Addendum
BUUSD Board Meeting
May 5, 2025

May 5, 2025 School Board Meeting - Briefing Memo - Addendum

AGENDA ITEM DESCRIPTION: Consent Agenda

BACKGROUND/SUPPLEMENTAL INFORMATION:
Special meeting minutes 4/15/25 (linked in original Board packet)
Warrant Approvals 4/17/25; 4/24/25 (linked in original Board packet) 5/1/25 (linked here, in addendum)
New Hires: Cara Arduengo (linked original pkt); Allison Corse, Jessica Obrial, Natalie Smith (linked here, in addendum)
Final FY26 Calendar (linked in original pkt)

RECOMMENDED ACTION/MOTION: Motion to approve the consent agenda as presented or with amendments.

AGENDA ITEM DESCRIPTION: Principal Monthly Reports

BACKGROUND/SUPPLEMENTAL INFORMATION:
SHS, SEA, BTMES, BCEMS (SEA linked in original pkt) (SHS, BTMES, BCEMS (linked here, in addendum)
Superintendent End of Year Letter (attached in original pkt) Letter to Board Re: Summer School (linked here, in addendum)

RECOMMENDED ACTION/MOTION: No Action or Motion. Any Questions.

AGENDA ITEM DESCRIPTION: Current Business

BACKGROUND/SUPPLEMENTAL INFORMATION:
Grant Reports (linked original pkt)
Year-End Projections/Expenditure Report (linked original pkt)
Timekeeping, Attendance, and Substitute Management Electronic System (linked original pkt) Proposal Recommendation added (linked here, in addendum) (ACTION)
Policy Review Contract VSBA Approval (linked original pkt) (ACTION) (separate briefing memo attached)
Long-Range Master Building and Operation Plan (linked here, in addendum) (started document - all work in progress)
Safety Equipment Request (linked original pkt)

RECOMMENDED ACTION/MOTION: Unless it has the word Action most are review/question items.
Motion to approve the Superintendent's recommendation to contract with TimeClock Plus for the amount of $69,175 recurring year 2 & 3 $29,420.91.
Motion to approve the chair to sign the Policy Review Contract with VSBA.

AGENDA ITEM DESCRIPTION: Old Business

BACKGROUND/SUPPLEMENTAL INFORMATION:
CVCC Update/Regional Meeting (no documents)
RFP for Building consolidation (linked in original pkt) (separate briefing memo attached)
School Board Committees (no documents) (separate briefing memo attached)
Board Meeting Frequency (no documents)

RECOMMENDED ACTION/MOTION: No Action or motions. Discussions only

BUUSD School Board Briefing Memo May 5, 2025

AGENDA ITEM DESCRIPTION: VSBA Policy Review Contract

BACKGROUND/SUPPLEMENTAL INFORMATION: By allowing VSBA to perform a diagnostic scan of our policies we will:

- Determine the strengths and weaknesses of the current policy manual
- Explain what is needed to bring the manual into compliance; and
- Design a recommended course of action for the policy committee.

This will assist the Policy Committee to design a work plan for the 2025-26 school year.

ATTACHMENTS: Contract attached

RECOMMENDED ACTION/MOTION: Authorize the BUUSD Board Chair to sign the VSBA contract and allow the Superintendent to coordinate the work as soon as possible.

BUUSD School Board Briefing Memo May 5, 2025

AGENDA ITEM DESCRIPTION: Consolidation RFP

BACKGROUND/SUPPLEMENTAL INFORMATION: Last year the School Board approved an RFP for administration to find a consultant to commence a study concerning the viability of consolidating the grades in both Barre Town and Barre City Schools. Since this discussion, we learned that it is likely the CCVC will be looking for another location to operate and that would lead them to vacate the current space they use at SHS. We also know that there is a possibility that BUUSD will become part of a larger school district after the legislature takes action on this subject. Given all of these uncertainties and possibilities, we should take some time to think about the future of our schools, their needs and the current context.

ATTACHMENTS: Consolidation RFP

RECOMMENDED ACTION/MOTION:. I recommend that we contract with a consultant who has experience with the aforementioned topics and ask him/her to have a facilitated conversation with the full School Board to determine how we might move forward. I am looking for your thoughts on this approach. If agreeable I would like to schedule a 60-90 minute meeting for the consultant to gauge the interest of the group to move forward with a study or take a different approach.

NO ACTION IS NEEDED

BUUSD School Board Briefing Memo May 5, 2025

AGENDA ITEM DESCRIPTION: BUUSD Committee Work

BACKGROUND/SUPPLEMENTAL INFORMATION: Annually the School Board makes a decision concerning what committee work is needed to achieve the goals of the School Board

1. Policy Committee: I recommend that 2-3 School Board Members, Superintendent and the two community members (already identified) to comprise the committee. After we receive the results of the Policy Audit, the committee will meet with Sandra Cameron, from VSBA to develop a work plan. After development of the work plan we can establish the day, time and frequency of meetings. The School Board representatives will be responsible for reporting on committee work updates.

2. Finance Committee: I recommend that 2-3 School Board Members, Superintendent, Business Manager and the two community members (already identified) to comprise the committee. The Finance Committee should have several charges: a) to review the form format and frequency of financial reports and to determine if there needs to be any changes. b). Develop a process and calendar for budget development and community engagement. The emphasis is on community engagement since this is something that is the responsibility of both the superintendent and the Board. The date, time and frequency of meetings will be established by the committee. School Board representatives will be responsible to report on committee work updates.

3. Facilities Committee: I recommend 2-3 School Board Members, Director of Facilities and Operations and the two community members (already identified) comprise the committee. The Superintendent and Business Manager will be ad hoc members. The charge is to finalize a long range master and operations plan and to determine how and when to bring projects to the full School Board for approval and or updates. Jamie is working on a Master Plan now, however, given that we have a new School Board members we should make sure he is on the right track and can provide the Board with the information that they need.

4. Negotiations: I recommend that 2 School Board members be assigned to work with the Superintendent and School District Attorney to begin the negotiations process for all three groups early this summer.

ATTACHMENTS: None

RECOMMENDED ACTION/MOTION: Move to assign the following School Board representatives to the following committees:

BARRE UNIFIED UNION SCHOOL DISTRICT

NEW HIRE NOTIFICATION FORM **Complete and Submit to the Central Office** **(please submit via email to hr@buusd.org)**	**Date Received by Central Office:**

To be Completed by Hiring Administrator: (please leave notes for Central Office on the back page)

Name: Allison Corse **Location:** BCEMS

Submission Date: 4/29/25 **Administrator Action/Checklist Complete:** ☑ Y ☐ N

Position: 5-8 Math Interventionist **Grade (If Applicable):**

Endorsement (If Applicable): ☐ **Hourly-Non Exempt** ☑ **Salary-Exempt**

Hours Per Day: **Scheduled Hours:** **a.m. to** **p.m.**

Account Code:

Replacement? ☐ Y ☑ N

If Yes, For Whom? FY25 Position Unfilled **Salary Rate: $** —

Administrator Approval: Amanda Riggleman **Signature Date:** 4/29/25

REVERSE SIDE: Complete the New Hire Checklist prior to emailing candidate packet for Superintendent review.

For Central Office Use Only:

Contract Complete Date **Offer Letter Complete Date** **DOH**

Total Years of Experience: **Step:** 14 **Placement:** Column MA

Hourly Rate: $ **Salary Rate: $** **Seniority Date:**

Contract Type: ☒ **Teacher** ☐ **Para** ☐ **Replacement** ☐ **Interim** ☐ **Offer/Non-Contracted Letters** ☐ **AFSCME** ☐ **N/A**

Days Per Year: 190 **Salary: $** 77064.00 **Contract Days:** 190

Teacher: AOE Endorsement: ☒ YES ☐ NO

If No, Required: ☐ **Provisional** ☐ **Emergency** ☐ **Apprenticeship**

Para-Educator: Associates Degree ☐ YES ☐ NO (If NO) → **ParaPro** ☐ YES has passed ParaPro ☐ NO will need to take ParaPro

Superintendent and/or HR Director Approval Signature — Date: April 30 2025

Allison Corse

EDUCATION

University of Vermont (Vermont Mathematics Initiative) Burlington, VT
- **Master of Science in Teaching,** May 2020
- **Major:** Mathematics

Middlebury College Middlebury, VT
- **Bachelor of Arts**, May 2010, summa cum laude
- **Major:** Religion **Minors:** Elementary Teacher Education, Spanish

CERTIFICATION

Vermont Level 2 Professional Educator's License, Elementary Education 1-00

Vermont Math Specialist Endorsement PK-8 17-72

CURRENT EMPLOYMENT

Westford Elementary School Westford, VT
K-8 Math Interventionist (August 2024-present)
- Identify students who need intervention in high-leverage concepts; design and deliver instruction to meet their needs
- Design and deliver specialized math instruction for students with IEPs
- Co-teach and co-plan with classroom teachers to support fourth and eighth grade tier 1 instruction
- Collaborate with intervention team to identify students who are not yet receiving adequate support and determine how to best support them
- Participate in cross-district collaboration through the Vermont Math Improvement Collaborative Coalition
- Experience with Illustrative Math Program (K-5 and 6-8), Bridges Intervention
- Professional Development: Laying the Foundation: Building a Deep Understanding of Number with Loree Silvis, All Learners' Network (fall conference, Proportional Reasoning and Equations Math Games), OGAP Fractional Reasoning

PREVIOUS EXPERIENCE

Barre City Elementary and Middle School Barre, VT
Middle School Math Interventionist and Enrichment Teacher (August 2017-June 2024)
- Designed and taught math challenge groups for students in grades 5-8 (and occasionally grades 3-4) who were already meeting standards in math
- Identified students who need intervention in high-leverage concepts; designed and delivered instruction to meet their needs
- Collaborated with special educators to provide math IEP services

