

# Bond Reimbursement and Grant Review Committee Meeting Agenda

December 2, 2020  
1:00 pm – 4:30 pm

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**Chair:** Heidi Teshner

**Tuesday, December 2, 2020**

## Agenda Topics

1:00 – 1:05 PM	Committee Preparation <ul style="list-style-type: none"> <li>• Call-in, Roll Call, Introductions</li> <li>• Chair's Opening Remarks</li> <li>• Agenda Review/Approval</li> <li>• Past Meeting Minutes Review/Approval</li> </ul>
1:05 – 1:15 PM	Public Comment (additional comments related to agenda topics may be solicited throughout the meeting)
1:15 – 1:45 PM	Department Briefing <ul style="list-style-type: none"> <li>• FY2022 CIP Report               <ul style="list-style-type: none"> <li>▪ Summary Statistics</li> <li>▪ Initial Priority Lists</li> </ul> </li> <li>• Statewide Six-year Plan</li> <li>• School Capital Project Funding Report</li> <li>• Preventive Maintenance Update (PM State of the State)</li> <li>• Preventive Maintenance Regulation Implementation</li> </ul>
1:45 – 2:30 PM	Briefing Papers <ul style="list-style-type: none"> <li>• FY2022 CIP Issues and Clarifications               <ul style="list-style-type: none"> <li>▪ CIP Preventive Maintenance Narratives</li> </ul> </li> <li>• Cost Model as Cost Control</li> </ul>
2:30 – 2:40 PM	BREAK
2:40 – 3:10 PM	Subcommittee Reports <ul style="list-style-type: none"> <li>• Design Ratios</li> <li>• Model School</li> <li>• School Space</li> </ul>
3:10 – 3:25 PM	Design Ratio Recommendations
3:25 – 3:45 PM	Publications <ul style="list-style-type: none"> <li>• <i>Alaska School Facilities Preventive Maintenance Handbook (progress)</i></li> </ul>
3:45 – 4:10	ASHRAE 90.1-2016 Checklist Update
4:10 – 4:20	BR&GR Workplan Review & Update
4:20 – 4:30 PM	Committee Member Comments
4:30 PM	Adjourn

## BOND REIMBURSEMENT & GRANT REVIEW COMMITTEE

Tuesday, September 8, 2020 - 1:30 p.m. – 3:28 p.m.

### DRAFT MEETING MINUTES FOR APPROVAL

#### **Committee Members Present**

Heidi Teshner, Chair  
Senator Cathy Giessel  
Randy Williams  
Dale Smythe  
James Estes  
Don Hiley  
David Kingsland

#### **Staff**

Tim Mearig  
Lori Weed  
Wayne Marquis  
Sharol Roys

#### **Additional Participants**

Adam Wilson, RSA Engineering  
Gary Eckenweiler Bering Strait SD  
Dana Menendez, Anchorage SD  
Jeremy Maxie, RSA Engineering  
Matt Gandel, Kodiak Island Borough  
Donna Robinson

**September 8, 2020**

#### **CALL TO ORDER and ROLL CALL at 1:30 p.m.**

Chair Heidi Teshner called the meeting to order at 1:30 p.m. Roll call and introduction of members present; William Glumac not present. Quorum of seven was established to conduct business.

#### **CHAIR'S OPENING REMARKS**

Chair Teshner thanked everyone for joining the meeting today remarking that it's hard to believe it's already September. She noted that everyone should have received the Preventative Maintenance Handbook via e-mail last Friday, and she explained to guests that meeting materials should be available on the website for reference.

#### **AGENDA REVIEW/APPROVAL**

Dale Smythe **MOVED** to approve today's agenda, **SECONDED** by Randy Williams. Hearing no objection, the motion **PASSED**.

#### **PAST MEETING MINUTES REVIEW/APPROVAL – June 16, 2020**

James Estes **MOVED** to approve the minutes as presented, **SECONDED** by Senator Cathy Giessel. Hearing no objection, the motion **PASSED**, and the minutes were approved as presented.

#### **PUBLIC COMMENT**

A public comment period was offered, and no public testimony was provided.

#### **SUBCOMMITTEE REPORTS**

##### ***Design Ratios***

Dale Smythe noted that although some work has stalled, some has happened, and the department will be presenting a recommendation to be discussed today. Tim Mearig referred to the position paper and stated that the department wants to see if it can help advance this requirement in statute to identify design ratios aimed at cost-effective school construction, specifically amount of exterior openings to the amount of exterior wall area. He reminded the committee that last spring funding was received through the legislature to do a study of model schools using energy modeling. The results of that energy modeling analysis led to additional discussion within the

subcommittee and the presentation of the structure and content for a recommendation on how much wall and door area of a building an efficient school facility should have. The structure of the recommendation is intentional to include ratio definition and some clarification on how it is calculated so that everyone is doing it the same way. Because the statute suggests that, where necessary, regional variations be incorporated into those design ratios, a table is included that shows the four climate zones established in the AHFC Building Energy Efficiency Standards (BEES). Tim stated that this format is on the table for discussion today; they are also looking for committee assistance overall and comment from any public members regarding the specific ratios that are recommended.

Tim Mearig stated that they are proposing what they are calling a target ratio range. The department would like the target ratio to be based on the modeling analysis that shows the lowest first cost and operating cost based on the study that was done in 2019. The target would be to specify the amount of openings in any particular zone with the ability to expand out plus-or-minus 20 percent on either side of the target to allow for flexibility in the accepted target percentage.

Dale Smythe added that he appreciates Tim's efforts to assist in wrapping this up and presenting the ratio, it matches what was wanted as a goal in the end. He noted that the important aspect is the range and not just a single ratio representation, as well as the inclusion of the climate zones. The study was very complex, and there was difficulty with the dynamic situations of material and energy costs and how those things change constantly. He commented that additional work and good discussions took place related to good lighting in schools to try and identifying what schools across the state were performing well and what those ratio percentages were. Everything the subcommittee received in conjunction with the report supports what is being presented. Dale noted that he personally incorporated it into a school concept design and then checked those ratios against this, and it's not the easiest to do. There will definitely be more conversations with designers on how to measure these things and how the numbers actually come out in a design. Overall, Dale is in support of what has been presented.

Randy Williams wanted to clarify whether zones 6, 7, 8, and 9 are based on BEES, an ASHRAE definition, or perhaps is defined elsewhere. Tim explained that those zones are established in the BEES. Randy asked if the people calculating this are familiar with which zone they belong in so it doesn't become a point of contention. Tim agreed there needs to be a clear depiction of the zones. Lori Weed noted that there is a map available which breaks down the zones by the Alaska census area, which is how AHFC has broken down the regions.

Don Hiley commented that he has a little bit of heartburn about this being seemingly purely based on cost. He understands the energy efficiency differences between many windows being in a Southeast school versus half as many windows in a school on the North Slope, but he has a concern about the human factor of that. His own office has very little outside view or daylight coming in, and he wonders about the effect it's going to have on some of the educational climate of the buildings with very limited windows. He noted that they are talking about buildings with only 6 percent window in it potentially, and that seems like not very much daylight, not very much view of the outside, and people will be sitting in a box.

David Kingsland was looking at that as well. As a person who actually works in the schools in multiple winters from Sitka to Selawik, he appreciates the guidance that the building incorporate

daylight elements and window placement. He has seen a variety of windows, some good and some bad, and he noted that a view outside is a critical element for the further north and the darker it gets.

Dale Smythe stated that the subcommittee considered the concerns regarding the value of daylight in schools. It was a major discussion point, but how to quantify that was difficult. He appreciated the work of Gary Eckenweiler of Bering Strait School District in sending his school ratios as he calculated them. For an extreme northern climate such as his, those percentages came in low. Dale believes it's an example of recognizing climate and that schools in those situations already follow those, and there is a lot of good design out there already. The intent of these design ratios is to put some brackets around it and ensure they are trying to manage it.

Lori Weed added that the Design Ratio Subcommittee pulled data from existing schools. The Yukon Koyukuk district has a school in the 6 to 7 percent range, and they are enjoying the school and it seems to provide enough window means to suit their purpose.

Tim Mearig referred committee members to zone 9 and stated that they are not basing it on dollars. The studies showed no lower boundary for cost savings, so in other words, if there are no openings, money will be saved. The department and subcommittee were unwilling to propose that this committee consider a windowless school environment, and as Lori noted, they looked at several examples of schools where there is good teaching and learning happening at ranges down to 4 percent.

Tim asked Dale about his use of the ratio definition and the calculation clarifications, were there were edits that should be put forward? Dale stated that there were a few questions, and he thinks there will need to be some minor edits to make it clearer.

Gary Eckweiler stated that when he looked at his schools in Bering Strait, they did have some schools under 10 percent, and they are one of the colder climates. What he noticed on those schools was that all the classrooms had adequate windows and adequate lighting, but what was lacking were glass foyers and large library windows.

Don Hiley suggested that there may need to be a little more guidance in not only a percentage of opening but something to the effect of the percentage of opening that needs to be in the teaching spaces. Dale Smyth replied that the subcommittee specifically avoided that. The intent was to give designers freedom to take the bracketed range and apply it where needed.

Tim Mearig wrapped up, stating the department would like to work with the subcommittee to come back to this committee with better support for the actual target number and the range number. Otherwise, they would like this committee to be supportive and comfortable that using this kind of definition represents a reasonable way to describe the design ratio recommendations. He stated that good comments were heard from the committee today and those will help the subcommittee and the department to guide this further.

### ***Model School***

Don Hiley referred the committee to the recommendation regarding establishing a process for reviewing the Model School. Those tasks have essentially been completed. The subcommittee and department staff recommendation is that the current update process continues wherein the

Cost Model and Model School Building Escalation file is updated by the cost consultant using their experience, with department guidance on the scoping of the contract, and committee review of the recommendations made under that contract. The contractor has traditionally been HMS.

Don then referred committee members to page 20 of their meeting packet and reported that they have had several drafts of the Model School Standard Manual. BDS Architects had been working on that as a contracted consultant. BDS participated in subcommittee meetings to discuss the drafts, and the final draft was submitted to the subcommittee in August. That draft is included in the packet. The subcommittee met on August 24<sup>th</sup> to approve the recommendations for this full committee on how to proceed.

Don discussed the draft Alaska School Design and Construction Standards manual that BDS delivered as a template in three parts: Purpose and application, design principles, and system standards. He noted that systems standards still has quite a bit to be fleshed out as there will be 11 site and facility systems established. Right now, the document has placeholders for those to be added. The parts that have been done by BDS with some subcommittee input have been exterior closure, interior, mechanical, and electrical systems. A little bit of other work has been done in foundations and bits and pieces of other things.

Essentially, the subcommittee determined three options for how to move forward. The recommended option is for the department staff to take on the role of consultant to continue working on the document to flesh out more parts. Tim Mearig and department staff felt they had the manpower and the time to do that without it being overwhelmingly burdensome. They are looking at hopefully having something for the February meeting to then put out for public comment at the normal April BR&GR meeting.

Dale Smythe asked Don if there were details on specific areas where he wanted to continue on with this. Don reiterated that there are a number of items in the systems part, part three of the document, that still need to be fleshed out. Some have been started and others are at various levels of completion; some areas aren't in there at all. Design guidance is going to need a fair amount of work. The subcommittee is hoping to recruit other professional members who will be most impacted by what is contained in the document.

Tim Mearig asked for comments from Jeremy Maxie and Adam Wilson, who were involved in this process. Adam appreciated that DEED is taking the effort to try to compile a document that will help get designers more on the same page. He believes the design community has done a really good job over the years of designing buildings that are efficient and that meet the needs of their clients; but at the same time, there's always room for improvement. Having a document that people can reference to have a starting point will be good because there are a lot of lessons learned that have tried to be incorporated into the document, as well as good technical information. He is eager to get professional and public feedback on it to help serve the community better. Jeremy Maxie concurred with Adam's comments. It was great to get the information on paper that is always swirling in their heads every time they design a school. He thanked Tim and the other subcommittee members that worked on it. The feedback and work that everyone provided was invaluable. Adam Wilson further commented that it was valuable to have people like Gary Eckenweiler look through the document and provide feedback. Ultimately that is the client they are trying to serve, and there is a lot of good lessons learned that they pulled from working with the building operators.

Tim Mearig discussed the Model School File Update paper. The recommendation is to continue the process of doing reviews of the Model School file associated with the Cost Model at this committee and also recognize the need that when the Alaska School Design Construction Standards are put together, a similar process is going to be needed. At this point it's clear that additional professional consultants will be needed to get that document updated.

### ***Commissioning***

Chair Teshner explained that this subcommittee has completed their work and will be disbanded. The members of this subcommittee will be reassigned to another subcommittee. She thanked Randy Williams, William Glumac, Wayne Marquis and the industry partners that participated in this subcommittee to complete the work that was done.

### ***School Space***

Dale Smythe reported that he intended to restart the School Space Subcommittee after the design ratio recommendations were completed. He hopes to start it in the next two months, and he hopes that the recently disbanded Commissioning Subcommittee members will roll over to School Space to help kick this off. He stated that this subcommittee has the basics of a plan and a lot of conversation has happened. Getting to the next step of doing the work is challenging.

## **PREVENTATIVE MAINTENANCE REGULATION IMPLEMENTATION**

### ***Proposed Tools and Metrics for Retro/Recommissioning***

Chair Teshner stated that in order to remain eligible to request state aid for school capital projects under the statutes and regulations, DEED requires Alaska school districts to have a regular evaluation of the effectiveness of and the need for commissioning of existing buildings. This new requirement has to be applied to all school districts, not just those that are due for their five-year site visit. The department is working toward a communication to all districts, and hopes to have that out by November 1. This will provide the assessment parameters that will be used in establishing compliance by June 1, 2021.

Chair Teshner stated that the timeline is included in the briefing paper, but she noted that the public comment that was scheduled to expire on August 31 has been extended until September 20<sup>th</sup>. She stated that there are no specific recommendations for the committee, but input and participation in the department's public comment survey are encouraged.

### ***Discussion***

Gary Eckenweiler stated that option 2 with the state having a tool that could be used would be best. As a facility director, he is very busy and having a tool would streamline things and give a quicker result.

Tim Mearig stated that two significant changes happened based on the feedback of the committee after the June meeting where they discussed what age of buildings would be likely to benefit from a retro-commissioning where they're adjusting an automated building system energy system to integrate and function effectively. What grew out of that was the notion of target facilities. Tim noted that districts have been required to collect consumption data on their buildings for more than 20 years. To meet the retro-commissioning requirement would be to take the information already collected for buildings that have recent building systems, so only a

subset of district buildings would be required to show a retro-commissioning analysis. Tim stated that he would like to get feedback because even though the intent is to streamline and make it less burdensome, it does require a second step of breaking buildings into two pots: buildings that they would pay attention to retro-commissioning and those they aren't required to.

The second thing that came out of the last committee meeting was this idea of finding some way to use industry metrics to determine the effectiveness of a retro-commissioning effort. Some research that's been presented and is in the public comment phase right now has identified a rule of thumb calculation that says that if the combined planning and implementation costs (at the designated industry metrics) are less than 7 percent of the annual electric and fuel costs, then the building is a good candidate for retro-commissioning.

#### **PREVENTATIVE MAINTENANCE REGULATION 4 AAC 31.013 (a)(2) REVIEW**

##### ***Lake and Peninsula School District Issue***

Chair Teshner stated that when the department conducted a site visit on the Lake and Peninsula School District in January 2019, the department assessed the maintenance and facilities management operations as required by statute and regulations. During that visit the department determined that the district's energy management program was not in compliance with regulations, and there were four deficiencies. After some back and forth to try to get the district provisional compliance for the 2021 CIP application cycle, the district fell short on the last item, to present monthly waste heat consumption data for each school site. In December 2019, the superintendent sent a letter to Commissioner Johnson requesting relief from having to monitor the recovered heat as a utility and offered a word change to regulation 4 AAC 31.013(a)(2). The district stated that its proposed regulation change is intended to help districts that receive no-cost, unregulated waste heat. Furthermore, the district thinks the current regulation could be interpreted a bit differently, but it feels that argument is lost, so it has proposed these changes. The Commissioner responded to the district's letter and referred the district's request for regulation change to this committee for consideration and review.

Chair Teshner stated that the department's guidelines have not factored cost tracking into an energy management baseline, only consumption tracking. Under this approach, it was determined that even no-cost utilities needed to be tracked in order to provide baseline data for use in a district's energy management program. She further reported that FY 2021 will complete a full five-year cycle of inspections that include the application of recovered heat assessments; and by May of 2021, all 53 school districts will have been assessed through this matrix. To date, there are six districts that have had direct impact from the recovered heat assessment, including Bristol Bay, Chatham, Galena, Hoonah, Lake and Peninsula, and Yakutat. All but Lake and Peninsula have been able to implement a plan to correct the deficiency and receive provisional certification while working on the implementation of their plans.

Chair Teshner stated that the department has discovered that the lowest cost investment is approximately \$5,000 per site for a strap-on monitor solution; although, it could be up to \$15,000 if that included more accurate inline meters with automated reporting and conversion. Lake and Peninsula specifically has a plan showing that, of their nine recovered heat sites, three currently have measurement capability, three have current projects in which the capability could be added, two are interested but have no immediate plans, and one had no capability or plan but is a currently closed school. The district is saying it's going to cost approximately \$25,000 a year for

just one site to be able to provide the data that the department is asking for, and it could add additional costs and ultimately hurt the village's cooling capacity for their generators.

Chair Teshner directed the committee to the three options for consideration and opened the issue up for discussion.

### ***Discussion***

Dale Smythe posed to Wayne Marquis, Randy Williams, or any other member who may have the answer, the notion he had that monitoring heat recovery has always been difficult and fairly inaccurate. He also asked if all other districts have been able to do this, and if this issue has really been brought up by one specific district with this one problem with the tracking.

Chair Teshner stated that this is the only district that has been brought to her attention that they cannot meet this requirement. Wayne Marquis agreed that Dale is correct in that strap-on meters are not entirely accurate. He was in touch with the Alaska Energy Authority at the beginning of the implementation of this requirement, and discovered that the better meters are more expensive at \$15,000 to \$25,000. He stated that the department realized that this would not be a viable alternative for schools, so they studied the strap-on meters that are between \$1,500 and \$3,000 but are nowhere near as accurate as inline meters.

Randy Williams concurred that the strap-on solutions are less accurate than inline or other more expensive options. He stated that he isn't sure he fully understands what the value of tracking this information is. He understands that it is tracked in order to provide baseline data for use in a district's energy management program. As an engineer he would love to have that information, but he is unsure how that is applicable to what the department is trying to get out of this. Wayne Marquis explained that it was their interpretation of the regulation. An outside agency asked a few years ago what the department was doing with this data, and Wayne explained that the data isn't for the department but rather it's part of the regulations to make sure districts at least collect it and determine which facilities are operating optimally.

Tim Mearig shared an example in the Bristol Bay Borough with a waste heat loop coming from the power plant. Over time, the temperature differentials and the ability for it to provide energy to the school had changed, and no one at the plant facility and maintenance operations knew what was happening and when it was time to burn more fuel or why they were burning more fuel. They had no way of measuring it, and it left a gap in the understanding of their energy portfolio. As a result, they had to make both capital and operational decisions about how to operate their system in order to compensate, but there was no real understanding of why or how much it took.

Gary Eckenweiler stated that tracking this waste heat is hugely important. A couple scenarios that could take place are issues from the electric utility plants and heat exchangers and a whole myriad of things that fail over time. Knowing this data allows people to prepare and have enough fuel on hand if the waste heat goes completely down for a year. Things break and freeze up, and it's slow to get fixed in rural Alaska. He stated that it was also important in a recent dealing with a utility provider where the district felt it was being charged incorrectly for waste heat. They need to know how many BTUs are pulling into the school and be pretty accurate in order to have a discussion about how they're being billed and if they feel they are getting a good or a bad price.



Wayne Marquis shared a story from a visit to Yakutat School District last winter. There was plenty of waste heat available, and the schools were relying entirely on the waste heat plant from across the street. Eventually that power plant was upgraded, with a higher efficiency engine that provided less heat, and the three facilities being served by that plant were getting cooler and cooler. At his most recent visit to the school district this past winter, Wayne found out the plant is tying in a new police station/fire department. People were wearing jackets in the schools now because people hadn't been paying close attention. It would be useful to know how many BTUs were needed to heat the facilities without the risk of anything freezing.

Randy Williams asked, of the districts that have implemented these, are they perhaps districts that don't have much in the way of waste heat recovery, have they been able to find a better way to do it cost effectively, or is there some structural difference in the way that they are using waste heat that Lake and Peninsula is unable to do? Wayne Marquis stated that converting from oil to waste heat is a salvation for many schools, but even though it's free, the regulation stipulates that it's the consumption that is measured, not necessarily the cost. Sometimes it's disconcerting to a district to invest money to measure a free utility. Another argument Wayne hears is that the district is afraid that if it talks to the utility company, the utility company will want to know the measurement and will start charging. Wayne lets the district know that it doesn't have to do that and that it's acceptable to put a strap-on monitor on the facility's side of the system. Wayne also points out that the department doesn't care about exact precision, but the district will be able to compare and look at their aging facilities and use the tracked waste heat recovery data to determine if it's time for a retro-commissioning project. Randy agreed that without that data, the need for retro-commissioning cannot be determined. Randy supports continuing the way the regulation is being interpreted.

Senator Cathy Giessel commented that there is also a political side to this. She is unsure if the regulation is a result of a bill that was passed, but she knows that they in the legislature have talked extensively about how to reduce the cost of energy in rural Alaska, not just for the communities, but for the schools for which they pay. With the budget issues Alaska will have going forward, she knows there will be ongoing questions about what methodology schools are using to measure how much energy they're using and where the savings potential is. This is important data from the political perspective as well.

Tim Mearig stated that Lake and Peninsula's schools have relatively small enrollments, and it is more challenging for that district to make the investment in those nine facilities than it might be for a single-site district. Randy Williams suggested that maybe there is a much lower cost option that could be proposed for Lake and Peninsula and any other similar districts that have a cost prohibition on this. Wayne stated that the cheaper option is the \$1,500 to \$3,000 option. He stated that some districts had the maintenance person install it themselves. It's very simple. Jim Estes stated that Mat-Su recently partnered with Alaska Housing Finance Corporation, and they had grant money to help with building monitoring. He stated that it allowed them to get better real-time monitoring of different utilities. It could be a resource Lake and Peninsula might look into that could lower costs to allow the district to come into compliance. Jim volunteered to reach out to the district and AHFC to facilitate coming to a solution.

Don Hiley stated that once again, this is a nice idea sitting on somebody's desk, but it's not a really nice idea when they take it out to the real users. He works directly with a number of the

districts listed in this document, and none of them were very happy about having to incur the costs associated with this. He stated that this is an expensive process, and some of the districts are having problems with installed meters. Don asked if they are doing this because the underlying reason is to save operational costs, and if those issues can't be fixed, why are they doing this? This strikes him as a one-size-fits-all issue. He stated that if a district has a reason to need it, it's economical for them, it makes sense, and it pays back, a district has the incentive to do it whether or not the department requires it. For years this wasn't an issue, and then suddenly, it's become an issue that sounds like more of a bureaucratic issue than it does a boots-on-the-ground issue. Right now, districts have other things to be spending money on besides buying expensive meters; it really isn't going to help them out or save any money. It's just meeting a requirement that somebody has imposed on them and not given them any money to implement; they have to spend up-front capital and installation costs. Districts are also implementing these requirements to monitor all this stuff. Now it feeds into a retro-commissioning deal, which Don is fine with, but worries it costs money to do that. He feels they are taking one step, compounding it with two steps, and now they are requiring districts to go determine if they need retro-commissioning and presumably go get retro-commissioning, but there's still no money to go fix whatever is found with the retro-commissioning.

Don Hiley continued on to state that he has talked to several people this summer, one who is absolutely convinced that instead of having a fixed cost, the district is going to have to start paying more. So, what did it serve that district to go put meters on and then their utility costs get jacked up because they know how much the facilities are actually getting in waste heat? He feels like the point has been missed here. They are worried about a regulation that's been imposed and an interpretation of a regulation that's been imposed, and they have lost sight of the people that it's being imposed upon. A lot of these are very small districts that have very little maintenance resources, and the COVID pandemic has amplified that. He feels that he needs to speak up and say something, because a lot of these districts don't have the time and the resources to attend these meetings all the time. He assured the committee that very few people in the maintenance departments are paying attention to public comment.

Chair Teshner stated that perhaps she needs to meet with Tim and Wayne to look at doing something at the department level to look a little bit further into finding other resources to try to help address this situation for districts.

## **PUBLICATION UPDATES**

### ***Cost Format***

Chair Teshner stated that the committee saw a draft of the *Cost Format* publication in June of 2020 for feedback prior to public comments. Public comment received during the July 17 through August 11 public comment period is in the packet. The latest draft of the 2020 edition is included in the packet. The department is asking the committee to acknowledge the updated version and to finalize it for publication.

Senator Cathy Giessel **MOVED** that the committee approve the 2020 cost document, **SECONDED** by David Kingsland. Hearing no objection, the motion **PASSED**. The department will finalize the document and put it into final format for publication on the web.

### ***Alaska School Facilities Preventative Maintenance Handbook***

Chair Teshner directed members of the committee to the *Preventative Maintenance Handbook*, which was e-mailed to committee members on Friday. Sharol Roys stated that the effort for this draft was to align the handbook's Appendix A component list with the Level 4 Cost Format DEED system structures. She stated that they are looking to assess the remaining effort to complete the publication and adjust the BR&GR Committee work plan accordingly. This draft was done in June, and it requires considerable additional development; a summary of work remaining is in the packet. Lori Weed stated that staff would welcome any committee members' comments or ideas they would like to contribute to the handbook. If committee members have any particular section they are interested in, the department would appreciate any forward momentum, because this has been a large project that has taken a lot longer than they had originally hoped.

### **ASHRAE 90.1 – 2016 UPDATE**

Chair Teshner directed stated that the State Board of Education opened a period of public comment on the ASHRAE 90.1 2016 Ed. change to regulation 4 AAC 31.014 at their July meeting. That public comment period closed on August 25<sup>th</sup>. The department received one comment that is shown in the packet. The State Board of Education will review this again with a motion to adopt the regulation change during their next quarterly meeting on Thursday, September 17. Although written public comment is over, there is still an opportunity for public comment at the start of the State Board of Education meeting on Wednesday, September 16 at 8:30 a.m. if anyone is interested in offering public comment.

### **WORK PLAN REVIEW**

Chair Teshner directed committee members to review the work plan. She noted the next meeting is scheduled for Wednesday, December 2 and will also be a teleconference. Committee members should feel free to contact staff if they see anything in the work plan that needs to be adjusted or added, particularly as it relates to the work of the subcommittees.

### **COMMITTEE MEMBER COMMENTS**

Committee members each took an opportunity to thank the other members of the group and staff for their continued participation and hard work. Randy Williams volunteered to participate on another subcommittee where his expertise is appropriate to help out.

Chair Teshner thanked members and department staff for their participation in today's meeting. She acknowledged the volunteers from around the state that assisted the department with the August 18<sup>th</sup> Summer Summit, which was a webinar on facilities-related protocols for schools reopening. It was a very informative presentation, and she thanked everyone for their help.

In closing she wished everyone luck as they continue with the start of the new school year and any unknowns they have coming forward. She hopes everyone stays healthy and safe.

### **MEETING ADJOURNED**

Senator Cathy Giessel **MOVED** to adjourn, **SECONDED** by Dale Smythe. Hearing no objection, the motion **PASSED**, and the meeting adjourned at 3:28 p.m.

# Department of Education & Early Development

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THE STATE  
of **ALASKA**

GOVERNOR MIKE DUNLEAVY

To: Bond Reimbursement & Grant Review Committee  
From: School Facilities  
Date: December 2, 2020

## DEPARTMENT BRIEFING

### *Initial CIP Lists*

The FY2022 initial CIP lists are included in the packet. The department provided a memo to the school superintendents that announced the availability of the lists. The department also transmitted the lists to the governor's office for use in developing the FY2022 capital budget.

Following are some year-to-year initial list statistics:

	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>
Districts Submitting Applications	27	34	30
Number of Applications Submitted	86	120	125
Number of Applications Scored	62	80	70
Number of Applications Reused	24	40	55
Number of Applications Ineligible	3	4	0
Number of Applications with a Change in List	3	1	4
Number of Applications with a Budget Adjustment	48	39	28
Number of Projects on the Major Maintenance List	72	102	108
State Share Request on Major Maintenance List	\$113,787,100	\$148,750,402	\$186,258,645
Number of Projects on the School Construction List	11	14	17
State Share Request on School Construction List	\$190,238,739	\$142,797,809	\$162,305,916

Reconsideration requests were due to the department on Monday, November 30, 2020. To assist districts with the reconsideration process, the department had held an informational question and answer teleconference on November 12. Attendance improved from the initial year, and feedback continued to be positive.

Issues that arose in this year's application cycle are addressed in a separate FY22 CIP Department Briefing included in the packet. The revised statewide six-year plan based on compiled district reports is also included in the packet.

Per AS 14.11.014(b)(2), the committee is to make recommendations to the State Board of Education & Early Development (SBOE) concerning school construction grants. Recommended Motion to support the process under which the application and support materials and the resulting lists were developed:

I move that the Bond Reimbursement and Grant Review Committee recommend the State Board of Education & Early Development adopt the department's FY2022 list of projects eligible for funding under the School Construction Grant Fund and the Major Maintenance Grant Fund.

### ***School Capital Project Funding Report***

The FY2022 legislative appropriations to the REAA and Major Maintenance grant funds in the combined operating and capital budget were vetoed by the governor, so no funding was received in any of the three grant funds. The department combined existing balances in the Major Maintenance and REAA grant funds to allocate funding to the #1 ranked Major Maintenance project, St. Paul K-12 School Roof Replacement and Structural Repair. The school construction project, Hollis K-12 School Replacement, which received phased funding for design in FY20, continues to await construction funding.

Remaining fund balances were not sufficient to allocate additional grants to projects from the FY21 lists. See fund balance reports for the School Construction, Major Maintenance and REAA & Small Municipality Grant Funds for additional information on school construction funding. A sheet on the CIP grant request and funding history FY12-FY22 is also included for reference.

As debt reimbursement projects reach completion, the recipients may decide to pay down the bond principal or redirect the remaining unspent balance to a voter and DEED-approved project, per 4 AAC 31.064. In calendar year 2020 to date, the department has yet to approve an additional debt reimbursement project. However, we are currently reviewing five applications for debt reimbursement approval (Fairbanks – 3, Kodiak – 1, Anchorage – 1) under the provisions of this regulation.

### ***Preventive Maintenance Update (PM State-of-the-State)***

The Preventive Maintenance State of the State Report was updated on August 15, 2020, and is included in the packet with a charts showing compliance history. For the current FY22 CIP cycle, 48 of 53 school districts have certified preventive maintenance programs.

Districts not currently certified include:

- Aleutian Region
- Hydaburg City
- Lake & Peninsula
- Skagway
- Wrangell
- Yukon Flats

Districts granted provisional certification and working with the department to develop a full year of evidence of plan adherence include:

- Bristol Bay Borough
- Chatham
- Galena City
- Kake City
- Kuspuk
- Lower Kuskokwim
- Nenana City
- Pelican City
- Yakutat

This year maintenance management joined the problem areas, which continue to include tracking and reporting energy consumption and maintaining maintenance and custodial personnel training plans and records.

Site visits for the current fiscal year 2021 are scheduled to take place between November and April for the following school districts:

- Annette Island
- Dillingham City
- Haines Borough
- Juneau Borough
- Ketchikan
- Northwest Arctic Borough
- Petersburg Borough
- Southwest Region
- Wrangell Borough

Sites visits scheduled for the past year that were postponed due to disruption of travel caused by COVID-19 will be conducted for Kodiak Island Borough and Unalaska City. Pribilof Island will forgo an in-person visit this cycle.

## ***Regulations Update***

### **Energy Efficiency Standard**

The regulation package on updating the energy efficiency standard from ASHRAE 2010 to ASHRAE 90.1-2016, previously reviewed by BRGR, was approved by the State Board of Education and Early Development and was sent to the Lieutenant Governor's office on November 19, 2020 for review and promulgation within 30 days. A conformed DEED checklist for ASHRAE 2016 is included in the packet in another agenda item.

### **Preventive Maintenance Energy Management**

The department provided a notification to school districts on November 13 of the implementation of the adopted change to the preventive maintenance regulation to require evaluation of the need for commissioning of existing buildings. The department provided template spreadsheets, only slightly updated from those presented to the committee in September, and guidelines on use. The communication is included in the packet.

## ***Cost Model Update***

The Facilities section has started coordination with the department's new procurement officer for a contract to update the Program Demand Cost Model for Alaska Schools, commonly "DEED Cost Model". The five-year term contract with HMS for these services expired earlier this year. Due to this late start, we are anticipating some time pressures on the performance period for the 20<sup>th</sup> Edition update.

Prior to a recommendation to the Committee at the September 2020 meeting, the Model School Subcommittee, along with the department, had been considering the need for a small team of professionals to update the escalation component of the Cost Model. This component, known as the *Escalation Model School* file, includes not only price increases for labor and materials but also changes to school systems and components. However, the Committee's solid track record on vetting any adjustments of this type to the Escalation Model School resulted in a determination that we would continue using a Committee-driven update and not seek the assistance of consultants (other than the primary cost consultant preparing the update).

The Model School Subcommittee is still considering best practices regarding the use of the Cost Model tool as a component of the Model Alaskan School and construction standards. A briefing paper to address this topic is included elsewhere in this packet.

## ***Publications Update***

Following is a list of publications currently managed by the department along with an estimated revision priority, and the year of publication or latest draft. Those in bold are publications proposed for committee approval.

1. **Alaska School Facilities Preventive Maintenance Handbook** (1999) [*Proposed update 2021*]
2. **School Design and Construction Standards Handbook** (new) [*Proposed 2021*]
3. Site Selection Criteria & Evaluation Handbook (2011 2<sup>nd</sup> Ed.) [*Proposed update 2021*]
4. **Guidelines for School Equipment Purchases** (2016) [*Proposed update 2021*]
5. **Space Guidelines Handbook** (1996)
6. Facility Appraisal Guide (1997)
7. Renewal & Replacement Schedule (2001)
8. Outdoor Facility Guidelines for Secondary Schools (new)
9. Capital Project Administration Handbook (2017)
10. Project Delivery Method Handbook (2017)
11. **Life Cycle Cost Analysis Handbook** (2018)
12. Professional Services for School Capital Projects (2018)
13. **Swimming Pool Guidelines** (2019)
14. **A Handbook to Writing Educational Specifications** (2019)
15. **Guide for School Facility Condition Surveys** (2020)
16. Cost Format – *EED Standard Construction Cost Estimate Format* (2020)

### **Alaska School Facilities Preventive Maintenance Handbook**

Included in the packet is an updated draft of the Alaska School Facilities Preventive Maintenance Handbook with additional material. The Facilities Section continues to work on this document as time allows, the comprehensive nature of the update is a large undertaking.

