



SCHOOL BOARD ACTION REPORT

DATE: March 1, 2021
FROM: Denise Juneau, Superintendent
LEAD STAFF: Fred Podesta, Chief Operations Officer
206-252-0102, fhpodesta@seattleschools.org

For Introduction: April 21, 2021
For Action: May 5, 2021

1. TITLE

BEX IV/BTA IV: Resolution 2020/21-23: Acceptance of the Building Commissioning Report for the Daniel Bagley Elementary School Addition project

2. PURPOSE

The purpose of this action is to accept the building commissioning report for the Daniel Bagley Elementary School Addition project, in accordance with WAC 392-344-165, as required to complete the Office of Superintendent of Public Instruction (OSPI) Form D-11 Application to Release Retainage. Approval of the resolution meets identified requirements.

3. RECOMMENDED MOTION

I move that the School Board adopt Resolution 2020/21-23, accepting the building commissioning report for the Daniel Bagley Elementary School Addition project.

4. BACKGROUND INFORMATION

a. Background

Commissioning is a systematic process of documentation and verification to demonstrate that the building mechanical and electrical systems have been correctly installed as identified in the contract documents, function properly, operate efficiently, and can be maintained satisfying the engineer's design intent and the district's operational requirements. The commissioning consultant, Keithly Barber Associates, has satisfactorily completed the commissioning process.

The district's Capital Projects Mechanical/Electrical Coordinator Mike Kennedy has been involved throughout the commissioning process and recommends the acceptance of this effort on the Daniel Bagley Elementary School Addition project located at 7821 Stone Ave. N, Seattle, WA 98103

OSPI, through the School Construction Assistance Program, provides funding assistance to school districts that are undertaking a major new construction or modernization project. The primary documents that form the basis of any agreement between OSPI and the district are the "D-form" documents. These documents, when properly completed and

signed by all parties, form the official notices of agreement and intent on behalf of the district and OSPI.

As noted above, the acceptance of the commissioning report is required for Form D-11 for the release of construction retainage. On this project, the contractor submitted a Retainage Bond (Number: 023207860). Approval of this motion meets the requirements of OSPI to receive state funding assistance.

b. Alternatives

Not accepting this motion could put the district in a position such that we will not receive state funding assistance that is available for this project. Therefore, this alternative is not recommended.

c. Research

- Office of Superintendent of Public Instruction, Form D-11 Application to Release Retainage
- Daniel Bagley Elementary School Commissioning Report, Keithly Barber Associates

5. FISCAL IMPACT/REVENUE SOURCE

Action helps to secure approximately \$1.972 million in state funding assistance. This motion does not represent a specific expenditure.

Expenditure: One-time Annual Multi-Year N/A

Revenue: One-time Annual Multi-Year N/A

6. COMMUNITY ENGAGEMENT

With guidance from the District's Community Engagement tool, this action was determined to merit the following tier of community engagement:

Not applicable

Tier 1: Inform

Tier 2: Consult/Involve

Tier 3: Collaborate

The selection of projects in the Building Excellence (BEX) IV and Building, Technology, and Academics/Athletics (BTA) IV Capital Levy programs went through extensive community vetting processes and each levy ultimately received 72% approval from voters in February 2013 and February 2016.

7. EQUITY ANALYSIS

The selection of capital levy projects in the BEX IV program was completed in 2013 and in 2016 for the BTA IV program. Projects selected for the BEX IV and BTA IV capital levies were intended to address student capacity needs and inadequate building systems in school facilities across the city. As such, this motion was not put through the equity analysis as it would have been done for the district’s current capital planning efforts.

8. STUDENT BENEFIT

This project helps ensure a safe, secure learning environment for every student.

