

# Bond Reimbursement and Grant Review Committee Meeting Agenda

July 19, 2018  
2:30pm - 4:00pm

Teleconference – School Finance Conf. Room  
801 W. 10<sup>th</sup> Street, Juneau, Alaska

Audio Teleconference: Call Toll-Free 1-855-244-8681 (US/Canada); Meeting Number 808 401 157

Chair: Heidi Teshner

Thursday, July 19, 2018

## Agenda Topics

---

2:30 – 2:35 PM

Committee Preparation

- Call-in, Roll Call, Introductions
- Chair’s Opening Remarks
- Agenda Review/Approval

2:35 – 3:35 PM

Regulation Projects Update

Construction Standards for Cost-effective Construction

- Review Dec. 2017 Report Implementation Strategies
- Review HB 212 Intersection & Fiscal Note
- Identify Subcommittee Actions

BR&GR Calendar and Work Plan Review & Update

3:35 – 3:50 PM

Publication Update

- Professional Services for School Capital Projects

3:50 – 4:00 PM

Committee Member Comments

4:00 PM

Adjourn

## Cost-Effective School Construction- BR&GR Criteria / HB212 Provisions

Prepared by Department of Education and Early Development  
Finance & Support Services / Facilities

July 6, 2018

Criteria	BR&GR 2017 Report to Legislature	Who	Estimate	HB212 Provision	Funding
#1 – Commissioning Standards	Task 1 – Develop definitions of those projects for which the state will require commissioning.	Commissioning Subcommittee	\$0	None; bill language did not include commissioning.	\$0
	Task 2 – Make recommendations of project categories requiring commissioning to BR&GR.	Commissioning Subcommittee	\$0	“	\$0
	Task 3 – Make recommendations of regulation language for project categories requiring commissioning to the State Board.	BR& GR Committee	\$0	“	\$0
	Task 4 – Manage regulation development process and implementation.	DEED Facilities	\$0	“	\$0
#2 – Commissioning Agent Qualifications	Task 1 – Develop requirements and levels for commissioning agent certifications.	Commissioning Subcommittee	\$0	“	\$0
	Task 2 – Make recommendations of commissioning agent certifications to BR&GR.	Commissioning Subcommittee	\$0	“	\$0
	Task 3 – Make recommendations of commissioning agent certifications to the State Board.	BR& GR Committee	\$0	“	\$0
	Task 4 – Manage regulation development process and implementation.	DEED Facilities	\$0	“	\$0

Criteria	BR&GR 2017 Report to Legislature	Who	Estimate	HB212 Provision	Funding
#3 – Commissioning Criteria	Task 1 - Develop outline-level minimum criteria (standards) for commissioning in five building system areas.	Commissioning Subcommittee	\$0	None; bill language did not include commissioning.	\$0
	Task 2 – Review minimum standards and revise as needed.	BR& GR Committee	\$0	“	\$0
	Task 3 – Develop a statement of services for a feasibility analysis and cost-benefit analysis of developing outline standards into comprehensive standards and a DEED handbook.	Commissioning Subcommittee	\$0	“	\$0
	Task 4 – Solicit, award and manage the feasibility and cost analysis of developing comprehensive Cx standards.	DEED Facilities	\$15,000	“	<b>\$0</b> [Note: this task was missed in developing the fiscal note.]
	Task 5 – Review report on comprehensive standards and make recommendations on implementation to DEED.	BR& GR Committee	\$0	“	\$0
	Task 6 – Finalize comprehensive standards in DEED handbook and implement as needed via regulation.	DEED	\$0	“	\$0
#4 – Climate Zones	Task 1 – Confirm the availability of BEES standards for use in Design Ratio standards development.	Design Ratios Subcommittee	\$0	Requires “regionally based model school standards.” BEES would provide regions based on climate.	\$0

Criteria	BR&GR 2017 Report to Legislature	Who	Estimate	HB212 Provision	Funding
	Task 2 – Define applicability of BEES to school projects vs. ASHRAE 90.1. Determine need for regulations.	Design Ratios Subcommittee	\$0	“	\$0
	Task 3 – Recommend regulations to State Board as needed.	BR&GR Committee	\$0	“	\$0
	Task 4 – Manage regulation development process and implementation.	DEED Facilities	\$0	“	\$0
#5 – O:EW Design Ratio	Task 1 – Develop a statement of services for energy modeling related to O:ES ratios by BEES regions.	Design Ratios Subcommittee	\$0	Requires model school standards that . . . “establish school design ratios to achieve efficient, cost-effective school construction.”	\$0
	Task 2 – Compare existing school ratios and annual energy use to help target the most effective ratios.	Design Ratios Subcommittee	\$0	“	\$0
	Task 3 – Solicit, award and manage the energy modeling analysis and cost estimating for O:EW design ratios.	DEED Facilities	\$20,000	DEED fiscal note included funding for energy modeling and data collection.	\$20,000
	Task 4 – Make recommendations for O:EW design ratios to the State Board.	BR&GR Committee	\$0	<i>DEED fiscal note included 2 in-person meetings of the committee— in FY19 (and two in FY20).</i>	\$9000*
	Task 5 – Manage regulation development process and implementation.	DEED Facilities	\$0	“	\$0
#6 – FPA:GSF Design Ratio	Task 1 – Develop a statement of services for energy modeling related to FPA:GSF by BEES regions.	Design Ratios Subcommittee	\$0	Requires model school standards that . . . “establish school design ratios to achieve efficient, cost-effective school construction.”	\$0

<b>Criteria</b>	<b>BR&amp;GR 2017 Report to Legislature</b>	<b>Who</b>	<b>Estimate</b>	<b>HB212 Provision</b>	<b>Funding</b>
	Task 2 – Compare existing school ratios and annual energy use to help target the most effective ratios.	Design Ratios Subcommittee	\$0	“	\$0
	Task 3 – Solicit, award and manage the energy modeling analysis and cost estimating for FPA:GSF design ratios.	DEED Facilities	\$20,000	DEED fiscal note included funding for energy modeling and data collection.	\$20,000
	Task 4 – Make recommendations for FPA:GSF design ratios to the State Board.	BR&GR Committee	\$0	<i>See Note on Item 5, Task 4</i>	\$9000
	Task 5 – Manage regulation development process and implementation.	DEED Facilities	\$0	“	\$0
#7 – V:NSF Design Ratio	Task 1 – Develop a statement of services for energy modeling related to V:NSF by BEES regions.	Design Ratios Subcommittee	\$0	Requires model school standards that . . . “establish school design ratios to achieve efficient, cost-effective school construction.”	\$0
	Task 2 – Compare existing school ratios and annual energy use to help target the most effective ratios.	Design Ratios Subcommittee	\$0	“	\$0
	Task 3 – Solicit, award and manage the energy modeling analysis and cost estimating for V:NSF design ratios.	DEED Facilities	\$20,000	DEED fiscal note included funding for energy modeling and data collection.	\$20,000
	Task 4 – Make recommendations for V:NSF design ratios to the State Board.	BR&GR Committee	\$0	<i>See Note on Item 5, Task 4</i>	\$9000
	Task 5 – Manage regulation development process and implementation.	DEED Facilities	\$0	“	\$0

Criteria	BR&GR 2017 Report to Legislature	Who	Estimate	HB212 Provision	Funding
#8 – V:ES Design Ratio	Task 1 – Develop a statement of services for energy modeling related to V:ES by BEES regions.	Design Ratios Subcommittee	\$0	Requires model school standards that . . . “establish school design ratios to achieve efficient, cost-effective school construction.”	\$0
	Task 2 – Compare existing school ratios and annual energy use to help target the most effective ratios.	Design Ratios Subcommittee	\$0	“	\$0
	Task 3 – Solicit, award and manage the energy modeling analysis and cost estimating for V:ES design ratios.	DEED Facilities	\$20,000	DEED fiscal note included funding for energy modeling and data collection.	\$20,000
	Task 4 – Make recommendations for V:ES design ratios to the State Board.	BR&GR Committee	\$0	<i>See Note on Item 5, Task 4</i>	\$9000
	Task 5 – Manage regulation development process and implementation.	DEED Facilities	\$0	“	\$0
#9 – Model School Allowable Cost	Task 1 – Develop a statement of services for making updates to the Demand Cost Model’s geographic cost factors.	DEED Facilities	\$0	Requires <u>regionally based</u> model school standards that . . . “describe acceptable building systems <u>and anticipated costs</u> . . .”	\$0
	Task 2 – Solicit, award, and manage the Demand Cost Model geographic cost updates. Publish results.	DEED Facilities	\$45,000	DEED fiscal note included funding for updating geographic cost factors.	\$55,000
	Task 3 – Develop a statement of services for adding detail to the Demand Cost Model sections 4 (site work) and 11 (renovations).	Model School Subcommittee	\$0	Requires <u>regionally based</u> model school standards that . . . “describe acceptable building systems <u>and anticipated costs</u> . . .”	\$0

Criteria	BR&GR 2017 Report to Legislature	Who	Estimate	HB212 Provision	Funding
	Task 4 – Solicit, award, and manage the Demand Cost Model enhancements. Publish results.	DEED Facilities	\$65,000	DEED fiscal note included funding for enhancements to the Cost Model.	\$65,000
	Task 5 – Make recommendations regarding the use of the enhanced Cost Model as a cost control tool to BR&GR.	Model School Subcommittee	\$0	Does not contain specific language requiring a geographically adjusted model school cost for cost control.	\$0
	Task 6 – Make recommendations of regulation language for use of the Cost Model as a cost control tool to the State Board.	BR& GR Committee	\$0	“	\$0
	Task 7 – Manage regulation development process and implementation.	DEED Facilities	\$0	“	\$0
#10 – Model School Estimate Update	Task 1 – Establish a process for making updates and vetting the Demand Cost Model with respect to instructional needs and building systems.	Model School Subcommittee	\$1200	Requires department to develop <u>and periodically update</u> regionally based model school standards that . . . “describe acceptable building systems <u>and anticipated costs</u> . . .”. DEED fiscal note supported consultant assistance with a one-time strategy development cost.	\$5000
	Task 2 – Implement the Model School update of the Cost Model with Committee resources.	BR&GR Committee	\$0	“	\$0
	Task 3 – Evaluate success of Committee-driven updates to Cost Model. Seek outside assistance for updates as needed; develop a statement of services.	Model School Subcommittee	\$0	“	\$0

<b>Criteria</b>	<b>BR&amp;GR 2017 Report to Legislature</b>	<b>Who</b>	<b>Estimate</b>	<b>HB212 Provision</b>	<b>Funding</b>
	Task 4 – Solicit, award and manage the Model School updates to the Cost Model. Publish results.	DEED Facilities	\$15,000 annually	DEED fiscal note included funding for specialists to assist with annual model school and Cost Model updates.	\$15,000 annually
#11 – Model School Building System Standards	Task 1 – Complete an outline of Model Standards by DEED CostFormat section.	DEED Facilities	\$0	Requires development of “regionally based model school construction standards that describe acceptable building systems . . .”	\$0
	Task 2 – Review outline Model School Standards. Revise.	BR&GR Committee	\$0	“	\$0
	Task 3 – Develop a statement of services for a feasibility analysis and cost-benefit analysis of developing outline standards into comprehensive standards. Evaluate operating and first costs for an in-house vs. consultant effort. Include an evaluation of implementing a customized industry standard (CHPS/LEED, etc.).	Model School Subcommittee	\$0	“	\$0
	Task 4 – Solicit, award and manage the feasibility and cost analysis of developing comprehensive Model School standards.	DEED Facilities	\$25,000	DEED fiscal note included funding for a feasibility and cost analysis to research options for construction standards.	\$25,000
	Task 5 – Review report on comprehensive standards and make recommendations on implementation to DEED.	BR& GR Committee	\$0	<i>See Note on Item 5, Task 4</i>	<i>\$9000</i>

Criteria	BR&GR 2017 Report to Legislature	Who	Estimate	HB212 Provision	Funding
	Task 6 – Finalize comprehensive standards in DEED handbook and implement as needed via regulation.	DEED Facilities	\$50,000	DEED fiscal note included funding for definition and development of construction standards.	\$50,000
#12 – Model School Non-core Exclusions	Task 1 – Review and finalize Topic Paper <i>Non-core Educational Restrictions</i> .	Model School Subcommittee	\$0	None; bill language did not include restrictions on funding non-core elements.	\$0
	Task 2 – Make recommendations of non-core restrictions to BR&GR.	Model School Subcommittee	\$0	“	\$0
	Task 3 – Make recommendations of regulation or statutory language for non-core educational restrictions to the State Board.	BR&GR Committee	\$0	“	\$0
	Task 4 – Manage regulation/statute development process and implementation.	DEED Facilities	\$0	None; this may require statutory language.	\$0
#XX – Reuse of Approved School Plans	None; report did not include any provisions for reuse of school designs or building systems.	DEED Facilities	\$0	Task 1 – Develop criteria under 14.11.013(a) to <u>encourage</u> (reward?) districts to use previously approved design plans and building systems.	\$0
	“	DEED Facilities	\$0	Task 2 – Develop criteria under 14.11.013(b) that <u>evaluates</u> a district’s use of previously approved design plans and building systems when assigning priority.	\$0
	“	DEED Facilities	\$0	Task 3 – Develop criteria under 14.11.013(c) to establish when the department may <u>require</u> a CIP project to use previously approved design plans and building systems.	\$0

Criteria	BR&GR 2017 Report to Legislature	Who	Estimate	HB212 Provision	Funding
	“	BR&GR Committee	\$0	Task 5 – Update 8-4-2004 Committee position paper on prototype schools with peer input. DEED fiscal note included funding for involvement of industry professionals.	\$15,000
	“	BR&GR Committee	\$0	Task 4 – Make recommendations for school design reuse, if necessary, to the State Board.	\$0
	“	DEED Facilities	\$0	Task 5 – Manage regulation development process and implementation, as required.	\$0

\* DEED fiscal note also included \$9000 for two in-person meetings of the committee in FY2020 to accomplish final work needed to implement standards and provisions related to HB212.

## Commissioning Subcommittee

### Recommendations for Cost-Effective School Construction Criteria

November 30, 2017

#### Subcommittee Members

BR&GR Committee: Mark Langberg (chair); Bill Murdock

Department Staff: Wayne Marquis

Industry Partners: JaDee Moncur, Support Services of Alaska; Craig Fredeen, Cold Climate Engineering; Brittany Hartmann, Legislative Staff

#### Purpose of Subcommittee

Under AS 14.11.014(b)(3), propose standards and criteria for commissioning of school projects with state-aid; identify costs for appropriate allocation of resources.

#### Subcommittee Activity

The subcommittee met throughout the summer to discuss commissioning issues. In addition to acknowledging the preceding purpose-statement, the subcommittee reviewed and adopted the following mission statement (Subcommittee Resource #2):

*To provide minimum criteria and expectations to test the performance of a school's mechanical, electrical, plumbing, fuel, controls and envelope systems; to promote energy efficiency of the school and save operational costs over the life of the building.*

Building commissioning (Cx) was recognized as adding value to a school district's overall mission of education by maximizing the operational efficiency of its school facilities. Since Cx is building-specific, benefits are also gained at the individual school level. The subcommittee reviewed Cx protocols and practices and determined that Cx criteria should be developed in the following broad categories: mechanical, fuel oil, electrical, controls, and building envelope.

Other focus areas of subcommittee review included:

- Responsibilities that are common to commissioning agents/authorities (CxA) – Cx tasks can cross traditional disciplines (e.g., building controls (mechanical), building envelope (architectural), etc.). Qualifications and certifications are becoming important.
- Standards and certifications for CxA – as Cx transitions from a specialty to a dedicated profession, there are a growing number of professional and trade associations offering certifications in this area.
- The points in a facility's life-cycle where Cx can be effective – Cx has traditionally been tied to the closeout of capital projects; however, the emergence of retro-Cx has brought attention to the value of ongoing Cx throughout the building life-cycle.

#### Recommendations

The following subcommittee recommendations are proposed for consideration by the BR&GR committee for inclusion in a December report to the Alaska state legislature. In the October 13 version of these recommendations, the subcommittee included specific requests for comments on its recommendations and welcomed all comments on potential implementation of Cx standards

for school construction. The subcommittee reviewed comments received during the public comment period. Comments were considered and as appropriate incorporated in the work of the committee. Responses to the comments are provided in a separate document. Topic-specific comments and subcommittee responses have been included as an attachment to the recommendations.

### **Recommendation #1**

In support of cost-effective school construction, adopt standards for Cx of building systems in new schools, major additions, and major renovations constructed with state aid. Standards should assist the department in ensuring school projects meet required energy standards.

**Basis:** The value of Cx increases with the complexity of the systems in a facility. Since the complexity of school capital projects with state aid ranges from simple to complex, Cx should generally only be required on new schools, major additions, and major renovations. There may be smaller projects, focused on one or more of these broad categories of systems, which would be appropriate to be commissioned. Since Cx is a growing field and is touching more and more building systems, required Cx standards (in support of cost-effective school construction) should focus on Cx elements related to meeting required energy standards.

#### **Implementation Strategy:**

Several strategies were considered, as listed below. Since the Cx subcommittee thinks the work is mostly complete, the suggested course of action is to have the subcommittee complete the editing of the documents that will become the Cx guidelines.

Item 1 – Cx Subcommittee to develop (or identify currently available) definitions of which projects will require Cx (i.e., new schools, major additions, and major renovations). The subcommittee will also consider exceptions or possible broadened categories if warranted based on research and stakeholder input.

Item 2 – Finalize standards via regulation, amendment to existing handbook(s), or new handbook, as needed, to establish when Cx will be required on school capital projects with state aid. Cx Subcommittee to make recommendations to the BR&GR. BR&GR to make recommendations to the State Board. DEED Facilities to manage the administrative process of regulation development.

#### **Cost to Implement:**

Item 1 – No additional costs anticipated outside the current costs of the department's staff and supporting costs for committee and board activity.

Item 2 – No additional costs anticipated outside the current costs of the department's staff and supporting costs for committee and board activity.

### **Recommendation #2**

Cx funded with state aid should be accomplished by a qualified CxA. The base requirement for a CxA should be an industry-recognized certification but options should

be available for alternate qualifications sufficient to help guide the district to the desired level of Cx appropriate for the given project.

Basis: Certifications can be helpful in establishing credentials and high standards should be the norm. However, certain conditions may require flexibility and an alternate path to establishing qualifications on a project-basis.

Implementation Strategy:

Item 1 – Develop language establishing required certifications and align with project categories developed under Recommendation #1. Cx Subcommittee to develop initial criteria with assistance that may be available from industry (see comments attached). BR&GR to review and revise.

Item 2 – Finalize standards via regulation, amendment to existing handbook(s), or new handbook, as needed, to establish when Cx will be required on school capital projects with state aid. Cx Subcommittee to make recommendations to the BR&GR. BR&GR to make recommendations to the State Board. DEED Facilities to manage the administrative process of regulation development.

Cost to Implement:

Item 1 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee and board activity.

Item 2 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee and board activity.

### **Recommendation #3**

In support of cost-effective school construction, develop and adopt criteria for Cx in five areas: mechanical, fuel oil, electrical, controls, and building envelope. Criteria should be provided as tools for districts to use in contracting for Cx services or for performing Cx in-house when permitted.