- Collected and analyzed whole-school data on mathematics performance, communicated data to teachers and used it to place students in appropriate intervention or challenge groups
- Met students' academic and behavioral/social needs within core class time through co-planning, co-teaching and push-in support
- Provided math leadership through team meeting facilitation, student-centered coaching, and offering an Ed Camp workshop on math menu
- Collaboratively designed district math assessments with other interventionists
- Administered PNOA, district math assessments, and clinical interviews
- Experience with Illustrative Math Program (K-5 and 6-8), Bridges Intervention
- Professional Development: All Learners Network (various workshops including Specialized Instruction, Grades 6-8 Math Intervention, middle school cohort meetings), Student Centered Coaching training with Diane Sweeney, Jo Boaler's Data Science course

Fifth and Sixth Grade Math and Science Teacher (August 2012-June 2017)

- Provided daily math and science instruction to fifth and sixth grade students
- Experience with Connected Mathematics 3, Engage NY and Bridges Mathematics programs
- Integrated literacy into science class through science notebooks, scientist meetings and informational writing
- Planned and implemented targeted math intervention, challenge math, and math/science/literacy enrichment
- Led daily Teacher Advisory groups using the Developmental Designs approach
- Collaborated with teaching colleagues and a science consultant to develop new fifth and sixth grade science curriculum units, and with math colleagues to modify fifth and sixth grade math curricula
- Piloted standards-based grading and learning initiatives as part of a grade level team
- Participated in supervisory union and building level committees focused on developing and implementing new standards-based reporting methods
- Professional Development: Science and Literacy integration, Developmental Design training, Math Menus, Math for Struggling Learners, Standards-Based Learning and Grading, OGAP multiplicative reasoning and fractional reasoning courses, NGSS Study Group

J.J. Flynn Elementary School Burlington, VT

Paraeducator (January 2011-June 2012)

- Modified the general first and second grade curriculum so that it was accessible to a student with autism
- Enhanced the student's communication skills through conversation, questioning, and writing support
- Built social skills through direct instruction and facilitating interaction with peers
- Taught second grade literacy groups, including word study groups using Fundations and Words Their Way programs and guided reading
- Professional Development: Elementary Literacy Development and Instruction, Language Learning and Assessment, Math for ELLs

After School Program Teacher (January 2011-June 2012)

- Provided homework help and extra academic support for ELL students in grades K-2
- Targeted vocabulary development for ELLs through picture book read-alouds

Shoreham Elementary School Shoreham, VT

Student Teacher, 3rd grade (September-December 2010)

- Taught math, literacy, science, social studies and Spanish in collaboration with a cooperating teacher
- Used Responsive Classroom approach to build a safe and caring classroom community

BARRE UNIFIED UNION SCHOOL DISTRICT

NEW HIRE NOTIFICATION FORM
Complete and Submit to the Central Office
(please submit via email to hr@buusd.org)

Date Received by Central Office: 04/30/2025

To be Completed by Hiring Administrator: (please leave notes for Central Office on the back page)

Name: Jessica Obrial **Location:** BTMES

Submission Date: 4.24.25 **Administrator Action/Checklist Complete:** [X] Y [ ] N

Position: 7th gr. Math Teacher **Grade (If Applicable):** 7th

Endorsement (If Applicable): [ ] Hourly-Non Exempt [X] Salary-Exempt

Hours Per Day: 7.5 **Scheduled Hours:** 7:30 a.m. to 3:00 p.m.

Account Code: 101-1020-51-11-0-1101-51110

Replacement? [X] Y [ ] N

If Yes, For Whom? Katie Jarvis **Salary Rate: $** 80,911 Fy26

Administrator Approval: [signature] **Signature Date:** 4/28/25

REVERSE SIDE: **Complete the New Hire Checklist prior to emailing candidate packet for Superintendent review.**

For Central Office Use Only:

Contract Complete Date _____ **Offer Letter Complete Date** _____ **DOH** _____

Total Years of Experience: _____ **Step:** 13 **Column Placement:** MA

Hourly Rate: $ _____ **Salary Rate: $** _____ **Seniority Date:** _____

Contract Type: [X] Teacher [ ] Para [ ] Replacement [ ] Interim [ ] Offer/Non-Contracted Letters [ ] AFSCME [ ] N/A

Days Per Year: 190 **Salary: $** 75,140 **Contract Days:** 190

Teacher: AOE Endorsement: [X] YES [ ] NO

If No, Required: [ ] Provisional [ ] Emergency [ ] Apprenticeship

Para-Educator: Associates Degree [ ] YES [ ] NO (If NO) → **ParaPro** [ ] YES has passed ParaPro [ ] NO will need to take ParaPro

_____ _____

Superintendent and/or HR Director Approval Signature **Date**

Jessica Tabinas Obrial

Education

De La Salle University - Manila
Manila, , Philippines
Master of Science in Education
Major: Mathematics
GPA: 3.730
Credit Hours: 39
Attended June 2015 to March 2017
Degree conferred March 2017

Philippine Normal University
Manila, , Philippines
Bachelor of Science
Major: Mathematics Education
GPA: 3.740
Credit Hours: 137
Attended June 2009 to March 2013
Degree conferred March 2013

Experience

Charlotte Mecklenburg Schools Aug 2020 - Jun 2024
Teacher
4421 Stuart Andrew Blvd., Charlotte, NC 28217
Utilized a variety of instructional strategies and technologies to meet the diverse learning needs of students, fostering an inclusive classroom environment.

Reason for leaving: My husband wants to live in Vermont permanently so we have to move.
Supervisor: Neodria Brown (980-343-6270)
Experience Type: Professional/Work, Full-time
Please **do not** contact this employer

Scotland County Schools Jul 2019 - Jun 2020
Teacher
322 South Main Street , NC

Experience Type: Professional/Work, Full-time
Please **do not** contact this employer

Colegio San Agustin Makati Jun 2013 - May 2019
Teacher

Palm Ave, Dasmariñas
Developed and implemented comprehensive lesson plans for advanced mathematics courses, including Algebra II, Pre-Calculus, and Calculus, ensuring alignment with national standards.

Reason for leaving: Moved to the US for better opportunities.
Experience Type: Professional/Work, Full-time
Please **do not** contact this employer

Twinfield Union School Dec 2024 - Present
Math Teacher
106 Nasmith Brook Rd,

Reason for leaving: I want to work in my own community
Experience Type: Professional/Work, Full-time
Please **do not** contact this employer

BARRE UNIFIED UNION SCHOOL DISTRICT

NEW HIRE NOTIFICATION FORM
Complete and Submit to the Central Office
(please submit via email to hr@buusd.org)

Date Received by Central Office: 04/30/2025

To be Completed by Hiring Administrator: (please leave notes for Central Office on the back page)

Name: Natalie Smith | Location: BTMES

Submission Date: 4.30.25 | Administrator Action/Checklist Complete: [X] Y [ ] N

Position: 7th gr. Science Teacher | Grade (If Applicable): 7th grade

Endorsement (If Applicable): | [ ] Hourly-Non Exempt [X] Salary-Exempt

Hours Per Day: 7.5 | Scheduled Hours: 7:30 a.m. to 3:00 p.m.

Account Code: 101-1020-57-11-0-1101-51110

Replacement? [X] Y [ ] N

If Yes, For Whom? Michael Prosalik | Salary Rate: $ 77064 FY26

Administrator Approval: [signature] | Signature Date: 4/30/25

REVERSE SIDE: Complete the New Hire Checklist prior to emailing candidate packet for Superintendent review.

For Central Office Use Only:

Contract Complete Date | Offer Letter Complete Date | DOH

Total Years of Experience: | Step: 7 | Column Placement: BA

Hourly Rate: $ | Salary Rate: $ | Seniority Date:

Contract Type: [X] Teacher [ ] Para [ ] Replacement [ ] Interim [ ] Offer/Non-Contracted Letters [ ] AFSCME [ ] N/A

Days Per Year: 190 | Salary: $ 56,808 | Contract Days: 190

Teacher: AOE Endorsement: [X] YES [ ] NO

If No, Required: [ ] Provisional [ ] Emergency [ ] Apprenticeship

Para-Educator: Associates Degree [ ] YES [ ] NO (If NO) → ParaPro [ ] YES has passed ParaPro [ ] NO will need to take ParaPro

Superintendent and/or HR Director Approval Signature | Date

Natalie Smith

[redacted]

RELEVANT EXPERIENCE

Essex Town School District, Essex, VT — *Substitute*
MAY 2008 - AUGUST 2016 • (802) 878-8168

Worked as a substitute across all grade levels, including working as a full-time instructional assistant during the summer program.

Essex-Westford School District, Essex, VT — *Instructional Assistant*
AUGUST 2016 - AUGUST 2019 • (802) 878-8168

Worked in 1:1 or small group settings supporting students with a variety of needs in their general education classes, including working 1:1 with students receiving ESY services during the summer.

Colchester School District, Colchester, VT — *Student Teacher*
AUGUST 2019 - NOVEMBER 2019 • (802) 878-2117

Through the TAP Program at Champlain College, worked as an intern teaching Life Science on a mixed 7th-8th grade team.

South Burlington School District, Colchester, VT — *Long-Term Sub*
NOVEMBER 2019 - JUNE 2020 • (802) 652-7000

Employed at South Burlington High School as a long-term substitute, teaching 9th grade Earth & Space Systems and 10th grade Living Systems classes, as well as leading a 10th grade advisory.

Lyndon Town School, Lyndonville, VT — *Classroom Teacher*
AUGUST 2020 - PRESENT • (802) 626-3209

Worked as a classroom teacher on a 7th grade team teaching science topics in physical, earth, and life sciences. Ran a 7th grade advisory. Acted as an advisor or co-advisor for several co-curricular and after school clubs, including GSA and Fiber Arts Club.

EDUCATION

Baldwin-Wallace College, Berea, OH
AUGUST 2007 - MAY 2011 (NOW BALDWIN WALLACE UNIVERSITY)

Graduated with a B.S. in Biology, with a minor in Spanish and additional non-minor coursework in Chemistry and Physics.

