

An Audit Report on

Construction Management at the Texas State University System, Sam Houston State University, and Texas State University-San Marcos

July 2005

Report No. 05-042



Construction Management at the Texas State University System, Sam Houston State University, and Texas State University-San Marcos

Overall Conclusion

Sam Houston State University (Sam Houston), Texas State University-San Marcos (Texas State), and Texas State University System (System)

Administration have policies and procedures that reasonably ensure that the universities (1) follow appropriate processes to identify and select construction activities, (2) comply with statutes and rules when selecting contractors, and (3) complete projects on time and within budget. However, we found opportunities for all three to strengthen their controls.

In addition, we found that one of five projects tested at Sam Houston and one of four tested at Texas State did not fully comply with Texas Education Code and System requirements regarding the competitive selection of contracts.

Background

The System Vice Chancellor for Planning and Construction and the System Director of Planning and Construction are responsible for and actively involved in the oversight of construction projects at System components.

Two of these institutions, Sam Houston and Texas State, have facilities planning and construction departments that manage construction activities on their campuses. The Vice Chancellor for Planning and Construction and the Director of Planning and Construction at the System handle many of the functions for major construction projects at the other components.

The component universities reported the following amounts for construction in progress in their annual financial reports for fiscal year 2004:

- Angelo State University - \$12,878,823
- Lamar University - \$9,592,638
- Sam Houston State University - \$64,308,234
- Sul Ross State University - \$10,391,537
- Texas State University - \$77,166,388

Key Points

Two projects tested did not fully comply with Texas Education Code and Texas State University System requirements relating to competitive selection of contractors.

For both Sam Houston's Sam Houston Village and Texas State's Round Rock Multi-Institutional Teaching Center (MITC) facility, requirements in the Texas Education Code and System *Rules and Regulations* for the competitive selection of the contractor were not followed. As a result, the selection processes for these projects were not objective or fully competitive.

The Sam Houston Village was completed in a timely manner, and its \$17 million cost is within the Texas Higher Education Coordinating Board's (Coordinating Board) standards for similar projects. In addition, Texas State and System



Administration expect the \$27 million Round Rock MITC facility to be completed on time (by August 2005).

System Administration should incorporate additional controls into its construction management process.

The System *Rules and Regulations* address the full process for managing construction. Those rules incorporate many of the specific procedures and controls in the Texas Education Code that relate to construction projects and serve as a good model for the component institutions.

However, we found that additional controls would strengthen the rules and regulations and System Administration's control over construction projects. In particular, System Administration and component institutions should follow the State's ten-year retention schedule for construction documents rather than the two-year retention schedule for purchasing contracts.

Sam Houston has appropriate policies and procedures; however, they have not been followed in some instances.

Sam Houston has appropriate policies and procedures for construction management. However, testing identified instances in which Sam Houston did not follow those policies and procedures and also identified other opportunities for improvement. The activities affected include the planning and design of projects, the evaluation of competitive sealed proposals, the documentation of activities and decisions, the review and retention of documents, and the evaluation of projects upon completion.

Texas State has sufficient construction management controls.

Texas State's controls over construction management were sufficient to ensure that projects were appropriate and properly planned, that they followed contracting laws and regulations, and that they were managed to ensure that they were completed on time, within budget, and according to contract terms. However, audit testing identified some areas that can be improved.

Summary of Objectives, Scope, and Methodology

The project objectives were to determine whether existing construction oversight and controls for higher education institutions are sufficient to ensure that:

- The institutions followed an appropriate planning process to identify and select construction activities.
- The institutions followed contracting laws and regulations during the request-for-proposal/planning phase.
- Projects are completed on time and within budget and meet contract terms.

The scope included selected projects subject to oversight by System Administration that were completed within the past three years or are still in process at Texas State and Sam Houston. The scope also included a limited review of one project at Sul Ross State University that was administered by System Administration.

The methodology consisted of conducting interviews; reviewing policies and procedures; comparing established processes with best practices, industry standards, and requirements in relevant laws and the System *Rules and Regulations*; and testing selected construction projects for compliance with relevant statutes, System *Rules and Regulations*, and the universities' policies and procedures.

Summary of Management Responses

The institutions generally agree with the recommendations.

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05-038	An Audit Report on Controls over Construction Project Management at Stephen F. Austin State University	July 2005

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Detailed Results

Chapter 1

Two Projects Tested Did Not Fully Comply with Texas Education Code and Texas State University System Requirements Relating to Competitive Selection of Contractors

One of four projects tested at Texas State University–San Marcos (Texas State) and one of five tested at Sam Houston State University (Sam Houston) did not fully comply with requirements in the Texas Education Code (Code) or the Texas State University System (System) *Rules and Regulations* related to contractor selection. As a result, their selection processes were not

objective or fully competitive. The two projects are:

- Sam Houston’s Sam Houston Village
- Texas State’s Round Rock Multi-Institutional Teaching Center (MITC; see text box)

Multi-Institutional Teaching Centers

MITCs are off-campus educational units administered under a formal agreement between two or more public higher education units. The Coordinating Board systematized MITCs in July 1998 to facilitate the transfer of course credits between institutions and provide a broader array of academic programs and support to students than could be achieved in the existing educational structure.

As originally envisioned, MITCs:

- Are funded through the regular formula process and are not eligible to request separate funding.
- Are under the management of the parent institution(s).
- Focus on teaching.
- Award course credit and degrees in the name of the providing institution.
- Use locally provided facilities.

In keeping with the format outlined by the Coordinating Board, the Round Rock MITC was formed in 1998 using leased facilities to serve students from Austin Community College, Concordia University, St. Edward’s University, Temple College at Taylor, Texas State Technical College–Waco, and Texas State.

Source: Texas Higher Education Coordinating Board, January 2003 Quarterly Meeting Agenda, Item IX.H.

Chapter 1-A

The Awarding of the Contract for the Sam Houston Village Did Not Consistently Follow Statutes and Rules

Although the \$17 million Sam Houston Village project was completed in a timely manner and costs fell within Texas Higher Education Coordinating Board (Coordinating Board) standards for similar projects, the selection of the contractors did not meet System or Code requirements designed to ensure open and fair competition. For example, one of two requests for privatized housing proposals was not publicly advertised; it was issued to only two

contractors. Furthermore, the project was awarded as a design-build contract (see Appendix 3), but it was never publicly advertised as such.

Without open and fair competition, contractors in the private sector do not have equal opportunities to benefit economically from the institution’s business, and an institution may not obtain the best value. Auditors and others with oversight responsibilities cannot tell whether Sam Houston obtained the best value.

