

Department of Legislative Services  
Maryland General Assembly  
2004 Session

FISCAL AND POLICY NOTE  
Revised

House Bill 708

(Delegate Morhaim, *et al.*)

Health and Government Operations

Education, Health, and Environmental Affairs

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Proposed Capital Projects - Planning - High Performance Buildings

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This bill requires a unit of State government to include its justification for proposing that a building project be designed as a high performance building in its request for preliminary planning funds in the State's capital budget.

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Fiscal Summary

**State Effect:** To the extent that units of State government propose high performance building projects that are accepted and funded, State expenditures for construction of new high-performance buildings could increase by 1%-2% for each project. Long-term expenditure reductions for energy efficiency cannot be reliably estimated but could be significant enough to offset the initial construction cost increase.

**Local Effect:** Potential increase in construction costs for buildings that utilize State funds, including school construction, mitigated by expense reductions over the life of the buildings and/or the ability to utilize repeat design.

**Small Business Effect:** To the extent that small businesses participate in bids or proposals for high-performance buildings, small businesses could realize increased participation in State contracts.

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Analysis

**Bill Summary:** The bill defines high-performance buildings as those that achieve at least: (1) a Silver rating according to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) system as adopted by the Maryland Green

Building Council; or (2) a comparable rating according to any other appropriate rating system.

**Current Law:** The Secretary of General Services, the Secretary of Transportation, and the Chancellor of the University System of Maryland (USM) are required to establish a percentage price preference, not to exceed 5%, for the purchase of products made from recycled materials.

Before an appropriation may be authorized for preliminary planning of a proposed capital project, the unit of State government requesting the appropriation is required to submit to the Department of General Services (DGS) a program describing, in detail, the scope and purpose of the project. The Secretary of Budget and Management must approve the program. Before an appropriation may be authorized for construction of a proposed capital project, the unit of State government requesting the appropriation must submit to DGS and the Department of Budget and Management (DBM) a detailed design program, which must include all information required by DGS and DBM; and both the Secretary of General Services and the Secretary of Budget and Management must approve the detailed design program.

**Background:** LEED is a rating system for designing, constructing, and certifying buildings based on environmental and energy efficiency standards. The program offers training, accreditation, resource support, and third-party certification of building performance. LEED certification is available for commercial buildings including offices, retail and service establishments, institutional buildings (*e.g.*, libraries, schools, museums, churches, etc.), hotels, and residential buildings of four or more habitable stories. LEED certification for new construction utilizes a 69 point scale in six major categories: (1) sustainable sites; (2) water efficiency; (3) energy and atmosphere; (4) materials and resources; (5) indoor environmental quality; and (6) innovation and design process. Certification requires a score of 26-32 points; Silver certification requires 33-38 points; Gold certification requires 39-51 points; and Platinum certification requires 52 or more points. The ability to measure and verify energy efficiency is one component of the certification checklist. LEED is scalable to account for various local zoning and planning codes.

The Task Force to Study Efficiency in Procurement (created by Chapter 386 of 2003) recommended that procurement officers be permitted to consider the long-term savings of high-performance buildings in new construction contracts. The task force heard testimony that increased construction costs for high-performance buildings were from 1%-2% and that the benefits included reduced energy use and increased worker productivity.

The Task Force to Study Public School Facilities has also examined the issue of green buildings in school construction. That task force notes that a school system may build the same basic school design on three or four different sites over a multiyear period. The task force found that repeating the design of a school can save approximately 25%-30% of the architect/engineer design or about 1% of the total project cost and may reduce construction costs through avoidance of some change orders.

DGS advises that it has requested \$18.6 million for a new green building at St. Mary's College of Maryland and \$2.4 million for a new green beach services building at Hammerman Area-Gunpowder Falls State Park in the proposed fiscal 2005 capital budget.

**State Expenditures:** For every \$100 million in new construction high performance buildings, State costs could increase \$1-\$2 million in total. If capital construction projects for new buildings have a useful life of 15 years, savings from energy efficiency and increased productivity would need to total between \$66,667 and \$133,333 for each \$100 million of new building construction. DGS, the Maryland Department of Transportation and USM have provided no information related to potential energy cost savings or productivity enhancements.

To the extent that repeat design savings evidenced in school construction are transferable to other types of new construction, DGS and the Department of Public Safety and Correctional Services could completely offset the increased costs of designing and constructing high-performance buildings.

**Local Expenditures:** To the extent that State funds are utilized for new construction projects, local expenditures for construction projects, including school construction, could increase by 1%-2%. For illustrative purposes, the cost to build a new public elementary school can total \$12 million, depending on the size of the facility. Incorporating "high-performance" standards could increase construction costs by \$120,000 to \$240,000. If local jurisdictions are able to take advantage of repeat design, the cost increases associated with "greening" a school may be mitigated by the design savings.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** SB 206 (Senator Brochin, *et al.*) – Education, Health, and Environmental Affairs.

**Information Source(s):** Department of General Services, University System of Maryland, Department of Budget and Management, Department of Legislative Services

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