Champlain College, Burlington, VT
AUGUST 2019 - JUNE 2020

Pursued and obtained a Middle School (5th-9th grade) Science teaching license and a High School (7th-12th grade) Science license with endorsements in Chemistry and Biology through TAP

STRENGTHS

Highly proficient with technology, including SMARTNotebook, G-Suite, Apple Classroom, Microsoft Office, PowerSchool, and JumpRope.

Familiar with programming and use of TTS apps such as TouchChat.

Self-motivated and highly energetic.

Strong public speaker.

Enthusiastic and willing to try new things.

SKILLS

FIELD WORK

As part of the Seminar in Ecuador offered through BWC, lead a team of fellow undergrads in an investigation of macroinvertebrate life in Amazon Rainforest and Andean Cloud Forest waterways.

DEVELOPMENTAL DESIGN

Received DD1 training through EWSD during the 2018-2019 school year.

RESTORATIVE JUSTICE

Attended training in Restorative Justice through CSD and LTS.

WILSON READING SYSTEM

Attended introductory training in WRS through EWSD.

OTHER LANGUAGES

Spanish (fluent), ASL (beginning)

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JoAn Canning
Superintendent of Schools

Spaulding High School
Spaulding Educational Alternatives (SEA)
Barre City Elementary and Middle School
Barre Town Middle and Elementary School

BUUSD MONTHLY SCHOOL BOARD REPORT

PRINCIPALS: Shannon Miller, PK-4, and Erica Pearson, 5-8

SCHOOL: Barre Town Middle & Elementary School

MONTH: May 5, 2025

What do you appreciate or what are you celebrating at your school (a student, teacher, staff, team, school, etc.)

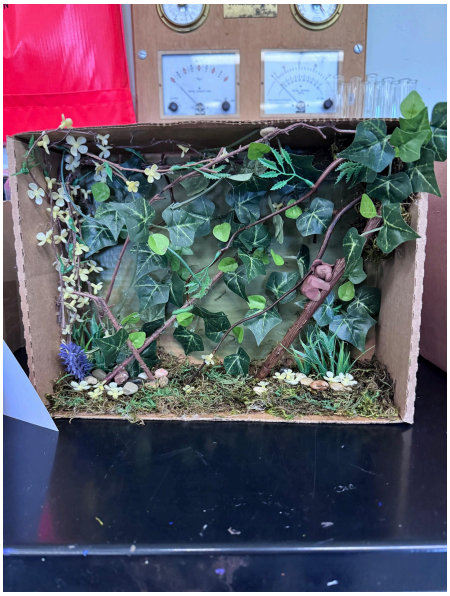
This week, we are celebrating our school staff for Teacher Appreciation Week. Our staff are all teachers in one way or another, and we are eternally grateful for all of them!

We are also celebrating our dedicated and thoughtful PTO. This group of volunteers continues to find ways to support our students and staff in many ways: popcorn Fridays, the PTO bookstore, supporting field trips, and community-focused assemblies.

After a brief pause in board reports,, we would also like to recognize our staff who have participated throughout March and April in curriculum nights for the community to learn more about how we approach instruction at school, and the many faculty members who have joined our curriculum and assessment focus groups. Working in collaboration with our Director of Curriculum, they are working hard to ensure that we have the best possible educational experiences for all of our students.

What have you seen in the classroom that highlights rigor and relevance in student learning?

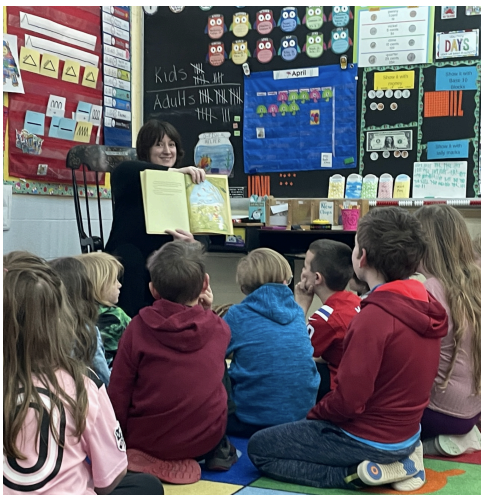
At the middle school, our teachers are deep into their content and striving to make the curriculum relevant, engaging, and rigorous for all students. An example of this work happened last week in 8th grade, where our students created dioramas of different locations around the world after completing research on the locations. Their creativity and craftsmanship in the dioramas were impressive. Elementary students were invited to see the dioramas, participate in a scavenger hunt related to what they learned about when viewing them, and even ask the middle school creators questions about the locations depicted in the dioramas.

In elementary school, teachers have been working on a schoolwide goal to engage and involve our families and community in our learning. This month, that included:

- Inviting many board and community members to serve as “mystery readers” during Barre Book Week (a big thank you to our central office staff, as well!)
- Kindergarten hosting a “QU” wedding in which students shared their knowledge of this final sound, as well as all letter sounds, culminating in a dance performance for their families
- Second grade Mo Willems student-directed plays, performed for Ms. DiCicco’s class families

Be on the lookout for more upcoming events, including more volunteer opportunities for “books and a blanket” outside, and a first grade family event at the Pavilion.

What are the important dates coming up?

May 21st is an early release day
May 26th no school
June 13th 8th grade Step Up Night

June 17th is a half day and last day of school
Most grade levels have field trips scheduled on various dates throughout May and June: families will receive information about this from their teachers.

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Superintendent of Schools

Spaulding High School
Spaulding Educational Alternatives (SEA)
Barre City Elementary and Middle School
Barre Town Middle and Elementary School

BUUSD MONTHLY SCHOOL BOARD REPORT

PRINCIPAL: Brenda Waterhouse
SCHOOL: Barre City Elementary & Middle School
MONTH: February, March & April, 2025

We have a new student activity that started this year called **Destination Imagination**. Destination Imagination is a team challenge to solve different problems. This club focuses on problem-solving, design, and collaboration. To learn more, please watch the video. Our school hosted the Destination Imagination State-Wide Competition on March 28, where seventeen teams competed on a challenge that they had been working on for months and an instant challenge. Our team did very well in their first competition and we want to thank Sara Watkins, our parent volunteer, for her facilitation of the team activities.

February is **I Love to Read month** and Librarian Jennifer Curtin wowed us with another amazing theme for students to work towards logging 1000 hours of reading. This year's theme was Camp Read S'More and included transforming our library into a campground. Ms. Curtin also acquired a grant to have Caldecott medalist author and illustrator Jason Chin come to our school! Mr. Chin is the author of many acclaimed books, including Grand Canyon, Redwoods and Your Place in the Universe. During his visit, students learned about how he is inspired in his work, how he researches the information to make his books accurate, and ways that the students can follow their creative goals.

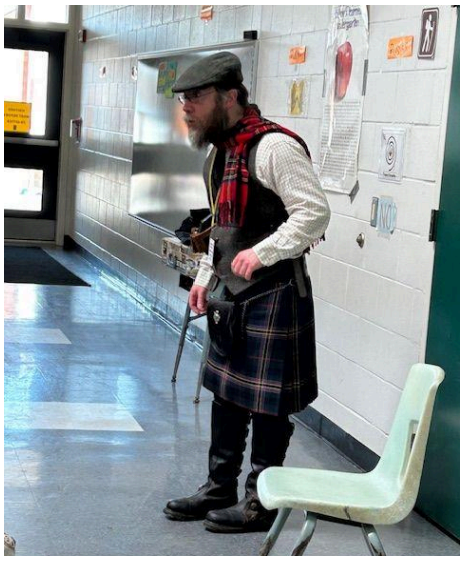
March is Music Appreciation Month and we highlighted music throughout the month. Music education in schools is vital because it enhances cognitive skills, fosters creativity and self-expression, promotes teamwork, and boosts academic performance, leading to a more well-rounded and confident student. On March 18, an area concert including students from BCEMS, BTMES, SHS and St. Monica's was held at SHS.

Our annual **District Art Show** opened in February and closed in early April. We hope that community members were able to find the time to visit the Aldrich Library and see artwork from

students across the district. Many thanks to the art teachers from each building in putting this together each year and celebrating the creative and beautiful creations of our students.

The **100th-Day Celebration** began in 1979 by a California teacher who wanted to help her students understand the concrete lesson of the number 100. Our Kindergarten students celebrate this annually with a visit by superhero *Zero the Hero* and a parade through the school.

Ian Gauthier, Children's Librarian at the Aldrich Library, visits annually to share Irish stories and music that he plays on his bagpipes. The Kindergarten students enjoy his visit and we appreciate Mr. Gauthier's enthusiasm and fantastic performances.



On April 30, **Chris Polous visited** our campus to wow us with his bicycle skills as well as his words about perseverance and being kind and respectful. Mr. Polous, a former world and national champion BMX athlete, spoke of his experiences and efforts to be the person he is and the connections he has made through working hard and being kind towards others. Middle school students filled the gymnasium for an assembly during the day. Then the community was invited to join for a spaghetti dinner, followed by a second performance by Mr. Polous.

Many thanks to Mr. Polous for his positive message to our community and to **Dawn Poitras** and her **Student on the Move students**, who secured the grant to have Mr. Polous come to our community.

May 2 is May Day Community Service Projects! Middle School participates in a wide variety of green up and community service activities throughout the morning. Some of the activities included cleaning the bike path, playground 2000, and BCEMS campus; brush cutting; curb clean up; raising; building bird houses; making Mother Day cards for nursing homes; making Tie Blankets; making cat toys and dog biscuits for the Humane Society & local rescue, Circle Program, and the MerryMac Sanctuary; Meal prep at the Gally (Meals on Wheels); Volunteering at the Aldrich Public Library and in elementary classrooms; Making a project for teacher appreciation week; making soup and bread for the Good Samaritan Haven; working in our school garden; and planting flowers and trees. Everyone gained pride and appreciation in giving back to their community.