For this project, Sam Houston issued two requests for proposals for privatized housing before awarding the contract. Privatized housing projects allow universities to acquire student housing with no related debt (see text box). While this method of financing has been used on several Texas campuses, the Code (Sections 51.780 through 51.784) and System rules do not address controls for privatized housing projects.

Privatized Housing

“Privatized housing” is a partnership between a private company and a public university or university foundation to provide student housing without incurring university debt. Typically, the university enters a long-term lease with a nonprofit university foundation, which serves as the owner and the borrower of the debt for the construction of the project. In other cases, the private company, under a long-term ground lease, secures the financing and coordinates all aspects of the project design and construction. In either case, the foundation or the developer may manage or retain a management company to manage the housing for the life of the lease.

Advantage

Because financing for the project is provided by the university foundation or the private company, the university does not incur debt and may be able to build without State appropriations.

Disadvantages

- The private company’s goal to maximize rents and control costs is in conflict with the university’s goal to provide high-quality, reasonably-priced housing to students.
- There may be conflicts between the private company and the university or the foundation as to how the project is to be managed.
- In the event that the university wishes to end the lease, there may be substantial penalties.

Source: *NACUBO Business Officer*, March 2005, “Housing Gets a Helping Hand,” by Alton C. Irwin and Will Davenport

While there are no specific requirements for privatized housing projects, Sam Houston followed the basic guidelines for competition when issuing the initial request for proposals. It is not clear from the available documentation which entity—System Administration or Sam Houston—made some of the other decisions over the following months. The following time line details the events:

- Sam Houston properly advertised its first request for proposals for a privatized housing complex in July 2002. Sam Houston received one proposal (from Firm 1) and a response from a second firm (Firm 2) indicating that it could not make a proposal at that time.
- After the deadline for proposals had passed, according to Sam Houston, Firm 2 contacted Sam Houston with a proposal for privatized housing.

- The Board of Regents authorized the acceptance of the donation of land from Firm 2 with an associated lease in November 2002.
- A second request for proposals for privatized housing was issued in December 2002 without being publicly advertised. It was issued to only Firm 1 and Firm 2. Section 4.3 of the System *Rules and Regulations* requires that such requests be advertised for at least 20 days before receipt of the proposals. The rules also require that projects be posted at least 21 days in advance in the Texas Marketplace (an online tool that the State uses to facilitate government procurement and private-sector trade opportunities) and that plans be made available in appropriate plan rooms.
- In February 2003, the System Board of Regents (Board) authorized Sam Houston to purchase the land from Firm 2 rather than accepting it as a donation. Sam Houston purchased the land on April 15, 2003.

- On April 9 and again on May 19, 2003, Sam Houston management indicated the desire to re-advertise the project.
- On May 16, 2003, the Vice Chancellor and General Counsel of the System opined that Sam Houston should not re-advertise because Firm 2 had already expended considerable time and resources on the project. This opinion stated that if Firm 2 “had changed its position to its detriment in reliance on instructions or actions by the University,” Firm 2 might have a cause of action. Sam Houston subsequently questioned some of the assumptions and statements on which the opinion was based.

Before the contract was issued, the decision was made to switch from privatized housing to the design-build delivery method using available revenue bonds for funding. The Code and System rules require that certain procedures be followed for design-build projects to help ensure that the award is fairly made to a qualified contractor and that the project is adequately controlled. These requirements were not followed for the Sam Houston Village:

- The Board did not authorize Sam Houston to use a design-build process. Authorization is required by Chapter III, Paragraph 4.511, of the System rules.
- No design-build request for qualifications was prepared or advertised. Section 51.779 of the Code requires institutions to determine, before advertising according to the rules of the institution, the method of delivery that will provide the best value to the institution. The institution is to publish in the request for bids, proposals, or qualifications the criteria that it will use to evaluate the prospective contractors.
- The selection of the contractors was not made using the two-phase evaluation and selection process required by Section 51.780 of the Code.
- Preliminary plans for the design-build were not approved by the Board prior to construction, which is required by Paragraphs 4.523 through 4.531 of the System rules.

On July 16, 2003, the Board authorized Sam Houston to enter into a contract with Firm 2, and on August 15, 2003, a design-build contract was signed. Firm 2 hired Firm 1 as the builder. However, the motion approved by the Board authorized a “development” contract rather than a design-build contract. The Code (Sections 51.780 through 51.784) does not identify “development” contracts as one of the allowed delivery methods institutions can use when they do not use competitive sealed bids.

Recommendations

The Legislature should consider requiring that, for major construction projects, institutions of higher education publish the following detailed information in the *Texas Register* (a weekly publication that serves as a state agency notice bulletin):

- Vendor selection
- Site selection
- Associated costs
- Detailed explanations of the selection processes used, including criteria

If the System wants to use privatized housing, it should work with the Legislature to establish in statute appropriate rules and regulations to control such projects.

Sam Houston and System Administration should comply with the Code and the System *Rules and Regulations* in planning and advertising for construction projects. In particular, the decision on the appropriate delivery method should be made before requests for proposals are issued, and plans should be carefully reviewed and approved by the Board prior to construction.

Management's Response

We accept the recommendation suggesting the legislature require the publishing of certain construction detailed information in the Texas Register. Should this publication be mandated we will comply; however, additional staff resources may be necessary to accommodate and comply with legislative mandates.

Privatized housing projects are not unique to the Texas State University System, and have been used by other systems and universities for a number of years. Chapter 95.32 of the Texas Education Code authorizes the Board of Regents for System institutions to "enter into contracts with persons, firms or corporations for the erection of dormitories," which would include privatized housing on their campuses. Should the legislature desire to establish in statute additional rules and regulations specifically addressing privatized housing, we are ready to assist in any appropriate manner.

We concur with the recommendation that System and components staff follow all State statutes, rules and regulations and System rules and policies. In the case of Sam Houston Village, we may have used an incorrect term in the Board motion, "development" contract. It would have been more appropriate

to have used the term “design-build”, as we intended to use that method of construction.

Chapter 1-B

The Awarding of the Contract for the Round Rock MITC Facility Did Not Consistently Follow Statutes and Rules

Texas State and System Administration expect the Round Rock MITC facility to be completed on time and within budget in August 2005. This \$27 million project was authorized by the 78th Legislature and funded by tuition revenue bonds.

This project did not follow the contractor selection process identified in the Code and System rules. System Administration and Texas State management represent that this was in part due to external interests in the project.