## ***Department Staffing Update***

The Architect Assistant position became vacant this past summer. The position is currently planned to be filled the summer of 2021.

## ***Committee Member Update***

The committee seat filled by appointment from the House of Representatives remains vacant. The committee seat filled by Senator Cathy Giessel will become vacant in January 2021 and will be filled by appointment from the Senate President.

Three committee seats have terms expiring February 28, 2021:

1. Dale Smythe, Professional Degrees & Experience in School Construction
2. William Glumac, Experience in Urban or Rural School Facilities Management
3. Don Hiley, Public Representative

A public notice seeking applicants for the upcoming four-year terms will be issued late-December. Current members are encouraged to seek re-appointment by submitting a letter of interest and resume to the department.

**Alaska Department of Education and Early Development  
FY2022 Capital Improvement Projects  
School Construction Grant Fund**

Initial List

Nov 5 Rank	School District	Project Name	Amount Requested	Eligible Amount	Prior Funding	DEED Recommended Amount	Participating Share	State Share	Aggregate Amount
1	Southeast Island	Hollis K-12 School Replacement	\$10,355,919	\$10,355,919	\$686,523	\$9,669,396	\$193,388	\$9,476,008	\$9,476,008
2	Lower Kuskokwim	Anna Tobeluk Memorial K-12 School Renovation/Addition, Nunapitchuk	\$45,271,315	\$45,271,315	\$0	\$45,271,315	\$905,426	\$44,365,889	\$53,841,897
3	Lower Kuskokwim	William N. Miller K-12 Memorial School Replacement, Napakiak	\$47,322,739	\$43,672,991	\$0	\$43,672,991	\$873,460	\$42,799,531	\$96,641,428
4	Anchorage	Gruening Middle School Non-Seismic Improvements	\$22,344,492	\$19,950,551	\$0	\$19,950,551	\$6,982,693	\$12,967,858	\$109,609,286
5	Yukon-Koyukuk	Minto K-12 School Renovation/Addition	\$11,719,931	\$11,719,931	\$0	\$11,719,931	\$234,399	\$11,485,532	\$121,094,818
6	Anchorage	Gruening Middle School Accessibility Upgrades	\$406,320	\$406,320	\$0	\$406,320	\$142,212	\$264,108	\$121,358,926
7	Hoonah City	Hoonah School Playground Improvements	\$230,366	\$230,366	\$0	\$230,366	\$69,110	\$161,256	\$121,520,182
8	Anchorage	East High School Bus Driveway Improvements	\$910,366	\$910,366	\$0	\$910,366	\$318,628	\$591,738	\$122,111,920
9	Lower Kuskokwim	Newtok K-12 School Relocation/Replacement, Mertarvik	\$32,209,022	\$32,209,022	\$0	\$32,209,022	\$644,180	\$31,564,842	\$153,676,762
10	Anchorage	Security Vestibules Group 2, 3 Sites	\$951,669	\$951,669	\$0	\$951,669	\$333,084	\$618,585	\$154,295,347
11	Kenai Peninsula Borough	Kenai Middle School Security Remodel	\$1,287,504	\$1,526,987	\$0	\$1,526,987	\$534,445	\$992,542	\$155,287,889
12	Lower Kuskokwim	Water Storage and Treatment, Kongiganak	\$7,164,700	\$3,475,823	\$0	\$3,475,823	\$69,516	\$3,406,307	\$158,694,196
13	Anchorage	Security Vestibules Group 1, 3 Sites	\$1,231,000	\$1,231,000	\$0	\$1,231,000	\$430,850	\$800,150	\$159,494,346
14	Lower Kuskokwim	Bethel Campus Transportation and Drainage Upgrades	\$1,065,532	\$1,065,532	\$0	\$1,065,532	\$21,311	\$1,044,221	\$160,538,567
15	Anchorage	Chugiak High School Track Improvements	\$926,000	\$926,000	\$0	\$926,000	\$324,100	\$601,900	\$161,140,467
16	Kodiak Island Borough	East Elementary School Parking Lot Safety Upgrade and Repaving	\$479,534	\$479,534	\$0	\$479,534	\$167,837	\$311,697	\$161,452,164
17	Yupitit	Playground Construction, 3 Sites	\$1,154,192	\$871,176	\$0	\$871,176	\$17,424	\$853,752	\$162,305,916
<b>Totals:</b>			<b>\$185,030,601</b>	<b>\$175,254,502</b>	<b>\$686,523</b>	<b>\$174,567,979</b>	<b>\$12,262,063</b>	<b>\$162,305,916</b>	



**Alaska Department of Education and Early Development  
FY2022 Capital Improvement Projects  
Major Maintenance Grant Fund**

Initial List

Nov 5 Rank	School District	Project Name	Amount Requested	Eligible Amount	Prior Funding	DEED Recommended Amount	Participating Share	State Share	Aggregate Amount
1	Galena City	Galena Interior Learning Academy Composite Building Renovation	\$6,108,178	\$4,943,057	\$0	\$4,943,057	\$247,153	\$4,695,904	\$4,695,904
2	Craig City	Craig Middle School Rehabilitation	\$6,104,406	\$6,104,406	\$0	\$6,104,406	\$1,220,881	\$4,883,525	\$9,579,429
3	Anchorage	Eagle River Elementary School Improvements	\$8,085,765	\$8,085,765	\$0	\$8,085,765	\$2,830,018	\$5,255,747	\$14,835,176
4	Kake City	Kake Schools Heating Upgrades	\$242,277	\$242,277	\$0	\$242,276	\$48,455	\$193,821	\$15,028,997
5	Anchorage	West High School Roof Replacement	\$6,948,379	\$6,948,379	\$0	\$6,948,379	\$2,431,933	\$4,516,446	\$19,545,443
6	Denali Borough	Anderson K-12 School Partial Roof Replacement	\$1,337,610	\$1,337,610	\$0	\$1,337,610	\$267,522	\$1,070,088	\$20,615,531
7	Chugach	Chenega Bay K-12 School Renovation	\$5,696,900	\$5,696,900	\$0	\$5,696,900	\$113,938	\$5,582,962	\$26,198,493
8	Chugach	Tatitlek K-12 School Renovation	\$6,895,952	\$6,895,952	\$0	\$6,895,952	\$137,919	\$6,758,033	\$32,956,526
9	Juneau Borough	Sayéik: Gastineau Community School Partial Roof Replacement	\$1,550,000	\$1,550,000	\$0	\$1,550,000	\$542,500	\$1,007,500	\$33,964,026
10	Fairbanks Borough	Administrative Center Air Conditioning and Ventilation Replacement	\$1,404,509	\$1,404,509	\$0	\$1,404,509	\$491,578	\$912,931	\$34,876,957
11	Anchorage	Service High School Health and Safety Improvements	\$4,790,010	\$4,790,010	\$0	\$4,790,010	\$1,676,503	\$3,113,507	\$37,990,464
12	Anchorage	Birchwood Elementary School Roof Replacement	\$2,877,004	\$2,877,004	\$0	\$2,877,004	\$1,006,951	\$1,870,053	\$39,860,517
13	Aleutians East Borough	Sandpoint K-12 School Major Maintenance	\$3,931,263	\$2,877,365	\$0	\$2,877,365	\$1,007,078	\$1,870,287	\$41,730,804
14	Lower Yukon	Sheldon Point K-12 School Foundation Cooling and Repairs, Nunam Iqua	\$3,406,798	\$3,406,798	\$0	\$3,406,798	\$68,136	\$3,338,662	\$45,069,466
15	Anchorage	East High School Gym Improvements	\$8,971,000	\$7,843,975	\$0	\$7,843,975	\$2,745,391	\$5,098,584	\$50,168,050
16	Nenana City	Nenana K-12 School Flooring and Asbestos Abatement	\$420,041	\$420,041	\$0	\$420,041	\$21,002	\$399,039	\$50,567,089
17	Iditarod Area	David-Louis Memorial K-12 School HVAC Control Upgrades, Grayling	\$117,406	\$117,406	\$0	\$117,406	\$2,348	\$115,058	\$50,682,147
18	Iditarod Area	Blackwell K-12 School Fire Alarm Upgrades, Anvik	\$81,607	\$81,607	\$0	\$81,607	\$1,632	\$79,975	\$50,762,122
19	Lower Yukon	Hooper Bay K-12 School Exterior Repairs	\$3,707,895	\$2,296,607	\$0	\$2,296,607	\$45,932	\$2,250,675	\$53,012,797
20	Yukon-Koyukuk	YKSD District Office Roof Replacement	\$160,325	\$160,325	\$0	\$160,325	\$3,206	\$157,119	\$53,169,916
21	Ketchikan Borough	Ketchikan High School Security Upgrades	\$498,218	\$498,218	\$0	\$498,218	\$174,376	\$323,842	\$53,493,758
22	Yukon-Koyukuk	Ella B. Verneti K-12 School Boiler Replacement, Koyukuk	\$493,476	\$493,476	\$0	\$493,476	\$9,870	\$483,606	\$53,977,364
23	Lower Kuskokwim	Qugcuun Memorial K-12 School Renovation, Oscarville	\$3,887,529	\$3,887,529	\$0	\$3,887,529	\$77,751	\$3,809,778	\$57,787,142
24	Lower Kuskokwim	Akula Elitnavuk K-12 School Renovation, Kasigluk-Akula	\$4,221,348	\$4,221,348	\$0	\$4,221,348	\$84,427	\$4,136,921	\$61,924,063
25	Northwest Arctic Borough	Buckland K-12 School HVAC Renewal and Upgrades	\$1,049,278	\$1,049,278	\$0	\$1,049,278	\$209,856	\$839,422	\$62,763,485
26	Aleutians East Borough	Sandpoint K-12 School Pool Major Maintenance	\$103,788	\$103,788	\$0	\$103,788	\$36,326	\$67,462	\$62,830,947
27	Nome City	Anvil City Charter School Restroom Renovation	\$395,199	\$395,199	\$0	\$395,199	\$118,560	\$276,639	\$63,107,586

Issue Date: 11/05/2020

Run Date: 11/03/2020

**Alaska Department of Education and Early Development  
FY2022 Capital Improvement Projects  
Major Maintenance Grant Fund**

Initial List

Nov 5 Rank	School District	Project Name	Amount Requested	Eligible Amount	Prior Funding	DEED Recommended Amount	Participating Share	State Share	Aggregate Amount
28	Nome City	Nome Beltz Jr/Sr High School Boiler Replacement	\$110,860	\$110,860	\$0	\$110,860	\$33,258	\$77,602	\$63,185,188
29	Anchorage	Inlet View Elementary School Domestic Water System Improvements	\$458,959	\$458,959	\$0	\$458,959	\$160,636	\$298,323	\$63,483,511
30	Fairbanks Borough	Ben Eielson Jr/Sr High School Roof Replacement	\$3,493,585	\$3,213,865	\$0	\$3,213,865	\$1,124,853	\$2,089,012	\$65,572,523
31	Fairbanks Borough	Woodriver Elementary School Roof Replacement	\$1,992,289	\$1,465,301	\$0	\$1,465,301	\$512,855	\$952,446	\$66,524,969
32	Anchorage	Ptarmigan Elementary School Roof Replacement	\$1,981,736	\$1,981,736	\$0	\$1,981,736	\$693,608	\$1,288,128	\$67,813,097
33	Nenana City	Nenana K-12 School Boiler Replacement	\$187,995	\$187,995	\$0	\$187,995	\$9,400	\$178,595	\$67,991,692
34	Lower Yukon	Marshall K-12 School Tank Farm Emergency Repair	\$1,880,554	\$1,880,554	\$0	\$1,880,554	\$37,611	\$1,842,943	\$69,834,635
35	Anchorage	Stellar Secondary School Fire Alarm	\$280,039	\$280,039	\$0	\$280,039	\$98,014	\$182,025	\$70,016,660
36	Anchorage	Nunaka Valley Elementary School Roof Replacement	\$1,945,769	\$1,945,769	\$0	\$1,945,769	\$681,019	\$1,264,750	\$71,281,410
37	Nome City	Nome Schools DDC Control Upgrades	\$2,276,102	\$2,276,102	\$0	\$2,276,102	\$682,831	\$1,593,271	\$72,874,681
38	Chatham	Fire Alarm Upgrades, 3 Sites	\$222,249	\$222,249	\$0	\$222,249	\$4,445	\$217,804	\$73,092,485
39	Yupit	Tuluksak K-12 School Generator Refurbishment	\$161,019	\$161,019	\$0	\$161,019	\$3,220	\$157,799	\$73,250,284
40	Anchorage	Northwood Elementary School Partial Roof Replacement	\$2,177,488	\$2,177,488	\$0	\$2,177,488	\$762,121	\$1,415,367	\$74,665,651
41	Denali Borough	Generator Replacement, 3 Schools	\$1,260,050	\$1,260,050	\$0	\$1,260,050	\$252,010	\$1,008,040	\$75,673,691
42	Haines Borough	Haines High School Locker Room Renovation	\$934,926	\$934,926	\$0	\$934,926	\$327,224	\$607,702	\$76,281,393
43	Mat-Su Borough	Big Lake Elementary School Water System Replacement Ph 2	\$875,000	\$875,000	\$0	\$875,000	\$262,500	\$612,500	\$76,893,893
44	Hoonah City	Hoonah Central Boiler Replacement	\$283,613	\$283,613	\$0	\$283,613	\$85,084	\$198,529	\$77,092,422
45	Kuspuk	Jack Egnaty Sr K-12 School Roof Replacement, Sleetmute	\$1,435,049	\$1,445,382	\$0	\$1,445,382	\$28,908	\$1,416,474	\$78,508,896
46	Valdez City	Valdez High and Herman Hutchens Elementary Schools Domestic Water Piping Replacement	\$3,078,355	\$3,078,355	\$0	\$3,078,355	\$1,077,424	\$2,000,931	\$80,509,827
47	Denali Borough	Tri-Valley School Partial Roof Replacement	\$869,550	\$817,270	\$0	\$817,270	\$163,454	\$653,816	\$81,163,643
48	Yupit	Tuluksak K-12 School Fuel Tank Replacement	\$5,400,173	\$3,908,907	\$0	\$3,908,907	\$78,178	\$3,830,729	\$84,994,372
49	Fairbanks Borough	Lathrop High School Partial Roof Replacement	\$610,176	\$610,176	\$0	\$610,176	\$213,562	\$396,614	\$85,390,986
50	Kodiak Island Borough	Peterson Elementary School Roof Replacement	\$2,400,974	\$2,400,974	\$0	\$2,400,974	\$840,341	\$1,560,633	\$86,951,619
51	Haines Borough	Haines High School Roof Replacement	\$2,561,841	\$2,565,414	\$0	\$2,565,414	\$897,895	\$1,667,519	\$88,619,138
52	Anchorage	Bayshore Elementary School Boiler Replacement	\$1,192,000	\$1,192,000	\$0	\$1,192,000	\$417,200	\$774,800	\$89,393,938
53	Sitka Borough	Keet Gooshi Heen Elementary Covered PE Structure Renovation	\$503,823	\$503,823	\$0	\$503,823	\$176,338	\$327,485	\$89,721,423
54	Chatham	Klukwan K-12 School Roof Replacement	\$1,560,692	\$1,560,692	\$0	\$1,560,692	\$31,214	\$1,529,478	\$91,250,901
55	Fairbanks Borough	Anderson Elementary School Renovation	\$6,053,761	\$3,769,777	\$0	\$3,769,777	\$1,319,422	\$2,450,355	\$93,701,256
56	Bristol Bay Borough	Bristol Bay Elementary School and Gym Roof Replacement	\$2,942,126	\$2,942,126	\$0	\$2,942,126	\$1,029,744	\$1,912,382	\$95,613,638

**Alaska Department of Education and Early Development  
FY2022 Capital Improvement Projects  
Major Maintenance Grant Fund**

Initial List

Nov 5 Rank	School District	Project Name	Amount Requested	Eligible Amount	Prior Funding	DEED Recommended Amount	Participating Share	State Share	Aggregate Amount
57	Iditarod Area	Blackwell K-12 School HVAC Control Upgrades, Anvik	\$205,746	\$205,746	\$0	\$205,746	\$4,115	\$201,631	\$95,815,269
58	Nome City	Nome Elementary School Fire Alarm Replacement	\$464,903	\$464,903	\$0	\$464,903	\$139,471	\$325,432	\$96,140,701
59	Lower Kuskokwim	Bethel Regional High School Boardwalk Replacement	\$2,122,153	\$1,687,147	\$0	\$1,687,147	\$33,743	\$1,653,404	\$97,794,105
60	Anchorage	Bear Valley Elementary Domestic Water Replacement	\$3,109,235	\$2,595,307	\$0	\$2,595,307	\$908,357	\$1,686,950	\$99,481,055
61	Kodiak Island Borough	Chiniak K-12 School Water Treatment Code Compliance and Upgrade	\$366,870	\$366,870	\$0	\$366,870	\$128,404	\$238,466	\$99,719,521
62	Lower Yukon	Hooper Bay K-12 School Emergency Lighting and Retrofit	\$237,242	\$237,242	\$0	\$237,242	\$4,745	\$232,497	\$99,952,018
63	Lower Yukon	Scammon Bay K-12 School Emergency Lighting and Retrofit	\$120,841	\$120,841	\$0	\$120,841	\$2,417	\$118,424	\$100,070,442
64	Valdez City	Valdez High School Window Replacement	\$522,837	\$522,837	\$0	\$522,837	\$182,993	\$339,844	\$100,410,286
65	Kake City	Exterior Upgrades - Main School Facilities	\$395,602	\$395,602	\$0	\$395,602	\$79,120	\$316,482	\$100,726,768
66	Nome City	Nome Beltz Jr/Sr High School Generator Replacement	\$910,710	\$910,710	\$0	\$910,710	\$273,213	\$637,497	\$101,364,265
67	Lower Yukon	LYSD Central Office Renovation	\$5,313,034	\$5,313,034	\$0	\$5,313,034	\$106,261	\$5,206,773	\$106,571,038
68	Saint Marys City	St. Mary's Campus Renewal and Repairs	\$1,207,223	\$201,603	\$0	\$201,603	\$20,160	\$181,443	\$106,752,481
69	Juneau Borough	Dzantik'I Heeni Middle School Roof Replacement	\$2,650,000	\$2,650,000	\$0	\$2,650,000	\$927,500	\$1,722,500	\$108,474,981
70	Anchorage	Mears Middle School Roof Replacement	\$7,818,250	\$6,309,376	\$0	\$6,309,376	\$2,208,282	\$4,101,094	\$112,576,075
71	Nenana City	Nenana K-12 School Fire Suppression System Replacement	\$1,577,044	\$1,577,044	\$0	\$1,577,044	\$78,852	\$1,498,192	\$114,074,267
72	Lower Kuskokwim	Gladys Jung Elementary School Heating Mains Replacement	\$1,409,057	\$1,168,750	\$0	\$1,168,750	\$23,375	\$1,145,375	\$115,219,642
73	Mat-Su Borough	Butte and Snowshoe Elementary Schools Water System Replacement	\$1,717,608	\$1,717,608	\$0	\$1,717,608	\$515,282	\$1,202,326	\$116,421,968
74	Yupitit	Gym Floor Replacement, 3 Schools	\$299,204	\$299,204	\$0	\$299,204	\$5,984	\$293,220	\$116,715,188
75	Kake City	Kake High School Gym Floor and Bleacher Replacement	\$363,339	\$363,339	\$0	\$363,339	\$72,668	\$290,671	\$117,005,859
76	Valdez City	Valdez High and Herman Hutchens Elementary Schools Generator Replacement	\$819,249	\$819,249	\$0	\$819,249	\$286,737	\$532,512	\$117,538,371
77	Lower Kuskokwim	Akiuk Memorial K-12 School Renovation, Kasigluk-Akiuk	\$3,481,772	\$3,481,772	\$0	\$3,481,772	\$69,635	\$3,412,137	\$120,950,508
78	Lower Yukon	Scammon Bay K-12 School Siding Replacement	\$1,198,395	\$1,198,395	\$0	\$1,198,395	\$23,968	\$1,174,427	\$122,124,935
79	Fairbanks Borough	Tanana Middle School Classroom Upgrades	\$9,152,086	\$7,946,990	\$0	\$7,946,990	\$2,781,446	\$5,165,544	\$127,290,479
80	Kake City	Kake High School Plumbing Replacement	\$799,681	\$799,681	\$0	\$799,681	\$159,936	\$639,745	\$127,930,224
81	Iditarod Area	David-Louis Memorial K-12 School Roof Replacement, Grayling	\$2,978,280	\$2,978,280	\$0	\$2,978,280	\$59,566	\$2,918,714	\$130,848,938
82	Anchorage	West High School Utilidor Improvements	\$2,417,736	\$2,417,736	\$0	\$2,417,736	\$846,208	\$1,571,528	\$132,420,466

**Alaska Department of Education and Early Development  
FY2022 Capital Improvement Projects  
Major Maintenance Grant Fund**

Initial List

Nov 5 Rank	School District	Project Name	Amount Requested	Eligible Amount	Prior Funding	DEED Recommended Amount	Participating Share	State Share	Aggregate Amount
83	Kenai Peninsula Borough	Seward Middle School Exterior Repair	\$976,682	\$976,682	\$0	\$976,682	\$341,839	\$634,843	\$133,055,309
84	Southeast Island	Thorne Bay K-12 School Fire Suppression System	\$542,676	\$542,676	\$0	\$542,676	\$10,854	\$531,822	\$133,587,131
85	Kodiak Island Borough	East Elementary School Special Electrical and Security	\$1,555,385	\$1,555,385	\$0	\$1,555,385	\$544,385	\$1,011,000	\$134,598,131
86	Fairbanks Borough	Administrative Center Exterior Renovation	\$4,302,874	\$2,274,780	\$0	\$2,274,780	\$796,173	\$1,478,607	\$136,076,738
87	Fairbanks Borough	Anne Wien Elementary School Renovation	\$7,215,628	\$4,934,172	\$0	\$4,934,172	\$1,726,960	\$3,207,212	\$139,283,950
88	Fairbanks Borough	Pearl Creek Elementary School Classroom Upgrades	\$5,636,950	\$4,670,376	\$0	\$4,670,376	\$1,634,632	\$3,035,744	\$142,319,694
89	Kodiak Island Borough	North Star Elementary School Siding Replacement	\$507,812	\$507,812	\$0	\$507,812	\$177,734	\$330,078	\$142,649,772
90	Southeast Island	Thorne Bay K-12 School Flooring Replacement	\$72,372	\$72,372	\$0	\$72,372	\$1,447	\$70,925	\$142,720,697
91	Juneau Borough	Riverbend Elementary School Roof Replacement	\$2,800,000	\$2,800,000	\$0	\$2,800,000	\$980,000	\$1,820,000	\$144,540,697
92	Fairbanks Borough	Weller Elementary School Classroom Upgrades	\$5,963,708	\$4,821,800	\$0	\$4,821,800	\$1,687,630	\$3,134,170	\$147,674,867
93	Lower Yukon	Ignatius Beans K-12 School Marine Header Pipeline, Mountain Village	\$1,388,860	\$1,388,860	\$0	\$1,388,860	\$27,777	\$1,361,083	\$149,035,950
94	Mat-Su Borough	Elevator Code and Compliance Upgrades, 6 Sites	\$1,636,582	\$1,636,582	\$0	\$1,636,582	\$490,975	\$1,145,607	\$150,181,557
95	Southeast Island	Thorne Bay K-12 School Mechanical Control Upgrades	\$1,239,950	\$1,239,950	\$0	\$1,239,950	\$24,799	\$1,215,151	\$151,396,708
96	Mat-Su Borough	Structural Seismic Upgrades, 5 Sites	\$11,784,140	\$11,784,140	\$0	\$11,784,140	\$3,535,242	\$8,248,898	\$159,645,606
97	Yupit	Mechanical System Improvements, 3 Schools	\$811,120	\$811,120	\$0	\$811,120	\$16,222	\$794,898	\$160,440,504
98	Mat-Su Borough	Talkeetna Elementary School Roof Replacement	\$1,712,769	\$1,712,769	\$0	\$1,712,769	\$513,831	\$1,198,938	\$161,639,442
99	Mat-Su Borough	Colony and Wasilla Middle Schools Roof Replacement	\$4,195,070	\$4,195,070	\$0	\$4,195,070	\$1,258,521	\$2,936,549	\$164,575,991
100	Mat-Su Borough	HVAC Control Upgrades, 5 Sites	\$10,167,099	\$10,147,491	\$0	\$10,147,491	\$3,044,247	\$7,103,244	\$171,679,235
101	Mat-Su Borough	Ceiling and Sprinkler Seismic Mitigation, 5 Sites	\$3,651,237	\$3,651,237	\$0	\$3,651,237	\$1,095,371	\$2,555,866	\$174,235,101
102	Lower Yukon	Kotlik and Pilot Station K-12 Schools Renewal and Repair	\$4,035,240	\$4,035,240	\$0	\$4,035,240	\$80,705	\$3,954,535	\$178,189,636
103	Southeast Island	Port Alexander K-12 School Domestic Water Pipe Replacement	\$91,332	\$91,332	\$0	\$91,332	\$1,827	\$89,505	\$178,279,141
104	Yupit	Akiachak K-12 School Window Replacement	\$119,128	\$119,128	\$0	\$119,128	\$2,383	\$116,745	\$178,395,886
105	Lower Yukon	Sheldon Point K-12 School Exterior Repairs, Nunam Iqua	\$1,844,996	\$1,844,996	\$0	\$1,844,996	\$36,900	\$1,808,096	\$180,203,982
106	Southeast Island	Thorne Bay K-12 School Underground Storage Tank Replacement	\$433,860	\$433,860	\$0	\$433,860	\$8,677	\$425,183	\$180,629,165
107	Southeast Island	Port Alexander and Thorne Bay K-12 Schools Roof Replacement	\$3,925,991	\$3,925,991	\$0	\$3,925,991	\$78,520	\$3,847,471	\$184,476,636
108	Lower Yukon	Security Access Upgrades, 6 Sites	\$1,818,377	\$1,818,377	\$0	\$1,818,377	\$36,368	\$1,782,009	\$186,258,645
<b>Totals:</b>			<b>\$262,704,849</b>	<b>\$241,980,714</b>	<b>\$0</b>	<b>\$241,980,713</b>	<b>\$55,722,068</b>	<b>\$186,258,645</b>	

**Alaska Department of Education and Early Development  
 FY2022 Capital Improvement Projects  
 School Construction Grant Fund  
 Total Points - Formula Driven and Evaluative  
 Initial List**

Nov 5 Rank	School District	Project Name	School Dist Rank	Weight Avg Age	Prev. 14.11 Fund	Plan and Design	Prior Design Use	Avg Expend Maint	Un-Housed Today	Un-Housed 7 Years	Type of Space	Cond Survey	O&M Rpts	Maint Mgt	Energy Mgt	Cusd Pgm	Maint Train	Capital Plan	Emer-gency	Life/Safety and Code Conditions	Exist-ing Space	Cost Esti-mate	Proj vs Oper Cost	Altern at-ives	Options	Total Project Points
1	Southeast Island	Hollis K-12 School Replacement	27.00	24.26	30.00	10.00	0.00	2.88	26.74	30.00	23.84	10.00	25.00	2.67	3.00	2.67	3.33	3.00	9.00	16.02	22.67	15.67	3.33	3.00	9.33	303.41
2	Lower Kuskokwim	Anna Tobeluk Memorial K-12 School Renovation/Addition, Nunapitchuk	24.00	21.95	0.00	10.00	0.00	3.20	30.19	23.79	22.21	10.00	30.00	2.67	2.33	2.67	2.33	3.00	0.00	31.91	19.67	12.67	3.33	3.33	11.67	270.91
3	Lower Kuskokwim	William N. Miller K-12 Memorial School Replacement, Napakiak	30.00	30.00	0.00	10.00	0.00	3.46	1.44	0.86	22.63	10.00	30.00	4.00	2.67	3.33	3.00	3.33	25.00	14.38	0.00	17.67	4.33	3.00	9.67	228.77
4	Anchorage	Gruening Middle School Non-Seismic Improvements	30.00	23.00	0.00	25.00	0.00	4.82	0.00	0.00	21.11	10.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	10.50	10.67	25.00	1.33	3.00	9.67	224.44
5	Yukon-Koyukuk	Minto K-12 School Renovation/Addition	30.00	23.78	0.00	10.00	0.00	2.82	0.00	3.41	23.85	10.00	25.00	3.67	2.67	3.00	3.33	3.00	0.00	23.58	15.33	18.33	4.00	4.00	13.00	222.77
6	Anchorage	Gruening Middle School Accessibility Upgrades	15.00	19.50	0.00	25.00	0.00	5.00	0.00	0.00	30.00	10.00	25.00	4.33	4.00	4.00	3.00	5.00	0.00	1.75	7.67	25.67	1.33	1.67	4.67	192.58
7	Hoonah City	Hoonah School Playground Improvements	27.00	30.00	0.00	25.00	0.00	1.72	0.00	0.00	0.00	0.00	30.00	3.00	3.67	3.00	2.33	2.00	0.00	6.34	2.00	29.00	0.00	1.67	8.33	175.06
8	Anchorage	East High School Bus Driveway Improvements	12.00	30.00	0.00	25.00	0.00	5.00	0.00	0.00	0.00	10.00	25.00	4.33	3.67	4.00	3.00	4.67	0.00	13.00	0.00	24.33	2.33	1.67	5.00	173.00
9	Lower Kuskokwim	Newtok K-12 School Relocation/Replacement, Mertarvik	21.00	8.86	0.00	0.00	0.00	3.20	4.06	2.44	22.79	0.00	30.00	2.67	2.33	2.67	2.33	3.00	21.33	0.41	6.33	13.00	3.00	4.33	8.00	161.76
10	Anchorage	Security Vestibules Group 2, 3 Sites	21.00	21.18	0.00	25.00	0.00	4.82	0.00	0.00	0.00	0.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	0.00	6.00	25.67	0.00	3.00	4.67	161.67
11	Kenai Peninsula Bor	Kenai Middle School Security Remodel	30.00	30.00	0.00	10.00	0.00	3.03	0.00	0.00	0.00	0.00	30.00	3.67	3.00	3.67	2.67	3.67	0.00	2.07	5.33	14.00	0.00	0.00	5.33	146.43
12	Lower Kuskokwim	Water Storage and Treatment, Kongiganak	18.00	0.00	0.00	20.00	0.00	3.46	0.00	0.00	0.00	8.00	30.00	4.00	2.67	3.33	3.00	3.33	0.00	17.33	0.00	17.33	2.67	2.00	10.33	145.46
13	Anchorage	Security Vestibules Group 1, 3 Sites	24.00	9.52	0.00	15.00	0.00	4.82	0.00	0.00	0.00	0.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	0.00	6.00	26.00	0.00	3.00	4.67	143.35
14	Lower Kuskokwim	Bethel Campus Transportation and	6.00	27.80	0.00	10.00	0.00	3.46	0.00	0.00	0.00	8.00	30.00	4.00	2.67	3.33	3.00	3.33	0.00	12.35	0.00	15.00	1.67	2.67	4.33	137.60
15	Anchorage	Chugiak High School Track Improvements	0.00	4.00	0.00	25.00	0.00	4.82	0.00	0.00	0.00	10.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	2.67	4.00	26.67	0.00	2.67	5.33	135.49
16	Kodiak Island Borouç	East Elementary School Parking Lot Safety Upgrade and Repaving	21.00	30.00	0.00	0.00	0.00	2.83	0.00	0.00	0.00	0.00	25.00	3.00	2.67	3.33	2.67	3.67	0.00	7.00	0.00	12.00	1.67	0.00	2.67	117.50
17	Yupiiit	Playground Construction, 3 Sites	15.00	2.69	0.00	10.00	0.00	1.69	0.00	0.00	0.00	0.00	30.00	3.33	2.67	2.67	2.67	2.67	0.00	12.00	3.67	12.67	0.00	2.00	6.00	109.70



**Alaska Department of Education and Early Development  
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 Initial List**

