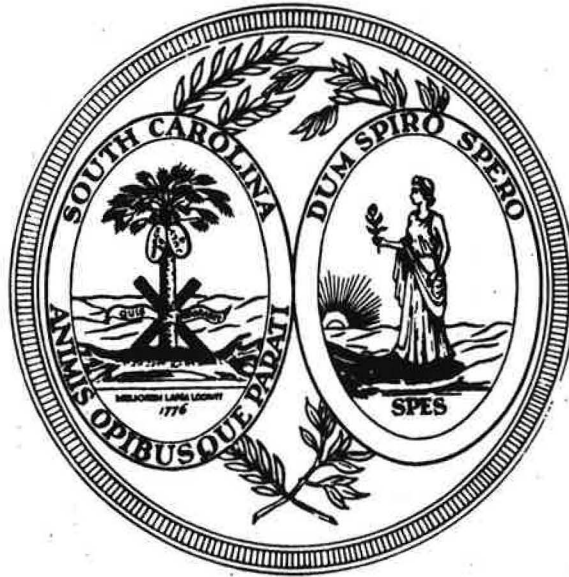


South Carolina General Assembly



Legislative Audit Council



The State of South Carolina
General Assembly
Legislative Audit Council
A Study of the South Carolina
Architectural/Engineering
Selection Law of 1974
April 16, 1980

THE STATE OF SOUTH CAROLINA

GENERAL ASSEMBLY

LEGISLATIVE AUDIT COUNCIL

A STUDY OF THE SOUTH CAROLINA

ARCHITECTURAL/ENGINEERING

SELECTION LAW OF 1974

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INTRODUCTION

South Carolina enacted its current architect/engineer (A/E) selection law in 1974 (South Carolina Code 10-5-10 - 10-5-80) with the intent of creating an equitable distribution of State contracts among qualified A/E firms. The Legislative Audit Council was directed to study the method the State uses to award A/E contracts to determine if the 1974 law has resulted in a more equitable distribution of contracts among the State's A/E firms.

The Council collected data from the State Engineer's files, the Budget and Control Board's files, and reviewed the practices of seven State agencies which have awarded a large number of capital improvement projects. In addition, the Council interviewed various State officials who provided information and explained the technicalities of architectural/engineering contracts.

Also, the Council interviewed 30 architectural/engineering firms and three members of the governing board of the South Carolina Chapter of the American Institute of Architects (AIA). Records from the South Carolina Board of Architectural Examiners show that as of December 31, 1978, there were 306 architectural firms registered in South Carolina.

The data collected were compared with Federal standards and standards for awarding contracts in other states. Contracts awarded by the State Department of Highways and Public Transportation and the State Railway Commission were not examined by the Council and are not included in any of the tables or statistics presented in this report.

MAJOR FINDING AND REPORT SUMMARY

Based on its review and analysis, the Audit Council concludes that South Carolina's architect/engineer selection law has not had the intended effect of distributing the State's contracts equitably among qualified A/E firms. In addition, the State's procedures for carrying out the law do not assure the State that it is getting the best design for its projects or the lowest possible cost for A/E services.

Inequitable Distribution of A/E Contracts

The enactment of the 1974 A/E selection law has not resulted in an equitable distribution of State contracts among A/E firms. The Council's analysis indicates that a group of only ten of the more than 300 qualified A/E firms in the State received 46% of the contracts awarded between 1969 and 1978. Fees for the ten firms amounted to \$10,039,543 or 55% of the total fees reviewed.

The Council conducted a survey of 30 A/E firms and received numerous complaints that although qualified firms submitted many proposals they seldom, if ever, receive any State contracts. The 30 firms had submitted a total of 322 proposals but received only 19½ contracts. One official of a large, qualified firm in Florence stated that the firm had submitted 97 proposals to the State for A/E contracts yet never received any State business. Three other firms in the Greenville area had bid on a total of 37 individual State projects but only one firm received a contract (see p. 8).

High Fees Paid for Architectural/Engineering Contracts

South Carolina paid higher fees than recommended by the American Institute of Architects and has the second highest average fee when compared to twelve states surveyed by the Council. The State paid an estimated \$3,391,277 more for A/E fees awarded from 1969 through 1978 than the fees recommended by the American Institute of Architects for that period of time. This estimate of high fees, however, does not imply that any A/E firm deliberately overcharged the State or that any law was violated. These high costs result from weaknesses in the State's system of planning for capital improvement projects, controlling costs and selecting A/E firms (see p. 16).

Questionable Need for A/E Firms

Contracts for projects costing under \$200,000 are awarded to A/E firms when the need for an A/E firm is questionable. Between 1969 and 1978 the State awarded 55 contracts, each for under \$200,000, while A/E fees for these contracts amounted to \$500,058. South Carolina's policies governing capital improvement projects do not specify the type or dollar limit of contracts that should be awarded to A/E firms. Also, small State agencies lacking in-house A/E expertise, do not have the ability to determine whether A/E firms are needed for small projects.

One example of this problem was a \$135,000 contract to design tennis courts for Lander College which was awarded to Wilbur Smith and Associates. Wilbur Smith and Associates negotiated a fee of \$17,775 or 13.2% of the project cost. This fee is 5.6% over the 7.6% compensation rate recommended by the American Institute of Architects for such projects. The college estimated the project would cost \$135,000 but

after the A/E fee is subtracted the project is left with \$117,250 to finish the job. The need for an A/E firm on this project is questionable and since the project is in the early stages of construction it is too soon to determine whether it can be held to its \$135,000 proposed budget. Additionally, at the time the award was made, Wilbur Smith and Associates already had a large amount of State contracts and was selected over two A/E firms with no State contracts.

Also, the State is paying for architectural services on projects such as home building or renovations when the need for this service is questionable. For example, the Medical University of South Carolina (MUSC) paid the A/E firm of Lee and Partners \$19,324 on a \$90,000 renovation and addition to the University president's home. This fee is 21.5% of the project's cost, well above the 8.1% recommended by the American Institute of Architects (AIA) for projects of this size (see p. 22).

Lack of Technical and Price Competition in A/E Selection Process

Price competition, design proposals and life cycle (ownership) costs of the project are not used to evaluate an A/E firm during the selection process for a State contract. Only after a firm has been selected does a State agency discuss these matters with the firm. Since the scope of the work is not defined before the interview process takes place, the State does not know if it is getting the best design proposal, the best technical competence or the most economical service available for a project (see p. 25).

No Requirement for Errors and Omissions Insurance

The State does not require A/E firms to carry errors and omissions insurance on State projects. Seven of twelve states surveyed by the Council require A/E firms to carry errors and omissions insurance on state projects. As a result the State is hiring A/E firms without providing adequate protection against omissions or errors in the professional quality, technical accuracy and coordination/supervision of the work undertaken by the firms (see p. 29).

Need for Evaluation and Performance Standards

No effective system exists in the State for evaluating or recording an A/E firm's past performance on State projects. State agencies are without a central source of information on an A/E firm's past performance when the agency conducts interviews for an A/E contract. Without such information State agencies that lack construction expertise are especially vulnerable to making the wrong choice in selecting an A/E firm (see p. 32).

Conclusion

After reviewing the State's A/E selection process and comparing it with the Federal system, and 12 other states' systems, the Council concluded that changes are needed in South Carolina's system. The State's system places the responsibility for equitable distribution and fair pricing on the agencies. While some agencies do a good job, the State as a whole has one of the weakest systems studied by the Council. Adequate controls do not exist to assure that competent, independent and economical decisions are made in the best interests of the State.

The following summary of recommendations has the intent of introducing a reasonable degree of competition in (1) obtaining the best design for State projects and (2) obtaining the best price for quality work. In addition, the Council's recommendations will create a more equitable distribution of State contracts among qualified firms throughout the State.

RECOMMENDATIONS

LEGISLATION SHOULD BE ENACTED TO ESTABLISH AN INDEPENDENT COMMITTEE FOR THE SELECTION AND OVERSIGHT OF ARCHITECTURAL/ENGINEERING FIRMS. IN ESTABLISHING THIS COMMITTEE AND THE PROCEDURES BY WHICH IT OPERATES THE FOLLOWING CRITERIA SHOULD BE CONSIDERED:

- (1) THE PRESENT PROCESS OF AGENCY SELECTION OF ARCHITECTURAL/ENGINEERING FIRMS SHOULD BE TERMINATED. THE SELECTION SHOULD BE MADE BY AN INDEPENDENT COMMITTEE WHICH WOULD HAVE THE STATE ENGINEER AS A MEMBER.
- (2) MEMBERS OF THE OVERSIGHT AND SELECTION COMMITTEE SHOULD BE REQUIRED TO HAVE TECHNICAL AND PROFESSIONAL EXPERTISE.
- (3) THE PRESENT OFFICE OF THE STATE ENGINEER OF THE STATE BUDGET AND CONTROL BOARD

AND THE ENGINEERING SERVICES DIVISION
SHOULD BE COMBINED TO PROVIDE TECHNICAL
AND PROFESSIONAL STAFF SUPPORT TO THE
COMMITTEE.