When the request for proposals was advertised in December 2001, it did not specify the delivery method, as required by the Code and System rules. This is a key step because the basis for evaluating responses differs depending on the type of delivery method. For example, competitive sealed proposals or competitive sealed bids are primarily evaluated on price whereas design-build or construction-manager-at-risk vendors must be evaluated according to the qualifications of the respondent. In addition, if design-build is the desired delivery method, the request for qualifications must include a design criteria package.

The eight responses that Texas State received illustrate the point. Six were for design-build projects, and two were for projects using other delivery methods. One of the six design-build proposals was also very different from the others in that it involved the donation of land plus an option to later purchase additional land while others were for the purchase and renovation of existing buildings.

The project was ultimately awarded using the construction-manager-at-risk delivery method to the group that proposed the donation of land. This delivery method gave System Administration and Texas State greater control over the design and construction of the project than the design-build method would have provided.

When a state institution does not follow the established rules and regulations for major construction projects, there may be reduced competition due to less private sector participation in the bid process. There may also be the appearance to the public that there has been favoritism or an inappropriate contract award.

Recommendation

As recommended in Chapter 1-A, the Legislature should consider requiring that, for major construction projects, institutions of higher education publish detailed information in the *Texas Register* regarding the vendor selection processes.

Texas State and System Administration should comply with the Code and the *System Rules and Regulations* in planning and advertising for construction projects. In particular, the decision on the appropriate delivery method should be made before requests for proposals are issued, and plans should be carefully reviewed and approved by the Board prior to construction.

Management's Response

As stated in Chapter 1 – A, we accept the recommendation suggesting the legislature require the publishing of certain construction detailed information in the Texas Register. Should this publication be mandated we will comply; however, additional staff resources may be necessary to accommodate and comply with legislative mandates.

We concur with the recommendation that System and component staffs follow all State statutes, rules and regulations and System's Rules and Regulations and policies.

Chapter 1-C

The Texas Higher Education Coordinating Board Does Not Establish Standards for Constructing Facilities for Multi-Institutional Teaching Centers

In 2003, the Legislature approved \$27 million in tuition revenue bonds for the acquisition or construction of a Round Rock MITC facility (House Bill 2522,

The Coordinating Board Sets Standards for Cost, Efficiency, and Space Use

The Higher Education Coordinating Act of 1965 established the Coordinating Board to prevent costly duplication in Texas universities. It requires that the Coordinating Board approve or disapprove all major construction projects, regardless of the financing source, that are not specifically approved by the Legislature. For that purpose, the Act authorizes the Coordinating Board to develop standards for cost, efficiency, and space use and formulas for construction that address differences in space requirements in teaching, research, and public service activities.

Source: Texas Education Code, Sections 61.002, 61.058, and 61.0572

78th Legislature, Regular Session). The legislation exempted the project from Coordinating Board approval but required that the Coordinating Board review the property financed by the bonds and report to state leaders if it did not meet Coordinating Board standards for “cost, efficiency, and space use” (see text box).

In October 2003, the Coordinating Board evaluated Texas State’s “application for construction” and reported to state leaders that the project met the Coordinating Board’s standards for cost, efficiency, and space use.

The Coordinating Board applied the standards it currently uses for evaluating new construction. These cost, efficiency, and space use standards incorporate space deficits at a main university campus. There are no standards that specifically address the construction of MITC facilities (see text box on page 1).

In addition, in the October 2003 application evaluated by the Coordinating Board, Texas State cited a three-year average annual growth in student headcount of 35 percent, whereas the Coordinating Board's *Space Projection Model for Higher Education Institutions in Texas*, or space projection model, uses the number of full-time equivalent students (FTES) to determine space needs. According to reports on the Texas State Student Affairs Web site (www.vpsa.txstate.edu/enrollment), the headcount of Texas State students participating in the MITC program increased from 827 to 1,584 from the year 2000 to 2003. The average annual increase for 2001 to 2003 was 25 percent. The only MITC FTES data in the online reports shows an increase from 287 FTES in the spring of 2000 to 377 FTES in spring 2001. Enrollment growth may accelerate with the addition of the new facility.

System Administration Should Incorporate Additional Controls into Its Construction Management Process

The System *Rules and Regulations* address the full process for managing construction. Those rules incorporate many of the specific procedures and controls in the Code that relate to construction projects and serve as a good model for the component institutions.

However, we found that additional controls could strengthen the rules and regulations and System Administration's control over construction projects.

Chapter 2-A

System Administration Should Provide Regular Legal Reviews of Construction Contracts

We found no evidence that the 10 construction contracts we tested were reviewed by legal counsel before the contracts were executed. According to System Administration and component institution management, review of each contract is unnecessary because they use standard forms that were reviewed by the Texas Attorney General's Office some years ago.

However, construction contracts incorporate a number of exhibits and addenda in addition to the standard form. The exhibits and addenda can vary significantly from contract to contract depending on the construction delivery method and negotiated items that are unique to the contract. Without careful review of each contract, there is the risk that key clauses may be omitted or that the contract will contain terms that are unfavorable or that do not comply with statute.

Chapter III, Section 3, of the System *Rules and Regulations* states that all contracts submitted to the Board are to be reviewed, approved, or monitored by System Administration legal staff prior to execution or implementation. The requirement specifically incorporates construction contracts in the amount of \$250,000 or more and other contracts, including architect/engineering contracts, in that amount or more. The System provided evidence of legal review of one project contract; however, it was not one of the 10 reviewed.

Construction contracts represent significant commitments of System, university, and State resources. Any errors or omissions may result in undue liabilities, unnecessary expenses, and even the failure to provide facilities for universities' use at the time they are needed. Legal review for each contract will help ensure compliance with the Board's requirements; prevent entry into unfavorable agreements; prevent the omission of items that are critical to management and control of the project; and ensure that the Board, System Administration, and the component institutions are protected from loss.

Recommendation

All construction contracts of the System and its component institutions should be reviewed in accordance with the provisions of the *System Rules and Regulations*. Special care should be exercised when the contract delivery method is new or unusual or has special requirements that are not addressed as part of standard use contracts.

Management's Response

We concur with this recommendation. All construction contracts will be reviewed and approved by the System Office of Vice Chancellor and General Counsel.

Chapter 2-B

System Administration Should Continue to Ensure that Construction Oversight Responsibilities Are Separated Among Personnel

During much of the period under review, the System chancellor also served as the System director of facilities planning and construction, which allowed this person to make decisions without review.

This arrangement resulted in lower cost to the System and its component institutions, and auditors found no evidence that the former chancellor did not operate in the interest of System Administration and the component institutions. However, in such situations where there is a lack of checks and balances, the individual and the institution are vulnerable to the consequences of errors or omissions and the possible appearance of impropriety. Ensuring adequate checks and balances is particularly important when large sums of money are involved, as is the case with construction projects.