Basis: Minimum standards for Cx criteria, updated on a regular basis to conform to industry best practices and current building systems, will provide a basis for the state aid. Standards define expectations and result in greater clarity and equity across all projects.

Implementation Strategy:

Item 1 – Complete outline Cx criteria for the five building system areas. Subcommittee to develop outline-level standards with assistance that may be available from industry (see comments attached). BR&GR to review and revise.

Item 2 – Conduct an independent feasibility analysis and cost-benefit analysis on the development of the outline-level standards into a comprehensive set of state-level Cx Criteria standards. Cost evaluation should include impacts on both operating costs and first costs of facilities. Cx Subcommittee to develop statement of services; DEED Facilities to solicit, award, and manage contract; BR&GR to review and make recommendations.

**COMMISSIONING SUBCOMMITTEE****RECOMMENDATION**

Item 3 – If supported, finalize standards into either an existing or new department handbook. Implement the use of the handbook through regulation.

Cost to Implement:

Item 1 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee.

Item 2 – \$15,000 (allows for approximately 60 hours of research and documentation plus expenses).

Item 3 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee.

**Subcommittee Resources**

The resources below were researched or developed during the subcommittee process and informed the recommendations of the committee. The majority of these documents are available in prior BR&GR committee packets for review (<https://education.alaska.gov/Facilities/BRGR/>). Certain items are attached or provided in the Appendices, as noted, for simplicity in reviewing the recommendations.

1. Meeting Notes/Recordings
2. Mission Statement
3. Commissioning General Overview – 11-29-17 Draft (Attached)
4. Mechanical Systems Commissioning – 11-29-17 Draft (Attached)
5. Fuel Oil Systems Commissioning – 11-29-17 Draft (Attached)
6. Electrical Systems Commissioning – 11-29-17 Draft (Attached)
7. Control Systems Commissioning – 11-29-17 Draft (Attached)
8. Building Envelope Commissioning – 11-29-17 Draft (Attached)
9. Building Envelope Commissioning CSI Spec – 11-29-17 Draft (Attached)
10. Committee Response to Public Comments (Attached)
11. Public Comments (See Appendix B)

**Design Ratios Subcommittee**  
**Recommendations for Cost-Effective School Construction Criteria**  
**November 30, 2017**

**Subcommittee Members**

BR&GR Committee: Dale Smythe (chair); Robert Tucker; Rep. Sam Kito III  
 Department Staff: Tim Mearig; Larry Morris; Lori Weed  
 Industry Partners: Ryan Butte, LKSD; Ezra Gutschow, Coffman Engineers;  
 Brittany Hartman, Legislative Staff

**Purpose of Subcommittee**

Under AS 14.11.014(b)(3), evaluate and propose construction design ratio guidelines for use by the department, school districts, and the design community to design new and renovated school facilities to reduce first cost (construction) and long-term cost (operation).

**Subcommittee Activity**

The subcommittee met throughout the summer to discuss types of design ratios and the magnitude of potential savings in a variety of climatic areas. The subcommittee aimed for design ratio guidelines that would be straightforward for design professionals, district staff, and the department to be able to interpret and review; would achieve measurable savings for first costs and operational costs; would not repeat or contradict existing laws and regulations; and would not unduly limit educational delivery or program formats.

Major influencing factors on the first cost and operational cost of Alaskan schools is the amount, size, and arrangement of the building's roof, spaces, windows, and doors. While the largest influences on total cost are a school's location, the price of energy, and how the building is operated; control of these elements is outside of the consideration of this subcommittee. Any ratio guideline that reduces heating requirements will have a dramatically different cost impact to a facility located in an area with cold temperatures and high price for energy.

Current design technology makes gathering design element data significantly easier, the proposed design guidelines should be able to be implemented without undue burden on stakeholders.

Other focus areas of subcommittee review included:

- Leadership in Energy and Environmental Design (LEED), a widely used green building rating system. LEED provides for a wide variety of trade-offs, not all of which are applicable throughout the state and do not directly affect first costs or operational costs.
- Collaborative for High Performance Schools (CHPS), focuses on high performance features for benefits associated with improved health, productivity and student performance, decreased operating costs, and increased energy savings. CHPS, like LEED, is holistic in nature, requiring measurements across the full spectrum of sustainability practices, some of which may be less applicable to Alaska. It does not provide for targeted or incremental standards—it's an "all-in" approach. It also requires significant investment and involves third-party oversight.
- Existing climatic zone designations for Alaska. Reviews included climatic zone definitions by IECC/ASHRAE, Alaska BEES, and USGS.
- Aspect design ratio (building's length and width); found to be difficult to apply to all school sizes.

- Solar orientation ratio; found to be too controlling, limited savings potential, and difficult to implement.
- Ratios addressing mechanical systems were discussed as a possibility for future committees, but outside of the committee's current scope of review; potentially interconnecting with the commissioning subcommittee.

The subcommittee gathered information from relatively current constructed school designs to create a bracketed range of existing conditions for consideration relative to possible guideline ratios. This information will continue to be updated, refined and examined as an information source.

The subcommittee has also begun the effort of creating energy use models to illustrate differences between the proposed ratios. Currently under development are models for one- and two-story massing types in each of the four BEES climate zones. The goal of this effort is to gather rough order of magnitude operational cost differences. It will consider a 30-year time span based on local fuel prices and typical escalation. The intent is to inform the subcommittee of the potential value of a guideline implementation.

The intent of the recommended ratios is to encourage building compactness and to limit heat loss through the envelope and envelope openings. The subcommittee also believes that these ratios may result in savings in the area of initial capital costs.

### **Recommendations**

The following subcommittee recommendations are proposed for consideration by the BR&GR committee for inclusion in a December report to the Alaska state legislature. In the October 13 version of these recommendations, the subcommittee included specific requests for comments on its recommendations and welcomed all comments on potential implementation of design ratios for school construction. The subcommittee reviewed comments received during the public comment period. Comments received provided the subcommittee with both a general reaction to the concept of developing standards for design ratios and feedback specific to the subcommittee's five recommendations. The comments demonstrated a need to ensure design ratio standards are based on solid research and computations. A positive response to several of the proposed ratios was received from one school district but concern was expressed about the ability to create these standards versus adoption published standards from other entities. Topic-specific comments and subcommittee responses have been included as an attachment to these recommendations.

#### **Recommendation #1**

Adopt the Alaska Climate Zones established by the Alaska Building Energy Efficiency Standard (BEES), and used by the Alaska Housing Finance Corporation, to differentiate allowable ratio ranges, and to support other cost-effective school construction standards as needed.

Basis: The subcommittee sought to identify pre-existing and accepted climate designations. Although the Department of Education & Early Development has adopted the ASHRAE 90.1 energy standard, the standard only identifies two climatic regions in Alaska. The four climate zones adopted by BEES offers more flexibility when establishing design ratio ranges and other cost-effective school construction standards.

## Implementation Strategy:

- Item 1 – Subcommittee to confirm the availability of the BEES standards for use in Design Ratio standards development (i.e., permission from standards author, frequency and process for updates, etc.)
- Item 2 – Subcommittee and BR&GR to ensure there is a clear differentiation between when BEES would be used for a school project with state aid, and when ASHRAE 90.1 would be used.

## Cost to Implement:

- Item 1 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee and board activity.
- Item 2 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee and board activity.

**Recommendation #2**

Implement a school design ratio of Openings Area to Exterior Wall Area (O:EW). Opening Area defined as “the square footage of all windows, doors, and translucent panels measured to the outside of their frame elements”. Exterior Wall Area defined as “the square footage of the exterior vertical enclosure, inclusive of all openings”.

Basis: The O:EW ratio is an indicator of envelope efficiency. Operational costs of a school facility are highly influenced by heat loss through penetrations of the envelope. The comparison is not meant to diminish the proven benefits of natural light on student performance. Current ranges from the *Recent School Projects Design Ratios Data Set* are: Low – 3.99% to High – 49.37%.

## Implementation Strategy:

- Item 1 – Identify and solicit services; issue a contract for energy modeling services to determine appropriate ratio ranges. Design Ratio Subcommittee to develop statement of services with input as needed. DEED Facilities to solicit, award, and manage contract. Compare existing school ratios and annual energy use to define the most effective ratios. Consider developing area specific ratios based on BEES regions.
- Item 2 – Develop regulations, as needed, to establish use of the design ratios to establish eligible cost limits for state aid of school capital projects. BR&GR to make recommendations to the State Board. DEED Facilities to manage the administrative process of regulation development.

## Cost to Implement:

- Item 1 – \$20,000 for energy modeling and data collection services (if combined with other recommendations costs; solicit one contract for all four ratio recommendations for cost savings).
- Item 2 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee and board activity.

**Recommendation #3**

Implement a school design ratio of Building Footprint Area to Gross Square Footage (FPA:GSF). Building Footprint is defined as “the conditioned square footage measured from the exterior wall face at the lowest floor of the building projected vertically down to a single plane; does not include crawl spaces or areas for building system distribution”. Gross Square Footage is defined as “all normally occupied conditioned square footage as measured to the exterior wall face; does not include crawl spaces or areas for building system distribution”. This ratio would be applied to facilities in excess of 30,000 GSF.

Basis: The FPA:GSF ratio is an indicator of enclosure efficiency. This ratio is intended to incur benefits relating to stacking (multi-story) efficiencies in school design. Minimum facility size is partly to reflect practicalities of stacking space as well as the difficulties that may be experienced by a smaller community in obtaining certified personnel to service an elevator, if required. Current ranges from the *Recent School Projects Design Ratios Data Set* are: Low – 61.94% to High – 99.34%.

**Implementation Strategy:**

Item 1 – Identify and solicit services; issue a contract for energy modeling services to determine appropriate ratio ranges. Design Ratio Subcommittee to develop statement of services with input as needed. DEED Facilities to solicit, award, and manage contract. Compare existing school ratios and annual energy use to define the most effective ratios. Consider developing area specific ratios based on BEES regions.

Item 2 – Develop regulations, as needed, to establish use of the design ratios to establish eligible cost limits for state aid of school capital projects. BR&GR to make recommendations to the State Board. DEED Facilities to manage the administrative process of regulation development.

**Cost to Implement:**

Item 1 – \$20,000 for energy modeling and data collection services (if combined with other recommendations costs; solicit one contract for all four ratio recommendations for cost savings).

Item 2 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee and board activity.

**Recommendation #4**

Implement a school design ratio of Building Volume to Net Floor Area (V:NSF). Building Volume is defined as “all conditioned cubic square footage within a building’s vapor retarder or elements acting as a vapor retarder at the exterior wall, roof or soffit”. Net Floor Area or Net Square Footage is defined as “all normally occupied conditioned square footage as measured to the inside face of walls; does not include crawl spaces or areas for building system distribution”.

Basis: The V:NSF ratio is an indicator of space efficiency. The volume of air being heated in a school is a large factor of a facility’s operating costs. This ratio is intended to address the amount of double-height volume in a facility. Current ranges from the *Recent School Projects Design Ratios Data Set* are: Low – 1260.28% to High – 2158.93%.

**Implementation Strategy:**

- Item 1 – Identify and solicit services; issue a contract for energy modeling services to determine appropriate ratio ranges. Design Ratio Subcommittee to develop statement of services with input as needed. DEED Facilities to solicit, award, and manage contract. Compare existing school ratios and annual energy use to define the most effective ratios. Consider developing area specific ratios based on BEES regions.
- Item 2 – Develop regulations, as needed, to establish use of the design ratios to establish eligible cost limits for state aid of school capital projects. BR&GR to make recommendations to the State Board. DEED Facilities to manage the administrative process of regulation development.

**Cost to Implement:**

- Item 1 – \$20,000 for energy modeling and data collection services (if combined with other recommendations costs; solicit one contract for all four ratio recommendations for cost savings).
- Item 2 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee and board activity.

**Recommendation #5**

Implement a school design ratio of Building Volume to Exterior Surface Area (V:ES). Building Volume is defined as “all conditioned cubic square footage within a building’s vapor retarder or elements acting as a vapor retarder at the exterior wall, roof, or soffit”. Exterior Surface Area is defined as “square footage of wall, roof, or underbuilding soffit system at the line of the exterior air barrier or outward most element acting as an air barrier surrounding conditioned space”.

Basis: The V:ES ratio is an indicator of building compactness. The compactness of a building minimizes the heat loss through the envelope. [Note: Data for this ratio has not been developed in the current version of the *Recent School Projects Design Ratios Data Set*.]

**Implementation Strategy:**

- Item 1 – Identify and solicit services; issue a contract for energy modeling services to determine appropriate ratio ranges. Design Ratio Subcommittee to develop statement of services with input as needed. DEED Facilities to solicit, award, and manage contract. Compare existing school ratios and annual energy use to define the most effective ratios. Consider developing area specific ratios based on BEES regions.
- Item 2 – Develop regulations, as needed, to establish use of the design ratios to establish eligible cost limits for state aid of school capital projects. BR&GR to make recommendations to the State Board. DEED Facilities to manage the administrative process of regulation development.

**Cost to Implement:**

- Item 1 – \$20,000 for energy modeling and data collection services (if combined with other recommendations costs; solicit one contract for all four ratio recommendations for cost savings).

Item 2 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee and board activity.

### **Subcommittee Resources**

The resources below were researched or developed during the subcommittee process and informed the recommendations of the committee. The majority of these documents are available in prior BR&GR committee packets for review (<https://education.alaska.gov/Facilities/BRGR/>). Certain items are attached or provided in the Appendices, as noted, for simplicity in reviewing the recommendations.

1. Meeting Notes/Recordings
2. Alaska BEES Climate Zone Map (Attached)
3. The Effect of Building Aspect Ratio on Energy Efficiency: A Case Study for Multi-Unit Residential Buildings in Canada, Philip McKeen and Alan S. Fung.
4. Building Aspect Ratio, Kimberly Hickson, AIA, BNIM Architects.
5. The Function of Form: Building Shape and Energy, John Straube, Ph.D., P.Eng.
6. Energy Efficiency of Public Buildings in Alaska: Schools, Cold Climate Housing Research Center, AHFC.
7. Design Guidance for Minneapolis Schools in Minneapolis, Minnesota
8. Recent School Projects Design Ratios Data Set, DEED. (Appendix A)
9. Energy Model Data: Building Footprint Area to Gross Square Footage (FPA:GSF) (Appendix A)
10. Subcommittee September 6, 2017 Report to BR&GR
11. Committee Response to Public Comments (Attached)
12. Public Comments (Appendix B)

**Model School Subcommittee  
Recommendations for Cost-Effective School Construction Criteria  
November 30, 2017**

**Subcommittee Members**

BR&GR Committee: Doug Crevensten (chair); Don Hiley; Representative Sam Kito  
Department Staff: Tim Mearig  
Industry Partner(s): Dana Menendez, ASD; Brittany Hartmann, Legislative Staff

**Purpose of subcommittee**

Under AS 14.11.014(b)(3), propose elements and features of a Model Alaskan School that will support an adequate education and for which state resources would be allocated.

**Subcommittee Activity**

The subcommittee met throughout the summer to discuss Model Alaskan School issues. Our subcommittee could not define one particular Model Alaskan School due to the variances in school construction demanded by Alaska’s vast geography and climate. However, it may well be possible to define Model School *standards* that do define adequate Alaskan schools depending on a particular region or set of circumstances, provide for more accurate project cost estimates, and reduce project and operational costs.

Three questions seemed to reoccur in each meeting’s discussion:

- Can/should resource allocation using a Model School standard be accomplished by establishing a cost-based framework?
- Can/should resource allocation using a Model School standard be accomplished by establishing the quality and quantity of systems and components?
- Can/should resource allocation using a Model School standard be accomplished by establishing program space allowances and/or space standards, and identifying school elements not eligible for State funding?

This idea of developing a cost-based framework remained an active discussion throughout. The state’s Program Demand Cost Model for Alaskan Schools (Cost Model) was identified early on as a promising tool on which to base model school standards and resource allocation because it identifies many elements in a school, and provides methods for establishing fairly accurate estimates for new construction and renovation projects. (However, actual costs for schools can only be determined through the design and construction process.)

Other focus areas of subcommittee review included:

- Shortcomings of the Cost Model and where it might be improved to better reflect Model School standards and more accurately forecast costs.
- Defining the type, quality, and performance factors of Model Alaskan School systems—these standards are currently not defined. This results in an ad hoc, wide variety of systems and components of varying quality and cost.
- Usefulness of establishing Model School standards that define both the minimum acceptable State-funded solution and the maximum acceptable State-funded solution.
- Elements of a school that are currently funded by the State that may be beyond the definition of an “adequate education”.

- Alternatives to the Cost Model, such as the cost per square foot approach, and prototypical schools.

### Recommendations

The following subcommittee recommendations are proposed for consideration by the BR&GR committee for inclusion in a December report to the Alaska state legislature. In the October 13 version of these recommendations, the subcommittee included specific requests for comments on its recommendations and welcomed all comments on potential implementation of model Alaskan school standards. The subcommittee reviewed comments received during the public comment period. Comments received provided the subcommittee with both a general reaction to the concept of developing standards for a model school and feedback specific to the subcommittee's four recommendations. The comments demonstrated a need to further differentiate between the proposed model school standards and a prescribed prototype school, and to further develop committee and stakeholder understanding about how model school standards might impact choices in education delivery models. Topic-specific comments and subcommittee responses have been included as an attachment to these recommendations.

#### Recommendation #1

Further develop the Program Demand Cost Model instead of pursuing a state-mandated cost-per-square-foot standard. Actions would include: a) defining/updating geographic cost factors, b) adding detail to the 4.XX Site Work elements, and c) adding detail to the 11.XX Renovation elements.

Basis: *Cost per square foot (CPSF)* limits are difficult to apply to rehabilitation and major maintenance projects. Of the 122 projects on the DEED FY2018 priority lists, only 2 are new construction, making a CPSF approach of limited practical use. Also, many districts do not have the funds to accomplish design and construction documents in support of their projects. A more detailed Cost Model, especially from the foundation down, can serve as a useful (although imperfect) substitute.

The existing *Cost Model* has flexibility to accommodate a wide variety of project types and educational programs. It identifies most necessary elements in any school and provides methods for establishing fairly accurate estimates for new construction and renovation projects, including those elements tied to geography and climate.

#### Implementation Strategy:

Item 1 – Identify and solicit services; issue a contract for the updates identified in a) through c) of the recommendation. Model School Subcommittee to develop statement of services with input as needed. DEED Facilities to solicit, award, and manage contract.

Item 2 – Develop regulations, as needed, to establish use of the enhanced Cost Model to establish eligible cost limits for state aid of school capital projects. Model School Subcommittee to review pros and cons and make recommendations to the BR&GR. BR&GR to make recommendations to the State Board. DEED Facilities to manage the administrative process of regulation development.

## Cost to Implement:

- Item 1 – Defining/updating geographic costs - ~\$45,000 (\$1000/factor at 45 locations).  
Adding detail to Site and Renovation sections - ~\$60,000 (\$30,000/section where \$15,000 has been the approximate cost of annual updates of the complete tool).
- Item 2 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee and board activity.

**Recommendation #2**

Establish a process of reviewing and regularly updating school costs within the Cost Model so that those updates become researched, vetted, and intentional. Vetting could occur as a function of the BR&GR committee or a broader working group, if deemed necessary.

Basis: Construction materials and methods advance over time, as do processes and tools for educational delivery. A systematic, on-going review of construction costs, new technologies, and emerging education methods results in a more accurate and useful *Cost Model*.