(4) A SYSTEM FOR ADVERTISING AND SELECTION
SHOULD CONSIDER:

- (a) THE AMOUNT OF STATE CONTRACTS
AWARDED TO FIRMS,
- (b) THE PAST PERFORMANCE OF FIRMS ON
STATE AND OTHER PROJECTS, AND
- (c) THE NEEDS OF THE PROJECT REGARDING
DESIGN, TECHNICAL PROPOSALS, MAJOR
REPAIR COSTS (LIFE CYCLE COSTS) AND
ECONOMY OF MAINTENANCE COSTS (OWNER-
SHIP COSTS).

(5) THE SELECTION PROCESS SHOULD PROVIDE COMPE-
TITION AMONG DESIGN PROPOSALS FOR LARGE
PROJECTS.

(6) THE SELECTION PROCESS SHOULD PROVIDE
COMPETITION AMONG PRICE PROPOSALS.

(7) THE SELECTION PROCESS SHOULD PROVIDE A
PROCEDURE TO PREVENT THE POTENTIAL FOR
COLLUSION AMONG COMPETITORS.

ADDITIONALLY, PLANNING FUNDS AND CAPITAL
IMPROVEMENT PROJECT FUNDS SHOULD BE
SEPARATELY APPROPRIATED. FOR EACH PROJECT A
PROVISO SHOULD STATE THE PURPOSE AND INTENDED
USE OF FUNDS BY PROJECT.

Inequitable Distribution of A/E Contracts

State contracts have been inequitably distributed among architectural/engineering (A/E) firms in South Carolina even though the State's 1974 A/E selection law has the intent of, "effecting an equitable distribution of contracts among qualified firms." The State has consistently awarded a large portion of its contracts to a small number of A/E firms. The Council's review of 219 of 412 contracts awarded between 1969 and 1978 shows that ten of the 306 qualified A/E firms in the State received 100 or 46% of these 219 contracts. These ten firms received \$10 million or 55% of the A/E fees awarded for these projects (see Table 1).

TABLE 1
DISTRIBUTION OF 100 CONTRACTS AMONG TEN A/E
FIRMS RECEIVING THE LARGEST NUMBER OF CONTRACTS
1969-1978*

<u>Firm</u>	<u>No. of Contracts</u>	<u>Approved Contract Amounts</u>	<u>Approved Architect Fees</u>	<u>Average A/E fees as % of Approved Contracts</u>
1. LBC&W	20	\$ 50,084,274	\$ 3,613,184	7.2%
2. Geiger, McElveen & Kennedy	14	25,501,338	1,588,485	6.2%
3. Gill, Wilkins & Wood	10	12,898,275	1,108,300	8.5%
4. Lockwood-Greene	12	12,702,703	1,264,265	9.9%
5. Lucas, Stubbs & Long	8	10,146,643	643,359	6.3%
6. Wilbur Smith & Associates	6	9,548,760	959,800	10.0%
7. Bruce Flemming & Associates	7	7,905,112	291,037	3.6%
8. McMillan, Bunes, Town & Bowen	7	3,260,000	288,571	8.8%
9. Jackson, Miller & Wilds	9	2,823,398	198,642	7.0%
10. Love, Cobb & McElveen	<u>7</u>	<u>1,210,214</u>	<u>83,900</u>	6.9%
SUBTOTAL	100	\$136,080,717	\$10,039,543	7.3%
11. 83 Other A/E Firms	<u>119</u>	<u>82,555,659</u>	<u>8,234,405</u>	10.0%
TOTAL REVIEWED	219	\$218,636,376	\$18,273,948	8.4%

*Note: These contracts do not include contracts awarded by the State Highway Department or Railway Commission. Between 1969 and 1978 the State awarded 412 contracts to A/E firms. The Council analyzed only 219 contracts because data on the other 193 contracts were unavailable. A breakdown of the 412 contracts follows:

- 184 contracts were completed and their files stored in the State's Archives.
- 168 contracts contained the original bid information and current costs of the projects under construction.

- 51 contracts contained only the bid information because the projects were not yet under construction.
- 9 contracts had been cancelled.

During its survey of 30 A/E firms the Council received numerous complaints that although qualified firms submitted many proposals they seldom, if ever, receive any State contracts. The 30 firms had submitted a total of 322 proposals but received only 19½ contracts. One official of a large, qualified firm in Florence stated that the firm had submitted 97 proposals to the State for A/E contracts yet never received any State business. Three other firms in the Greenville area had bid on a total of 37 individual State projects but only one firm received a contract.

In 1974, South Carolina enacted its first Architect/Engineer Selection Law (see Appendix A). The law is modeled on the 1972 Federal Public Law 92-582 known as the "Brooks Law." The South Carolina Code requires that a description of the proposed project and required services be published by a State agency (Section 10-5-30). The agency is to hold conferences with at least three of the A/E firms submitting resumes (Section 10-5-40) and after review and evaluation the agency is to select the three most qualified firms ranking them in priority order (Section 10-5-50). South Carolina Code 10-5-50 states:

The agency shall consider the ability of professional personnel, past performance, willingness to meet time and budget requirements, location, recent, current and projected work loads of the firms, and the volume of work previously awarded to the firm by the agency, with the object of effecting an equitable distribution of contracts among qualified firms; provided, however, that such distribution does not violate the principle of selection of the most highly qualified firms. [Emphasis Added]

After the agency has ranked the three firms it negotiates a tentative contract with the first firm chosen. If it is unsuccessful then the second firm, or third if necessary, is offered a contract (Section 10-5-60). The tentative contract is then submitted to the Budget and Control Board for review and approval (Section 10-5-70 and 10-5-80).

A primary cause for this inequitable distribution is in Section 10-5-50 of the 1976 South Carolina Code of Laws. As stated the law requires the agency to consider, "...the volume of work previously awarded to the firm by the agency..." Therefore, an agency is not bound to consider the total volume of State work a firm has received when it applies for a project. Only the amount of past work performed by the firm for that particular agency is considered.

Section 10-5-70 requires the agency to submit to the Budget and Control Board a list of the firm's State projects awarded in the past two years. But, the law does not address itself to the amount of "State" work a firm has received, only the work awarded by a particular agency to that firm. So, an A/E firm may have received any number of State contracts awarded but this is not considered when an agency interviews and selects a particular A/E firm for its project. Also, the law does not give the Budget and Control Board clear power to select a firm in place of the one chosen by an agency, only the authority to reject an agency's first choice.

Another factor which contributes to the inequitable distribution of A/E contracts is the lack of uniform standards among State agencies for selecting an A/E firm. The Council's interviews with seven State agencies awarding a large number of A/E contracts disclosed that all seven use different methods for selecting a firm. These methods varied

from a very detailed selection procedure to an informal process of selection. Some agencies were staffed with engineers to give technical expertise to the selection process while others were without any engineering resource or construction experience.

The law does not provide for central State direction in its A/E selection process. Since there is no direction, agencies are without uniform standards in their selection procedures. The results are that no authority is monitoring how many different agencies are giving State contracts to the same firm or if the State is assured that it is getting the best design and A/E service on its projects.

The General Assembly's intent when it enacted Section 10-5-50 of the South Carolina Code was that State agencies, when selecting A/E firms, were to effect, "...an equitable distribution of contracts among qualified firms."

A survey of 12 other states' A/E selection process by LAC revealed that nine of the 12 (Florida, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Montana, North Carolina and Tennessee) exercised central control over the A/E selection. These states used a central agency or governing board which selected an A/E firm for an agency's project. In addition, three of the states (Florida, Louisiana and Montana) have a central agency which owns all of the state's buildings and leases them to individual state agencies.

Like South Carolina, the United States Congress enacted its Architect/Engineer Selection Law in an attempt to strengthen competition among A/E firms for Federal contracts. In 1976 the Federal General Accounting Office (GAO) conducted a study of the effects the law was having on the awards process and the distribution of Federal contracts

to A/E firms. The GAO found that, "the law has been ineffective."

The GAO concluded that:

Public Law 92-582 has not brought about any major change in competition among architects and engineers.

Moreover, Public Law 92-582 has brought about little change since its passage in the percentage of new firms receiving contracts.

Since South Carolina's A/E Selection Law was passed in 1974, the data collected by the Audit Council on 219 State contracts shows that some improved distribution has occurred in the lower dollar ranges of State contracts. But, similar to the Federal experience with Public Law 92-582, South Carolina's law has not had the intended effect of expanding the distribution of State contracts among the State's qualified A/E firms.

This concentration of contracts among a few A/E firms retards competition, does not assure the State that it is receiving the best design at the most economical price for its capital improvement projects, and can lead to abuse and special relationships developing between firms and individual agencies. During the course of this audit the Council uncovered three cases of questionable practices in the awarding of A/E contracts. To explore what abuses can occur the Council investigated and documented one case in particular.

In 1974, the Department of Wildlife and Marine Resources advertised for a project which had an approved budget of \$430,000 in construction costs and \$56,000 in approved architect's fees. The staff of the agency conducted an interview process and selected three firms in priority order as prescribed by law. The firm chosen number one by the staff had never been awarded a State contract. After the selection had been made the firm was notified of the agency's choice.

Documents and interviews with the agency's staff and the architectural firm originally selected, revealed that the former chairman of the commission governing the agency reversed the staff's selection. The staff of the agency was informed by the chairman that the contract would go to an A/E firm located in the chairman's home town. The firm selected by the former chairman had a number of State contracts and had previously received a contract for \$2,081,549 from the Department of Wildlife and Marine Resources. It was noted by the Council that after this incident the same A/E firm eventually received four more contracts from this agency.