This problem has been eliminated by a recent System reorganization in which the chancellor is no longer responsible for construction.

Recommendation

System Administration should continue to monitor the responsibilities assigned to its personnel to ensure that there is adequate separation of duties with respect to construction activities. This will help to identify errors or mistakes in time to prevent liabilities to the System and its institutions. It will also provide assurance to the component institutions that the proposals they make to System Administration and the Board for review and approval are handled equitably.

Management's Response

We concur with the recommendation that the System continue to monitor the responsibilities assigned to its personnel to ensure that there is adequate separation of duties in the area of construction activities. The primary responsibility for construction activities is presently assigned to the Vice Chancellor for Planning and Construction. The System office is considering how best to provide for construction oversight in a manner designed to identify errors and prevent liabilities to the System and its institutions. Currently, the System office is soliciting input from component institutions in an effort to determine how the System may function more effectively in this area.

Chapter 2-C

System Administration Should Require Disclosures of Conflicts of Interest from Prospective Architects and Engineers

The System *Rules and Regulations* for construction management do not currently require disclosures of possible conflicts of interest when identifying and selecting architects/engineers. As a result, we found no such disclosures in the projects we tested.

The absence of this control may result in the selection of an architect with interests that conflict with the architect's responsibilities to System Administration or the component institutions. Such conflicts could result in increased costs and the appearance of favoritism in the selection of consultants and contractors.

Recommendation

The Board should amend the System *Rules and Regulations* for construction management to include a requirement that System Administration and components obtain conflict-of-interest disclosures in statements of qualifications from or agreements with architects and engineers.

Management's Response

We concur with this recommendation. The Vice Chancellor and General Counsel will prepare proposed amendments to the System's Rules and Regulations for consideration by the Board at the earliest practicable Board meeting.

The Board Should Require System Administration and Components to Retain Documents According to State Requirements

In our review of documents at the component institutions and in discussions with System Administration, we found that they were not keeping documentation of individual evaluations of architects and contractors. System Administration personnel expressed concern that individual officials could be sued if their evaluations became public.

As is detailed in Chapters 3 and 4, we also found that proposals from contractors who were not awarded contracts were not retained in accordance with state document retention requirements.

Section 5.2 of the Texas State Retention Schedule (set by the State Library and Archives Commission) specifically addresses requirements for retaining construction records and project information related to state-owned buildings. It states that the required period for retaining “planning, design, and construction records; accepted and rejected bids; correspondence; etc.” ends 10 years after completion of the project. It also requires that these documents, plus building plans and specifications, be reviewed by the State Library and Archives Commission for possible archiving before they are disposed.

Retaining documentation helps ensure transparency in the construction process. When such documents are discarded, there is a risk that material errors or irregularities in the awarding of construction contracts will not be detected by oversight bodies or during audits.

Recommendation

System Administration and all component institutions should immediately comply with the Texas State Retention Schedule and retain documentation related to the planning, award, and management of construction projects. To clarify this issue for its component institutions, the Board should incorporate these requirements in the System *Rules and Regulations*. When storage space is problematic, consideration should be given to alternative document inventory methods to address space limitations and ease retrieval.

Management’s Response

We concur with this recommendation. The Vice Chancellor and General Counsel will prepare proposed amendments to the System’s Rules and Regulations to include the retention requirements for construction data, for consideration by the Board at the earliest practicable Board meeting. Additional staff, resources and warehouse space may be needed to comply with these requirements.

Sam Houston Has Appropriate Policies and Procedures; However, They Have Not Been Followed in Some Instances

Sam Houston has appropriate policies and procedures for construction management. However, we identified instances in which Sam Houston did not follow those policies and procedures, along with other opportunities for improvement. The activities affected include project planning and design, the evaluation of competitive sealed proposals, the documentation of activities and decisions, the review and retention of documents, and the evaluation of projects upon completion.

Our conclusion about Sam Houston is based on testing of project information for the Academic Building IV, the Farrington Building renovation and addition, and the Baseball/Softball Complex. We also performed a limited review of the project information for the Lowman Student Center renovation.

Our audit also included the Sam Houston Village project, which deviated from the normal planning and contractor-selection process. Findings related to the Sam Houston Village are discussed in Chapter 1.

Chapter 3-A

Sam Houston Did Not Use Required Criteria and Weights When Evaluating Competitive Sealed Proposals

On two of Sam Houston's projects, the Farrington Building and the Baseball/Softball Complex, Sam Houston used competitive sealed proposals as the contract delivery method, but management did not evaluate those proposals using the criteria and weights specified in the *System Rules and Regulations* (see Table 1). In addition, in evaluating proposals for the Baseball/Softball Complex, Sam Houston used weights that were slightly different from those advertised in the requests for proposals.

Table 1

Comparison of Criteria Used To Evaluate Contractors for Two Projects			
Criteria	Percentage Weights		
	In System's Rules and Regulations	Used for Farrington Building	Used for Baseball/Softball Complex
Price	60	60	60
Experience	10	11	-
Experience and qualifications of respondent's key personnel	-	-	5
Experience with similar projects within the past five years	-	-	5
Safety	10	5	4
Past System experience	5	2	3
References	10	6	-
Financial strength	5	5	-
Quality assurance program	-	2	4
Availability to start construction	-	5	5
HUB participation	-	4	5
Company overview and legal structure	-	-	4
Proposed project schedules and demonstrated ability to meet schedules on similar projects	-	-	5

We found no evidence that the criteria used were approved by System Administration and no documentation regarding why the advertised criteria were not used. While the criteria used in evaluating these proposals may have been valid, they represent noncompliance with the System *Rules and Regulations* and misleading advertising to the public. It is our understanding that management was unaware of the required criteria and weights until we raised this issue.

If criteria and weights differ from those advertised, even if the differences are small, the resulting evaluations can be manipulated to ensure that a specific contractor will be awarded the contract. Such actions increase the possibility that Sam Houston could enter into contracts that are not in the best interest of the institution and that the public's perception of fairness in awards may be affected.

Recommendation

In evaluating competitive sealed proposals for construction contracts, Sam Houston should follow the requirements set forth in the System *Rules and Regulations*. If the project calls for the use of different criteria, Sam Houston should document the need for deviation and have the revised criteria approved

by System Administration before publishing the request for proposal. In all cases, management should use advertised criteria and weights for evaluating proposals.