Nov 5 Rank	School District	Project Name	School Dist Rank	Weight Avg Age	Prev. 14.11 Fund	Plan and Design	Prior Design Use	Avg Expend Maint	Un-Housed Today	Un-Housed 7 Years	Type of Space	Cond Survey	O&M Rpts	Maint Mgt	Energy Mgt	Cusd Pgm	Maint Train	Capital Plan	Emer-gency	Life/Safety and Code Conditions	Exist-ing Space	Cost Esti-mate	Proj vs Oper Cost	Altern at-ives	Options	Total Project Points
1	Galena City	Galena Interior Learning Academy Composite Building Renovation	30.00	21.25	0.00	25.00	0.00	5.00	0.00	0.00	0.00	10.00	25.00	3.67	3.33	3.33	2.67	3.33	0.00	50.00	5.00	25.00	9.33	0.00	11.67	233.58
2	Craig City	Craig Middle School Rehabilitation	30.00	28.56	0.00	25.00	0.00	2.15	0.00	0.00	0.00	10.00	25.00	3.00	3.00	3.33	2.33	3.00	0.00	39.33	3.33	23.33	3.67	0.00	9.33	214.37
3	Anchorage	Eagle River Elementary School Improvements	27.00	30.00	0.00	25.00	0.00	4.82	0.00	0.00	0.00	10.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	28.40	3.00	24.00	2.00	0.00	5.67	210.22
4	Kake City	Kake Schools Heating Upgrades	30.00	29.39	0.00	25.00	0.00	1.63	0.00	0.00	0.00	8.00	30.00	2.67	3.67	3.00	3.33	3.00	0.00	17.33	3.33	28.33	7.00	0.00	10.00	205.69
5	Anchorage	West High School Roof Replacement	18.00	30.00	0.00	25.00	0.00	4.78	0.00	0.00	0.00	8.00	30.00	4.00	4.67	3.67	3.33	5.00	0.00	27.67	1.67	27.00	3.67	0.00	7.33	203.78
6	Denali Borough	Anderson K-12 School Partial Roof Replacement	30.00	30.00	0.00	25.00	0.00	2.93	0.00	0.00	0.00	10.00	30.00	3.33	4.00	3.33	3.33	3.33	0.00	6.00	0.00	27.00	6.33	0.00	15.67	200.27
7	Chugach	Chenega Bay K-12 School Renovation	30.00	13.88	0.00	20.00	0.00	1.42	0.00	0.00	0.00	10.00	25.00	3.00	3.00	3.33	2.67	2.67	0.00	50.00	1.33	18.33	2.00	0.00	13.33	199.96
8	Chugach	Tatitlek K-12 School Renovation	27.00	22.12	0.00	20.00	0.00	1.42	0.00	0.00	0.00	10.00	25.00	3.00	3.00	3.33	2.67	2.67	5.00	41.42	0.00	19.33	0.00	0.00	13.33	199.29
9	Juneau Borough	Sayéik: Gastineau Community School Partial Roof Replacement	30.00	30.00	0.00	25.00	0.00	2.33	0.00	0.00	0.00	5.00	30.00	3.00	2.67	3.67	3.33	4.00	0.00	21.00	0.00	20.67	7.33	0.00	7.00	194.99
10	Fairbanks Borough	Administrative Center Air Conditioning and Ventilation Replacement	30.00	10.25	0.00	25.00	0.00	3.62	0.00	0.00	0.00	8.00	30.00	4.00	4.33	5.00	3.33	3.33	5.00	10.68	0.00	27.33	7.33	0.00	16.00	193.22
11	Anchorage	Service High School Health and Safety Improvements	6.00	30.00	0.00	25.00	0.00	4.78	0.00	0.00	0.00	5.00	30.00	4.00	4.33	3.67	3.33	5.00	0.00	37.51	2.00	24.00	2.33	0.00	3.33	190.29
12	Anchorage	Birchwood Elementary School Roof Replacement	9.00	30.00	0.00	25.00	0.00	4.78	0.00	0.00	0.00	8.00	30.00	4.00	4.33	3.67	3.33	5.00	0.00	19.46	2.00	26.33	3.67	0.00	6.67	185.24
13	Aleutians East Borough	Sandpoint K-12 School Major Maintenance	30.00	23.82	0.00	10.00	0.00	1.51	0.00	0.00	0.00	10.00	30.00	3.00	2.67	2.67	2.67	2.67	0.00	38.00	0.67	14.67	3.33	0.00	8.67	184.33
14	Lower Yukon	Sheldon Point K-12 School Foundation Cooling and Repairs, Nunam Iqua	30.00	0.50	0.00	25.00	0.00	2.11	0.00	0.00	0.00	8.00	25.00	3.00	1.33	3.00	2.33	2.67	11.67	29.00	4.00	27.33	0.33	0.00	7.67	182.94
15	Anchorage	East High School Gym Improvements	0.00	30.00	0.00	25.00	0.00	4.82	0.00	0.00	0.00	10.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	29.16	1.00	26.33	2.33	0.00	2.67	181.65
16	Nenana City	Nenana K-12 School Flooring and Asbestos Abatement	30.00	30.00	0.00	25.00	0.00	2.97	0.00	0.00	0.00	5.00	30.00	3.67	3.00	2.67	2.00	3.67	0.00	7.00	3.00	24.67	2.33	0.00	6.67	181.64
17	Iditarod Area	David-Louis Memorial K-12 School HVAC Control Upgrades, Grayling	27.00	16.00	0.00	25.00	0.00	2.53	0.00	0.00	0.00	8.00	25.00	2.00	2.00	2.33	2.33	2.33	5.00	20.71	0.00	28.00	5.67	0.00	7.67	181.58
18	Iditarod Area	Blackwell K-12 School Fire Alarm Upgrades, Anvik	30.00	30.00	0.00	10.00	0.00	2.66	0.00	0.00	0.00	8.00	25.00	2.00	2.00	2.33	1.67	2.67	10.00	18.00	0.00	28.00	2.67	0.00	5.33	180.33
19	Lower Yukon	Hooper Bay K-12 School Exterior Repairs	24.00	2.00	0.00	25.00	0.00	2.18	0.00	0.00	0.00	8.00	30.00	3.67	3.33	3.00	3.67	3.00	5.00	20.79	3.33	27.33	4.00	0.00	12.00	180.30
20	Yukon-Koyukuk	YKSD District Office Roof Replacement	27.00	30.00	0.00	25.00	0.00	2.82	0.00	0.00	0.00	0.00	25.00	3.67	2.67	3.00	3.33	3.00	0.00	7.60	1.00	28.67	5.00	0.00	9.67	177.42
21	Ketchikan Borough	Ketchikan High School Security Upgrades	30.00	30.00	0.00	25.00	0.00	3.39	0.00	0.00	0.00	0.00	25.00	3.00	3.00	2.33	2.33	3.33	0.00	0.00	0.00	24.00	12.00	0.00	7.33	170.73
22	Yukon-Koyukuk	Ella B. Verneti K-12 School Boiler Replacement, Koyukuk	24.00	21.28	0.00	20.00	0.00	2.82	0.00	0.00	0.00	8.00	25.00	3.67	2.67	3.00	3.33	3.00	0.00	19.88	0.00	18.33	4.33	0.00	11.33	170.65
23	Lower Kuskokwim	Qugcuun Memorial K-12 School Renovation, Oscarville	3.00	26.93	0.00	10.00	0.00	3.20	0.00	0.00	0.00	10.00	30.00	2.67	2.33	2.67	2.33	3.00	0.00	50.00	1.00	14.00	1.67	0.00	5.33	168.13

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24	Lower Kuskokwim	Akula Elitnavuk K-12 School Renovation, Kasigluk-Akula	15.00	23.26	0.00	10.00	0.00	3.20	0.00	0.00	0.00	10.00	30.00	2.67	2.33	2.67	2.33	3.00	1.67	33.77	1.67	15.67	2.67	0.00	8.00	167.90
25	Northwest Arctic Bor	Buckland K-12 School HVAC Renewal and Upgrades	30.00	8.15	0.00	25.00	0.00	2.93	0.00	0.00	0.00	5.00	30.00	2.67	2.33	3.00	1.67	3.33	0.00	10.00	1.00	23.00	10.33	0.00	9.00	167.41
26	Aleutians East Borou	Sandpoint K-12 School Pool Major Maintenance	27.00	22.07	0.00	25.00	0.00	1.52	0.00	0.00	0.00	0.00	30.00	2.67	3.00	2.00	2.67	2.33	0.00	4.00	0.33	29.00	7.67	0.00	6.67	165.92
27	Nome City	Anvil City Charter School Restroom Renovation	27.00	30.00	0.00	25.00	0.00	1.43	0.00	0.00	0.00	0.00	25.00	3.00	2.33	2.33	2.00	3.00	0.00	4.00	4.33	27.33	2.00	0.00	6.67	165.43
28	Nome City	Nome Beltz Jr/Sr High School Boiler Replacement	30.00	30.00	0.00	25.00	0.00	1.43	0.00	0.00	0.00	0.00	25.00	3.00	2.33	2.33	2.00	3.00	0.00	7.36	0.00	24.67	2.67	0.00	6.33	165.13
29	Anchorage	Inlet View Elementary School Domestic Water System Improvements	0.00	30.00	0.00	25.00	0.00	5.00	0.00	0.00	0.00	10.00	25.00	4.33	4.00	4.00	3.00	5.00	0.00	15.00	0.00	26.67	0.00	0.00	7.33	164.33
30	Fairbanks Borough	Ben Eielson Jr/Sr High School Roof Replacement	24.00	30.00	0.00	10.00	0.00	3.62	0.00	0.00	0.00	0.00	30.00	4.00	4.33	5.00	3.33	3.33	0.00	8.00	0.00	27.33	6.33	0.00	4.67	163.96
31	Fairbanks Borough	Woodriver Elementary School Roof Replacement	21.00	30.00	0.00	10.00	0.00	3.62	0.00	0.00	0.00	0.00	30.00	4.00	4.33	5.00	3.33	3.33	0.00	9.90	0.00	27.33	6.00	0.00	4.67	162.52
32	Anchorage	Ptarmigan Elementary School Roof Replacement	0.00	21.97	0.00	25.00	0.00	4.78	0.00	0.00	0.00	8.00	30.00	4.00	4.33	3.67	3.33	5.00	0.00	14.83	1.67	26.67	3.00	0.00	5.67	161.92
33	Nenana City	Nenana K-12 School Boiler Replacement	27.00	30.00	0.00	20.00	0.00	2.97	0.00	0.00	0.00	3.00	30.00	3.67	3.00	2.67	2.00	3.67	0.00	4.00	0.00	20.00	3.00	0.00	6.33	161.30
34	Lower Yukon	Marshall K-12 School Tank Farm Emergency Repair	27.00	0.00	0.00	20.00	0.00	2.18	0.00	0.00	0.00	10.00	30.00	3.67	3.33	3.00	3.67	3.00	6.00	9.60	0.00	28.00	4.33	0.00	7.00	160.78
35	Anchorage	Stellar Secondary School Fire Alarm	0.00	30.00	0.00	20.00	0.00	4.78	0.00	0.00	0.00	0.00	30.00	4.00	4.33	3.67	3.33	5.00	0.00	18.04	0.67	27.00	4.00	0.00	5.00	159.82
36	Anchorage	Nunaka Valley Elementary School Roof Replacement	3.00	30.00	0.00	25.00	0.00	5.00	0.00	0.00	0.00	8.00	25.00	4.33	4.00	4.00	3.00	5.00	0.00	8.91	0.00	25.00	2.67	0.00	6.67	159.58
37	Nome City	Nome Schools DDC Control Upgrades	21.00	30.00	0.00	25.00	0.00	1.43	0.00	0.00	0.00	0.00	25.00	3.00	2.33	2.33	2.00	3.00	0.00	3.00	1.00	19.00	16.00	0.00	5.33	159.43
38	Chatham	Fire Alarm Upgrades, 3 Sites	27.00	30.00	0.00	10.00	0.00	1.10	0.00	0.00	0.00	0.00	30.00	3.00	3.00	2.67	3.00	2.67	5.00	7.00	0.00	24.67	0.67	0.00	9.33	159.10
39	Yupitit	Tuluksak K-12 School Generator Refurbishment	30.00	2.50	0.00	25.00	0.00	1.65	0.00	0.00	0.00	0.00	30.00	3.33	2.67	2.00	2.67	2.67	6.33	13.39	0.00	24.00	3.00	0.00	9.67	158.87
40	Anchorage	Northwood Elementary School Partial Roof Replacement	0.00	30.00	0.00	25.00	0.00	5.00	0.00	0.00	0.00	8.00	25.00	4.33	4.00	4.00	3.00	5.00	0.00	11.00	0.00	24.67	2.67	0.00	7.00	158.67
41	Denali Borough	Generator Replacement, 3 Schools	27.00	30.00	0.00	10.00	0.00	2.93	0.00	0.00	0.00	10.00	30.00	3.33	4.00	3.33	3.33	3.33	0.00	8.82	0.00	14.67	1.33	0.00	6.00	158.09
42	Haines Borough	Haines High School Locker Room Renovation	27.00	26.50	0.00	10.00	0.00	1.28	0.00	0.00	0.00	3.00	30.00	2.67	2.67	3.00	2.00	2.67	0.00	21.84	0.00	12.67	3.67	0.00	8.67	157.62
43	Mat-Su Borough	Big Lake Elementary School Water System Replacement Ph 2	30.00	30.00	0.00	25.00	0.00	2.25	0.00	0.00	0.00	10.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	12.48	2.33	16.33	1.00	0.00	3.67	154.73
44	Hoonah City	Hoonah Central Boiler Replacement	30.00	30.00	0.00	10.00	0.00	1.72	0.00	0.00	0.00	8.00	30.00	3.00	3.67	3.00	2.33	2.00	0.00	0.00	0.00	13.67	7.67	0.00	9.67	154.72
45	Kuspuk	Jack Egnaty Sr K-12 School Roof Replacement, Sleetmute	30.00	30.00	0.00	0.00	0.00	1.99	0.00	0.00	0.00	0.00	30.00	3.00	2.67	2.67	2.33	2.00	8.67	12.92	1.00	14.67	4.33	0.00	8.33	154.58

**Alaska Department of Education and Early Development  
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 Initial List**

Nov 5 Rank	School District	Project Name	School Dist Rank	Weight Avg Age	Prev. 14.11 Fund	Plan and Design	Prior Design Use	Avg Expend Maint	Un-Housed Today	Un-Housed 7 Years	Type of Space	Cond Survey	O&M Rpts	Maint Mgt	Energy Mgt	Cusd Pgm	Maint Train	Capital Plan	Emer-gency	Life/Safety and Code Conditions	Exist-ing Space	Cost Esti-mate	Proj vs Oper Cost	Altern at-ives	Options	Total Project Points
46	Valdez City	Valdez High and Herman Hutchens Elementary Schools Domestic Water Piping Replacement	30.00	30.00	0.00	10.00	0.00	1.62	0.00	0.00	0.00	10.00	20.00	2.67	3.00	3.00	3.00	3.00	5.00	10.00	0.00	14.33	2.33	0.00	6.00	153.95
47	Denali Borough	Tri-Valley School Partial Roof Replacement	24.00	17.75	0.00	10.00	0.00	2.93	0.00	0.00	0.00	10.00	30.00	3.33	4.00	3.33	3.33	3.33	0.00	14.95	2.33	14.00	3.33	0.00	7.00	153.63
48	Yupit	Tuluksak K-12 School Fuel Tank Replacement	18.00	30.00	0.00	10.00	0.00	1.69	0.00	0.00	0.00	8.00	30.00	3.33	2.67	3.00	3.00	2.67	6.00	10.00	0.00	14.00	2.67	0.00	7.67	152.69
49	Fairbanks Borough	Lathrop High School Partial Roof Replacement	27.00	19.50	0.00	10.00	0.00	3.62	0.00	0.00	0.00	0.00	30.00	4.00	4.33	5.00	3.33	3.33	0.00	7.44	0.00	27.33	0.00	0.00	6.00	150.90
50	Kodiak Island Borough	Peterson Elementary School Roof Replacement	30.00	30.00	0.00	10.00	0.00	2.83	0.00	0.00	0.00	8.00	25.00	3.00	2.67	3.33	2.67	3.67	0.00	7.18	1.33	14.33	2.33	0.00	4.00	150.34
51	Haines Borough	Haines High School Roof Replacement	30.00	30.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00	30.00	2.67	2.67	3.00	2.00	2.67	5.00	15.00	0.00	14.00	3.33	0.00	7.67	149.28
52	Anchorage	Bayshore Elementary School Boiler Replacement	0.00	29.15	0.00	20.00	0.00	4.82	0.00	0.00	0.00	0.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	12.50	1.00	25.67	1.67	0.00	3.67	148.81
53	Sitka Borough	Keet Gooshi Heen Elementary Covered PE Structure Renovation	30.00	16.00	0.00	10.00	0.00	1.02	0.00	0.00	0.00	8.00	30.00	3.67	2.00	1.67	1.67	3.00	0.00	10.40	1.33	17.67	2.67	0.00	9.33	148.42
54	Chatham	Klukwan K-12 School Roof Replacement	30.00	23.00	0.00	0.00	0.00	1.18	0.00	0.00	0.00	3.00	30.00	2.67	2.67	2.00	2.33	2.67	5.00	16.00	2.00	14.67	4.67	0.00	6.00	147.85
55	Fairbanks Borough	Anderson Elementary School Renovation	18.00	30.00	0.00	0.00	0.00	3.62	0.00	0.00	0.00	0.00	30.00	4.00	4.33	5.00	3.33	3.33	0.00	21.87	0.00	14.33	5.33	0.00	4.67	147.83
56	Bristol Bay Borough	Bristol Bay Elementary School and Gym Roof Replacement	30.00	18.87	0.00	10.00	0.00	1.00	0.00	0.00	0.00	8.00	25.00	3.00	2.67	2.67	2.67	3.67	0.00	14.00	0.33	16.33	2.33	0.00	7.00	147.54
57	Iditarod Area	Blackwell K-12 School HVAC Control Upgrades, Anvik	21.00	30.00	0.00	10.00	0.00	2.53	0.00	0.00	0.00	8.00	25.00	2.00	2.00	2.33	2.33	2.33	0.00	15.00	2.33	13.67	2.67	0.00	6.00	147.20
58	Nome City	Nome Elementary School Fire Alarm Replacement	24.00	17.75	0.00	25.00	0.00	1.43	0.00	0.00	0.00	0.00	25.00	3.00	2.33	2.33	2.00	3.00	5.00	6.33	0.00	22.33	1.33	0.00	6.00	146.85
59	Lower Kuskokwim	Bethel Regional High School Boardwalk Replacement	9.00	30.00	0.00	10.00	0.00	3.46	0.00	0.00	0.00	10.00	30.00	4.00	2.67	3.33	3.00	3.33	0.00	14.93	0.00	15.00	1.67	0.00	6.33	146.72
60	Anchorage	Bear Valley Elementary Domestic Water Replacement	0.00	23.00	0.00	20.00	0.00	4.82	0.00	0.00	0.00	0.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	15.95	0.00	26.33	1.67	0.00	2.67	144.77
61	Kodiak Island Borough	Chiniak K-12 School Water Treatment Code Compliance and Upgrade	27.00	30.00	0.00	10.00	0.00	2.83	0.00	0.00	0.00	0.00	25.00	3.00	2.67	3.33	2.67	3.67	0.00	16.00	0.00	13.33	1.00	0.00	2.67	143.16
62	Lower Yukon	Hooper Bay K-12 School Emergency Lighting and Retrofit	21.00	1.50	0.00	25.00	0.00	2.11	0.00	0.00	0.00	5.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	3.02	1.33	28.67	10.67	0.00	7.33	142.97
63	Lower Yukon	Scammon Bay K-12 School Emergency Lighting and Retrofit	18.00	2.00	0.00	25.00	0.00	2.11	0.00	0.00	0.00	5.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	3.02	1.33	28.67	10.33	0.00	7.33	140.13
64	Valdez City	Valdez High School Window Replacement	24.00	30.00	0.00	10.00	0.00	1.62	0.00	0.00	0.00	3.00	20.00	2.67	3.00	3.00	3.00	3.00	0.00	12.00	0.33	15.33	3.00	0.00	5.33	139.29
65	Kake City	Exterior Upgrades - Main School Facilities	24.00	30.00	0.00	0.00	0.00	1.64	0.00	0.00	0.00	0.00	30.00	3.00	3.33	3.33	3.00	3.00	0.00	13.33	0.00	12.67	2.33	0.00	7.67	137.31
66	Nome City	Nome Beltz Jr/Sr High School Generator Replacement	18.00	30.00	0.00	10.00	0.00	1.58	0.00	0.00	0.00	0.00	20.00	2.00	2.33	2.00	1.33	3.00	0.00	27.00	0.00	14.33	0.00	0.00	5.00	136.58



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67	Lower Yukon	LYSD Central Office Renovation	9.00	26.19	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	35.85	0.67	14.33	5.00	0.00	6.00	136.49
68	Saint Marys City	St. Mary's Campus Renewal and Repairs	30.00	30.00	0.00	10.00	0.00	1.23	0.00	0.00	0.00	0.00	30.00	3.00	3.00	3.33	3.33	3.00	0.00	0.00	0.33	13.00	0.67	0.00	4.67	135.56
69	Juneau Borough	Dzantik'l Heeni Middle School Roof Replacement	27.00	9.50	0.00	10.00	0.00	2.33	0.00	0.00	0.00	8.00	30.00	2.67	2.67	3.67	3.33	4.00	0.00	8.00	0.00	15.33	3.00	0.00	5.33	134.83
70	Anchorage	Mears Middle School Roof Replacement	0.00	21.25	0.00	10.00	0.00	4.82	0.00	0.00	0.00	0.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	9.80	2.00	26.67	2.67	0.00	6.33	133.87
71	Nenana City	Nenana K-12 School Fire Suppression System Replacement	24.00	26.27	0.00	0.00	0.00	2.97	0.00	0.00	0.00	0.00	30.00	3.67	3.00	2.67	2.00	3.67	10.00	2.00	0.00	14.00	1.67	0.00	6.33	132.24
72	Lower Kuskokwim	Gladys Jung Elementary School Heating Mains Replacement	27.00	1.00	0.00	0.00	0.00	3.46	0.00	0.00	0.00	0.00	30.00	4.00	2.67	3.33	3.00	3.33	5.00	12.80	0.00	27.67	2.00	0.00	6.33	131.59
73	Mat-Su Borough	Butte and Snowshoe Elementary Schools Water System Replacement	27.00	30.00	0.00	10.00	0.00	2.25	0.00	0.00	0.00	8.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	13.28	2.33	12.67	1.00	0.00	3.33	131.53
74	Yupiiit	Gym Floor Replacement, 3 Schools	24.00	2.19	0.00	20.00	0.00	1.65	0.00	0.00	0.00	0.00	30.00	3.33	2.67	2.00	2.67	2.67	0.00	4.00	0.00	22.00	0.67	0.00	12.67	130.51
75	Kake City	Kake High School Gym Floor and Bleacher Replacement	21.00	30.00	0.00	0.00	0.00	1.63	0.00	0.00	0.00	0.00	30.00	2.67	3.67	3.00	3.33	3.00	0.00	10.47	0.00	13.33	0.67	0.00	7.00	129.77
76	Valdez City	Valdez High and Herman Hutchens Elementary Schools Generator Replacement	27.00	29.99	0.00	10.00	0.00	1.62	0.00	0.00	0.00	5.00	20.00	2.67	3.00	3.00	3.00	3.00	0.00	4.00	0.00	11.67	1.00	0.00	4.33	129.28
77	Lower Kuskokwim	Akiuk Memorial K-12 School Renovation, Kasigluk-Akiuk	12.00	10.00	0.00	10.00	0.00	3.20	0.00	0.00	0.00	10.00	30.00	2.67	2.33	2.67	2.33	3.00	0.00	17.48	1.67	14.33	2.33	0.00	5.00	129.01
78	Lower Yukon	Scammon Bay K-12 School Siding Replacement	12.00	2.50	0.00	25.00	0.00	2.18	0.00	0.00	0.00	8.00	30.00	3.67	3.33	3.00	3.67	3.00	0.00	1.90	0.00	16.67	3.33	0.00	9.67	127.91
79	Fairbanks Borough	Tanana Middle School Classroom Upgrades	9.00	30.00	0.00	0.00	0.00	3.62	0.00	0.00	0.00	0.00	30.00	4.00	4.33	5.00	3.33	3.33	0.00	16.59	0.00	13.67	0.00	0.00	3.33	126.21
80	Kake City	Kake High School Plumbing Replacement	27.00	30.00	0.00	0.00	0.00	1.63	0.00	0.00	0.00	0.00	30.00	2.67	3.67	3.00	3.33	3.00	0.00	0.00	0.33	14.00	1.00	0.00	5.67	125.30
81	Iditarod Area	David-Louis Memorial K-12 School Roof Replacement, Grayling	24.00	16.00	0.00	10.00	0.00	2.53	0.00	0.00	0.00	0.00	25.00	2.00	2.00	2.33	2.33	2.33	0.00	10.95	0.00	13.33	3.33	0.00	7.67	123.81
82	Anchorage	West High School Utilidor Improvements	0.00	30.00	0.00	10.00	0.00	4.82	0.00	0.00	0.00	0.00	30.00	4.33	3.67	3.67	3.67	5.00	0.00	10.56	0.33	12.33	1.33	0.00	2.67	122.38
83	Kenai Peninsula Bor	Seward Middle School Exterior Repair	27.00	2.50	0.00	10.00	0.00	3.03	0.00	0.00	0.00	8.00	30.00	3.67	3.00	3.67	2.67	3.67	0.00	8.00	0.00	12.67	1.00	0.00	3.00	121.86
84	Southeast Island	Thorne Bay K-12 School Fire Suppression System	30.00	11.42	0.00	10.00	0.00	3.01	0.00	0.00	0.00	8.00	5.00	2.00	2.67	2.00	2.33	2.67	9.33	5.00	0.00	14.33	4.00	0.00	9.00	120.76
85	Kodiak Island Borouç	East Elementary School Special Electrical and Security	18.00	30.00	0.00	10.00	0.00	2.83	0.00	0.00	0.00	0.00	25.00	3.00	2.67	3.33	2.67	3.67	0.00	1.06	1.00	14.33	0.00	0.00	1.67	119.22
86	Fairbanks Borough	Administrative Center Exterior Renovation	15.00	10.25	0.00	0.00	0.00	3.62	0.00	0.00	0.00	0.00	30.00	4.00	4.33	5.00	3.33	3.33	0.00	15.48	0.00	14.00	5.67	0.00	4.67	118.69
87	Fairbanks Borough	Anne Wien Elementary School Renovation	12.00	8.75	0.00	0.00	0.00	3.62	0.00	0.00	0.00	0.00	30.00	4.00	4.33	5.00	3.33	3.33	0.00	19.32	0.00	14.00	4.67	0.00	4.67	117.03
88	Fairbanks Borough	Pearl Creek Elementary School Classroom Upgrades	6.00	24.75	0.00	0.00	0.00	3.62	0.00	0.00	0.00	0.00	30.00	4.00	4.33	5.00	3.33	3.33	0.00	14.07	0.00	13.67	0.00	0.00	3.00	115.11

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89	Kodiak Island Borough	North Star Elementary School Siding Replacement	24.00	9.50	0.00	10.00	0.00	2.83	0.00	0.00	0.00	0.00	25.00	3.00	2.67	3.33	2.67	3.67	0.00	12.00	0.00	14.33	0.00	0.00	1.33	114.33
90	Southeast Island	Thorne Bay K-12 School Flooring Replacement	15.00	11.42	0.00	25.00	0.00	3.01	0.00	0.00	0.00	0.00	5.00	2.00	2.67	2.00	2.33	2.67	0.00	4.00	0.33	28.67	2.33	0.00	7.67	114.10
91	Juneau Borough	Riverbend Elementary School Roof Replacement	24.00	7.25	0.00	0.00	0.00	2.33	0.00	0.00	0.00	3.00	30.00	3.00	2.67	3.67	3.33	4.00	0.00	6.56	0.00	15.00	1.67	0.00	7.00	113.47
92	Fairbanks Borough	Weller Elementary School Classroom Upgrades	3.00	24.75	0.00	0.00	0.00	3.62	0.00	0.00	0.00	0.00	30.00	4.00	4.33	5.00	3.33	3.33	0.00	15.12	0.00	13.67	0.00	0.00	3.00	113.16
93	Lower Yukon	Ignatius Beans K-12 School Marine Header Pipeline, Mountain Village	15.00	7.36	0.00	20.00	0.00	2.11	0.00	0.00	0.00	8.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	2.00	0.00	13.67	0.00	0.00	6.33	111.80
94	Mat-Su Borough	Elevator Code and Compliance Upgrades, 6 Sites	18.00	26.50	0.00	10.00	0.00	2.25	0.00	0.00	0.00	10.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	4.00	0.00	13.33	1.00	0.00	3.00	109.75
95	Southeast Island	Thorne Bay K-12 School Mechanical Control Upgrades	24.00	11.42	0.00	10.00	0.00	3.01	0.00	0.00	0.00	8.00	5.00	2.00	2.67	2.00	2.33	2.67	1.67	8.00	0.00	14.67	6.67	0.00	5.33	109.43
96	Mat-Su Borough	Structural Seismic Upgrades, 5 Sites	15.00	30.00	0.00	10.00	0.00	2.25	0.00	0.00	0.00	10.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	6.00	0.33	10.67	1.00	0.00	2.33	109.25
97	Yupitit	Mechanical System Improvements, 3 Schools	27.00	2.69	0.00	0.00	0.00	1.69	0.00	0.00	0.00	0.00	30.00	3.33	2.67	3.33	2.67	2.67	0.00	3.00	0.00	14.33	7.67	0.00	7.33	108.37
98	Mat-Su Borough	Talkeetna Elementary School Roof Replacement	24.00	21.20	0.00	10.00	0.00	2.35	0.00	0.00	0.00	8.00	5.00	2.67	2.00	2.33	0.00	3.00	0.00	6.00	3.33	14.00	2.00	0.00	1.67	107.55
99	Mat-Su Borough	Colony and Wasilla Middle Schools Roof Replacement	21.00	20.90	0.00	10.00	0.00	2.35	0.00	0.00	0.00	8.00	5.00	2.67	2.00	2.33	0.00	3.00	0.00	6.00	1.67	13.67	2.00	0.00	1.67	102.25
100	Mat-Su Borough	HVAC Control Upgrades, 5 Sites	9.00	23.45	0.00	10.00	0.00	2.25	0.00	0.00	0.00	0.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	5.60	2.33	13.33	3.67	0.00	3.67	94.97
101	Mat-Su Borough	Ceiling and Sprinkler Seismic Mitigation, 5 Sites	12.00	29.99	0.00	10.00	0.00	2.25	0.00	0.00	0.00	0.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	3.00	0.00	11.67	1.00	0.00	2.67	94.25
102	Lower Yukon	Kotlik and Pilot Station K-12 Schools Renewal and Repair	0.00	4.00	0.00	10.00	0.00	2.18	0.00	0.00	0.00	5.00	30.00	3.67	3.33	3.00	3.67	3.00	0.00	5.25	0.00	13.00	2.67	0.00	5.00	93.76
103	Southeast Island	Port Alexander K-12 School Domestic Water Pipe Replacement	12.00	22.88	0.00	0.00	0.00	3.01	0.00	0.00	0.00	3.00	5.00	2.00	2.67	2.00	2.33	2.67	5.33	6.98	0.00	13.00	2.67	0.00	6.00	91.54
104	Yupitit	Akiachak K-12 School Window Replacement	21.00	2.19	0.00	0.00	0.00	1.65	0.00	0.00	0.00	0.00	30.00	3.33	2.67	2.00	2.67	2.67	0.00	0.00	0.00	12.33	1.33	0.00	8.33	90.17
105	Lower Yukon	Sheldon Point K-12 School Exterior Repairs, Nunam Iqua	6.00	1.00	0.00	0.00	0.00	2.18	0.00	0.00	0.00	5.00	30.00	3.67	3.33	3.00	3.67	3.00	0.00	0.62	0.00	13.00	3.33	0.00	7.67	85.46
106	Southeast Island	Thorne Bay K-12 School Underground Storage Tank Replacement	21.00	11.42	0.00	10.00	0.00	3.01	0.00	0.00	0.00	0.00	5.00	2.00	2.67	2.00	2.33	2.67	0.00	2.00	0.00	14.67	0.00	0.00	4.67	83.43
107	Southeast Island	Port Alexander and Thorne Bay K-12 Schools Roof Replacement	18.00	11.66	0.00	0.00	0.00	3.01	0.00	0.00	0.00	0.00	5.00	2.00	2.67	2.00	2.33	2.67	0.00	6.00	0.67	13.67	2.00	0.00	5.33	77.00
108	Lower Yukon	Security Access Upgrades, 6 Sites	3.00	1.93	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	0.00	0.00	12.33	2.33	0.00	4.33	63.37







**Alaska Department of Education and Early Development  
FY2022 Capital Improvement Projects  
School Construction and Major Maintenance by Districts**

**Total Points - Formula-Driven and Evaluative  
Initial List**

School District	Nov 5 Rank	MM/SC	Project Name	School Dist Rank	Weight Avg Age	Prev. 14.11 Fund	Plan and Design	Prior Design Use	Avg Expend Maint	Un-Housed Today	Un-Housed 7 Years	Type of Space	Cond Survey	O&M Rpts	Maint Mgt	Energy Mgt	Cusd Pgm	Maint Train	Capital Plan	Emergency	Life/Safety and Code Conditions	Existing Space	Cost Estimate	Proj vs Oper Cost	Alternatives	Options	Total Project Points
Lower Kuskokwim	2	C	Anna Tobeluk Memorial K-12 School Renovation/Addition, Nunapitchuk	24.00	21.95	0.00	10.00	0.00	3.20	30.19	23.79	22.21	10.00	30.00	2.67	2.33	2.67	2.33	3.00	0.00	31.91	19.67	12.67	3.33	3.33	11.67	270.91
Lower Kuskokwim	3	C	William N. Miller K-12 Memorial School Replacement, Napakiak	30.00	30.00	0.00	10.00	0.00	3.46	1.44	0.86	22.63	10.00	30.00	4.00	2.67	3.33	3.00	3.33	25.00	14.38	0.00	17.67	4.33	3.00	9.67	228.77
Lower Kuskokwim	9	C	Newtok K-12 School Relocation/Replacement, Mertarvik	21.00	8.86	0.00	0.00	0.00	3.20	4.06	2.44	22.79	0.00	30.00	2.67	2.33	2.67	2.33	3.00	21.33	0.41	6.33	13.00	3.00	4.33	8.00	161.76
Lower Kuskokwim	12	C	Water Storage and Treatment, Kongiganak	18.00	0.00	0.00	20.00	0.00	3.46	0.00	0.00	0.00	8.00	30.00	4.00	2.67	3.33	3.00	3.33	0.00	17.33	0.00	17.33	2.67	2.00	10.33	145.46
Lower Kuskokwim	14	C	Bethel Campus Transportation and Drainage Upgrades	6.00	27.80	0.00	10.00	0.00	3.46	0.00	0.00	0.00	8.00	30.00	4.00	2.67	3.33	3.00	3.33	0.00	12.35	0.00	15.00	1.67	2.67	4.33	137.60
Lower Kuskokwim	23	M	Qugcuun Memorial K-12 School Renovation, Oscarville	3.00	26.93	0.00	10.00	0.00	3.20	0.00	0.00	0.00	10.00	30.00	2.67	2.33	2.67	2.33	3.00	0.00	50.00	1.00	14.00	1.67	0.00	5.33	168.13
Lower Kuskokwim	24	M	Akula Elitnavik K-12 School Renovation, Kasigluk-Akula	15.00	23.26	0.00	10.00	0.00	3.20	0.00	0.00	0.00	10.00	30.00	2.67	2.33	2.67	2.33	3.00	1.67	33.77	1.67	15.67	2.67	0.00	8.00	167.90
Lower Kuskokwim	59	M	Bethel Regional High School Boardwalk Replacement	9.00	30.00	0.00	10.00	0.00	3.46	0.00	0.00	0.00	10.00	30.00	4.00	2.67	3.33	3.00	3.33	0.00	14.93	0.00	15.00	1.67	0.00	6.33	146.72
Lower Kuskokwim	72	M	Gladys Jung Elementary School Heating Mains Replacement	27.00	1.00	0.00	0.00	0.00	3.46	0.00	0.00	0.00	0.00	30.00	4.00	2.67	3.33	3.00	3.33	5.00	12.80	0.00	27.67	2.00	0.00	6.33	131.59
Lower Kuskokwim	77	M	Akiuk Memorial K-12 School Renovation, Kasigluk-Akiuk	12.00	10.00	0.00	10.00	0.00	3.20	0.00	0.00	0.00	10.00	30.00	2.67	2.33	2.67	2.33	3.00	0.00	17.48	1.67	14.33	2.33	0.00	5.00	129.01
Lower Yukon	14	M	Sheldon Point K-12 School Foundation Cooling and Repairs, Nunam Iqua	30.00	0.50	0.00	25.00	0.00	2.11	0.00	0.00	0.00	8.00	25.00	3.00	1.33	3.00	2.33	2.67	11.67	29.00	4.00	27.33	0.33	0.00	7.67	182.94
Lower Yukon	19	M	Hooper Bay K-12 School Exterior Repairs	24.00	2.00	0.00	25.00	0.00	2.18	0.00	0.00	0.00	8.00	30.00	3.67	3.33	3.00	3.67	3.00	5.00	20.79	3.33	27.33	4.00	0.00	12.00	180.30
Lower Yukon	34	M	Marshall K-12 School Tank Farm Emergency Repair	27.00	0.00	0.00	20.00	0.00	2.18	0.00	0.00	0.00	10.00	30.00	3.67	3.33	3.00	3.67	3.00	6.00	9.60	0.00	28.00	4.33	0.00	7.00	160.78
Lower Yukon	62	M	Hooper Bay K-12 School Emergency Lighting and Retrofit	21.00	1.50	0.00	25.00	0.00	2.11	0.00	0.00	0.00	5.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	3.02	1.33	28.67	10.67	0.00	7.33	142.97
Lower Yukon	63	M	Scammon Bay K-12 School Emergency Lighting and Retrofit	18.00	2.00	0.00	25.00	0.00	2.11	0.00	0.00	0.00	5.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	3.02	1.33	28.67	10.33	0.00	7.33	140.13
Lower Yukon	67	M	LYSD Central Office Renovation	9.00	26.19	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	35.85	0.67	14.33	5.00	0.00	6.00	136.49
Lower Yukon	78	M	Scammon Bay K-12 School Siding Replacement	12.00	2.50	0.00	25.00	0.00	2.18	0.00	0.00	0.00	8.00	30.00	3.67	3.33	3.00	3.67	3.00	0.00	1.90	0.00	16.67	3.33	0.00	9.67	127.91
Lower Yukon	93	M	Ignatius Beans K-12 School Marine Header Pipeline, Mountain Village	15.00	7.36	0.00	20.00	0.00	2.11	0.00	0.00	0.00	8.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	2.00	0.00	13.67	0.00	0.00	6.33	111.80
Lower Yukon	102	M	Kotlik and Pilot Station K-12 Schools Renewal and Repair	0.00	4.00	0.00	10.00	0.00	2.18	0.00	0.00	0.00	5.00	30.00	3.67	3.33	3.00	3.67	3.00	0.00	5.25	0.00	13.00	2.67	0.00	5.00	93.76
Lower Yukon	105	M	Sheldon Point K-12 School Exterior Repairs, Nunam Iqua	6.00	1.00	0.00	0.00	0.00	2.18	0.00	0.00	0.00	5.00	30.00	3.67	3.33	3.00	3.67	3.00	0.00	0.62	0.00	13.00	3.33	0.00	7.67	85.46
Lower Yukon	108	M	Security Access Upgrades, 6 Sites	3.00	1.93	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00	25.00	3.00	1.33	3.00	2.33	2.67	0.00	0.00	0.00	12.33	2.33	0.00	4.33	63.37
Mat-Su Borough	43	M	Big Lake Elementary School Water System Replacement Ph 2	30.00	30.00	0.00	25.00	0.00	2.25	0.00	0.00	0.00	10.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	12.48	2.33	16.33	1.00	0.00	3.67	154.73
Mat-Su Borough	73	M	Butte and Snowshoe Elementary Schools Water System Replacement	27.00	30.00	0.00	10.00	0.00	2.25	0.00	0.00	0.00	8.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	13.28	2.33	12.67	1.00	0.00	3.33	131.53
Mat-Su Borough	94	M	Elevator Code and Compliance Upgrades, 6 Sites	18.00	26.50	0.00	10.00	0.00	2.25	0.00	0.00	0.00	10.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	4.00	0.00	13.33	1.00	0.00	3.00	109.75
Mat-Su Borough	96	M	Structural Seismic Upgrades, 5 Sites	15.00	30.00	0.00	10.00	0.00	2.25	0.00	0.00	0.00	10.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	6.00	0.33	10.67	1.00	0.00	2.33	109.25
Mat-Su Borough	98	M	Talkeetna Elementary School Roof Replacement	24.00	21.20	0.00	10.00	0.00	2.35	0.00	0.00	0.00	8.00	5.00	2.67	2.00	2.33	0.00	3.00	0.00	6.00	3.33	14.00	2.00	0.00	1.67	107.55
Mat-Su Borough	99	M	Colony and Wasilla Middle Schools Roof Replacement	21.00	20.90	0.00	10.00	0.00	2.35	0.00	0.00	0.00	8.00	5.00	2.67	2.00	2.33	0.00	3.00	0.00	6.00	1.67	13.67	2.00	0.00	1.67	102.25
Mat-Su Borough	100	M	HVAC Control Upgrades, 5 Sites	9.00	23.45	0.00	10.00	0.00	2.25	0.00	0.00	0.00	0.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	5.60	2.33	13.33	3.67	0.00	3.67	94.97
Mat-Su Borough	101	M	Ceiling and Sprinkler Seismic Mitigation, 5 Sites	12.00	29.99	0.00	10.00	0.00	2.25	0.00	0.00	0.00	0.00	10.00	3.33	2.33	2.33	0.33	3.33	0.00	3.00	0.00	11.67	1.00	0.00	2.67	94.25

Alaska Department of Education and Early Development
FY2022 Capital Improvement Projects
School Construction and Major Maintenance by Districts

Total Points - Formula-Driven and Evaluative
Initial List

Table with 28 columns: School District, Nov 5 Rank, MM/SC, Project Name, School Dist Rank, Weight Avg Age, Prev. 14.11 Fund, Plan and Design, Prior Design Use, Avg Expend Maint, Un-Housed Today, Un-Housed 7 Years, Type of Space, Cond Survey, O&M Rpts, Maint Mgt, Energy Mgt, Cusd Pgm, Maint Train, Capital Plan, Emergency, Life/Safety and Code Conditions, Existing Space, Cost Estimate, Proj vs Oper Cost, Alternatives, Options, Total Project Points.