This type of action gives credence to the perception among many of the South Carolina architects and engineers interviewed by the Audit Council (see Appendix C) that political influence, not ability, governs the awarding of State A/E contracts. Such perceptions can undermine the public's confidence in the concept of equal opportunity for qualified firms to compete for State contracts and discourages more A/E firms from bidding on State projects. Because competition is discouraged the State is not assured of getting the best and most original design or the best and most economical A/E services on its project. In addition, such incidents can undermine the public's confidence in the integrity and ability of its public officials and institutions.

RECOMMENDATIONS

THE LAW GOVERNING THE SELECTION OF A/E
FIRMS FOR STATE CONTRACTS SHOULD BE
AMENDED. A MODIFIED PROCEDURE IS

RECOMMENDED AND THE CRITERIA FOR ITS OPERATION ARE DESCRIBED ON PAGE 6 OF THIS REPORT.

UNIFORM TECHNICAL AND EVALUATION STANDARDS SHOULD BE DEVELOPED BY THE STATE FOR ALL AGENCIES TO USE IN JUDGING THE DESIGN AND TECHNICAL PROPOSALS SUBMITTED BY A/E FIRMS ON STATE PROJECTS. THESE STANDARDS SHOULD BE USED AS A BASIS TO RECRUIT A/E FIRMS BY HAVING THE FIRMS SUBMIT PROPOSALS BASED ON THE NEEDS OF AN AGENCY'S PROJECT.

THE STATE SHOULD DEVELOP AN ECONOMICAL MEANS TO BETTER ADVERTISE UPCOMING CAPITAL IMPROVEMENT PROJECTS. A PUBLICATION SIMILAR TO THE FEDERAL "COMMERCE BUSINESS DAILY" SHOULD BE DEVELOPED TO ADVERTISE THE STATE'S PROJECTS. THE PUBLICATION COULD BE DISTRIBUTED AS A SUBSCRIPTION THROUGH THE SOUTH CAROLINA INDIVIDUAL BOARDS OF ARCHITECTURAL, ENGINEERING, AND LANDSCAPE ARCHITECTURAL EXAMINERS' REGISTRATION AND THE COST OF SUCH A PUBLICATION COULD BE DEFRAID AS A PART OF THE STATE'S LICENSING SERVICE.

Higher Fees Paid for Architectural/Engineering Contracts

South Carolina paid higher fees than recommended by the American Institute of Architects and has the second highest average fee when compared to 12 states surveyed by the Council. The State paid an estimated \$3,391,277 more for A/E fees awarded from 1969 through 1978 than the fees recommended by the American Institute of Architects for that period of time.

To determine how much the State should pay for A/E fees, the Audit Council examined 168 contracts for which the original bid and the actual costs of the projects were available. The State awarded 412 contracts between 1969 and 1978, of which 184 are completed and their files are stored in the State's Archives, 51 are in the bid stage and are not under construction, and nine contracts are incomplete.

A/E fees charged at the time of the contract bids and after the 168 projects were underway were compared to the South Carolina Chapter of the American Institute of Architects (AIA) recommended fee scale for similar projects. This scale has a range of 8.5% for contracts \$50,000 and under, to 5.5% for contracts above \$3 million (see Appendix D). Listed below are the totals for the 168 contracts:

TABLE 2

A/E FEES ON 168 STATE CONTRACTS*

<u>No.</u>	<u>Contract Ranges</u>	<u>Total Construct. Costs</u>	<u>Total Fees Paid</u>	<u>Fee Avg.</u>	<u>Total AIA Recomm. Fee</u>	<u>Fee Avg.</u>	<u>Total Excess Payment</u>
73	\$-0- to 500,000	\$ 19,387,625	\$ 1,672,030	8.6%	\$ 1,324,307	6.8%	\$ 347,723
34	500,000 to 1 mil.	31,967,673	2,147,603	6.7%	1,940,239	6.1%	207,364
11	1 mil. to 1.5 mil.	19,501,630	1,440,446	7.4%	1,120,685	5.7%	319,761
<u>50</u>	1.5 mil. to +3 mil.	<u>175,895,357</u>	<u>12,285,653</u>	7.0%	<u>9,769,224</u>	5.6%	<u>2,516,429</u>
168		\$246,752,285	\$17,545,732		\$14,154,455		\$3,391,277

*Note: A/E costs in this chart include fees paid for services rendered to change the scope of a project, preliminary phases such as survey work, etc., and reimbursable expenses such as per diem, travel, etc. The method the State uses to record A/E fees does not readily separate these reimbursable expenses from the actual A/E fee. The Council found that once the 168 contracts were under construction the A/E fees, including reimbursable expenses, increased a total of 24% over the total AIA recommended fees for these projects.

The Council's conclusion that the State has paid excessive A/E costs does not imply deliberate overcharging or violation of any state laws by the A/E firms. The excessive fees support the Council's conclusion that the State's selection process does not ensure that A/E fees are held to a minimum for several reasons.

First, prior to 1974 the selection of A/E firms was left to individual State agencies and no State law governed the process. However, the current law is weak in that it does not assure competitive pricing among A/E firms. Instead, the law provides that a State agency will select three A/E firms in priority order and then the agency will negotiate a contract price with the firms, beginning with the first one picked. Section 10-5-60 of the law states that an agency will, "...negotiate a contract for services with the most qualified firm at a compensation which the agency determines is fair and reasonable to the State."

[Emphasis Added]

Second, the State does not have an established procedure of providing planning funds for a proposed project. Planning funds are used to determine a project's feasibility and to develop its scope in order to accurately estimate the entire project cost, including A/E fees. Finally, the State does not limit the number or amount of change orders allowed for a project. Change orders which alter the scope of a project, entail higher construction costs, increased architectural services and, therefore, increased A/E fees.

To compare South Carolina's method of awarding and monitoring A/E contracts, the Audit Council collected information on A/E selection, payment and supervision methods from 12 states: Alabama, Florida, Georgia, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Montana, North Carolina, Tennessee and Virginia. This information included the

average A/E fee paid, the method of payment and State limitations regarding change orders.

A/E fees in South Carolina average 7.1% of total construction costs whereas seven states in the 12 states surveyed paid less than this average. Four states did not have this information available and one state averaged slightly higher (0.4%) than South Carolina. In addition, eight of the states polled set a limit on change orders whereas four states did not. Listed on the following page are the states surveyed by the Council:

<u>State</u>	<u>A/E Fee Avg. of Construct. Cost</u>	<u>Payment Method</u>	<u>Change Order Limit Percent of Construct. Cost</u>	<u>A/E Services</u>
Alabama	Not Available	Fee Scale	10.0%	Full Service
Florida	3.2%	Fee Scale	No Limit	Full Service
Georgia	6.0%	% of Est.	No Limit	Full Service
Kansas	6.3%	Lump Sum	2.0%	Does Not Develop Program
Kentucky	Not Available	Lump Sum	3.0%	Four Phase Design Service and Inspection
Louisiana	6.5% - 7.0%	Fixed Fee	10.0%	Full Service
Maryland	3.83%	Compet. Bid	1.0%	Does Not Develop Program
Mississippi	4.0% - 7.0%	Fee Scale	No Limit	Full Service
Montana	7.5%	Fixed Fee	2.0% - 5.0%	Full Service
North Carolina	Not Available	Lump Sum	4.56%	Full Service
South Carolina	7.1%	Fee Scale	No Limit	Full Service
Tennessee	5.0%	Fixed Fee	10.0%	Full Service
Virginia	Not Available	Fee Scale	No Limit	Full Service

During its study the Council found one South Carolina State agency which consistently kept its A/E fees below the AIA's recommended fee scale and did not let the fees rise once the projects were under construction. The Adjutant General's Office has 13 of the 168 contracts analyzed by LAC. The 13 contracts amounted to \$6,136,765 in construction costs and \$332,230 in A/E fees. These fees totaled \$60,952 below AIA's recommended fees for these projects. Average A/E fee payment on individual contracts was \$4,689 or 21% below the AIA's recommended payment.

The Adjutant General uses a fixed fee system set by the U. S. Department of the Army based on a percentage of the construction costs at the time of bid on a project. This amount is the A/E's payment and his fees do not rise should the cost of construction increase. With close supervision of its projects and constant monitoring of the costs, the Adjutant General's Office has kept its project costs, including A/E fees, to a minimum.

The lack of fee consideration when choosing an A/E firm has allowed for the over-pricing of A/E services on State projects. While price should not be the dominant criterion for choosing an A/E firm, it should be one of the factors considered. Without stronger oversight over the awarding of A/E contracts and fees, the State will continue to pay comparatively high costs for A/E services.

RECOMMENDATIONS

A PROCEDURE SHOULD BE DEVELOPED WHEREBY
A/E FIRMS SUBMIT PRICE PROPOSALS AS ONE
CRITERION FOR AWARDING A/E CONTRACTS.

A COST ACCOUNTING SYSTEM FOR CAPITAL IMPROVEMENTS SHOULD BE ESTABLISHED. THIS SYSTEM SHOULD BE USED TO MONITOR THE COST OF A PROJECT TO ENSURE THAT EXPENDITURES ARE WITHIN ITS APPROVED BUDGET AND DO NOT EXCEED THE PROJECT'S RATE OF COMPLETION. (FOR EXAMPLE, IF A BUILDING IS ONLY 50% COMPLETE, 90% OF THE PROJECT'S FUNDS SHOULD NOT HAVE BEEN EXPENDED.)