- Student Quote: "This was great to work with different people and to give back to the community."
- Teacher Quote: "This is amazing! Students working together, teaming up and making great things."

Upcoming Events:

- **Monthly Family Engagement—**This event is held on the third Thursday of each month. Our final event for the year will be **May 15** at 5:30 PM. The focus will be on Composting.
- **Memorial Day Assembly** - We invite the community to join us on the South Field on Friday, **May 23** at 9:30 AM.
- **Field Day** - our school-wide annual day of activities will be held on **June 13**. We are looking for volunteers, so please contact Brenda Waterhouse at bwatebce@buusd.org.
- **Eighth Grade Promotion Ceremonies** will be held on the evening of **June 13**.

Newsletters: There are many things happening in our busy school. Please see our latest newsletters: January 21, January 28, February 3, February 10, February 17, March 5, March 10, March 17, March 24, March 31, April 7, April 14, April 28

Spaulding High School
155 Ayers Street, Suite 1
Barre, VT 05641-4300

Phone: 802-476-4811
Fax: 802-479-4535
Website: www.spauldinghs.org

Principal
Denise O. Maurice

Assistant Principal
Mari Goodridge Miller

Assistant Principal
Rebecca Busker

May 1, 2025

Important Upcoming Dates

It is amazing how quickly the end of the year is upon us! Here are some dates of interest.

- AP Testing May 6 - May 16 SHS is hosting eight exams!
- June 2, 2025 Last progress report update for the school year. Emails will be sent to families during the first part of the week.
- **June 4, 2025 Friday 6:00 PM New student step up night! SHS will host a step up night for incoming students. Additional information will be shared with families in the near future.**
- **June 5, 2025 Scholarship night 6:00 PM**
- **June 6, 2025 Art Show 5:00 PM Library and Spring Concert 6:30 PM**
- June 16, 2025 Last day of regular classes for all students
- June 17, 2025 Call Back for quarter 4. Families and students will receive emails with updates.
- **June 20, 2025 9:00 AM Determination of indoor or outdoor graduation ceremony based on weather forecast**
- **Saturday June 21, 2025 11:00 AM Graduation**

Update on Planning for Next Year!

Freshman Academy - The scheduling of freshman classes is going well! A team of teachers are continuing to meet to develop a supportive structure for our freshman. Advisory time will have an emphasis on executive functioning skills (goal setting, good study habits, organization) and team building activities so that students and teachers can build relationships and respect. As part of our planning we will be investigating training in restorative practices. In upcoming meetings we will be determining expectations that can be held in common across all freshman classes.

Attendance Review Board - One struggle for some SHS students is attendance. Next year, a SHS committee will review student attendance data and identify students with high rates of absenteeism in either whole or partial days. We know that students with high absenteeism struggle to complete their classes successfully. The goal of the committee will be to identify students, meet with them and identify supports so that they can be successful.

Grading Structure - Departments and individual teachers have been devoting time to the revision of the current course proficiency scales to use a scale based on a 0-4 scale with 0.5 increments. We are confident that this will help increase understanding of student progress. Other changes to the grading structure include daily work being due within the content unit it was assigned and reassessment windows being shortened to two weeks unless there are extenuating circumstances that have been identified through the administrative offices. This change is meant to better reflect the expectations of work completion that students will find in the workforce, trades training and in college.

Parent Advisory Group - As SHS continues to adapt and change, Mrs. Maurice will be looking for feedback, opinions and suggestions on a few topics. There will be an invitation sent to families next week regarding the formation of an advisory group. We will examine some informational material, the conflicting points of view and the needs of SHS students. While ultimately the final plan/system is in the hands of SHS staff, we know that any successful plan needs the support of our community and your input will be greatly appreciated. The first few topics include:

- Phones
- Attendance (this includes late arrivals and tardies during the day)
- Advisory Time/Crimson Block (This includes the possibility of scheduling freshman and sophmores into a study hall during the Crimson Block.)

Some "Recent" Events

Our students are involved in so many wonderful activities that showcase their range of interests. Here are a few!

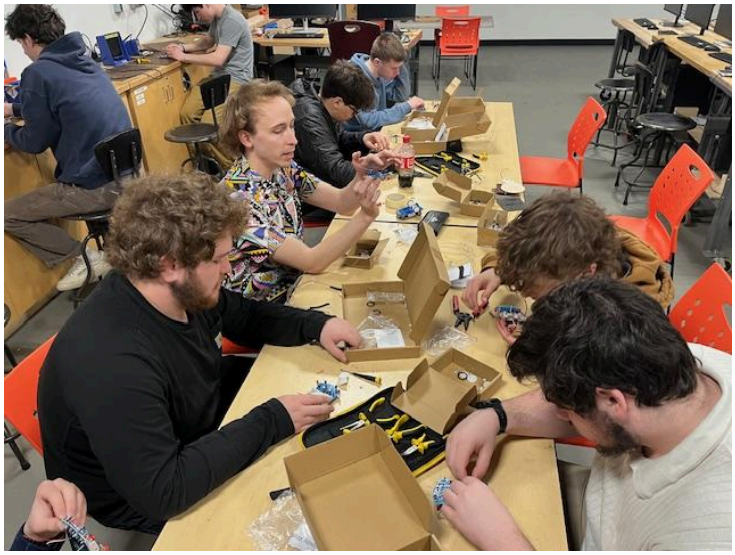
Building and Breaking Bridges - Our Engineering class participated in the Vermont Bridge Building contest at the Vermont State University in Randolph.

Our students asked to enter the contest at the last minute, with only 13 school days to plan and build. They immediately came up with a solid design and began the execution. Soon we were using the school's laser cutter to trim popsicle sticks and execute some of the tricky angle cuts called for in the design. Assembly was completed during Crimson Block on the day before the contest- despite a snow day during our short construction window we made it!

Test day saw our five students in Spaulding gear, ready to go and talk about their process. Judges were particularly impressed with the laminating job they did on the popsicle sticks and the clear design plan which distributed the weight to the abutments in a straightforward way. Then came the test: the bridge carried 493.8 pounds before breaking. Our students came first in the prediction category (having predicted a breaking load of 475 pounds); second in Structural Efficiency and overall came in fourth place. Awesome work team! The students left already discussing what changes should be made for next year's designs.

Trivia Club participating in the 19th annual VT-NEA Scholars' Bowl NAQT Championship.

The Spaulding Theater Club put on an amazing performance of “We Will Rock You”.



Some of our WBL students at Beta with their second lesson on microprocessors. The processor was then used in a bot for aviation. They worked on landing circuitry and determining weight distribution.

Barre Unified Union School District

JoAn Canning
Superintendent of Schools

A rock solid education for a lifetime of discovery.

120 Ayers Street, Barre, VT 05641
Phone: 802-476-5011
Fax: 802-476-4944 or 802-477-1132
Website: www.buusd.org

Spaulding High School
Spaulding Education Alternatives
Barre City Elementary and Middle School
Barre Town Middle and Elementary School

Results of Request for Proposal
Timekeeping, Attendance, and Substitute Management Electronic System

Vendor/Contractor	Implementation and Annual Fee-Yr 1
TimeClock Plus-includes 7 kiosks	**$69,175 recurring Yr 2 & 3 $29,420.91**
Frontline (AESOP)	$53,629
Tyler Technologies	$55,059

Superintendent's Recommendation: TimeClock Plus

BARRE UNIFIED UNION SCHOOL DISTRICT 5-YEAR FACILITY DRAFT PLAN
last update 4/30/25
(Dates are during summer construction months)

PROJECT	BC- 2022	BC- 2023	BC- 2024	BC- 2025	BC- 2026	BT- 2022	BT- 2023	BT- 2024	BT- 2025	BT- 2026	SHS- 2022	SHS- 2023	SHS -2024	SHS -2025	SHS -2026
ROOFING	Materials not available	$388,500	$546,000			$349,000							14,358 gym roof		
FLOORING		$25,000	$34,875	$25,000	$25,000		$23,806	$25,000	$25,000	$25,000	$32,143	$5,785	$36,030	$25,000	$25,000
ASPHALT PAVING		Multi-year phase approach		TBD	TBD			$7,260							
PROPANE TANKS			$100,000												
AUDITORIUM RENO.											TBD	TBD	TBD	TBD	TBD
A/C REPLACEMENT				$19,000			$32,006	$25,000	$25,000	$25,000					
SPRINKLER SYSTEM												ESSER Funds	ESSER Funds		
EXTERIOR WALL SIDING				TBD	TBD										
DOOR REPLACEMENT		$36,368	$5,000	$5,000	$5,000		$5,000	$63,871	$57,628	$5,000	$16,755	$20,625	Gym doors $20K	Aud doors $30K	
BOILER UPKEEP											$19,663		$127,347		
VICTAULIC FITTING WORK	$32,824	$27,116	$30,000	$30,000	$30,000							$20,000	$20,000	$20,000	$20,000
BUS LOOP DESIGN						TBD	TBD	TBD	TBD	TBD					
BUILDING SAFETY		$15,000	$14,641	$15,000	$15,000		$15,000	$10,006	$15,000	$15,000		$15,000	$15,000	$15,000	$15,000
STORAGE BUILDING ROOFS													$5,066	Concession stand	
3 Acre Stormwater				Grants/match					Grants/match				Grants/match		
CLASSROOM DOOR LOCKS						TBD	TBD	TBD	TBD	TBD					
HVAC											ESSER Funds	ESSER Funds	ESSER Funds		
LIGHTING			Eff. VT Grant				Eff. VT Grant					$719,000			
ASBESTOS ABATEMENT											At completion of project $456,780 in 2024				
PLAYGROUND UPDATE			ESSER Funds					ESSER Funds							
PHONE SYSTEM UPGRADE				$8,003 monthly district wide					$8,003 monthly district wide					$8,003 monthly district wide	
CONSTRUCTION LINE ITEM	BCEMS - $94,500 ($.75/sq ft) or $126,000 ($1.00/sq ft) 126,000 sq ft					BTMES - $117,000 ($.75/sq ft) or $156,000 ($1.00/ sq ft) 156,000 sq ft					SHS - $157,500 ($.75/sq ft) or $210,000 ($1.00 sq ft) 210,000 sq ft				

SPAULDING HIGH SCHOOL

Facility Operating Plan

By: Jamie Evans - Facility Manager

Date: January 6, 2025

Phone Number: 802-476-8119
Email Address: jevanbsu@buusd.org

Facility Operating Plan Template

A Introduction

This Facility Operating Plan (FOP) delineates key building systems and their management with the goal of maintaining a healthy, comfortable, energy efficient and economical building while always keeping in mind that the purpose of these systems is to support the educational use of the facility.

