

**REPORT OF THE
HJR 34 JOINT SUBCOMMITTEE
ON THE**

Commonwealth's Capital Outlay Process And Lease/Purchase Arrangements

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



House Document No. 11

**COMMONWEALTH OF VIRGINIA
RICHMOND
1985**

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INTRODUCTION

The Joint Subcommittee on the Commonwealth's Capital Outlay Process and Lease/Purchase agreements was authorized to conduct its study by House Joint Resolution No. 34, which was agreed to during the 1984 Session of the General Assembly. The resolution directed the Joint Subcommittee to:

- * Study the Commonwealth's capital outlay policies, procedures, and practices; and
- * Examine the feasibility of utilizing lease/purchase agreements as a means of procuring state buildings.

The Joint Subcommittee consisted of eleven members. Five members were appointed from the House Appropriations Committee. Three members were appointed from the Senate Finance Committee, and three citizen members were appointed by the Governor.

ACTIVITIES OF THE JOINT SUBCOMMITTEE

During 1984, the Joint Subcommittee solicited participation from State agencies, institutions of higher education, and several professional organizations. The participants were requested to document problems they had experienced with the State's capital outlay policies and procedures, and to make specific recommendations to improve the process. The Joint Subcommittee heard testimony during a series of public meetings. The following agencies and organizations participated in the Joint Subcommittee's study efforts.

- * Division of Engineering and Buildings
- * Department of Planning and Budget
- * State Council of Higher Education
- * Office of Attorney General
- * Department of Corrections
- * State Fire Marshal
- * Department of Mental Health and Mental Retardation
- * University of Virginia
- * George Mason University
- * Virginia Commonwealth University
- * Virginia Polytechnic Institute & State University
- * Virginia Community College System
- * Consulting Engineers Council of Virginia
- * Virginia Society of Professional Engineers
- * Associated General Contractors of Virginia
- * Virginia Society of Architects

The Joint Subcommittee has carefully reviewed existing capital outlay policies and procedures, and has examined each stage of the capital outlay process. Recommendations have been based on documented problems identified by the technical advisory group, testimony by representatives from professional organizations and State agencies, and by staff assistance from the House Appropriations and Senate Finance Committees. Additional assistance was provided by the Secretary of Administration and the Secretary of Finance.

The substantive sections of this report are organized according to the three major stages of the capital outlay process: preplanning, design, and construction.

I. PREPLANNING PHASE OF CAPITAL PROJECTS

The preplanning process was established to provide a means for determining the justification, alternatives, scope, and budget for capital projects. The process is both necessary and desirable. Existing preplanning procedures should be improved however, to enhance their effectiveness and reduce the cost and effort required to develop preplanning documents. Changes can be implemented without fundamentally affecting the oversight of capital outlay projects, while at the same time improving process efficiency.

Preplanning Process

Three problems were identified with the preplanning process: (1) redundancy with information required at other steps in the capital outlay process; (2) the amount of detail required in preliminary cost estimates; and (3) the lack of sufficient detail about the relationship between proposed projects and ongoing program activities.

The Joint Subcommittee found some redundancy between the information required in preplanning justifications and preplanning studies. The preplanning justification should present the need and justification for a project, identify and analyze the alternatives, and establish the facility requirements. It should not unnecessarily duplicate information required at other phases.

The present procedure also requires the development of detailed cost estimates at the preplanning justification stage, although realistic cost estimating is not generally possible until the preplanning study has been developed.

The preplanning study should be limited to an architectural and engineering pre-schematic, sufficient to permit the preparation of realistic cost estimates.

The need for each capital project must be justified in relation to approved program objectives and activities. In the absence of such justification, it is possible that capital outlay may occur which does not adequately reflect State priorities. The amount of detail currently provided in the preplanning justification is, in many cases, not sufficient to fully assess the need for a project in relation to an agency's mission.

Recommendation (1): The Department of Planning and Budget, in conjunction with the Division of Engineering and Buildings, should revise the existing requirements for preplanning justifications and preplanning studies. The preplanning justification should present the need and justification for a project, identify and analyze the alternatives, and establish the facility requirements. The justification should be sufficiently detailed to allow assessments about project need in relation to agency mission and approved program activities.

Design detail included in the preplanning study should be limited to an architectural and engineering pre-schematic, sufficient to develop an architectural scope and program, and outline specifications sufficient to permit the preparation of a realistic cost estimate.