A SYSTEM SHOULD BE ESTABLISHED TO LIMIT THE NUMBER AND TYPES OF CHANGE ORDERS ALLOWED FOR A PROJECT. THIS LIMIT SHOULD HAVE STRINGENT CRITERIA FOR THE TYPE OF CHANGE ORDER THAT WILL BE ALLOWED.

Need for an A/E Firm on Small, Simple State Projects

The State is awarding small contracts to A/E firms when the cost effectiveness for such awards is questionable. Contracts awarded for under \$200,000 by the State are usually charged a higher A/E fee than is paid on projects costing more than \$200,000.

South Carolina laws and regulations governing capital improvement projects do not specify the type or dollar limit of contracts that must be awarded to A/E firms. Small State agencies, without in-house A/E expertise, do not have a system or source of information for determining whether an A/E firm is needed for small, simple projects which they initiate. Also, the State does not have the architectural/engineering resources necessary for an agency to use in constructing a small project.

The State of Kansas uses a cutoff of \$100,000 as the point below which private A/E firms are not used on state projects. For those projects under \$100,000 the State does the A/E work with its own staff and hires a job representative (resident engineer) to inspect the project.

The South Carolina Department of Mental Retardation has set a limit of \$200,000 as the cutoff for simple projects, below which the agency does not hire an A/E firm. Mental Retardation has a small staff of engineers who are able to design and oversee small projects without requiring the services of an A/E firm.

One example of the problems with South Carolina's system was the \$135,000 contract to design 12 tennis courts, awarded in July 1978, to Wilbur Smith and Associates. Lander College, the agency which awarded the contract, selected Wilbur Smith and Associates, which already had a large amount of State contracts, including Highway Department contracts, over two other A/E firms with no State contracts.

Wilbur Smith and Associates then negotiated a fee of \$17,775 or 13.2% of the project cost. This fee is 5.6% over the 7.6% compensation rate recommended by the American Institute of Architects for projects of this size. The college estimated the project would cost \$135,000 but after the A/E fee is subtracted, the project is left with \$117,250 to finish the job. Since this project is in the early stages of construction, it is too soon to determine whether it can be held to its \$135,000 proposed budget or will exceed this limit.

Also, the State is paying for architectural services on projects such as home building or renovation. The need for this service is questionable especially when the fees charged by a firm for this type of work is considered. For example, the Medical University of South

Carolina (MUSC) paid the A/E firm of Lee and Partners of Hilton Head, South Carolina, \$19,324 on a \$90,000 renovation and addition to the University president's home. This fee is 21.5% of the project's cost, well above the 8.1% recommended by the American Institute of Architects (AIA) on projects of this size.

From 1969 to 1978 South Carolina awarded 55 contracts costing under \$200,000, for which the Council collected data. The State spent \$5,989,238 in approved construction estimates while approved A/E fees totaled \$500,058 for the 55 contracts, an average fee of 8.4%.

Without a policy for governing the award of small contracts, the State has no means to determine if an A/E firm is actually needed for an individual project. The State must also pay the higher fees associated with a small contract and, incur the expenses of a selection process when the project could be completed without the services of an A/E firm.

RECOMMENDATIONS

THE STATE SHOULD ESTABLISH A POLICY THAT GOVERNS THE NEED FOR AN A/E FIRM ON SMALL, SIMPLE PROJECTS. THE POLICY WOULD PROVIDE FOR ASSESSING THE NEED FOR AN A/E FIRM ON SMALL PROJECTS AND WOULD PROVIDE FOR THE SERVICES NEEDED FOR SMALL PROJECTS WITHOUT INCURRING THE COSTS AND TIME DELAYS OF HIRING AN A/E FIRM THROUGH THE CURRENT SELECTION PROCESS.

Lack of Technical and Price Competition in A/E Selection Process

Price competition, design proposals and life cycle (ownership) costs of the project are not used as tools to evaluate an A/E firm during the selection process for a State contract. It is only after a firm has been selected that a State agency will discuss these matters with the firm. Since the scope of the work is not defined before the interview process takes place, the State does not know if it is getting the best design proposal, the best technical competence or the most economical service available for a project.

The current State selection process for A/E firms focuses on an A/E firm's past history instead of the project proposed by the agency and how well the agency and firm understands what is needed for the project. When a State agency advertises a project, the interested A/E firms do not have adequate information to conduct an interview based on design performance, total acquisition and ownership costs (known as the life cycle cost of a project), and price proposals for A/E services.

The South Carolina Code, Section 10-5-60, states that an agency will, "negotiate a contract for services with the most qualified firm at a compensation which the agency determines is fair and reasonable to the State." This negotiation takes place after the firms have been interviewed and ranked. The law is unclear as to who has the final authority for picking an A/E firm when a State agency undertakes a capital improvement project. Since this authority is unspecified, no control can be exercised by the State to review the process. Without control there is no expert supervision in the selection process to adequately judge if an A/E firm selected for a State project is the best choice before the award is made.

The Audit Council's assessment of the State's method of awarding A/E contracts is similar to conclusions drawn by the GAO in its study of the Federal awards system. The GAO found that:

Discussions (interviews) have focused too much on prior efforts and projects instead of what the purchaser wants and how well the designers understand what is wanted.

The Federal Government should select architect/engineer firms and award contracts on the basis of the best value in terms of design performance and life-cycle cost. The focus should be on the proposed project rather than past performance.
[Emphasis Added]

The General Accounting Office recommended that price competition be utilized in the awarding of Federal contracts. The GAO found that Public Law 92-582, "has not brought about any major change in competition among architects and engineers." GAO recommended legislation requiring more competition in the selection process be enacted and that price competition be one of the factors to consider when awarding contracts.

In 1975 Maryland introduced competitive bidding as a system for procuring A/E services where A/E fees are \$25,000 or more. In contrast to the South Carolina system, Maryland requires firms to submit both technical and price proposals when they bid. The technical proposal must address the firm's understanding of the project, the technical approach and work plans, and a proposed schedule. The price proposal is the A/E's fee for this service.

Since Maryland began the competitive bid system in 1975, the State has awarded 42 contracts between August 6, 1975 and January 24, 1979. Maryland's total estimated construction cost was \$132,327,000 with the total lump sum for A/E fees equaling \$5,073,429. These fees are averaging 3.83% of the estimated cost for new construction.

Other benefits of the Maryland system include more competition among A/E firms for state contracts and a shorter time period being taken to complete phases of a project. Another benefit has been the low percentage of change orders (1%) submitted on state projects.

In contrast to South Carolina, Maryland's awards process is a highly centralized, controlled procedure complete with an accompanying state bureaucracy to oversee it. The agency in charge of directing Maryland's capital improvement programs has 125 employees and a budget of \$2.4 million which includes a staff of seven architects and 14 engineers. By comparison South Carolina has a staff of six employees and a budget of \$172,374 in its Engineering Division under the State Auditor's Office.

Also, when a capital improvement project is undertaken by Maryland, the state assigns one of its engineers as the project manager to oversee construction. The cost of this employee is not included in the architect's fees.

Competitive pricing as a criterion in awarding A/E contracts has traditionally been opposed by architects and engineers on the assumption that the quality of service will suffer under this system. Writing in the April 1979 edition of "Consulting Engineer," the president of J. E. Sirrine Company, one of South Carolina's largest A/E firms noted that, "...for some reason, there has been reluctance to think in terms of comparisons of ability to perform or estimates of man-hours required to do a certain project. Yet, competitive negotiation of these items is an integral part of many engineering assignments."

The A/E firm's president said that a system of competitive pricing for a contract can be achieved:

If the owner has a sufficiently sophisticated staff to adequately define the scope of the project, if good construction cost estimates are prepared, and if the complexity is understood, then some firms may be more cost effective than others, due to specific experience required by the project. Under such conditions, estimates of engineering are in order as long as this factor is cast in proper perspective.

Finally, the United States Supreme Court on April 25, 1978 ruled in the case of The National Society of Professional Engineers versus the United States, 46 U.S.L.W. 4356, that measures enacted to restrict competitive bidding in procuring A/E services are unconstitutional. Traditionally architects and engineers have opposed competitive bidding for A/E services but recent trends in the A/E field and in the courts have not upheld this practice.

In summary, the A/E selection process in South Carolina has tended to focus on an A/E firm's past history rather than the needs of a proposed project. This practice does not guarantee that selection is based on technical competence or the merits of the end product, including price. The current system encourages "monopolistic competition" and does not ensure that the State is getting the best workmanship at the best price.

RECOMMENDATIONS

THE STATE'S A/E INTERVIEW AND SELECTION PROCESS SHOULD BE MODIFIED TO FOCUS THE INTERVIEW ON THE SCOPE AND NEEDS OF THE PROJECT AS THE OWNER AGENCY ENVISIONS IT.

THE STATE SHOULD IMPLEMENT A POLICY OF REQUIRING A DESIGN COMPETITION ON LARGE

AND/OR COMPLEX PROJECTS FROM AMONG THE
THREE SELECTED A/E FIRMS FOR A PROJECT.
THE A/E FIRMS SHOULD BE PAID FOR THIS DESIGN
EXPENSE AND THE FEE SHOULD BE INCLUDED AS
A PART OF THE PLANNING FUNDS APPROPRIATED
FOR A LARGE AND/OR COMPLEX PROJECT.