These goals are accomplished through well managed systems and preventive maintenance programs. Cost containment is achieved by avoiding the extra costs that are the inevitable result of a lack of preventive maintenance and by utilizing appropriate conservation and efficiency strategies. In addition to delineating current systems and their management this guide will point out opportunities for improvements in operations and physical equipment.

This FOP is not designed as a comprehensive manual on the facility and its operations. Instead, it is a basic guide to aid the facility director or anyone that has to involve themselves in the proper running of the building to help them understand the building's functioning and management.

This guide, through its appendices, attachments and references will also describe where more detailed information can be found.

B Using the Template

The template is meant to be a guide for the creation of your operating plan. The facility details included in this template are for illustration purposes only. Because each school facility is unique, it is anticipated that extensive modification of the template will be necessary to make it specific for your building. Just delete the sections or information that doesn't apply and add in additional material as needed. See "How to Edit the Facility Operating Plan" on the following pages.

It is anticipated that the FOP itself will be put in a binder with section dividers relating to the main building components, appendices, etc. This will allow for frequent updates and for additional material to be added as available. Copies should be available to key administrative and maintenance staff.

C Help

This FOP template was created by the Vermont Superintendents Association's School Energy Management Program (SEMP). The SEMP program works for the schools to assist them as they deal with their energy use issues. Contact SEMP at 802-229-1017 or SEMP@VTVSA.org with your questions, comments, or to request a free site assessment.

D Acknowledgements

Funding for creation of this FOP template was provided by Efficiency Vermont. Participants in the FOP template planning committee were: Dan French, Superintendent Bennington-Rutland SU, Tim Pedrotty, Physical Plant Consultant, Vermont School Board Insurance Trust, George Lawrence, Efficiency Vermont, and the following School Facility Managers: Lyall Smith, Milton SD, Chris Giard, Burlington Schools, Mike O'Malley, South Burlington SD, Leon Calabro, Chittenden East SU. These people brought a wealth of knowledge and experience to bear in creating this document. Principal author was Norman Etkind, VSA School Energy Management Program Director.

Facility Operating Plan - - Index

How to Edit the Facilities Operating Plan

The Facility Operating Plan (FOP) document is a template that must be modified extensively to best describe your systems and buildings. Sections of the operating plan template that are not relevant to your buildings should be deleted, new sections added as needed, and correct information inserted within the template sections. For example, if your school does not have steam boilers, you should delete those sections of the FOP in their entirety when modifying the plan for your school. Similarly, if your school uses a lighting or heating system that is not directly covered in the draft FOP, you will want to add in a section on the maintenance and upkeep of these systems.

Quick tips:

1. Don't forget to save your changes after modifying the FOP! After every change, go to the "File" menu at the top of your screen and click "Save".
2. "Undo" is your friend! If you attempt to change something, and the computer doesn't do what you thought it would, undo! Go to the "Edit" menu and click on "Undo"; the last action you took (such as deleting some text) will be reversed and you can try again. You can "undo" several of your last actions.
3. If you can't seem to modify the document the way you want to, enlist the help of someone at your school who is knowledgeable about computers. He or she should be able to help you edit the FOP, making it appropriate for your district's needs. Students are often very good for this type of help!

Deleting sections of the FOP that are irrelevant for your building

1. Click and drag the mouse over a complete section of the FOP that is not needed for your school. It should become highlighted.
2. Go to the "Edit" menu at the top of your screen and click on "cut" (or right click and select "cut"). The irrelevant section will be deleted from your FOP.

Sometimes, you don't want to get rid of a whole section, but just a few lines that are not necessary. Click and drag your mouse cursor over the parts you do not need. It should become highlighted. Click the "Delete" key on your keyboard- presto; the highlighted wording will disappear. To delete the rows altogether see the section on deleting a line or two (below).

Adding in new sections to the FOP

1. Locate an existing section that is the closest fit to the new section you need within the FOP. For example, if you are adding in a new lighting section, find the part of the existing lighting template that best matches your need.
2. Copy and paste the best match into the document.
   a. To copy: Click and drag the mouse cursor over the section of text you want to copy. It should become highlighted with a dark background. Go to the "Edit" menu at the top of your screen and click on "Copy" (or right click and select "Copy)."
   b. To paste: Click the mouse cursor into the space where you want the new section to go. Go back up to the "Edit" menu and click on "Paste" (or right click and select "Paste").
3. Your newly copied section should be highlighted. Select the parts of the new section that need to be renamed or changed, by clicking on the appropriate words. Use the "Delete" key on your keyboard to get rid of the old wording, and type in the new information.

Adding in or deleting just a line or two in an existing section

Sometimes you don't need to add or delete a whole section; but there are a few more lines of information in an existing section you need to add on or a line or two you want to delete.

1. Click the mouse cursor on the last line of text in the section that you want to expand or highlight the rows you want to delete.
2. Go to the "Table" menu at the top of your screen, click on "Insert" and then, "New Row Below." A new blank line should appear below your mouse cursor. Similarly, go to the "Table" menu at the top of your screen, click on "Delete" to remove highlighted rows. Again, if you don't get the result you want, just use the undo function to restore the change and try again.
3. Click on the blank area in the table and type in the new information you want to see there.

Starting a new page

Sometimes you want to start a new page at the end of a section. This is typically because you want to use section dividers in the 3 ring binder that you will be putting the plan into, here's how to do it: Just hold down the "control (ctrl)" key while you hit the "Enter" key and a hard page break will be inserted.

Notes

You can write as much as you want in any area of the table. The space will expand as you keep on writing.

When you remove some lines from the bottom of the table, the heavy border line may disappear. You can modify this by highlighting the line and going to "Format" "Borders and Shading" by using the menu on the top of the page. You can then click on the line in the "preview" box on the right to either add or delete a heavy line.

Basic Building Information

This section provides basic information on the building's original construction and additions. It delineates the sections of the building based on year and type of construction to be referred to in later sections (because they may have different systems). Also refer to the Appendices for the floor plan that shows the section designations. The different sections should be named in the way you commonly refer to them.

Original Construction – Section 1	
Year Built	1964
Gross size in square feet	171,000 sq ft
Architect	Irving Hersey
Engineer	
Contractor and subs	H.P. Cummings Construction Co.
Location of plans and specifications	In maintenance office – original blueprints are in a hanging print rack.
Type of Construction	Slab on grade with frost walls, cement block walls, brick exterior finish, truss roof
Building use	High school – classrooms, offices, gymnasium, cafeteria, auditorium.

Addition – Section 3	
Year Built	1967 Vocational Center
Size in square feet	39,000 sq ft
Architect	Irving Hersey Associates
Engineer	Irving Hersey Associates
Contractor and subs	
Plans and specifications are located	In maintenance office – original blueprints are in a hanging print rack
Type of Construction	Slab on grade with frostwalls, cement block walls, brick exterior finish, truss roof,
Building use	Classrooms and instructional shop spaces
Notes	

Addition – Section 3	
Year Built	1996 Gymnasium and 3 story addition
Size in square feet	
Architect	Wiemann-Lamphere Architects
Engineer	Wolbach Engineering
Contractor and subs	Eckman Construction Co. Inc.
Plans and specifications are located	In maintenance office – original blueprints are in a hanging print rack, construction manuals and O&M manuals.
Type of Construction	Slab on grade with frost walls, cement block walls, brick exterior finish, truss roof,
Building use	Two court gymnasium, loading dock storage room, guidance counselor offices
Notes	

Renovations and Upgrades – brief description

Addition – Section 4	
Year Built	2002 Wood chip boiler building and new wood chip boiler plant
Size in square feet	
Architect	
Engineer	DuBois & King
Contractor and subs	EF Wall and Associates
Plans and specifications are located	In the maintenance office – prints, construction manuals, O&M manuals
Type of construction	Slab on grade with frost walls, insulated metal clad wall panels, flat truss roof
Building use	Wood chip heating plant for high school
Notes	

Addition	
Year Built	2011 Lighting on sports field
Building Sections involved	Football Field
Architect	
Engineer	DuBois & King
Contactor and subs	EF Wall, Norway & Sons, ECI
Plans and specifications are located	In maintenance office – prints, construction manuals, O&M manuals
Notes	

Renovations	
Year Renovated	2013 and 2014
Building Sections involved	Roof surfacing and rooftop ventilation units
Area renovated	Complete roof surface
Scope of renovation	Removed existing roof material, installed rigid insulation and replaced existing rooftop ventilation units with new equipment.
Architect	David Laurin
Engineer	DuBois & King
Contactor and subs	Lajuenesse Construction for phase 1 and DEW construction for phase 2
Plans and specifications are located	In maintenance office – prints, construction manuals, O&M manuals
Notes	
Energy Upgrade	

Major Repairs	
Year	
Building Sections involved	
Area involved	
Scope of repairs	
Problem that was corrected	
Contactor and subs	
Notes	

_____	
Year	
Building Sections involved	
Area involved	
Scope of repairs	
Problem that was corrected	
Contactor and subs	
Notes	

Building Shell

Roofs

Pitched Roof	
Building Section(s)	
Type of roof surface	
Type of insulation	
Depth of Insulation and R Value	
Where insulation is placed.	On roof deck or insulated rafters or at attic floor level with solid ceiling below or at bottom chord of trusses with dropped ceiling below and no solid ceiling surface.
When roofing installed	
Type of attic ventilation, if any	
Annual Maintenance	Check roof for deterioration, fix potential leaks.
Special Maint.	Scan roof with infra-red scan if leak issues.
Replacement:	Anticipated in 20____.
Notes:	Check that all penetrations to exterior are sealed. Warranty information _____. May need to check for potential structural issues if insulation is increased or a white roof installed.
Energy Upgrade	At time of replacement add _____ insulation to bring roof to R- .