**FY2022 District Six-Year Plan Projects**

District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse
Alaska Gateway	3	Eagle School Renovation	C	\$ 3,208,000	* District did not submit a 6-year plan or application. Fiscal year data left as-is from original submittal					N
Alaska Gateway	4	Tetlin School Renovation	C		\$ 1,671,000					N
Alaska Gateway	5	Dot Lake School Renovation	C			\$ 1,161,000				N
Alaska Gateway	6	Mentasta School Renovation	C				\$ 570,000			N
Aleutians East Borough	1	Sand Point K-12 School Major Maintenance	C	\$ 2,877,365						Y
Aleutians East Borough	2	Sand Point K-12 School Pool Major Maintenance	C	\$ 102,608						N
Anchorage	1	Gruening Middle School Non-Seismic Improvements	F	\$ 19,950,551						N
Anchorage	2	Eagle River Elementary School Improvements	C	\$ 9,253,581						N
Anchorage	3	Secure Vestibules, Group 1, 3 Sites	F	\$ 1,153,000						N
Anchorage	4	Secure Vestibules, Group 2 3 Sites	F	\$ 951,669						N
Anchorage	5	West High School Roof Replacement	C	\$ 7,497,000						Y
Anchorage	6	Gruening Middle School Accessibility Upgrades	C	\$ 465,545						Y
Anchorage	7	East High School Bus Driveway Improvements	F	\$ 910,366						Y
Anchorage	8	Birchwood Elementary School Roof Replacement	C	\$ 3,399,999						Y
Anchorage	9	Service High School Health and Safety Improvements	D	\$ 4,776,466						Y
Anchorage	10	Nunaka Valley Elementary School Roof Replacement	C	\$ 2,179,698						Y
Anchorage	11	Northwood Elementary School Partial Roof Replacement	C	\$ 2,357,466						Y
Anchorage	12	Inlet View Elementary School Domestic Water System Improvements	C	\$ 458,959						Y
Anchorage	13	Stellar Secondary School Fire Alarm	C	\$ 298,630						Y
Anchorage	14	Ptarmigan Elementary School Roof Replacement	C	\$ 3,233,861						Y
Anchorage	15	West High School Utilidor Improvements	C	\$ 2,726,995						N
Anchorage	16	Mears Middle School Roof Replacement	C	\$ 6,309,376						N
Anchorage	17	East High School Gym Improvements	C	\$ 7,843,975						N
Anchorage	18	Bayshore Elementary School Boiler Replacement	C	\$ 1,192,000						N
Anchorage	19	Bear Valley Elementary School Water Replacement	C	\$ 2,595,307						N
Anchorage	20	Chugiak High School Track Improvements	F	\$ 926,000						N
Anchorage	21	Abbott Loop Elementary School Planning and Design	B		\$ 4,536,000					N
Anchorage	22	Inlet View Elementary School Construction	C		\$ 31,980,000					N
Anchorage	23	Wonder Park Elementary School Renovation Planning & Design	C		\$ 1,726,900					N
Anchorage	24	East High School Academic Area Safety & Pool Improvements	D		\$ 13,815,000					N
Anchorage	25	Tudor Elementary School Roof Replacement	C		\$ 16,129,000					N
Anchorage	26	Spring Hill Elementary School Roof Replacement	C		\$ 5,128,000					N
Anchorage	27	Chinook Elementary School Roof Replacement & Retoration	C		\$ 5,846,000					N
Anchorage	28	Campbell Elementary School Roof Replacement	C		\$ 6,119,000					N
Anchorage	29	College Gate Elementary School Roof Replacement	C		\$ 5,261,000					N
Anchorage	30	Kincaid Elementary School Site Improvements	F		\$ 5,912,000					N
Anchorage	31	Birchwood ABC School Boiler Replacement	C		\$ 3,957,000					N
Anchorage	32	Prioritized Security Projects	C		\$ 9,326,000					N
Anchorage	33	Planning & Design for 2024 Deferred Requirements Projects	C		\$ 1,626,000					N
Anchorage	34	Abbott Loop Elementary School Construction	C			\$ 45,359,000				N

District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse	
Anchorage	35	Wonder Park Elementary School Renovation Planning & Design	C			\$ 17,269,000				N	
Anchorage	36	Romig Middle School Renovation Design	C			\$ 2,857,100				N	
Anchorage	37	Chugiak High School Roof Replacement	C			\$ 18,462,000				N	
Anchorage	38	Alpenglow Elementary School Partial Roof Replacement	C			\$ 4,914,000				N	
Anchorage	39	Warehouse-Purchasing Roof Replacement	C			\$ 6,239,000				N	
Anchorage	40	Northern Lights ABC Elementary School Partial Roof Replacement	C			\$ 1,798,000				N	
Anchorage	41	Kasuun Elementary School Partial Roof Replacement	C			\$ 1,798,000				N	
Anchorage	42	Chugiak Elementary School Roof Replacement	C			\$ 6,081,000				N	
Anchorage	43	Scenic Park Elementary School Roof Replacement	C			\$ 6,081,000				N	
Anchorage	44	Maintenance Building Roof Restoration	C			\$ 1,709,000				N	
Anchorage	45	Ursa Minor Elementary School Roof Restoration	C			\$ 1,981,000				N	
Anchorage	46	Prioritized Security Projects	C			\$ 340,000				N	
Anchorage	47	Planning & Design for 2023 Deferred Requirements Projects	C			\$ 419,000				N	
Annette Island	2	Maintenance and Facilities Building	C	\$ 450,000	* District did not submit a 6-year plan or application. Fiscal year data left as-is from original submittal						N
Annette Island	3	Metlakatla District Office Renovation	C		\$ 250,000					N	
Annette Island	4	Elementary School Classroom Addition	B			\$ 1,500,000				N	
Annette Island	5	Metlakatla Music Building	C				\$ 300,000			N	
Annette Island	6	Metlakatla Middle School Parking Lot Expansion	F					\$ 500,000		N	
Bering Strait	2	District Office HVAC & Controls Replacement & Upgrades	D	\$ 125,000	* District did not submit a 6-year plan or application. Fiscal year data left as-is from original submittal						N
Bering Strait	3	Gambell K-12 School Commons & Corridors Flooring Replacement	C	\$ 180,000						N	
Bering Strait	5	Unalakleet K-MS Window Replacement	C	\$ 105,000						N	
Bering Strait	6	Gambell K-12 School Window Replacement	C				\$ 245,000			N	
Bering Strait	7	Brevig Mission K-12 School Addition	C		\$ 19,000,000					N	
Bering Strait	8	Stebbins K-12 School Addition	C				\$ 19,500,000			N	
Bristol Bay Borough	1	Bristol Bay School Elementary and Gym Roof Replacement	C	\$ 2,942,126						N	
Chatham	1	Klukwan K-12 School Roof Replacement	C	\$ 1,542,948						Y	
Chatham	2	Fire Alarm Upgrades, 3 Sites	D	\$ 222,249						N	
Chugach	1	Chenega Bay K-12 School Renovation	C	\$ 5,696,900						N	
Chugach	2	Tatitlek K-12 School Renovation	C	\$ 6,895,952						N	
Chugach	3	Whittier K-12 School Renovation	C		\$ 570,000					N	
Chugach	4	Tatitlek K-12 School Playground Rehabilitation	F			\$ 235,000				N	
Copper River	4	Kenny Lake School HVAC System Replacement	C	\$ 500,000	* District did not submit a 6-year plan or application. Fiscal year data left as-is from original submittal						N
Copper River	5	Glennallen School Renovation	C		\$ 14,400,000					N	
Copper River	6	Kenny Lake School Renovation	C			\$ 9,300,000				N	
Copper River	7	Slana School Renovation	C				\$ 1,500,000			N	
Copper River	8	District Office Renovation	C					\$ 2,400,000		N	
Craig	1	Craig Middle School Rehabilitation	D	\$ 6,104,406						N	
Craig	2	Craig Elementary and High School Security Upgrades	C		\$ 500,000					N	
Craig	3	Craig High School HVAC Controls Upgrades	B		\$ 1,200,000					N	
Craig	4	Craig Middle School Gym Roof Replacement	C			\$ 900,000				N	
Craig	5	Craig Elementary School Boiler Replacement	C				\$ 250,000			N	
Craig	6	Craig High School Flooring Replacement	C					\$ 400,000		N	



District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse	
Craig	7	District Bus Barn Construction	F						\$ 350,000	N	
Delta/Greely	7	Delta Elementary Additional Classroom Expansion	F		\$ 4,000,000	* District did not submit a 6-year plan or application. Fiscal year data left as-is from					N
Delta/Greely	8	Replacement of Delta Junction Senior High School Complex	D		\$ 32,000,000					N	
Delta/Greely	9	Delta Elementary Well Reconstruction or Replacement	C		\$ 80,642					N	
Denali Borough	1	Anderson K-12 School Partial Roof Replacement	C	\$ 1,337,610						N	
Denali Borough	2	Generator Replacement, 3 schools	C	\$ 1,260,050						N	
Denali Borough	3	Tri-Valley School Partial Roof Replacement	D	\$ 817,270						N	
Denali Borough	4	Districtwide Electrical Code Upgrades	C		\$ 200,000					N	
Denali Borough	5	Tr-Valley School Septic System Upgrades	C		\$ 574,321					N	
Denali Borough	6	Tri-Valley School Boiler Replacement	C			\$ 500,000				N	
Denali Borough	7	Cantwell School Electrical Upgrades	D				\$ TBD			N	
Denali Borough	8	Cantwell School Heating System Upgrade	E				\$ TBD			N	
Denali Borough	9	Cantwell School Restroom ADA Remodel	D				\$ TBD	\$ -		N	
Denali Borough	10	Anderson School Heating Upgrades	C					\$ 2,000,000		N	
Denali Borough	11	Kitchen Renovations, 3 Schools	C					\$ TBD		N	
Denali Borough	12	Anderson School Egress and Accessibility Upgrades	D						\$ TBD	N	
Denali Borough	13	Tri-Valley School Library and Restroom Renovation	D						\$ TBD	N	
Denali Borough	14	Cantwell School Renovation	C						\$ TBD	N	
Fairbanks	1	Administrative Center Replace Air Conditioning and Ventilation Replacement	E	\$ 1,404,509						N	
Fairbanks	2	Lathrop High School Partial Roof Replacement	C	\$ 758,548						N	
Fairbanks	3	Ben Eielson Jr/Sr High School Roof Replacement	C	\$ 3,213,865						N	
Fairbanks	4	Woodriver Elementary School Roof Replacement	C	\$ 1,465,301						N	
Fairbanks	5	Anderson Elementary School Renovation	C	\$ 3,769,777						N	
Fairbanks	6	Administrative Center Exterior Renovation	C	\$ 2,274,780						N	
Fairbanks	7	Anne Wien Elementary School Renovation	C	\$ 4,934,172						N	
Fairbanks	8	Tanana Middle School Classroom Upgrades	C	\$ 7,946,990						N	
Fairbanks	9	Pearl Creek Elementary School Classroom Upgrades	C	\$ 4,670,376						N	
Fairbanks	10	Weller Elementary School Classroom Upgrades	E	\$ 4,821,800						N	
Fairbanks	11	Arctic Light Elementary School Renovation	C		\$ 4,120,909					N	
Fairbanks	12	Crawford Elementary School Renovation	C		\$ 5,275,190					N	
Fairbanks	13	Woodriver Elementary School Renovation	C		\$ 6,750,695					N	
Fairbanks	14	North Pole Middle School Classroom Upgrades	C		\$ 11,302,805					N	
Fairbanks	15	University Park Elementary Site Improvements	F		\$ 1,500,000					N	
Fairbanks	16	Lathrop High School Kitchen Upgrade	E		\$ 2,585,194					N	
Fairbanks	17	Pearl Creek Elementary School Traffic Safety Upgrades	F		\$ 1,800,000					N	
Fairbanks	18	Joy Elementary School Classroom Upgrades	C		\$ 5,264,721					N	
Fairbanks	19	West Valley High School Auditorium Upgrade	F			\$ 1,000,000				N	
Fairbanks	20	West Valley High School Gym Wing Renovation	C			\$ 4,500,000				N	
Fairbanks	21	Districtwide Hallway Locker Replacement	C			\$ 1,389,685				N	
Fairbanks	22	Two Rivers Elementary School Renovation, Phase II	C			\$ 1,544,938				N	
Fairbanks	23	Anderson Elementary School Renovation, Phase III	E			\$ 4,788,341				N	

District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse
Fairbanks	24	Tanana Middle School Renovation, Phase III	E			\$ 9,721,735				N
Fairbanks	25	Salcha Elementary School Classroom Upgrades	E			\$ 1,035,994				N
Fairbanks	26	Howard Luke Renovation, Phase II	C				\$ 2,189,054			N
Fairbanks	27	Two Rivers Elementary School Renovation, Phase III	E				\$ 2,617,946			N
Fairbanks	28	Pearl Creek Elementary School Renovation, Phase III	E				\$ 7,425,456			N
Fairbanks	29	Weller Elementary School Renovation, Phase III	E				\$ 7,048,183			N
Fairbanks	30	Ticasuk Brown Elementary School Classroom Upgrades	C				\$ 4,454,439			N
Fairbanks	31	Woodriver Elementary School Site Improvements	C				\$ 1,500,000			N
Fairbanks	32	Salcha Elementary School Renovation, Phase III	E					\$ 1,543,874		N
Fairbanks	33	North Pole High School Renovation, Phase III	E					\$ 20,909,191		N
Fairbanks	34	University Park Classroom Upgrades, Phase I	C					\$ 4,645,752		N
Fairbanks	35	Howard Luke Classroom Upgrades, Phase I	C					\$ 2,322,317		N
Fairbanks	36	Lathrop High School Roof Replacement	C						\$ 3,698,140	N
Fairbanks	37	Ticasuk Brown Elementary School Renovation, Phase III	E						\$ 6,638,156	N
Fairbanks	38	Ladd Elementary School Classroom Upgrades, Phase 1	C						\$ 4,831,190	N
Fairbanks	39	Administrative Center Flooring Repair & Replacement	C						\$ 2,071,176	N
Fairbanks	40	Two Rivers Elementary School Site Improvements	F						\$ 1,500,000	N
Galena	1	Galena Interior Learning Academy Composite Building Renovation	E	\$ 4,943,057						N
Galena	2	Sidney C. Huntington School Renovation	E		\$ 5,510,000					N
Galena	3	Sidney C. Huntington Elementary School Fire Protection Upgrade	D			\$ 170,000				N
Galena	4	Sidney C. Huntington School Floor Renovations	C				\$ 270,000			N
Galena	5	Galena Interior Learning Academy Automotive Lab Energy Upgrades	E					\$ 54,000		N
Galena	6	Galena Interior Learning Academy Cosmetology Building Energy Upgrade	E						\$ 43,000	N
Haines	1	Haines High School Roof Replacement	C	\$ 2,565,414						N
Haines	2	Haines High School Locker Room Renovation	D	\$ 934,926						N
Haines	3	Haines High School Track Renovation and Upgrade	F		\$ 1,000,000					N
Hoonah	1	Hoonah Central Boiler Replacement	C	\$ 280,389						Y
Hoonah	2	Hoonah School Playground Improvements	F	\$ 227,747						N
Iditarod Area	1	Blackwell K-12 School Fire Alarm Upgrades, Anvik	D	\$ 81,607						N
Iditarod Area	2	David-Louis Memorial K-12 School HVAC Control Upgrades, Grayling	C	\$ 116,071						N
Iditarod Area	3	David-Louis Memorial K-12 School Roof Replacement, Grayling	C	\$ 2,944,419						Y
Iditarod Area	4	Blackwell K-12 School HVAC Upgrades, Anvik	C	\$ 203,407						Y
Iditarod Area	5	McGrath School Backup Generator	C		\$ 70,000					N
Juneau	1	Sayéik: Gastineau Community School Partial Roof Replacement	C	\$ 1,550,000						Y
Juneau	2	Dzantiki Heeni Middle School Roof Replacement	C	\$ 2,650,000						Y
Juneau	3	Riverbend Elementary School Roof Replacement	C	\$ 2,800,000						N
Juneau	4	Juneau-Douglas High School Partial Roof Rreplacement	C		\$ 525,000					N
Juneau	5	Marie Drake School Renovation	C			\$ 31,000,000				N
Juneau	6	Mendenhall River Community School Renovation	C			\$ 20,000,000				N
Juneau	7	Floyd Dryden Middle School Partial Roof Replacement	C				\$ 500,000			N
Kake	1	Kake Schools Heating Updates	C	\$ 239,522						N

District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse
Kake	2	Kake High School Plumbing Replacement	C	\$ 790,589						Y
Kake	3	Exterior Upgrades - Main School Facilities	C	\$ 395,602						N
Kake	4	Kake High School Gym Floor and Bleacher Replacement	C	\$ 359,208						Y
Kake	5	Vocational Building Renovations	C		\$ 400,000					N
Kake	6	Covered Play Area Construction & Playground Equipment Replacement	F		\$ 800,000					N
Kake	7	Kake Middle School and Library HVAC Upgrades	C			\$ TBD				N
Kake	8	Kake High School HVAC Replacement	D				\$ TBD			N
Kake	9	Kake Elementary School Roof Replacement	C					\$ 1,500,000		N
Kenai	1	Kenai Middle School Security Remodel	F	\$ 1,526,987						N
Kenai	2	Seward Middle School Exterior Repair	C	\$ 857,314						N
Kenai	3	Nanwalek Middle/High School Replacement	B	\$ 25,000,000						N
Kenai	4	Homer High School Attic Ventilation and Gutters	C	\$ 8,271,734						N
Kenai	5	West Homer Elementary School North Wall Improvement	C	\$ 659,583						N
Kenai	6	Homer High School Heating Controls Replacement	C	\$ 700,000						N
Kenai	7	Seward High School Security Remodel	F	\$ 4,171,299						N
Kenai	8	Tebughna Window Replacement	C		\$ 832,500					N
Kenai	9	Kenai Alt/ABC Window and Siding Replacement	C		\$ 550,000					N
Kenai	10	Ninilchik Window Replacement	C		\$ 201,017					N
Kenai	11	Paul Banks Elementary Parking and Traffic Upgrades	F			\$ 850,000				N
Kenai	12	Chapman Elementary Parking and Traffic Upgrades	F			\$ 471,750				N
Kenai	13	Susan B English Backup Generator	C			\$ 50,000				N
Kenai	14	Soldotna Elementary Parking & Traffic Upgrade	F				\$ 832,500			N
Kenai	15	Kenai Middle School Kitchen Upgrade	F				\$ 750,000			N
Kenai	16	Seward High Field Turf and Track	F				\$ 2,345,442			N
Kenai	17	Redoubt Elementary Parking Lot Improvements	F					\$ 420,690		N
Kenai	18	Mt View Elementary Parking Lot Improvements	F					\$ 413,012		N
Kenai	19	McNeil Canyon Elementary Boiler Replacement	C					\$ 100,000		N
Kenai	20	Districtwide Roof Replacements, Phase III	C						\$ 16,450,000	N
Kenai	21	Homer High School Parking Lot Renovation and ADA Entrance Upgrade	F						\$ 850,000	N
Kenai	22	School District Warehouse Backup Generator	C						\$ 85,000	N
Ketchikan	1	Ketchikan High School Security Upgrades	C	\$ 1,029,688						N
Ketchikan	2	Pt. Higgins Elementary Mechanical Upgrades	C		\$ 1,950,566					N
Ketchikan	3	Pt. Higgins Elementary Pitched Roof Replacement	E		\$ 4,086,729					N
Ketchikan	4	Ketchikan High School Biomass Boiler	E			\$ 2,083,615				N
Ketchikan	5	Revilla Roof Replacement	C				\$ 1,750,000			N
Ketchikan	6	Houghtaling Elementary School Transformer Project	C					\$ 750,000		N
Kodiak	1	Peterson Elementary School Roof Replacement	C	\$ 2,373,676						Y
Kodiak	2	Chiniak K-12 School Water Treatment Code Compliance and Upgrade	D	\$ 362,670			\$ 263,555			Y
Kodiak	3	North Star Elementary School Siding Replacement	C	\$ 502,039						Y
Kodiak	4	East Elementary School Parking Lot Safety Upgrade and Repaving	F	\$ 474,082						Y
Kodiak	5	East Elementary School Special Electrical and Security	D	\$ 1,542,243						Y

District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse
Kodiak	6	Kodiak Middle School Special Electrical & Security	D	\$	2,008,509					N
Kodiak	7	Main Elementary Special Electrical and Security	D	\$	1,592,690					N
Kodiak	8	Main Elementary Siding Replacement	C			\$	565,304			N
Kodiak	9	East Elementary Siding Replacement	C			\$	299,279			N
Kodiak	10	North Star Elementary Special Electrical & Security	D			\$	1,401,011			N
Kodiak	11	Chiniak School Flooring Replacement	C				\$	86,936		N
Kodiak	12	Port Lions School Flooring Replacement	C				\$	261,626		N
Kodiak	13	Kodiak Middle School Exterior Improvements	C				\$	622,943		N
Kodiak	14	Peterson Elementary Special Electrical & Security	D				\$	1,575,515		N
Kodiak	15	North Star Elementary HVAC Controls Replacement	E					\$	1,043,502	N
Kodiak	16	Peterson Elementary Exterior Improvements	C					\$	400,998	N
Kodiak	17	Chiniak School HVAC Controls Replacement	E					\$	223,984	N
Kodiak	18	Main Elementary HVAC Controls Replacement	E						\$	996,861
Kodiak	19	Akhiok School HVAC Controls Replacement	E						\$	246,439
Kodiak	20	Port Lions School HVAC Controls Replacement	E						\$	632,779
Kuspuk	1	Jack Egnaty Sr. K-12 School Roof Replacement, Sleetmute	C	\$	1,445,382					N
Kuspuk	2	Jack Egnaty Sr. K-12 School Foundation repairs, Sleetmute	C			\$	300,000			N
Kuspuk	3	Johnnie John Sr. School Foundation Stabilization, Crooked Creek	C			\$	500,000			N
Lake & Peninsula	1	Exterior Door Replacement, 3 Schools	C	\$	463,336	* District not CIP eligible FY21-FY22. Fiscal year data left as-is from original submittal.				N
Lake & Peninsula	2	Districtwide Plumbing Renewal	C			\$	1,400,000			N
Lake & Peninsula	3	Districtwide Playground Safety Upgrades	C			\$	300,000			N
Lake & Peninsula	4	Districtwide Roof Replacements	C				\$	800,000		N
Lower Kuskokwim	1	William N. Miller K-12 Memorial School Replacement, Napakiak	B	\$	43,672,991					N
Lower Kuskokwim	2	Gladys Jung Elementary School Heating Mains Replacement	C	\$	1,168,750					N
Lower Kuskokwim	3	Anna Tobeluk Memorial K-12 School Renovation/Addition, Nunapitchuk	B	\$	44,756,614					Y
Lower Kuskokwim	4	Newtok K-12 School Relocation/Replacement, Merkarvik	B	\$	31,842,829					Y
Lower Kuskokwim	5	Water Storage and Treatment, Kongiganak	A	\$	3,475,823					N
Lower Kuskokwim	6	Akula Elitnavuk K-12 School Renovation/Addition, Kasigluk-Akula	C	\$	4,173,354					Y
Lower Kuskokwim	7	Akiuk Memorial K-12 School Renovation, Kasigluk-Akiuk	C	\$	3,442,187					Y
Lower Kuskokwim	8	Bethel Regional High School Boardwalk Replacement	D	\$	1,687,147					N
Lower Kuskokwim	9	Bethel Campus Transportation and Drainage Upgrades	F	\$	1,065,532					N
Lower Kuskokwim	10	Qugcuun Memorial K-12 School Renovation Addition, Oscarville	B	\$	3,843,331					Y
Lower Kuskokwim	11	Arviq School Improvement, Platinum	D			\$	TBD			N
Lower Kuskokwim	12	Districtwide Fuel Tank Disposition	D			\$	2,031,078			N
Lower Kuskokwim	13	Fuel Tank Remediation, Bethel	D			\$	215,152			N
Lower Kuskokwim	14	Districtwide Fuel Tank Upgrades	D			\$	7,250,000			N
Lower Kuskokwim	15	Nelson Island School Renovation, Toksook Bay	C				\$	40,300,000		N
Lower Kuskokwim	16	Districtwide Roof Replacement	C				\$	27,800,000		N
Lower Kuskokwim	17	Districtwide Wastewater Upgrades	D					\$	14,200,000	N
Lower Kuskokwim	18	Districtwide Water Treatment and Storage Upgrades	D					\$	8,400,000	N
Lower Kuskokwim	19	Districtwide Fire Alarm and Sprinkler Upgrades	D						\$	TBD

District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse
Lower Yukon	1	Sheldon Point K-12 School Foundation Cooling & Repairs, Numam Iqua	C	\$ 3,368,065						Y
Lower Yukon	2	Marshall K-12 School Emergency Tank Farm Repair	C	\$ 1,880,554						N
Lower Yukon	3	Hooper Bay K-12 Exterior Repairs	C	\$ 2,296,607						N
Lower Yukon	4	Hooper Bay K-12 School Emergency Lighting & Retrofit	D	\$ 234,545						Y
Lower Yukon	5	Scammon Bay K-12 School Emergency Lighting & Retrofit	D	\$ 119,467						Y
Lower Yukon	6	Ignatius Beans K-12 School Marine Header Pipeline, Mountain Village	D	\$ 1,723,461						Y
Lower Yukon	7	Scammon Bay K-12 School Siding Replacement	C	\$ 1,198,395						N
Lower Yukon	8	LYSD Central Office Renovation	C	\$ 5,252,629						Y
Lower Yukon	9	Sheldon Point K-12 School Exterior Repairs, Nunam Iqua	C	\$ 1,844,996						N
Lower Yukon	10	Security Access Project, 6 Sites	C	\$ 1,797,703						Y
Lower Yukon	11	Kotlik and Pilot Station K-12 Schools Renewal and Repair	C	\$ 4,035,240						N
Mat-Su	1	Big Lake Elementary School Water System Replacement, Ph 2	D	\$ 875,000						N
Mat-Su	2	Butte and Snowshoe Elementary Schools Water System Replacement	D	\$ 1,717,608						N
Mat-Su	3	Talkeetna Elementary School Roof Replacement	D	\$ 1,736,060						N
Mat-Su	4	Colony and Wasilla Middle Schools Roof Replacement	C	\$ 3,927,400						N
Mat-Su	5	Elevator Code and Compliance Upgrades, 6 Sites	D	\$ 1,636,582						N
Mat-Su	6	Structural Seismic Upgrades, 5 Sites	C	\$ 11,784,140						N
Mat-Su	7	Ceiling and Sprinkler Seismic Mitigation, 5 Sites	D	\$ 3,654,237						N
Mat-Su	8	HVAC Control Upgrades, 5 Sites	D	\$ 10,147,491						N
Mat-Su	9	Box School Renovations, 4 Schools (Butte, Pioneer Peak, Cottonwood Creek, Snowshoe Elementarlys)	D				\$ 20,320,000			N
Mat-Su	10	Emergency Generator Replacements Phase 2, 7 Schools	D				\$ 6,760,486			N
Mat-Su	11	Palmer High School Mechanical Upgrade, Phase 3	D				\$ 3,652,000			N
Mat-Su	12	District Athletic Field Upgrades	C				\$ 5,080,120			N
Nenana	1	Nenana K-12 School Flooring & Asbestos Abatement	D	\$ 415,265						Y
Nenana	2	Nenana K-12 School Boiler Replacement	E	\$ 185,858						Y
Nenana	3	Nenana K-12 School Fire Suppression System Replacement	D	\$ 1,559,114						Y
Nenana	4	Nenana K-12 School Major Maintenance	D		\$ 1,600,000					N
Nenana	5	Nenana K-12 School Roof Repair/Replacement	C			\$ 1,365,000				N
Nenana	6	Nenana K-12 School Energy Renovation	E				\$ 577,500			N
Nenana	7	Nenana K-12 School Site Improvements	F					\$ 650,000		N
Nenana	8	Nenana K-12 School ADA Access & Site Improvements	F						\$ 1,312,500	N
Nenana	9	Nenana K-12 School Career and Technical Education Classroom Upgrade	D						\$ 1,075,000	N
Nome	1	Nome Beltz Jr/Sr High School Boiler Replacement	C	\$ 97,247						N
Nome	2	Anvil City Charter School Restroom Renovation	D	\$ 395,199						N
Nome	3	Nome Elementary School Fire Alarm Replacement	C	\$ 464,903						N
Nome	4	Nome Schools DDC Control Upgrades	D	\$ 2,276,102						N
Nome	5	Nome Beltz/Jr/Sr High School Generator Replacement	C	\$ 900,356						Y
Nome	6	Nome Beltz Jr/Sr High School Security & ADA Upgrades	C		\$ 475,000					N
Nome	7	Nome Beltz Elementary School Exterior and Parking Upgrades	D		\$ 2,500,000					N
Nome	8	Nome Beltz Jr/Sr High School Exterior Renovation	C		\$ 225,000					N