Need to Require Errors and Omissions Insurance

The State has no requirement for architects or engineers to carry errors and omissions insurance on State projects. The State is hiring A/E firms without adequate protection against omissions or errors in the professional quality, technical accuracy and coordination/supervision of the work undertaken by the firms.

The Federal General Services Administration (GSA) includes a clause in its contracts with A/E firms which makes the firms responsible for professional quality, technical accuracy and coordination of the work. The A/E firms are also responsible for correcting their errors and deficiencies, without charge to the government.

In the 12 state survey taken by LAC, seven of the states said they required A/E firms to carry errors and omissions insurance on state projects. One state, Montana, had required this insurance until November 1979 when the requirement was dropped. Four of the states did not have an insurance requirement. In addition, all 12 of the states required a warranty, varying from one to 15 years, on state projects. The following is a listing of the states polled by the Council:

State	E/O Insurance Required		Warranty Required		
	Yes	No	Yes	No	Time
Alabama		X	X		1 Year
Florida	X		X		*
Georgia	X		X		6 Years
Kansas	X		X		15 Months
Kentucky	X		X		7 Years
Louisiana	X		X		1 Year
Maryland	X		X		15 Years
Mississippi		X	X		1 Year
Montana		**	X		1 Year
North Carolina		X	X		1 Year
South Carolina		X	X		1 Year
Tennessee	X		X		1 Year
Virginia		X	X		1 Year

*Florida's warranties vary with the size and complexity of the projects.

**Montana dropped this requirement in November 1979.

The South Carolina Department of Mental Retardation was the only State agency among seven interviewed by the Audit Council that has a policy of informing A/E firms that they will be held responsible for errors and omissions. If the department determines that an error is the result of an architect's failure to perform, then the architect is charged for it.

As a result of expensive mistakes in the past on certain State projects, the Attorney General's Office and the State Engineer are currently seeking remedies to protect the State against past errors and omissions. Without adequate protection for its capital improvement

program the State is vulnerable to paying for errors that result in cost overruns and poor workmanship on a project. Poor work by an A/E firm can result in costly litigation by the State to try to recover the amount of the error.

As an example, the Council reviewed an investigation being conducted by the State Engineer and Attorney General on an error committed on a State project. A new building for the Department of Mental Health had an alleged design error which resulted in a \$553,368 cost overrun on the project. Because of company policy the A/E firm involved in the project was carrying errors and omissions insurance for only \$300,000. As a result, the State must invest time and money in attempting to recover the cost overrun.

RECOMMENDATIONS

THE BUDGET AND CONTROL BOARD SHOULD ESTABLISH A POLICY REQUIRING ERRORS AND OMISSIONS INSURANCE ON CERTAIN STATE PROJECTS AS DEEMED NECESSARY. THIS POLICY SHOULD REQUIRE A/E FIRMS WORKING ON PROJECTS OF A CERTAIN TYPE, SIZE AND COMPLEXITY BE INSURED AGAINST ERRORS AND OMISSIONS.

THE STATE SHOULD ESTABLISH A POLICY REQUIRING A WARRANTY ON ITS CAPITAL IMPROVEMENT PROJECTS THAT A/E FIRMS BE RESPONSIBLE FOR ANY DEFECTS THAT OCCUR ON A PROJECT DURING THE LIFE OF THE WARRANTY.

Need for Evaluation and Performance Standards for A/E Firms Doing State Work

Currently the State has no central system or source for evaluating or recording an A/E firm's past performance on State projects. Agencies do not have access to a source of information on an A/E firm's past performance during the selection process for a State contract.

Since no central information system exists, during the preliminary phases of selecting an A/E firm, State agencies are especially vulnerable to making the wrong choice for A/E services. During the interview and selection process emphasis is placed on a firm's past performance as outlined in its resume, and not the needs of the project.

There are no statutory requirements in the State Code for establishing a system of evaluating or monitoring of A/E firms which do State work. The State Code and procedures are concerned only with the selection of A/E firms.

If the agency doing the interviewing has no in-house expertise in construction there is no alternative source to turn to for this expertise to adequately evaluate a firm's qualifications. Although there is a State Engineer's Office under the State Auditor's Office, there is no requirement for agencies to utilize this office during the selection process.

Too few staff members are assigned to the State Engineer's Office to adequately monitor and supervise the State's entire capital improvement program. The office has two architects, three engineers and one secretary to oversee plans and specifications, monitor programs and inspect projects for 219 current contracts. Under the current system the staff is immersed in keeping up with the paperwork associated with 219 contracts rather than inspecting and evaluating the State's construction projects and the quality of the A/E services it receives.

In addition, the State has another engineering department, the Engineering Services Division in the State General Services Division. This office has a staff of two unlicensed architects, four unlicensed engineers and five additional personnel which oversees General Services' construction programs and provides construction consultation on some other State agencies' projects. Although these two offices exist they are separate and do not have the authority or ability to provide the State with a uniform and coordinated effort to supervise its capital improvement programs or A/E selections.

The Council surveyed 12 other states on their awarding and supervision of A/E contracts. The states were asked their staff size, the number of architects and engineers employed, budget size and if the state assigned or hired an engineer to inspect state projects under construction. Nine states assign a state engineer to inspect state projects; one state, Georgia, hires a "clerk of the work" to inspect for the state; and two states, Alabama and Virginia, do not inspect at all. Below is a breakdown of the survey by individual state:

State	Yearly Budget	Staff Size			State Inspects	
		Total	Arch.	Engrs.	Yes	No
Alabama	\$ 600,000	20	4	3		X
Florida	(AITF) ³	54	8	7	X	
Georgia	1,000,000	30	0	2	X ¹	
Kansas	1,200,000	54	-22- ²		X	
Kentucky	1,700,000	80	-23- ²		X	
Louisiana	1,200,000	30	9	9	X	
Maryland	2,400,000	125	7	14	X	
Mississippi	768,233	32	5	2	X	
Montana	375,000	13	6	2	X	
North Carolina	981,000	30	3	18	X	
South Carolina	172,374	6	2	3		X
Tennessee	750,000	30	6	2	X	
Virginia	Not Available	21	4	6		X

¹Georgia hires a "clerk of the work" to inspect projects for the state.

²Kansas and Kentucky could not give an exact breakdown of architects and engineers on staff.

³Florida does not appropriate funds directly to this central office. Operating funds are derived from a 1.5% fee charged to each agency with a capital improvement project. This fee is put into the Architectural Incidental Trust Fund (AITF) to fund this office.

An example of a review process on A/E projects is the system used by the Federal General Services Administration (GSA). At the completion of construction a GSA committee reviews and evaluates the A/E firm's total performance as it relates to errors and omissions. Also judged are conflicts in the plans and specifications resulting from

action, or inaction, on the part of the A/E firm which result in damage to the Federal Government.

Another example is the State of Montana. It implemented a statewide building regulation and inspection program in 1977. This was done so that nationally recognized building codes could be adopted into a statewide code system applicable throughout the State by all levels of government.

Maryland, which instituted a modified system of competitive bidding in 1975 as the means to award A/E contracts, is developing a system of performance evaluations on A/E firms which do State work. Maryland has found this practice to be essential in maintaining quality work for State projects.

By contrast South Carolina does not have an inspection system for State projects in its laws. Only one outdated statute, Section 10-1-60 of the South Carolina Code, deals with the duties of the State Engineer's Office. The law states that the State Engineer, "...shall attend to the boilers, engines and other equipment and appliances of all State buildings and property in Columbia, and he shall do all repairing of wiring, fixtures, fuses and other similar apparatus for such buildings and property."

Without a system for inspecting and evaluating an A/E firm's performance, State agencies are without a resource of valuable information to aid the selection process. An A/E firm's good or poor performance on a previous State project is not documented for future use. Consequently, a firm with a poor performance on a previous contract can be hired by another State agency for another project.

Another problem with the South Carolina system is that it encourages agencies to develop a habit of continually hiring the same firm for its projects. If the firm did a good job on the last project, then there is a hesitancy by the agency to pick another firm for the next project because of the "risk" involved in choosing an unknown and unproven firm. This tends to stifle competition for State projects and can lead to the State not getting the best price or the most original and best design available. Agencies also develop the erroneous perception that only certain firms can do the projects they plan or that only large firms can do large projects.

This situation discourages competition among A/E firms for State projects and further strengthens the perception existing among A/E firms that State agencies have made a choice of an A/E firm before the interview process for a new project takes place.

RECOMMENDATIONS

THE STAFFS OF THE STATE ENGINEER AND THE ENGINEERING SERVICES DIVISION SHOULD BE COMBINED INTO ONE OFFICE UNDER THE DIRECTION OF THE STATE ENGINEER.

THIS NEW OFFICE SHOULD PROVIDE PROFESSIONAL AND TECHNICAL EXPERTISE TO THE PROPOSED COMMITTEE FOR PRELIMINARY DESIGNS AND ESTIMATES OF ALL STATE PROJECTS FOR THE SELECTION OF ALL A/E FIRMS FOR THE STATE'S CAPITAL IMPROVEMENT PROGRAMS.