Recommendation (2): For any project which requires a preplanning study, an order-of-magnitude cost estimate should be all that is required at the justification stage. This would still accomplish the intended purpose of the justification, which is to adequately define the proposed project cost.

Initial Project Cost

The projected cost of capital projects has been an important consideration in the review of projects by both the executive and legislative branches of government. During the 1984 session of the General Assembly, information about the costs of comparable capital projects nationally was utilized by the legislature to assess the proposed costs of capital projects submitted for appropriation.

The results of that analysis yielded nearly \$7 million in savings that was then applied to other important projects. This exercise illustrates the need for a more thorough review of agency capital outlay requests by a central agency, prior to the preparation of the executive budget.

Recommendation (3): The Division of Engineering and Building should conduct a thorough cost review of proposed capital outlay projects. Projected costs should be analyzed against cost data available for comparable projects nationally, as well as against construction cost experience in Virginia. Any variations from normal or expected cost estimates should be identified and documented. The results of the review should be transmitted to the Department of Planning and Budget and the General Assembly.

Inflation

Because of the length of time required to complete major capital projects, inflation can have a substantial impact on project costs. It is therefore imperative that inflation estimates be as accurate as possible, and that the methods for incorporating inflation into proposed budgets be consistent.

The Joint Subcommittee reviewed the methods and rates utilized by agencies in requesting capital outlay funds for the 1984-86 biennium. The rates varied from a low of 2 percent to a high of 18 percent. Chase Econometrics publishes estimates of inflation that are utilized by the Department of Planning and Budget (DPB) in preparing the State budget. Chase projected inflation factors of 5.6 percent for FY 1984-85 and 7.2 percent for FY 1985-86 in the cost of State and local government structures. The use of inflation estimates above the best projections available could have resulted in appropriations in excess of the amounts needed.

In addition, the point of project completion to which inflation was budgeted was found to vary significantly. The number of months for which inflation was provided for in budget requests ranged from 2 to 30 months. Some agencies projected inflation to the mid-point of construction, while others projected just to the point of construction. The lack of a standard practice for computing inflation can also result in appropriations above needed amounts.

Recommendation (4): The Department of Planning and Budget should develop estimates of inflation in construction and other costs which affect capital projects.

These estimates should reflect the best information available from national projections and publications, and should be adjusted for expected experience in Virginia. The estimates should be used by all agencies in submitting proposed budgets for capital projects.

Recommendation (5): The Department of Planning and Budget should revise the State CPBS Manual to specify how agencies are to budget for inflation in capital projects. Inflation should be provided to the bid date for construction projects.

Operating Costs

While the initial cost of capital projects is important, the cost of maintaining and operating a facility over its useful life is equally important. In the private sector, various tax and depreciation considerations, or the pass-through of utilities and other operating costs to tenants, may make an emphasis on low initial cost the most prudent course for commercial developers. A similar approach for State capital projects may be uneconomical.

It is the opinion of the Joint Subcommittee that the total cost, including initial capital cost, life-cycle maintenance, and operating cost, be given full consideration in the preplanning study.

Recommendation (6): The Department of Planning and Budget and the Division of Engineering and Buildings should work jointly to establish policies and procedures for accurately identifying the annual operating and maintenance cost of facilities. Preplanning studies should include these costs, as well as an analysis of alternate design standards, in order to determine the most cost effective design.

II. PLANNING PHASE OF CAPITAL PROJECTS

Once the General Assembly has appropriated or approved funds for a capital project, agencies and institutions submit requests to the Division of Engineering and Buildings (DEB) to proceed with the project. The planning phase of capital projects involves the employment of an architect, engineer, or a construction manager, the development of detailed project plans, and multiple reviews by State agencies.

State agency reviews are intended to ensure that all applicable building and safety codes are adhered to, that projects are constructed consistent with approved scope and design, and that all financial procedures are followed. The following agencies have ongoing roles in the capital outlay process.

- * Division of Engineering and Buildings
- * Department of Planning and Budget
- * Art and Architectural Review Council
- * State Fire Marshal
- * Soil and Water Conservation Commission
- * State Department of Health
- * State Water Control Board
- * Council on the Environment
- * Virginia Historic Landmarks Commission
- * State Air Pollution Control Board

Of the agencies listed, DPB, DEB, and the State Fire Marshal have the greatest involvement. The remaining agencies are involved, as necessary, in the review of plans and specifications. Some reviews occur simultaneously, while others occur sequentially. Each review takes time.