For example, new technology needs to be reviewed before inclusion in the cost model. Are high performance air barriers and roofing underlayments proven best-practices for building longevity? Are Smart Boards still needed in every classroom? How does adoption of ASHRAE 90.1 as an energy standard impact school building systems? Are educational programming shifts, such as maker-spaces in schools that emphasize project-based learning, accommodated in the Cost Model’s space-costs element?

## Implementation Strategy:

- Item 1 – In conjunction with the department’s vendor, HMS Inc., develop a best-practice strategy and timeline for annual updates to the Model Alaskan School that would account for changes in materials and labor, codes/standards, and educational delivery.
- Item 2 – Implement the strategy with DEED and BR&GR resources for the initial year. Review and analyze effectiveness of these parties in accomplishing this task.
- Item 3 – Seek outside assistance if warranted.

## Cost to Implement:

- Items 1-2 – ~\$1200 for consultant involvement.
- Item 2 – \$15,000 annually (currently budgeted) for consultant contract. No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee.
- Item 3 – \$15,000 annually (in addition to Item 2) for industry specialists (\$3000/specialist at 5 disciplines).

**Recommendation #3**

Develop Model Alaskan School standards by building system (ref. DEED *Cost Format*) to establish the quality and/or quantity of system components needed to ensure cost-

effective school construction across the state. Subcommittee resource items 3 and 4 are working drafts.

Basis: Building system and component types, quantities, and quality vary widely across school projects with state aid. Powers granted to the department provide broad authority for the State to revise a project's scope and budget if the costs are excessive and to reject projects not in the state's best interests. The basis for making these determinations could be more transparent if there were written standards.

Many states have documents that lay out standards for the various elements of schools. Others have adopted national standards that reflect 21<sup>st</sup> Century school design. These documents have the purpose of setting adequate quality standards (minimum acceptable for State funding) and placing limits on costs (maximum acceptable for State funding). Parts of the other states' standards documents can be considered; however, it seems unlikely that incorporation of another state's standards would result in an Alaska-specific document that responds effectively to Alaska's diverse needs.

Model Alaskan School standards would first address systems with a high return on effort expended, such as Mechanical and Interiors, and avoid the impulse to 'regulate everything'. A Model Alaskan School standard should fill a niche between adopted building codes and any detailed school design criteria adopted by districts. This standards document should be meshed with the Cost Model.

#### Implementation Strategy:

Item 1 – Complete outline of Model School Standards for the remaining DEED CostFormat sections. DEED Facilities to develop outline-level standards with assistance that may be available from industry (see comments attached). BR&GR to review/revise.

Item 2 – Conduct an independent feasibility analysis and cost-benefit analysis on the development of the outline-level standards into a comprehensive set of state-level Model School standards. Cost evaluation should include impacts on both operating costs and first costs of facilities. Additionally, the study should evaluate development of the standards in-house and by contract, and include an evaluation of processes and cost by other states in implementing a customized industry standard (i.e., LEED, CHPS). Model School Subcommittee to develop statement of services; DEED Facilities to solicit, award, and manage contract; BR&GR to review and make recommendations.

Item 3 – If supported, finalize standards into a department handbook. Implement the use of the handbook through regulation.

#### Cost to Implement:

Item 1 – No additional costs anticipated outside the current costs of the department's staff and supporting costs for committee.

Item 2 – \$25,000 (allows for approximately 100 hours of research and documentation plus expenses).

Item 3 – \$0 - \$50,000 (depending on in-house or contract).

**Recommendation #4**

As part of describing a Model School that supports an **adequate education**, as contrasted to a **maximum education**, identify school elements that do not further the core educational mission of the school. These would be elements that are used seasonally or intermittently, benefit a smaller portion of the students, or benefit the community after school hours. The state may choose not to fund these elements, or to fund them at a reduced rate, with the community contributing to the costs.

Basis: The extent of non core-education school facility features varies widely across the State. Identifying elements of schools that are not primarily core educational in use, and defining when they would or would not be eligible for state funding, could result in better funding equity and more cost-effective schools. Most examples of these are in site development around the school buildings such as landscaping, running tracks, stadium seating, hockey rinks, turf sports fields, and cross-country trails. Examples of non-core amenities within schools might include bathrooms beyond primary grades, sinks in every classroom, and weight rooms. While a case for the educational benefits of such elements can be made, the question remains, “At what point are we funding on the fringes of educational benefit?”

**Implementation Strategy:**

Item 1 – Review and finalize current topic paper Non-core Educational Restrictions as a BR&GR recommendation. Include with report to legislature for consideration in development of statutory language under AS 14.11.013(d) and AS 14.11.100(h).

Item 2 – DEED develops regulations to define non-core amenities and criteria for allowable state aid.

**Cost to Implement:**

Item 1 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee.

Item 2 – No additional costs anticipated outside the current costs of the department’s staff and supporting costs for committee.

**Subcommittee Comment**Space Allocations

Periodically, the subcommittee’s work moved us into discussions about school space. We acknowledged the state’s current use of space eligibility as a resource allocation tool, noting its resilience over time. Though the subcommittee did not develop any Model Alaskan School recommendations in the area of space allocations, this isn’t meant to indicate that the space component of our current resource allocation model is perfect. The subcommittee accepts that valid concerns may arise in addressing space adequacy and space calculations.

Based on public comment received (*ref. MCary 11-15-17*), additional work on the allocation of space should take into account the future of education delivery options. Since these comments question the need for continued support and maintenance of the current resource-consuming facilities, presumably this is the opportunity for distance delivery which may impact the overall

amount of space needed statewide. The subcommittee has not developed a position on non-facility education alternatives.

### Prototype Schools

Prototypical schools seem attractive as a Model School option because they appear to address the three resource allocation variables of cost, quality, and space in one solution. However, varied construction requirements due to the climatic differences of our vast State make establishing prototypical schools problematic. And, prototypical schools appear to have difficulty incorporating local educational program desires into their designs. (As support for this last statement, Massachusetts identified 16 prototypical school models (flat ground, hillsides, limited space, modular, etc.) and gave districts extra funds if they used those designs. The program was discontinued three years after implementation because local districts wanted the freedom to design schools around their own vision of education, and because cost savings were not significant. <https://www.bostonglobe.com/metro/regionals/south/2014/09/13/state-rethinking-model-school-designs-after-touting-them-cost-saving-approach/8OYcz758CWd8dFKxFensuJ/story.html> )

Public comment received (*ref. KPhillips 11-15-17*) suggested, if understood correctly, that a fourth area of standards, Planning & Programming, be considered that would establish criteria regarding the functional and programmatic design of schools including a definition of allowed spaces. The subcommittee remains unconvinced that this level of criteria (akin to prescriptive requirements of prototype schools, see above) is in the state's best interest. Additional public comment (*ref. KChristy 11-15-17, and MCary 11-15-17*) supports that criteria regarding educational programs and spaces remain at the district level with the state establishing continued aggregate allocations for proposed student populations.

### **Subcommittee Resources**

The resources below were researched or developed during the subcommittee process and informed the recommendations of the committee. The majority of these documents are available in prior BR&GR committee packets for review (<https://education.alaska.gov/Facilities/BRGR/>). Certain items are provided in Appendices, as noted, for simplicity in reviewing the recommendations in this document.

1. Meeting Notes/Recordings
2. DEED Cost Model 15<sup>th</sup> Ed. – Model School Elements (Appendix A)
3. 02 Substructure Construction Standard – Draft (Appendix A)
4. 08 Mechanical Construction Standard – Draft (Appendix A)
5. Prototypical School Articles – Massachusetts & New Jersey
6. District Facility Design Criteria Manuals – LKSD & MSBSD
7. Subcommittee Topic Paper – Mechanical Project Costing Challenges (Appendix A)
8. Subcommittee Topic Paper – Non-core Education Restrictions (Attachment)
9. Subcommittee September 6, 2017 Report to BR&GR
10. The *Cost Model* is available at <https://education.alaska.gov/Facilities/FacilitiesCIP.html#CostModel>.
11. Committee Response to Public Comments (Attachment)
12. Public Comments (See Appendix B)



# LAWS OF ALASKA

## 2018

**Source**

SCS CSHB 212(FIN)

**Chapter No.**

\_\_\_\_\_

**AN ACT**

Relating to funding for school construction and major maintenance; relating to the regional educational attendance area and small municipal school district fund; and providing for an effective date.

\_\_\_\_\_

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

THE ACT FOLLOWS ON PAGE 1



**AN ACT**

1 Relating to funding for school construction and major maintenance; relating to the regional  
2 educational attendance area and small municipal school district fund; and providing for an  
3 effective date.

4



5 \* **Section 1.** AS 14.11.013(a) is amended to read:

6 (a) With regard to projects for which grants are requested under AS 14.11.011,  
7 the department shall

8 (1) annually review the six-year plans submitted by each district under  
9 AS 14.11.011(b) and recommend to the board a revised and updated six-year capital  
10 improvement project grant schedule that serves the best interests of the state and each  
11 district; in recommending projects for this schedule, the department shall verify that  
12 each proposed project meets the criteria established under AS 14.11.014(b) and  
13 qualifies as a project required to

14 (A) avert imminent danger or correct life-threatening

1 situations;

2 (B) house students who would otherwise be unhoused; for  
3 purposes of this subparagraph, students are considered unhoused if the students  
4 attend school in temporary facilities;

5 (C) protect the structure of existing school facilities;

6 (D) correct building code deficiencies that require major repair  
7 or rehabilitation in order for the facility to continue to be used for the  
8 educational program;

9 (E) achieve an operating cost savings;

10 (F) modify or rehabilitate facilities for the purpose of  
11 improving the instructional program;

12 (G) meet an educational need not specified in (A) - (F) of this  
13 paragraph, identified by the department;

14 (2) prepare an estimate of the amount of money needed to finance each  
15 project;

16 (3) provide to the governor, by November 1, and to the legislature  
17 within the first 10 days of each regular legislative session, a revised and updated six-  
18 year capital improvement project grant schedule, together with a proposed schedule of  
19 appropriations;

20 **(4) encourage each school district to use previously approved**  
21 **school construction design plans and building systems if the use will result in cost**  
22 **savings for the project;**

23 **(5) consider the regionally based model school construction**  
24 **standards developed under AS 14.11.017(d).**

25 \* **Sec. 2.** AS 14.11.013(b) is amended to read:

26 (b) In preparing the construction grant schedule, the department shall establish  
27 priorities among projects for which grants are requested and shall award school  
28 construction grants in the order of priority established. In establishing priorities, the  
29 department shall evaluate at least the following factors, without establishing an  
30 absolute priority for any one factor:

31 (1) emergency requirements;

- 1 (2) priorities assigned by the district to the projects requested;
- 2 (3) new local elementary and secondary programs;
- 3 (4) existing regional, community, and school facilities, and their
- 4 condition; this paragraph does not include administrative facilities;
- 5 (5) the amount of district operating funds expended for maintenance;

6 [AND]

- 7 (6) other options that would reduce or eliminate the need for the
- 8 request;

9 **(7) the district's use of previously approved school construction**  
 10 **design plans and building systems if the use will result in cost savings for the**  
 11 **project; and**

12 **(8) consideration of regionally based model school construction**  
 13 **standards under AS 14.11.017(d).**

14 \* Sec. 3. AS 14.11.013(c) is amended to read:

15 (c) The department may

- 16 (1) modify a project request when necessary to achieve cost-effective
- 17 school construction;

- 18 (2) require that a school construction project be phased for purposes of
- 19 planning, design, and construction; [AND]

- 20 (3) reject project requests and omit them from the six-year schedule
- 21 due to

- 22 (A) incomplete information or documentation provided by the
- 23 district;

- 24 (B) a determination by the department that existing facilities
- 25 can adequately serve the program requirements, or that alternative projects are
- 26 in the best interests of the state;

- 27 (C) a determination that the project is not in the best interest of
- 28 the state; **and**

29 **(4) require that a school construction project include all or part of**  
 30 **the regionally based model school construction standards developed under**  
 31 **AS 14.11.017(d) or use previously approved design plans and building systems**

1           **that would result in capital or operating cost savings for the project.**

2       \* **Sec. 4.** AS 14.11.017 is amended by adding a new subsection to read:

3           (d) The department shall develop and periodically update regionally based  
4           model school construction standards that describe acceptable building systems and  
5           anticipated costs and establish school design ratios to achieve efficient and cost-  
6           effective school construction. In developing the standards, the department shall  
7           consider the standards and criteria developed under AS 14.11.014(b).

8       \* **Sec. 5.** AS 14.11.030(a) is amended to read:

9           (a) The regional educational attendance area and small municipal school  
10          district school fund is created as an account in the general fund to be used, in addition  
11          to other funding sources, to fund projects approved under AS 14.11.025 for the costs  
12          of school construction **and major maintenance** in regional educational attendance  
13          areas and small municipal school districts. **The primary function of the fund is to**  
14          **fund school construction projects.**

15       \* **Sec. 6.** AS 14.11.030(b) is amended to read:

16          (b) Legislative appropriations, including appropriations of interest earned on  
17          the fund, shall be deposited in the fund established under this section. The  
18          **unobligated and unexpended cash** [FUND] balance **of the fund** may not exceed  
19          \$70,000,000.

20       \* **Sec. 7.** AS 14.11.035 is amended to read:

21               **Sec. 14.11.035. Report on school construction and major maintenance**  
22          **funding. Every** [BEGINNING IN] February [2013], the department shall provide to  
23          the governor and the legislature an annual report on the effectiveness of the school  
24          construction and major maintenance grants, state aid for school construction **and**  
25          **major maintenance** in regional educational attendance areas, and state aid for costs of  
26          school construction debt under this chapter. The report must include an analysis of  
27          funding sources and the short-term and long-term fiscal effects of the funding on the  
28          state. Copies of the report shall be made available to the public and to the legislature.

29       \* **Sec. 8.** This Act takes effect immediately under AS 01.10.070(c).

# Fiscal Note

State of Alaska  
2018 Legislative Session

Bill Version:	SCS CSHB 212(FIN)
Fiscal Note Number:	2
(S) Publish Date:	5/8/2018

Identifier: HB212SCS(FIN)-EED-SFF-5-7-18  
 Title: REAA & SMALL MUNI SCHOOL DISTRICT FUND  
 Sponsor: FOSTER  
 Requester: Senate Finance

Department: Department of Education and Early Development  
 Appropriation: Education Support and Admin Services  
 Allocation: School Finance & Facilities  
 OMB Component Number: 2737

**Expenditures/Revenues**

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2019	Included in	Out-Year Cost Estimates					
	Appropriation Requested	Governor's FY2019 Request	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
<b>OPERATING EXPENDITURES</b>	<b>FY 2019</b>	<b>FY 2019</b>						
Personal Services								
Travel								
Services	323.0		24.0	15.0	15.0	15.0	15.0	15.0
Commodities								
Capital Outlay								
Grants & Benefits								
Miscellaneous								
<b>Total Operating</b>	<b>323.0</b>	<b>0.0</b>	<b>24.0</b>	<b>15.0</b>	<b>15.0</b>	<b>15.0</b>	<b>15.0</b>	<b>15.0</b>

**Fund Source (Operating Only)**

1004 Gen Fund (UGF)	323.0		24.0	15.0	15.0	15.0	15.0	15.0
<b>Total</b>	<b>323.0</b>	<b>0.0</b>	<b>24.0</b>	<b>15.0</b>	<b>15.0</b>	<b>15.0</b>	<b>15.0</b>	<b>15.0</b>

**Positions**

Full-time								
Part-time								
Temporary								

**Change in Revenues**

None								
<b>Total</b>	<b>0.0</b>							

**Estimated SUPPLEMENTAL (FY2018) cost:** 0.0 (separate supplemental appropriation required)  
 (discuss reasons and fund source(s) in analysis section)

**Estimated CAPITAL (FY2019) cost:** 0.0 (separate capital appropriation required)  
 (discuss reasons and fund source(s) in analysis section)

**ASSOCIATED REGULATIONS**

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? Yes  
 If yes, by what date are the regulations to be adopted, amended or repealed? 09/30/19

**Why this fiscal note differs from previous version/comments:**

This CS includes provisions to have the department encourage, evaluate, and require use of previous school designs and building systems when that results in an operational or capital cost savings; also includes a requirement for the department to develop and periodically update regional model school standards, costs, and design ratios that achieve efficient and cost-effective school construction.

Prepared By: Tim Mearig, Technical Engineer/Architect I Phone: (907)465-6906  
 Division: Education Support Services / School Finance and Facilities Date: 05/07/2018 04:00 PM  
 Approved By: Dr. Michael Johnson, Commissioner Date: 05/07/18  
 Agency: Department of Education & Early Development

REPORTED OUT OF SFC 05/08/2018

FISCAL NOTE ANALYSIS

STATE OF ALASKA  
2018 LEGISLATIVE SESSION

Analysis

Under AS 14.11.030, this bill seeks to clarify that the regional educational attendance area and small municipal school district fund (REAA Fund) may be used to pay for the costs of major maintenance in addition to the currently eligible costs of school construction, but establishes the primary purpose of the fund as being school construction. The bill also makes necessary corrections to reporting on the REAA Fund so that the costs of major maintenance will be included.

Sections 1-3: These sections include provisions to have the department encourage, evaluate, and require use of previous school designs and building systems when that results in an operational or capital cost savings. Implementation of tools in this area is proposed through the involvement of industry professionals at a cost of \$15.0. These sections will also require development of regulations at a cost of \$4.0 in department charge backs. Total costs for Sections 1-3 in FY2019 = \$19.0

Section 4: This section includes a requirement for the department to develop and periodically update regional model school standards, costs, and design ratios that achieve efficient and cost-effective school construction. This requirement implements the recommendations found in the December 2017 BR&GR report to the legislature which identifies the following costs:

a. Energy modeling and data collection	\$ 80.0
b. Defining geographic costs	\$ 55.0 *
c. Adding cost detail to the model school estimate	\$ 65.0 *
d. Consultant assistance to establish cost vetting	\$ 5.0*
e. Industry specialists for model school cost vetting	\$ 15.0 **
f. Building system standards research	\$ 25.0
g. Building system standards definition	\$ 50.0
	TOTAL: \$295.0

\* Increased slightly from BR&GR report based on additional data

\*\* This is an annual cost

Sections 1-4: Work of the Bond Reimbursement & Grant Review Committee (BRGR) will be required to meet statutory duties in AS 14.11.014 associated with this bill - 2 one-day meetings of the committee and department staff in FY2019 and FY2020 (9 persons x \$0.5 per day average travel and per diem x 2 meetings = \$9.0 annually).