LAWS GOVERNING THE AUTHORITY OF THE STATE ENGINEER SHOULD BE MODIFIED TO PROVIDE BETTER ENFORCEMENT POWERS FOR THE ENGINEER TO CONDUCT INSPECTIONS, AND TO MONITOR AND PROVIDE SUPERVISION TO THE STATE'S CAPITAL IMPROVEMENT PROGRAM.

EVALUATION AND PERFORMANCE STANDARDS SHOULD BE DEVELOPED FOR A/E FIRMS WHICH ARE AWARDED STATE CONTRACTS. RECORDS OF EVALUATION AND PERFORMANCE SHOULD BE MAINTAINED BY THE STATE ENGINEER'S OFFICE. THESE RECORDS WILL BE A PART OF THE STATE'S SYSTEM OF AWARDING CONTRACTS AND GUIDES FOR MONITORING THE QUALITY OF WORK PERFORMED BY A/E FIRMS ON STATE PROJECTS.

A/E FIRMS SHOULD BE REQUIRED TO INSPECT STATE PROJECTS DURING THE FIRST YEAR OF OWNERSHIP BY THE STATE AND BE RESPONSIBLE FOR DEFECTS THAT OCCUR AFTER THE STATE ASSUMES OWNERSHIP.

APPENDICES

APPENDIX A

CHAPTER 5

Construction and Renovation of Public Buildings and Other Projects

ARTICLE 1. Selection of Architectural and Engineering Firms.

ARTICLE 3. Construction of Public Buildings for Access by Handicapped Persons.

ARTICLE 1

SELECTION OF ARCHITECTURAL AND ENGINEERING FIRMS

SEC.

10-5-10. Application of article.

10-5-20. "Agency" defined.

10-5-30. Publication and mailing of project description and request for resume of qualifications.

10-5-40. Conferences with firms submitting resumes.

10-5-50. Selection of three most qualified applicants.

10-5-60. Negotiation of contract.

10-5-70. Submission of contract and other data to State Budget and Control Board.

10-5-80. Approval or rejection by State Budget and Control Board.

§ 10-5-10. Application of article.

All State agencies and departments shall follow the procedure in this article described when selecting an architectural or engineering firm to provide services to the agency or department.

HISTORY: 1962 Code § 1-453; 1974 (58) 2608.

Cross references—

As to regulation of architects, generally, see §§ 40-3-10 to 40-3-160.

As to regulation of engineers, generally, see §§ 40-21-10 to 40-21-410.

§ 10-5-20. "Agency" defined.

As used in this article "agency" shall mean all State agencies or departments.

HISTORY: 1962 Code § 1-454; 1974 (58) 2608.

§ 10-5-30. Publication and mailing of project description and request for resume of qualifications.

A description of the proposed project and required services

APPENDIX A (CONTINUED)

CONSTRUCTION AND RENOVATION

§ 10-5-60

shall be developed by the agency and published at least once in one or more newspapers of general circulation throughout the State. The publication shall request the submission of a resume of qualifications by a specified date from interested architectural or engineering firms. The date for submission shall be not less than fifteen days after publication of the notice.

In addition to newspaper publications, the project description and request may be mailed directly to architectural or engineering firms; *provided, however*, that all eligible South Carolina firms shall be included in the mailing.

HISTORY: 1962 Code § 1-455; 1974 (58) 2608.

Research and Practice References—

64 Am Jur 2d, Public Works and Contracts § 53.

§ 10-5-40. Conferences with firms submitting resumes.

Following the receipts of resumes of qualifications, the agency shall hold conferences with at least three firms submitting resumes. The purpose of the conferences shall be to provide such further information as may be required by the agency to fully acquaint itself with the relative qualifications of the several interested firms.

HISTORY: 1962 Code § 1-456; 1974 (58) 2608.

§ 10-5-50. Selection of three most qualified applicants.

After reviewing and evaluating qualifications, the agency shall select the three which, in its judgment, are the most qualified, ranking the three in priority order.

The agency shall consider the ability of professional personnel, past performance, willingness to meet time and budget requirements, location, recent, current and projected work loads of the firms, and the volume of work previously awarded to the firm by the agency, with the object of effecting an equitable distribution of contracts among qualified firms; *provided, however*, that such distribution does not violate the principle of selection of the most highly qualified firms.

HISTORY: 1962 Code § 1-457; 1974 (58) 2608.

§ 10-5-60. Negotiation of contract.

The agency shall negotiate a contract for services with the most qualified firm at a compensation which the agency determines is fair and reasonable to the State. Should the agency be unable to negotiate a satisfactory contract with this firm, negotiations shall be formally terminated. The agency shall then negotiate in the

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APPENDIX A (CONTINUED)

§ 10-5-60

PUBLIC BUILDINGS AND PROPERTY

same manner with the second and then the third most qualified firms until a satisfactory contract has been negotiated. If no agreement is reached with the three firms, additional firms in order of their competence and qualifications, shall be selected and negotiations continued in the same manner until agreement is reached.

HISTORY: 1962 Code § 1-453; 1974 (58) 2608.

§ 10-5-70. Submission of contract and other data to State Budget and Control Board.

The agency shall submit the name of the selected firm and a tentative contract to the State Budget and Control Board for approval and shall submit a list of the other firms considered.

In addition to such submittal the agency shall provide (a) a statement of construction projects undertaken in the preceding two years, showing the architectural or engineering firm involved, the nature of the project, and the amount of the construction contract; and (b) a certification that the newspaper announcement required above was duly published.

HISTORY: 1962 Code § 1-459; 1974 (58) 2608.

Cross references—

As to composition, powers and duties of State Budget and Control Board generally, see Chapter 11 of Title 1.

As to the State Budget and Control Board, generally, see §§ 1-11-10 to 1-11-160.

§ 10-5-80. Approval or rejection by State Budget and Control Board.

After review of the data submitted, the Budget and Control Board shall determine its position with respect to the particular firm recommended for approval by the agency. The Board shall formally notify the agency of its approval or rejection. In event of approval, the agency is authorized to execute a contract with the selected firm. In the event of rejection, the agency shall submit the name of another firm for the Board's consideration, selected in accordance with the procedure outlined herein. The agency shall not enter into a contract for architectural or engineering services without the approval of the Budget and Control Board.

HISTORY: 1962 Code § 1-460; 1974 (58) 2603.

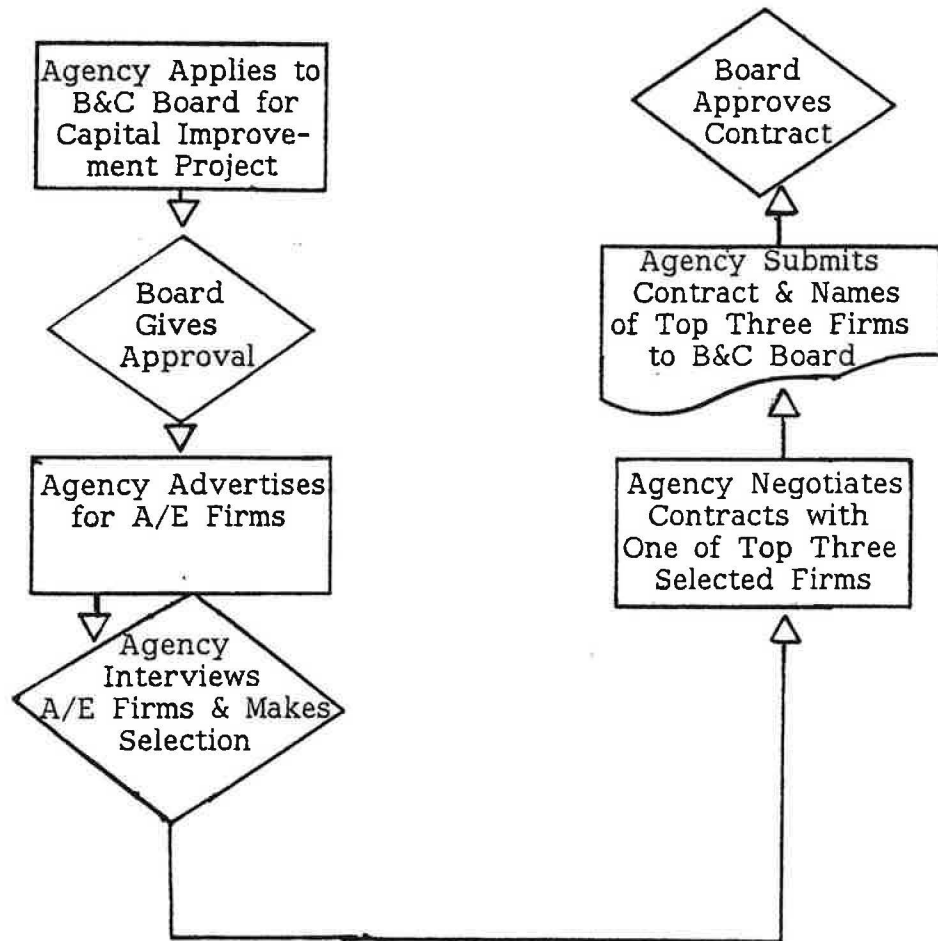
Cross references—

As to composition, powers and duties of State Budget and Control Board generally, see Chapter 11 of Title 1.