9. WHY BOARD ACTION IS NECESSARY

- Amount of contract initial value or contract amendment exceeds \$250,000 (Policy No. 6220)
- Amount of grant exceeds \$250,000 in a single fiscal year (Policy No. 6114)
- Adopting, amending, or repealing a Board policy
- Formally accepting the completion of a public works project and closing out the contract
- Legal requirement for the School Board to take action on this matter
- Board Policy No. _____, [TITLE], provides the Board shall approve this item
- Other: OSPI requires School Board acceptance of this report.

10. POLICY IMPLICATION

School Board approval of the commissioning report is consistent with Board Policy No. 6100, Revenues from Local, State and Federal Sources, which states “It is the policy of the Seattle School Board to pursue systematically those funding opportunities that are consistent with district priorities from federal, state and other governmental units, as well as from private and foundation sources,” and “The Board agrees to comply with all federal and state requirements that may be a condition for the receipt of federal or state funds...”.

11. BOARD COMMITTEE RECOMMENDATION

This motion was discussed at the Operations Committee meeting on April 1, 2021. The committee reviewed the motion and moved the item forward with a recommendation for approval by the full Board.

12. TIMELINE FOR IMPLEMENTATION

Upon approval of this motion, the D-11 Application to Release Retainage will be completed and submitted to OSPI.

13. ATTACHMENTS

- Resolution 2020/21-23 (for approval)
- Commissioning Completion Letter dated, February 6, 2021, (for reference) Keithly Barber Associates
- Commissioning Report dated February 2021 (accepted as part of approving Resolution) (Executive Summary attached; the full report is available upon request from the Capital Projects & Planning Department, 206-252-0990)

**Seattle School District #1
Board Resolution**



Resolution No. 2020/21-23

A RESOLUTION of the Board of Directors of Seattle School District No. 1, King County, Seattle, Washington accepting the Building Commissioning Report by Keithly Barber Associates for the Funded BEX IV/BTA IV Program, Daniel Bagley Elementary School Addition project as part of OSPI D-11 Application to Release Retainage.

WHEREAS, it has been determined that all commissioning activities are complete and the building is operating as the commissioning report states; and

WHEREAS, there is no further action necessary by Keithly Barber Associates or the General Contractor, Lydig Construction, for the Funded BEX IV/BTA IV Program, Daniel Bagley Elementary School Addition project;

NOW THEREFORE, BE IT

RESOLVED, that the Seattle School Board of Directors in accordance with the provisions in WAC 392-344-165, accepts the commissioning report by Keithly Barber Associates for the Funded BEX IV/BTA IV Program, Daniel Bagley Elementary School Addition project as part of the OSPI D-11 Application to Release; and therefore be it further

RESOLVED, that duly certified copies of this resolution shall be presented to the Office of Superintendent of Public Instruction.

ADOPTED this _____ day of _____, 2021

Chandra N. Hampson, President

Brandon K. Hersey, Vice President

Lisa Rivera-Smith, Member-at-Large

Zachary DeWolf

Erin Dury

Leslie S. Harris

Liza Rankin
~~Denise Juneau, Superintendent~~

ATTEST: _____
Dr. Brent C. Jones, Interim Superintendent

Secretary, Board of Directors
Seattle School District No. 1

King County, WA



Letter of Completion and Commissioning Executive Summary

Daniel Bagley School Addition Project

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For questions and more information about this document, please contact the following:

Kristi Jones, Project Assistant
Capital Projects
krjones@seattleschools.org

Project Memorandum – Daniel Bagley Elementary Modernization and Addition

Seattle Public Schools

FROM: Myra Ferriols, KBA

TO: Eric Becker, SPS and
Copy To: Justine Kim, SOJ

DATE: 2/26/21

SUBJECT: Commissioning Completion

TRANSMITTED VIA EMAIL

Dear Eric,

The purpose of this letter is to document the completion of the building commissioning process for Daniel Bagley Elementary Modernization and Addition. KBA developed and executed a commissioning plan, including system functional testing that began in the Summer of 2020. Testing, issue troubleshooting, tracking and resolution continued into the Winter 2021.

The entire process was documented in a Commissioning Record document transmitted to SPS and SOJ dated 2/26/21. Final resolution status for issues discovered, and details of test findings, are included in the report.

