

BOARD OF EDUCATION
POLICY 6020
SCHOOL CONSTRUCTION PROGRAM

Effective: September 13, 1990

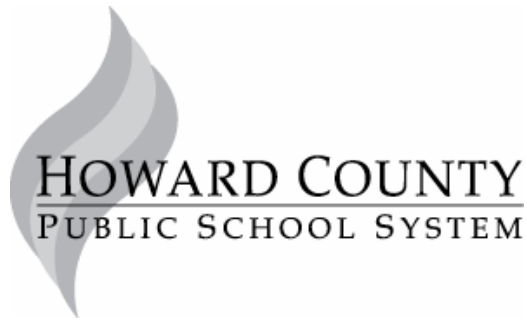
Policy Statement

There is a continuing need to plan, design, and construct new educational facilities as well as to renovate or make additions to existing schools to accommodate changing educational needs. The size, complexity, and potential cost for such a program requires that the Superintendent develop a comprehensive program in the following areas:

1. Pupil population trends in all areas of the county to serve as the basis for long-range planning of facility needs
2. Enrollment trends within the individual school attendance areas and the likely impact on school capacity within that school and adjacent areas
3. Educational program spatial requirements and assessment of the adequacy of existing facilities to accommodate present or proposed educational programs, including a broad spectrum of special education programs in a least restrictive environment
4. Cost/benefit considerations relating to facility modernization, renovation, or new construction
5. An annual six-year capital improvement program showing population projections, new capital projects needed, and associated costs
6. Community use of schools and school-related facilities

Original Approval: September 4, 1968

Date of Revision: September 13, 1990



POLICY 6020-R
REGULATIONS
SCHOOL CONSTRUCTION PROGRAM

Effective: September 13, 1990

I. Definitions

- A. Architect/Engineering Firm - person or organization professionally qualified and licensed to perform architectural and/or engineering services.
- B. Beneficial Occupancy - the use by the owner of a project or portion thereof before the project is officially complete.
- C. Bid Procedures - handled in cooperation with the Purchasing Officer and are regulated by Policy #4050. The bid is the price a contractor commits to for constructing a project.
- D. Bonds - general obligation bond issued by the county and used to fund capital projects.
- E. Capital Project - a project which costs more than \$50,000, and which is expected to have a life expectancy of at least 15 years.
- F. Change Order - a written order to the contractor signed by the owner and engineer or architect, issued after the execution of the contract, authorizing a change in the work or an adjustment in the contract sum or the contract time.
- G. Construction Manager - individual hired to coordinate and manage the construction phases of the project. The objective in utilizing a construction manager is to minimize project construction time and cost, while maintaining the quality, function, and aesthetics of the building.
- H. Design Stages
 - 1. Planning/Schematic Design (SD) - the first phase of the architect's basic services. In this phase, the architect meets with the project planning team to ascertain the requirements of the project and prepares schematic design studies consisting of drawings and other documents illustrating the scale and relationship of the project components for approval by the Board. A statement of probable construction cost is also submitted at this time.
 - 2. Design Development (DD) - the second phase of the architect's basic services. In this phase the architect prepares from the approved schematic design studies, for approval by the Board, the design development

documents consisting of drawings and other documents to fix and describe the size and character of the entire project as to structural, mechanical and electrical systems, materials and such other essentials as may be appropriate. The architect also submits to the owner a further statement of probable construction costs.

3. Construction Documents (CD) - the third phase of the architect's basic services. In this phase the architect prepares from the approved design development documents for approval by the owner, the working drawings and specifications and the necessary bidding information. A final cost estimate is prepared before the project is bid.
- I. Facility Planning - educational and architectural planning and analysis used to produce and design the concept for school projects.
 - J. Facility Design - the plans, elevations, sections, and whatever other drawings may be necessary for a building or other structure.
 - K. Final Occupancy - occurs when all or a designated portion of a building complies with the provisions of the contract and applicable county and state statutes and regulations.
 - L. Interagency Committee on School Construction (IAC) - the state agency responsible for the review/approval of construction documents and funding of schools or school construction projects. The IAC is composed of the State Superintendent of Schools; Director, Maryland Office of Planning; Secretary, Department of General Services, and the Executive Director of the State School Construction Program.
 - M. Maryland State Public School Construction Program (MSPSC) - program that provides for the funding of public school construction.
 - N. Office of School Planning and Construction - includes a director, site/demographics planner, facilities planner, plans review inspector, construction inspector, and an architect/engineer, and is responsible for all phases of planning, design and construction of new schools (planning through occupancy), as well as additions and comprehensive modernization of existing schools.
 - O. Punch List - list made near the completion of work, indicating items to be furnished or work to be performed by the contractor or subcontractor in order to complete the work as specified in the contract documents.
 - P. Transfer Tax Revenue - a source of revenue for the construction of new schools and other capital projects.

