

CPARB Subcommittee

Performance Based School Construction and Modernization Report

Draft

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Executive Summary

The 2011 Legislature passed the ESHB 1497 capital budget bill that includes section 7010. 7010 directs Capital Projects Advisory Review Board (CPARB), Department of Enterprise Services (DES) and Office of Superintendent of Public Instruction (OSPI) to develop a performance based school construction pilot program and deliver a report to the House Capital Budget Committee by January 1, 2012.

CPARB established a subcommittee to prepare a draft report for approval by the full CPARB board.

The subcommittee discussed a number of challenges in implementing the program that will need further study. The subcommittee recommends that the existing process of RCW 39.10 be utilized to the extent appropriate and possible.

The performance based school construction program would best be implemented as a subsection of the design build process described in 39.10.300.

The recommended approach is to implement a contractual mechanism known as Design Build Operate Maintain (DBOM), which has been successfully employed in the State of Washington. The key elements of this process are:

1. Develop energy, resource conservation and other performance requirements for the new facility or modernization project.
2. Prequalify 3-5 business entities that will compete for the opportunity to design, build, operate and maintain the facility, while guaranteeing its performance to the specified standards.
3. Select and contract with an entity to be the Design Builder, responsible for designing and constructing the facility to the specified standards.
4. After the construction is complete, engage the Design Builder as the DBOM Contractor. The DBOM Contractor operates, maintains and provides utilities to the facility at a guaranteed price for a duration specified by the school district. The contract would specify the scope of maintenance services necessary to be performed by the DBOM Contractor to ensure the building performance can be guaranteed.

Tab 1

CPARB is directed to deliver a report as directed in SHB # 1497 passed in the 2011 legislature. The applicable section of the capital budget bill that applies to CPARB is provided here along with some explanations.

The budget bill calls for a program to be developed in the form of a report

NEW SECTION. Sec. 7010.

The capital projects advisory review board and the department of general administration, in consultation with the office of superintendent of public instruction, shall develop a performance-based school construction pilot program. The pilot program must consist of a minimum of two new K-12 school construction projects and two K-12 modernization projects, for consideration under the school construction assistance grant program. Performance-based contracting as allowed in chapter 39.35A RCW shall be the means of project delivery for all applicable systems or structural improvements. The program shall at a minimum include the following: (1) Guidelines for developing a prequalified list of energy services contractors eligible for selection to lead or participate on a team to design and construct a new building, or renovate a building; (2) a process for evaluating the projects submitted by school districts to determine if they are candidates for the pilot; (3) a model contract that requires a guarantee of system performance by way of ongoing monitoring and verification of energy measures to be used in the building; and (4) any rule making or oversight that the department of general administration considers necessary for the success of the pilot program. The pilot program recommendations shall be delivered to the house capital budget committee and the senate ways and means committee by January 1, 2012.

Performance based Contracting as allowed in RCW Chapter 39.35A shall be the means of project delivery. 39.35A Calls for "Performance based contracts between a public body and any other entity for providing utility services on a performance guarantee basis. 39.35A is included in the appendix.

The legislation requires that the pilot program consist of a minimum of 2 new K-12 schools and 2 K-12 modernization projects considered under the School Construction Assistance Grant Program. A summary of the program is included in the appendix.

Four deliverables are required and are provided under the next sections.

Tab 2

Guidelines for developing a prequalified list of energy services contractors eligible for selection to lead or participate on a team to design and construct a new building, or renovate a building.

The energy services program in 39.35 provides for DES to establish a registry of energy services contractors. While this is a good approach in establishing a pool of qualified contractors from which to select for energy services contracts, CPARB does not recommend this approach for performance based school construction or modernization projects.

The recommended approach for prequalifying contractors for performance based school construction and modernization projects is to conduct the prequalification for each specific pilot project. Once a school district has a project designated for the pilot program, this option has the advantage of allowing the school district to take advantage of the most qualified local firms with specific expertise in the type of construction or modernization required. The prequalification process would be open to all entities.

