

District: North Attleborough
School Name: Joseph Martin Elementary School
Category: Project Scope and Budget Agreement
Date: January 27, 2010

Recommendation

That the Executive Director be authorized to enter into a Project Scope and Budget Agreement and Project Funding Agreement with the North Attleborough School District for the proposed roof replacement project at the Joseph Martin Elementary School.

Background

In 2009, North Attleborough submitted two Statements of Interest (SOIs), originally listing the Early Learning Center (PK) as its priority, but then switching its priority to the Joseph Martin Elementary School (K-5). The Joseph Martin Elementary School is a 79,886 square foot, single story facility accommodating approximately 700 students. The Joseph Martin Elementary School facility includes the original 1967 building with an addition constructed in 1994.

In the Statement of Interest, the District identified its main concern as the failing roof over the original 1967 portion of the building. The District employs numerous methods to contain storm-water, including rubber tubing, trash barrels, and buckets to catch the water leaking to the interior caused by this ponding.

Existing Conditions

The District selected a Designer, CBI Consulting Inc. (CBI), to evaluate the existing conditions of the roofing, the roofing structure, drainage, and associated adjacent construction at the original section of the school in order to determine repairs needed. The 31,500 EPDM roof over the original section of the school was installed in 1987 and was the focus of CBI's study.

The deficiencies on the existing EPDM roof include failing seams, edge and wall flashings; saturated insulation throughout the entire roof area; ponding in many locations; weathered mortar joints that are open to wind driven rain; failing through wall flashings; rusted metal deck; and, water under the insulation in some of the concrete deck areas.

CBI has concluded that the roof that was installed in 1987 on the original portion of the facility has reached the end of its useful life and should be replaced.

Proposed Scope

The proposed scope of work includes: the removal of all the existing EPDM roofing membrane, wet and dry fiberboard insulations, deteriorated wood blocking, and deteriorated metal decking; the installation of replacement metal decking; mechanical fastening of tapered insulation to the metal decks and installation with bonding adhesive on concrete areas; the installation of a four-ply cold process and built up roofing system and related flashings; the replacement of all drains with new drains; the installation of new edge metal; the installation of one new roof hatch and ladder; and, the installation and flashing of new curbs for four new skylights.

The District has experienced problems with vandalism and roof access in the town and has begun a roof replacement program using built up roofing as a standard. Built up roofing (BUR) systems provide a thick damage resistant roofing membrane with a gravel surface. The advantage of this type of roof is that it is difficult to puncture or tear and typically lasts longer than a single ply roof.

However, the anticipated construction cost of the built up roof is approximately \$687,308, which is approximately \$165,375 or \$5.25 per square foot higher than the cost of an EPDM roof, which is approximately \$521,933. Due to budget concerns, the District has included a deduct alternative to provide an option for installation of EPDM roofing if the bids for the built up roof come in higher than anticipated. Current EPDM roofing technology has changed to include seam tape to replace the adhesives used in the past that have often failed prematurely. EPDM roofs are widely and successfully used although are easily punctured and are susceptible to damage from abuse.

Conclusion

Based on an evaluation of the information submitted by the District and its consultant, MSBA staff agrees with the District's recommendation to remove and replace the existing roof with a new four ply built up roofing system at the Joseph W. Martin Elementary School.

The District anticipates starting the project in June, 2010 with an estimated completion in September, 2010. The total cost of the project is estimated to be \$785,674, and the recommended MSBA grant would be approximately \$409,022, based on a reimbursement rate of 52.06%. These amounts are subject to adjustments based on the bid results and audit of the costs incurred.

Joseph W. Martin Elementary School Roof = 31,500 square feet	District's Proposed Total Project Budget	Basis of Total Facilities Grant
Total Project Budget:	\$785,674	\$785,674
Project Cost per square foot	\$24.94/sf	\$24.94/sf
Total Construction Budget	\$687,308	\$687,308
Construction Contingency	\$34,365	\$34,365
Construction Cost per square foot*	\$21.82/sf	\$21.82/sf
Reimbursement Rate		52.06%
Total Facilities Grant		\$409,022

* Does not include Construction Contingency