State of Alaska   **Department of Education & Early Development**
Bond Reimbursement & Grant Review Committee

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For: Bond Reimbursement & Grant   **Subject:** ASHRAE 90.1-2010
      Review Committee   Checklist & Implementation

BRIEFING PAPER

Background

The department's November 30, 2018 briefing paper provided background, discussion, and recommendations regarding the enforcement the ASHRAE 90.1-2010 energy performance standard. This standard was recommended by the committee in 2012 and approved in regulation in 2013. Following committee discussion at the December 12, 2018 meeting, the department took steps to develop an ASHRAE 90.1-2010 compliance checklist specific to Alaska schools. The source document for the checklist, as proposed in the earlier paper, was the "Commercial Building Data Collection Checklist – ANSI/ASHRAE/IESNA Standard 90.1-2010" as provided by the United States Department of Energy. The checklist was modified by removing items not commonly associated with educational facilities or not applicable to climate zones 7 & 8.

Discussion

In reviewing the draft DEED ASHRAE 90.1 Checklist and the proposed compliance review strategies, it is important to remember that there is no other jurisdictional entity currently checking for compliance to this standard on school capital projects with state aid. As a result, the checklist and implementation are substantially more detailed than other department design review checklists.

Design Phase

At Schematic Design (35% SD), the recipient would be required to submit a project-specific version of the DEED checklist by striking through those checklist elements that did not apply to the scope of the project. The amount of editing would vary from a small amount for new construction to a large amount for a minor renovation like window replacement to an agreement of "not applicable" for replacement of finishes. The department's review at 35% SD would consist of validating the scope and applicability assumptions.

At Design Development (65% DD), submitted documents would include the mutually agreed compliance items and list: 1) the design value for each applicable item, 2) the designer's statement of compliance (yes/no), 3) the location where compliance can be tracked within the submittal documents, and 4) comments needed to support compliance.

This documentation could be memorialized on drawing sheets, could be part of project manuals, or could be a standalone document utilizing the DEED checklist file. As a suggestion, all equipment schedules could incorporate columns of ASHRAE requirements contrasted with items' actual ratings. At 65% design, the consultant will also supply building load and heating and ventilation calculations where these items are part of the project. The department will review the designer's compliance assessment and will request clarification or respond with comments as needed. This same process will be repeated at the Construction Documents (95% CD) submittal.

Construction Phase

During construction, the checklist would be provided to the contractor to inform requirements and for the contractor's periodic quality control checks. It would be provided to the owner's representative to inspect and certify that the items have been completed as required. The signed checklist would be a required submittal for project closeout. At the point that commissioning is required, by regulation, on a school capital project, elements of checklist review and construction inspection could be made part of the scope for the commissioning agent.

Recommendation

Issue the checklist, with instructions, for a period of public comment. Finalize the checklist based on public comment. Revise the department's standard Project Agreement to list the ASHRAE compliance checklist as a submittal item at 35% design and the final inspection as a submittal at closeout. The next edition of the *Capital Project Administration Handbook* would need to be updated to include the requirements.