CPARB recommends that a contracting model called Design Build Operate Maintain (DBOM) be used as the procurement method for the performance based pilot projects. Under this method, a phased selection process is conducted using the guidelines in RCW 39.10.

A prerequisite to undertaking the DBOM selection process is for the school district to develop and publish a set of performance requirements that define the parameters and expectations that must be met. The performance requirements consist of functional requirements and technical requirements. For the performance based school pilot projects, the functional requirements are the K-12 Educational Specifications, which will define the programmatic functions that must be provided by the project. The technical specifications define the physical attributes and energy performance requirements to be achieved by the project. Both functional and performance requirements should be developed by licensed professionals under the supervision of the school district. Whether these professionals are in-house or hired consultants, they should be retained for purposes of evaluating the proposals received from the competitors and for ensuring that the construction is performed in accordance with the performance requirements.

Once the project performance requirements are defined and documented, the DBOM selection process can commence. The first phase is a prequalification process, which should be customized to meet specific project requirements. The following is a sample set of prequalification criteria that may be used as a guide for developing a prequalification process.

1. **Qualifications Criteria:** To demonstrate qualifications to perform the work, each proposer

must submit written evidence, as called for below, in a format specified and suitable to the school district.

- a. The individuals or entities that will be providing professional design services must be listed in the Proposal.
 - b. The firm providing the utility operations services must be listed in the Proposal.
 - c. The firm providing building management services must be listed in the Proposal.
2. Minimum Qualifications Required:
- a. Licensure of design professionals in applicable jurisdiction.
 - b. As a team, the Builder, Architect and Utility Operations Subcontractor must demonstrate relevant experience in the project type and in the design build contracting method.
 - c. Minimum Experience in Design-Build Method of Contracting:
 - i. Builder: 2 projects over \$XX million each.
 - ii. Utility operations subcontractor: 2 projects over \$XX million each.
 - d. Bonding Capacity: Proposer (prime) must have a minimum available capacity of \$XX million for performance and payment bonds.
 - e. Insurability: Statement to the effect that the insurance requirements of the Agreement can be met by the proposer.
3. Required Professional Design Disciplines:
- a. Architecture and landscape architecture.
 - b. Structural, mechanical, electrical and civil engineering.
 - c. Acoustical and vibration consultant.
 - d. Geotechnical and foundations consultant.

In a competitive environment, the prequalified entities would develop their proposed designs to a point at which they could satisfy themselves and the District that they will meet the performance requirements and be able to guarantee that performance for a period of building operation determined by the District. At that point, final proposals to design, build and operate the facility would be requested from the prequalified firms. Final selection criteria could be as follows:

1. Basis of Selection: The successful proposal (both initial proposal and best-and-final proposal) will be the one that provides the best value to the School District, based on total score calculated by the Jury using ranked quality, price, and time criteria ("weighted criteria"), as well as any exceptional qualifications.
2. Design/Quality/Quantity/Qualifications Criteria: In evaluating proposals, Owner will consider the following in the order given, based on the Exhibits submitted with the Proposal Form and its attachments:
3. Proposal price and life-cycle cost: points
 - Maximum allowable design and construction cost (pass/fail);

- Relative life-cycle cost (\$/SF) of net usable floor area, see note.
- Note: Proposer with the lowest life-cycle cost shall be awarded the maximum points for this criterion, all others shall be awarded points in reverse proportion to the amount their life-cycle cost exceeds the lowest life-cycle cost.

Concept of the proposal: points

- Functional capability and flexibility;
- Net assignable school area;
- Number of vehicle parking stalls on site;
- Sustainability and energy efficiency;

- Quality of materials and building systems;
- Aesthetic image and character appropriate for program and site context
- Health and safety of students, staff and visitors.

