

# **BANC3 Identifies \$20 Million in Proposed Savings for NJ Schools Development Authority**

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As reported in the July edition of **BANC Statements**, BANC3 is providing the New Jersey Schools Development Authority (SDA) with professional staffing services for the construction and rehabilitation of schools in special-needs SDA (formerly Abbott) districts. Since this project began, the staff selected by BANC3 has reduced construction costs through Value Engineering, corrected engineering plans to eliminate unnecessary architectural features and to meet code compliance, and addressed emergent conditions in both SDA District and Regular Operating District (ROD) schools.

Under its current capital plan for SDA Districts, the SDA will construct 29 new schools and complete 27 previously deferred projects using an allocation of \$2.9 billion in state funding. A second state allocation of \$1 billion will enable the SDA to provide services in RODs.

The staff provided by BANC3 is supporting the SDA through engineering review and value engineering of all schools in the current program. The main focus at present is to review and complete plans begun under the administration of the former NJ Schools Construction Corporation (SCC). Due to a budget shortfall in 2007, the SCC stopped work on these plans, leaving them between 25% – 50% completed. As the SCC did not

review engineer's plans, many of the schools being developed contained unnecessary architectural features that were either unnecessary or did not meet New Jersey Department of Education (DOE) requirements for classroom or school facility size. Millions of dollars were therefore diverted to constructing these features rather than to other schools that needed to be built.

To identify and correct these issues, BANC3 senior civil engineer Terry Matthews and his team of architects have been reviewing all new school plans to determine constructability, code compliance, and cost control. After discovering classrooms designed to 1100 sf, Mr. Matthews' team worked with SDA personnel to initiate corrections to reduce floor space to the state mandate of 950 sf. Their recommendations to lower ceiling heights from 14 ft to 9 ft recovered misused space without risking housing requirements for mechanicals. Further, they eliminated other, unneeded rooms such as unapproved storage space and excessive janitors' closets that increased the total area of each school beyond size limits approved by DOE guidelines. Besides bringing these schools into compliance, these changes saved significant construction costs.

In conjunction with SDA engineers, Mr. Matthew's and his team also reduced costs by implementing value engineering to dispose of extravagant features such as a clock tower; ornamental lighting fixtures; ceiling lighting that exceeded state footcandle requirements; multiple motorized basketball backboards per gymnasium; and additional open space designed simply to compliment architectural features. By capturing these and similar

wasteful expenditures, BANC3 has proved to be an instrumental part of the SDA project team; we have identified proposed savings to the SDA of over \$20 million to date.

According to Mr. Matthews, SDA's Architectural and Engineering Department is committed to providing the best schools at the lowest cost while *still* meeting all DOE guidelines. "The current review and control should have been implemented under the SCC," Mr. Matthews said. "With the SDA closely monitoring all value engineering recommendations and ensuring they get implemented in the design, large amounts of construction money are being saved. This allows the SDA to complete more work with the same budget under the current program."

Mr. Matthews is providing further service to the SDA by reviewing the findings and recommendations of eight engineering consultants contracted by the SDA to investigate schools which have emergent conditions that affect human health and safety. These schools are in both districts, and encompass diverse problems not already covered in the current construction program: roofs suffering from severe water infiltration, sediment cracks, poor drainage, water seepage, masonry deterioration, windows with broken operators and seals, damaged wiring, inefficient HVAC systems, and insufficient ventilation in classrooms. The *Initial Report of Findings* encompasses 95 separate reports, including "Primary and Secondary Emergent Conditions" on schools statewide. This comprehensive report is needed by the SDA to determine priorities for school construction repairs—and their accurate scope of work requirements—for projects being considered to enter design phase by December 2008. However, upon examining some of

the consultants' recommendations, the SDA became concerned about the accuracy of these reports. For example, schools scheduled to be closed within five to seven years were proposed to receive replacement roofs with 20 year warranties rather than short-term repairs. As the SDA is investing \$50 million on improvements of these schools in 2009, the agency asked Mr. Matthews to provide his expert review of the *Initial Report of Findings* and to make recommendations for the most cost effective solutions to correct the identified emergent conditions.

Following a review of each report, Mr. Matthews makes recommendations to the SDA on whether a consultant's described corrective actions actually meet the agency's needs. To establish his conclusions, he compares the factual information provided by the consultants against the scope of work criteria fixed by the SDA and DOE for completeness and technical accuracy. Mr. Matthews then weighs options available, value engineering, code compliance, and proposed cost estimates to determine the necessity and cost effectiveness of the recommended options. If he does not confirm a report's conclusions, Mr. Matthews will recommend that the specific report be returned to the submitting consultant for additional investigation and a new report. He forwards all reports he confirms to the SDA for the agency's review and approval.

After the SDA approves the option of repair for the school, Mr. Matthews will assist in completing a recommended Scope of Work for review by the DOE. Once DOE approval is given, he will then proceed to provide oversight to develop the final design for construction.

To repair or replace aging, unsafe and overcrowded buildings, the New Jersey Schools Development Authority directs the renovation and construction of schools throughout the state, primarily in special-needs districts. The goal of the SDA is to provide every New Jersey student with the thorough and efficient education required under the state's Constitution.

As an Engineering and Information Technology consultant, BANC3 provides a fusion of essential civil and environmental engineering services with expertise in the cutting-edge computer systems that power a contemporary world. With over 70 project managers, task leaders, professional engineers, software developers, network managers, surveyors and technicians who are experts in their respective fields, we are able to insert singular design, planning and construction support immediately into a project. From our corporate headquarters in Cranbury, NJ, BANC3 implements our custom in-house services on projects across the country.

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