District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse
Nome	9	Nome Beltz Jr/Sr High School Interior Renovation	C			\$ 350,000				N
Nome	12	Quonset Hut Siding Replacement	C				\$ 250,000			N
Nome	13	Maintenance Building Siding and Roof Replacement	C				\$ 225,000			N
Nome	14	Building D Exterior Upgrades	C					\$ 200,000		N
North Slope Borough	1	Barrow High School Life Safety Renovations	C	\$ 9,800,000	* District did not submit a 6-year plan or application. Fiscal year data left as-is from original submittal					N
North Slope Borough	3	Districtwide Renovations and Systems Upgrades	C	\$ 8,295,000						N
North Slope Borough	4	Districtwide Renovations and Systems Upgrades	C		\$ 8,295,000					N
North Slope Borough	5	Districtwide Renovations and Systems Upgrades	C			\$ 8,295,000				N
Northwest Arctic	1	Buckland K-12 School HVAC Renewal and Upgrades	E	\$ 1,037,348						Y
Northwest Arctic	2	Selawik School Major Renovation	C		\$ 6,000,000					N
Northwest Arctic	3	Deering School Renovation	B		\$ 7,000,000					N
Northwest Arctic	4	Buckland K-12 School Exterior Envelope Renewal	C			\$ 1,510,000				N
Northwest Arctic	5	Noorvik School Roof Replacement	C				\$ 1,846,000			N
Northwest Arctic	6	Noorvik School HVAC Controls	C					\$ 1,846,000		N
Northwest Arctic	7	June Nelson Elementary School Renovation	C						\$ 3,500,000	N
Pelican	5	Pelican High School Roof Replacement	C	\$ 600,000	* District did not submit a 6-year plan or application. Fiscal year data left as-is from original submittal					N
Petersburg	3	Petersburg Stedman Elementary Plumbing System Replacement	C	\$ 750,000	* District did not submit a 6-year plan or application. Fiscal year data left as-is from prior year.					N
Petersburg	4	Repair Auditorium Failing Floor System	C		\$ 150,000					N
Petersburg	5	Districtwide ADA Renovations	D			\$ 1,000,000				N
Pribilof	2	Gym Roof Beam Replacement	C	\$ 200,000	* District did not submit a 6-year plan or application. Fiscal year data left as-is from original submittal					N
Pribilof	3	High School Wing Foundation Stabilization and Door and Window Replacement	C		\$ 80,000					N
Sitka	1	Keet Gooshi Heen Elementary Covered PE Structure Renovation	C	\$ 503,823						N
Sitka	2	Keet Gooshi Heen Playground Equipment Refurbishment	C		\$ 180,000					N
Sitka	3	Baranof School Playground Equipment Refurbishment	C		\$ 180,000					N
Sitka	4	Keet Gooshi Heen Electrical Boiler Installation	E			\$ 350,000				N
Sitka	5	Baranof School Electrical Boiler Installation	C			\$ 350,000				N
Sitka	6	Districtwide Interior/Exterior LED Lighting Upgrade	E			\$ 400,000				N
Sitka	7	Sitka High School Parking Area Paving	F				\$ 275,000			N
Sitka	8	Keet Gooshi Heen Parking/Play Area Paving	F				\$ 300,000			N
Sitka	9	Blatchley School Parking Area Paving	F					\$ 200,000		N
Sitka	10	Baranof School Parking/Play Area Paving	F						\$ 275,000	N
Southeast Island	1	Thorne Bay K-12 Fire Suppression System	D	\$ 536,506						Y
Southeast Island	2	Hollis K-12 School Replacement	B	\$ 10,355,919						N
Southeast Island	3	Thorne Bay K-12 Mechanical Control Upgrades	C	\$ 1,225,853						Y
Southeast Island	4	Thorne Bay K-12 Underground Storage Tank Replacement	C	\$ 428,927						Y
Southeast Island	5	Port Alexander & Thorne Bay K-12 Schools Roof Replacement	C	\$ 3,881,355						Y
Southeast Island	6	Thorne Bay K-12 School Flooring Replacement	C	\$ 71,549						Y
Southeast Island	7	Port Alexander K-12 School Domestic Water Pipe Replacement	D	\$ 90,294						Y
Southwest Region	1	Twin Hills K-12 New School Construction	C	\$ 11,250,180						N
Southwest Region	2	Ekwok K-12 Renovation	C	\$ 6,350,340						N
Southwest Region	3	Aleknagik K-12 School Renovations	C	\$ 5,125,860						N

District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse
Southwest Region	4	Togiak School Interior Floor Finishes	C		\$ 1,632,990					N
Southwest Region	5	Manokotak K-12 School Interior Floor Finishes and Ceiling Replacement	C				\$ 1,548,020			N
Southwest Region	6	Togiak K-12 HVAC Controls Upgrade	E				\$ 610,900			N
Southwest Region	7	Manokotak K-12 School Fire Panel	E					\$ 85,000		N
St. Mary's	1	St. Mary's Campus Renewal and Repairs	C	\$ 201,603						N
Valdez	1	Valdez High and Hermon Hutchens Elements Schools Domestic Water Piping Replacement	D	\$ 3,043,356						Y
Valdez	2	Valdez High and Hermon Hutchens Elementary Generator Replacement	C	\$ 809,935						Y
Valdez	3	Valdez High School Windows Replacement	C	\$ 516,893						Y
Valdez	4	Valdez High and Hermon Hutchens Elementary Exterior Door Upgrades and Security	C		\$ 3,200,000					N
Valdez	5	Hermon Hutchens Elementary Floor Replacement	C		\$ 850,000					N
Valdez	6	Hermon Hutchens Elementary Roof and Siding Replacement	C			\$ 2,350,000				N
Valdez	7	Valdez High School Parking Lot Lighting Upgrade	C			\$ 125,000				N
Valdez	8	Hermon Hutchens Elementary and Valdez High Schools Kitchen Upgrades	C			\$ 350,000				N
Valdez	9	Valdez High School Gym Locker Room Remodel	C				\$ 1,500,000			N
Yukon Flats	9	Fort Yukon Major Maintenance	C	\$ TBD	* District did not submit a 6-year plan or application. Fiscal year data left as-is from original submittal					N
Yukon-Koyukuk	1	Minto K-12 School Renovation/Addition	A	\$ 10,022,024						N
Yukon-Koyukuk	2	YKSD District Office Roof Replacement	C	\$ 160,325						N
Yukon-Koyukuk	3	Koyukuk K-12 School Boiler Replacement	C	\$ 493,476						N
Yukon-Koyukuk	4	Rampart Replacement K-12 School Construction	C		\$ 9,000,000					N
Yukon-Koyukuk	2	Ella B. Vernetti K-12 School Boiler Replacement, Koyukuk	C	\$ 468,918						N
Yukon-Koyukuk	5	Hughes K-12 School Renovation and Upgrade	D			\$ 5,000,000				N
Yukon-Koyukuk	6	Districtwide Contaminated Soil Remediation Plans	C			\$ 300,000				N
Yukon-Koyukuk	7	Kaltag K-12 School Roof Replacement	C				\$ 300,000			N
Yukon-Koyukuk	8	Kaltag K-12 School Kitchen Code Upgrade	D					\$ 100,000		N
Yukon-Koyukuk	9	Roof Replacement, 3 Schools	C						\$ 500,000	N
Yupiit	1	Tuluksak K-12 School Generator Refurbishment	C	\$ 159,188						Y
Yupiit	2	Mechanical System Improvements, 3 Schools	C	\$ 811,120						N
Yupiit	3	Gym Floor Replacement, 3 Schools	C	\$ 295,802						Y
Yupiit	4	Akiachak K-12 School Window Replacement	C	\$ 117,774						Y
Yupiit	5	Tuluksak K-12 Fuel Tank Replacement	D	\$ 3,908,907						N
Yupiit	6	Playground Construction, 3 Schools	F	\$ 871,176						N
Yupiit	7	Flooring Replacement, 3 Schools	C		\$ 728,000					N
Yupiit	8	Bathroom and Locker Room Renovation	C		\$ 2,739,489					N
Yupiit	9	Roof and Exterior Siding Repair/Replacement	C		\$ 3,534,782					N
Yupiit	10	Mechanical and Fire Equipment Upgrades	C		\$ 1,583,814					N
Yupiit	11	Kitchen Upgrades, 3 Schools	C			\$ 4,376,304				N
Yupiit	12	Structural Leveling, 3 Schools	C			\$ 5,000,000				N

District Name	Priority	Project Location and Description	Primary Purpose	FY22	FY23	FY24	FY25	FY26	FY27	FY22 Reuse
Yupiit	13	Locker Renewal, 3 Schools	C			\$ 72,036				N
Yupiit	14	Classroom Cabinetry and Countertop Replacement, 3 Schools	C			\$ 806,536				N
Yupiit	15	Fuel Tank Barrier Replacement	C				\$ 349,000			N
Yupiit	16	IT Infastructure/Electrical Upgrades	C				\$ 405,464			N
Yupiit	17	Exterior Window Replacement, 3 Schools	C				\$ 604,173			N
Yupiit	18	Exterior Door Replacement, 3 Schools	C				\$ 100,376			N
Yupiit	19	Akiachak and Akiak Generator Refurbishment	C					\$ 79,438		N
Yupiit	20	Boiler Refurbishment, 3 Schools	C					\$ 769,080		N
Yupiit	21	Interior Door Replacements	C					\$ 142,695		N
Yupiit	22	Classroom Furniture Replacement	C					\$ 267,312		N
Yupiit	23	Tuluksak Generator Replacement	C						\$ 691,361	N
<b>Total Six-Year Plan Estimate:</b>		<b>\$ 1,336,041,672</b>	<b>FY Totals:</b>	<b>\$ 505,606,270</b>	<b>\$ 298,334,693</b>	<b>\$ 249,324,628</b>	<b>\$ 169,851,734</b>	<b>\$ 67,092,745</b>	<b>\$ 45,831,602</b>	<b>\$ 159,860,583</b>





### CIP Grant Requests and Funding History FY 12 to FY22

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
<b>CIP Grant Requests</b>											
Total Applications	158	158	137	121	126	127	131	105	86	120	125
Percent of Districts Applying	72%	64%	66%	64%	66%	68%	70%	58%	51%	64%	57%
# Projects Reusing Scores	45	20	52	23	57	27	67	39	24	40	55
Major Maintenance	117	120	111	102	102	98	107	84	72	102	108
MM Total \$ <sup>(*)</sup>	\$275,132,938	\$267,017,375	\$253,682,082	\$183,505,181	\$172,195,526	\$181,570,096	\$164,887,094	\$142,892,281	\$113,787,100	\$148,986,253	\$186,258,645
School Construction	32	27	24	17	18	18	15	11	11	14	17
SC Total \$ <sup>(*)</sup>	\$313,999,772	\$276,691,304	\$284,133,432	\$274,150,436	\$230,920,120	\$206,267,345	\$123,294,419	\$179,214,343	\$190,238,739	\$142,797,809	\$162,305,916

Notes:  
 (\*) Total \$ is State Share

### School Construction and Major Maintenance Funding

Grant Projects Funded	\$87,765,592	\$78,952,700	\$94,171,539	\$43,279,791	\$56,728,592	\$74,715,471 <sup>(1)</sup>	\$53,177,429 <sup>(1)</sup>	\$82,665,391 <sup>(1)</sup>	\$42,489,249 <sup>(1)</sup>	\$1,896,395 <sup>(1)</sup>
Percent Grant \$ Funded	14.9%	14.5%	17.5%	9.5%	14.1%	8.6%	17.3%	15.5%	14.0%	0.6%
Percent Applications Funded	12.1%	10.9%	11.9%	1.7%	4.2%	3.4%	16.4%	25.3%	3.6%	0.9%
Debt Projects	\$409,400,183 <sup>(2)</sup>	\$78,525,000 <sup>(2)</sup>	\$138,622,000 <sup>(2)</sup>	\$13,353,394 <sup>(2)</sup>	\$0	\$0	\$0	\$0	\$0	\$0

Notes:  
 Grant Projects Funded includes all reappropriated or reallocated funding, including grant funding from prior fiscal years, as of March 26, 2020

<sup>(1)</sup> Includes AS 14.11.025 grants

<sup>(2)</sup> SB237 debt projects DEED & voter approved, effective 7/1/2010 - 12/31/2014

**School Construction Fund Balance**

as of **30-Jun-20** prepared by Finance & Support Services / Facilities

SC Grant Fund Revenue			FY2012 & Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Total
<b>Appropriations</b>				<b>60,973,515</b>	-	-	-	<b>17,997,268</b>	<b>7,238,422</b>	-	-	-	<b>86,209,205.00</b>
School Finance Reconciliation of Available Balance as of July 1 2017													-
Reappropriation/Approp From SC Grant Fund (see reduction in Allocations)													-
<i>Placeholder Appropriation Values to Balance Older Active Allocations</i>			<i>62,228,082</i>										<i>62,228,082.00</i>
Subtotal Deposits			62,228,082	60,973,515	-	-	-	17,997,268	7,238,422	-	-	-	148,437,287.00
Grant #	AR	SC Grant Fund Capital Project Allocations (State Share):	FY2012 & Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Total State Share
GR-06-026	AKSAS	White Mountain K-12 School Replacement	10,117,808						(1,508,888)				8,608,920
GR-09-028	059021873	Kalskag High School Replacement	18,688,685						(4,296,177)				14,392,508
GR-12-016	059021146	Napaskiak K-12 School Replacement	33,421,589										33,421,589
GR-13-014	059021139	Emmonak K-12 Addition/Renovation		36,056,700					(2,362,224)				33,694,476
GR-13-015	059021140	Koliganek K-12 Replacement		24,916,815							(406,425)		24,510,390
	059560001,												
GR-16-005	059800001	Kivalina K-12 Replacement School - Kasayulie (FY16 \$43,237,400 GF)							7,238,422				7,238,422
GR-17-001	059070001	Kachemak Selo New K-12 School Construction						10,867,503			(857,503)		10,010,000
GR-17-002	059670002	LKSD Bethel Regional High School Central Kitchen & Multipurpose Addition						7,129,765					7,129,765
GR-19-003	059090001	Galena Interior Learning Academy Headquarters Bldg Ph2 Const								7,073,013			7,073,013
GR-19-004	059090002	Sand Point K-12 School Paving								287,060			287,060
GR-19-005	059090003	Kasaan K-12 School Covered Play Area								440,433			440,433
GR-19-006	059090004	King Cove K-12 School Paving								71,532			71,532
GR-19-007	059090005	Thorne Bay K-12 School Playground Upgrades								221,614			221,614
													-
													-
													-
Subtotal SC-funded Projects			62,228,082	60,973,515	-	-	-	17,997,268	(928,867)	8,093,652	(1,263,928)	-	147,099,722.87
Lapsing or Reapprop'd Funds			-	-	-	-	-	-	(8,167,289)	-	(1,263,928)	-	(9,431,216.13)
Funded Projects			62,228,082	60,973,515	-	-	-	17,997,268	7,238,422	8,093,652	-	-	156,530,939.00
<b>Reconciliation of Available Funds:</b>			-	-	-	-	-	-	<b>8,167,288.61</b>	<b>73,636.61</b>	<b>1,337,564.13</b>	<b>1,337,564.13</b>	

<b>Major Maintenance Grant Fund (FU 1193) Balance</b>														
as of	24-Jun-2020	prepared by Finance & Support Services / Facilities												
			FY2012 & Prior	FY 2013	FY2014	FY 2015	FY2016	FY 2017	FY2018	FY18 Lapse	FY2019	FY2020	FY2021	Total
		<b>MM Grant Fund Revenue</b>												
		<b>Appropriations</b>						-	3,608,544		24,203,372	7,400,000	-	35,211,916
		School Finance Reconciliation of Available Balance as of July 1 2017							4,273,075	50,114		232,726		4,555,916
		Reappropriation/Approp From MM Grant Fund (see reduction in Allocations)							(3,400,000)					(3,400,000)
		<i>Placeholder Appropriation Values to Balance Older Active Allocations</i>	21,442,359	-	16,381,338	-	10,662,233	-						48,485,930
		Subtotal Deposits	21,442,359	-	16,381,338	-	10,662,233	-	4,481,619	50,114	24,203,372	7,632,726		84,853,761
<b>Grant #</b>	<b>AR</b>	<b>MM Grant Fund Capital Project Allocations/Expenditures (State Share):</b>												<b>Final State Share</b>
GR-09-006	059021813	Fairbanks Districtwide Oil Tank Replacement	2,486,777							(10,869)				2,475,908
GR-12-007	059021112	Arctic Village K-12 School Soil Remediation	5,517,065											5,517,065
GR-12-013	059021118	Pitka's Point K-8 School Renovation	8,360,235						(3,400,000)	(4,589,813)				370,422
GR-13-006	059021130	Merrelaine A Kangas K-12 School Renovation	5,078,282							(189,278)				4,889,004
GR-14-013	059021430	Tununak K-12 School Major Maintenance			16,381,338							(799,590)		15,581,748
GR-16-001	059021452	Petersburg MS-HS Boiler Rehabilitation /					24,565			(2,706)				21,859
GR-16-002	059021454	Andrew K. Demoski Renovation, Nulato					10,637,668					-		10,637,668
GR-18-005	059080005	Kake Schools Boiler #2 Replacement							185,944	(10,501)				175,443
GR-18-006	059080006	Petersburg Middle/High School Primary Boiler Replacement							49,135	(2,220)				46,915
GR-18-007	059080007	Bristol Bay School Renovation, Phase 1							2,523,300					2,523,300
GR-18-008	059080008	Galena Interior Learning Academy Classroom Building Renovation							564,672					564,672
GR-18-009	059080009	Rogers Park Elementary School Roof Replacement & Seismic Upgrades							1,111,139					1,111,139
GR-18-010	059080010	Anderson K-12 School Water Line Replacement							180,334	(69,961)				110,373
GR-18-011	059080011	Romig Middle School Gym Seismic Repairs							412,283					412,283
GR-18-012	059080012	Sand Point K-12 School Heating System Renovation							201,458					201,458
GR-18-013	059080013	Petersburg Middle/High School Boiler 2 Replacement							48,543			(705)		47,838
GR-18-014	059080014	Districtwide Energy Upgrades							143,130	--				143,130
GR-18-015	059080015	St. Mary's Campus Upgrades							388,550					388,550
GR-18-016	059080016	Metlakatla High School Kitchen Renovation							946,400		(22,232)			924,168
GR-18-017	059080017	Klukwan K-12 School Boiler Replacement							56,610		(4,716)			51,894
GR-18-018	059080018	Districtwide Food Service Renovations							969,649	21,055				990,704
GR-18-019	059080019	Davis Ramoth K-12 School Sewer Line Repair, Selawik							52,698	--				52,698
GR-18-020	059080020	Petersburg High School Gym & Auxiliary Gym LED Lighting Upgrade							18,107			(49)		18,058
GR-19-009	059090007	Cantwell K-12 School Roof Replacement									741,463	-		741,463
GR-19-010	059090008	Bristol Bay School Renovation, Phase 2									8,464,845			8,464,845
GR-19-011	059090009	Houghtaling Elementary Roof Replacement									2,353,187			2,353,187
GR-19-012	059090010	Allakaket K-12 School Renovation									9,193,949			9,193,949
GR-19-013	059090011	Davis Ramoth K-12 School Window Replacement, Selawik									189,212	-		189,212
GR-19-014	059090012	Thorne Bay Maintenance Building Roof Replacement									158,446			158,446
GR-19-015	059090013	Bethel Campus Fire Pump House & Fire Protection Upgrades									2,922,446			2,922,446
GR-19-016	059090014	Craig Middle School Gym Floor Replacement									418,154	(24,769)		393,385
GR-19-017	059090015	Petersburg Middle-High School Entry Renovation									31,397	(508)		30,889
GR-19-018	059090016	Nome Beltz Jr/Sr High School Partial Roof Replacement									1,556,442			1,556,442
GR-19-019	059090017	Tri-Valley School Coal Heat Conversion									71,938	(1,182)		70,756
GR-19-020	059090018	Tok K-12 School Sprinkler Renovation									1,763,021			1,763,021
GR-19-021	059090019	Petersburg Middle-High School Underground Storage Tank									115,502	-		115,502
GR-19-022	059090020	Nuniwaarmiut K-12 School Wastewater Upgrades, Mekoryuk									876,590			876,590
GR-19-023	059090021	Craig Elementary School Door & Flooring Replacement									110,766	-		110,766
GR-19-024	059090022	Craig Elementary Middle School Siding & Windows									116,994	-		116,994
GR-20-003	059000002	Barnette Magnet School Renovation Phase IV										7,365,723		7,365,723
GR-21-001	pending	St. Paul K-12 School Roof Replacement & Structural Repair											1,173,849	-
		Subtotal MM-funded Activity	21,442,359	-	16,381,338	-	10,662,233	-	4,451,952	(4,854,293)	29,057,404	6,538,920	1,173,849	83,679,912.47
		Lapsing or Reapprop'd Funds	-	-	-	-	-	-	(3,400,000)	(4,875,348)	(26,948)	(826,803)	-	(9,129,100)
		Funded Project	21,442,359	-	16,381,338	-	10,662,233	-	7,851,952	21,055	29,084,352	7,365,723	1,173,849	92,809,012
		<b>Reconciliation of Available Funds:</b>	-	-	-	-	-	-	<b>29,666.92</b>	<b>4,934,074.04</b>	<b>80,042.39</b>	<b>1,173,848.80</b>	<b>(0.20)</b>	

**Regional Education Attendance Area & Small Municipality Grant Fund (FU 1222) Balance**

as of **10-Aug-2020** prepared by Finance & Support Services / Facilities

Deposits			FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Total
REAA Fund Capitalization			35,512,300	35,200,000	39,921,078	38,789,000	31,230,000	40,640,000	39,661,000	19,694,500	-	314,108,378
Interest Earned (Actual as of 7/7/17)			118,206	368,142	383,180	-	-	-	-	-	-	869,528
Subtotal Deposits			35,630,506	35,568,142	40,304,258	38,789,000	31,230,000	40,640,000	39,661,000	19,694,500	-	314,977,906
Grant #	AR	REAA-funded Capital Project Funded Projects	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Total
GR-14-014	059021421	Nightmute School Renovation/Addition	-	32,965,301	-	-	-	-	-	-	-	32,965,301
GR-14-015	059021422	Kuinerramiut Elitnaurviat K-12 Renovation/Addition, Quinhagal	-	13,207,081	-	-	-	-	-	(5,041,059)	-	8,166,022
GR-14-016,	059621440	Kwethluk K-12 Replacement School	-	25,008,100	31,516,900	-	-	-	-	(10,000,000)	-	46,525,000
GR-15-002	059621442	St. Mary's Andreafski High School Gym Construction	-	-	8,958,100	-	-	-	-	-	-	8,958,100
GR-17-002	059070002	[see FU1080] Bethel Regional High School Multipurpose Additior	-	-	-	-	7,129,765	-	-	-	-	7,129,765
GR-17-003	059680002	Lewis Angapak K-12 School Renovation/Addition, Tuntutuliak	-	-	-	-	40,343,416	704,620	-	-	-	41,048,036
GR-17-004	059680001	Jimmy Huntington K-12 Renovation/Addition, Huslia	-	-	-	-	15,394,787	980,000	-	-	-	16,374,787
GR-18-002	059680003	Shishmaref K-12 School Renovation/Addition	-	-	-	-	-	16,184,008	490,000	-	-	16,674,008
	059680005,											
GR-18-003,	05969001	J Alexie Memorial K-12 School Replacement, Atmautluak	-	-	-	-	-	3,261,667	39,556,086	-	-	42,817,753
GR-18-004	059680004	Auntie Mary Nicoli Elementary School Replacement, Aniak	-	-	-	-	-	18,641,380	-	-	-	18,641,380
GR-19-002	059690002	Eek K-12 School Renovation/Addition	-	-	-	-	-	-	2,481,373	34,450,733	-	36,932,106
GR-19-008	059690003	St. Mary's Campus Upgrades (1st MM project under HB 212)	-	-	-	-	-	-	3,449,928	-	-	3,449,928
GR-20-002	059600002	Hollis K-12 School Replacement	-	-	-	-	-	-	-	672,793	-	672,793
GR-21-001	pending	St. Paul K-12 School Roof Replacement and Structural Repair (MM)	-	-	-	-	-	-	-	-	722,546	722,546
Subtotal Fund Activity			-	71,180,482	40,475,000	-	62,867,968	39,771,675	45,977,387	20,082,467	722,546	281,077,525
Lapsing or Reapprop'd Funds			-	-	-	-	-	-	-	(15,041,059)	-	(15,041,059)
Funded Projects			-	71,180,482	40,475,000	-	62,867,968	39,771,675	45,977,387	35,123,526	722,546	296,118,584
<b>Reconciliation of Available REAA Funds:</b>			<b>35,630,506</b>	<b>18,166</b>	<b>(152,576)</b>	<b>38,636,424</b>	<b>6,998,456</b>	<b>7,866,781</b>	<b>1,550,394</b>	<b>1,162,427</b>	<b>439,881</b>	



# PM State-of-the-State

## Report of DEED Maintenance Assessments and Related Data

AS OF 08/15/2020

District	Date of Last Visit	Year of Next Visit	Approved FAIS	Maintenance Management	Energy	Custodial	Training	R&R Schedule	Status	Maint. Program	Program Name	CIP Eligible
Alaska Gateway	3/30/2017	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Aleutian Region	7/19/2011	2016	Y	N	Y	Y	Y	Y	5 of 6	W	Dude Solutions	No
Aleutians East	11/12/2019	2025	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Anchorage	1/23/2018	2023	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
<b>Annette Island</b>	12/3/2015	2021	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Bering Strait	4/14/2019	2024	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Bristol Bay Borough	1/18/2019	2024	Y	Y	Y <sup>P</sup>	Y	Y	Y	6 of 6	W	MC*	Yes
Chatham	3/6/2017	2022	Y	Y	Y <sup>P</sup>	Y	Y	Y	6 of 6	W	MC*	Yes
Chugach	1/26/2018	2023	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Copper River	3/31/2017	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Cordova	1/15/2020	2025	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Craig City	11/14/2016	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Delta/Greely	3/28/2017	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Denali Borough	12/18/2019	2025	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
<b>Dillingham City</b>	2/2/2016	2021	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Fairbanks	3/27/2018	2023	Y	Y	Y	Y	Y	Y	6 of 6	W	Web Help Desk	Yes
Galena	3/22/2018	2023	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
<b>Haines</b>	11/17/2015	2021	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Hoonah City	4/17/2017	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Hydaburg City	11/16/2016	2022	Y	N	Y	Y	N	Y	4 of 6	W	MC*	No
Iditarod Area	4/8/2019	2024	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
<b>Juneau</b>	11/3/2015	2021	Y	Y	Y	Y	Y	Y	6 of 6	L	TMA	Yes
Kake City	2/4/2020	2025	Y	Y	Y <sup>P</sup>	Y	Y	Y	6 of 6	W	MC*	Yes
Kashunamiut	2/25/2020	2025	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Kenai Peninsula	3/1/2018	2023	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
<b>Ketchikan</b>	12/2/2015	2021	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Klawock City	12/19/2016	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Kodiak Island	5/29/2020	2025	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Kuspuk	3/3/2020	2025	Y	Y <sup>P</sup>	Y <sup>P</sup>	Y	Y <sup>P</sup>	Y	6 of 6	W	MC*	Yes
Lake & Peninsula	1/16/2019	2024	Y	Y	N	Y	Y	Y	5 of 6	W	Manager Plus	No
Lower Kuskokwim	3/25/2019	2024	Y	Y	Y <sup>P</sup>	Y	Y <sup>P</sup>	Y	6 of 6	W	Manager Plus	Yes
Lower Yukon	3/20/2019	2024	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Mat-Su Borough	2/3/2017	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	Team Dynamix	Yes
Nenana City	12/17/2019	2025	Y	Y	Y <sup>P</sup>	Y	Y	Y	6 of 6	W	MC*	Yes
Nome City	4/28/2017	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
North Slope Borough	5/21/2018	2023	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
<b>Northwest Arctic</b>	2/23/2016	2021	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Pelican City	4/9/2018	2023	Y	Y	Y <sup>P</sup>	Y	Y <sup>P</sup>	Y	6 of 6	W	MC*	Yes
<b>Petersburg City</b>	1/7/2016	2021	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Pribilof Island	5/25/2020	2025	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Sitka City Borough	4/24/2017	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Skagway City	9/5/2018	2024	Y	N	N	Y	N	Y	3 of 6	W	Dude Solutions	No
Southeast Island	11/18/2016	2022	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
<b>Southwest Region</b>	2/4/2016	2021	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
St Mary's	3/18/2019	2024	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Tanana City	3/23/2018	2023	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Unalaska City	5/25/2020	2025	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Valdez City	4/18/2018	2023	Y	Y	Y	Y	Y	Y	6 of 6	W	MC	Yes
<b>Wrangell City</b>	1/8/2016	2021	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes
Yakutat City	1/14/2020	2025	Y	Y	Y <sup>P</sup>	Y	Y <sup>P</sup>	Y	6 of 6	W	MC*	Yes
Yukon Flats	11/12/2018	2024	Y	N	N	Y	N	Y	3 of 6	W	MC*	No
Yukon-Koyukuk	11/15/2018	2024	Y	Y	Y	Y	Y	Y	6 of 6	W	Dude Solutions	Yes
Yupit	2/27/2020	2025	Y	Y	Y	Y	Y	Y	6 of 6	W	MC*	Yes

In Compliance 53 49 50 53 50 53 48 48

**Legend**

N = Not in compliance W= Web-based Computerized Maintenance Management System  
 Y = In full compliance L = Local Area Network (LAN) Computerized Maintenance Management System  
 Y<sup>P</sup> = Provisional compliance \* = Use MC (Maintenance Connection) through SERRC Service Contract  
 FAIS = Fixed Asset Inventory System **Bold** - Site visit pending

"Year of Next Visit" dates are subject to change at the department's discretion. School Districts will be notified in a timely manner if scheduled visit dates listed on this report are altered.



THE STATE  
of **ALASKA**  
GOVERNOR MIKE DUNLEAVY

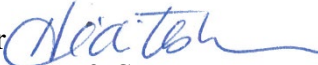
**Department of Education  
& Early Development**

FINANCE & SUPPORT SERVICES  
Facilities

P.O. Box 110500  
Juneau, Alaska 99811-0500  
Main: 907.465.2875  
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Email: Heidi.Teshner@alaska.gov

**To:** All Superintendents

**Date:** November 13, 2020

**From:** Heidi Teshner   
Director of Finance & Support  
Services

**Subject:** Retro-commissioning Compliance

**File:** G:\SF Facilities\Facilities\PM & Facility  
Management\RCx Tools & Data\Retro-Cx  
Guidance & Tools\_Implementation Version 11-  
12-20.docx

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## P O L I C Y M E M O R A N D U M

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### Background

#### Commissioning Requirements for Existing Buildings

In order to remain eligible to request state-aid for school capital projects under AS 14.11, Alaska school districts must have a preventive maintenance and facility management program in compliance with 4 AAC 31.013(a), including:

(2) an energy management plan that includes . . .

**(B) regular evaluation of the effectiveness of and need for commissioning existing buildings.**

This requirement was codified in regulation on November 29, 2019 and it is the intent of the Department of Education & Early Development to assess district compliance with the regulation during the period November 1, 2020 and June 1, 2021. The department, following review at the Bond Reimbursement & Grant Review Committee, and after a period of public comment running from August 5 to September 21, 2020, is establishing the criteria and options outlined in this memorandum for energy performance measurement. The department is also making tool(s) available for district use to assist them in meeting the established criteria under Option 2.

#### Definitions

**Retro-commissioning (RCx):** RCx is the inspection and adjustment of systems to return the facility to operate as it was designed to operate. Generally, it is assumed to apply to facilities that were never commissioned at start-up. The parallel term “re-commissioning” is sometimes applied to commissioning activity that follow an original (prior) commissioning event.

**Energy Use Intensity (EUI):** Sometimes also referred to as Energy Utilization Index, the EUI provides a snapshot of the quantity of energy actually used by a building on a square foot and time period basis (e.g. month, year). The calculation converts the total energy usage for a determined time period from all sources in the building, (e.g. heating fuel, electrical) into British Thermal Units (BTUs). The total usage is then divided by the number of square feet (sf) of the

building. EUI units are kBtUs/sf for any measured time period. As a stand-alone metric, EUIs are not adjusted for climate variations.

**British Thermal Unit (BTU):** A BTU is the amount of heat required to raise the temperature of one pound of liquid water by one degree Fahrenheit at a constant pressure of one atmosphere.

**Heating Degree Day (HDD):** HDDs are a measure of how much (in degrees), and for how long (in days), the outside air temperature falls below 65 degrees Fahrenheit. It is commonly used in calculations relating to the energy consumption required to heat buildings. Essentially, the colder the outside air temperature, the more energy it takes to heat a building. The idea is that the amount of energy needed to heat a building in any day/week/month/year is directly proportional to the number of heating degree days in that day/week/month/year.

**Site Energy:** The amount of primary (e.g. oil, natural gas) and secondary energy (e.g. heat and electricity) consumed by a building as reflected in utility bills and other on-site measurements. Site energy is calculated by converting each fuel source into BTUs, then adding them altogether. Site energy is useful in monitoring how the energy use for an individual building has changed over time; however, it is not a good metric to compare two different buildings.

## **Discussion**

The regulation language requires three actionable steps of school districts:

- 1) Districts must evaluate the **need** for retro-commissioning of existing buildings;
- 2) Districts must evaluate the **effectiveness** of retro-commissioning existing buildings; and
- 3) The evaluation must be regular.

## **Retro-commissioning Need**

The department requires that districts evaluate the need for retro-commissioning by measuring the EUI for each designated facility (see RCx Target Facilities). The calculated EUI is then used to establish a performance benchmark for each facility. A retro-commissioning need would be triggered when the EUI rises above the benchmark. The process of establishing the benchmark would depend on the compliance option selected (see Options). For example, under Option 2, the EUI would be adjusted for climate variations using Degree Days, and finally, compared against a statewide minimum EUI benchmark established by the department and updated as needed as part of the CIP application process.

## **Retro-commissioning Effectiveness**

The department requires that districts evaluate the effectiveness of implementing RCx on a school facility by calculating an anticipated Return on Investment (ROI) for the RCx effort. This ROI would be a simple payback calculation comparing the anticipated cost of the RCx and its recommendations, to the estimated cost savings resulting from implementing the RCx recommendations. Any ROI showing a simple payback within four years is considered effective. Information from industry sources indicate a cost range for a full RCx—planning, implementation, and verification—of \$0.13/sf to \$2.00/sf with the planning phase requiring \$0.05/sf to \$0.50 of those costs (Lawrence Berkeley National Laboratory). Many areas of Alaska would have to add approximately \$2,000 additional in base costs for travel and per-diem.



Industry indicators suggest energy savings from recommissioning to be between 5 and 20 percent. A published study of 224 buildings in 21 states found the average energy savings to be 15 percent. Absent a more sophisticated analysis, which any district may propose for review, the department establishes evaluation of the effectiveness of RCx on any building by using the following calculation:

$$\begin{aligned} \text{Planning cost (PC)} &= \$0.50/\text{sf} + \$2,000 \\ \text{Implementation cost (IC)} &= \$0.50/\text{sf} * \text{Cost Model geographic cost factor} \\ \text{Anticipated annual savings (AAS)} &= 7 \text{ percent of electricity and fuel costs.} \end{aligned}$$

$$\text{RCx Effectiveness Calculation: } PC + IC < AAS$$

### Regular Evaluation

The department has determined that a regular evaluation would be an annual evaluation. At a consistent date, established in the district's energy plan, each qualifying school facility would be evaluated for RCx on a consumption-based EUI analysis, and RCx effectiveness based on a cost-based ROI analysis. Ideally this data would be gathered into a report and shared with the district school board.