Ability to bring added value to the district that achieves the highest building performance: _____ points

- Demonstrated ability to obtain Energy Star certification
- Experience in accessing alternative funding sources
- Demonstrated commitment to innovative delivery strategies

Ability of professional personnel: _____ points

- School and/or educational facility design experience;
- Experience designing facilities for public agencies;
- Design excellence; and
- Construction management excellence.
- Plans to seek the engagement of the small, minority and women owned and disadvantaged business community and their historical outreach efforts relating to inclusion of these groups

Past performance on similar projects: _____ points

- _____ District projects;
- School projects; and
- Design-build projects.

Ability to meet time and budget requirements: _____ points

- Time and budget record on projects referenced in d. above.

Ability to provide a 100% performance and payment bond (up to \$XX million): _____ points

- Proposer has sufficient bonding capacity in its own name (pass/fail).

Recent, current, and projected work loads of the proposer: _____ points

- Designer's capacity to design the project within proposed schedule; and
- Builder's capacity to build the project within the proposed schedule.

Location: _____ points

- Builder has an established office located in _____ area; and
- Architect-of-Record has an established office located in _____ area.

Safety: _____ points

- Builder's Accident Prevention Program; and
- Builder's Experience Modification Rate (EMR) is 1 or less (pass/fail)

Other information relevant to the project: _____ points

Design and construction schedule.

Total points available:

points

Tab 3

A process for evaluating the projects submitted by school districts to determine if they are candidates for the pilot;

For purposes of responding to this provision of Section 7010, CPARB makes the following assumptions:

1. The Legislature may appropriate a source of funds to assist the pilot program. Alternatively, an interested district may seek other sources of funding, such as the Energy Services Contracting Program, some form of borrowing or various resource conservation grant programs.
2. A school district that qualifies its project for the pilot program may borrow money from the appropriated funds, or another source of funding, and repay the loan with its operating budget, based on the estimated savings generated by the project. Operational cost savings generated by energy performance will not likely be sufficient to fully fund the project.
3. School districts will continue to raise revenue through traditional means and, when qualified, will apply for financial assistance through the OSPI School Construction Assistance Program (SCAP).
4. A district would not have to be eligible for a SCAP grant to qualify a project for the performance based school pilot program. Districts that are eligible to receive a SCAP grant, or can otherwise fund a project will be eligible to apply for the performance based pilot program. If successful in its application, funding from the pilot program would be used to reduce the funding required from the district's bond issue or levy.

As a means of evaluating applications for the performance based pilot program, CPARB recommends using the Project Review Committee (PRC) process currently in place under RCW 39.10. The committee is set up to review projects submitted by public bodies to determine if an alternative public works delivery process is the best method. An excerpt from the statute is inserted below.

39.10.250

Project Review Committee — Duties.

The committee shall:

(1) Certify, or recertify, public bodies for a period of three years to use the design-build or general contractor/construction manager, or both, contracting procedures for projects with a total project cost of ten million dollars or more;

(2) Review and approve the use of the design-build or general contractor/construction manager contracting procedures on a project by project basis for public bodies that are not certified under RCW [39.10.270](#);

(3) Review and approve the use of the general contractor/construction manager contracting procedure by certified public bodies for projects with a total project cost under ten million dollars;

(4) Review and approve not more than ten projects using the design-build contracting procedure by certified and noncertified public bodies for projects that have a total project cost between two million and ten million dollars. Projects must meet the criteria in RCW [39.10.300\(1\)](#). Where possible, the committee shall approve projects among multiple public bodies. In June 2010, the committee shall report to the board regarding the committee's review procedure of these projects and its recommendations for further use; and

(5) Review and approve not more than two design-build demonstration projects that include procurement of operations and maintenance services for a period longer than three years.

The statute section may have to be revised to reflect the performance based program. Guidelines will have to be developed by CPARB and PRC to help the PRC make a determination if a school district is entitled to use the program. This can be accomplished in a future subcommittee meeting after the program is initiated. CPARB considers it important that a representative from OSPI be designated as a member of the PRC, either as a permanent position or as an adjunct member when the PRC is reviewing performance based school pilot projects.

The PRC should answer 2 basic questions. Follow up questions are also provided.