## Work Topics for the BR & GR Committee

As Of: July 19, 2018

<b>BR&amp;GR 2018-2019 Work Items</b>		<b>Responsibility</b>	<b>Due Date</b>
<b>1.</b>	<b>CIP Grant Priority Review – [(b)(1)]</b>		
1.1.	FY <del>19</del> 20 MM & SC Grant Fund Final Lists (4 AAC 31.022(a)(2)(B))	Committee	Mar 20 <del>18</del> 19
1.2.	FY20 MM & SC Grant Fund Initial List	Committee	Dec 2018
<b>2.</b>	<b>Grant &amp; Debt Reimbursement Project Recommendations – [(b)(2)]</b>		
2.1.	Six-year Capital Plan (14.11.013(a)(1); 4 AAC 31.022(2))	Dept	Annually, Nov
<b>3.</b>	<b>Construction Standards for Cost-effective Construction – [(b)(3)]</b>		
3.1.	<u>Model School Costs (DEED Cost Model)</u>		
3.1.1.	<u>Geographic Cost Adjustments</u>		Aug-Nov
3.1.1.1.	<u>Prepare statement of services</u>	Dept	Aug 2018
3.1.1.2.	<u>Solicit, award and manage contract</u>	Dept	Nov 2018
3.1.2.	<u>Site Work + Major Maintenance Line Items</u>		Oct-Jan
3.1.2.1.	<u>Prepare statement of services</u>	Subcommittee	Oct 2018
3.1.2.2.	<u>Solicit, award, manage contract</u>	Dept	Jan 2019
3.1.3.	<u>Cost Model as Cost Control Tool</u>		May-Dec
3.1.3.1.	<u>Analyze, recommend Cost Model as cost control</u>	Subcommittee	May 2019
3.1.3.2.	<u>Draft regulation language for cost control use</u>	Subcommittee	May 2019
3.1.3.3.	<u>Review draft reg language, recommend to state board</u>	Committee	July 2019
<del>3.1.1.1.</del> 3.1.3.4.	<u>Manage regulation development and implementation</u>	Dept	Dec 2019
3.1.4.	<u>Model School Analysis &amp; Updates (Allowable Elements)</u>		Apr-May
3.1.4.1.	<u>Establish procedures for updating the Model School</u>	Subcommittee	Jan 2019
3.1.4.2.	<u>Implement Model School updates w/Committee Resource</u>	Committee	Apr 2019
3.1.4.3.	<u>Evaluate success of Committee-driven updates</u>	Subcommittee	May 2019
3.1.4.4.	<u>Develop statement of services for consultant update</u>	Subcommittee	May 2019
<del>3.1.1.2.</del> 3.1.4.5.	<u>Solicit, award, and manage Model School update</u>	Dept	<del>TBD</del> Apr 2020
3.2.	<b>Cost Standards</b>		
3.2.1.	Cost/Benefit, Cost Effectiveness Guidelines	Dept	TBD
3.2.2.	Life Cycle Cost Guidelines	Dept	TBD
3.3.	<b>Commissioning</b>	Committee	2018
3.3.1.	Project Categories Requiring Commissioning	Committee	2018
3.3.1.1.	Draft Regulation	Committee	July 2018
3.3.1.2.	SBOE Public Comment on Regulation	Dept	Sept 2018
3.3.1.3.	SBOE Action on Regulation	Dept	Dec 2018
3.3.2.	Commissioning Agent Qualifications	Committee	2018
3.3.2.1.	Draft Regulation	Committee	July 2018
3.3.2.2.	SBOE Public Comment on Regulation	Dept	Sept 2018
3.3.2.3.	SBOE Action on Regulation	Dept	Dec 2018
3.3.3.	System Requirements for Commissioning	Committee	2018
3.3.3.1.	Draft Regulation	Committee	July 2018
3.3.3.2.	SBOE Public Comment on Regulation	Dept	Sept 2018
3.3.3.3.	SBOE Action on Regulation	Dept	Dec 2018
3.4.	<del>Materials/Systems Analysis</del> <u>Model School Building Systems Standards</u>		
3.4.1.	<u>State Building Systems Standards</u>		Sep-Jun
3.4.1.1.	<u>Complete CostFormat outline of system standards</u>	Dept	Sep 2018
3.4.1.2.	<u>Review outline Model School system standards</u>	Committee	Oct 2018
3.4.1.3.	<u>Develop statement of services for feasibility analysis</u>	Subcommittee	Nov 2018
3.4.1.4.	<u>Solicit, award, manage feasibility &amp; cost/benefit analysis</u>	Dept	Jun 2019
3.4.1.5.	<u>Review feasibility report on comprehensive standards</u>	Committee	Jul 2019
3.4.1.6.	<u>Solicit, award, manage final standards development</u>	Dept	Dec 2019
<del>3.4.1.1.</del> 3.4.1.7.	<u>Implement system standards via regulation as needed</u>	Dept	Apr 2020
3.4.2.	School District Building Systems	Dept	TBD

3.5. Design Ratios

3.5.1.	Climate Zones		Aug-Nov
3.5.1.1.	Confirm availability of BEES for use in Design Ratios	Subcommittee	Aug 2018
3.5.1.2.	Compare use of BEES vs. ASHRAE; are regs needed	Subcommittee	Sep 2018
3.5.1.3.	Recommend regulation to state board	Committee	Oct 2018
<del>3.5.1.4.</del>	<del>3.5.1.4. Manage regulation development and implementation</del>	Dept	Dec 2018
3.5.2.	Opening to Exterior Wall		Sep-Sep
3.5.2.1.	Prepare statement of services for energy modeling O:EW	Subcommittee	Sep 2018
3.5.2.2.	Compare existing school ratios and energy use	Subcommittee	Nov 2018
3.5.2.3.	Solicit, award, manage energy/cost analysis for O:EW	Dept	Mar 2019
<del>3.5.1.2.</del>	<del>3.5.2.4. Manage regulation development and implementation</del>	Dept	Sep 2019
3.5.3.	Footprint Area to Gross Square Feet		Oct-Oct
3.5.3.1.	Prepare statement of services for energy modeling FPA:GSF	Subcommittee	Oct 2018
3.5.3.2.	Compare existing school ratios and energy use	Subcommittee	Dec 2018
3.5.3.3.	Solicit, award, manage energy/cost analysis for FPA:GSF	Dept	Apr 2019
<del>3.5.1.3.</del>	<del>3.5.3.4. Manage regulation development and implementation</del>	Dept	Oct 2019
3.5.4.	Building Volume to Net Floor Area		Nov-Nov
3.5.4.1.	Prepare statement of services for energy modeling V:NSF	Subcommittee	Nov 2018
3.5.4.2.	Compare existing school ratios and energy use	Subcommittee	Jan 2019
3.5.4.3.	Solicit, award, manage energy/cost analysis for V:NSF	Dept	May 2019
<del>3.5.1.4.</del>	<del>3.5.4.4. Manage regulation development and implementation</del>	Dept	Nov 2019
3.5.5.	Building Volume to Exterior Surface Area		Dec-Dec
3.5.5.1.	Prepare statement of services for energy modeling V:ES	Subcommittee	Dec 2018
3.5.5.2.	Compare existing school ratios and energy use	Subcommittee	Feb 2019
3.5.5.3.	Solicit, award, manage energy/cost analysis for V:ES	Dept	Jun 2019
<del>3.5.1.5.</del>	<del>3.5.5.4. Manage regulation development and implementation</del>	Dept	Dec 2019

4. Prototypical Design Analysis – [(b)(4)]

4.1.	Seek Peer Consensus on Reuse of School Plans and Systems		
4.1.1.	Develop and Schedule AEC Peer Workshop on Reuse	Committee	TBD
4.1.2.	Update Aug 4, 2004 Committee Position Paper	Committee	TBD
4.2.	Develop CIP Application Response to Reuse of School Plans/Systems		
4.2.1.	Draft Criteria to Reward Reuse of School Plans/Systems	Dept	Feb 2019
	Approve Criteria to Reward Reuse of School Plans/Systems	Committee	Apr 2019
4.2.2.	Draft Criteria to Evaluate Reuse of School Plans/Systems	Dept	Feb 2019
	Approve Criteria to Evaluate Reuse of School Plans/Systems	Committee	Apr 2019
4.2.3.	Draft Criteria to Require Reuse of School Plans/Systems	Dept	Feb 2019
	Draft Criteria to Require Reuse of School Plans/Systems	Committee	Apr 2019
4.3.	Codify Regulations As Needed for Reuse of Plans/Systems Policy		
4.3.1.	Make Recommendations to State Board on Prototypes	Committee	July 2019
4.3.2.	Manage Regulation Development and Implementation	Dept	Sep 2019

5. CIP Grant Application & Ranking – [(b)(5) & (6)]

5.1.	FY2021 CIP Draft Application & Instructions	Dept	Apr 2018 <del>19</del>
5.1.1.	Facility Condition Survey Minimum Standards	Dept	Mar 2018 <del>19</del>
<del>5.1.2.</del>	<del>Life Safety/Code Rater Scoring Matrix</del>	<del>Dept</del>	<del>Mar 2018</del>
<del>5.1.3.</del>	<del>5.1.2. Emergency Rater Scoring Matrix</del>	Dept	TBD
<del>5.1.4.</del>	<del>5.1.3. Priority Weighting Factors Review</del>	Dept	TBD
5.2.	FY2021 CIP Final Application & Instructions	Committee	Apr 2018 <del>19</del>
5.3.	FY20 CIP Briefing – Issues and Clarifications	Dept	Dec 2018

**6. CIP Approval Process Recommendations – [(b)(7)]**

6.1.	Publication Updates		
6.1.1.	Program Demand Cost Model for Alaskan Schools	Dept	Annually, Apr
6.1.2.	Alaska School Facilities Preventive Maintenance Handbook Initial	Dept	2018
	Alaska School Facilities Preventive Maintenance Handbook Final	Committee	2018
<del>6.1.3.</del>	<del>Life Cycle Cost Analysis Handbook - Initial</del>	<del>Dept</del>	<del>Apr 2018</del>
	<del>Life Cycle Cost Analysis Handbook - Final</del>	<del>Committee</del>	<del>Jun 2018</del>
<del>6.1.4.</del>	<del>6.1.3. A/E Services for School Construction - Initial</del>	<del>Dept</del>	<del>May 2018</del>
	<del>A/E Services for School Construction - Final</del>	<del>Committee</del>	<del>Aug 2018</del>
<del>6.1.4.</del>	<del>Swimming Pool Guidelines - Initial</del>	<del>Dept</del>	<del>Dec 2018</del>
	<del>Swimming Pool Guidelines - Final</del>	<del>Committee</del>	<del>Feb 2019</del>
<del>6.1.5.</del>	<del>Handbook to Writing Educational Specifications- Initial</del>	<del>Dept</del>	<del>Feb 2019</del>
	<del>Handbook to Writing Educational Specifications - Final</del>	<del>Committee</del>	<del>April 2019</del>
<del>6.1.6.</del>	<del>Guide for School Facility Condition Surveys - Initial</del>	<del>Dept</del>	<del>Oct 2019</del>
	<del>Guide for School Facility Condition Surveys - Final</del>	<del>Committee</del>	<del>Dec 2019</del>
6.2.	New Publications		
6.3.	Regulations		
<del>6.3.1.</del>	<del>Facility “Clean-up” Reg Project</del>	<del>Dept (w/Cmte)</del>	<del>July 2018</del>
	<del>6.3.1.1. Review Public Comments from SBOE Comment Period</del>	<del>Committee</del>	<del>Dec 2018</del>

**7. Energy Efficiency Standards – [(b)(8)]**

7.1. (None)

**Projected Meeting Dates**

~~January – July 2018 (TBD) (Teleconference), Subcommittees~~  
~~March 15, 2018 (Teleconference), Work Session, PM Handbook~~  
~~April 3-4, 2018 (Juneau), 1-1/2 Day, FY20 Application + LCCA~~  
~~May 8, 2018 (Teleconference), A/E Services Publication & PM Handbook Final~~  
~~June 14, 2018 (Teleconference), LCCA Publication Final~~  
~~July 19, 2018 (Teleconference), Commissioning Regs; 4 AAC 31 Reg Clean-up~~  
~~August 2018 (TBD) (Teleconference), Construction Standards work plan, A/E Services Publication Final~~  
October 2018 (TBD) (Teleconference), outline Model School standards, climate zone  
 December 2018 (TBD) (TBD), Half day, CIP  
April 2019 (TBD) (TBD), CIP Application

**From:** [Mearig, Timothy C \(EED\)](#)  
**To:** [Morris, Larry A \(EED\)](#)  
**Subject:** FW: Professional Services Guide for School Projects  
**Date:** Friday, May 18, 2018 11:11:46 AM  
**Attachments:** [AS 36.90.300 Indemnification, defense and hold harmless provision.pdf](#)

---

More on this.

Tim

-----Original Message-----

From: Pat Cusick [<mailto:PCusi@amc-engineers.com>]  
Sent: Friday, May 18, 2018 10:40 AM  
To: Mike Carlson <[Carlson@MCGAlaska.com](mailto:Carlson@MCGAlaska.com)>; Mearig, Timothy C (EED) <[tim.mearig@alaska.gov](mailto:tim.mearig@alaska.gov)>  
Cc: Scott Brodt <[SBrodt@MCGAlaska.com](mailto:SBrodt@MCGAlaska.com)>  
Subject: RE: Professional Services Guide for School Projects

A little better copy

Pat Cusick, PE, CCS  
President | Principal Electrical Engineer AMC Engineers Anchorage, AK | Bellingham, WA t. 907.257.9100 | d. 907.257.9118 | c. 907.240.3493 [amc-engineers.com](http://amc-engineers.com) | [facebook](#) | [linkedin](#)

-----Original Message-----

From: Mike Carlson [<mailto:Carlson@MCGAlaska.com>]  
Sent: Friday, May 18, 2018 9:23 AM  
To: Tim.Mearig@alaska.gov  
Cc: Pat Cusick <[PCusi@amc-engineers.com](mailto:PCusi@amc-engineers.com)>; Scott Brodt <[SBrodt@MCGAlaska.com](mailto:SBrodt@MCGAlaska.com)>  
Subject: Professional Services Guide for School Projects

Tim,

The proposed document appears to be very comprehensive and well written. A decade or so back there was a legislative action that addressed A/E contracts. It was an effort spearheaded by Boyd Morgenthaler (and others) in response to a series of public agencies (MSB is the one I recall) going over the top on the indemnification clause. My recollection is that the legislation required a comparative fault clause, i.e. If both parties are at fault then the damages are apportioned between the two parties. Your language suggests that owners can indemnify except for their sole negligence (with sole underlined), indicating if the owner is only partly to blame they can shift the risk to the A/E. I don't think that is good public policy and probably not in compliance with the legislation, but it's been so long I can't dig up the specifics. I do recall that shortly thereafter DOT and UAA modified their indemnification language to comply & if it helps I can send you excerpts from their contracts. Please look this over and make appropriate changes.

Thanks for putting this document together.

Michael Carlson

#### **Article 4. Required Contract Provision.**

**AS 36.90.300. Indemnification, defense, and hold harmless provision in certain construction-related contracts.** {This new law went into effect on 26 May 2008}

(a) A public agency shall include in a construction-related professional services contract entered into by the public agency a provision under which the consultant agrees to indemnify, defend, and hold harmless the public agency from claims or liability for the negligent acts, errors, or omissions of the consultant. The provision must include an apportionment of the indemnification, defense, and hold harmless obligation on a comparative fault basis.

(b) A provision that reads substantially as follows satisfies the requirement of (a) of this section: The consultant shall indemnify, defend, and hold harmless the contracting agency from and against any claim of, or liability for, negligent acts, errors, and omissions of the consultant under this agreement. The consultant is not required to indemnify, defend, or hold harmless the contracting agency for a claim of, or liability for, the independent negligent acts, errors, and omissions of the contracting agency. If there is a claim of, or liability for, a joint negligent act, error, or omission of the consultant and the contracting agency, the indemnification, defense, and hold harmless obligation of this provision shall be apportioned on a comparative fault basis. In this provision, "consultant" and "contracting agency" include the employees, agents, and contractors who are directly responsible, respectively, to each. In this provision, "independent negligent acts, errors, and omissions" means negligence other than in the contracting agency's selection, administration, monitoring, or controlling of the consultant, or in approving or accepting the consultant's work.

(c) In this section,

(1) "construction" means the process of building, altering, repairing, maintaining, improving, demolishing, planning, and designing a public highway, a structure, a building, a utility, infrastructure, or another public improvement to real property, but does not mean the routine operation of a public improvement;

(2) "consultant" means a person who contracts with a public agency to provide professional services;

(3) "professional services" has the meaning given in AS 36.30.990;

(4) "public agency" means a department, institution, board, commission, division, authority, public corporation, committee, school district, political subdivision, or other administrative unit of a municipality, of a political subdivision, or of the executive or legislative branch of state government, including the University of Alaska, the Alaska Aerospace Development Corporation, the Alaska Housing Finance Corporation, the Alaska Industrial Development and Export Authority, the Alaska Energy Authority, the Alaska Railroad Corporation, and a regional educational attendance area.

**From:** Jay Lavoie  
**To:** [Weed, Lori \(EED\)](#)  
**Cc:** [Mearig, Timothy C \(EED\)](#)  
**Subject:** Re: DEED Seeking Comment on New Publication: Professional Services for School Capital Projects  
**Date:** Thursday, May 31, 2018 10:05:46 AM

---

Lori

Thanks for the notice. I reviewed the document and have no comments.

Jay

On Tue, May 29, 2018 at 5:15 PM, Weed, Lori (EED) <[lori.weed@alaska.gov](mailto:lori.weed@alaska.gov)> wrote:

TO: Interested Parties

This is a reminder that the public comment period to provide input into the 1<sup>st</sup> edition of the department's *Professional Services for School Capital Projects, Guidelines for School Districts* ends June 11. Your feedback, both general or specific, is valued in the development of this new publication.

We look forward to hearing from you.

Thank you,

Lori Weed

FSS/Facilities, School Finance Specialist II

Department of Education and Early Development

(907) 465-2785 | [lori.weed@alaska.gov](mailto:lori.weed@alaska.gov)

---

**From:** Weed, Lori (EED)

**Sent:** Wednesday, May 09, 2018 11:08 AM

**To:** Timothy C Mearig (EED) ([tim.mearig@alaska.gov](mailto:tim.mearig@alaska.gov)) <[tim.mearig@alaska.gov](mailto:tim.mearig@alaska.gov)>

**Subject:** Seeking Comment on New Publication: Professional Services for School Capital Projects

TO: Interested Parties

The Department of Education and Early Development has drafted a new publication, *Professional Services for School Capital Projects, Guidelines for School Districts*. The publication provides guidance for procuring and managing the professional services of planning and design professionals (construction manager, architect, engineer) according to Alaska statute and regulations for school construction and major maintenance projects.

If you are interested in commenting on the attached draft, please e-mail your comments to [Tim.Mearig@alaska.gov](mailto:Tim.Mearig@alaska.gov) no later than June 11, 2018. This notice is also available on the [Alaska Online Public Notice](#) System.

Thank you, we value your input to improve this resource for Alaska school districts,

Lori Weed  
FSS/Facilities, School Finance Specialist II  
Department of Education and Early Development  
(907) 465-2785 | [lori.weed@alaska.gov](mailto:lori.weed@alaska.gov)

**From:** Gary Eckenweiler  
**To:** [Mearig, Timothy C \(EED\)](#)  
**Subject:** public comments on CIP Guide  
**Date:** Monday, June 04, 2018 2:48:56 PM

---

Hello Tim,

This document is very helpful, wish I would have read it through 3 years ago. This guide will be referenced often as we begin the process for our next anticipated expansion in Brevig Mission.

The body of the document is easy to follow and helpful. There was 2 gender "his", which should be changed pg 10.