APPENDIX B

The 1974 law created a seven step system for awarding contracts to A/E firms. A State agency receives approval from the Budget and Control Board for its capital improvement project, it advertises for A/E firms, conducts interviews and selects three A/E firms ranking them in priority order. After a tentative contract has been negotiated with one of the three firms, the agency submits the contract, along with the names of the other two A/E firms, to the Budget and Control Board. The Board then approves or rejects the agency's choice.

The following is a graphic presentation of the State's system for awarding contracts to A/E firms:



APPENDIX C

Architects/Engineers Perceptions of the Current State Selection System

During the course of this audit the Council interviewed 30 A/E firms and three of the members of the South Carolina Chapter of the American Institute of Architect's governing board. Of the 30 A/E firms interviewed, 25 were surveyed by the Council concerning the current State system for selecting A/E firms. These 25 firms were selected from a list of A/E firms which had received one or no State contracts.

The survey was conducted to determine the perceptions of A/E firms which do not receive State contracts. This survey was "judgmental" in nature and cannot be considered a scientifically selected, statistical analysis of architects' opinions on the State's selection process.

The firm of J. E. Sirrine of Greenville, South Carolina requested an interview with the Council on the subject of the State's A/E selection process which was included in this survey. J. E. Sirrine has received four State contracts since 1974, three were for projects ranging in cost from \$100,000 to \$400,000 and the fourth was for \$4,200,000 awarded in 1974.

The following is a listing of the questions asked and the answers received by the Council:

1. In your interviews for a State contract, did you feel the agency had already made a choice and was just going through the motions of complying with the law?

Yes: 10 No: 6 Don't Know - N/A: 9

2. Do you think a competitive bid system would spread the State's business among more A/E firms?

Yes: 5 No: 20 Don't Know - N/A: 0

APPENDIX C (CONTINUED)

3. Should the State maintain performance standards on A/E firms which do State work?

Yes: 22 No: 2 Don't Know - N/A: 1

4. Would the State benefit by a stronger inspection system on its projects?

Yes: 10 No: 7 Don't Know - N/A: 8

5. Should there be a limit on the number of State contracts a firm can have?

Yes: 13 No: 10 Don't Know - N/A: 2

6. Should the limit be a number amount, dollar amount or a combination of the two?

Number	Dollar		Don't
Amount: 0	Amount: 5	Combination: 7	Know: 1

The survey shows that on questions two and three, the A/E firms queried had definite opinions. Answers to question two reflects the traditional attitude of A/E firms against competitive bidding. The A/E firms consistently stated that after some initial benefit the competitive bid system would erode the quality of services provided by A/E firms. Also, the A/E firms said that large firms would begin to underbid the smaller firms thereby preventing a more equitable distribution of State contracts.

The answers to question three in part reflect the pride that architects/engineers have in their profession. The A/E firms questioned indicated that an evaluation system would benefit them in their work and aid the State in future contract awards. The evaluation system would also eliminate the few firms which do bad work.

APPENDIX C (CONTINUED)

On questions one and four it is not easy to arrive at a clear consensus. The large number of A/E firms which have never received an interview or contract cannot answer yes or no on either of these two questions. It is significant to note that 10 of the 16 firms answering question one said that State agencies had already made a choice before the interview for an A/E contract had taken place. This coincides with the A/E firms' constant complaint, noted by the Council during interviews and from the survey, that politics, not ability, governs the State's awards process.

Answers to questions five and six indicate the A/E firms' preference should the State attempt to limit the number of State contracts one firm can have. Again, on question five, no real majority exists on whether the State should impose a limit. But, on question six, the firms answering yes to the question, give a clear preference to some form of dollar limit on contracts as opposed to a volume limit.

APPENDIX D

Note: In 1978 the AIA discontinued the use of this fee scale. This action came in light of recent U. S. Supreme Court rulings on the use of fee scales by professional groups.

A NORMAL PROJECT

A normal building or project is for this purpose defined as one of average complexity requiring a normal amount of time, study, and detail. The following usually fall into the "normal" category:

Apartments	Dormitories	*Office Buildings
Armories	Garages	Parking Structures
Classroom Buildings	Hotels and Motels	Public Schools

* Without tenant improvements.

*Stores

RECOMMENDED MINIMUM COMPENSATION AS A PERCENTAGE OF CONSTRUCTION COST FOR NORMAL PROJECTS

<u>\$ 50,000 and below</u>	<u>8.5%</u>	<u>\$ 500,000</u>	<u>6.5%</u>
50,000 — 60,000	8.4%	500,000 — 600,000	6.4%
60,000 — 70,000	8.3%	600,000 — 700,000	6.3%
70,000 — 80,000	8.2%	700,000 — 800,000	6.2%
80,000 — 90,000	8.1%	800,000 — 900,000	6.1%
90,000 — 100,000	8.0%	900,000 — 1,000,000	6.0%
<u>\$100,000</u>	<u>8.0%</u>	<u>\$1,000,000</u>	<u>6.0%</u>
100,000 — 110,000	7.9%	1,000,000 — 1,100,000	5.95%
110,000 — 120,000	7.8%	1,100,000 — 1,200,000	5.9%
120,000 — 130,000	7.7%	1,200,000 — 1,300,000	5.85%
130,000 — 140,000	7.6%	1,300,000 — 1,400,000	5.8%
140,000 — 150,000	7.5%	1,400,000 — 1,500,000	5.75%
<u>\$150,000</u>	<u>7.5%</u>	<u>\$1,500,000</u>	<u>5.75%</u>
150,000 — 180,000	7.4%	1,500,000 — 1,800,000	5.70%
180,000 — 210,000	7.3%	1,800,000 — 2,200,000	5.65%
210,000 — 240,000	7.2%	2,200,000 — 2,600,000	5.60%
240,000 — 270,000	7.1%	2,600,000 — 3,000,000	5.55%
270,000 — 300,000	7.0%		
<u>\$300,000</u>	<u>7.0%</u>	<u>Above \$3,000,000</u>	<u>5.5%</u>
300,000 — 340,000	6.9%		
340,000 — 380,000	6.8%		
380,000 — 420,000	6.7%		
420,000 — 460,000	6.6%		
460,000 — 500,000	6.5%		

Services covered by these compensations and procedures for applying the percentage are described in Sections 2 and 4 respectively of "Standards of Architectural Service."

A SIMPLE PROJECT

Some buildings are less complex and require less time and study than those envisioned by the "normal" chart and therefore warrant a lower compensation. Ninety percent (90%) of the percentages shown by the chart is recommended as minimum compensation for a "simple" project. The following usually fall into this category:

Farm Buildings	Simple Industrial Buildings
Shop Buildings	Warehouses

A COMPLEX PROJECT

Some buildings require somewhat more time, study, and detail than those envisioned by the "normal" chart and therefore necessitate higher compensation. One hundred ten percent (110%) of the percentage shown by the chart is recommended as minimum compensation for a "complex" project. The following usually fall in this category:

APPENDIX D (CONTINUED)

Auditoriums	Coliseums	Nursing Homes
Banking and Savings Institutions	Courthouses and City Halls	Passenger Terminals
Churches	Jails and Correctional Institutions	Site Development and Utilities
Club Facilities	Medical Buildings	Specialty Shops

A HIGHLY COMPLEX PROJECT

Some buildings require a great deal more time, study, research, and detail than those envisioned by the "normal" chart. A compensation of one hundred twenty percent (120%) of the percentages shown by the chart is recommended as minimum compensation for a "highly complex" project. The following usually fall in this category:

Food Preparation and Serving Facilities	Libraries	Scientific Laboratories
General Hospitals	Monumental Structures	Student Unions

APPENDIX A

CHAPTER 5

Construction and Renovation of Public Buildings and Other Projects

ARTICLE 1. Selection of Architectural and Engineering Firms.

ARTICLE 3. Construction of Public Buildings for Access by Handicapped Persons.

ARTICLE 1

SELECTION OF ARCHITECTURAL AND ENGINEERING FIRMS

SEC.

10-5-10. Application of article.

10-5-20. "Agency" defined.

10-5-30. Publication and mailing of project description and request for resume of qualifications.

10-5-40. Conferences with firms submitting resumes.

10-5-50. Selection of three most qualified applicants.

10-5-60. Negotiation of contract.

10-5-70. Submission of contract and other data to State Budget and Control Board.

10-5-80. Approval or rejection by State Budget and Control Board.

§ 10-5-10. Application of article.

All State agencies and departments shall follow the procedure in this article described when selecting an architectural or engineering firm to provide services to the agency or department.

HISTORY: 1962 Code § 1-453; 1974 (58) 2608.

Cross references—

As to regulation of architects, generally, see §§ 40-3-10 to 40-3-160.

As to regulation of engineers, generally, see §§ 40-21-10 to 40-21-410.

§ 10-5-20. "Agency" defined.

As used in this article "agency" shall mean all State agencies or departments.

HISTORY: 1962 Code § 1-454; 1974 (58) 2608.

§ 10-5-30. Publication and mailing of project description and request for resume of qualifications.

A description of the proposed project and required services

APPENDIX A (CONTINUED)

CONSTRUCTION AND RENOVATION

§ 10-5-60

shall be developed by the agency and published at least once in one or more newspapers of general circulation throughout the State. The publication shall request the submission of a resume of qualifications by a specified date from interested architectural or engineering firms. The date for submission shall be not less than fifteen days after publication of the notice.