1. Is the project appropriate and does it qualify?
 - a. Is the project being considered under the School Construction Assistance Grant Program
 - b. What are the performance opportunities that exist?
 - c. What political or labor relations obstacles are there and how are they being addressed?
 - d. What is the outcome that the district expects from using this process?
 - e. What baseline is being used and how will the outcome exceed it?

2. Does the project team have the appropriate experience?
 - a. What is the structure of the procurement and project management team for the district and who are the key entities?
 - b. What design build experience is available?
 - c. How is the list of prequalified energy services contractors being prepared?
 - d. What is the form of model contract that is being considered?
 - e. What key monitoring or compliance measures will be in place?
 - f. What is the form of guarantee that is anticipated from the provider?

CPARB notes here that the DBOM process recommended in this report is a sophisticated methodology that may require an interested school district to hire outside consultant services. Performance-based design build contracting remains a relatively uncommon approach among Washington state agencies. The added complexity of the DBOM approach will be a challenge for most school districts.

CPARB recommends that the Energy Star program be considered as a means of evaluating the performance of a potential performance based school pilot project. Given that building performance is a central goal of the enabling legislation, there should be clear standard for these projects to achieve both in submitting for funding and post-occupancy operations. Requiring all projects, whether new construction or renovation, to obtain and maintain ENERGY STAR certification would provide a mechanism for calculating and monitoring the performance of projects funded by the legislation.

- ENERGY STAR certification provides a national standard for energy efficiency and carbon footprint reduction. To qualify for ENERGY STAR certification, a K-12 building must earn a 75 or higher on EPA's 1-100 energy performance scale, indicating that the facility performs better than at least 75% of similar buildings nationwide. The ENERGY STAR performance scale accounts for differences in operating conditions, regional weather data, and other important considerations.
- Generally speaking, an ENERGY STAR certified K-12 school building costs forty cents per square foot less to operate than an average K-12 facility. These savings could be applied to the funding mechanism for the performance school program.
- ENERGY STAR is a visible, understandable standard for building performance. The public sees Energy Star certificates on a wide range of familiar products, from appliances to computers and electronics. The taxpayers of our State are likely to have some understanding of the value of their investment in performance buildings if they see an ENERGY STAR label in the lobby of a K-12 school.

Tab 4

Model Contract

Developing a model contract for a program this complex is a challenging task at this stage of the planning. The model contract depends on many variables still to be determined. Legal specialists will have to be engaged to draft a model contract.

The recommended approach is to implement a Design Build Operate Maintain (DBOM) program, based on the design build provisions in RCW 39.10. While not definitively prescribed here, it is anticipated that two main contracts would be utilized in this program.

1. A design build contract for the construction or modernization.
 - a. AIA, DBIA or a comparable form of contract
 - b. A list of performance and resource considerations that must be guaranteed by the DBOM contractor.
2. A building management and utility services contract, in which the Design Builder becomes the Design Build Operate Maintain (DBOM) Contractor. The DBOM Contractor is responsible for guaranteeing the performance of the facility and for providing building management and utility services over the operational duration specified by the school district.
 - a. Provisions for a guarantee through the life of the contract.
 - b. A summary of assumptions and provisions for an annual test of those assumptions to be compared to annual utility audit.
 - c. A cost and payment structure that holds the contractor at risk for performance.
 - d. The University of Washington can provide a model contract that is being successfully implemented in the State of Washington.

Tab 5***Rulemaking and oversight***

CPARB does not anticipate that additional rule making will be required to implement the performance based school pilot program.

As recommended in Tab 3, CPARB proposes that its Project Review Committee (PRC) be charged with review and approval of pilot projects.

Oversight of the pilot program should be accomplished through project data collection in accordance with the requirements of RCW 39.10. Data would be submitted to CPARB for review.

Tab 6

Appendix

1. 39.35 "Energy Services Statute"
2. OSPI School Construction assistance Program Overview
3. 39.10 Alternative Public Works statute
4. CPARB Performance based school construction subcommittee roster
5. AIA design build contract sample

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