Thank you

--

*Gary Eckenweiler*  
*Director Facilities / Maintenance*  
*Bering Strait School District*  
907 624-4249  
[geckenweiler@bssd.org](mailto:geckenweiler@bssd.org)

**From:** fenoseff\_thomas  
**To:** [Mearig, Timothy C \(EED\)](#)  
**Cc:** [Weed, Lori \(EED\)](#); [vakalis\\_george](#)  
**Subject:** RE: Seeking Comment on New Publication: Professional Services for School Capital Projects  
**Date:** Monday, June 11, 2018 5:52:01 PM  
**Attachments:** [image002.png](#)

---

Tim:

I had a number of my team review this document and found it to be a very useful tool. I plan to incorporate many aspects of this document into the most recent version of our project procedures manual for our PMs and staff. Thanks for putting together such a helpful and quality resource.

Only have a few recommendations:

First, basic editing stuff:

1. Page 6. Educational Specifications. First word “An program for design.....” I believe should be “Any program...”
2. Page 12. Supplemental Services. First line. “the AIA identifies three additional phases...” but, you list 4 phases below.

Second, more opinion based:

1. Page 22. 3<sup>rd</sup> paragraph. “Design costs for basic services should be approximately the same for a similar project anywhere in the state, because the Alaskan cities in which A/E offices are located do not differ markedly in cost of living.” Although probably not an issue for us in Anchorage but, we would expect even the basic services for design to cost more in outlying areas due to the remoteness of required site visits.

That said, I think you did a great job in putting this together.

Respectfully,

**Tom Fenoseff, PMP**

Anchorage School District  
Senior Director, Capital Planning & Construction  
Office: (907) 348-5223  
Fax: (907) 348-5227  
[Fenoseff\\_Thomas@asdk12.org](mailto:Fenoseff_Thomas@asdk12.org)

1301 Labar St.  
Anchorage, AK 99515-3517



**Educating All Students for Success in Life**  
[www.asdk12.org](http://www.asdk12.org)

---

**From:** Weed, Lori (EED) [mailto:lori.weed@alaska.gov]  
**Sent:** Wednesday, May 9, 2018 11:08 AM  
**To:** Mearig, Timothy C (EED) <tim.mearig@alaska.gov>  
**Subject:** Seeking Comment on New Publication: Professional Services for School Capital Projects

TO: Interested Parties

The Department of Education and Early Development has drafted a new publication, Professional Services for School Capital Projects, Guidelines for School Districts. The publication provides guidance for procuring and managing the professional services of planning and design professionals (construction manager, architect, engineer) according to Alaska statute and regulations for school construction and major maintenance projects.

If you are interested in commenting on the attached draft, please e-mail your comments to [Tim.Mearig@alaska.gov](mailto:Tim.Mearig@alaska.gov) no later than June 11, 2018. This notice is also available on the [Alaska Online Public Notice](#) System.

Thank you, we value your input to improve this resource for Alaska school districts,  
Lori Weed  
FSS/Facilities, School Finance Specialist II  
Department of Education and Early Development  
(907) 465-2785 | [lori.weed@alaska.gov](mailto:lori.weed@alaska.gov)



# **Professional Services for School Capital Projects**

**Guidelines for School Districts**

**PRIMARY  
AUTHOR**

Tim Mearig, AIA  
Architect  
Alaska Department of Education & Early Development  
Juneau, Alaska

**CONTRIBUTORS**

Larry Morris  
Architect Assistant  
Alaska Department of Education & Early Development  
Juneau, Alaska

Facilities Staff  
Alaska Department of Education & Early Development

**ACKNOWLEDGEMENTS**

Thanks to the Bond Reimbursement and Grant Review Committee members who reviewed the publication in its draft form and to those in the Department of Education who were responsible for the predecessor to this document including the work completed by Edwin Crittenden, FAIA, Michael Morgan, PMP, and Sam Kito III, PE under their tenure at the Department of Education & Early Development.

---

*This document was originally prepared under contract by the Southeast Regional Resource Center and published under the name Selection & Compensation of Architectural Services for School Facility Construction by the State of Alaska Department of Education in 1985.*

*No part of this manual may be reproduced or transmitted in any form or by any means without permission in writing from the Alaska Department of Education & Early Development, Juneau, Alaska.*

---

# Table of Contents

---

<b>Introduction.....</b>	<b>1</b>
<b>Getting Started.....</b>	<b>2</b>
<b>Pre-Design .....</b>	<b>6</b>
<b>The Project Team.....</b>	<b>9</b>
<b>The Scope of Services .....</b>	<b>11</b>
<b>The Selection Process .....</b>	<b>14</b>
<b>Negotiation of Services and Compensation .....</b>	<b>19</b>
<b>Contract for Design Services.....</b>	<b>24</b>
<b>Post-Occupancy Services.....</b>	<b>27</b>
<b>Project Budget and Schedule .....</b>	<b>28</b>
<b>Appendix A - Table of Typical Design Services Provided by Architects and Engineers .....</b>	<b>30</b>
<b>Appendix B - Sample A/E Firm Rating System.....</b>	<b>31</b>
<b>Appendix C - Sample Schedule of Compensation .....</b>	<b>37</b>
<b>Appendix D - Sample RFP for Construction Manager.....</b>	<b>38</b>
<b>Notes .....</b>	<b>43</b>

# Introduction

---

The construction of an educational facility is a major milestone for a school administrator and the local school board. A new school or significant renovation project, perhaps more than any other act of school officials, affects the [delivery structure](#) of the educational program for twenty or thirty years into the future. Policies may change; buildings remain. A well-planned, well-constructed educational facility can serve as a lasting legacy to the wisdom and care of the administration and community which planned it. Unfortunately, the converse is also true.

The purpose of these guidelines is to assist users in successfully completing school capital projects by focusing on starting those projects well—by understanding the decisions needed at the planning stage, and how the various entities which contribute to those decisions can collaborate. The guidelines highlight some of the more important administrative and legal aspects of capital projects as they relate to the various professional services that may be necessary for successful project execution. To some who may have great experience and familiarity with administration of capital projects, the guide's contents may seem obvious. Others may have had little experience in this field and will find the concepts new. In either event, if the guide assists school officials in thinking through the capital project process from the earliest stages to the completion of the project, the aim will have been accomplished.

In the selection of, and contracting for, pre-design, design, and project management services, it's worth noting that sections of Alaska statute and administrative code contain stipulations that are monitored by the department on projects with state aid and with which recipients of that state aid must comply. Primarily, these stipulations are aimed at preserving the open and competitive selection of entities providing these services. Two primary references apply: AS 14.11.020 (Assumption of responsibilities) and 4 AAC 31.065 (Selection of designers and construction managers).

Professional services are often needed at every phase in the life-cycle of capital projects: planning, design, construction, operation and maintenance, and capital renewal or replacement. The format of this publication generally follows this project life-cycle and provides information and guidance on professional services and their procurement related to each phase. [With respect to project delivery, the guide is rooted in the traditional project delivery method known as Design-Bid-Build. This method, which is the baseline, default method described in department regulations, establishes contracts for professional design services independent of those for construction services. It also keeps the design and construction phases of a project separate and sequential. The department has defined, and can approve, other project delivery methods. For more information, see the department's publication \*Project Delivery Method Handbook\*.](#)

## Getting Started

---

The adage, “A thing well begun is a thing half done,” is an apt philosophy for school capital projects. This section outlines three elements for consideration by school districts on how to get started on school capital projects and how professional services might come to bear in each of them.

### **Capital Planning**

School capital projects emerge from the process of managing school facilities, and their supporting infrastructure, as capital assets. As a rule of thumb, the first five years after taking ownership of a new or renewed school facility are focused on operating the facility and assimilating it into the organization’s daily mission—in our case, education. Warranty issues, planned maintenance, and minor repairs occur during this period along with the tasks associated with operating the facility. The need for professional services is usually very limited during this period. On occasion, building system specialists or construction trades are needed to trouble shoot operational issues or to provide training on system operation and maintenance. Following this initial operations phase, the need for repair of facility components with short lifespans start to arise. Often, user requests and mission-oriented needs begin to surface. These are signs the facility, or its infrastructure, has entered the capital asset management phase. Responding to the range of needs during this phase can require a diverse set of skills. Each school district should consider establishing a capital planning group or committee to review planning data and asset information for facilities in this phase. This information and data may include: space utilization, student population projections, and facility renewal needs (e.g., repairs, upgrades, improvements, and replacements). The primary responsibility of the committee would be the development of a multi-year capital improvement program. For additional background on developing, implementing, and sustaining a capital planning program, see the department’s publication, *Alaska School Facilities Preventive Maintenance and Facility Management Handbook*. If staffing and capabilities exist, the district could produce this data internally. If not, the initial need for professional services is created. Professional services in the planning phase could include educational adequacy assessments, demographic analysis, and facility condition surveys. See **Pre-Design** for additional details regarding these services.

In order to be eligible for state-aid for a school capital project, a district must produce a six-year capital improvement plan (AS 14.11.011). Projects in the first year of that plan, for which state-aid is sought, must be described in detail on a capital improvement project (CIP) application (4 AAC 31.021). The department provides sufficient tools, training, and guidelines regarding the preparation of a CIP application such that an application could be adequately completed using district resources. In practice, very few districts complete their own CIP applications. Instead, most districts seek the professional services of educational facility planners, architects, and engineers, to assist them in this vital area of capital planning.

## Getting Started

---

### Project Management

The transition from capital asset management to project delivery—from planning to execution—is most often triggered by funding. This funding could come from a variety of sources. Often, with many of these sources, the offer of funding comes with a set of stipulations and constraints. In addition, the process of developing and delivering a capital project, by necessity, involves a range of specialized expertise to achieve the goals of functionality, constructability, environmental and life safety, and operational efficiency—just to name a few. Projects can be complex. The professional service of project management has arisen to coordinate the efforts and entities needed to achieve the capital project’s goals. The scope and complexity of the project will determine the need for project management services.

Called “construction management” in the applicable Alaska statutes and regulations, these project management services may be provided by qualified school district personnel or they may need to be solicited and retained by districts under professional services contracts. For school administrators or districts with limited capital project experience, hiring a construction manager is likely to be a vital component in both getting started on a school capital project and in successfully completing that project. The Construction Management Association of America publishes a document entitled *An Owners Guide to Construction and Program Management*, which is available on the CMAA website (<http://cmaanet.org>).

A construction manager (CM) can serve as responsible party for implementation of the project from hiring of consultants to coordination of all team members. A CM can be hired either as an employee of the district, or retained under a consultant contract; however, there are statutory limitations on the amount spent for CM by consultant under AS 14.11.020(c):

(c) The construction management costs of a project assumed under this section may not exceed four percent of the amount of appropriations for the facility if the amount of appropriations is \$500,000 or less. The construction management costs of a project assumed under this section may not exceed three percent of the amount of appropriations for the facility if the amount of appropriations is over \$500,000 but less than \$5,000,000. The construction management costs of a project assumed under this section may not exceed two percent of the amount of appropriations for the facility if the amount of appropriations is \$5,000,000 or more. For purposes of this subsection "construction management" means management of the project's schedule, quality, and budget during any phase of the planning, design, and construction of the facility by a private contractor engaged by the municipality or regional educational attendance area.

Highly qualified CMs are capable of assisting with project management process from cradle to grave. Following is a sampling of the types of services a district might seek from a CM professional:

- Project delivery analysis
- Site selection analysis
- Land and property issues
- [Recommend project delivery method](#)
- RFPs in support of project delivery methods
- Educational specifications
- Budget analysis and project controls

## Getting Started

---

- Project status meetings
- Permitting coordination
- Design document reviews
- Owner general requirements for bids
- Provide owner representation during construction
- Perform inspections and quality control
- Maintain project records
- Assist in substantial completion
- Project closeout & documentation
- Manage warranties
- Assist with O&M setup

Since project management services through a CM, or related entity, are often a school district's first need after securing funding, and because even that step often requires knowledge and experience not found in every district, the department has developed a request for proposals (RFP) for CM services. This template can be viewed in Appendix D and is available for download as a separate file from the department's web site. The template contains boilerplate and editable elements that cover the: 1) solicitation, receipt, and scoring of proposals, 2) development of anticipated services, and 3) contract administration elements (e.g., insurance, terms of agreement, etc.).

### The Project Team

The purpose of treating the topic of the project team under the **Getting Started** section of the guide is to highlight one final area of professional services to which a district might turn in order to effectively start a capital project. That service professional is an architect. There are many documents that discuss the process of completing a school capital project. Often, these documents refer to a project team. Some publications go further and identify the team members and their role in the process. Throughout this guide, sections of some of these documents are quoted or referenced as appropriate.

One such document, *You and Your Architect*, a publication of the American Institute of Architects (AIA), is pertinent to establishing a starting point for a school district embarking on a school facility project. It states, "the best way to begin a new project is for you - the owner - to reflect on what you bring to it." The document is available on the AIA website ([www.aia.org](http://www.aia.org)).

Following is an excerpt from this document under a [chapter-section](#) entitled, "Getting Started":

Whether you have extensive experience with design and construction or are coming to both for the first time, it can be helpful to ask yourself a few questions before interviewing prospective architects. You do not need firm or complete answers at this point. Rather, these questions will help to ensure that your initial communications will be clear and productive and enable you to select the design professional best suited to your needs.

- How will your project be used?
- Do you have specific ideas on how to translate these activities into spaces and square footage?
- Do you have a site? Or will this also be a subject of discussion with the architect?
- Have you decided upon a schedule and budget?
- What are your overall aspirations for the project—aesthetic and emotional as well as practical?

## Getting Started

---

- [Who will be making the critical decisions - you alone, your family, or a committee of some sort?](#)
- [Where will the resources come from to create and operate your project?](#)
- [Are you willing to pay a little extra up front on systems that will save energy or bring other operations savings and pay back over time?](#)
- [Do you have previous experience with design and construction? If so, in what ways were you successful, and was the experience in any way disappointing?](#)

[A good architect will listen closely to your answers, help you solidify your goals and desires, and translate them into an effective building. Look for a good listener, and you'll find a good architect.](#)

~~Naturally, every owner starts from a different outlook. Some have had vast experience with design and construction and know what they want and how to go about getting it. Many owners have much less experience. Whatever your situation, it makes sense to begin with some self-examination to assess what you already know about your project and what you will establish with your architect's help. The questions outlined below can serve as a guide. You don't need firm or complete answers to these questions at this point. Indeed, your architect will help you think them through. A general understanding of where you are, however, will help you select the best architect for the project.~~

### Ask yourself these questions

- ~~What activities do you expect to house in the project? Do you have specific ideas on how to translate these activities into specific spaces and square footage areas? In any event, an architect with experience in your particular building type can help you immensely to refine your design program (the collection of parameters from which design is derived).~~
- ~~Has a site been established, or will this decision also be a subject of discussion with the architect and others?~~
- ~~Have you and those with whom you are talking fixed a construction schedule and budget?~~
- ~~What are your design aspirations? What thought have you given to the design message and amenities you are seeking in this project?~~
- ~~What are your overall expectations for the project? What are your motivations, both basic and high-minded, and what role does this project play in achieving your overall goals?~~
- ~~How do you make decisions? Will a single person sign off on decisions? Do you have a building committee?~~
- ~~How much information do you need to make decisions?~~
- ~~Where will the resources come from to create and operate this project? (Your architect can help you considerably here, for instance, to tap into reliable capital assistance or leverage modest first-cost upgrades into enormous life-cycle savings.)~~
- ~~How much experience do you have in design and construction? Have you done this before? If so, where have you been most successful, and where were you disappointed?~~

More detailed information and guidance regarding establishing a project team is provided later in this guideline under a major section heading by this same name.

## Pre-Design

---

Prior to engaging a design team, the district is well served in properly developing the project by identifying facility conditions, the goals of the project, and the needs of the district. There are services that can assist districts in this pre-design phase of the project. While these services can be included in the design contract, it may be better for the district to perform these prior to selecting a design team. Clear and well-defined goals and conditions will assist both the district and the design team to develop scope of the project and reduce unknowns. [The preceding section described how a project management consultant can often help with pre-design services.](#)

These initial consultant services can assist new facilities with site surveys and geological surveys or existing facility renovations with condition surveys. For both new educational space or reconfiguration of existing educational space, an educational specification is not only required by statute but is extremely important to a successful project.

### Educational Specifications

A program for design, or Educational Specifications, as it is referred to in Department of Education & Early Development (DEED) regulations, should spell out the district's complete educational requirements. The department has published a guide for developing educational specifications, which is available on the internet at:

<https://education.alaska.gov/facilities/publications/EdSpec.pdf>

By regulation, 4 AAC 31.010, DEED requires that “the chief school administrator, under the direction of the local school board, be responsible for preparation of educational specifications for all new public elementary and secondary schools, as well as additions and rehabilitations of existing facilities” for which state aid is sought. The specifications must include, at a minimum, the following elements:

1. The current year and five-year projected elementary and secondary enrollment to be served.
2. A statement of educational philosophy and goals.
3. The activities that will be conducted.
4. The curriculum that will be housed.
5. The anticipated community uses.
6. The specific and general architectural characteristics required.
7. The educational spaces needed, their approximate size in square feet, their recommended equipment requirements, and their spatial relationships to other facility elements.
8. The size, use, and condition of existing school spaces in the facility (additions and rehabilitations only).
9. The recommended site and utility requirements.
10. The proposed budget and method of financing.

## Pre-Design

---

### 11. The technology goals of the curriculum and their facility requirements.

The completed educational specifications become the district's blueprint for the design of the school facility.

In many cases, much of the pre-design work for a facility may be accomplished by the district before the selection of the design team. Prior to, or in conjunction with seeking funds, most districts will establish the need for additional or reconfigured space based on enrollment projections, changes in the educational program, review of existing space, and an analysis of alternative facilities or space usage. At a minimum, districts should have a fairly detailed idea of the educational space requirements of the new or remodeled facilities which, in turn, provide estimates of square footage size and potential costs. While it is sometimes advisable to involve an architect in preliminary feasibility studies, particularly in the analysis of existing facilities and the determination of square footage, the essential pre-design work revolves around educational rather than architectural considerations.

Should a district desire other outside assistance at this point of the project, the services of an educational facilities planner or architect familiar with school planning might be beneficial. These professionals can conduct an assessment of need for new or reconfigured space, perform educational feasibility studies, and provide preliminary interpretation of curricular needs into educational specifications.

The development of educational specifications is the key to a successful school construction or remodeling project. It is during this phase of project planning that everyone concerned with the new space -- teachers, administrators, students, board members, and the community at large -- has the opportunity to present ideas, thoughts and dreams concerning the facility. Well-developed educational specifications ensure that the completed facility will support the planned educational program of the district. The Educational Specifications can also provide the basis for a creative, original design which may make a significant contribution to the learning process. Districts that spend time in conceptualizing the program to be offered in the new space, establishing the relationships between the various educational activities which will be carried out therein, and giving attention to the smallest detail which can maximize the educational value of the envisioned spaces will reap considerable benefits in the design and construction phases of the project, as well as when the building is finally in use. An educational facility planning professional who is trained in conceptualizing and describing educational spaces can be of great help to the district and community in this activity.

### **Condition Surveys**

For projects involving renovation of existing facilities, a condition survey helps to define conditions of the facility and its components. This can help to develop project scope and give a clearer definition of design needs during the selection of a design team. The department has a publication, *Guide for School Condition Surveys*, to assist districts in developing a condition survey. As stated in the guide's introduction, "It is anticipated that the condition survey will be accomplished by a team of professionals and/or tradespersons with the necessary expertise to assess the various areas. However, with the exception of the regulatory data section, most of the

## Pre-Design

---

checklists could be utilized by experienced maintenance personnel which districts may have on staff'. Condition surveys are required for major renovations and highly recommended for all other renovations and component replacement projects.