At this point KBA recommends that Seattle Public Schools accept the commissioned building systems, including HVAC, lighting controls, domestic hot water, and controlled receptacle systems.

If there are any further questions or concern please let me know. Sincerely,



Myra Ferriols, CCP, LEED AP
Principal | Project Manager

Daniel Bagley Elementary Modernization and Addition Seattle Public Schools



Final Commissioning Report Executive Summary

February 2021

KBA Project Manager:
Myra Ferriols, CCP, LEED AP
206-818-8746 (cell)
myra@keithybarber.com

Section	Final Commissioning Report Table of Contents
1	Executive Summary Introduction Conclusion Commissioning Process Synopsis How Commissioning Benefited This Project Operational Considerations
2	Commissioning Process Description Introduction Commissioning Process Plan Project Specific Commissioning Specification Sections 019113 General Commissioning Requirements 220800 Plumbing Systems Commissioning 230800 HVAC and BAS Systems Commissioning 260800 Electrical Systems Commissioning 270800 Communications Systems Commissioning 280800 Electronic Safety and Security Systems Commissioning
3	Commissioning Issues Log Introduction Resolved Issues Log
4	Limitations of Commissioning
5	Commissioning Record Table of Contents Commissioning Authority Reviews Commissioning Meeting Reports Commissioning Authority Site Observation Reports Contractor System Readiness Documentation Field Performed Functional Performance Test (FPT) Documentation


Introduction


Keithly Barber Associates (KBA) was hired by Seattle Public Schools to serve as the Commissioning Authority (CxA) for the Daniel Bagley Elementary addition and renovation project. The following systems, including their controls, were included the CxA scope of work: HVAC, including integration with fire alarm, domestic hot water generation, pumping and mixing, lighting controls, controlled receptacles, and energy metering.

New building commissioning is a quality-assurance process for achieving, verifying, and documenting that the performance of facilities, systems, and assemblies meet the owner’s documented objectives and criteria. The design team, contractor, and subcontractors provide the quality control for design, and the installation and startup of the building systems. Commissioning provides review and quantitative functional testing in order to provide assurance that the quality control efforts of the designers and contractors are carried out.

Conclusion

At the conclusion of functional testing, the systems within the commissioning scope of work were functioning in accordance with the project documents and the functional testing acceptance criteria.

Project Manager:  Date: 2/26/21
Myra Ferriols, CCP, LEED AP

Managing Principal:  Date: 2/26/21
Jeremy Fugere, CCP, LEED AP BD+C

Commissioning Process Synopsis

Commissioning Standards: The commissioning process for this project was designed, documented, and performed in accordance with the following commissioning guidelines and requirements: The Building Commissioning Associations (BCA) Essential Attributes of Building Commissioning and the Washington State Sustainable Protocol (WSSP).

Overview: The process used for commissioning is documented in the Commissioning Process Plan, which appears in the “*Commissioning Process Description*” section of this report. In addition to describing the process, the Commissioning Process Plan lists the equipment & systems that were commissioned, identifies the Commissioning Team that performed the commissioning process, and describes the roles & responsibilities of the commissioning team members. The Commissioning Team, which was led by the Commissioning Authority (CA), consisted of representatives of the owner, the design team, the contractors, and the major equipment suppliers. The commissioning of this project began during Design phase and will conclude with a post-occupancy review. The process is summarized in the following paragraphs. Commissioning Record Appendix to this report contain the documentation of the process. Limitations of Commissioning are described in a separate section of this report.

Design Phase Commissioning: The design phase commissioning process included reviewing the owner’s standards, the Mechanical and Electrical Engineers basis of design, and reviewing the design submittals. Commissioning design submittal reviews focused on verifying the basis of design matched the Owners standards and identifying issues related to long-term systems performance and maintainability, facilitation of the commission process. Construction coordination issues pertaining to commissioning were also coordinated with the owner and AE. Issues raised during design phase commissioning were logged and tracked using design submittal review forms.