Management's Response

Sam Houston State University (SHSU) will follow requirements regarding competitive sealed proposals for construction contracts as set forth by the System's Rules and Regulations. SHSU will coordinate with the System office to identify and clear any differences in criteria published in the Rules & Regulations versus the contract "Boiler Plate" (Front-End Specifications). If different criteria are desired, SHSU will document the need for deviation and request approval from the System office before the "Request for Proposal" is issued. Advertised criteria and weights will be used in the evaluation of proposals.

The Vice President for Finance and Operations and the Director of the Physical Plant at SHSU will be responsible for these activities.

Chapter 3-B

Sam Houston Has Opportunities to Improve Documentation and Compliance with Document Retention Requirements

While Sam Houston's document retention policy for construction documents is consistent with the Texas State Retention Schedule, we found that Sam Houston does not always document its decisions or maintain documentation as required.

Construction projects involve a large commitment of resources. Without the required documentation, Sam Houston may invite accusations of favoritism or manipulation in its award of contracts that would be difficult for management to disprove. Also, without a complete audit trail, auditors must rely on management's representations.

Audit testing identified the following instances in which the documentation of activities relating to the evaluation and selection of architects and contractors could be improved:

- Management does not document the basis for deciding which of the architects that respond to solicitations make it to the "short list" to be given further consideration. Also, Sam Houston does not keep individual evaluators' rating sheets. It keeps only the summary sheet containing the compiled ratings from all individuals on the selection committee (see Chapter 2). Without the original rating sheets, management cannot demonstrate that the ratings were based on the individual rating sheets or compiled accurately. In the case of the Baseball/Softball Complex project, the summary sheet for architect selection could not be located.

- Sam Houston does not retain all contractor bid proposals for 10 years, which is the length of time that the Texas State Retention Schedule requires for construction projects. The only proposal available for review on the Farrington Building project was the winning bid. Similarly, project files for the Baseball/Softball Complex contained only 2 of the 16 proposals received from architects (the winning proposal and one other).
- We found no evidence of the negotiation of architect fees in the construction files. Management stated that they informally negotiate fees, usually by telephone, and that there may be additional input from System Administration after the Sam Houston negotiation.
- We found no documentation that contractors' references had been verified for the Lowman Student Center or the Farrington Building. As noted in Chapter 3-A, references are one of the required considerations in evaluating competitive sealed proposals. In addition, files for the Farrington Building did not contain documentation showing that the two contractors whose bids were lower than the winning bid were notified of the decision and given the opportunity to present evidence of responsibility before the contract was awarded, although System Administration indicated that it notified the two contractors by telephone. Such notification is required by Section 51.778(b) of the Code.

Recommendations

Sam Houston management should review and revise procedures for documenting construction activities and decisions as necessary. Particular attention should be paid to documenting those decisions that are a part of the process of awarding architect and construction contracts, including documentation of the reasons architects are eliminated, the verification of references and the results of those inquiries, the negotiation of fees, and compliance with the Code for the notification of low bidders who are not awarded contracts.

With respect to the retention of construction documents, Sam Houston management should establish procedures that comply with the Texas State Retention Schedule as well as the Sam Houston record retention policy. All personnel responsible for the documentation of construction activities and decisions should be trained on and knowledgeable about retention policies and procedures.

Management's Response

SHSU is reviewing and revising procedures for documenting construction activities and decisions. Particular attention is being paid to documenting and retaining information regarding decisions pertaining to award architect,

engineer and construction contracts. This will include documentation of the reasons architects and engineers are eliminated, the verification of references, results of reference inquiries, negotiation of fees and compliance with appropriate codes for notification of low bidders who are not awarded contracts. SHSU construction staff will also expand current checklists to include such information. If SHSU decisions are changed at the System office prior to award, that will also be documented.

SHSU is establishing and implementing procedures that comply with the Texas State Retention Schedule as well as the SHSU records retention policy. SHSU personnel responsible for documentation of construction activities and decisions have been trained on the records retention policies and procedures.

The Vice President for Finance and Operations and the Director of the Physical Plant at SHSU will be responsible for implementing these changes.

Chapter 3-C

Additional Engineering Review May Be Warranted

Unforeseen problems with building sites and conditions caused two of the projects reviewed to exceed original time frames and budgets. This may indicate a need for a more stringent engineering review prior to construction.

Change orders on the Lowman Student Center renovation increased the contract's cost by approximately \$900,000, or 10.6 percent, and its time frame by 202 days, or 33 percent. While there is no definitive criterion for determining when change orders are excessive, the Coordinating Board currently must approve changes in project costs when they exceed 10 percent of the original budget.

Based on discussions with management, auditors concluded that the high change order amounts resulted from the initial decision to focus on known, high-priority renovations. However, as work progressed, Sam Houston had to extend the scope of the renovation to make the building acceptable. Several change orders added work to deal with unforeseen conditions such as walls, concrete beams, roof substrate, and expansion joints that needed to be repaired or replaced. Some changes were required to comply with current building codes.

Change orders for the Academic Building IV project extended the original contract period of 420 days by 615 days, or 146 percent:

- 208 of the additional days were needed to substantially complete the building.
- 143 of the additional days were needed to complete exterior plaza work.
- 264 of the additional days were rain days, which were not within Sam Houston's control.

Management indicated that a number of problems resulted in delays to this project. In addition to rain delays and design changes, an error in the foundation design required the tear-out and reforming of the foundations, and a previously undetected underground spring had to be allowed to dry.

Recommendation

Management may wish to consider incorporating additional independent engineering review into the planning and design phases of its projects.

Management's Response

SHSU will assist System administration in reviewing and considering the incorporation of additional independent engineering review during the planning and design phases of construction projects for the System's component institutions. In the event that a determination is made that additional review should be incorporated, additional resources would be required. The Vice President for Finance and Operations and the Director of the Physical Plant will be the responsible individual at Sam Houston State University.

Chapter 3-D

Sam Houston's Review of Construction Documents Needs to Be Strengthened

A number of documents in the project files contained errors that staff did not identify or correct during their reviews. These included incorrect amounts on a bid tabulation sheet, a change order lacking a required approval, errors in the calculation of revised project completion dates, and errors in the calculation of retainage:

- When the bid tabulation sheet for the Lowman Student Center project was completed, two contractors' base bids were understated, one by \$150,000 and the other by \$700. Neither contractor was the lowest bidder, and neither of the errors appears to have influenced the contract award. However, in other circumstances, undetected errors could lead to a contract award based on inaccurate information.
- A change order totaling \$14,595 on the Academic Building IV project lacked approval from the architect, which is required by the System *Rules and Regulations*. According to management, they did not believe that the architect/engineer's signature was required due to the nature of the change.
- The completion date for the Academic Building IV project was extended by 31 days more than requested, and the Baseball/Softball Complex project was extended by 1 day less than intended as a result of

miscalculations in change orders. In addition, Sam Houston was unable to provide documentation for 4 of 117 additional weather days granted on the Baseball/Softball Complex. Such errors could allow a contractor extra time to complete a project and limit Sam Houston's ability to obtain the appropriate liquidated damages if the project is not completed on time.