Building Walls	
Section(s)	
Wall construction	Inside surface is sheetrock. Framing is with (wood, metal) Sheathing is with Outside surface is
Insulation	3-1/2 inches FG
R - value	Overall R-value of the wall assembly is ___.
Maintenance	Re-point mortar on brick walls when damaged or missing. Remove peeling paint and repaint as necessary.
Special Maint.	Add plywood backup in areas where sheetrock is easily damaged.
Notes:	On older buildings check for lead paint. Keep sheetrock off floors to prevent wicking.
Energy Upgrade	If uninsulated consider bringing up to R-19 at time of renovation

Building Walls	
Section(s)	
Wall construction	Inside surface is: Framing is with (wood, metal) Sheathing is with Outside surface is
Insulation	3-1/2 inches FG
R - value	Overall R-value of the wall assembly is ___.
Maintenance	Re-point mortar on brick walls when damaged or missing. Remove peeling paint and repaint as necessary.
Special Maint.	Add plywood backup in areas where sheetrock is easily damaged.
Notes:	On older buildings check for lead paint. Keep sheetrock off floors to prevent wicking.
Energy Upgrade	If uninsulated consider bringing up to R-19 at time of renovation

Building Walls	
Section(s)	
Wall construction	
Insulation	
R - value	
Maintenance	
Special Maint.	
Notes:	
Energy Upgrade	

Outside Doors	
Section (s)	
Type of weatherstripping	
Age of doors	
Replacement date	Replace main entry doors in 20__. Replace remaining outside doors in 20__.
Maintenance	Check quarterly -- replace or repair as necessary.
Special Maint.	Check hinges quarterly. Check pressure on door closers. Check for proper functioning of panic bars.
Notes:	Don't use aluminum doors.
Energy Upgrade	Replace door with Energy Star rated one.

Outside Doors	
Section (s)	
Type of weatherstripping	
Age of doors	
Replacement date	
Maintenance	
Special Maint.	
Notes:	
Energy Upgrade	

Windows	
Section(s)	
Type of window	
Windows installed in	19___.
Replacement date	Replace in 20__.
Maintenance	Check 2x/ year for proper operation, weatherstripping and caulking.
Special Maint.	Check storm windows closed weekly during winter. Check window locks for proper operation twice a year. Replace weather-stripping as needed. Use Armoral on tracks.
Notes:	Extra sash available in maintenance closet. Parts vendor listed with vendors.
Energy Upgrade	Replace with Energy Star rated windows at time of replacement.

Windows	
Section(s)	
Type of window	
Windows installed in	19__.
Replacement date	Replace in 20__.
Maintenance	Check 2x/ year for proper operation and weatherstripping
Special Maint.	Check storm windows closed weekly during winter.
Notes:	
Energy Upgrade	Replace with Energy Star rated windows at time of replacement.

Heating, Ventilation, Domestic Hot Water and Air Conditioning Systems –

Heating System

Overview	
Type of heating plant	There is a central boiler that burns number 2 oil and creates hot water for distribution.
Heat distribution	Is by forced hot water in baseboard radiation, pre-heating ventilation air in air handlers, and in unit ventilators for classrooms.
Basic controls	There are controls on the boiler that maintain boiler temperature. Room control is via thermostats located in each space.
Control Points	Key zone valves and shutoffs are shown on the single line drawings
Emergency shutoff	Each boiler has a sensor mounted above it that will shut the boiler off if it detects a fire situation. There are emergency shutoff switches for each boiler located _____. See Quick Sheets.

Fuel Storage	
Number size and location:	Buried 10,000 gallon steel double wall oil tank. Located _____. (see floor plan).
When installed	
Monitoring	There are sensors to detect leaks. Alarm is in boiler room.
When last serviced	
Scheduled maintenance:	Stick tanks at beginning and end of heating season to determine usage. Check for moisture in tank by _____. (check maintenance and reporting requirements on UST website).
Scheduled replacement	Unit scheduled for replacement in _____
Notes:	Fuel pump at the boilers runs when boiler firing and delivers oil to the boilers.
Energy Upgrade	Install day tank to avoid having pumps running excessively.

Fuel Storage	
Number size and location:	250 Gallon above ground propane tank
When installed	
Monitoring	Gauge on tank
When last serviced	
Scheduled maintenance:	Check for corrosion
Scheduled replacement	Unit scheduled for replacement in _____
Notes:	Install propane detectors in kitchen.
Energy Upgrade	

Boilers	
Building Section(s)	1
Number and location:	2 boilers – see building plan for location
Make, Btu rating, type of fuel	Number 2 oil fired HB Smith cast iron 1.4 MMBtu hot water boiler.
When installed	
Boiler temperature	Boiler temperature is automatically adjusted via an automatic reset based on outside temperature. Range is 200 degrees at 10 degrees to 130 degrees at 50 degrees. A chart is posted in the boiler room that indicates proper boiler temperature for a given outside temp.
Type of fluid	Uses a mix with 30% glycol anti-freeze - - zero degree temperature rating.
Serviced by	
Scheduled maintenance:	Annual tune-up and cleaning. Test water for pH, rust inhibitor, and glycol level

	once a year. Open boiler for inspection every two years. Exercise valves quarterly. Test limit switches quarterly. Check boiler temperature against reset schedule weekly. Check for oil and water leaks regularly. Shut off all heating system components at end of heating season. Check ambient boiler room carbon monoxide levels once a month. Check combustion air dampers and interlock. Check relief valve and other equipment for corrosion.
Scheduled replacement	Unit scheduled for replacement in _____. Replace refractory in _____.
Notes:	Service log is in boiler room. Add a low temp alarm and auto dialer when budget allows. Check pressure in bladder controlled pressure tanks.
Energy Upgrade	Replace burner with more efficient _____.

Boilers

Building Section(s)	
Number and location:	
Make, Btu rating, type of fuel	Number 2 oil fired steam boiler.
When installed	
Type of fluid	Distilled water and chemicals to stabilize pH and prevent scaling.
Serviced by	
Scheduled maintenance:	Annual tune-up and cleaning. Test water for pH, _____once a year. Do upper and lower blow downs daily. Exercise valves quarterly. Test limit switches quarterly. Check boiler pressure against reset schedule weekly. Check for oil, water and steam leaks regularly. Shut off all heating system components at end of heating season. Determine that outside air (combustion) dampers operate when boiler fires weekly. Internal inspection every two years. Check skimmer.
Scheduled replacement	Unit scheduled for replacement in _____
Notes:	Service log is in notebook binder in boiler room. Inspected by the state annually.
Energy Upgrade	Replace burner with more efficient _____.

Boilers

Building Section(s)	
Number and location:	
Make, Btu rating, type of fuel	
When installed	
Type of fluid	
Serviced by	
Scheduled maintenance:	
Scheduled replacement	
Notes:	
Energy Upgrade	

Boilers- Wood Chip

Make, Btu rating	Messersmith – 40 hp
When installed	
Type of fluid	Water/glycol solution 30 %
Serviced by	
Scheduled maintenance:	Check daily that all equipment is operating correctly. Remove ash daily. Clean tubes every two to three weeks. Test limit switches and water extinguishment system monthly.
Scheduled replacement	
Notes:	Service log is in notebook binder in boiler room. Inspected by the state annually.
Energy Upgrade	Consider adding automated blowing of tubes.

Heating Circulators

Building Section(s)	
Number and location:	Six circulators for different zones and a circulator for the domestic hot water. All are located in the boiler room.
Make, HP rating, efficiency	There are 4 – 3 HP _____ circulators, two _____ 2 HP circulators and a 5 HP circulator.
When installed	
Operation	Pumps run continuously during heating season. Shut off automatically when outside temperature is above 60 degrees.
When last serviced	Service record included with boiler log.
Scheduled maintenance:	Lubricate according to manufacturer's recommendations.
Scheduled replacement	Unit scheduled for replacement in _____
Notes:	
Energy Upgrade	Consider replacing with more efficient motors and variable frequency drives.

Heating Circulators

Building Section(s)	
Number and location:	Four circulators for different zones located in the boiler room.
Make, HP rating, efficiency	There are 4 – 7 HP _____ circulators
When installed	
Operation	Two pumps run to supply hot water to the building. The two extra pumps are redundant. They are switched automatically by the computer on a daily basis. Pumps are controlled by a variable speed drive. Speed is controlled by the return water temperature and varies from 100% at a temperature of ____ to 30% at a temperature of ___. They shut off automatically when outside temperature is above 60 degrees.
When last serviced	Service record included with boiler log.
Scheduled maintenance:	Lubricate according to manufacturer's recommendations.
Scheduled replacement	Unit scheduled for replacement in _____
Notes:	
Energy Upgrade	Replace with high efficiency motors upon failure.

Heating Circulators

Building Section(s)	
Number and location:	
Make, HP rating, efficiency	
When installed	
Operation	
When last serviced	
Scheduled maintenance:	
Scheduled replacement	
Notes:	
Energy Upgrade	

Steam Traps

Section(s)	
Number and location:	
Make	
When installed	
Operation	Steam traps retain steam in radiation and allow condensed water to return to boiler.
When last serviced	Service record included with boiler log.
Scheduled maintenance:	Check steam traps for proper closing twice a year.