It is in the State's best interest that reviews of designs and specifications be expedited as much as possible, consistent with the need to protect the Commonwealth and the public.

Selection of Architects and Engineers

Under current policy, State agencies are required to initiate a new selection process for architects and engineers for the planning and design phase of a project, even though the architect or engineer was previously selected for a preplanning study. Agency capital outlay directors have indicated that the continuation of the same firm, subject to performance, can often save both time and money in completing the project. Each of the professional organizations testifying at one or more of the public hearings concurred in recommending this "roll-over" policy, as long as projects were originally advertised as such.

Recommendation (7): The Division of Engineering and Buildings should revise existing policies to allow agencies to continue to employ for project design the architects, or engineers who were originally selected for a preplanning study, provided that their performance on the preplanning study is judged satisfactory. The policy of allowing the architect/engineer to continue on into the design phase should be advertised at the preplanning stage.

State Agency Reviews

The Division of Engineering and Buildings typically conducts detailed design reviews at as many as three points during the design of capital projects: (1) the schematic stage, (2) preliminary drawings stage, and (3) working drawing stage. These reviews examine design documents for conformance with the approved project scope, applicable codes and standards, and with required State practice.

The Joint Subcommittee has heard testimony from agencies and institutions that DEB conducts the reviews in a professional and timely manner. However, some institutions of higher education also employ professional design and engineering staff. For these institutions, and in some cases, DEB reviews may increase the design period by three to six months. Such delays may increase project costs unnecessarily.

The State Water Control Board (SWCB) and the Department of Health (SDH) also review plans for water and sewage treatment facilities. Some agencies whose projects were reviewed by SWCB and SDH stated that the reviews were conducted sequentially, and added excessive time to the capital outlay process.

In the main, however, the most common complaint by agencies was the lack of a central coordinating agency.

Recommendation (8): The Division of Engineering and Buildings should consider delegating the authority for design review to individual State agencies, where appropriate, and where sufficient professional staff exist.

Recommendation (9): The Division of Engineering and Buildings should be responsible for coordinating the reviews conducted by other State agencies. The coordinative role should include securing interagency agreements which commit agencies to review projects within a specified time period.

DEB should report on an annual basis to the Secretary of Administration on the time required to complete reviews of capital projects, and should report anytime that individual agencies consistently exceed agreed-upon time frames.

State Fire Marshal Review

In addition to the design reviews conducted by the Division of Engineering and Buildings, a separate design review is made by the State Fire Marshal.

Reviews by the Fire Marshal are intended to ensure strict compliance with fire safety codes. During meetings of the Joint Subcommittee, agency capital outlay personnel stated that the Fire Marshal's review constituted a serious handicap to timely, efficient construction.

At the request of the Joint Subcommittee, the State Fire Marshal conducted an internal analysis of the actual time used to complete a plans review. The analysis showed that during 1982 and 1983, the time required to complete the State Fire Marshal's review of plans was excessive.

According to the Fire Marshal, the problems associated with the plans review have been resolved by internal management changes, as well as by a reduction in the number of plans submitted. Plans are now reviewed and reports issued within three weeks of receipt.

With the addition of many new capital projects in the 1984-86 biennium and the release of previously frozen capital projects, the State Fire Marshal's office may be burdened once again with more plans and field inspections than it can effectively handle.

Recommendation (10): The Joint Subcommittee anticipates that capital outlay appropriations during the 1984 Session may lead to a substantial increase in workload in the State Fire Marshal's office. If the workload exceeds the ability of the available manpower, the Secretary of Commerce and Resources should notify the Chairmen of the House Appropriations and Senate Finance Committees, for appropriate action by the General Assembly.

In addition, the State Fire Marshal should periodically publish summaries of all Code interpretations that have been adopted as applicable to all State projects, for the guidance of architects, engineers, and State agencies.

III. CONSTRUCTION PHASE OF CAPITAL PROJECTS

The construction phase of capital projects begins with the selection of construction managers and/or contractors to perform state work. Once the contractor is selected, the owning agency generally manages the project until completion. Change orders, design changes, and building and fire safety code inspections are either reviewed or performed by a central agency.