- We noted several errors in the calculation of retainage, which is the percentage of contractors' payments that is withheld until the project's completion:
 - ♦ Sam Houston withheld approximately \$350,000 more than required from the first eight payments it made to the contractor on the Sam Houston Village. The applications for these eight payments used a 10 percent retainage rate rather than the contracted rate of 5 percent.
 - ♦ Undetected errors in retainage calculations on seven payment applications from the contractor for the Farrington Building resulted in overpayments totaling \$37,833. However, staff did identify an error in a calculation on a different Farrington Building payment application that allowed Sam Houston to correct an overpayment of \$65,978.
 - ♦ For the Baseball/Softball Complex project, errors in the calculated retainage for each of the 16 contractor payment applications paid through March 31, 2005, resulted in an overpayment of \$9,576.

Recommendations

Sam Houston staff should perform a more thorough review of project documents prior to their approval and use in the awarding of contracts, processing of payments, extension of contract terms, and other decisions:

- Staff should verify amounts on bid tabulation sheets against original source documents.
- Staff should verify calculations on change orders and payment applications, especially for significant items such as retainage and contract extensions.

Staff should also review documents for adequacy of accompanying support and the presence of required approvals. If management determines that certain approvals are not required in specific circumstances, this determination should be documented along with an explanation for future reference. Management may wish to consider providing additional instruction to staff responsible for these reviews.

Management's Response

SHSU has implemented procedures for performing a more thorough review of project documents prior to their approval and use in the awarding of contracts, processing of payments, extension of contract terms and other construction project decisions. These activities will include at least two staff members separately verifying amounts on bid tabulation sheets against original source documents and at least two separate staff members verifying calculations on change orders, payment applications, retainage and contract extensions. Documentation will be retained for review of these staff verifications.

Chapter 3-E

Sam Houston Does Not Have a Formal Process for Evaluating Completed Projects

Sam Houston currently prepares a final report to the Board once a project is completed, as required by the System *Rules and Regulations*. This report includes information on final project cost, any liquidated damages, change orders, participation by historically underutilized businesses (HUBs), evaluations of the architect/engineer and the contractor, and any approvals from federal or state agencies that have jurisdiction.

However, Sam Houston does not conduct a formal post-completion evaluation of the project itself. Such evaluations serve to determine whether a facility's design objectives were achieved and whether construction materials are meeting expectations. They also provide a written record of problems encountered and their resolution for use in planning future projects.

Recommendations

Management should keep a "lessons learned" file throughout all phases of the construction process so that mistakes, discrepancies, and problems can be formally documented. Historical data including costs, schedule completion time, methods, designs, problems encountered, and resolutions should be maintained for completed projects. Data should be regularly updated and accessible for use in planning future projects. Management may wish to consider the use of a database to maintain this information.

Management may also wish to evaluate projects six months to a year after occupancy to determine whether design objectives were achieved and whether construction materials are meeting expectations. The results from these evaluations could be used in the planning and development of similar facilities in the future to avoid repeating problems encountered.

Management's Response

SHSU will conduct a formal post completion review of each project to include lessons learned along the way. The reviews will provide information to be used in future selection processes for architects and contractors. SHSU will also conduct a project evaluation not earlier than six months or later than one year after project completion to review design objectives. This procedure will be initiated with the recently completed Smith-Hutson Business Administration building.

The Vice President for Finance and Operations and the Director of the Physical Plant will be responsible for implementing these reviews.

Texas State Has Sufficient Construction Management Controls

Texas State's controls over construction management were sufficient to ensure that projects were appropriate and properly planned, that they followed contracting laws and regulations, and that they were managed to ensure that projects will be completed on time, within budget, and according to contract terms. However, we identified some areas that can be improved.

Our conclusion about Texas State's controls is based on testing of three projects: the McCoy Business Building, the Business Building Parking Garage, and the Jackson Hall window replacement.

We also tested a fourth project, the Round Rock MITC, which deviated from the normal planning process. It is discussed in Chapter 1 and was primarily reviewed separately. The three remaining projects showed that Texas State's controls over construction were sufficient.

Texas State can improve its documentation of construction projects. We identified instances in which Texas State did not document, inadequately documented, or disposed of documentation required by Texas State Records Retention Schedule, Section 5.2.002, and by Texas State's policy. These rules indicate that the retention period for construction documents ends 10 years after the completion of the project. However, Texas State did not keep the following:

- Documentation of the evaluation of architects responding to the request for qualifications for the McCoy Business Building.
- Evaluations for contractor selection for the McCoy Business Building and the Business Building Parking Garage, indicating how each respondent was evaluated, rated, or ranked.
- The non-winning contractor bids for the Business Building Parking Garage.
- In addition, none of the files for the Texas State projects reviewed contained evidence of the negotiation of fees for architects and engineers.

Texas State should require personnel to document their willingness to comply with its ethics policy. While Texas State has an ethics policy, personnel are not required to attest to whether a copy of the policy has been provided to them or to agree to follow the policy.

Texas State should ensure that it uses the evaluation criteria and weights outlined in the System's Rules and Regulations. The criteria that Texas State used to evaluate potential contractors for the McCoy Business Building differed from those prescribed by the Board (see Table 2).

Table 2

Comparison of Criteria in System's Rules and Regulations with Those Used for One Project		
Criteria	In System's Rules and Regulations	Used on Business Building
Price	60	60
Experience	10	3
Safety	10	5
Past System experience	5	1
References	10	3
Financial strength	5	8 (4 bonds, 4 claims & lawsuits)
Quality assurance	-	3
Summary schedule	-	2
Schedule for past projects	-	2
Firm organization	-	4
Key personnel	-	6
Workload	-	3

Texas State should conduct formal post-evaluation reviews of projects. Currently, Texas State personnel maintain a “lessons learned” file for tracking issues that occur in construction and for recording resolutions of those issues. However, Texas State does not conduct a formal post-completion evaluation of projects. Such evaluations serve to determine whether a facility’s design objectives were achieved and whether construction materials are meeting expectations. They also provide a written record of problems encountered and their resolution for use in planning future projects.