Scheduled replacement	
Notes:	
Energy Upgrade	

Domestic Hot Water	
Building Section(s) How Produced	Hot water for the kitchen, showers and bathrooms is provided by an indirect fired hot water tank that is heated with water from the main boiler via a heating loop and a coil in the tank. During the off-season when the main boiler shuts down, hot water is provided by an electric hot water heater in the boiler room.
Make, Btu rating	Storage tank is a ____ gallon _____ indirect fired tank. The electric heater is a 4.5 kW _____ gallon tank.
When installed	
Annual changeover	When the main boilers are shut down for the season, close valves number ____ and ____ and shut off circuit breakers ____ and ___ that go to the hot water heater and the recirc. pump.
Hot water temperature	Tank temperature is maintained at 140 degrees to reduce production of Legionella bacteria. There is a direct line to the dishwasher in the kitchen. Other domestic hot water is tempered to _____ degrees.
Hot water circ.	There is a circulator that (1) runs from ____ to ____ and is controlled by a timer located _____or (2) is controlled by an aquatstat located on the return pipe.
Scheduled maintenance:	Inspect TPR valve annually. Replace if corrosion is evident. Clean electric tank annually.
Scheduled replacement	Units scheduled for replacement in _____
Notes:	
Energy Upgrade	Consider conversion to point of use. Consider using cleaning materials that avoid the need for hot water.

Domestic Hot Water	
Building Section(s) How Produced	
Make, Btu rating	
When installed	
Annual changeover	
Hot water temperature	
Hot water circ.	
Scheduled maintenance:	
Scheduled replacement	
Notes:	
Energy Upgrade	

Ventilation

Ventilation is generally designed to provide code compliant fresh air rates to student and other areas. It is essential to maintain proper ventilation rates to ensure a safe, healthy school environment and is also important to the longtime viability of the building.

Unit Ventilators

These units are generally found against outside walls in classrooms although they can also be ceiling mounted and used in halls. They are self-contained units that are designed to bring in fresh air through outside grilles and keep the room at proper temperature. They are coupled with some kind of active or passive relief vent to exhaust the inside air being displaced by the fresh air intake.

Unit Ventilators	
Building Section(s)	
Where used	In classrooms only, a total of ____ units
Manufacturer	
When installed	
How controlled	Wall thermostat, fan switch on unit and central controller (see control section).
Filters	Use pleated filters rated Hi E40.
Maintenance	Check outside air damper operation 2x/year. Change filter 4x/year and more often if in a dirty location. Replace belts, clean coils and lubricate motors and moving parts annually. See maintenance contract.
Energy Policy	Keep items off of unit ventilator grilles.
Additional Info	See Book ___ for complete manual found on shelf in maintenance room.
Notes	Some units have two filters.
Scheduled for replacement	In 20__.
Energy Upgrade	At end of useful life consider upgrading to central ventilation system also consider upgrading controls to DDC.

Relief Vents – coupled with unit ventilators	
Where found	There is a roof mounted exhaust fan and ducts run to each classroom. The grilles are on the wall opposite the unit ventilators at the ceiling level.
When installed	
Location of duct smoke detectors	
Size of motor	
Belts and motors:	Check twice a year, replace annually, check motor operation
Belt size/type	Pleated, high efficiency filters – streamers
Belt schedule:	See appendices
Energy Upgrade	Replace with high efficiency motor.

Unit Ventilators	
Building Section(s)	
Where used	
Manufacturer	
When installed	
How controlled	
Filters	
Maintenance	
Energy Policy	
Additional Info	
Notes	
Scheduled for replacement	

Energy Upgrade	

Relief Vents – coupled with unit ventilators

Where found	
When installed	
Location of duct smoke detectors	
Size of motor	
Belts and motors:	
Belt size/type	
Belt schedule:	
Energy Upgrade	

Central Ventilation System

Building Section (s)	
Where found	The air handler is located in a penthouse that is accessed by the ladder in the room behind the coach's room off the gym. It serves the gym and locker rooms.
When installed	
Type, manufacturer and model number.	
Mode of operation	Outside air dampers provide fresh air to the system. Minimum setpoint for outside air is _____ %. The system re-circulates inside air and adds outside air as needed for temperature control. The heat recovery wheel tempers outside air as needed.
Location of duct smoke detectors	See single line drawings
Maintenance	Annual inspection, cleaning of reheat coils as needed, check for proper operation of dampers and control valves. Supply air temperature at the classroom to be ___ degrees. Systems should be re-balanced every _____ years?
Diffusers	Maintain streamers on the diffusers as an easy way of ensuring that the system is operating as it should.
Dampers	Check for proper operation monthly during the heating season.
Filters	Replace with H40 pleated filters 4x per year. (see filter schedule)
Heat recovery wheels	Clean every 5 years
Belts and motors:	Check twice a year, replace belt annually, check motor operation, grease twice a year.
Motor size, model, manufacturer	Motor is a _____ x hp motor See motor schedule in appendices.
Belt schedule:	See appendices
Energy Upgrade	Install variable frequency drives. Use high efficiency motors.

Central Ventilation System

Building Section (s)	
Where found	
When installed	
Type, manufacturer and model number.	
Mode of operation	
Location of duct smoke detectors	
Maintenance	
Diffusers	
Dampers	
Filters	
Heat recovery wheels	
Belts and motors:	
Motor size, model, manufacturer	
Belt schedule:	
Energy Upgrade	

Gym/Multi-Purpose Room Ventilation System

Building Section (s)	
Where found	The air handler is located in a penthouse that is accessed by the ladder in the room behind the coach's room off the gym. It serves the gym and locker rooms.
When installed	
Type, manufacturer and model number.	
Mode of operation	Outside air dampers provide fresh air to the system. Minimum setpoint for outside air is _____ %. The system re-circulates inside air and adds outside air as needed for temperature control. The heat recovery wheel tempers outside air as needed.
Location of duct smoke detectors	See single line drawings
Maintenance	Annual inspection, cleaning of reheat coils as needed, check for proper operation of dampers and control valves. Supply air temperature at the classroom to be ___ degrees. Systems should be re-balanced every _____ years?
Diffusers	Maintain streamers on the diffusers as an easy way of ensuring that the system is operating as it should.
Dampers	Check for proper operation monthly during the heating season.
Filters	Replace with H40 pleated filters 4x per year. (see filter schedule)
Heat recovery wheels	Clean every 5 years
Belts and motors:	Check twice a year, replace belt annually, check motor operation, grease twice a year.
Motor size, model, manufacturer	Motor is a _____ x hp motor See motor schedule in appendices.
Belt schedule:	See appendices
Energy Upgrade	Go to CO2 based demand control ventilation. Use high efficiency motors.

_____ Ventilation System

Building Section (s)	
Where found	
When installed	
Type, manufacturer and model number.	
Mode of operation	
Location of duct smoke detectors	
Maintenance	
Diffusers	
Dampers	
Filters	
Heat recovery wheels	
Belts and motors:	
Motor size, model,	

Manufacturer	
Belt schedule:	
Energy Upgrade	

Auditorium Ventilation System

Building Section (s)	
Where found	The air handler is located in a penthouse that is accessed by the ladder in the room behind the coach's room off the gym. It serves the gym and locker rooms.
When installed	
Type, manufacturer and model number.	
Mode of operation	Outside air dampers provide fresh air to the system. Minimum setpoint for outside air is _____ %. The system re-circulates inside air and adds outside air as needed for temperature control. The heat recovery wheel tempers outside air as needed.
Location of duct smoke detectors	See single line drawings
Maintenance	Annual inspection, cleaning of reheat coils as needed, check for proper operation of dampers and control valves. Supply air temperature at the classroom to be ___ degrees. Systems should be re-balanced every _____ years?
Diffusers	Maintain streamers on the diffusers as an easy way of ensuring that the system is operating as it should.
Dampers	Check for proper operation monthly during the heating season.
Filters	Replace with H40 pleated filters 4x per year. (see filter schedule)
Heat recovery wheels	Clean every 5 years
Belts and motors:	Check twice a year, replace belt annually, check motor operation, grease twice a year.
Motor size, model, manufacturer	Motor is a _____ x hp motor See motor schedule in appendices.
Belt schedule:	See appendices
Energy Upgrade	Go to CO2 based demand control ventilation. Use high efficiency motors.

Bathroom Exhaust Fans

Motor size, model, manufacturer	
Maintenance	Clean grille 2 times per year
How controlled	Runs continuously. Or - - is cycled with the occupied/unoccupied cycle.
Notes:	
Energy Upgrade	Control with occupied cycle if possible.

Kitchen Ventilation Fan

Motor size, model, manufacturer	
Filters:	Monthly cleaning
Maintenance	Clean ductwork 2 times per year
How controlled	Wall switch – staff turns on as necessary
Notes:	
Energy Upgrade	Use CFL bulbs, consider using countdown timer for control. Consider Melink system for larger units.

Shop Dust Collection

Motor size, model, manufacturer	
Filters:	Monthly cleaning
Maintenance	Clean ductwork ___ times per year
How controlled	Wall switch – staff turns on as necessary
Notes:	Check relief vent for proper functioning to avoid creating a negative pressure in the space.
Energy Upgrade	Consider using countdown timer for control.

Air Conditioning

Building Section (s)	
Where found	Window units in admin areas.
When installed	
Type, manufacturer and model number.	
Mode of operation	Manual controls on each unit.
Maintenance	Remove for winter or install covers for winter. Comb grilles as needed.
Filters	Clean filter monthly during use periods.
Energy Upgrade	Purchase only Energy Star ® rated units.

HVAC Controls

The control system needs to accomplish several tasks: maintaining building temperature, having ventilation fans run when needed and reducing both temperature and ventilation based on the occupancy schedule in the building. Controls can also schedule lead/lag boilers and circulators, control boiler temperature setback and shutdown, and many other functions.