Construction Phase Commissioning: During the construction phase of the project, the CA performed regular on-site reviews to identify commissioning related issues before further construction progress made them more difficult to resolve. The contractors, however, were ultimately responsible for providing systems that functioned in accordance with the functional testing acceptance criteria and the project documents. The “Systems Readiness and Pre-Functional Test Preparation” portion of the Commissioning Process Plan documents the procedures and checklists used by the Contractors and the CA to verify that the systems were placed into operation and made ready to comply with the functional testing acceptance criteria in accordance with the project documents. This included documenting systems installation, startup and testing adjusting and balancing (TAB) were completed in accordance with the specified project requirements. After systems readiness and pre-functional test preparation were complete “Functional Performance Test” procedures were performed to document how the systems perform relative to the commissioning acceptance criteria.

Issues discovered during construction phase commissioning were logged in an issue log spreadsheet. The commissioning issues log was regularly updated and distributed to the Commissioning Team. Issues were assigned to responsible parties for resolution. Resolution of the issues was reported to the commissioning team in writing, and subsequently verified by the CA. The complete list of commissioning related issues is presented in the “*Issues Log*” section of this report.

Post occupancy Commissioning: After owner acceptance of the project the commissioning process includes a post-occupancy review. The post-occupancy review occurs in accordance with WSSP requirements, approximately 10 to 12 months after the building is initially occupied. The CA interviews facility staff and

reviews system operation. Acting as the campus technical resource, CA assists the facility staff in addressing any performance or warranty issues. If there are still any outstanding issues, the campus addresses them with the contractors or design team.

How Commissioning Benefited This Project

Commissioning has contributed to the safety, reliability, efficiency, and comfort of this facility. Eighty-two (82) resolved commissioning issues are listed in the Commissioning Issues Log Section of this report. For each issue in the log, a summary of the significance of the issue is included. Examples of some of the benefits resulting from resolving these issues are as follows:

1. **Issue:** Heating hot water differential pressure control was not controlling to the lowest system pressure per the sequences of operation. This would not provide enough heat to all the radiators and heating coils and the building would be cold.

Resolution: ATS reprogrammed the control sequence.

Benefit: Comfort

2. **Issue:** The lighting control was not programmed for best efficiency. Lights were too bright, or did not dim when ambient light was available, or did not turn off and in some cases did not turn on when they supposed to.

Resolution: Lighting rep reprogrammed the control.

Benefit: Safety and Efficiency

3. **Issue:** Several of the damper end switches were not making when they should, which stopped a piece of equipment of running properly.

Resolution: ATS adjusted the end switches as needed.

Benefit: Reliability

Operational Considerations

The instantaneous water heaters are very sensitive to plugged strainers. After startup and throughout functional testing, the strainers needed to be cleaned several times. We did not see this issue on Ingraham HS project which had the exact same water heaters.

The project scope to upgrade the windows of the 1930's building, was value engineered out. This had an affect on the heating system performance. As a result, the heating hot water boiler temp reset top of scale needs to be at 140°F and not the 125°F that is noted in the controls as-builts and record drawings.

Commissioning Process Description Introduction

This section of the report contains the following documents:

- The original accepted version of the Commissioning Process Plan
- The project specifications pertaining to the commissioning process
 - 019113 General Commissioning Requirements
 - 220800 Plumbing Systems Commissioning
 - 230800 HVAC and BAS Systems Commissioning
 - 260800 Electrical Systems Commissioning
 - 270800 Communications Systems Commissioning
 - 280800 Electronic Safety and Security Systems Commissioning

These documents describe the commissioning process. The Commissioning Process Plan describes the equipment & systems that were commissioned, identifies the commissioning team, and describes the roles & responsibilities of the commissioning team members. The process plan was developed with input from the owner and the design phase commissioning team. The contractors' specifications were developed based on the accepted version of the Plan.