Texas State should ensure that liquidated damages specified in contracts are sufficient to cover its costs if a project is not completed on time. Texas State’s contract for the Round Rock MITC project stipulates that the contractor will pay Texas State \$1,000 per day for each day the project is late. The contract calls for completion by August 24, 2005, and Texas State has identified this date as critical to the university. If the facility is not available for use by this time, Texas State will have to rent classroom facilities for the fall semester, which may cost Texas State more than the contracted liquidated damages amount.

Recommendations

Texas State should:

- Fully document construction activity and the basis for decisions, including the architect- and contractor-selection process and fee negotiations. Texas State should also comply with State and internal document retention

policies and ensure that it maintains documentation of items required by its contracts with providers.

- Give new employees a copy of its ethics policy and have them attest that they will adhere to the policy.
- Use the criteria and weights specified in the System *Rules and Regulations* to evaluate prospective contractors' proposals.
- Evaluate projects six months to a year after occupancy to determine whether design objectives were achieved and whether construction materials are meeting expectations. Texas State should use the results from these evaluations in the planning and development of similar facilities in the future to avoid repeating problems encountered.
- Document its calculation of the actual loss that would be incurred should a project not be completed within the contracted time frame and ensure that the liquidated damages specified in contracts are sufficient to cover the losses.

Management's Response

Management for the Texas State University-San Marcos generally concurs with the findings and recommendations with the following qualification:

Projects are evaluated on a continuous basis and Standards of Construction are updated accordingly. Management will document such evaluations and any changes in our Standards of Construction that result from such reviews.

The Director of Facilities Planning, Design and Construction is the responsible party at Texas State University-San Marcos and implementation will be immediate.

Appendices

Appendix 1

Objectives, Scope, and Methodology

Objectives

The project objectives were to determine whether existing construction oversight and controls for higher education institutions are sufficient to ensure that:

- The institutions followed an appropriate planning process to identify and select construction activities.
- The institutions followed contracting laws and regulations during the request-for-proposal/planning phase.
- Projects are completed on time and within budget and meet contract terms.

Scope

The scope of this audit included selected projects subject to oversight by the Texas State University System (System) that were completed within the past three years or are still in process at Texas State University-San Marcos (Texas State) and Sam Houston State University (Sam Houston). The scope also included a limited review of one project at Sul Ross State University that was administered by Texas State University System Administration.

Methodology

To achieve these objectives, we:

- Interviewed System and university construction management personnel.
- Reviewed System and university policies and procedures.
- Compared System and university construction management processes with best practices, industry standards, and requirements in relevant laws and in the System *Rules and Regulations*.
- Tested selected construction projects at each institution (Texas State, Sam Houston, and Sul Ross State University) for compliance with relevant statutes, System *Rules and Regulations*, and the universities' policies and procedures.

Project Information

This audit was conducted in accordance with generally accepted government auditing standards. Fieldwork was conducted from March to May 2005. The following members of the State Auditor's staff conducted the audit:

- Agnes Barnes, CPA (Project Manager)
- Jules Hunter, CPA (Assistant Project Manager)
- Shahpar Ali, CPA, JD
- Robert H. (Rob) Bollinger, CPA, CFE
- Michelle L. DeFrance, MA
- Michael Gieringer, MS-HCA
- Lorey Helford
- Carmelita S. Lacar, Ph.D.
- Fabienne Robin, MBA
- Charles P. Dunlap, Jr., CPA (Quality Control Reviewer)
- Dave Gerber, MBA, CISA (Audit Manager)

Overview of Construction Management Processes and Information on the Audited Projects

Figure 1: Construction management process

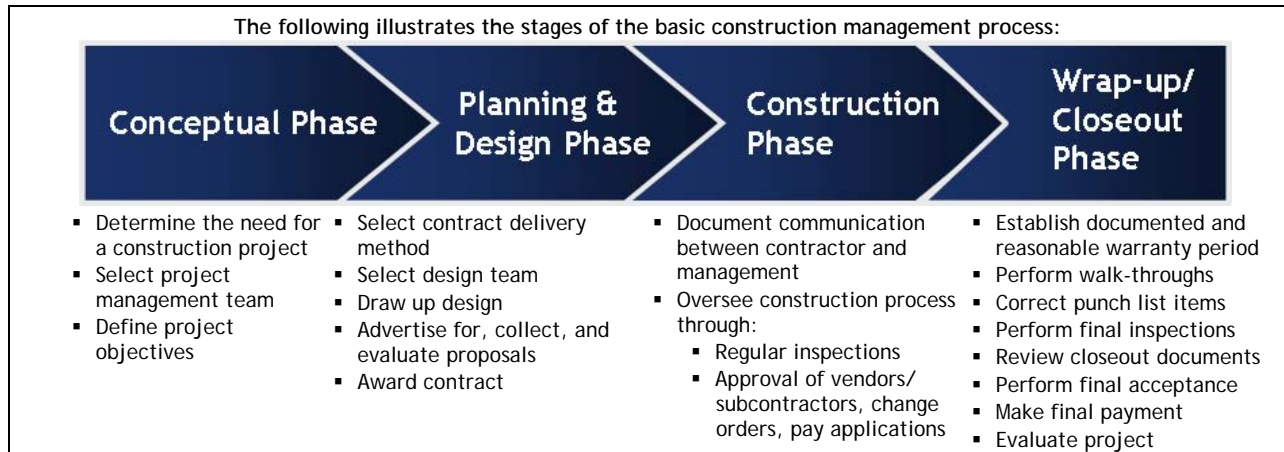


Table 3: Time line and financial information for the audited projects

Sam Houston State University Budget, Project Costs, Completion Dates, and Funding Sources					
Project	Funding Source(s)	Approved Budget	Completed Cost	Original Completion Date	Actual/Estimated Completion Date (extended)
		(in thousands of dollars)			
Sam Houston Village	Other revenue bonds (housing revenue) and auxiliary funds	\$19,302	Not completed	08/15/04	08/15/04
Academic Building IV	Tuition revenue bonds and General Revenue appropriations	\$9,810	\$10,234	08/30/01	12/15/02 (472 days)
Farrington Building Renovation and Addition	Tuition revenue bonds	\$18,000	Not completed	03/01/05	10/01/05 (214 days)
Baseball/Softball Complex	Designated tuition and other revenue bonds (revenue financing system proceeds)	\$6,000	Not completed	11/19/04	5/11/05 (173 days)

