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# Facilities Efficiency Standards: An Analysis

## **Background**

The Facilities Efficiency Standards (FES)<sup>1</sup> were initially introduced by the Commissioner of Education in 1998 to comply with the school facilities aid requirements in the new State school funding law – the Comprehensive Education Improvement and Financing Act (CEIFA). CEIFA directed the Commissioner to develop “criteria for development of approved costs” and “State support levels” for the purpose of distributing state aid to support debt service on locally issued school facilities bonds. The criteria – called the FES – were a square-footage building template developed by non-educators to promote cost efficiency, not education adequacy.

In *Abbott V* (1998), the Court accepted the Commissioner’s recommendations for “educational adequacy standards to ensure that every school has the instructional areas sufficient to enable children to meet the CCCS (Core Curriculum Content Standards).” The *Abbott V* decision ruled that a minimum square foot requirement was essential for instructional spaces, but directed the DOE to approve “specialized” spaces in excess of the minimum requirements based on a district showing of “particularized need.”

The DOE subsequently used the FES for measuring educational adequacy as well as for containing costs. The FES are a more restrictive version of the “adequacy standards” presented to the Supreme Court by the former Commissioner<sup>2</sup> in the December 1997 proceedings ordered by *Abbott IV*. The Commissioner merely identified for the Court the minimum spaces such as a gym, cafeteria, and an appropriate number and size of classrooms to accommodate the enrollment. The FES go significantly further by identifying in detail lists of classroom types and sizes, support and administrative spaces.

After the *Abbott V* decision, the DOE issued guidelines to *Abbott* districts to complete their Five-Year Plans. Each district was directed to develop a model for elementary, middle and high schools based on the FES, with the district authorized to request additional, specialized spaces based on particularized need. Most districts requested space in excess of the FES. Some requests were approved if the DOE deemed the supporting documentation adequate, but the process continued to cause controversy because, as projects were developed, approved spaces in the model did not fit the programmatic requirements for a particular school.

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<sup>1</sup> <http://www.state.nj.us/njded/facilities/lrfp/fes.pdf>

<sup>2</sup> <http://www.state.nj.us/njded/abbotts/archives/abbottstudy2.htm>

The July 2000 Educational Facilities Construction and Financing Act (EFCFA) expressly directed the Commissioner to develop FES “for elementary, middle and high schools consistent with the [CCCS], including the provision of required programs in the Abbott districts and early childhood education programs in [those] districts.” Further, the Act states that the “area allowances per FTE student in each class of the district shall be derived from these [FES].”

The Act further makes clear, however, that the FES:

shall not be construction design standards but rather shall represent the instructional spaces, specialized instructional areas, and administrative spaces that are determined by the Commissioner to be educationally adequate to support achievement of the [CCCS] including the provision of required programs in Abbott districts and early childhood education programs in the districts in which those programs are required by the State. A district may design, at its discretion, the educational and other spaces to be included within the school facilities project. The design of the project may eliminate spaces in the [FES], include spaces not in the [FES], or size spaces differently than in the [FES] upon demonstration of the adequacy of the school facilities project to deliver the [CCCS]....

Thus, the Act makes clear that the FES can be used to set the minimum allowable space per student for purposes of determining eligibility for state funding. They are not intended to be used for project design and, in fact, the Act prohibits their use for that purpose.

The FES, as initially developed by the DOE in 1998, were reviewed in March 2002 by the Commissioner, but not changed. The FES have not been formally reviewed since that date, despite the Act’s requirement that they be reviewed every two years. A slightly less restrictive version of the FES has recently been in use by the DOE, but the present administration has determined that it was never officially authorized and a review is now underway.

For the recent Long Range Planning (2005-2010) process, the DOE guidelines did not required districts to create idealized school models, but only to use the FES to calculate the total potential space needed for each school in the Plan. The FES would apply to proposed rooms and spaces as each project was developed and presented to the DOE for approval.