- Q. Warranty Period - period of time in which the quality of work and/or satisfactory performance is guaranteed.

II. Regulations

School Board policies and the administrative directions of the Superintendent of Schools shall be followed to organize and conduct the work of the School Construction Program. The program regulations are as follows:

- A. The work of the School Construction Program is conducted by the Office of School Planning and Construction, under the general direction of the Associate Superintendent of Finance and Operations. Daily management responsibilities are delegated to the Director of School Planning and Construction.
- B. The work of this program involves a sequential plan of action and is divided into ten general categories, each requiring professionally trained and experienced staff to plan and carry out the requirements of this program.

1. Long-Range Planning and Pupil Population Projection

The work of this section involves the annual projection of pupil population and general population growth, as well as short-range demographic studies to support the Capital Improvement Program (CIP), school attendance area studies, transportation planning, and other special needs.

By state regulation the system is also required to develop, maintain, and annually update a master plan for the school system for submission to the Interagency Committee (IAC). This plan has as its basis a variety of population studies which guide the decision making for school facilities on both a long- and short-term basis.

2. Capital Improvement Program (CIP)

The Capital Improvement Program is a projection of the school building needs for the next fiscal year (Capital Budget) and the following five-year period. The CIP is based on needs to support the educational program of the system with new schools, modernizations, and other construction projects.

The local capital improvement also serves as the basis for state funding requests through the Interagency Committee for School Construction and the Maryland State School Construction Program.

3. Site Selection - Procedures for site selection and summarization of site size criteria for elementary, middle and high schools are addressed in Policy #6000.
4. Architectural Selection - Procedures for architectural selection are addressed in Policy #6030.
5. Facility Planning and Facility Design

The facility planning and design process allows for the orderly and systematic design of school facilities. This process is conducted using the approved educational specifications for elementary, middle, or high schools as the basic policy reference for the facility in question. This document, previously approved by the Board, describes the basic educational philosophy, instructional program, and spatial requirements needed to implement this program.

In the second phase of the planning process, a facility planning team is organized consisting of school and community members, personnel from the Office of School Planning and Construction, other central office personnel, the project architect, and others that may be named by the Superintendent/designee. In a series of meetings, the architect develops a series of three design studies that meet the objectives of the educational specification, the planning team, and Board policy. At each stage of the design process the design is formally presented to the Board for its review. When satisfied that all requirements have been met, the Board then authorizes the architect to proceed to the next design phase. These phases are:

- a. Planning Phase - Planning Team
 - i. Educational Facility Program
 - ii. Planning Team
 - iii. Schematic Design
 - iv. Presentation to the Board of Education
- b. Design Development
 - i. Description
 - ii. Subject Area Layouts
 - iii. Cost Analysis
 - iv. Presentation to the Board of Education
- c. Construction Documents
 - i. Description
 - ii. Cost Analysis and Cost Reduction
 - iii. Final Review of Drawings and Specifications

- iv. Presentation to the Board of Education
- v. Preparation of Bid Documents

6. Bid and Award

The bid and award procedures for school construction projects are in conformity with those used for the procurement for other goods and services. In addition these procedures are in compliance with the requirements of the Maryland School Regulations and those of the Maryland State School Construction Program. In general, these procedures call for a publicly announced bid period where interested bidders can examine the bid documents and submit a sealed bid by the date and time required. The bid documents are opened in a public session and the price submitted for each bid item is read aloud. At a subsequent meeting of the School Board the results of the bid are presented and a recommendation to award to the lowest responsible and responsive bidder is made. If all is in order, the Board of Education will award the contract. Finally, upon submission of all documents, bonds, and other matters required in the contract, a formal contract is signed.

7. Construction and Construction Administration

During the construction phase, the building is built by the contractor according to the plans and specifications for the project. During construction, the Office of School Planning and Construction is responsible for monitoring the work and administering the schedule, budget, and change orders that affect the scope or cost of the work. The project architect serves as the owner's representative and administers the contract answers technical questions, approves submittals, and initiates change orders and requests for proposals subject to the owner's approval. The Office of School Planning and Construction also coordinates the completion schedule with the principal/designee and other school system personnel to ensure that furniture and equipment, telephone service, and food services are aware of the requirements for their respective sections. Prior to the opening of school, this office monitors each project to resolve any last minute problems and continues this supervision during the warranty period.

Construction Manager

When school projects are technically complex, have a very short construction time, or require staff attention beyond the time available, a construction manager may be hired to manage the construction process.

8. Official Acceptance of New Facilities

New facilities may be accepted in several ways. If conditions permit, the school system will wait until all major and minor building system corrections are fully complete and all minor repairs, deficiencies and discrepancies (called punch list items) have been corrected. The project architect will then certify that the building is complete and has been constructed according to the drawings and specification. This marks the beginning of the warranty period for the building. Typically school facilities are scheduled so that all construction will be complete and the building ready for acceptance in early summer. Final inspection and acceptance involves a review of the project at substantial completion of construction which includes listing of items to be adjusted, corrected, or completed by the contractor's "punch list." By late summer, in most cases, the building is complete except for minor system work and completion of the punch list items.