### Additional Pre-Design Services

Other pre-design services that can assist districts when developing projects and add clarity when engaging in design services include:

- Surveying: For existing sites this could be re-establishing property lines and site improvements. For new sites this establishes property lines, elevations, and any right of ways or special conditions.
- Site Investigation / Geotechnical Survey: This service helps to establish design criteria for foundations, septic systems, wells, water infiltration, and subsurface water elevations that might influence design or construction. This information can help to decide site selection or suitable locations within a site prior to design. Site investigation is a distinct budget category in DEED-funded projects, so separately tracking the expense is helpful.
- Archeological Survey: As in the above, the archeological survey could assist in site selection and is required for new school sites.
- Project Delivery Method Analysis: It is sometimes important to consider various project delivery methods such as Design-Build or Construction Manager/General Contractor arrangements during pre-design. As an example, entering into a design contract for complete design and construction administration services could preclude the use of Design-Build at a later point in the project.

Once the project scope and conditions have been established, the selection process for engaging a design team can begin.

## The Project Team

---

An initial project team should consist of individuals and groups with a stake in the outcome of the project, as well as those with the expertise to provide those stakeholders with the information necessary to make sound decisions. There are alternate compositions and names for project teams. However, all stakeholders should have a place on the team. Team members may include representatives from the district administration, the educational specifications committee, the proposed principal and faculty, the students, the parents, community members, and necessary educational and facilities professionals. In addition, a project coordinator is essential for good management and continuity. At the appropriate point, the design team should be added to the project team.

The school district project coordinator should be the lead or chairperson of the project team and the principal contact for the project team with authority for approvals of both design and construction matters. Generally, this position's responsibilities can be handled by an in-house representative with assistance from the design team during construction. However, many districts have found that a professional project manager (See the Construction Management discussion in the Introduction) can relieve the district of burdensome coordination activities, thus allowing district personnel to focus on educational delivery.

The project team has overall responsibility for coordination of all aspects of the project from initial needs determination to post-occupancy evaluation. Many of the duties may be assigned to individual project team members or subcommittees. In smaller districts, the team may delegate responsibilities to the project coordinator or the district superintendent, or the school board may assign responsibilities to that individual.

In addition to being the official administrative contact with the design team, the coordinator should be a liaison between other groups and committees providing information such as educational specifications, site information, and educational programming. Beyond the design phase, the project coordinator should serve as the owners representative for the construction contract.

Reference should be made to a document listed in Department Of Education & Early Development (DEED) regulations as a guideline entitled *Guide for Planning Educational Facilities*, CEFPI, 1991, specifically the section "The Planning Professionals." The design team is generally headed by a principal or associate of an architectural firm and consists of members of his firm and consultants. Quoting from the document mentioned above:

A district should be carefully review proposed services of such a project manager and the architect; traditional services of each can widely overlap. The architect's services are explained in the next chapter. The design team members, besides those who are directly involved in architectural design and coordination as associates of the architect, are normally consultants to the architect who serves as team leader. If a district feels they can best be served by certain named consultants, these should be identified in request for proposal documents as a district choice but

## The Project Team

---

not as a requirement. Architects may feel more comfortable with certain consultants based on their past experiences. As prime consultant the architect is responsible for the work of his consultants although they in turn are responsible to him. The architect's consultants, or they may be in-house staff, usually consist of structural, mechanical and electrical engineers. In addition, for some projects, consultants may include civil soils, survey, and utility engineers as well as those with specialties including cost estimating, acoustics, kitchen/food service, technology, school planning, and construction management or contract administration.

An architect A/E consultant is an important member of the project or planning team, from initial conceptualization of the project through substantial completion of the building itself. It is the architect who has the primary responsibility for translating educational program concepts and needs into educational facilities that are effective learning spaces. An architect must understand the desires of the client as well as the technical aspects of the project; therefore, in selecting an architect, intangible considerations, such as mutual respect, trust and compatibility of working styles, can be as important as technical competence. Dr. Basil Castaldi, a well-known authority on educational facilities planning, states it well:

In and of itself, however, the employment of an architect does not automatically assure a board of higher authority that he will design a school to satisfy their institutional needs. The architect should be creative, competent, flexible, understanding, perceptive of educational needs, open-minded, aesthetically oriented but cost-conscious, imaginative, practical, and cooperative in spirit.<sup>3</sup>

Success in selecting an architect, whether an individual or a firm, who can bring the attributes listed above to a school construction project depends in large part on how thoroughly a district conducts pre-selection activities.

There are times when a district will be looking for the services of an engineering consultant, such as when considering structural, mechanical, electrical, foundation, or site work that may not require the participation of an Architect. In such cases, the district may consider the directions in the following sections of this guideline to apply equally to the selection of an engineering consultant. Therefore, terminology from this point forward will refer to the Architectural/Engineering or A/E consultant.

## The Scope of Services

---

Districts that wish to obtain the most effective design services will spend time *before* the selection of the A/E consultant in determining the range of services it will need. Certain services are required from the design professional during each phase of the project. In addition, A/E consultants can provide a broad range of supplemental services. These basic and additional services are well described in various publications including a document previously mentioned entitled *You and Your Architect* published by the American Institute of Architects (AIA). Districts are encouraged to review descriptions of services available prior to A/E consultant selection to obtain at least a general idea of those services which may be requested.

The services that may be required of a design firm can be characterized as “basic,” i.e., those which are performed normally by a design professional in order to move the project through construction, and “additional” or “supplementary”, i.e., services which may be required or desired to enhance or respond to critical issues related to the project.

### Basic Design Services

Basic design services are described as follows:

1. **Schematic design services** consist of the preparation of drawings and other documents that serve to illustrate the general scope, scale, and relationship of project components. The documents from this phase of work need to be reviewed and approved by the department before the district authorizes the consultant to proceed to the design development phase [4 AAC 31.030(b)(3)]. Work in this phase incorporates information gathered from the district in the form of Educational Specifications, public meetings, and stakeholder meetings. Typical services include: civil, structural, mechanical and electrical concepts; architectural, interior in landscape design concepts; estimate of probable construction costs based on the schematic design documents; and consultation and review.
2. **Design development services** consist of the preparation, from the approved schematic design documents, drawings and other documents that serve to fix and describe the size and character of the entire project as to structural, mechanical, and electrical systems, materials and such other essentials as are appropriate. —The documents from this phase of work need to be reviewed and approved by the department before the district authorizes the consultant to proceed to the construction document phase [4 AAC 31.030(b)(4)]. Typical services include: civil, structural, mechanical and electrical design development; architectural, interior and landscape design development; estimate of probable construction costs; and regulatory agency review.
3. **Construction document services** consist of the preparation, from the approved design development documents, drawings and specifications that provide in detail, the requirements for construction of the entire project. The documents from this phase of work need to be reviewed and approved by the department before the district authorizes the consultant to proceed to the bidding phase [4 AAC 31.030(b)(5)]. Typical services include: complete civil, structural, mechanical and electrical construction documents; architectural

## The Scope of Services

---

working documents; more detailed estimate of probable costs; and document review/coordination.

4. **Bid services** consist of the preparation, from the approved construction documents, bid documents for obtaining bids and awarding contracts for construction for approval by the district. Typical services include: preparation of bidding documents; bid procedure; bid evaluation; assistance, with owner's attorney, on construction contract agreements; and analysis of alternatives/substitutions.
5. **Construction services** consist of providing assistance to the district in its administration of the construction contract commencing with award and terminating following final acceptance of project and contracting agency's approval of the architect's final invoice for all services throughout the construction phase. Typical services include: limited construction observation; shop drawing review; review of contractor pay requests; change order review/approval; testing and inspection coordination; and project close out assistance.<sup>4</sup>

### Supplemental Services

In addition to the above five basic services areas, there are ~~AIA identifies three-four~~ additional phases of a construction project during which the additional services of a design or other facility professional~~an architect~~ may be required:

1. **Pre-design**, where an architect may be involved with facility programming; space schematics; project budgeting; surveys of existing facilities; economic feasibility studies; and project scheduling.
2. **Site analysis**, in which architectural services are typically required for site analysis and selection; site development and utilization studies; environmental studies; zoning processing assistance; utility studies; and project budgeting.
3. **Post-construction**, at which time the architect provides maintenance and operational programming for the electrical and mechanical aspects of the facility; start-up assistance; record drawings; warranty review; and post-construction evaluation.<sup>5</sup>
4. Commissioning, in which a qualified professional is retained to ensure the building is operating as designed at the point of turn over to the owner. These services can start in pre-design and continue into post-construction as indicated above.

Both Alaska's Department of Transportation and Public Facilities (DOT&PF) and AIA identify additional or supplemental services which may be requested of design firms. Such services will vary from project to project, and may include, but are not limited to the following:

1. perform preliminary energy audits;
2. attend meetings or conduct hearings to facilitate design review and obtain required approvals;
3. provide detailed estimates of construction costs;
4. prepare record prints (As-Built drawings) of significant changes made during the construction process;

## **The Scope of Services**

---

5. serve as a member of an Art Advisory Committee to determine the type and site of public art works;
6. determine if a proposed site has historic, prehistoric or archeological value under applicable federal or state statutes;
7. select furnishings, fixtures and equipment;
8. design special furnishings;
9. perform life-cycle costs and cost-benefit analysis;
10. conduct special studies or design special computer applications;
11. prepare specialized or elaborate graphics or models for presentations;
12. provide daily or periodic on-site observations of construction activities.

### **Statement of Services**

The “Standard Statement of Services for General Architectural and Engineering Design” of [DOT&PF’s DOT’s Professional Services Agreement](#) provides a more detailed description of both basic and additional services, as does the standard form of contract of the AIA.

The AIA publishes a *Compensation Management System* which provides a checklist of both basic and supplemental services. The checklist provides a convenient method for districts in determining the scope of architectural services desired. A copy of the AIA checklist from the above-referenced document is attached in the appendix. Contract documents may be obtained from:

American Institute of Architects  
 1735 New York Avenue  
 N.W., Washington, D.C. 20006

or from

Alaska Chapter of American Institute of Architects  
 807 B Street,  
 Anchorage, AK 99501  
[www.aia.org](http://www.aia.org)

As mentioned earlier, districts should have a fairly firm idea of the scope of services to be requested of the A/E consultant before a consultant is selected, particularly where additional services are required.

## The Selection Process

---

The means used to select an A/E consultant should depend somewhat on the size and scope of the contemplated project. For small projects with design fees estimated at less than \$50,000 -- where costs of obtaining and screening proposals from several firms may exceed the benefits of having multiple proposals -- the district may choose an architect who has performed successfully for the district in the past, or set up a shorter version of the process described below.

For larger projects, however, it is generally to the district's advantage to use a process which will allow for comparison between several individuals or firms. The discussion which follows focuses on setting up and implementing a comparative selection process which has proven effective in selecting design services for larger school construction projects.

Department of Education & Early Development (DEED) regulations regarding selection are as follows:

### **4 AAC 31.065 SELECTION OF DESIGNERS AND CONSTRUCTION MANAGERS.**

(a) If a school district determines that it is necessary to engage the services of a private consultant to design or provide construction management for an educational facility with money provided under AS 14.11.011 - 14.11.020, or for a project approved for reimbursement of costs under AS 14.11.100, and the estimated cost of the contract is more than \$50,000, the selection of the consultant shall be accomplished by soliciting written proposals by advertising in a newspaper of general circulation at least 21 days before the proposals are due. The contract shall be awarded to the most qualified offeror, after evaluating the proposals submitted.

(b) Nothing in this section precludes a school district from retaining the services of a consultant on an as-needed basis under a multi-year contract, if the term of the contract is not more than five years.

(c) The school district shall provide a procedure for administrative review of complaints by aggrieved offerors which allows them to appeal, within 10 days after the notice of intent to award, requesting a hearing with notice to interested parties, for a redetermination and final award in accordance with law. (Eff. 12/2/83, Register 88; am 8/31/90, Register 115)

Authority: AS 14.11.017 AS 14.11.020 AS 14.11.132

As mentioned previously, selection of design professionals ~~must~~<sup>should</sup> be undertaken as a qualifications-based process rather than one that is fee-based. The A/E consultant will lead the design effort of the design or planning team and the team will need the most qualified individual or firm, rather than the least expensive.

The final selection of the A/E consultant or firm is the responsibility of the local school board. However, in most cases, the board will wish to delegate the responsibility for initial screening and review of potential candidates to school district administration, or to a committee such as the project or planning team. It is recommended that the initial screening be conducted by a minimum of three persons. The initial screening process should result in forwarding to the board a "short list" of between three and five candidates for final consideration.

## The Selection Process

---

Education facilities planners can work with the district through the A/E consultant selection phase of the project, including negotiation of architect services fees and contracts. Some planning firms also offer project management services. During the pre-design period of the project, the district should explore all options for project management services and make its decisions about the use of consultants, prior to bringing on the A/E consultant. If project management is contracted to an outside organization, communication protocols and channels must be clearly identified to avoid confusion or misunderstandings during the life of the project.

The competitive bid process generally does not apply to the procurement of professional services such as that of an A/E consultant or firm. Districts are free to solicit and choose design services in many different fashions, although city/borough districts may be subject to local ordinances. All districts, though, must exercise prudence in the management of public funds.

Prior to seeking proposals from interested firms, the following procedures will need to be completed:

1. Solicitation of potential applicants, which includes the decision to solicit from a few known firms or to advertise widely; to solicit only from local firms or from a larger geographic area; etc.<sup>1</sup>
2. Preparation of project information which will be used by prospective applicants to prepare their presentations. Including the program for design or educational specifications.
3. Determination of information to be requested from responding firms, at least in general form. In most cases, the screening criteria will dictate the areas to which firms will respond.
4. Determination of screening criteria, which will spell out in some detail the items to be used in the review of proposals; the weights which will be assigned to the various items; treatment of “joint ventures” or multiple-firm proposals; etc.

After initial screening of the responding firms, follow these steps:

1. Further review of candidates on the “short list” of firms or individuals who have been rated highest in the initial review. All of the firms on the “short list” should be technically capable of performing the required services. Because of the importance of intangibles, such as rapport, personality, ability to listen, etc., it is strongly recommended that individuals and firms on the “short list” be interviewed by the full school board or the board-designated selection committee. Interview schedules, a list of topics to be covered in the interviews, and a method of evaluating interviewees should be determined prior to inviting selected firms to participate and provided to the short list.

---

<sup>1</sup> 4 AAC 31.065(a) “If ... the estimated cost of the contract is more than \$50,000, selection of the consultant shall be accomplished by soliciting written proposals by advertising in a newspaper of general circulation at least 21 days before proposals are due.”

## **The Selection Process**

---

2. Research on responding individuals or firms, which will require follow-up of references given by respondents; actual visits to completed facilities designed by the responding firms may be considered for the top firms identified in the initial screening.

Once the selection procedures have been established, the district will begin to solicit proposals. A knowledgeable consultant can be retained to perform this task, complete the initial screening with the committee, and submit a “short list” to the district. Whoever performs this task should have information on the following areas prepared to send out to all parties interested in presenting a proposal.

1. Project summary, or a brief description of the proposed facility, including intended use, location, square footage, and total funds available for both design and construction.
2. Community description, which contains information about the location, ethnic and economic background, climate and other pertinent characteristics of the community.
3. Description of the educational philosophy and program of the district, including any particular instructional methods, grade groupings or other characteristics which have design implications.
4. Site description, including any particular characteristics which will affect design options.
5. Funding sources and estimated budget amounts, including information about phasing or other constraints.
6. Timeline which indicates the anticipated dates of architect selection, design completion and substantial completion of construction.
7. Scope of services initially proposed, which includes any additional services beyond the basic services to be requested.
8. Selection procedures, which indicate the events and timeline for the selection process.
9. Selection criteria, which detail those areas of experience and capacity which will be weighed in the selection process.
10. Description of proposal format, which should speak to any unusual formatting requirements of the school district. In general, firms and individuals should be allowed to format responses in any manner which yields the requested information.
11. Deadline for submission, indicating to whom and where the proposals should be sent. The district should also indicate the number of copies required.

## **Screening the Applicants**

1. Review of written proposals - Once proposals have been received, all proposals should receive an initial review utilizing the rating criteria and weighting system established earlier. A Suggested *Performance Rating Review*, developed by the South East Regional Resource Center, is included in Appendix A. Other checklists or methods which result in a uniform analysis of all submitted proposals can be developed by the district. On the basis of this initial screening, a “short list” of the three to five most qualified firms should be prepared.

## **The Selection Process**

---

2. **Interviews of “short list” firms or individuals** - Experience has shown that a formal interview before the full board or the architect selection committee is the most useful method of evaluating the intangible characteristics which contribute greatly to a good district to A/E consultant working relationship. Interviews should be carefully planned to assist the board or selection committee make judgments on the human relations as well as the technical skills of the persons interviewed. A standard format and a general list of questions determined beforehand will help the interviewers to make the best opportunity of the time allowed and will assure that each firm or individual is asked to respond to the same types of inquiries.
3. **Reference checks** - In addition to participating in an interview, firms and individuals on the “short list” should undergo a background check of references. Much can be learned--and much grief avoided--if the district or its agent takes a little time to call other districts or organizations which have been clients of the firms under consideration. Results of this background check should be given to the board or selection committee along with the firms’ written proposals.

In some cases, actual visits to other completed facilities which have been designed by the firm(s) under consideration can be helpful. Generally, the facilities of only the top two contenders would be viewed, given the time and travel funds involved. However, if such visits are conducted, information about the effectiveness of the facility should be obtained from the users (teachers, students, maintenance personnel, etc.) as well as from the administration or the board.

### **Selection of Preferred Firm or Individual**

Upon completion of the screening activities, the district should list the firms in the order of preference and begin to negotiate a fee with the first choice. If negotiations are not successful, the district can then proceed to negotiate with the next listed firm. If the district cannot decide between two or more firms, the district may request an additional interview or additional written information. However, the district and school board should avoid asking the firms to provide design sketches, models, or other services as part of the selection process.

### **Utilizing Multi-Year Term Contracts**

One method of selecting an A/E consultant is through a multi-year term contract<sup>2</sup>. This allows the school district to advertise and go through the selection process once and contract with a consultant, or more than one consultant, for up to five years. This can be used for a consultant team for major projects, a specialty consultant, like a mechanical engineer, for specific types of projects. Term contracts can also be used for construction management services. This process can be advantageous where a district forecasts many projects in the future and wishes to have consultants ready to proceed with a project without having many separate selection proceedings.

---

<sup>2</sup> 4 AAC 31.065(b) “Nothing in this section precludes a school district from retaining the services of a consultant on an as-needed basis under a multi-year contract, if the term of the contract is not more than five years.”

## The Selection Process

---

School districts should keep records of their multi-term selection process in order to show that the selection meets state regulations for advertising, appeal and other requirements.

