 2014 bids by 8%. Work would commence Summer 2014	Cost is based on Option 4, plus 6% A/E fees, and then inflated to 2013 bids by 4%.	The cost of the reroofing work of \$1,437,161 is based on current RS Means costs discounted at current contract rate for the quantity of reroofing work. The estimate includes \$45,989 for open end consultant to provide contract administration, \$69,619 in fees paid for services to the TPM, \$10,000 for workorders, and \$25,000 for re-engineering design to current code. The contingency for change-orders is \$143,716 or 10% of the reroofing cost.

TABLE 2 - Hallandale HS - TPM Re-Roofing - Cost Comparisons

Hallandale HS - TPM Contract		
GMP	\$	1,599,678
Pre-Design, Design, Bid and Award Fees		69,619
Adjusted Cost		1,530,059
Quantity (SF)		235,888
Cost per SF	\$	6.49

Hallandale HS - CSMP Contract		
Estimated Cost	\$	2,154,664
National Roof Factor @ .667		
Adjusted Cost		1,437,161
Cost per SF	\$	6.09

Coconut Creek HS - Hard Bid Oct. '08		
Bid/Awarded Contract	\$	2,499,500
Change-Orders		548,600
Adjusted Contract		3,048,100
Quantity (SF)		177,000
Cost per SF	\$	17.22

South Plantation HS - TPM - Aug. '09		
GMP	\$	3,233,375
Quantity (SF)		191,913
Cost per SF	\$	16.85

Bair MS - TPM - Nov. '10		
GMP	\$	1,513,422
Quantity (SF)		143,947
Cost per SF	\$	10.51

Notes:

- 1) Not all unit items considered in CSMP comparison.
- 2) CSMP comparison is realistic hard-bid estimate
- 3) Conservative adjustments considered in CSMP comparison
- 4) Actual SF for Coconut Creek HS comparison pending
- 5) May need to factor out some scope from Coconut Creek HS comparison when full scope is provided.

TABLE 3 - Roofing Cost Comparisons 6/26/12

	Contract Type	Year of Bid	Cost per Square Foot
Hallandale HS	TPM	2012	\$ 6.49
Cooper City HS	Design Build	2011	\$ 7.45
Fort Lauderdale HS	Hard Bid	2011	\$ 9.64
Coconut Creek HS	Hard Bid	2008	\$ 17.22
South Plantation HS	TPM	2009	\$ 16.85
Bair MS	TPM	2010	\$ 10.51

TABLE 4 - Probable Cost of Construction

Hallandale HS - Hard Bid Contract and Project Costs

Estimated Reroofing Cost Utilizing RS Means Facilities Cost Data	\$ 2,154,664
Discount Factor @ .667 (Market Factor)	<u>\$ 717,503</u>
Adjusted Reroofing Cost	<u>\$ 1,437,161</u>
Basic Fees	
Cost to Terminate TPM Contract (Sunk Cost)	\$ 69,619
Project Consultant (Contract Administration)	\$ 45,989
Re-engineering to meet code	\$ 25,000
Workorders	\$ 10,000
Change Order Contingency	<u>\$ 143,716</u>
TOTAL POTENTIAL PROJECT COST FOR HARD BID	<u><u>\$ 1,731,485</u></u>
TOTAL PROJECT COST FOR TPM	<u>\$ 1,599,678</u>
POTENTIAL ADDITIONAL COST TO HARD BID	<u><u>\$ 131,807</u></u>