Conventional Construction Process

At each stage of the capital outlay process, a number of forms must be transmitted by agencies to the Division of Engineering and Buildings and the Department of Planning and Budget. In many cases, forms must be reviewed, approved, and returned before projects can proceed. In some cases, unnecessary delays occur in project initiation, as a result of delays in document review.

Under existing procedures, a CO-8 form must be submitted to the State for approval of the contract award, following the receipt of bids. The time period required for the review may total 30 days or more. Comments by both submitting and reviewing agencies indicated that changes in the document very rarely occur as a result of the review.

Recommendation (11): The existing capital outlay procedures should be revised to provide that the CO-6, which authorizes bidding for a project, also authorize the award of a contract following the receipt of the bids to the lowest responsive and responsible contractor who is within the authorized budget for the project. Agencies should then submit the CO-8 form for post-audit purposes.

Change Orders

Existing practice requires the review and approval of additive change orders exceeding \$2,500. The process typically requires 30 days to complete. Construction schedules are hampered and in some cases the contractor is obliged to proceed with the necessary changes prior to approval, to avoid further delays. This extended approval time appears inefficient, and could well result in higher costs to the State.

Recommendation (12): State agencies should be authorized to approve change orders up to a limit of \$10,000, as is presently permitted by the Virginia Public Procurement Act. Such a limit is already authorized for design-build projects. The change order amounts should in no case be allowed to exceed the construction contingency provided in the appropriation. Following such approval, all such change orders should be submitted to the Division of Engineering and Buildings for review.

Contractor Qualifications

Under existing Capital Outlay procedures, which require award of construction contracts to the lowest "responsive and responsible bidder," there is little discretion available to State agencies in the award of contracts.

The requirement for a contractor's license is not of itself a reliable indicator of contractor qualifications. Likewise, the requirement for bid and performance bonds does not ensure that a contractor is adequately qualified for performance of work at a level for which he is bonded.

There is currently no formal State procedure for establishing contractor qualifications to perform work of a particular type or scope, and there is no statewide disqualification procedure available, other than that provided for fraud on other State contracts. As a result, contracts for construction of capital projects are sometimes awarded to contractors who are not adequately qualified to perform the work.

Recommendation (13): The Division of Engineering and Buildings, in conjunction with the Office of Attorney General, should develop procedures to ensure that contractors are fully qualified to perform State work. This should include but not be limited to the following:

- (1) a multi-level qualification system for contractors. Such a procedure would require demonstration of adequate financial and other resources and successful performance of work of appropriate type and scope, as a prerequisite for qualification to bid on State work of a particular type or cost level.
- (2) a pre-qualification system that is available for any project of unusual complexity or that is above an established cost threshold.
- (3) statewide procedures that permit disqualification of contractors who have performed in an unsatisfactory manner on State projects from further bidding on State work for a specified time period.

Contractor Control

Agency Capital Outlay personnel have testified that existing procedures for contract administration do not have sufficient enforcement powers.

For example, the retainage factor has been reduced in recent years from 10 percent to 5 percent. Moreover, there are no provisions for removing contractors from a list of prequalified bidders because such a list does not exist. Temporary removal from a list of qualified bidders is therefore not a sanction available to agencies.

Recommendation (14): The Division of Engineering and Buildings, in conjunction with the Office of the Attorney General, should develop the necessary procedures to ensure contractor compliance with time schedules on projects.

IV. OTHER ISSUES

Three issues were not resolved during the course of the Joint Subcommittee's review. The remaining issues highlighted in the following sections will be the topic of further study prior to the 1986 Session of the General Assembly.

Design Build and Construction Management

The Joint Subcommittee supports the current efforts in both design/build and construction management. However, the Subcommittee is concerned with the degree to which design/build projects can be competitively bid, given the high cost of participation by architects and engineers. In addition, architects and engineers have little incentive to value engineer projects because their fees are based on the dollar value of the project. The Joint Subcommittee believes that the design/build process should be examined in more depth in 1985, as part of a continuation of this study.

Lease/Purchase Options

Lease/purchase arrangements have attractive features which could potentially benefit both the Commonwealth and private developers. Given the complicated nature of examining and analyzing the economic benefits, the Joint Subcommittee believes lease/purchase should be examined in more depth prior to the 1986 Session of the General Assembly.

Respectfully Submitted,

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