An example of how this process works for one school district:

1. A school district anticipates a large number of projects over the next three years and wishes to have consultants available in order to reduce time due to multiple selection procedures. The projects anticipated range from large school projects, mechanical projects and some lighting projects.
2. The school district advertises for proposals and qualifications for Architectural teams, as well as, mechanical and electrical engineers. The advertisement sets a term contract for three years and annual limits of a million dollars for Architectural and a half a million dollars for mechanical and electrical consultant contracts.
3. After a 21 day advertisement period, proposals and qualifications are received and evaluated. The top three ranked A/E consultants in each category are chosen to be offered term contracts, subject to a 10 day appeal period.
4. Upon initiation of the first project, the consultant on the top of the appropriate list and the school district review scope and negotiate a fee. A project task order is initiated and the project proceeds.
5. Subsequent projects cycles through the list in order until the end of the term contract or the annual limit is met.

This is but one example of how the multi-year term contract process works.

Although cost considerations are not a part of the design team selection process in the same manner as in a competitive bid situation, the school board may wish to consider fee schedules in coming to a final determination. However, in most cases, only the general fee structure is available for comparison; architects or firms are unlikely to respond favorably to requests for a quote for services until they can fully review the owner's scope of work. Determination of design costs is usually arrived at through negotiations with the successful proposer. Items to be considered in such negotiations are covered in the following section.

## **Negotiation of Services and Compensation**

---

Once an A/E consultant has been selected, negotiations should take place between the district and consultant to identify the scope of services to be provided and the fee that will be paid. It is important for districts to realize that, because selection of design services is usually not governed by laws directed at competitive bid projects, districts have considerable flexibility in negotiating the terms and conditions of a design services contract. In order to make the most of this flexibility, districts are advised to have a well-developed idea of the scope of services to be requested well ahead of sitting down to negotiate a contract.

“Basic services” are described by the Department of Transportation & Public Facilities (DOT&PF), and are similar to those described by the American Institute of Architects (AIA) (refer to this guideline’s **The Scope of Services** section). The basic services are predetermined, so this should provide a starting point for negotiations.

### A. Determining Final of Scope of Services

The services requested of an A/E firm can be characterized either as “basic,” (i.e. - services performed normally by a design professional in order to move the project through construction); and “additional” or “supplemental,” (i.e. - services required or desired beyond basic services).

The scope of services, proposed compensation, and the contract document should be reviewed and agreed upon. The following sections on compensation and the form of contract should give the owner background for negotiating.

As previously stated, the district should have a fairly firm idea of the scope of services to be requested of the architect before selection, particularly where additional services are required. The scope of services may be modified during the negotiation process, but it should not be left to the architect or architectural firm to determine what will or will not be provided.

## **Compensation**

The total cost of design services will be dependent on the scope of services required. Once the scope is set, the A/E consultant will indicate the amounts to be charged for basic services broken down by phase (schematic design, for example) and each selected additional service. Charges will include professional fees and expenses, both of which are negotiable. Compensation may be by a single method of payment for all the work required plus other agreed-upon expenses, or it may involve different methods for different elements of work. Districts should be aware of the more common methods of payment utilized for school facility design services: lump sums, specific hourly rates, and professional billing rates, each of which is described below. An additional method, cost per unit of work, is also used by architects. Because it is used only when dealing with apartment building units, hotel rooms, or other identical units, however, it is seldom encountered in educational facility construction.

## **Negotiation of Services and Compensation**

---

1. Lump sum is the method whereby the architect is paid a fixed dollar amount for specific services. The amount includes profit, direct salary costs and indirect costs.
2. Specific hourly rates, whereby the architect is paid fixed hourly rates for each class of employee directly engaged in providing services of indefinite duration. The rates include profit, direct salary costs, and indirect costs.
3. Professional billing rates, an alternative to specific hourly rates, whereby the architect is paid fixed hourly rates for specifically named employees engaged in providing services of indefinite extent, plus a percentage, also referred to as a multiple, for indirect and non-reimbursable direct costs, and for profit.

The following definitions apply to the terms used above:

1. Direct salary costs consist of the actual hourly wage rate for time directly chargeable to the project, plus an allowance for payroll overhead.
2. Payroll overhead consists of all employee-related costs and personnel benefits, including life and medical insurance, sick leave, vacation and holiday pay, social security, workmen's compensation, pension retirement contributions, and other similar employee-related costs. Overtime for non-salaried hourly wage rate employees may be included, if approved in writing by the district.
3. Indirect costs include allowable expenses not directly identified with a single project. Indirect costs include salary and non-salary costs such as general administrative salaries, recruitment of employees, office rents, maintenance and utilities, office supplies, etc. Indirect costs are payable as a multiple or percentage of direct salary costs.

### **Determining Reimbursable Expenses**

In addition to fees, which cover salaries, profit and indirect costs, most projects require the A/E consultant to provide services which involve additional expenses. Such direct non-salary costs should be identified specifically as reimbursable expenses which will be paid upon receipt of documentation that the expense was incurred. Transportation and per diem are the most common reimbursable expenses. Others include:

1. Cost of subcontracts when these have been identified specifically within the professional services agreement;
2. Fees for regulatory approvals paid to authorities having jurisdiction over services provided by the agreement. Such fees include local, state, or federal permitting costs;
3. Expenses for telecommunication charges, including telephone, teleconference, fax, etc., incurred in the provision of services under the agreement;
4. Expenses for postage and handling of materials required by the agreement;

## **Negotiation of Services and Compensation**

5. Expenses for reproduction of reports, drawings and specifications in excess of that which would normally be required (usually two copies);
6. Computer time for special applications required by the district;
7. Expenses for producing specialized or elaborate models, promotional materials and presentations required by the district.
8. Other expenses identified in the contract.

As can be seen by the above listing, the amount of reimbursable expenses allowed is generally under the control of the district in that such expenses are triggered by the amount of travel and other activities required by the district. Because such expenses can mount up quickly, districts are encouraged to set a maximum amount for which expenses will be reimbursed in the agreement itself, unless further authorized by the district.

### **Determining Amount of Compensation**

Determination of final costs of design services will be the result of negotiation on the various fees ~~asked~~requested by the design firm, plus the amount of reimbursable expenses to be allowed by the district. Districts can use several methods in estimating the limits of compensation. ~~Perhaps the most~~A simple, common method is to use a percentage of construction costs. Compensation for basic services range from 10% of estimated construction costs on small projects to 6% for large projects. This method should be used with care and is best suited to projects where the scope of services is typical and is mutually understood by the parties—often due to having a history of substantially similar projects. Because of the wide range of construction costs throughout the regions of Alaska, the compensation for basic services with this method should be calculated upon an estimated cost for identical work in Anchorage. To this fee can be added extra overhead items such as transportation, weather conditions, staff living and travel expenses, telephone and courier deliveries, etc. as additional or supplemental services. Additional services and reimbursable expenses will vary, depending on the extent of services required. Even if not used as the basis for a design fee, the percentage of construction costs can be a helpful back-check or comparison to fees developed using other methods. Districts are cautioned that construction costs, not total project costs, should be used as the basis for calculation if a percentage is used.

Some confusion may exist regarding the application of Section 14.11.020 of Alaska Statutes dealing with Construction, Rehabilitation, and Improvement of Schools and Education Related Facilities. This section limits the costs of construction management to 4% for construction projects of \$500,000 or less, to 3% for projects over \$500,000 but less than \$5,000,000, and to 2% if the project is \$5,000,000 or more. However, this section refers to the “management of the project’s schedule, quality, and budget during any phase of the planning, design, and construction of the facility by a private contractor engaged by the municipality or regional educational attendance area.” It does not place a percentage cap on the amount that can be expended for design services. Nor does it differentiate between those services performed by an architect under basic service and those to be

## Negotiation of Services and Compensation

---

performed by the owner in this administrative and accounting rate (or by a third party contract manager).

Under AIA document B141, the *Standard Form of Agreement between Owner and Architect*, it is acceptable for an architect to provide the services identified in statute as construction management. [If construction management and design services are awarded to a single entity, it will be necessary to account for the two categories separately.](#) If a district chooses to retain an [independent](#) construction manager, there must be a clear distinction between the responsibilities of the A/E consultant and the construction manager, as well as compensation for those services.

If a percent-of-construction-costs method is not used, districts must determine another way of establishing the reasonableness of compensation for design services. Other acceptable methods include comparison with other projects completed by the district, design cost ranges for comparable projects being developed by other districts, or professional judgment. [However, with the exception of the most simple school capital projects, the detailed-services method is likely to be the most appropriate for the majority of projects. Under this method, the owner, usually through a request for proposals \(RFP\), identifies the scope of the project along with its anticipated services. The design professional then proposes a set of detailed services by project phase; these are often called ‘tasks’. Each service/task, is supported with a proposed staffing, the hours for those staff, and the hourly rate. The detailed services method results in a very clear definition of contract scope. In evaluating this type of fee proposal, districts can review: 1\) the categories of services needed \(e.g., Will the design team need to make public presentations of design iterations?\), 2\) the level of expertise needed \(e.g., Can an engineer in training \(EIT\) really handle all the electrical design or is a senior engineer needed?\), and 3\) the hours needed to complete the task \(e.g., 100 hours for a door schedule at 95% design; doesn’t modern design software automate that process?\). Review and negotiation of design services at this level of detail is often very helpful for all parties in the resulting contract.](#)

Design costs for basic services should be approximately the same for a similar project anywhere in the state, because the Alaskan cities in which A/E offices are located do not differ markedly in cost of living. [Extra-Types of](#) services, however, may vary considerably; a \$5 million facility constructed in Anchorage could easily cost \$10 million if built in Bethel or Barrow. [Often this is due to infrastructure elements such as extensive water, wastewater, and electrical power; these systems all require additional professional services for their design.](#) Travel expenses to remote locations also need to be considered, along with the time lost when unplanned site visits become necessary. Fixed costs for site visits need to remain flexible enough to accommodate travel delays and resultant unplanned expenses.

Agreements between the owner and A/E consultant on the basis and amount of compensation, maximum amounts to be paid for reimbursable expenses, and the compensation schedule should be set out clearly in the agreement between the A/E consultant or firm and the district.

[DOT&PF’s](#) ~~DOT’s~~ “Professional Services Agreement” in Appendix C: Basis of Compensation contains one format which can be useful to districts in setting out the compensation rates and schedule. A more simplified format which has been used successfully by several districts is included as Appendix B of these Guidelines. Districts are able to choose the format that is most useful to them in laying out the terms and limits of compensation.

## **Negotiation of Services and Compensation**

---

## **Contract for Design Services**

---

Preparing a contract for design services is a complicated process, but the process can be made easier by utilizing standard contract documents available from one of many different organizations or associations. The comments which follow are not in any order of priority nor do they exhaustively discuss or analyze the various trouble spots which may arise in development of a contract for design services. This document covers a few specific areas and concepts that often appear to be misunderstood.

The contracting process often raises issues and questions upon which specific legal advice is necessary. These guidelines are not a substitute for such advice but provide information that can enable the district to have an informed discussion with its legal counsel regarding the design services contract.

### **Standard Documents**

There are numerous form contract packages in existence which have been developed by various user groups associated with the construction industry. For example, the American Institute of Architects (AIA) publishes forms which are often used by its members and others. The Alaska Department of Transportation and Public Facilities (DOT&PF) has also developed such forms, several of which have been referenced. The Engineers Joint Contract Document Committee (EJCDC) also publishes standard contract documents. Other forms are published by contractor and engineering associations. Some municipalities have their own contract forms. Each form has its own constituency and group of adherents, and ideal circumstance of application.

Architects generally use the AIA contract forms. These have been developed and modified to changing conditions over many years. The AIA contract documents from architect services through construction to project closeout are fully integrated with construction contract forms. All forms must be approached knowledgeably and employed properly. They can save a great deal of time and expense over trying to start from scratch. The contract document is extremely important, and the contracting agency should use great care in selecting the standard form. All contracts are not created equal.

All contract form packages may be changed and supplemented. However, any change must be coordinated with construction documents. Some of the following comments provide areas for further consideration. Standard contract documents allow for revision, and each time the documents are used, the district should review provisions of the contract to verify that they apply, or if they should be modified. If provisions of the design contract are modified, careful consideration should be given to the impact that the change has on the corresponding construction contract. As with any contract, anytime provisions are modified or added, legal counsel should be consulted to determine the effect of the proposed changes..

## **Contract for Design Services**

---

### **Document Integration**

Whether one of the form contracts is used as a basic document or not, the entire contract document for professional services must ultimately work together as a package. Districts must make sure that any changes incorporated into the form are made consistently throughout. If, for example, it is determined to delete the arbitration clause, all references to such arbitration must be deleted throughout the various contract documents.

These *Guidelines* focus only on the design services contract, ultimately there will be a construction contract, insurance documents etc.. The duties, rights and responsibilities of the A/E consultant—as set out in the design services contract—will have a direct effect on the construction contract. It is very important that both the design contract and construction contract remain consistent.

For this reason it is not recommended that a district use one form of design services contract and a different form of construction contract. If two “mismatched” contracts (e.g., AIA with DOT&PF contract forms) were used, the provisions of each will have to be carefully reviewed and compared to be certain that all inconsistencies and discrepancies are caught and corrected. Generally speaking, if a standard design services contract is used, it should be used in the way it was intended—as a package with the construction contract as well.

### **The Contractual Parties**

AS 14.14.060 purports to lay out the relationship between a borough and a borough school district in the design and construction of schools. Although it is not entirely clear, a possible interpretation of that section is that the district is authorized to contract for the professional services needed for school facility design subject to municipal approval. The construction of the project, however, is handled and contracted by the municipality unless there are other specific agreements.

It is important that the contract documents clearly identify the entity responsible for the contract. If the municipality has authorized the school district to act as the contracting agency, a copy of the resolution should be included as an attachment to the contract.

It is also advisable that the same entity act as contracting agency for the complete project; i.e., both the design and construction of the project. If the municipality does not desire to release its obligation to the district as contracting agency for the construction of the project, then it may be preferable that the municipality should act as the contracting agency for the design services as well. Because the design of a project and the subsequent execution of that design are inextricably connected at many points and in many ways, the entity which bears the responsibility and also the liability for the design portion of the project should be a participant during construction to provide continuity and expertise the project.

When boroughs serve as the contract manager and contracting entity, a key role remains for the school district. Under this structure, the district becomes the ‘using agency’ for which the project is being executed. In this role, the district must work to clearly communicate its needs and goals for the project and the end-uses for which it must function. In many cases the head of the project team serves in that capacity or as representative of the superintendent of the school district.

## **Contract for Design Services**

---

### **Indemnity and Liability**

An “indemnity clause”, also known as the “hold harmless clause” may be important from the contracting agency’s viewpoint. Such a clause obligates the architect to indemnify and hold the owner harmless from certain kinds of claims. For example, if a floor collapses and the contractor were to claim it was inadequately designed; the contracting agency generally wants to assure itself that the architect will be responsible for defending the claim.

The Alaska Statutes, Title 45, impose a limit on the kinds of claims that can be indemnified in a construction contract. An indemnity clause in any construction contract is void if it purports to indemnify the owner against liability for damages arising from the sole negligence or willful misconduct of the owner. The standard AIA form does not include an indemnity clause; it does however propose liability insurance and arbitration (AS 45.45.900).

A knowledgeable owner or school district may wish to find a place to put blame in case of delay or change order for faulty construction and personal damage. A construction project should be a three-way partnership of owner, architect and contractor. Architects can no more accept an indemnity clause than can the owner, architect or contractor.

Arbitration and liability insurance do provide for review of liability and security for recompense. Some contracts with architects have been written with a liquidated damage clause to provide that in the event the architect fails to perform in accordance with the contract time schedule, the architect agrees to pay. The standard AIA form does not include liquidated damages. It does call for arbitration of disputes and liability insurance.

Professional liability insurance is required in Alaska and is carried by most A/E consultants. Policies are written with deductibles. Most claims in Alaska have been settled within the deductible. The cost for this insurance is high and if the owner’s request is high, the cost may equal the A/E expected profit. A reasonable and suggested approach is for the cost to be included in the final fee agreement. The duration of the policy is important. Policies are written on a “claims made” basis, which means that a policy must be in force at the time of claim. If a policy is canceled at completion of a project, the policy will not be in effect if a claim is made later. Districts may wish to consider a requirement that the policy be maintained for a number of years after completion of the project.

The architect, as a state-registered professional, accepts liability for injuries to his client or others which are due to his negligence. Most contracts do ask for architects or engineers to indemnify and hold harmless their client for all occurrences. However, construction is fraught with many risks that are outside of the A/E consultant’s control.

The AIA document does call for arbitration of claims, disputes or other matter in question between the parties to the agreement. This is in accordance with the construction industry arbitration rules of the American Arbitration Association.

## Post-Occupancy Services

---

When school construction is complete and the school is occupied, there are other services that may be provided by an A/E consultant. Those services include development of a preventive maintenance plan; development of an operations manual; and completion of a Post-Occupancy Survey.

Development of a preventive maintenance plan is a required deliverable under the department's Project Agreement, and involves developing periodic maintenance schedules for all of the components upgraded or installed as a part of a capital improvement project. The preventative maintenance plan also includes development of a custodial operation plan, energy management plan, maintenance training plan and renewal and replacement schedules.

Development of an operations manual is not required by the department, but is an important document that will provide future users of the facility with a reference document for operation of the building systems.

In some instances, especially in cases where a project will utilize new, innovative, or un-tested design strategies or non-standard space utilization strategies, it is beneficial to return to the facility at least a year after student occupancy and review the facility using a process known as a "Post-Occupancy Survey." A Post-Occupancy Survey provides the district and users of the facility an opportunity to report on how well the facility is performing. The department has developed a detailed questionnaire that can be used to perform a Post-Occupancy Survey.

## Project Budget and Schedule

---

The district should include provisions in the A/E contract to insure that the A/E consultant is prepared to develop three cost estimates at three separate times during project development.

The department's Project Agreement includes required submittal of three progressive cost estimates during the development of the project documents.

The first cost estimate typically prepared by the A/E consultant is the Schematic Design cost estimate, and is performed at the schematic design phase of the project, or approximately 35% through the design process. This estimate will be based on the schematic design drawings and will provide the district with a cost that includes more detail than the cost estimate a district may have prepared for the submittal of a CIP application. The schematic design cost estimate will assist the district in identifying if a project budget is adequate to complete the work identified in the scope of the project. At this state of the project, changes to the scope and design are relatively easy for the designer to make, so the district should pay very close attention to this document and make the effort to thoroughly review the cost estimate and scope of the project before authorizing the A/E consultant to proceed to the design development stage.

The Design Development cost estimate is completed at the design development phase of the project, or approximately 65% through the design process. This estimate will provide a further refinement of the cost estimate prepared during the schematic design phase and should give the district an idea of whether the project budget is adequate to complete the entire project scope. If the design development cost estimate exceeds the project budget, the district will need to work with the A/E consultant to refine the project scope to decrease project costs so that they are within the allocated budget amount.

The Construction Document cost estimate is completed at the end of the design phase, and serves as a final check of the anticipated project cost against the project budget. If the construction cost estimate exceeds the project construction budget, the district will need to review the project and identify components of the project that can be reduced by either utilizing additive alternates or eliminating altogether in order to bring the base construction project cost within the construction budget for the project.

The department has developed a tool identified as the *Program Demand Cost Model*; this tool provides districts with the ability to perform basic cost estimating tasks that can be useful for preparation of planning level cost estimates that can be used for the Capital Improvement Program Application. The Cost Model should not be used for preparation of schematic level cost estimates.