## **What are the Components of the FES?**

The current FES have three major components:

1. Total allowable square footage per student for the specific type of school building. (For example; 151 gross square feet per student for high school, 134 for middle school, and 125 for preK-5)
2. Detailed listings of the types and numbers of classrooms, support spaces, and administrative offices with accompanying square footages assigned to each listing for sample school types and enrollments.
3. The grossing factor (1.4) that must be used to estimate the total gross square footage of the building. (The total net square footage of the required spaces is multiplied by 1.4 to obtain the gross square footage of the building). The grossing factor accounts for the additional space that occurs in all buildings to accommodate the mechanical systems, stairwells, storage areas, corridors, restrooms, entrance ways, etc.

The second and third components of the FES are interdependent. If one is increased, the other must decrease in order to stay within the allowable the number of square feet per student that the State will fund.

## **How the FES Are Used**

When planning and designing a school building, it is appropriate, and legally permissible, to use the FES as a basis for determining the minimum square foot per student space allowance eligible for state funding, subject to any increases for demonstrated particularized needs. It is entirely improper, and inconsistent with sound practice, to use the FES to dictate the specific instructional or other specialized spaces, or the size of spaces, that must be included in any particular school facilities project.

Yet, this is precisely how the FES have been used. They have been transformed from a methodology for determining funding eligibility into a set of rigid and conventional design standards, creating a serious obstacle to planning schools to reflect 21<sup>st</sup> century teaching and learning patterns. The FES have become an impediment to a thorough review, assessment and planning for school facilities projects by district officials and local community stakeholders, and make it difficult to plan for spaces, especially in renovation projects, to support instructional and program improvements. Further, the FES, as currently used, do not support planning for schools that could serve as centers of their communities.

The use of FES as facility planning and design standards also has the following negative effects:

- Rigid implementation of the FES spaces often inhibits creativity that could save space.
- Planning for small schools is nearly impossible, despite the requirements of the Abbott secondary initiative in moving our middle and high schools to smaller learning communities
- The FES do not address needed outdoor areas such a play spaces, recreation fields, greenhouses, gardens, environmental classrooms and parking.
- The FES make it difficult to accommodate newer teaching approaches, and to address schools with unique program delivery, such as academies, magnet schools, special education centers or alternative schools.
- The FES inhibit designing classrooms for multiple uses, such as technology classrooms<sup>3</sup> for science and math.
- The prescriptions in the FES discourage inclusion programs for student with disabilities.

Once the DOE has approved the basic design for the school, the Schools Construction Corporation takes over and the grossing factor comes into play. The 1.4 factor is meant to be a guide for calculating the additional space necessary for constructing a building on a particular site. There can be a wide variation in the space required depending on the type, height, footprint, and use of the building. Using the grossing factor as a rigid absolute affects the quality and proper functioning of a school, for example, narrowing corridors or eliminating classroom storage areas. As architects are pressured to maintain a factor of 1.4, mechanical systems are being placed on roofs, lobbies and restrooms are being downsized.

## **Recommendations**

The State must assure reasonable costs for school building projects. Use of the FES to establish a minimum square footage limit for funding purposes is acceptable, as long as the districts have the opportunity to exceed that minimum limit based on local particularized need. The FES, however, must not be used as a standard or template for planning or designing school facilities projects. Schools should be planned and designed to more closely reflect 21<sup>st</sup> century teaching and learning patterns.

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<sup>3</sup> The College of New Jersey has a vast amount of information in this area.

The use of the grossing factor must be reevaluated. A single measure for all school buildings, applied without allowance for exceptions is unfair and unreasonable. Guidelines should be developed that focus more on the proper function for different types and sizes of schools and provide for greater latitude for the resulting gross area.

Districts should be required to develop a mechanism for administrative, staff, and community input to guarantee a thorough review and assessment of the educational programs, teaching styles, and local community needs for a new or renovated school. This process should be undertaken with the assistance of an architect/planner long before pen is put to paper. In other words, a building should be designed around what will be happening in that school. Present and future needs must be addressed as well as the integration of the CCCS and all other programs, such as special education, small learning communities, or recreation and play space.

With a new approach to designing schools, the DOE will have to provide some technical assistance to districts that do not have the capacity to develop schools using a collaborative planning approach. In addition, because the DOE staff is accustomed to using a template for project review, the staff will need to receive additional training in reviewing the more creative project designs that will most likely result from the new process. It will remain necessary for the DOE staff to guarantee that a school contains the minimum space for the implementation of all needed programmatic requirements.