Following the move-in, the Office of School Planning and Construction works closely with the school administration and maintenance personnel to correct any problems that might arise during the warranty period.

9. Move-in/Evaluation Phase

After the project has been officially accepted, furnishings and movable equipment are installed, supplies are delivered and stored, and the staff occupies the facility for operation. At this time, the construction project enters into a two-year guarantee period during which time discrepancies in the workmanship, materials, and equipment supplied under the contract are noted and corrected.

After the first instructional year, an evaluation is made as to the success of the facility as a teaching environment, and the success of the educational concepts which shaped the original Educational Specifications. The facility is also evaluated as to use of materials, building systems, construction quality, and other such aspects pertaining to the building.

10. Temporary and Relocatable Classroom Facilities

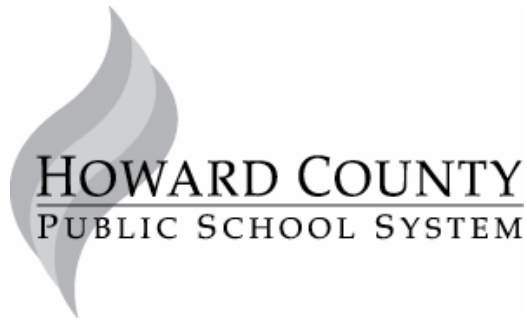
Where school population growth occurs in areas where school capacity is near maximum and boundary line adjustments, as well as found space can not be used to resolve over-capacity problems, consideration will be given to providing relocatable classroom units to house excess student population, particularly where population is projected to remain high for at least one year. In general, the need for these relocatable classrooms

should not exceed four years. Where excess population is projected to remain beyond the four-year limit, consideration should be given to an addition or new construction.

III. Joint Use Policy – Cooperation with County Agencies

The Policy of the Board of Education recognizes that to the extent possible, school facilities and sites should be available for after school use by the community. The possibility of joint-use development of school and recreational facilities, including joint construction of school and recreational space, will continue to be encouraged on a case-by-case basis.

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POLICY 6020-PR
IMPLEMENTATION PROCEDURES
SCHOOL CONSTRUCTION PROGRAM

Effective: September 13, 1990

The general procedures of the School Construction Program are outlined below as a set of general procedures and actions needed to accomplish the work of that section. Since many activities are highly specialized and technical in nature, it is not possible to list each activity in a step-by-step manner.

- I. Long-range Planning and Pupil Population Projection
 - A. Information Sources - birth rates, pupil enrollments, school and community assessment, county planning, and regional and state planning data.
 - B. Population Projections - HCPS cohort survival rate, generator factors for new construction, school assessment, and other pertinent data that may require planning for special populations.
 - C. Conducted - August (preliminary), 4th day of school enrollment figures, September 30 enrollment, and periodically as needed.
- II. Capital Improvement Program
 - A. Needs based on population growth.
 - B. Uses six-year CIP with annual review and update (give schedules).
 - C. MSPSC CIP - role of State School Construction Program.
 - D. Site selection and site analysis.
- III. Site Selection - See Policy 6000, School Site Selection and Acquisition.
- IV. Architect/Engineer Selection - See Policy 6030, Procurement of Architectural and Engineering Services.
- V. Facility Planning and Facility Design
 - A. Planning Phase - Planning Team
 1. Educational Facility Program, as approved by the Board of Education

2. Planning Team, including parents, school-based personnel, facility planners, the architect, and others that may be named by the Superintendent/designee.
 3. Schematic Design
 4. Presentation to Board
- B. Design Development
1. Description
 2. Subject area layouts
 3. Cost analysis
 4. Presentation to Board
- C. Construction Documents
1. Description
 2. Cost analysis and cost reduction
 3. Final review of drawings and specifications
 4. Presentation to Board
 5. Preparation of bid documents
- VI. Bid and Award - See Policy 4050, Procurement of Materials, Supplies, Equipment, and Services.
- VII. Construction and Construction Administration
- A. Construction administration
 - B. Supervise budget, schedule, and quality of work
 - C. Administer change order requests
 - D. Administer warranty period
- VIII. Official Acceptance of New Facilities
- A. Beneficial occupancy
 - B. Final occupancy
 - C. Move-in
 - D. Punch list

- E. Warranty
- IX. Post Acceptance Evaluation
 - A. Evaluation of the building
 - B. Evaluation of the project architect and the planning process
- X. Temporary and Portable Facilities
 - A. Population projections and interviews with building principals
 - B. Identify (+) and (-) schools
 - C. Work out relocation plan
 - D. Identify where new units are needed. Prepare lease/buy analysis.
 - E. Procure needed units
 - F. Move and install units

Administrative Approval: September 13, 1990