In addition to newspaper publications, the project description and request may be mailed directly to architectural or engineering firms; *provided, however*, that all eligible South Carolina firms shall be included in the mailing.

HISTORY: 1962 Code § 1-455; 1974 (58) 2608.

Research and Practice References—

64 Am Jur 2d, Public Works and Contracts § 53.

§ 10-5-40. Conferences with firms submitting resumes.

Following the receipts of resumes of qualifications, the agency shall hold conferences with at least three firms submitting resumes. The purpose of the conferences shall be to provide such further information as may be required by the agency to fully acquaint itself with the relative qualifications of the several interested firms.

HISTORY: 1962 Code § 1-456; 1974 (58) 2608.

§ 10-5-50. Selection of three most qualified applicants.

After reviewing and evaluating qualifications, the agency shall select the three which, in its judgment, are the most qualified, ranking the three in priority order.

The agency shall consider the ability of professional personnel, past performance, willingness to meet time and budget requirements, location, recent, current and projected work loads of the firms, and the volume of work previously awarded to the firm by the agency, with the object of effecting an equitable distribution of contracts among qualified firms; *provided, however*, that such distribution does not violate the principle of selection of the most highly qualified firms.

HISTORY: 1962 Code § 1-457; 1974 (58) 2608.

§ 10-5-60. Negotiation of contract.

The agency shall negotiate a contract for services with the most qualified firm at a compensation which the agency determines is fair and reasonable to the State. Should the agency be unable to negotiate a satisfactory contract with this firm, negotiations shall be formally terminated. The agency shall then negotiate in the

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APPENDIX A (CONTINUED)

§ 10-5-60

PUBLIC BUILDINGS AND PROPERTY

same manner with the second and then the third most qualified firms until a satisfactory contract has been negotiated. If no agreement is reached with the three firms, additional firms in order of their competence and qualifications, shall be selected and negotiations continued in the same manner until agreement is reached.

HISTORY: 1962 Code § 1-458; 1974 (58) 2608.

§ 10-5-70. Submission of contract and other data to State Budget and Control Board.

The agency shall submit the name of the selected firm and a tentative contract to the State Budget and Control Board for approval and shall submit a list of the other firms considered.

In addition to such submittal the agency shall provide (a) a statement of construction projects undertaken in the preceding two years, showing the architectural or engineering firm involved, the nature of the project, and the amount of the construction contract; and (b) a certification that the newspaper announcement required above was duly published.

HISTORY: 1962 Code § 1-459; 1974 (58) 2608.

Cross references—

As to composition, powers and duties of State Budget and Control Board generally, see Chapter 11 of Title 1.

As to the State Budget and Control Board, generally, see §§ 1-11-10 to 1-11-160.

§ 10-5-80. Approval or rejection by State Budget and Control Board.

After review of the data submitted, the Budget and Control Board shall determine its position with respect to the particular firm recommended for approval by the agency. The Board shall formally notify the agency of its approval or rejection. In event of approval, the agency is authorized to execute a contract with the selected firm. In the event of rejection, the agency shall submit the name of another firm for the Board's consideration, selected in accordance with the procedure outlined herein. The agency shall not enter into a contract for architectural or engineering services without the approval of the Budget and Control Board.

HISTORY: 1962 Code § 1-460; 1974 (58) 2603.

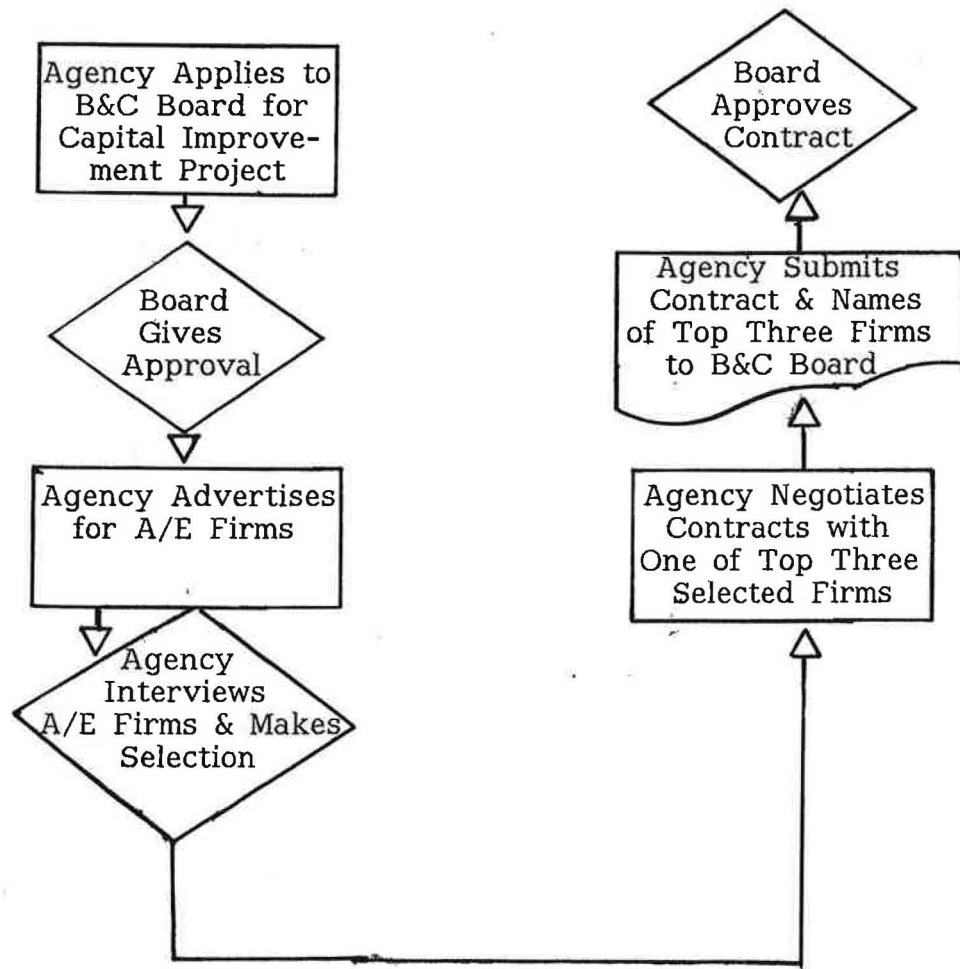
Cross references—

As to composition, powers and duties of State Budget and Control Board generally, see Chapter 11 of Title 1.

APPENDIX B

The 1974 law created a seven step system for awarding contracts to A/E firms. A State agency receives approval from the Budget and Control Board for its capital improvement project, it advertises for A/E firms, conducts interviews and selects three A/E firms ranking them in priority order. After a tentative contract has been negotiated with one of the three firms, the agency submits the contract, along with the names of the other two A/E firms, to the Budget and Control Board. The Board then approves or rejects the agency's choice.

The following is a graphic presentation of the State's system for awarding contracts to A/E firms:



APPENDIX D

Note: In 1978 the AIA discontinued the use of this fee scale. This action came in light of recent U. S. Supreme Court rulings on the use of fee scales by professional groups.

A NORMAL PROJECT

A normal building or project is for this purpose defined as one of average complexity requiring a normal amount of time, study, and detail. The following usually fall into the "normal" category:

Apartments	Dormitories	*Office Buildings
Armories	Garages	Parking Structures
Classroom Buildings	Hotels and Motels	Public Schools
		*Stores

* Without tenant improvements.

RECOMMENDED MINIMUM COMPENSATION AS A PERCENTAGE OF CONSTRUCTION COST FOR NORMAL PROJECTS

<u>\$ 50,000 and below</u>	<u>8.5%</u>	<u>\$ 500,000</u>	<u>6.5%</u>
50,000 — 60,000	8.4%	500,000 — 600,000	6.4%
60,000 — 70,000	8.3%	600,000 — 700,000	6.3%
70,000 — 80,000	8.2%	700,000 — 800,000	6.2%
80,000 — 90,000	8.1%	800,000 — 900,000	6.1%
90,000 — 100,000	8.0%	900,000 — 1,000,000	6.0%
<u>\$100,000</u>	<u>8.0%</u>	<u>\$1,000,000</u>	<u>6.0%</u>
100,000 — 110,000	7.9%	1,000,000 — 1,100,000	5.95%
110,000 — 120,000	7.8%	1,100,000 — 1,200,000	5.9%
120,000 — 130,000	7.7%	1,200,000 — 1,300,000	5.85%
130,000 — 140,000	7.6%	1,300,000 — 1,400,000	5.8%
140,000 — 150,000	7.5%	1,400,000 — 1,500,000	5.75%
<u>\$150,000</u>	<u>7.5%</u>	<u>\$1,500,000</u>	<u>5.75%</u>
150,000 — 180,000	7.4%	1,500,000 — 1,800,000	5.70%
180,000 — 210,000	7.3%	1,800,000 — 2,200,000	5.65%
210,000 — 240,000	7.2%	2,200,000 — 2,600,000	5.60%
240,000 — 270,000	7.1%	2,600,000 — 3,000,000	5.55%
270,000 — 300,000	7.0%		
<u>\$300,000</u>	<u>7.0%</u>	<u>Above \$3,000,000</u>	<u>5.5%</u>
300,000 — 340,000	6.9%		
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