### RCx Target Facilities

RCx is an operating budget cost aimed at creating an operational cost savings. The purpose of RCx is not to identify capital renewal needs related to operational costs—that work falls to the more expansive Energy Audit. A retro-commissioning event, therefore, should only be implemented when a reasonably quick ROI from operating funds can be anticipated.

Regular evaluation of the need for, and effectiveness of RCx, is not required for every building. In determining the target facility for RCx, several factors must be considered as follows: 1) the use type of the facility, 2) the total annual energy consumed (correlated as a building's size), 3) the age of its primary energy-influenced building systems (ref. DEED Renewal & Replacement (R&R) Schedule categories listed below), and 4) the presence of an integrated building automation system. Using these four factors, the department has established a requirement that the following facilities be included as "existing buildings" under the requirements of 4 AAC 31.013(a)(2)(B).

**Each facility designated as a 'main school' in the DEED Facilities Database, along with any other school or support facility greater than 5,000 gsf, which meet each of the following building system criteria:**

a.	Exterior Walls System	Installation or renewal within 25 years
b.	Roof Systems	Installation or renewal within 25 years
c.	HVAC Distribution	Installation or renewal within 40 years
d.	HVAC Equipment	Installation or renewal within 30 years
e.	HVAC Controls	Installation or renewal within 20 years
f.	Electrical Lighting	Installation or renewal within 25 years



If a facility does not meet even one of these criteria, that facility is not a target facility for RCx. It is possible that under these criteria, a district may not have any facilities that must be tracked for RCx. Each district will make this determination subject to department review.

### **Responses and Tools**

Each district will need to update its energy management plan to include details about the effectiveness and the need analyses for RCx. Districts will need to implement the measurements and calculations using tools that they have developed, using commercially available tools, or using tools supplied by DEED. These tools are available for download from the department's website. Districts may also request a copy of the tools be emailed by department Facilities staff. An equally viable tool option would be to use the US Environmental Protection Agency's (EPA) Energy Star Portfolio Manager. This tool takes utility consumption data and calculates an EUI for the facility. One benefit of tracking and evaluating using the EPA tool is the access it provides to comparative data from other K-12 school facilities.

### **Options**

#### **Option 1 – District Tools/District Metrics:**

Under this option, a district would demonstrate compliance with the regulation requirements by asserting its own retro-commissioning needs evaluation (EUI-based), effectiveness assessment, and regularity with an annual minimum. (Note: this could include independent use of the EPA Portfolio Manager identified in Option 3 below.)

#### **Option 2 – Department Tools/Department Metrics:**

Under this option, a district would demonstrate compliance with the regulation by using the DEED-supplied RCx needs evaluation, and effectiveness assessment tools on an annual basis. (See attached template and sample tool.)

#### **Option 3 – Using EPA's Portfolio Manager**

Under this option, districts would adopt the EPA Energy Star platform as the process for demonstrating compliance with the regulation in the area of RCx needs evaluation. For districts using this option, the department approves the use of the EPA Target Finder as the basis of needs evaluation. For the effectiveness assessment, districts would use the department's default calculation or an approved alternative.



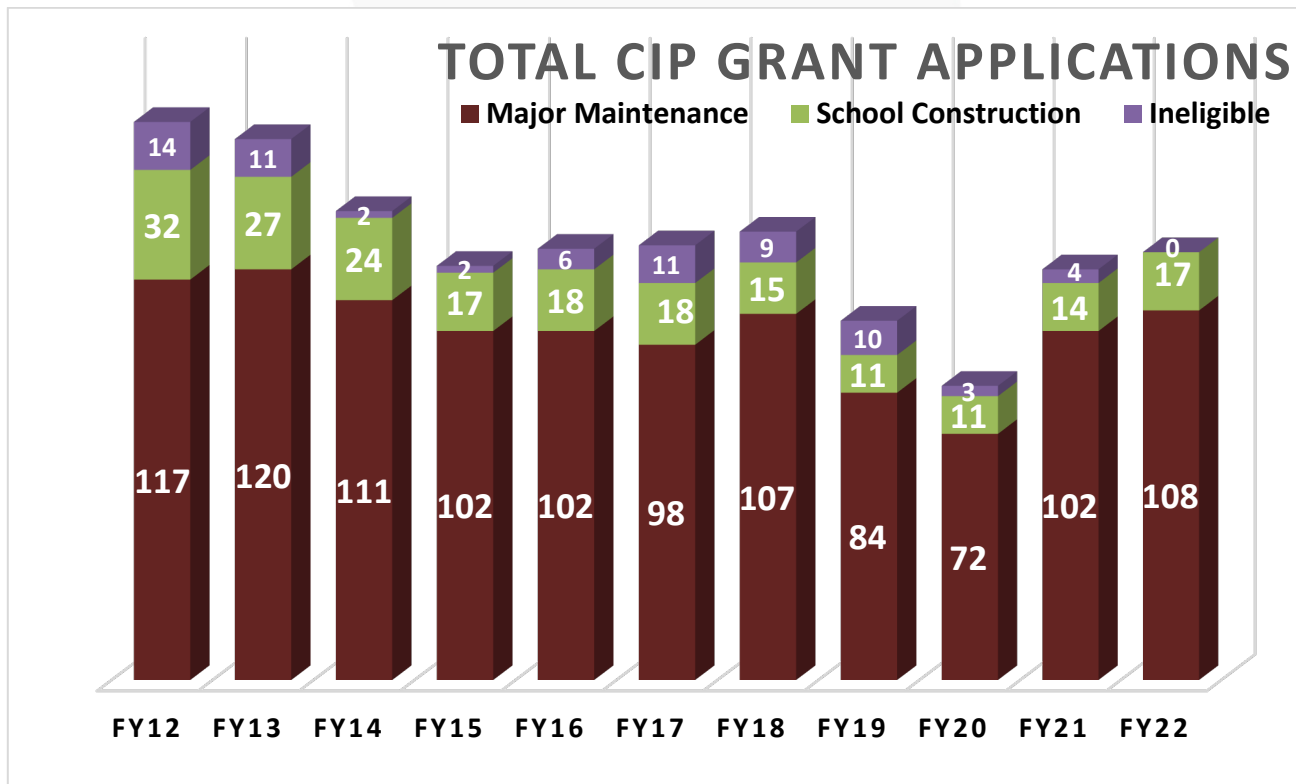
To: Bond Reimbursement & Grant Review Committee  
From: School Facilities  
Date: December 2, 2020

## CIP APPLICATION BRIEFING

### General Issues

We again saw measured improvement in the quality of the CIP applications for FY22 in contrast to past cycles. Here are two examples: 1) for the first time ever (at least back to FY96) we had zero ineligible projects, and 2) the number of cost adjustment as a percentage of total application was down this year by more than 24% from the average of the previous years. The first of these, no ineligible projects, is a big win for both districts and the department. We haven't tried to analyze all the factors that may have contributed to this win but it would be excellent if we could make it a trend.

The past downward trend in applications following FY18 continued an encouraging reversal in the FY22 cycle. The graph below shows the department's standard data points for this assessment.



However, this trending increase in total applications was not reflected in the number of districts participating. Over the last 25 years, the high mark for that data point was 49 in FY99, while FY20

marked the low point at 27 districts. In FY22 those numbers slipped back from 34 to only 30 of the 53 districts submitting applications. The department is tracking several of the districts not represented where a significant need for school capital projects has been demonstrated in the past. These would include Southwest Region School District, Yukon Flats School District and others. Finally, we continue to track an uptick in participation from municipal districts that had been utilizing the bond reimbursement program. We anticipate this will continue in the absence of funding in that program.

Two districts not submitting CIP applications for FY22 funding took the initiative to provide their current six-year plan for inclusion in the statutorily driven task of compiling a six-year forecast of school capital projects, statewide. While encouraging, their remains a significant gap in the DEED version of forecasted need and the reality of that need. To remedy this, the department has continued to investigate opportunities to create a School Capital Funding Forecast Database. The project has been submitted to OMB with the department’s capital requests and we continue to engage with the Department of Transportation & Public Facilities to see if a robust forecasting tool for school capital could be created within their new facility management software tool, AssetWorks. If successful, the creation of a data-driven capital funding needs assessment could have implications for the department’s current CIP process which, currently, relies heavily on district participation for an understanding a statewide capital project and funding needs.

**Rating Issues**

During the FY22 rating process, a couple of items were flagged as being worthy of a discussion and possible change. In addition, some legacy issues which remain unattended have been reintroduced.

**Evaluative Scoring**

Evaluative scoring continues to improve in consistency and transparency. The cornerstone for this improvement is the *Rater’s Guidelines* document. This document—which provides bracketed scoring rubrics for seven of the eight categories—was refreshed by the Committee for the FY17 CIP cycle and has continued to receive enhancements annually. The remaining category, currently titled “*District Preventive Maintenance and Facility Management*” in the *Rater’s Guidelines*, is also suited to a rubric. The department is proposing the matrices for scoring preventive maintenance and facility management narrative questions that were presented in previous meetings for the FY2022 application. These questions currently do not have detailed scoring information, and rater’s and applicants were guided by five to six bulleted questions per narrative. The committee chose not to adopt the new matrices without additional stakeholder feedback.

*Code Deficiency, Protection of Structure, Life Safety*

After two cycles of utilizing the “*Code Deficiency, Protection of Structure, Life Safety*” (LS) matrix, for FY22, the Committee—on recommendation from the Facilities staff—did its first substantive overhaul of the matrix. The FY22 LS matrix introduced two additional condition and deleted one, added some flexibility in assigning condition points by raters, and implemented a new weighting calculation for projects with a mix of LS and non-LS conditions. Utilization of these first two changes was generally positive—though the second took some circling until it was well understood. The final change, however, the new weighting factor did not seem to achieve the desire results. As a result, the jump in scores from pre-matrix (FY19 and earlier) post-matrix remains a concern. The table below shows the top 20 scores awarded (and reused) in the LS category over the past 10 CIP years.

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22 (Init)
<i>High</i>	23.33	21.00	20.00	23.33	35.00	30.67	30.67	39.50	50.00	50.00

					*			**		FY22
	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	(Init)
2 <sup>nd</sup>	20.33	20.67	19.67	21.33	31.33	29.67	29.33	39.41	42.00	50.00
3 <sup>rd</sup>	20.33	20.00	18.00	19.67	30.67	29.33	29.00	29.64	40.64	50.00
4 <sup>th</sup>	19.33	19.33	18.00	18.33	29.33	29.33	27.00	29.63	39.50	41.42
5 <sup>th</sup>	18.67	18.00	17.33	18.00	28.33	29.00	24.33	27.48	37.51	39.33
6 <sup>th</sup>	18.67	17.67	17.00	18.00	28.33	28.33	24.33	26.67	35.85	38.00
7 <sup>th</sup>	18.00	17.33	16.67	17.33	28.33	27.00	22.67	23.21	34.91	37.51
8 <sup>th</sup>	17.67	17.33	16.00	17.33	27.33	26.67	21.67	21.67	33.77	35.85
9 <sup>th</sup>	17.33	16.67	15.33	17.00	27.33	26.67	21.00	21.28	31.91	33.77
10 <sup>th</sup>	17.33	16.67	15.00	15.33	26.67	26.33	21.00	20.67	29.64	31.91
11 <sup>th</sup>	16.33	16.67	15.00	15.00	26.33	26.33	20.67	19.67	29.63	29.16
12 <sup>th</sup>	16.33	16.33	14.33	14.67	26.33	26.33	20.33	19.00	29.00	29.00
13 <sup>th</sup>	16.00	16.00	14.00	14.00	26.33	26.00	20.00	18.18	27.67	28.40
14 <sup>th</sup>	15.67	16.00	14.00	13.67	26.00	25.67	20.00	18.00	27.48	27.67
15 <sup>th</sup>	15.67	15.67	14.00	13.67	25.67	25.33	20.00	17.33	27.00	27.00
16 <sup>th</sup>	14.67	15.67	13.67	13.33	25.67	25.00	19.67	17.33	26.67	23.58
17 <sup>th</sup>	14.67	15.67	13.67	13.33	25.67	24.67	19.67	17.13	24.00	21.87
18 <sup>th</sup>	14.00	15.67	13.33	13.33	25.33	24.33	19.67	16.67	23.21	21.84
19 <sup>th</sup>	14.00	15.67	13.33	13.33	25.00	24.33	19.67	15.58	21.59	21.00
20 <sup>th</sup>	13.67	15.00	13.00	13.00	24.67	24.00	19.33	15.33	21.28	20.79
<i>Average of above</i>	17.10	17.15	15.57	16.15	27.48	26.75	22.50	22.67	31.66	32.91

Notes: \* Application re-write completed in FY17 with a stated purpose of assigning higher scores to projects, utilizing a broader range in the LS scoring category.  
 \*\* Introduction of the new LS matrix in FY20.

Though not a detailed correlation with adjustments for project and application variations, the number of high scores increased significantly in the FY22 cycle with several projects ‘maxing out’ the 50 points assigned. The FY22 adjustment was to address instances on some projects with high point-value LS items combined with low-point value items. In those cases the high-point value items can be ‘floated’ by a low-point/high dollar item in the overall weighting percentage—even if that high-value item can be solved with very little cost. When consistently high point values were still being noted, department staff re-checked to ensure the correct revised weighting factor was being used. (In January and February of 2020, department staff had modeled 12 options and accomplished extensive test runs on past data to develop a recommended weighting calculation before identifying one that achieved the intended goal.) After confirming the proper factor, we did some other rudimentary analysis to gain an understanding of the results and to ensure no project were being disenfranchised by any seeming anomalies being returned. While it was clear that additional work was going to be needed to address the tendency of the matrix to increase scores (versus simply clarifying scoring), we didn’t find any reasons not to use the approved factor in the current year.

The department is proposing to provide additional analysis of the weighting factor and to recommend any needed corrections at a future meeting of the Committee.

*Emergency*

*Emergency* scoring continues to have minor issues. Districts continue to check ‘yes’ that a project is an emergency and the department often determines that the project does not meet the standards of an emergency. Some of the differences could be in evaluating “potential” of the possibility of failure beyond normal repairs whereas the scoring rubric is written to address current situations.

*District Preventive Maintenance and Facility Management*

This point category was introduced in the first application version prepared under the BR&GR for FY97. At that time, the element was a single 20 point scoring element. For FY04, as part of a scoring update that increased the weight of maintenance scoring to the total maximum points, the category was increased to 25 points. In FY07, the shift was made to allocate up to five points to each of the maintenance areas defined in statute, again for a total of 25 points. The development of a scoring rubric for the five point scale in each area does not propose any change to the scoring. The purpose of the rubric is to increase clarity in how the department measures the effectiveness of a district’s PM&FM program for CIP (see attached).

**Formula-Driven Scoring**

Formula-driven scoring in the FY22 CIP cycle did not result in any significant issues. As such, this may be the right time to address a couple of legacy concerns including the *Weighted Average Age* and *Average Expenditure for Maintenance* categories. The revisions for the FY20 application regarding the determination of when a condition survey should be required for eligibility to receive planning and design points resulted in continued solid best-practice in the *Planning & Design* scoring element. However, that effective strategy highlighted a possible similar need related to consultant selection. Finally, the three formula-driven scoring elements first rated in the FY21 cycle, *Use of Prior School Design* or *Use of Building System Design Standard*, and *Energy Consumption Reports* were easy to administer but may have latent issues.

*Weighted Average Age*

Recommended for adjustment in the FY23 cycle is the matter of renovated buildings in the weighted average age calculation. As an original or addition gets substantially renovated, the functional age of the building is not necessarily its original construction age. This shows up quite often in component replacement applications where the facility is much older than the component (i.e. flooring, lighting, boilers). One example of this issue is the West High School Roof Replacement (currently at priority 5 on the major maintenance list). The sections of the building being re-roofed were built in 1953 and 1966. This gave the average weighted score the maximum 30 points. However, the last time these areas were re-roofed were in 1987 and 1997. The weighted average, based on component age would be between 7.00 and 17.75. The department needs to do some analysis of this challenge, and if it can be demonstrated to be material, propose a scoring change to the committee. Another possible change, since the LS matrix already includes points based on component and system age, would be to remove the Weighted Average Age from scoring. [Note: this scoring element is not specified in AS 14.11.013(b).]

*Condition/Component Survey*

This cycle we saw a slight tapering-off of surveys associated with new projects but not enough to cause concern. Too many surveys still refer to the component age as “approaching the end of life” without listing the actual age. One item that was revealed by the condition surveys, and the estimate included, is the tendency to include every single identified element in the survey as part of the project scope regardless of whether they are maintenance items or capital items. We are

not certain if this was as prevalent in the past, but it is in many major renovations today and resulted in many cost adjustments of eligible amounts for project budgets. Last, although the department's update to the Guide for School Facility Condition Surveys was issued at the beginning of July 2020, we didn't see any use of the template nor much use of the defined scoping efforts for useful surveys. Hopefully this tool can begin to inform condition survey work in a greater way in the upcoming FY23 cycle.

### *Planning & Design*

In reviewing the tabulation of *Planning & Design* scoring, 10 projects had not selected a consultant and therefore did not qualify for Planning points without one—in the department's judgement. However, another 3 projects which did not have a consultant selected were not restricted from Planning points when the department judged the project as able to be effectively planned without a consultant. The application instructions (Q 6d and Appendix B) provide guidance on this evaluation that indexes the applicable/non-applicable decision at the Invitation to Bid point of the project process only.

### *Use of Prior School Design; Use of Building System Design Standard*

This was the first year for these scoring elements. One school construction application requested evaluation of use of prior design points and ten major maintenance applications requested evaluation of district standards; however, no points were awarded in this element. A portion of the projects only provided a statement in support of the question, of the submittals provided for this question, all were determined not to meet the instruction of providing evidence of being a “published district or municipal facility standard”. Per committee discussion during the development of this scoring criteria, the department was looking for documentation of municipal or school board approval, in addition to the specific standards document. The submittals provided during this application cycle were either bid document specifications, an example that the same specification was used in a prior project, or similar.

### *Average Expenditure for Maintenance*

This scoring category is based on the amount of money spent on maintenance as a percentage of the replacement value of facilities. The replacement value is gathered from the insurance certificates that are submitted annually by each district. If the replacement value is understated that would raise the percentage and the score. In fact, two of our largest districts appear to be understating the replacement value. An example is that Lathrop High School in Fairbanks to have a replacement value of \$250.00 per square foot. This appears to be slightly low. Other districts have “negotiated” values of ancillary facilities that are used for educational purposes that are far less than the elementary and secondary schools. AS 14.11.011 (b)(2) states in order to be eligible for CIP grants must show:

evidence that the district has secured and will maintain adequate property loss insurance for the replacement cost of all facilities for which state funds are available under AS 14.11.005 or 14.11.007 or has a program of insurance acceptable to the department

The committee may need to visit this subject and possibly require some trueing of the replacement values or assign a value based on the cost model for the district.

### *Energy Consumption Reports*

This was the second year for this scoring element. Twenty-five districts were evaluated, of those, 18 met the requirements to receive the 5 points. This is an improvement from the first year when 23 districts were evaluated and only 12 had met the requirements for points. For those

that did not, the most common issues continued to be not providing energy data for the full five years – four districts provided only a single year of data, not providing data on all school sites, and providing fuel delivery data instead of consumption data.

### ***Eligibility***

In the FY22 CIP cycle, no projects were deemed ineligible. In reviewing the past 20 years of determinations this has not occurred.

### ***Potential FY2022 Application Changes***

The following changes have been identified by the department as potential changes to the FY2023 CIP application and support materials. These will be developed and presented in the spring 2021 committee meeting.

#### **Application Form Changes**

Question 4a. LS Matrix

- Conform to any changes made to *Rater's Guidelines*.

#### **Application Instruction Changes**

Adjustments will be made to correspond to any Application Changes.

Section 3 Project Information

- Question 3f. Completed Project  
Add language specifying timeline of allowable costs from regulation 4 AAC 31.023.

Section 6 Planning & Design

- Include clarification that prior use of a project specification is not a 'district adopted design standard'.

#### **Eligibility Form Changes**

- No changes.

#### **Rater's Guideline Changes**

- Revise Code Deficiency / Protection of Structure / Life Safety (Q.4a) matrix for additional project conditions.
  - ??
- Revise Sec. 9 Preventive Maintenance rating instructions into a matrix (see proposed matrix attached).

#### **Rating Form Changes**

No changes.

## ***Attachment - District Preventive Maintenance and Facility Management Matrix***

Below is a proposed draft for discussion on the development of a matrix to incorporate into the *Guidelines for Raters of the CIP Application*. For ease of reference, all portions of the existing application and support materials have compiled relative to each question.

### **Sec. 9 District preventive maintenance and facility management (60 points possible)**

#### *Application*

Ensure that documents related to the district's maintenance and facility management program have been provided with district CIP submittals. Include management reports, renewal and replacement schedules, work orders, energy reports, training schedules, custodial activities, and any other documentation that will enhance the requirements listed in the instructions. Include the following documents:

#### *Instructions*

AS 14.11.011(b)(1) and 4 AAC 31.011(b)(2) require each school district to include with its application submittals a description of its preventive maintenance program, as defined by AS 14.11.011(b)(4), AS 14.14.090(10), and 4 AAC 31.013. Refer to Appendix E for details.

The scoring criteria for this area reflect efforts beyond just preventive maintenance. For each element of a qualifying plan outlined in 4 AAC 31.013, documents, including reports, narratives, and schedules, have been identified for eight separate evaluations. These documents will establish the extent to which districts have moved beyond the minimum eligibility criteria and have tools in place for the active management of all aspects of their facility management. The documents necessary for each evaluation are listed below. They are grouped according to the five areas of effort established in statute and are annotated as to the type of evaluation (i.e., evaluative or formula-driven). Refer to the *Guidelines for Raters of the CIP Application* for additional information on scoring.

Up to 60 points possible for a clear and complete reporting of the district's maintenance program.

Only two sets, one of which may be an electronic copy, should be provided by the district, regardless of the number of submitted applications.

#### *Rater's Guidelines*

(Application Questions 9a, 9e-9h; Points possible: 25 evaluative)

### **Maintenance Management**

#### *Application*

9a. Maintenance Management Narrative (Up to 5 Evaluative Points)

#### *Instructions*

9a. Maintenance management narrative (Evaluative) (up to 5 points available)

Provide a narrative description of the effectiveness of your work order based maintenance management system.

How *effective* is the district's work order-based maintenance management system? How does the district assess the program's effectiveness? Describe the formal system in place that tracks timing and costs as stated in regulation and attach documentation (sample work orders, etc.). Discuss the quality of the program as it is reflected in the submitted formula-driven reports for 9b (i.e., diversity in work types, hours available is accurate, there is a high percentage of reported hours).



*Rater's Guidelines*

**Maintenance Management Narrative**

(Application Question 9a; Points possible: 5)

- Does the described program address preventive maintenance as well as routine?
- How well does the program work for each individual school?
- Does the program address all building components? Mechanical, electrical, structural, architectural, exterior/civil?
- Is there evidence supplied which demonstrates that the program is effective?
- Who participates in the program and how does it function?

<b>NEW DRAFT Scoring Criteria</b>	<b>Point Range</b>
Work orders are component based (with component ID) and include component-specific checklist of inspections, maintenance and includes method of reporting results into component records for future evaluation, including costs for component. PM work order directions include when minor repairs are made or when corrective work orders are generated. Work orders change type to a deferred status for summer work or into a future CIP project. Component records includes date of installation and scheduled retirement. Includes examples of all scenarios.	5 points
Narrative fully describes the MM program and all of the following: work orders for PM, repairs, and minor renovations; how work orders are initiated and by whom. Details the process to conclusion including changing type for future CIP. Sample work orders showing PM, repairs, minor work and cost of work orders. Additionally, work orders and records are component-based and includes component ID and can recall work orders by component.	4 points
Narrative fully describes the MM program and all of the following: work orders for PM, repairs, and minor renovations; how work orders are initiated and by whom. Details the process to conclusion including changing type for future CIP. Sample work orders showing PM, repairs, minor work and cost of work orders.	3 points
Minimal narrative that partially describes the MM program but not all of the following; work orders for PM, repairs and minor renovations; how work orders are initiated and by whom. The process to conclusion including changing type for future CIP. Sample work orders minimally showing PM, repairs, minor work, and cost of work orders.	2 points
Minimal narrative that partially describes the MM program but not all of the following; work orders for PM, repairs and minor renovations; how work orders are initiated and by whom. The process to conclusion including changing type for future CIP. No sample work orders showing PM, repairs, minor work, and cost of work orders.	1 point
No narrative or an abbreviated narrative that provides no information of how the maintenance management program works	0 points

**Energy Management**

*Application*

9e. Energy Management Narrative (Up to 5 Evaluative Points)

*Instructions*

9e. Energy management narrative (Evaluative) (5 points available)

Provide a narrative description of the district's energy management program and energy reduction plan.

Address how the district is engaged in reducing energy consumption in its facilities. Energy management should address energy utilization with the goal of reducing consumption. This objective can be achieved through a number of methods: some related to the building’s systems (including regular evaluation of need for commissioning an existing building), some related to the way the facilities are being used. The results of the energy management program should also be discussed.

*Rater’s Guidelines*

**Energy Management Narrative**

(Application Question 9e; Points possible: 5)

- Is the district engaged in reducing energy consumption in its facilities?
- Is a comprehensive set of methods being used?
- Is the program districtwide in scope?
- Is the program achieving results?
- Is there a method for reviewing and monitoring energy usage?
- Is there a method for evaluating existing facilities’ need for commissioning?

<b>NEW DRAFT Scoring Criteria</b>	<b>Point Range</b>
<p>Narrative describes energy management that tracks energy usage by facility and calculates EUI by facility over the prior five years. Further shows how this is used to prioritize energy efficiency projects.</p> <p>Narrative provides discussion of recent energy projects and shows how much energy usage is avoided; energy records prove savings.</p> <p>As supported by narrative, district utilizes CMMS to provide power monitoring and sub-monitoring with histories and alarms that notify when usage is outside of scheduled.</p>	5 points
<p>Narrative provides complete description of program, including description and examples of how EUI is used to plan energy projects. Application includes the complete set of energy records was provided for Q.9x. District energy management program has a calculated EUI for all facilities for prior five years.</p>	4 points
<p>Narrative provides complete description of program. Application includes the complete set of energy records required for Q.9x.</p>	3 points
<p>Narrative has some useful description of program but is not complete. Application includes the complete set of energy records required for Q.9x.</p>	2 points
<p>Narrative with some useful description of program but is not complete; complete set of energy records not provided. OR No narrative, but complete set of energy records was provided.</p>	1 point
<p>No narrative or an abbreviated narrative with no useful description of program. No energy records</p>	0 points

**Custodial Program**

*Application*

9g. Custodial Narrative (Up to 5 Evaluative Points)

*Instructions*

Provide a narrative description of the district’s custodial program and evidence to show it was developed using data related to inventories and frequency of care.

Minimal custodial programs do not have to be quantity-based nor time-based relative to the level of care. Quality custodial programs take both these factors into account and customize a custodial plan for a facility on the known quantities and industry standards for a given activity (e.g., vacuuming carpet, dusting horizontal surfaces, etc.). Describe how the scope of custodial services is directly related to the type of surfaces and fixtures to be cleaned, the quantity of those items, and the frequency of the care for each. Describe how the district has customized its program to deal with different surfaces and care needs on a site-by-site basis.

*Rater’s Guidelines*

**Custodial Narrative**

(Application Question 9f; Points possible: 5)

- Is the district’s custodial program complete?
- Is custodial program based on quantities from building inventories and frequency of care based on industry practice?
- Has the district customized its program to be specific to each facility?
- Is the program districtwide in scope?
- Is the program achieving results?
- (NEW) Is the written custodial plan(s) attached?

<b>NEW DRAFT Scoring Criteria</b>	<b>Point Range</b>
Narrative with full description of program. Written custodial plans that are specific to each facility and provides for tasks divided per individual custodial position. No less than two facility examples, unless district operates only one facility. The plan includes a designated person or position tasked with back check and inspection of quality of custodial performance no less than once a month (preferably not someone from the facility) and records findings for future training and quality assurance. Application includes sample copies of inspection reports including photographs.	5 points
Narrative with full description of program. Written custodial plans that are specific to each facility and provides for tasks divided per individual custodial position. No less than two facility examples, unless district operates only one facility.	4 points
Narrative with full description of program. Written custodial plans that are specific to each facility. No less than two facility examples, unless district operates only one facility.	3 points
Narrative with some useful description of program but is not complete. Written custodial plan that is general in nature and not site specific.	2 points
Narrative with some useful description of program but is not complete. OR Written custodial plan that is general in nature and not site specific.	1 point
No narrative or abbreviated narrative with no useful description of program. No written custodial plan.	0 points

**Maintenance Training**

*Application*

9h. Maintenance Training Narrative (Up to 5 Evaluative Points)

*Instructions*

9h. Maintenance training narrative (Evaluative) (5 points available)

Provide a narrative description of the district’s training program including, but not limited to: identification of training needs, training methods, and numbers of staff receiving building-system-

specific training in the past 12 months. In addition to the narrative description, provide a copy of the district’s training log for the past year. The training log should include the name of the person trained, the training received, and the date training was received. Districts utilizing a computerized maintenance management system can track training and job shadowing activities through work orders and labor hours.

Training may include on-the-job training of junior personnel by qualified technicians on staff. For systems or components that are scheduled for replacement, or have been replaced as part of a capital project, manufacturer or vendor training could be made available to the maintenance staff to attain these goals and objectives. In-service training as well as on-line training could be provided for the entire staff. Safety and equipment specific videos are also an inexpensive training resource.

*Rater’s Guidelines*

**Maintenance Training Narrative**

(Application Question 9g; Points possible: 5)

- Does the program address training and on-going education of the maintenance staff?
- Are maintenance personnel being trained in specific building systems?
- Are training schedules attached?
- How is Training Recorded?
- How is effectiveness measured?

<b>NEW DRAFT Scoring Criteria</b>	<b>Point Range</b>
Narrative discusses entire training plan that includes: annual training planning by individual, overall training plan that includes distinction between HR/OSHA training from maintenance/custodial, recording and planning of training is logged. Training logs show past and future individual training that shows compliance by individuals and separates custodial/maintenance from HR/OSHA training.	5 points
Narrative provides complete description of maintenance training program completely. Narrative shows the district plans training in advance per individual for their training needs. Training logs show primary focus on maintenance and custodial training, reports separately from HR/OSHA training.	4 points
Narrative describes the program completely. Training logs show primary focus on maintenance and custodial training, reports separately from HR/OSHA training.	3 points
Narrative with some useful description of program but not complete. Training logs with minimal maintenance or custodial training, primarily HR/OSHA training. *Training Logs with only HR/OSHA training can never exceed 1 point.	2 points
Narrative with some useful description of program but not complete. OR Training logs with no actual maintenance or custodial training. Only HR/OSHA training. *Training Logs with only HR/OSHA training can never exceed 1 point.	1 point
No narrative or abbreviated narrative with no useful description of program. No training logs	0 points

**Capital Planning (Renewal & Replacement)**

*Application*

9i. Capital Planning Narrative (Up to 5 Evaluative Points)

*Instructions*

9i. Capital planning narrative (Evaluative) (5 points available)

Provide a narrative giving evidence the district has a process for developing a long-range plan for capital renewal.

Discuss the district’s process for identifying capital renewal needs. Renewal and replacement schedules can form the basis for this work, but building user input should also be considered. It is important to move the capital planning process from general data on renewal schedules to actual assessments of conditions on site. This helps to validate the process and allows the district to create capital projects that reflect actual needs. A final step would be to review the systems needing replacement and to organize the work into logical projects (e.g., if a fire alarm and roof are confirmed to be in need of renewal, they may need to be placed in separate projects versus renewal of a fire alarm and lighting which could be effectively grouped in a single project).

*Rater’s Guidelines*

**Capital Planning Narrative**

(Application Question 9h; Points possible: 5)

- Does the district have a process for identifying capital renewal needs?
- Are component/subsystem replacement cycles identified and used?
- Does the system involve building occupants and users?
- Are renewal schedules comprehensive and vetted for credibility?
- Are systems up for renewal grouped into logical capital projects?
- Does review of projects on six-year plan show evidence of use of capital planning process, including renewal and replacement scheduled.

<b>NEW DRAFT Scoring Criteria</b>	<b>Point Range</b>
Narrative completely discusses the process for selecting CIP projects, including: 1) component tracking of work orders and costing; 2) work orders coded to future projects and tracked; 3) annual review of work orders coded to projects and includes a review process to confirm need; 4) project review includes listing as in-house and CIP. R&R/FCI documents provided for all required facilities, are component based, and components of systems are used in planning for capital projects.	5 points
Narrative completely describes the program and R&R/FCI documents provided for all required facilities, are component based, and components of systems are used in planning for capital projects.	4 points
Narrative completely describes the program and R&R/FCI documents provided for all required facilities.	3 points
Narrative with some useful description of program but is not complete. Provided R&R/FCI documents for all required facilities	2 points
Narrative with some useful description of program but is not complete; R&R/FCI documents not provided for all required facilities. OR No narrative, but provided R&R/FCI documents for all required facilities.	1 point
No narrative or abbreviated narrative with no useful description of program. Lacks R&R/FCI documents for all required facilities.	0 points

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## C o s t M o d e l A s C o s t C o n t r o l B R I E F I N G P A P E R

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<b>By:</b> Tim Mearig Facilities Manager	<b>Date:</b> November 19, 2020
<b>Phone:</b> 465-6906	<b>File:</b> G:\SF Facilities\BR_GRCom\ Papers\Const Standards\Cost Model as Cost Control BP.docx
<b>For:</b> Bond Reimbursement & Grant Review Committee	<b>Subject:</b> Using the Cost Model as a Cost Control Device

**Background**

In its December 2017 *Report to the Legislature on Criteria for Cost-Effective School Construction*, the BR&GR Committee identified the following recommendation:

**Criteria #9** (*Model Alaskan School 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.*

The Criteria #9 phrase in bold, above, is a reference to legislation that had been introduced in the 30<sup>th</sup> Legislature as SB87. An excerpt from the bill (SB87 (2017)) related to cost limits follows:

*AS 14.11.104*

*(D) The maximum acceptable costs for each square foot for construction or major maintenance of an energy efficient facility; the department shall base the maximum acceptable costs on designs that prioritize classroom infrastructure and functional design; the maximum acceptable cost must be adjusted for different regions within each climate zone.*

SB87 did not advance to the second session of the legislature and is not currently a factor. (Elements of the bill—but not this feature—were incorporated into HB212, which modified AS 14.11 and was signed into law in May 2018.) However, due to the influence of SB87, an additional item related to controlling state allocations to school capital projects on a cost per square foot basis was initiated. During the development of the 2017 legislative report, 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 (acknowledging that actual costs for schools can only be determined through the design and construction process.)

The Model School Subcommittee has tracked this idea on behalf of the Committee for the past three years. In accordance with the Model School Subcommittee responsibilities under the BR&GR Work Plan, this paper provides an assessment and recommendation of the efficacy of that process.