In addition to tracking the project budget through cost estimates, the district should also consider including provisions in the contract with the A/E consultant that provide for tracking of the project schedule. The project schedule should be updated periodically throughout the project in order for the district to verify that the project completion date does not slip, or if it does, that the appropriate school district and school board representatives are informed of any changes in the schedule.

# APPENDICES



## Appendix B - Sample A/E Firm Rating System

---

### Suggested A/E Rating System

Following is a possible rating review for architectural firm interviews should be prepared to consider other pertinent areas for discussion.

Overall Experience - (10 points) The entire architectural experience based upon varied projects involvement.

Specifically Related Experiences - (10 points) That architectural experience which directly involves construction and design of educational facilities similar to the project.

Capacity - (10 points) The ability of the architectural firm to handle the magnitude and complexity of the project.

Qualified Staff - (10 points) The professional experience of the architectural team to be involved in the project.

Ability To Respond (Timeline) - (10 points) The ability to meet deadlines as proposed. The ability to respond to clients' needs.

Design Philosophy - (10 points) The aesthetic and functional accomplishments of design and construction work performed (appearance, function, quality and technological approach).

Cost - (10 points) The reality of the construction and project budget as indicated in material provided.

Extra Points - (10 points) Additional strengths of architectural firms. Examples include: design problems, limited number of change orders, staying within the architectural contract, communication and work attitude, responsiveness to problem areas, and varied recommendations received from previous clients.

## **Appendix B - Sample A/E Firm Rating System**

---

### The Scoring Scale

Each area to be rated is to be assigned a numerical value from 0 to 10 by the rater. The following may be referred to as a general guide; Districts may wish to revise points available for each group.

- 10 - Exceptionally Strong Area
- 8 - Very Strong Area
- 5 - Average Strengths
- 3 - Weak Area
- 0 - Area not Addressed

Following are some of the items for discussion with the architect.

### Overall Experience - (10 points possible)

1. What is the Architect's entire architectural experience based on various projects involvement? Are these experiences relevant to the project?
2. Has the Architect demonstrated familiarity with:
  - a. Making facilities accessible to physically handicapped?
  - b. Fire safety criteria?
  - c. Energy conservation appropriate to Alaska?
  - d. Design environment for education?
3. What does the Architect state regarding the following?
  - a. Response to owner (cooperation, management plan, timelines, etc.)?
  - b. Budget control (design budget, bids, change orders)?
  - c. Design success (function, user satisfaction)?
  - d. Aesthetic acceptance (owner and community acceptance)?
  - e. Maintenance and operation?
  - f. Involvement during construction (including construction observation)?
4. What efforts has the Architect made in the past to insure that contract documents include inventory lists detailing spare parts, location of suppliers for spare parts, submittal data, required testing, etc.? And how would the architect handle this important service?

## **Appendix B - Sample A/E Firm Rating System**

---

What experience does the Architect have in managing a project, and is he willing to take on this role from educational specification to move into finished facility?

### Specifically Related Experiences - (10 points possible)

1. What school design experience has the Architect had? How closely is it related to this project? Have these closely related jobs been successes?
2. What can the Architect state regarding the following about past related experiences:
  - a. Response to owner (cooperation, timelines, management plan, etc.)?
  - b. Budget control (design budget, bids, change orders)?
  - c. Design success (function, user satisfaction)?
  - d. Aesthetic acceptance (owner and community acceptance)?
  - e. Maintenance and operation?
  - f. Involvement during construction (including construction observation)?
3. Does the Architect have experience working on facilities similar to those contemplated by the District, with specific reference to experiences in last ten years?
4. What efforts would the Architect make to insure that contract documents include adequate documentation of materials and systems for operation maintenance and supply?
5. Is the Architect familiar with DEED regulations?

### Capacity - (10 points possible)

1. What is the Architect's overall ability to handle the magnitude and complexity of the project? How the architectural team will be organized and administered?
2. Does the Architect have the office facilities and production capabilities to handle this project?
3. What is the Architect's suggested scope of services?
4. What energy conservation measures would the Architect utilize in this design? Detailed operational cost estimates may be required (regarding wind-driven rain, solar advantage, light utilization, heating and air-conditioning systems).
5. Would the Architect and sub-consultants be willing to write a complete maintenance and operations narrative for the District?

## **Appendix B - Sample A/E Firm Rating System**

---

6. Will the Architect and sub-consultants assist in a one-year post-occupancy inspection in order to evaluate maintenance and operations?
7. What other information do you feel is important about your firm that will justify your selection over other firms?

### Qualified Staff - (10 points possible)

1. Who are the members of the architectural team to be involved in the project? What is the professional experience of each of the team members? Does the Architect and/or architectural team have backgrounds appropriate for handling the project?
2. What are the names and addresses of the Architect's proposed consultants? Are they "in-house"? How is coordination handled for completion of electrical, mechanical, and structural components? What experience have you had with the proposed design team?

### Ability To Respond (Timeline) - (10 points possible)

1. Does the Architect show a willingness to be sensitive to community needs, and will he welcome involvement of community representatives? Is the Architect willing to work with District personnel in the ongoing process?
2. What schedule and guidelines would the Architect suggest in order to plan and coordinate the design of the facility with community participation and approval?
3. Can the Architect suggest a time schedule indicating when the design, bidding and award, and construction phases could be completed?
  - a. What techniques has the Architect employed on past projects to ensure the set time schedule is met?
  - b. Does the Architect have the staff and capability to have the construction documents completed along the District's timelines? Who will be working on the project? List by discipline and by name.
  - c. What is a realistic period of time to have completed plans for actual construction? (Give some timelines.)
4. What design and construction problems have you encountered on similar projects, and how can they be avoided?
5. Could the Architect assist the District with the selection of all equipment and furnishings?
6. Would the Architect and sub-consultants be willing to write a complete maintenance and operations narrative for the District? Would the Architect and sub-consultants be

## **Appendix B - Sample A/E Firm Rating System**

---

available to perform start-up of a new facility and give complete maintenance instructions?

7. Can the Architect coordinate design to provide a place for the Work of Art? How could this effort be coordinated with the community?

### Design Philosophy- (10 points possible)

1. Does the Architect have the ability to produce an excellent design for the project? (This should be based upon the aesthetic and functional accomplishments of the design and construction work performed— appearance, function, quality, and technical approach.)
2. What is the Architect's design philosophy for this project (including life-cycle costs factors and aesthetic values)?
3. Is the Architect familiar with the various design standards (i.e., fire, handicapped) and DEED requirements?
4. Can the Architect coordinate design to make provisions for art works? How could this effort be coordinated with the community?

### Cost - (10 points possible)

1. What are the costs per square foot estimated to be for this area for various types and locations of school construction?
2. What is the Architect's basic scope of services? What is the estimated slope of reimbursable services?
3. Does the Architect see any constraints with the budget indicated for the project?

### Extra Points - (10 points)

1. Additional strengths of the Architect's firm. Examples include: design problems solved, services available during construction, change order experience, staying within the parameters of the architectural contract, communication and work attitudes, responsiveness to problem areas, and various recommendations received from previous clients.

## Appendix B - Sample A/E Firm Rating System

<b>PERFORMANCE RATING CHART</b>									
<b>Architectural Firm</b>	Overall Experience 10 pts	Related Experiences 10 pts	Capacity 10 pts	Qualified Staff 10 pts	Ability To Respond 10 pts	Design Philosophy 10 pts	Cost 10 pts	Extra Points 10 pts	Total Point Rating
Note: Possible points for each area should be adjusted by district.									

## Appendix C - Sample Schedule of Compensation

---

This sample schedule provides one method whereby the fees and expenses for each basic and additional service may be displayed in the agreement for design services. The form is a sample only and would need to be modified to reflect only those services which are to be provided by the architect or architectural firm.

### BASIC SERVICES

<u>Description of Services</u>	<u>Agreement Reference</u>	<u>Days for Completion</u>	<u>Method of Pay</u>	<u>Compensation</u>	<u>Fees &amp; Expenses</u>
Schematic Design	_____	_____	_____	_____	_____
Design Development	_____	_____	_____	_____	_____
Construction Documents	_____	_____	_____	_____	_____
Bid Services	_____	_____	_____	_____	_____
Construction Services	_____	_____	_____	_____	_____

In addition to the above, services may be required of the architect during the following phases of the project:

Pre-design Services	_____	_____	_____	_____	_____
Site Selection	_____	_____	_____	_____	_____
Post-Construction Services	_____	_____	_____	_____	_____

### Additional Services (Examples)

Feasibility Study	_____	_____	_____	_____	_____
Energy Audit	_____	_____	_____	_____	_____
Meetings & Presentations	_____	_____	_____	_____	_____

# Appendix D - Sample RFP for Construction Manager

[SCHOOL DISTRICT NAME]

[District Logo]

## REQUEST FOR PROPOSALS FOR CONSTRUCTION MANAGEMENT RELATED SERVICES

[per AS 36.30.320 and 4 AAC 31.065]

Project Name: _____
Project #: _____
RFP #: _____
Location: _____

Procurement Agency and Address: [District] [Division] [Address] City, Alaska 99XXX
--

Procurement Officer: _____	Date of Issuance: _____
District Contact: _____	[Month/Date/Year]
Phone: _____	
Email: _____	

**REQUIRED SERVICES:**  are described in the enclosure consisting of [number] pages, dated [month, day, year], with Exhibit [X], dated [month, day, year] consisting of [number] pages.  
**OR:**  are described as follows:

The Project cost estimate is: <input type="checkbox"/> under \$50,000 <input checked="" type="checkbox"/> \$50,000 - \$100,000 <input type="checkbox"/> \$100,000 - \$200,000.00 *
* Proposals in excess of \$200,000.00 will be deemed non-responsive.

Note: Offerors shall carefully review this solicitation for defects an questionable or objectionable material. Comments concerning defects and objectionable material must be made in writing and must be received by the purchasing authority before proposal due date. This will allow issuance of any necessary addenda. It will also help prevent the opening of a defective solicitation and exposure of the Offeror's proposal upon which award could not be made. Protests based on any omission, error, or the content of the solicitation will be disallowed if not made in writing before the proposal due date.

PERIOD OF PERFORMANCE: Begin: [Month Year] End: [Month Year]
--

## Appendix D - Sample RFP for Construction Manager

### PROPOSAL FORMAT

Written proposals to provide the required services shall consist of the enclosed "Part B - Proposal Form", completed as indicated, plus a **letter not to exceed five (8.5" x 11") pages**. If a Price Estimate is required, the

page limit does not include the Price Estimate. Proposals that exceed the page limit may be disqualified. Proposals may be faxed, e-mailed or hand delivered to the District.

### BASIS OF SELECTION

This solicitation does not guarantee that a contract will be awarded. All proposals may be summarily rejected. Our intent, however, is to select a Contractor based on the following criteria:

- |  |   |
|--|---|
| 1) Demonstrated comprehension of required services and proposed strategy for performance.  | 3) Reasonableness of proposed schedule for performance. |
| 2) Relevant experience and credentials of proposed personnel including any subcontractors. | 4) Other (specify):                                     |

### PRICE AND METHOD OF PAYMENT

**A Price Estimate is NOT required with your proposal.** The selected Offeror shall submit a Price Estimate within **one** business day following a request from the Contracting Agency. A Price Estimate shall include all tasks to perform the contract and be prepared to show hourly rates, anticipated hours, and anticipated staff,

by task. Note that a Price Estimate is not a bid. It is a negotiable offer. A Fixed Price contract is desirable; however, a Cost Reimbursement contract may result if a Fixed Price cannot be negotiated.

### SUBMITTAL DEADLINE AND LOCATION

DATE:

PREVAILING TIME:

Fax :

OR Email:

Hand deliver proposal directly to following location, and person, if named; or email, or fax to a number above:

Late proposals will not be considered. **Offerors** are responsible to assure timely delivery and receipt and **are encouraged to respond at least four business hours prior to the above deadline**. Any addendum issued less than 24 hours prior to a Deadline will extend that Deadline by a minimum of an additional 24 hours. The Contracting Agency shall not be responsible for any communication equipment failures or congestion and will not extend the deadline for any proposals not received in their entirety prior to the deadline. Except for hand delivered proposals, confirmation of receipt by telephone or other means four hours or less prior to deadline will **not** be provided.

## **Appendix D - Sample RFP for Construction Manager**

---

### **STATEMENT OF SERVICES**

**[PROJECT NAME]**

#### **INDEX**

#### **ARTICLE NUMBER    TITLE**

- B1 ADMINISTRATIVE REQUIREMENTS
- B2 BACKGROUND INFORMATION
- B3 DETAILED SERVICES

#### **ARTICLE B1**

#### **ADMINISTRATIVE REQUIREMENTS**

**B1.1 General.** The Contractor shall provide services as identified and authorized by sequentially numbered Notices-to-Proceed. The Contractor shall not perform services or incur billable expense except as authorized by a NTP.

**B1.2 Definitions.**

**B1.2.1** “Project Manager”, “Construction Manager”, “CM”, or similar phrases mean the contractor who is a party to this agreement.

**B1.2.2** “User Agency” means the District, division, etc., that generated the requirement for which services under this agreement are obtained.

**B1.3 Project Staff.** All services must be performed by or under the direct supervision of the following individuals (replacement of, or addition to, the Project Staff named below shall be accomplished only by prior written approval from the Contracting Agency:

<b><u>Name</u></b>	<b><u>Project Responsibilities</u></b>
--------------------	--

ENTER NAMES OF CONTRACTOR'S &  
SUBCONTRACTOR'S KEY STAFF

**B1.4 Professional Registration.** Unless otherwise required by Alaska Statute, professional registration is not required to perform these services.

**B1.5 Billing Reports.** The Contractor shall provide a two-page (typical) report with each monthly billing for months in which services are performed. The report shall specifically describe the services and other items *for which the billing is submitted*, and shall estimate the percent the services are complete. Any delayed costs from previous billing periods that are included in the current billing must be clearly explained in the report.

**B1.6 Correspondence.** All correspondence prepared by the Contractor shall bear the Contracting Agency's assigned Project name and numbers (State & Federal).

**B1.7 Documents and Reports** shall be printed with solid black letters that are double spaced on white, 8.5 inch x 11 inch bond or "Xerox Copy" paper. Other size paper may be used for illustrations if they are folded to 8.5 inch

## **Appendix D - Sample RFP for Construction Manager**

---

x 11-inch size. Original documents and reports shall be printed on one side of the paper only and shall be ready for copying. The use of black and white photographs, color photographs, or multicolored graphics is approved for this project. Original, camera ready, copies of final documents and reports shall be submitted to the Contracting Agency for a check before printing.

**B1.7.1 Copies.** When the Contract calls for multiple copies of documents or reports, the copies shall be printed on both sides of the paper. However, the cover and pages with approved illustrations, multicolored graphics, or photographs shall be printed on one side of the page only. All copies - except for originals - shall be bound.

**B1.7.2 Page Numbers.** All documents shall be page numbered to allow every major Section, Chapter, Appendix, etc., to begin on a "right hand," odd numbered page.

**B1.7.3 Covers.** The cover of all documents and reports shall include the following information:

- a. Name of document or report.
- b. Date.
- c. Indicate whether draft or final.
- d. Project Name.
- e. State and Federal Project Number(s).
- f. Prepared for: ~~Alaska Department of Transportation and Public Facilities.~~
- g. Prepared by:
- h. Map and/or picture of project area.

**B1.8 Revisions.** The Contractor shall modify work products in response to direction from the Contracting Agency. Corrections, adjustments, or modifications necessitated by the review/approval process, but which do not substantially affect the scope, complexity, or character of the services, shall be considered a normal part of the Contractor's services.

**B1.8.1 Errors and Omissions.** Except as described in this Statement of Services, work products shall be essentially complete when submitted to the Contracting Agency. Work products having significant errors or omissions will not be accepted until such problems are corrected.

**B1.8.2 Reviews.** Following each review, the Contracting Agency will provide written comments and may hold a meeting to discuss the issues. The Contractor's personnel who are in-responsible-charge for the work products under review shall attend the meeting and they may be asked to interpret and provide explanations of the content.

**B1.8.3 Comment Resolution.** The Contractor shall provide a written response with subsequent submittals that address all written and oral comments from the Contracting Agency. All changes from previous submittals shall be clearly explained.

**B1.9 Reproduction and Distribution.** When the contract requires only the original or only one copy of a work product to be delivered, the Contracting Agency will reproduce and distribute any other copies required. Items delivered for reproduction shall be organized and camera ready for copying and not stapled or otherwise bound.

### **ARTICLE B2** **BACKGROUND INFORMATION**

**B2.1 Facility Information:** [Provide as needed]

**B2.2 Project History:** [Provide as needed]

## **Appendix D - Sample RFP for Construction Manager**

---

### **ARTICLE B3** **DETAILED SERVICES**

**B3.1 General Services:** This contract is to assist the [Name] School District in meeting its project management and project administration obligations under the Project Agreement with the Department of Education & Early Development for the [Name] project, GR-XX-XXX.

**B3.1.1** The CM shall conduct regularly scheduled project status meetings with project stakeholders and provide minutes of those meetings to the parties determined by the District.

**B3.1.2** The CM shall monitor the project's budget and provide project controls and reports as required to inform parties as to the requirements that may be needed to keep the project on budget.

**B3.1.3** The CM will assist in developing the project schedule and will provide project controls and reports as required to inform parties as to the requirements that may be needed to keep the project on schedule.

**B3.1.4** The CM will coordinate as needed with project stakeholders including [list primary known or anticipated stakeholders] to ensure that stakeholders are aware of project needs and proposed solutions and to receive commitments, as needed, from project stakeholders in support of the project.

**B3.1.5** The CM will prepare, on behalf of the District, an RFP for professional services for design and construction administration; will solicit and receive proposals for professional services and will assist the district in evaluating, selecting and entering into contracts with design and engineering professionals and will manage these contracts on behalf of the District.

**B3.1.5** The CM shall evaluate, with the District, the need for any other types of contracts and agreements for services and shall solicit, recommend award, and manage all contracts in support of this project.

**B3.1.6** The CM shall ensure compliance with DEED requirements for project reporting, project procurements, project submittals, and project payments.

**B3.1.7** The CM shall oversee, in conjunction with the districts design contractor, permitting and other regulatory agency requirements.

**B3.1.8** The CM shall oversee project close-out requirements with DEED and any other agency having close-out requirements.

**B3.1.9** CM shall understand any land and property related aspects of this project including land ownership, leases, right-of-way, right-of-entry, disposal, acquisition, etc. by project stakeholders and shall assist the district in the preparation of documents and instruments as may be needed to clarify land and property issues required by the project scope.

**B3.1.10** CM services may require travel, overnight lodging, and other reimbursable expenses.

## Notes

---

1. Castaldi, Basil, *Educational Facilities, Planning, Modernization and Management*, 2<sup>nd</sup> Edition, Allyn and Bacon, Inc., Boston, Massachusetts, 1982. p. 158.
2. State of Alaska, Department of Transportation and Public Facilities, Appendix B: *Standard Statement of Services for General Architectural and Engineering Design*, Form SSS/GAED, Juneau, Alaska, 1980. pp. 2-4.
3. American Institute of Architects, *Compensation Management System*, Form F819, AIA, Washington, D.C., 1975 and contracts B163 and B141.
4. Council of Educational Facility Planners, Inc, *Planning Guide*, 1991 C.E.F.P.I., Scottsdale, Arizona.