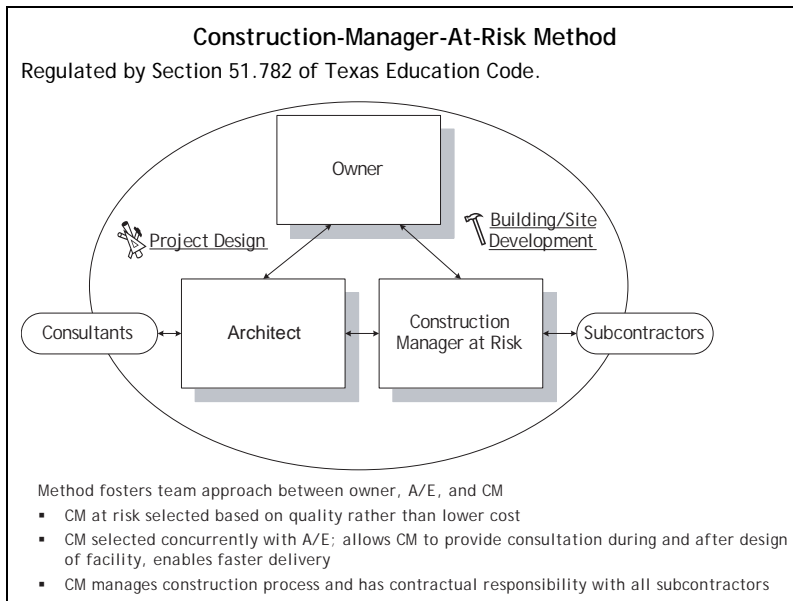
Table 4: Time line and financial information for the audited projects

Texas State University-San Marcos Budget, Project Costs, Completion Dates, and Funding Sources					
Project	Funding Source(s)	Approved Budget	Completed Cost	Original Completion Date	Actual/Estimated Completion Date (extended)
		(in thousands of dollars)			
Round Rock Multi-Institutional Teaching Center	Tuition revenue bonds and land donation	\$27,000	Not completed	8/24/05	8/24/05
McCoy Business Building	Tuition revenue bonds, Higher Education Assistance Funds (HEAF), unexpended plant funds, and other local funds	\$28,724	Not completed	11/3/05	11/25/05 (22 days)
Business Building Parking Garage	Other revenue bonds (vehicle registration fees)	\$4,907	\$3,829	10/28/03	1/14/04 (78 days)
Jackson Hall Window Replacement	Residence life funds	\$600	\$510	Not reviewed	Not reviewed

Descriptions of Construction Project Delivery Methods

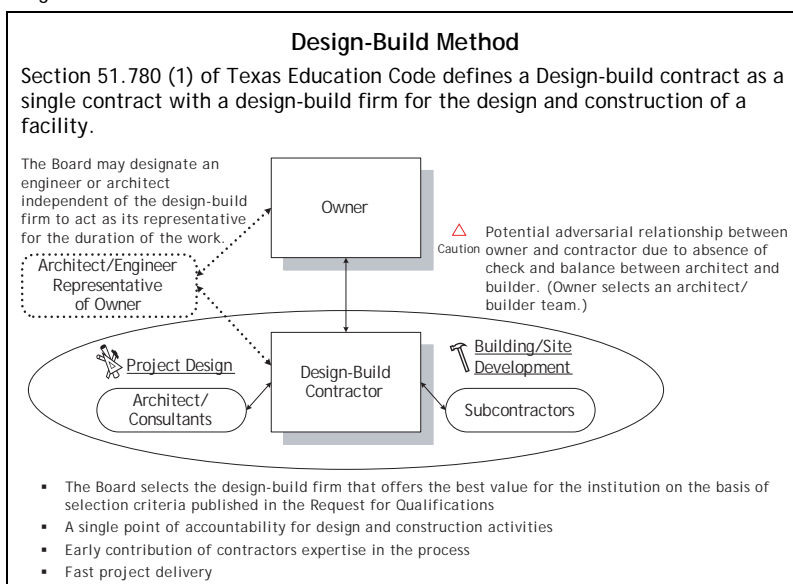
One of the projects tested used the construction-manager-at-risk delivery method, one used lowest competitive bid, and one used design-build. The remaining projects used the competitive sealed bid delivery method, which is the method predominately used by the System and its components. These methods and others are described below.

Figure 2



Source: Section 51.782 of Texas Education Code

Figure 3



Source: Section 51.780 of Texas Education Code

Construction-Manager-At-Risk Method. Under this method, the owner contracts with the construction manager and the architect/engineer at the same time. This structure fosters teamwork between the three parties. Furthermore, the construction manager at risk is selected based on qualifications and best overall value to the university rather than on price alone. Through early selection and coordination with the architect, the design and construction phases can be overlapped to provide valuable constructability review during the design phase and enable faster project delivery. Checks and balances between the architect and builder are maintained, as they work for different companies. The construction manager manages the entire construction process and provides a single point of accountability for all subcontractors. (See Figure 2.)

Design-Build Method. When using this method, the owner contracts with a single design-build contractor. Some benefits of this approach are that the owner deals with a single point of contact for all construction and design-related work. Because the architect and builder are part of the same team,

the builder can contribute expertise earlier in the design process. Construction can start before the design phase is over, enabling faster delivery of the project. The owner may designate an independent architect to act as its representative. This can reduce the adversarial relationship between the owner and the construction team by restoring the checks and balances that disappear when the designer and the contractor are not independent of each other. (See Figure 3.)

Competitive Sealed Proposals and Lowest Competitive Bid Methods. The two approaches are similar in that the architect/engineer is selected before the request for proposals for contractors is issued. However, under the Competitive Sealed Proposals method, the contractor is selected based on best value rather than on price alone, and the negotiation process may lead to contract terms and prices that are different from those originally submitted. In the Lowest Competitive Bid method, the selected contractor is generally the lowest responsible bidder, and the contract award is based on that lowest bid. This can create a potentially adversarial relationship between the architect and the builder if design intent is challenged by price cutting.

Construction Manager-Agent Method. The benefits of this approach are that the owner selects the construction manager-agent based on qualifications rather than on low bid. Early selection (concurrently with the architect/engineer) may allow early involvement in the design process. The owner also retains the flexibility of selecting the architect/engineer, the construction manager, and all subcontractors. However, this may lead to higher project management costs for the owner as a result of dealing with multiple contractors. There is also no single point of accountability since the construction manager-agent is not contractually responsible for subcontractors.

Job Order Contracts Method. An institution may award job order contracts for the minor construction, repair, rehabilitation, or alteration of a facility if the work is of a recurring nature but the delivery times are indefinite and indefinite quantities and orders are awarded substantially on the basis of predescribed and prepriced tasks.

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