## **Discussion**

The effective use of cost per square foot (CPSF) limits for any type of construction project is predicated on the notion that needs and solutions across a variety of projects are substantially similar. This makes CPSF elements difficult to apply to any set of projects, even in very small geographic boundaries. In addition, CPSF limitations when used on rehabilitation and major maintenance projects are notoriously challenging. Of the 125 projects on the DEED FY2022 priority lists, only 3 are new construction, making any CPSF approach, especially one that does not allow for substantial variation, of limited practical use.

In spite of these substantial challenges, several jurisdictions (departments, boards, commissions, etc.) that monitor and prescribe state aid for school capital projects in their respective states utilize a CPSF approach as part of their resource allocation process. The Ohio School Facilities Commission, one of the more active and well-funded of these jurisdictions, sets out allowable CPSF in its documents through a complex series of basic costs and modifiers. One of these modifiers includes a geographic cost factor that is assigned to 9 regions of the state. Interestingly, the percentage spread between the regions ranges from .9902 to 1.0416—just over 5 percent. That is not much variation. In conversations with a program specialist at the Ohio commission, anecdotally, the Commission spends in excess of \$500,000 per year on updating their complete criteria package including their CPSF.

The existing DEED *Cost Model* has flexibility to accommodate a wide variety of project types and educational programs. It identifies most necessary elements in any school facility and provides methods for establishing fairly accurate estimates for new construction and renovation projects, including those elements tied to geography and climate. With the assistance of users and peer-reviewers, the department intends to continue improving its use as a solid estimating tool for all types of school capital projects.

Currently, the Cost Model serves primarily as an estimating tool for projects at the planning and programming level. During the department's annual evaluation of capital improvement project (CIP) applications, the tool is also used as a comparison with costs that may be developed by other mechanisms including contractor quotes, estimates of probable costs by A/E consultants, and project estimates prepared by professional estimators. Because the backup and source documents for the Cost Model include a variety of assembly and component costs with labor and materials, it also provides the ability to evaluate costs of proposed and alternative project elements and systems. The department regularly uses the Cost Model to exercise its authority under statute to modify project requests to ensure cost-effective school construction.

For the Cost Model to become a traditional CPSF tool, it's likely that a paradigm shift would be needed to create a reference tabulation of basic costs. In addition to that type of development, the process of raising the standing of the Cost Model to a defined standard would likely take development of appropriate regulations.

## **Summary**

Resource allocation using a CPSF limit has inherent challenges, the most significant of which are applicability to a given project and the need to continuously update. While use of the Cost Model would help overcome both challenges—it is customizable to a variety of projects and is updated annually—the reality is that the department already uses this tool, and others, to ensure a project’s cost-effectiveness before state resources are allocated.

Moving from conceptual idea (i.e., the Cost Model could be used as a CPSF standard) to actual implementation would likely require funding to establish the necessary additional structure as well as an additional ongoing annual expense to provide cost updates. Additional regulations are also likely to be necessary.

## **Options**

**Option 1:** Close the Model School Subcommittee task (3.2.1) of evaluating using the Cost Model as a cost control tool. Continue pursuing updates to the Cost Model as they pertain to evaluating cost effective school construction.

**Option 2:** Pursue funding for additional analysis of updates to the Cost Model’s for the purposes of providing a cost-limitation. Subcommittee to draft a scope of services when funding becomes available.

**Option 3:** Continue to track the item and await further action by the Legislature.

## **Recommendation(s)**

Implement Option 1.



**Design Ratios**

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**SUBCOMMITTEE REPORT**

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**November 19, 2020****Mission Statement**

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).

**Current Members**

Dale Smythe, Chair  
William Glumac  
Randy Williams

Michael Spencer, AHFC  
Gary Eckenweiler, BSSD  
Karen Zaccaro, ECI

Larry Morris, ASD  
Lori Weed, DEED  
Ezra Gutschow (post  
report)

**Status Update**

Recommendations from 2017 Report to the Legislature:

- 1) *Adopt the Alaska Climate Zones established by the Alaska Building Energy Efficiency Standard (BEES) and used by the Alaska Housing Finance Corporation.*

Status: Confirmed with AHFC that the BEES Alaska climate zones can be used by the department as needed for development of ratios and potential regulations.

- 2) *Implement a school design ratio of Openings Area to Exterior Wall Area (O:EW).*
- 3) *Implement a school design ratio of Building Footprint Area to Gross Square Footage (FPA:GSF). This ratio would be applied to facilities in excess of 30,000 GSF.*
- 4) *Implement a school design ratio of Building Volume to Net Floor Area (V:NSF).*
- 5) *Implement a school design ratio of Building Volume to Exterior Surface Area (V:ES).*

With assistance from DEED (Tim Mearig) a design ratio for O:EW was recommended at the September committee meeting. The subcommittee agrees with this ratio recommendation and the subcommittee's focus was moved to the remaining ratios.

Considering the remaining ratios all influence volume and compactness relative to building form, and that the reporting modeling results did not indicate substantial saving in the comparison on any of the potential ratios, the subcommittee felt it could focus on one ratio and arrive at the same potential benefit as three.

Volume to Net Square Footage (V:NSF) was chosen as the most comprehensive measure of compactness and matches the focus of other academic studies aimed at building form and energy use. The subcommittee decided to modify the measurement of Net Square footage to Gross Square footage to align with allowable area information already being measured and submitted to DEED

for each project. This was determined in discussion with the modeling (Ezra G.) to have minor impact in the results of the ratio comparisons.

Ratio recommendation is in V:GSF format (Volume to Gross Square Footage).

An approximate 18.5 was indicated in the report as being optimum when comparing the cost and energy use within the studied duration. This also was perceived as attainable when compared with the limited information available on the ratios of 11 existing schools (min 12.6, max 21.59, average 18.19, median 18.8) gathered on recent schools submitted for CIP (recent Napakiak design ratio is 19.62 for a relatively small, one story school)

The group is considering a target of 18 with an allowable range of 16 to 20 and alternate consideration for a target of 18.5 and a range of 17-19.

Considering the life cycle costs seem to track equally within the studied regions, the optimum remains consistent, therefor only one target and range was identified for the 4 climate zones. Consideration could also be giving for lowering the upper end of the range in the colder regions.

For BRGR Committee discussion and approval:

- Limiting focus on one ratio versus developing three
- Shift to GSF vs NSF
- Ratio Range Alternates

### **Schedule**

December 2020 – Review with DEED recommendations for all ratios (confirm language).

January 2021 – Assist DEED with completion of ratio recommendations.

Model School

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**SUBCOMMITTEE REPORT**

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December 2, 2020

**Mission Statement**

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.

**Current Members**

- Don Hiley
- Jim Estes
- Dana Menendez, ASD
- Tim Mearig, DEED
- Sharol Roys, DEED

**Status Update**

Recommendations from 2017 Report to the Legislature:

- 1) *Enhance the Cost Model for possible use as a cost limit standard to 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.*

Task 1: Prepare scope, issue an RFQ, award and manage the update.

Status: Cost Model enhancement has been completed by HMS. The 18<sup>th</sup> Edition is much more complete than previous versions, and now provides more flexibility in the variety of projects that can be estimated. Some usability and functionality issues were found after delivery, but have now been resolved. The updated version is available to public online.

Task 2: Develop regulations, as needed, to establish the Cost Model as a cost limit for projects.

Status: Subcommittee to prepare analysis of need and make recommendation to BR&GR. This has not yet been scheduled. Issues found in the latest version illustrate the difficulty in broadening the Cost Model’s scope, and will likely take at least one or two more iterations to work out issues needed to complete this task.

The subcommittee recommended transfer of the committee work plan elements listed below from the subcommittee to the department:

1.1.1	Cost Model As Cost Control Tool		May 18-Dec 20
1.1.1.1.	Analyze, Recommend Cost Model As Cost Control	Dept	Jul 2019

1.1.1.2.	Draft Regulation Language For Cost Control Use	Dept	Jan 2020
1.1.1.3.	Review Draft Reg Language, Recommend To State Board	Committee	Mar 2020
1.1.1.4.	Manage Regulation Development and Implementation	Dept	Dec 2020

**The Subcommittee has discussed the idea of the Cost Model as a tool for regulating project costs for some time. While a maximum cost per square foot (and the Cost Model as a potential alternative), had been part of the discussion in the original senate bill (SB87) that started much of this process, this idea was not included in HB212, the legislation finally enacted. The Subcommittee has continued to have concerns about how something like this could be implemented, especially in light of some of the known limitations of the Cost Model in its current state, and the unique challenges that Alaska presents. Department staff has also since communicated with facilities officials in other areas of the country that have similar requirements, and found that such a process has been problematic in those locations, even with fewer geographic and other variables that Alaska would face. Given these issues, the Subcommittee and Department staff are recommending that the idea of the Cost Model as a project cost control be abandoned at this time, and that this task be closed. A briefing paper to this effect, prepared by Department staff, has been included in the December 2020 BRGR packet.**

Geographic Factors - Subcommittee received and reviewed new geographic factors for the Cost Model. To be shared with the full Committee at September meeting. Department to compare changes made since this was first presented at the December meeting. Does this need further public review?

2) *Establish a process of reviewing model school elements within the Cost Model so that those updates become researched, vetted, and intentional.*

Task 1 & 2: Develop a best-practice strategy for updating model school elements in conjunction with HMS, Inc.. Analyze effectiveness of BR&GR vs. consultant vetting.

Status: Subcommittee and department staff provided a great deal of input and feedback into development of the 18th Edition. More user feedback is anticipated as this version is put into practice during the FY21 CIP cycle. The department will keep the committee apprised of feedback received. Committee should maintain current roll of reviewing model school element changes proposed in each new edition.

Procedures for Updating the Model School File – Need direction: would the Committee support contracting out review of the model file if funding was available annually? Would the Committee support review of the file by a volunteer organization (e.g. A4LE)? These may not be mutually exclusive.

There appears to be some funding available for initial development and for subsequent update and maintenance of the standards. The subcommittee discussed how a paid consultant might fit into this process. The initial idea would be for

DEED staff and the subcommittee/committee to put together the outline of the manual. The consultant would then help to fill in details for specific items as needed based on current practice. The finished product would then be available for public/peer review prior to implementation. Annual or periodic updates would be made as needed based on user feedback and other information. Updates to the Cost Model tool would be made to follow development of the model and standards.

These tasks have essentially now been completed. The Subcommittee and Department staff recommendation is that the current update process continues wherein the Cost Model and Model School Building Escalation file is updated by the cost consultant using their experience with Department guidance on the scoping of their contract, and Committee review of the recommendations made under that contract.

3) *Develop Model Alaskan School standards by building system (ref. DEED Cost Format) needed to ensure cost effective school construction.*

Task 1: Complete outline-level standards for remaining seven systems.

Status: Department has not produced additional draft sections for subcommittee review.

Task 2: Conduct an independent feasibility and cost/benefit analysis on developing outline standards into comprehensive state-level model school standards.

Status: A contract was awarded to the McDowell Group to conduct the feasibility study, which was completed and delivered on July 5, 2019. Along with Department staff and BRGR Committee members, a number of people in state and provincial governments in the US and Canada were interviewed as part of the study. These interviews looked not only the implementation, but also the motivation in adopting standards by these different entities. School equity and efficiency/sustainability appear to be at least as much, if not greater factors in developing standards as cost savings for many.

The study provided good information about potential costs for developing and implementing a standard, either by Department staff or by contracting much of the work out to a consultant. The assumption has been made that implementation of a standard would likely result in cost savings due to relatively low cost to develop and update the standard versus the amount spent on school construction and renovation. A tool was developed, along with the report, to aid in putting together a cost benefit analysis.

Subcommittee discussed the need for more review and input by members of the design community in relation to standards that was somewhat lacking in feasibility study. One of the major questions to be addressed is what level of detail is appropriate in the standards? Subcommittee plans to review examples of standards currently in use by other entities to see how detailed they get in various areas, and seek input to try determine what the level of detail should be for Alaska.

In response to the need identified at the previous meeting to determine the appropriate level of detail in any proposed standards, DEED staff provided the subcommittee with several examples of facility design and construction standards from agencies in other locations. In all, the committee looked at six sets of standards including Alberta, Arkansas, Florida, Maine, New Jersey, and New Mexico. Each of these had somewhat different approaches and levels of detail. This ranged from fairly general to quite specific, for example, including specifying minimum pipe sizes. Some provided standard detail drawings for use by the design teams.

After reviewing these, the subcommittee reached the following recommendations:

1. Standards should be at more of a policy level, with greater detail provided as needed in some areas. Examples of added detail might be specifying minimum and/or maximum thicknesses for metal roofing and siding. The goal would be to try to keep the manual to a more manageable size of perhaps 50-100 pages, which would help to make periodic updates of the manual more realistic, and allow the information to be more easily digested by the design teams as they worked on projects. This was more in the vein of the Arkansas and Maine examples.
2. The standards manual should somewhat mirror the layout and organization of a standard project manual, which should make it easier to use and follow during project design. More discussion is needed as to whether the standards manual should be more narrative/bullet point format, or more specification number format.
3. The standards manual might identify “premium inclusions” that would be permitted, but at the district’s expense. This might be similar to that found in the Maine example.

Other issues discussed by the subcommittee, but not resolved, include:

- The cost/benefit analysis is not complete. Information required to make use of the tool provided will take more time and effort to gather.
- Not much input from outside A/E professionals to this point.
- Not much discussion of the downsides of their standards, if any, by other entities. What were pitfalls/lessons learned?
- What is the appropriate level of detail for the standards? Some areas possibly more specific or general than others. Are performance based standards more appropriate for some things?
- Can the standard be maintained over time and not become outdated?
- How do standards integrate with other codes adopted by the state and/or municipalities?
- How do the building systems standards integrate with other aspects of the cost effective construction mandate?

Task 3: Review analysis and publish a handbook or regulations as recommended.

**Status:** The \$50k in funding previously discussed for acquiring professional assistance in creating the Model School Standards Manual was recently made available to the Department. The Subcommittee met on March 18<sup>th</sup> to discuss and review an RFP for professional services for “*development of a DEED School Design & Construction Standards building system template, and for the completion of drafts of four building system standards using the approved template.*” The initial four building systems include exterior closure, interiors, mechanical, and electrical. The standards template is to be based around “*a more narrative format with a focus on simplicity and brevity*” as previously discussed by the subcommittee. An RFP for professional services was issued with proposals due April 7<sup>th</sup>, and award of the contract targeted for April 10<sup>th</sup>. The consultant will be able to consult with the Department staff as well as Committee members through the process. The contract work is due to be completed by the end of June. At that point, the template and completed parts of the manual would be available for review by Department staff, BRGR Committee, and the public.

BDS Architects submitted the only proposal to deliver the Model School Standards template and draft standards, and was awarded the contract in April 2020. A draft standard, along with the template, was submitted to the subcommittee for review by BDS on May 18<sup>th</sup>. Comments regarding the draft were collected, and the subcommittee then met on May 22<sup>nd</sup> to discuss the draft and review comments received, both from subcommittee members and Department staff.

The draft standards consisted of three parts: Part 1 - Purpose and Use, Part 2 - Design Principles, and Part 3 – System Standards. The initial draft was based largely upon the standards developed by the state of Maine, and still contained a great deal of “placeholder” information at that point, which needed to be fleshed out and rewritten more specifically for Alaska. The System Standards piece, although included in the template, had not been provided.

Discussion of the content included in the draft standard included concerns that it not try to duplicate building codes, other government regulations, other DEED publications, and/or the Educational Specifications. Also of importance was that the standard itself be structured such that the Design Principles would not potentially contradict the System Standards over time. The subcommittee thought that it is probably better to error on the side of more general information in the standard initially, and that the template would allow additional more specific information to be added over time if needed. The experience and perspective of the design team/community would help to determine the appropriate level of detail. There was also some concern that the draft standard had seemed to deal primarily with school construction, and had so far not addressed smaller component type renovation projects.

BDS has recently provided a second draft of the standard to DEED. However, this has not yet been reviewed by the subcommittee. The final draft of the template and standard is still scheduled to be completed by the end of June.

BDS delivered a draft of the Alaska School Design and Construction Standards by the end of June 2020 as called for in their contract. That draft was still very much a work in progress. BDS agreed to continue working on the document into July. The Subcommittee met with BDS on July 8<sup>th</sup> to go over review comments made by members, and to provide direction for continuation of their work.

A second review meeting took place on July 28<sup>th</sup> to review progress in implementing the previous comments. Additional review comments were offered by Subcommittee members, and were discussed with BDS for inclusion of a final draft.

On August 17<sup>th</sup>, BDS delivered their final draft of the standards included in the September BRGR packet for Committee review. There was general agreement that while the template was fairly defined, the information was still far from complete. For example, the BDS contract only stipulated providing the information for four building systems. Other building systems outlined remain to be fleshed out. This was estimated at approximately 40% complete. Likewise the design principles section still also has much work to be done, and that section was estimated at approximately 20% complete.

The Subcommittee met once again on August 24<sup>th</sup> to approve a recommendation to the full Committee on how to proceed in further completing the standards. That recommendation to make use of Department staff to fill out the missing information required to allow implementation of the standards with Subcommittee review, was also included in the September 2020 BRGR packet.

The Subcommittee, as well as the Department staff believe that this work can be completed over the fall and winter, and ready for full Committee approval and issuance for public comment at the April 2020 BRGR meeting.

**The Subcommittee met briefly on October 20<sup>th</sup>, and again on November 10<sup>th</sup> to discuss the completion of the remaining sections of the School Construction Standards Manual. Department staff provided drafts of six sections in various stages of completion, using information transferred from previous Department work and other sources. These sections were:**

- **Section 1 - Site and Infrastructure**
- **Section 2 - Substructure**
- **Section 3 - Superstructure**
- **Section 7 - Conveying Systems**
- **Section 10 - Equipment and Furnishings**
- **Section 11 - Special Conditions**

**After reviewing the progress to date, and work still to be done, it was felt that it would be beneficial and create a stronger product to get other voices and professional experience involved to assist in drafting and refining the various manual sections, particularly with the time constraints and other current**



**circumstances. It was suggested again that we attempt to get members of the Association for Learning Environments (A4LE) involved. Other BRGR committee members and other design professionals were also suggested as possible contributors. Department staff has recently sent out an invitation to some of these people to contribute, and an overture will be made to A4LE to see if some work sessions can be implemented with that group.**

*4) As part of describing a Model School, identify school elements that do not further the core educational mission of the school.*

Task 1: Review current Topic Paper and include in Report to Legislature.

Status: Completed January 2018.

Task 2: DEED to develop regulations that define non-core amenities based on legislative direction.

Status: No current action. DEED could use the Legislative Proposal process to advance. Subcommittee would need to make recommendations to Committee. BR&GR recommendations to department.

### **Schedule**

**The next Subcommittee meeting is not currently scheduled, but will continue work on and review of remaining incomplete manual sections.**

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## Building Volume to Gross Floor Area School Construction Standard Subcommittee RECOMMENDATION

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**Ratio Definition**

Building Volume to Gross Floor Area (V:GSF).

**Building Volume** is defined as: All conditioned cubic square footage within a building vapor retarder or elements acting as a vapor retarder at the exterior wall, roof or soffit.

**Gross Square Footage** is defined by DEED 4 AAC 31.020 (e).

**Calculation Clarifications**

- 1) Square Footage calculation is intended to capture all normally occupied and conditioned square footage.
- 2) Does not included crawl spaces or area accessible only for building utility system distribution
- 3) Based on allowable area calculation requirements

**Regional V:GSF Ratio**

Zone 6 ,7, 8 and 9	Comments
Target: 18 / 18.5 Range: 16 – 20 / 17-19	Target is based on optimal <i>life cycle costs</i> identified as approx. 18.5 in the “Building Energy Modeling Services Report, July 2019”. <i>Life Cycle costs track consistently across</i> each region, allowing one <i>overall</i> ratio recommendation.

**Guidance**

In applying the ratio to school design and construction, designers and DEED reviewers are encouraged give consideration to the following items.

- Building compactness should be a goal in a heating climate with two story options considered as overall square footage allows.
- Within the modeling services report, increases in “commons” or “multipurpose” areas height showed increases in energy use and should be reviewed to confirm appropriateness in relation to overall building form, (i.e. roof design, snow drifting or other influences.)

**References**

*Building Energy Modeling Services: Final Report Prepared for DEED*. July 2019. HMS Inc. and Coffman Engineers, Inc. Alaska Department of Education & Early Development.

*A compactness measure of sustainable building forms*. June 12, 2019. D’Amico, Bernardino and Pomponi, Francesco. The Royal Society Publishing.  
[royalsocietypublishing.org/doi/10.1098/rsos.181265](https://royalsocietypublishing.org/doi/10.1098/rsos.181265) (accessed 11/19/2020).

## ASHRAE 90.1-2016 Checklist

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**P U B L I C A T I O N   C O V E R**

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December 2, 2020

**Issue**

The department seeks committee approval to send out the draft *ASHRAE 90.1-2016 checklist* for public comment. The checklist is for use as part of the submittal review process in AS 14.11 funded projects.

**Background***Last Updated/Current Edition*

The current 2010 version of the ASHRAE 90.1 checklist was developed in the spring and summer of 2019 to meet requirements in AS 14.11.014(8) and 4 AAC 31.014(a)(7). The worksheet document incorporated the move toward a more clear and prescriptive document that provides the means to document compliance with the requirements under ASHRAE 90.1.

*Summary of Proposed Changes*

This revised edition updates the checklist from ASHRAE 90.1 2010 Edition to the 2016 Edition as recommended by the BRGR Committee and adopted by the State Board of Education in September 2020. Key revisions/additions to the publication are in blue text and items being removed are strikethrough in the following areas:

- Design Plan Review;
- Foundation Inspection;
- Framing Inspection;
- Mechanical Inspection; and
- Electrical Inspection-Lighting changes.

*Version Summary & BRGR Review*

This is the initial presentation of the ASHRAE 90.1-2016 edition checklist to the committee.

**Public Comment**

Public comment period has not been set by the department.

**BRGR Input and Discussion Items**

Below are questions and comments developed by DEED during the revisions of this draft. Outlined below for consideration by the BRGR Committee:

- Concern that the department would have to provide a new version if/when the code is updated.

**Options**

Approve draft publication for public comment.

Amend draft publication and approve public comment.

Recommend no period of public comment and approve department use.

Amend draft publication and approve department use.  
Seek additional information.

**Suggested Motion**

“I move that the Bond Reimbursement and Grant Review Committee approve the department’s proposed update of the *ASHRAE 90.1-2016 Checklist* and recommend the department open a period of public comment.”

**Department of Education & Early Development (DEED)**  
**ASHRAE Standard 90.1-2016**  
**Compliance Checklist**

Worksheet Name	Worksheet Description and Instructions
<b>Introduction</b>	<p>This checklist is designed for use by designers, reviewers, and project inspectors. Designers can use it to check themselves to insure the items listed are included in design. Reviewers can use it to check for design and provide feedback on design. Inspectors will have design parameters to inspect and assure the owner that the project is delivering the construction project requirements.</p> <p><b>Note:</b> These are the more common items that may be included in school construction or renovation projects. Other provisions within Standard 90.1-2016 may also apply.</p>
<b>Basic Instructions for Use</b>	<p>Initially the owner and consultant will review the checklist and indicate to the department what items in the checklist do not pertain to the project. Upon agreement those items will be struckthrough in the Description column and "Does not Pertain" will be entered in the Comment column. If, as design progresses, any item is determined to be required, the strikethrough will be removed and the comment changed to reflect the rationale.</p>
<b>Cover sheet</b>	<p>Include department project name, number, school district, and facility(ies). <a href="#">Also, include the climate zone (note: there are new zones compared to 90.1-2010).</a></p>
<b>Design Plan Review</b>	<p>This tab will be used throughout the design phase to document design and contract document elements needed for compliance. The first column indicates the design system. The second column lists the ASHRAE Standard 90.1 sections associated with the item in review. The third column is a description of the item. The fourth column is to document the appropriate design value for the item, as applicable. The fifth column is to indicate if the documents are in compliance, and the sixth column is for any comments including the location in the plans/specs. This sheet is to confirm that the consultant has supplied all required calculations for review. This will allow the department and owner to determine if Standard 90.1 is being met and whether designs may be under designed and not delivering requirements to meet needs or if there is overdesign that may increase construction and operating costs.</p>
<b>Foundation Inspection</b>	<p>The first column lists the ASHRAE Standard 90.1 requirements associated with the item in review. The second column is a description of the item. The third column is to enter the designed value of insulation, etc.; the fourth column is for field inspection verifying that construction meets requirements. The fifth column is to indicate whether the design and installation meets requirements, and the sixth column is for any comments. This sheet is to review design and installation. The cells with "NA" do not require insertion of values.</p>
<b>Framing Inspection</b>	<p>The first column lists the ASHRAE Standard 90.1 requirements associated with the item in review. The second column is a description of the item. The third column is to enter the designed value of insulation, etc.; the fourth column is for field inspection verifying that construction meets requirements. The fifth column is to indicate whether the design and installation meets requirements and the sixth column is for any comments. This sheet is to review design and installation. The cells with "NA" do not require insertion of values.</p>

**DRAFT FOR REVIEW AND COMMENT**

Worksheet Name	Worksheet Description and Instructions
<b>Insulation Inspection</b>	The first column lists the ASHRAE 90.1 codes associated with the item in review. The second column is a description of the item. The third column is to enter the designed value of insulation, etc.; the fourth column is for field inspection verifying that construction meets requirements. The fifth column is to indicate whether the design and installation meets requirements and the sixth column is for any comments. This sheet is to review design and installation. The cells with "NA" do not require insertion of values.
<b>Plumbing Inspection</b>	The first column lists the ASHRAE Standard 90.1 codes associated with the item in review. The second column is a description of the item. The third column is to indicate if the documents are in compliance and the fourth column is for any comments. This sheet is to confirm that all requirements are inspected and confirmed for plumbing.
<b>Mechanical Inspection</b>	The first column lists the ASHRAE Standard 90.1 codes associated with the item in review. The second column is a description of the item. The third column is to indicate if the documents are in compliance and the fourth column is for any comments. This sheet is to confirm that all mechanical designs meet Standard 90.1 and are included in the documents and that installation meets those designs.
<b>Electrical Inspection</b>	The first column lists the ASHRAE Standard 90.1 codes associated with the item in review. The second column is a description of the item. The third column is to indicate if the documents are in compliance and the fourth column is for any comments. This sheet is to confirm that all electrical designs meet Standard 90.1 and are included in the documents and that installation meets those designs.
<b>Final Inspection</b>	The first column lists the ASHRAE Standard 90.1 codes associated with the item in review. The second column is a description of the item. The third column is to indicate if the documents or installation are in compliance and the fourth column is for any comments. This sheet is to confirm that all closeout documents are provided and all final inspections and commissioning is completed.

**Department of Education & Early Development (DEED)  
ASHRAE Standard 90.1-2016  
Compliance Checklist**

**Project Number:** \_\_\_\_\_

**Project Name:** \_\_\_\_\_

**School District:** \_\_\_\_\_

**Facility(ies):** \_\_\_\_\_

**Climate Zone:** \_\_\_\_\_

**DEED ASHRAE Standard 90.1-2016  
Design Plan Review Checklist**

System	90.1-2016 Section #	Description	Design Value	Complies? (Yes/No)	Comments
Envelope	4.2.2, 5.4.3.1.1, 5.7	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the building envelope and document where exceptions are claimed. Envelope tradeoff option (5.6) or energy cost budget (11) submitted for buildings with vertical fenestration area >40% or skylight area >5%.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.5.3.3	Below-grade wall insulation R-value.			Enter the Design Value and provide supporting calculations.
Envelope	5.5.3.5	Slab edge insulation R-value.			Enter the Design Value and provide supporting calculations.
Envelope	5.8.1.7	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping, and equipment maintenance activities.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.8.1.7.3	Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	6.3.2, 6.4.4.1, 6.4.4.2	Piping, ducts and plenum are insulated and sealed when installed in or under a slab.			Enter the Design Value and provide supporting calculations.
Envelope	6.4.3.7	Freeze protection and snow/ice melting system are automatically controlled to shut-off at the required temperatures..	NA		Enter a reference as to where this is covered in the project documents.
Envelope	6.4.4.1.5	Bottom surface of floor structures incorporating radiant heating insulated to a minimum of R-3.5.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.4.3.4	Vestibules are installed where building entrances separate conditioned space from the exterior, and meet exterior envelope requirements. Doors have self-closing devices, and are >=7 ft apart.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.5.4.3	Vertical fenestration U-Factor.			Enter the Design Value and provide supporting calculations.
Envelope	5.5.4.3	Skylight fenestration U-Factor.			Enter the Design Value and provide supporting calculations.
Envelope	5.5.4.4.1	Vertical fenestration SHGC value.			Enter the Design Value and provide supporting calculations.
Envelope	5.5.4.4.2	Skylight SHGC value.			Enter the Design Value and provide supporting calculations.

**DRAFT FOR REVIEW AND COMMENT**



## Design Plan Review Checklist

System	90.1-2016 Section #	Description	Design Value	Complies? (Yes/No)	Comments
Envelope	5.5.3.6	U-factor of opaque doors associated with the building thermal envelope meets requirements.			Enter the Design Value and provide supporting calculations.
Envelope	5.4.3	All requirements for continuous air-barrier are met including identifying in the drawings for sealing. Project includes required pressure testing	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.5.3.1	Roof R-value. For some roof systems, verification may need to occur during Framing Inspection.			Enter the Design Value and provide supporting calculations.
Envelope	5.8.1.3	Blown or poured loose-fill insulation is installed only where the roof slope is $\leq 3$ in 12.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.5.3.1	Skylight curbs insulated to the level of roofs with insulation above deck or R-5.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.5.3.2	Above-grade wall insulation R-value.			Enter the Design Value and provide supporting calculations.
Envelope	5.5.3.4	Floor insulation R-value.			Enter the Design Value and provide supporting calculations.
Envelope	5.8.1.4	Eaves are baffled to deflect air above the insulation.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.8.1.5	Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditioned space.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.8.1.7	Exterior insulation is protected from damage with a protective material.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.8.1.7.1	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.8.1.8	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.	NA		Enter a reference as to where this is covered in the project documents.
Envelope	5.4.3.3	Weatherseals installed on all loading dock cargo doors.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	4.2.2, 6.4.4.2.1, 6.7.2	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions are claimed. Submit heat and ventilation calculations.			Enter a reference as to where this is covered in the project documents.

DRAFT FOR REVIEW AND COMMENT

**DEED ASHRAE Standard 90.1-2016  
Design Plan Review Checklist**

System	90.1-2016 Section #	Description	Design Value	Complies? (Yes/No)	Comments
Mechanical	7.4.3	Service hot-water piping systems insulated per table 6.8.3-1. Note: where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	7.4.4.1	Temperature controls installed on service water heating systems (<=120 °F to maximum temperature for intended use).	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	7.4.4.2	Controls shall be installed to automatically shut off the recirculating hot water and heat trace systems.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	7.4.6	Heat traps installed on non-circulating storage water tanks.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.3.4.1	Stair and elevator shaft vents have motorized dampers that automatically close.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.3.4.2, 6.4.3.4.3	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.3.4.4	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.3.8	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control or design airflow >3,000 cfm.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.3.9	Heating for vestibules are controlled to shut off heating system when outdoor temperature is above 45F.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.4.1.1	Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.4.1.2	HVAC ducts and plenums insulated (R-Value). Reference Tables 6.8.2.	NA		Enter the Design Value and provide supporting calculations.
Mechanical	6.4.4.1.3	HVAC piping insulation thickness. Reference tables 6.8.3-1&2	NA		Enter the Design Value and provide supporting calculations.
Mechanical	6.4.4.1.4	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.5	Site-assembled or site-constructed walk-in coolers and walk-in freezers shall conform to 6.4.5	NA		Enter a reference as to where this is covered in the project documents.

**DRAFT FOR REVIEW AND COMMENT**

## Design Plan Review Checklist

System	90.1-2016 Section #	Description	Design Value	Complies? (Yes/No)	Comments
Mechanical	6.5.1, 6.5.1.1.1, 6.5.1.1.2, 6.5.1.1.3, 6.5.1.3	Air economizers provided where required, meet the requirements for design capacity, control signal, and high-limit shut-off and integrated economizer control.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.1.1.5	Means provided to relieve excess outside air during economizer operation.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.1.2, 6.5.1.2.1, 6.5.1.2.2, 6.5.1.3	Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control and heating system impact.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.1.4	Economizer operation will not increase heating energy use during normal operation.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.2.1	Zone controls can limit simultaneous heating and cooling and sequence heating and cooling to each zone.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.2.2.3	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.2.3	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.2.4	<del>Water economizer specified on hydronic cooling and humidification systems designed to maintain inside humidity at &gt;35 °F dewpoint if an economizer is required.</del>	NA		<del>Enter a reference as to where this is covered in the project documents.</del>
Mechanical	6.5.3.1.2	HVAC fan motors not larger than the first available motor size greater than the bhp.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.3.2.1	<del>VAV fan motors &gt;=10 hp to be driven by variable speed drive, have a vane axial fan with variable pitch blades, or have controls to limit fan motor demand.</del>	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.3.2.3	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.3.3	Multiple zone VAV systems with DDC of individual zone boxes <del>have static pressure setpoint reset controls</del> shall include means to automatically reduce outdoor air in response to changes in ventilation efficiency.	NA		Enter a reference as to where this is covered in the project documents.

DRAFT FOR REVIEW AND COMMENT

## Design Plan Review Checklist

System	90.1-2016 Section #	Description	Design Value	Complies? (Yes/No)	Comments
Mechanical	6.5.3.4	<del>Multiple zone HVAC systems have supply air temperature reset controls.</del>	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.4.2	HVAC pumping systems >10 hp with three or more control valves shall be designed for variable fluid flow.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.4.3.2	<del>Reduce flow in pumping systems &gt;10 hp to multiple chillers or boilers when others are shut down.</del> When a boiler plant includes more than one boiler, provisions shall be made so that all flow through the boiler is automatically shut off when the boiler is shut down.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.4.4	Temperature reset by representative building loads in pumping systems >10 hp for chiller and boiler systems >300,000 Btu/h.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.4.5.2	Hydronic heat pumps and water-cooled unitary air conditioners with pump systems >5 hp have controls or devices to reduce pump motor demand of no more than 30% of design wattage at 50% of design water flow.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.5.2.1	<del>Fan systems with motors &gt;=7.5 hp associated with heat rejection equipment can operate at 2/3 of full speed and have fan speed controls.</del> The fan system on a heat rejection device powered by an individual motor or an array of motors with a connected load, including motor service factor, totaling 5 hp or more shall have controls and/or devices that shall result in fan motor demand of no more than 30% of design wattage at 50% of design air flow.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.6.1	Exhaust air energy recovery on systems required by Table 6.5.6.1-1 or 6.5.6.1-2.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.7.2.1	Replacement air introduced directly into the hood cavity of kitchen exhaust hoods shall not exceed 10% of the hood exhaust airflow rate.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.7.1.2	<del>Conditioned supply air to space with a kitchen hood shall not exceed the greater of a) supply flow required to meet space heating or cooling, or b) hood exhaust flow minus the available air transfer from available spaces.</del>	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.7.2.2	If a kitchen/dining facility has a total kitchen hood exhaust airflow rate >5,000 cfm meet exhaust rate requirements of table 6.5.7.2.2.	NA		Enter a reference as to where this is covered in the project documents.

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## Design Plan Review Checklist

System	90.1-2016 Section #	Description	Design Value	Complies? (Yes/No)	Comments
Mechanical	6.5.7.1.4	If a kitchen/dining facility has a total kitchen hood exhaust airflow rate >5,000 cfm, then it shall meet one of the options 6.5.7.2.3 a,b or c. <del>Kitchen hoods with a total exhaust airflow rate &gt;5,000 cfm meet replacement air, ventilation system, or energy recovery requirements.</del>	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.7.3	Fume hoods exhaust systems $\geq 15,000$ cfm have VAV hood exhaust and supply systems, direct makeup air or heat recovery shall include at least on of the features of 6.5.7.3 a, b or c.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.5.8.1	Unenclosed spaces that are heated use only radiant heat.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	7.4.2	Service water heating equipment meets efficiency requirements of table 7.8.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	7.4.4.3	Temperature controlling means shall be provided to limit the maximum temperature of water delivered from lavatory faucets to 110 F	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	7.4.4.4	When used to maintain storage tank water temperature, recirculating pumps shall be equipped with controls limiting operation to a period from the start of the heating cycle to a maximum of five minutes after the end of the heating cycle.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	7.5.1	<del>Combined space and water heating system not allowed unless standby loss less than calculated maximum. AHJ has approved or combined connected load &lt;150 KBtu/h.</del> The use of a gas-fired or oil-fired space heating boiler system otherwise complying with section 6 to provide the total space heating and service waterheating for a building is allowed if one of the conditions 7.5.1 a, b or c are met.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	7.5.2	Service water heating equipment used for space heating complies with the service water heating equipment requirements.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.3.1.1	Heating and cooling to each zone is controlled by a thermostatic controls.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.3.3.1	HVAC systems shall be equipped with at least one automatic shutdown control under 6.4.3.3.1 a, b, c or d.	NA		Enter a reference as to where this is covered in the project documents.

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**DEED ASHRAE Standard 90.1-2016  
Design Plan Review Checklist**

System	90.1-2016 Section #	Description	Design Value	Complies? (Yes/No)	Comments
Mechanical	6.4.3.3.2	<del>Setback controls allow automatic restart and temporary operation as required for maintenance.</del> Heating systems shall be equipped with controls capable of and configured to automatically restart and temporarily operate the system as required to maintain zone temperatures above an adjustable heating set point at least 10°F below the occupied heating set point. Cooling systems shall be equipped with controls capable of and configured to automatically restart and temporarily operate the mechanical cooling system as required to maintain zone temperatures below an adjustable cooling set point at least 5°F above the occupied cooling set point or to prevent high space humidity levels.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.3.3.3	<del>Systems with air capacity &gt;10,000 cfm include optimum start controls.</del> Individual heating and cooling systems with setback controls and DDC shall have optimum start controls. The control algorithm shall, as a minimum, be a function of the difference between space temperature and occupied set point, the outdoor temperature, and the amount of time prior to scheduled occupancy. Mass radiant floor slab systems shall incorporate floor temperature into the optimum start algorithm.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	6.4.3.5	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	NA		Enter a reference as to where this is covered in the project documents.
Mechanical	4.2.2, 6.7.2.3, 6.7.2.4	Plans document that systems are to be balanced in accordance with generally accepted engineering standards for conditioned area greater than 5,000 square feet. Detailed instructions for HVAC systems commissioning included on the plans or specifications for >=50,000 ft <sup>2</sup> .	NA		Enter a reference as to where this is covered in the project documents.

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**DEED ASHRAE Standard 90.1-2016  
Design Plan Review Checklist**

System	90.1-2016 Section #	Description	Design Value	Complies? (Yes/No)	Comments
Mechanical	4.2.2, 7.7.1, 10.4.2	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions are claimed. Service water pressure booster systems designed with pressure sensors, pressure reducers, and flow controls.	NA		Enter a reference as to where this is covered in the project documents.
Electrical	4.2.2, 8.7	<b>Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed.</b> <del>Feeder conductors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.</del>	NA		Enter a reference as to where this is covered in the project documents.
Electrical	8.4.1	The feeder conductors and branch circuits combined shall be sized for a maximum of 5%. If contractor alters from design, contractor to provide voltage drop calculations.	NA		Enter a reference as to where this is covered in the project documents.
Electrical	8.4.2	<del>All electrical outlets to be controlled as required.</del> At least 50% of all 125 volt 15- and 20-Amp receptacles, as required by 8.4.2, and 25% of the circuits for modular furniture are controlled by an automatic control device.	NA		Enter a reference as to where this is covered in the project documents.
Electrical	8.4.3	Is power monitoring and reporting provided.	NA		Enter a reference as to where this is covered in the project documents.
Electrical	4.2.2, 9.7	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting systems and equipment and document where exceptions are claimed.	NA		Enter a reference as to where this is covered in the project documents.
Electrical	9.4.1.1	Automatic lighting control to shut off all building lighting installed in buildings >5,000 ft <sup>2</sup> in compliance of 9.4.1.1.	NA		Enter a reference as to where this is covered in the project documents.
Electrical	9.4.1.4	<del>Primary sidelighted areas &gt;=250 ft<sup>2</sup> are equipped with required lighting controls.</del>	NA		Enter a reference as to where this is covered in the project documents.
Electrical	9.4.1.5	<del>Enclosed spaces with daylight area under skylights and rooftop monitors &gt;900 ft<sup>2</sup> are equipped with required lighting controls.</del>	NA		Enter a reference as to where this is covered in the project documents.
Electrical	9.4.2	Exit signs do not exceed 5 watts per face.	NA		Enter a reference as to where this is covered in the project documents.

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Design Plan Review Checklist

System	90.1-2016 Section #	Description	Design Value	Complies? (Yes/No)	Comments
Electrical	9.6.2	<del>Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.</del>	NA		Enter a reference as to where this is covered in the project documents.
Electrical	4.2.2, 9.7	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting systems and equipment and document where exceptions are claimed.	NA		Enter a reference as to where this is covered in the project documents.
Electrical	9.4.1.4	Automatic lighting controls for exterior lighting installed.	NA		Enter a reference as to where this is covered in the project documents.
Electrical	9.4.3	<del>Exterior grounds lighting over 100 W provides &gt;60 m/W unless on motion sensor or fixture is exempt from scope of code or from external LPD.</del> Lighting control devices and control systems shall be tested to ensure that control hardware and software are calibrated, adjusted, programmed, and in proper working condition in accordance with the construction documents and manufacturer's installation instructions. When occupant sensors, time switches, programmable schedule controls, or photosensors are installed, at a minimum, the following procedures shall be performed:	NA		Enter a reference as to where this is covered in the project documents.

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**DEED ASHRAE Standard 90.1-2016  
Foundation Inspection Checklist**

90.1-2016 Section #	Description	Design Value	Field Verified Value	Complies? (Yes/No)	Comments
5.5.3.3	Below-grade wall insulation R-value.				
5.8.1.2	Below-grade wall insulation installed per manufacturer's instructions.	NA	NA		
5.5.3.5	Slab edge insulation R-value.				
5.8.1.2	Slab edge insulation installed per manufacturer's instructions and design.	NA	NA		
5.8.1.7	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	NA	NA		
5.8.1.7.3	Insulation in contact with the ground has $\leq 0.3\%$ water absorption rate per ASTM C272.	NA	NA		
6.3.2, 6.4.4.1, 6.4.4.2	Piping, ducts and plenum are insulated and sealed when installed in or under a slab.				
6.4.3.8	Freeze protection and snow/ice melting system sensors installed for future connection to controls.	NA	NA		
6.4.4.1.5	Bottom surface of floor structures incorporating radiant heating insulated to $\geq R-3.5$ .	NA	NA		

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**DEED ASHRAE Standard 90.1-2016  
Framing Inspection Checklist**

90.1-2016 Section #	Description	Design Value	Field Verified Value	Complies? (Yes/No)	Comments
5.4.3.1.2	Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an approved manner.	NA	NA		
5.4.3.2	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	NA	NA		
5.4.3.4	Vestibules are installed where building entrances separate conditioned space from the exterior, and meet exterior envelope requirements. Doors have self-closing devices, and are >=7 ft apart.	NA	NA		
5.5.4.3	<del>Vertical</del> fenestration U-Factor.				
5.5.4.2.2	<del>Skylight</del> fenestration U-Factor.				
5.5.4.4.1	Vertical fenestration SHGC value.				
5.5.4.4.2	Skylight SHGC value.				
5.8.2	U-factor of opaque doors associated with the building thermal envelope meets requirements.	NA	NA		
5.5.3.6					

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**DEED ASHRAE Standard 90.1-2016  
Insulation Inspection Checklist**

90.1-2016 Section #	Description	Design Value	Field Verified Value	Complies? (Yes/No)	Comments
5.4.3.1.2	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed or weather stripped to minimize air leakage.	NA	NA		
5.5.3.1	Roof R-value. For some roof systems, verification may need to occur during Framing Inspection.				
5.8.1.2, 5.8.1.3	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is $\leq 3$ in 12.	NA	NA		
5.5.3.1	Skylight curbs insulated to the level of roofs with insulation above deck or R-5.	NA	NA		
5.5.3.2	Above-grade wall insulation R-value.				
5.8.1.2	Above-grade wall insulation installed per manufacturer's instructions.	NA	NA		
5.5.3.4	Floor insulation R-value.				
5.8.1.2	Floor insulation installed per manufacturer's instructions.	NA	NA		
5.8.1.4	Eaves are baffled to deflect air above the insulation.	NA	NA		
5.8.1.5	Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditioned space.	NA	NA		
5.8.1.6	Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.	NA	NA		
5.8.1.7	Exterior insulation is protected from damage with a protective material.	NA	NA		
5.8.1.7.1	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.	NA	NA		
5.8.1.7.2	Foundation vents do not interfere with insulation.	NA	NA		
5.8.1.8	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.	NA	NA		

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**DEED ASHRAE Standrd 90.1-2016  
Plumbing Inspection Checklist**

90.1-2016 Section #	Description	Complies? (Yes/No)	Comments
7.4.3	Service hot-water piping systems insulated. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.		
7.4.4.1	Temperature controls installed on service water heating systems (<=120 °F to maximum temperature for intended use).		
7.4.4.2	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.		
7.4.6	Heat traps installed on non-circulating storage water tanks.		

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**DEED ASHRAE Standard 90.1-2016  
Mechanical Inspection Checklist**

90.1-2016 Section #	Description	Complies? (Yes/No)	Comments
6.4.1.4, 6.4.1.5	HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.		
6.4.3.4.1	Stair and elevator shaft vents have motorized dampers that automatically close.		
6.4.3.4.2, 6.4.3.4.3	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.		
6.4.3.4.4	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.		
6.4.3.9	Demand control ventilation provided for spaces >500 ft <sup>2</sup> and >40 25 people/1000 ft <sup>2</sup> occupant density and served by systems with air side economizer, auto modulating outside air damper control or design airflow >3,000 cfm.		
<del>6.4.3.10</del>	<del>Single zone HVAC systems with fan motors &gt;=5 hp have variable airflow controls. Air conditioning equipment with a cooling capacity &gt;=110,000 Btu/h has variable airflow controls.</del>		
6.4.4.1.1	Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.		
6.4.4.1.2	HVAC ducts and plenums insulated (R-Value).		
6.4.4.1.3	HVAC piping insulation thickness.		
6.4.4.1.4	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.		
6.4.4.2.1	Ducts and plenums sealed based on static pressure and location.		
6.4.4.2.2	Ductwork operating >3 in. water column requires air leakage testing.		
<del>6.5.1, 6.5.1.1.1, 6.5.1.1.2, 6.5.1.1.3, 6.5.1.3</del>	<del>Air economizers provided where required, meet the requirements for design capacity, control signal, and high-limit shut-off and integrated economizer control.</del>		
6.5.1.1.4	Return air and outdoor air dampers meet minimum air leakage requirements.		
6.5.1.1.5	Means provided to relieve excess outside air during economizer operation.		

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**DEED ASHRAE Standard 90.1-2016  
Mechanical Inspection Checklist**

90.1-2016 Section #	Description	Complies? (Yes/No)	Comments
<del>6.5.1.2, 6.5.1.2.1, 6.5.1.2.2, 6.5.1.3</del>	<del>Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control and heating system impact.</del>		
6.5.1.4	Economizer operation will not increase heating energy use during normal operation.		
6.5.2.1	Zone controls can limit simultaneous heating and cooling and sequence heating and cooling to each zone.		
6.5.2.2.3	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements.		
6.5.2.3	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.		
<del>6.5.2.4</del>	<del>Water economizer specified on hydronic cooling and humidification systems designed to maintain inside humidity at &gt;35 °F dewpoint if an economizer is required.</del>		
6.5.3.1.2	HVAC fan motors not larger than the first available motor size greater than the bhp.		
<del>6.5.3.2.1</del>	<del>VAV fan motors &gt;=10 hp to be driven by variable speed drive, have a vane axial fan with variable pitch blades, or have controls to limit fan motor demand.</del>		
6.5.3.2.2	VAV fans have static pressure sensors positioned so setpoint is no greater than 1.2 inches of water. <=1/3 total design pressure.		
6.5.3.2.3	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure.		
6.5.3.3	Multiple zone VAV systems with DDC of individual zone boxes shall include means to automatically reduce outdoor air. <del>have static pressure setpoint reset controls.</del>		
6.5.3.5	Multiple zone HVAC systems have supply air temperature reset controls.		
<del>6.5.4.1</del>	<del>HVAC pumping systems &gt;10 hp designed for variable fluid flow.</del>		
6.5.4.3	Reduce flow in pumping systems >10 hp to multiple chillers or boilers when others are shut down.		
6.5.4.4	Temperature reset by representative building loads in pumping systems >10 hp for chiller and boiler systems >300,000 Btu/h.		

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**DEED ASHRAE Standard 90.1-2016  
Mechanical Inspection Checklist**

90.1-2016 Section #	Description	Complies? (Yes/No)	Comments
6.5.4.5	Two-position automatic valve interlocked to shut off water flow when hydronic heat pump with pumping system >10 hp is off.		
6.5.4.4.2	Hydronic heat pumps and water-cooled unitary air conditioners with pump systems >5 hp have controls or devices to reduce pump motor demand.		
<del>6.5.5.2</del>	<del>Fan systems with motors <math>\geq</math>7.5 hp associated with heat rejection equipment can operate at 2/3 of full speed and have fan speed controls.</del>		
6.5.6.1	Exhaust air energy recovery on systems required by Table 6.5.6.1.-1 or 2		
6.5.7.2.1	Replacement air introduced directly into the hood cavity of kitchen exhaust hoods shall not exceed 10% of the hood exhaust airflow rate.		
<del>6.5.7.1.2</del>	<del>Conditioned supply air to space with a kitchen hood shall not exceed the greater of a) supply flow required to meet space heating or cooling, or b) hood exhaust flow minus the available air transfer from available spaces.</del>		
6.5.7.2.2	Kitchen hoods with a total exhaust airflow rate >5,000 cfm meet exhaust rate requirements.		
6.5.7.1.4	Kitchen hoods with a total exhaust airflow rate >5,000 cfm meet replacement air, ventilation system, or energy recovery requirements.		
6.5.7.2.4	Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.		
6.5.7.3	Fume hoods exhaust systems $\geq$ 15,000 cfm have VAV hood exhaust and supply systems, direct makeup air or heat recovery.		
6.5.8.1	Unenclosed spaces that are heated use only radiant heat.		
7.4.2	Service water heating equipment meets efficiency requirements.		
7.5.1	Combined space and water heating system not allowed unless standby loss less than calculated maximum. AHJ has approved or combined connected load <150 KBtu/h.		
7.5.2	Service water heating equipment used for space heating complies with the service water heating equipment requirements.		

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**DEED ASHRAE Standard 90.1-2016  
Electrical Inspection Checklist**

90.1-2016 Section #	Description	Complies? (Yes/No)	Comments
8.4.2	At least 50% of all 125 volt 15- and 20-Amp receptacles, as required by 8.4.2, and 25% of the circuits for modular furniture are controlled by an automatic control device. And tested.		
8.4.3.1 8.4.3.2	Energy monitoring is installed and being recorded in buildings 25,000 sq ft or larger		
9.4.1.1	Automatic lighting controls installed <del>per plans to shut off all building lighting installed in buildings &gt;5,000 ft2.</del>		
9.4.1.2	<del>Independent lighting control installed per approved lighting plans and all manual control readily accessible and visible to occupants.</del>		
9.4.1.4	<del>Primary sidelighted areas &gt;=250 ft2 are equipped with required lighting controls.</del>		
9.4.1.5	<del>Enclosed spaces with daylight area under skylights and rooftop monitors &gt;900 ft2 are equipped with required lighting controls.</del>		
9.4.1.4	Automatic lighting controls for exterior lighting installed.		
9.4.2	<del>Exit signs do not exceed 5 watts per face.</del>		
9.4.3	<del>Exterior grounds lighting over 100 W provides &gt;60 m/W unless on motion sensor or fixture is exempt from scope of code or from external LPD.</del>		
9.6.2	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.		
8.4.1.1 8.4.1.2	Does installation path follow design? If not, contractor to perform voltage drop calculations.		

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**DEED ASHRAE Standard 90.1-2016  
Final Inspection Checklist**

90.1-2016 Section #	Description	Complies? (Yes/No)	Comments
5.4.3.3	Weatherseals installed on all loading dock cargo doors.		
5.4.3.1.3	Building pressure testing has been performed and documented. The use of any exceptions shall be documented		
6.4.3.1.1	Heating and cooling to each zone is controlled by a thermostat control.		
6.4.3.1.2	Thermostatic controls have a 5 °F deadband.		
6.4.3.3.1	HVAC systems equipped with at least one automatic shutdown control.		
6.4.3.3.2	Setback controls allow automatic restart and temporary operation as required for maintenance.		
6.4.3.3.3	Systems with air capacity >10,000 cfm include optimum start controls.		
6.4.3.5	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.		
6.7.2.1	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.		
6.7.2.2	Furnished O&M manuals for HVAC systems.		
6.7.2.3	An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft <sup>2</sup> of conditioned area.		
6.7.2.4	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.		
7.4.4.3	Public lavatory faucet water temperature <=110 °F.		
7.4.4.4	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank.		
8.7.1	Furnished as-built drawings for electric power systems within 30 days of system acceptance.		
8.7.2	Furnished O&M manuals for electrical power systems and equipment.		
9.2.2.3	Installed lamps and fixtures are consistent with what is shown on the approved lighting plans, which demonstrate proposed watts are less than or equal to allowed watts.		
9.4.3	Exterior lighting power is consistent with what is shown on the approved lighting plans, which demonstrate proposed watts are less than or equal to allowed watts.		

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Department of Education & Early Development  
 Division of Finance & Support Services/Facilities

## Work Topics for the BR & GR Committee

As Of: ~~September 8, 2020~~ December 2, 2020 Proposed

<u>BR&amp;GR 2021 Work Items</u>	<u>Responsibility</u>	<u>Due Date</u>
<b>1. CIP Grant Priority Review – [(b)(1)]</b>		
1.1. FY22 MM & SC Grant Fund Final Lists (4 AAC 31.022(a)(2)(B))	Committee	Apr 2021
1.2. FY22 MM & SC Grant Fund Initial List	Committee	Dec 2020
<b>2. 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. Construction Standards for Cost-effective Construction – [(b)(3)]</b>		
3.1. Model School Costs (DEED Cost Model)		
3.1.1. Model School Analysis & Updates (Allowable Elements)		Annually, Jan-May
3.1.1.1. Solicit, Award, And Manage Model School Update	Dept	Annually, Jan
3.2. Cost Standards		
<del>3.2.1. Cost Model As Cost Control Tool</del>		<del>May 18-Dec 21</del>
<del>3.2.1.1. Analyze, Recommend Cost Model As Cost Control</del>	<del>Dept</del>	<del>Dec 2020</del>
<del>3.2.1.2. Draft Regulation Language For Cost Control Use</del>	<del>Dept</del>	<del>Mar 2021</del>
<del>3.2.1.3. Review Draft Reg Language, Recommend To State Board</del>	<del>Committee</del>	<del>Jun 2021</del>
<del>3.2.1.4. Manage Regulation Development And Implementation</del>	<del>Dept</del>	<del>Dec 2021</del>
<del>3.2.2-3.2.1. Cost/Benefit, Cost Effectiveness Guidelines</del>	<del>Dept</del>	<del>TBD</del>
<del>3.2.3-3.2.2. Life Cycle Cost Guidelines</del>	<del>Dept</del>	<del>TBD</del>
3.3. Model School Building Systems Standards		
3.3.1. State Building Systems Standards		Mar 19- Feb 22
3.3.1.1. Cost Format Outline of System Standards (complete)	Dept	May 2019
3.3.1.2. Review Outline Model School System Standards (complete)	Committee	May 2019
3.3.1.3. Develop Services For Feasibility Analysis (complete)	Subcommittee	May 2019
3.3.1.4. Solicit, Award, Manage Feasibility & Cost/Benefit Analysis (c)	Dept	Jun 2019
3.3.1.5. Review Feasibility Report On Comprehensive Standards (c)	Subcommittee	Jul 19-Sep 19
3.3.1.6. Recommendation on Standards Development (complete)	Subcommittee	Dec 2019
3.3.1.7. Solicit, Award, Manage Partial Standards Development (c)	Dept	Jun 2020
3.3.1.8. Review Partial Standards, Recommend Direction (complete)	Subcommittee	Aug 2020
3.3.1.9. Review Final Standards Development Recommendation (c)	Committee	Sep 2020
3.3.1.10. Complete [See 6.2 New Publications]	Dept	Jun 2021
3.3.1.11. Implement [See 6.3 Regualations]	Dept	Feb 2022
3.3.1.12. Coordinate with A4LE to maintain model school standards	Biennially	
3.3.2. School District Building Systems	Dept	TBD
3.4. Design Ratios		
3.4.1. Development of Design Ratio O:EW <u>and V:GSF</u>		
3.4.1.1. Compare Model & Existing School Ratios And Energy Use	Subcommittee	Feb 2020
3.4.1.2. Recommendation of <del>O:EW</del> Ratios for BRGR <u>(complete)</u>	Subcommittee	<u>SepNov</u> 2020
3.4.1.3. Evauate and Seek Public Comment	Committee	Dec 2020
3.4.1.4. Evaluate Public Comment, Make Recommendations	Committee	Feb 2021
3.4.1.5. Manage Regulation Development & Implementation	Dept	TBD
<del>3.4.2. Development of Design Ratios V:NSF &amp; V:ES</del>		
<del>3.4.2.1. Compare Model &amp; Existing School Ratios And Energy Use</del>	<del>Subcommittee</del>	<del>Oct 2020</del>
<del>3.4.2.2. Recommendation of V:NSF &amp; V:ES Ratio</del>	<del>Subcommittee</del>	<del>Dec 2020</del>
<del>3.4.2.3. Evauate and Seek Public Comment</del>	<del>Committee</del>	<del>Dec 2020</del>
<del>3.4.2.4. Evaluate Public Comment, Make Recommendations</del>	<del>Committee</del>	<del>Feb 2021</del>
<del>3.4.2.5. Manage Regulation Development &amp; Implementation</del>	<del>Dept</del>	<del>TBD</del>
<del>3.4.3-3.4.2. Develop Test Method for Ratios</del>	<del>Subcommittee</del>	<del>Jul 2020</del>
<b>4. Prototypical Design Analysis – [(b)(4)]</b>		
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

**BR&GR 2020-2021 Work Items**

**Responsibility Due Date**

<b>BR&amp;GR 2020-2021 Work Items</b>		<b>Responsibility</b>	<b>Due Date</b>
4.1.2.	Update Aug 4, 2004 Committee Position Paper	Committee	TBD
4.2.	Codify Regulations As Needed for Reuse of Plans/Systems Policy		
4.2.1.	Make Recommendations to State Board on Prototypes	Committee	July 2021
4.2.2.	Manage Regulation Development and Implementation	Dept	Sep 2021
<b>5.</b>	<b>CIP Grant Application &amp; Ranking – [(b)(5) &amp; (6)]</b>		
5.1.	FYXX CIP Briefing – Issues and Clarifications	Dept, Annually	Dec 20XX
5.2.	FY23 CIP Draft Application & Instructions	Dept	Apr 2021
5.2.1.	Life Safety/Code/POS Matrix Review	Cmte	Jan 2020
5.2.2.	Preventive Maintenance Narratives Matrix (see 5.4.1)	Dept	Mar 2020
5.2.3.	Priority Weighting Factors Review	Dept	TBD
5.3.	FY23 CIP Final Application & Instructions	Committee	Apr 2021
5.4.	FY22 CIP Carryover Items	Dept	
5.4.1.	Preventive Maintenance Narratives Matrix		
5.4.1.1.	Seek Comments/Peer Review	Dept	Jan 2021
5.4.1.2.	Review Comments, Propose Edits to Matrix	Committee	Feb 2021
5.4.1.3.	Draft Adjusted Matrix	Dept	Mar 2021
5.4.1.4.	Approve with FY23 CIP	Committee	Apr 2021
5.4.2.	Life Safety/Code Matrix Scoring		
5.4.2.1.	Prepare Briefing Paper/Analysis	Dept	Jan 2021
5.4.2.2.	Review, Discussion, Seek Comment	Committee	Feb 2021
5.4.2.3.	Draft Adjusted Matrix	Dept	Mar 2021
5.4.2.4.	Approve with FY23 CIP	Committee	Apr 2021
5.5.	Future CIP Application Issues		TBD
5.5.1.	Space Allocation Issues	Subcommittee	TBD
5.5.1.1.	Analyze and Make Recommendation to Committee	Subcommittee	TBD
5.5.1.2.	Manage Regulation Development and Implementation	Dept	TBD
5.5.2.	Projected Unhoused (erosion/environmental factors)	Subcommittee	TBD
<b>6.</b>	<b>CIP Approval Process Recommendations – [(b)(7)]</b>		
6.1.	Publication Updates		
6.1.1.	Program Demand Cost Model for Alaskan Schools	Dept	Annually, May
6.1.2.	Alaska School Facilities PM Handbook		Dec 17–Apr 21
6.1.2.1.	Preventive Maintenance Handbook – Validation (complete)	Dept	Feb 2018
6.1.2.2.	Preventive Maintenance Handbook – Public Comment (c)	Committee	Mar 2018
6.1.2.3.	Preventive Maintenance Handbook – Progress	Dept	May 2018
6.1.2.4.	Preventive Maintenance Handbook – Progress	Dept	Dec 2018
6.1.2.5.	Preventive Maintenance Handbook – Progress	Dept	Jun 2020
6.1.2.6.	Preventive Maintenance Handbook – Progress	Dept	Sept 2020
6.1.2.7.	Preventive Maintenance Handbook – Progress	Dept	Dec 2020
6.1.2.8.	Preventive Maintenance Handbook – Final Draft	Dept	Feb 2021
6.1.2.9.	Preventive Maintenance Handbook – Public Comment	Committee	Feb 2021
6.1.2.10.	Preventive Maintenance Handbook – Final	Committee	April 2021
6.1.3.	Site Selection Criteria and Evaluation Handbook		
6.1.3.1.	Site Selection Handbook – Initial	Dept	Jan 2021
6.1.3.2.	Site Selection Handbook – Final	Committee	Apr 2021
6.2.	New Publications		
6.2.1.	School Construction Standards Handbook (see 3.4.1)		May 17-Apr 21
6.2.1.1.	Construction Standards Handbook – Outline	Dept	Sep 2018
6.2.1.2.	Construction Standards Handbook – Validation	Committee	Oct 2018
6.2.1.3.	Construction Standards Handbook – Feasibility	Dept/Subcmte	Jun 2019
6.2.1.4.	Construction Standards Handbook – Feasibility	Committee	Jul 2019
6.2.1.5.	Construction Standards Handbook – Revalidation	Subcommittee	Dec 2019
6.2.1.6.	Construction Standards Handbook – Partial Draft	Dept	Aug 2020
6.2.1.7.	Construction Standards Handbook – Recommendation	Subcommittee	Aug 2020
6.2.1.8.	Construction Standards Handbook – Partial Draft Review	Committee	Sep 2020
6.2.1.9.	Construction Standards Handbook – Final Draft (Part 3)	Dept/Subcmte	Feb 2021
6.2.1.10.	Construction Standards Handbook – Final Draft (Part 2)	Dept/Subcmte	Mar 2021
6.2.1.11.	Construction Standards Handbook – Final Draft (pub cmt)	Committee	Apr 2021

**BR&GR 2020-2021 Work Items**

**Responsibility Due Date**

6.2.1.12.	Construction Standards Handbook – Final	Dept	May 2021
6.2.1.13.	Construction Standards Handbook – Final	Committee	Jun 2021
6.3.	Regulations		
<del>6.3.1.</del>	<del>LPSD PM Compliance Reg Proposal</del>		
<del>6.3.1.1.</del>	<del>Prepare Briefing Paper</del>	<del>Dept</del>	<del>Aug 2020</del>
<del>6.3.1.2.</del>	<del>Committee Consideration and Recommendation</del>	<del>Committee</del>	<del>Sep 2020</del>
<del>6.3.1.3.</del>	<del>Draft Regulation (if recommended)</del>	<del>Dept</del>	<del>Nov 2020</del>
<del>6.3.1.4.</del>	<del>SBOE Review and Public Comment</del>	<del>Dept</del>	<del>Dec 2020</del>
<del>6.3.1.5.</del>	<del>SBOE Comment Review &amp; Approval/Disapproval</del>	<del>Dept</del>	<del>Mar 2021</del>
<del>6.3.2.</del>	<del>Cost Model as Cost Control Tool (see item 3.2.1)</del>	<del>Dept (w/Cmte)</del>	
<del>6.3.2.1.</del>	<del>Draft Regulation</del>	<del>Dept (w/Cmte)</del>	<del>Mar 2021</del>
<del>6.3.2.2.</del>	<del>SBOE Public Comment on Regulation</del>	<del>Dept</del>	<del>Sep 2021</del>
<del>6.3.2.3.</del>	<del>Review Public Comments from SBOE Comment Period</del>	<del>Committee</del>	<del>Nov 2021</del>
<del>6.3.3-6.3.1.</del>	<del>Baseline Design Ratios (see item 3.5.2)</del>	<del>Dept (w/Cmte)</del>	
<del>6.3.3.1-6.3.1.1.</del>	<del>Draft Regulation</del>	<del>Dept (w/Cmte)</del>	<del>Feb 2021</del>
<del>6.3.3.2-6.3.1.2.</del>	<del>SBOE Public Comment on Regulation</del>	<del>Dept</del>	<del>Mar 2021</del>
<del>6.3.3.3-6.3.1.3.</del>	<del>Review Public Comments from SBOE Comment Period</del>	<del>Committee</del>	<del>Jun 2021</del>
<del>6.3.4-6.3.2.</del>	<del>Reuse of School Plans and Systems (see item 4.2)</del>	<del>Dept (w/Cmte)</del>	
<del>6.3.4.1-6.3.2.1.</del>	<del>Draft Regulation</del>	<del>Dept (w/Cmte)</del>	<del>Sep 2021</del>
<del>6.3.4.2-6.3.2.2.</del>	<del>SBOE Public Comment on Regulation</del>	<del>Dept</del>	<del>Dec 2021</del>
<del>6.3.4.3-6.3.2.3.</del>	<del>Review Public Comments from SBOE Comment Period</del>	<del>Committee</del>	<del>Jan 2022</del>

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

7.1.	ASHRAE 90.1		
7.1.1.	DEED Checklist		Jan – Jun 20
7.1.1.1.	Update DEED Specific Review Checklist to 2016 Ed.	Dept	Nov 2020
7.1.1.2.	Review Checklist for Public Comment	Committee	Dec 2020
7.1.1.3.	Review Public Comment/Finalize Checklist	Dept (w/Cmte)	Feb 2021
7.1.1.4.	Implement Revised Checklist in New Project Agreements	Dept	Aug 2021
7.1.1.5.	Add Appendix to <i>Project Admin Handbook?</i>	Dept	Sep 2022
<del>7.2.</del>	<del>Retro-Commissioning Evaluation Tool (for PM Certification)</del>		
<del>7.2.1.</del>	<del>Develop Tools to Evaluate Retro-Commissioning Need (complete)</del>	<del>Subcommittee</del>	<del>Mar 2020</del>
<del>7.2.2.</del>	<del>Develop C/B Tool and RCx Template (complete)</del>	<del>Dept</del>	<del>Apr 2020</del>
<del>7.2.3.</del>	<del>Review Proposed RCx Tools &amp; Metrics (complete)</del>	<del>Committee</del>	<del>Jun 2020</del>
<del>7.2.4.</del>	<del>Public Comment Period</del>	<del>Dept</del>	<del>Aug 2020</del>
<del>7.2.5.</del>	<del>Finalize RCx Tools and Metrics</del>	<del>Dept</del>	<del>Oct 2020</del>
<del>7.2.6.</del>	<del>Implementation – All Districts FY23 CIP Eligibility</del>	<del>Dept</del>	<del>Nov 2020</del>

**Projected Meeting Dates**

Feb 25, 2021 – Teleconference

- Evaluate Public Comment, Establish V:NSF & V:ES Ratios
- Construction Standards Part 3 (Systems) Final Draft
- FY23 CIP PM Narratives

March 18, 2021 – Teleconference

- New Member Orientation
- Construction Standards Part 2 (Design Guidance) Final Draft
- Draft Reg Language for Cost Model as Cost Control
- Recommend Final V:NSF and V:ES Ratios
- Space Guideline Subcommittee Recommendations

April 14-15, 2021 (Juneau), Full day +

- Final CIP Lists
- Consultant Review of Escalation Model School Elements
- FY23 Draft CIP Application and Instructions
- Construction Standards – Final Draft for Public Comment
- Site Selection Handbook



## Bond Reimbursement and Grant Review Committee

As of: January 27, 2020

Member	Appointed	Re-appointed	Term Expires
Heidi Teshner Commissioner or Commissioner's Designee	Chair Commissioner's Designee	--	--
Vacant House of Representatives Member	Appointed by Speaker	--	--
Sen. Cathy Giessel Senate Member	Appointed by President	--	--
Randy Williams Professional Degrees & Experience in School Construction	03/01/2019		02/28/2023
Dale Smythe Professional Degrees & Experience in School Construction	03/01/2017		02/28/2021
James Estes Experience in Urban or Rural School Facilities Management	03/01/2019		02/28/2023
William Glumac, appointed to fill vacancy Experience in Urban or Rural School Facilities Management	02/06/2019		02/28/2021
David Kingsland Public Representative	03/01/2019		02/28/2023
Don Hiley Public Representative	03/01/2017		02/28/2021

Members appointed by commissioner unless noted. See AS 14.11.014 and 4 AAC 31.087.