Central Control System	
Section(s)	
Location, Manufacturer and model number	Central Controller is a Network 8000 system Model _____ that is self addressable via a keypad on the unit in the boiler room.
Mode of operation	This electronic system interfaces with the pneumatic control system throughout the building section to provide for timing of ventilation fans and night temperature setback control. Minimum outside air damper setting is 10% during occupied times.
When installed	
Occupied cycle	Ventilation runs from 7:30 AM until 3 PM on days when students are present. The rest of the year the ventilation is off except when needed for humidity control. Day cycle for heating starts at 6 AM during shoulder seasons, 5 AM during winter and there is no setback during extremely cold periods. The system sets back ten degrees from the day setting.
When last serviced	Service record is in notebook at the unit and a copy is on shelf B in the maintenance office.
Scheduled maintenance:	Annual inspection of system for air leaks, calibration and proper operation. Additional inspection for air leaks if compressor runs too frequently. See maintenance contract. Calibrate outside temperature sensor annually.
Emergency Measures	See Quick Sheets for instructions on how to override the controls if necessary.
Scheduled replacement	Unit scheduled for replacement in _____
Notes:	Detailed manual on adjusting the system is in manual titled _____ that can be found in _____.
Energy Upgrade	Upgrade of entire system to DDC to be undertaken at the next major renovation.

Pneumatic Control System	
Section(s)	
Location, Manufacturer and model number	The central controller is located in the boiler room on the wall opposite the boilers. It is a _____ pneumatic control system model _____. There is a secondary controller located in the penthouse near the air handlers. It is a _____ pneumatic control system model _____.
Mode of operation	This pneumatic adjusts the air pressure to switch items on and off to provide for timing of ventilation fans and night setback control and to get temperatures to a night setback mode.
When installed	
Occupied cycle	Ventilation runs from 7:30 AM until 3 PM on days when students are present. The rest of the year the ventilation is off except when needed for humidity control. Day cycle for heating starts at 6 AM during shoulder seasons, 5 AM during winter and there is no setback during extremely cold periods. The system sets back ten degrees from the day setting.
Setpoint pressures	During occupied cycles, the pneumatic pressure should read ____ psi. For night setback is should read ____ psi.
When last serviced	Service record is in notebook at the unit and a copy is on shelf B in the maintenance office.
Scheduled maintenance:	Annual inspection of system for air leaks, calibration and proper operation. Additional inspection for air leaks if compressor runs too frequently. Calibrate outside air temperature sensor annually. See maintenance contract.
Scheduled replacement	Unit scheduled for replacement in _____
Notes:	Detailed manual on adjusting the system is in manual titled _____ that can be found in _____.
Energy Upgrade	Upgrade of entire system to DDC to be undertaken at the next major renovation. Add demand control to ventilation and variable speed drives.

Central Control System -- Compressor	
Location, Manufacturer and model number	The compressor is a _____ model _____ . It is located in the main boiler room in Section ___.
Mode of operation	The compressor is set to maintain a pressure of ____ psi. There is also an automatic blowdown every ____ to eliminate any moisture from the system.
When installed	
Occupied cycle	The compressor runs night and day during the heating/ventilating season and is shut off during the summer months except when the system is activated to provide moisture control.
When last serviced	Service record is in notebook at the unit and a copy is on shelf B in the maintenance office.
Scheduled maintenance:	Belts should be changed annually at the beginning of the heating season. Oil should be checked _____ and the dryer condenser should be cleaned as needed. Actuators should be checked for proper operation.
Scheduled replacement	Unit scheduled for replacement in _____
Notes:	Detailed manual on proper operation of the compressor can be found in _____. Training DVD can be found _____.
Energy Upgrade	Consider no-loss drains.

Central Control System - - Pneumatic -- Thermostats	
Location, Manufacturer and model number	Pneumatic thermostats are located in each classroom and in all other areas of the building. They are _____
Mode of operation	The thermostats vary between day and night settings based on the air pressure in the system.
When installed	
Scheduled maintenance:	Thermostats are to be calibrated annually.
Scheduled replacement	Units scheduled for replacement in _____
Notes:	Detailed manual on proper operation of the thermostats can be found in _____. Include training on thermostats for teachers.
Energy Upgrade	Upgrade of entire system to DDC to be undertaken at the next major renovation.

Central Control System - DDC	
Section(s)	
Location, Manufacturer and model number	There is a Direct Digital Control (DDC) system for all the building's HVAC functions. Program used is _____ version _____. The program is accessed by _____.
Mode of operation	The DDC system controls on/off schedule on all air handlers and unit ventilators. It also controls and monitors room temperature. More detailed information can be found in the "Sequence of Operations" section of the building specifications located on bookshelf _____ in the maintenance office.
When installed	
Occupied cycle	Ventilation runs from 7:30 AM until 3 PM on days when students are present. The rest of the year the ventilation is off except when needed for humidity control. Day cycle for heating starts at 6 AM during shoulder seasons, 5 AM during winter and there is no setback during extremely cold periods. The system sets back ten degrees from the day setting.
When last serviced	DDC programming history is in folder _____ in the main filing cabinet in the maintenance office.
Scheduled maintenance:	Annual inspection of system for calibration and proper operation. See maintenance contract. Calibrate outdoor temp. sensor also.
Scheduled replacement	Unit scheduled for software upgrade in _____
Notes:	Deviations from setpoints can be found by checking the temperature history in the various rooms. This can indicate improperly functioning valves etc. Trending information on all the systems functions should be checked on a _____ basis.

Demand Control Ventilation	
Building Section(s)	
Location, Manufacturer and model number	There are carbon dioxide sensors in the auditorium and the gym. They are _____ sensors.
Mode of operation	The CO2 sensors control the supply and return fan speed through a variable speed drive and also control the outside air damper. When CO2 is satisfied (below 800 ppm) the speed drive reduces speed to ___ and the outside air damper to _____.
When installed	
Scheduled maintenance:	Annual calibration of the CO2 sensors and monitoring to make sure that the system is operating correctly.
Scheduled replacement	Unit scheduled for software upgrade in _____
Notes:	
Energy Upgrade	

_____Control System	
Section(s)	
Location, Manufacturer and model number	
Mode of operation	
When installed	
Occupied cycle	
When last serviced	
Scheduled maintenance:	
Scheduled replacement	
Notes:	

Electrical

Electric Rates	
Utility	Green Mountain Power Central Vermont Public Service or _____
Rate	
Demand (kW) charge	We are charged ____ per peak kW and ___ for off peak kW Peak hours are _____. (This school is charged a demand charge on the electrical bill for its highest 15 minute draw at any period of the month.)
Usage (kWh) charge	
Customer charge	
Power factor penalty	If PF fall below ____ %. Our PF is above/below the cutoff.
Notes:	The school reaches its peak demand weekdays between __ AM and __ PM. Obtain peak times from the power company. Install PF correction capacitors if in penalty. Check requirements of the different rate structures. Considerable savings may occur if you can get on a more favorable rate. Meet with utility representative annually to review power costs and rates. There are firms that will buy capacity from schools to reduce their summer peak. If this is a potential for this school, talk to your utility.
Energy Management	Move shedable loads outside of peak hours.

Energy Monitoring	
Description	Obtain copies of all fuel and electric bills. Monitor usage and track over time to discern trends. This school is charged a demand charge on the electrical bill for its highest 15 minute draw at any period of the month. This needs to be monitored carefully. See energy use history with attachments.
Energy Policy	
Notes:	Keep track of demand charges and power factor percentages to avoid penalties or over-charges. Power factor correction is relatively easy to do by installation of capacitors.
Energy Upgrade	Consider ways to reduce maximum demand by scheduling use of equipment. Evaluate potential of demand limiting equipment.

Power Transformer – use if district owned	
Ownership	The transformer is owned by the school district.
Capacity	
When installed	
Schedule for replacement	
Notes:	Was tested for PCBs - - not present.
Energy Upgrade	Transformer is oversized because building used to be electrically heated. Check sizing for new replacement.

Lighting

Lighting - Classrooms	
Building Section(s)	
Type/number of fixtures	Each classroom has 2- lamp recessed parabolic reflector 32 watt t-8s in three rows. See lighting schedule.
Mode of operation	There are two switches. One for the row near the windows and one for the other two rows. This allows the row near the window to be shut off when there is enough ambient light.
When installed	
When last serviced	
Scheduled maintenance:	Annual cleaning of fixtures and replacement of broken parts.
Scheduled replacement	Group re-lamp scheduled for _____.
Notes:	Annual teacher training to include advice on switching and shutting off lights. Student lighting monitor assigned to check for lights left on.
Energy Upgrade	Upgrade switch to occupancy sensor – manual on and auto off. Automatically switch row by windows with light sensor. Replace lamps and ballasts with high performance T-8 system.

Lighting - Hallways	
Building Section(s)	
Type/number of fixtures	Each hall uses _____ fixtures spaced eight feet apart. They are _____.
Mode of operation	There is a keyed switch used only by building staff. Lights are turned on when staff arrives in the morning and shut off when janitors are finished at night.
When installed	
When last serviced	
Scheduled maintenance:	Annual cleaning of fixtures and replacement of broken parts.
Scheduled replacement	Group re-lamp scheduled for _____.
Energy Upgrade	Put hall lights on dual sensor occupancy sensors.
Notes:	Have custodians shut lights off in areas not currently in use. Replace any older fixtures with high performance T-8 fluorescents.

Lighting - Classrooms	
Building Section(s)	
Type/number of fixtures	Each classroom has 2-lamp recessed parabolic reflector 32 watt t-8s in three rows. See lighting schedule.
Mode of operation	There are two switches. One for the row near the windows and one for the other two rows. This allows the row near the window to be shut off when there is enough ambient light.
When installed	
When last serviced	
Scheduled maintenance:	Annual cleaning of fixtures and replacement of broken parts.
Scheduled replacement	Group re-lamp scheduled for _____.
Notes:	Annual teacher training to include advice on switching and shutting off lights. Student lighting monitor assigned to check for lights left on.
Energy Upgrade	Upgrade switch to occupancy sensor – manual on and auto off. Automatically switch row by windows with light sensor. Replace lamps and ballasts with high performance T-8 system.

Lighting - Hallways	
Building Section(s)	
Type/number of fixtures	Each hall uses _____ fixtures spaced eight feet apart. They are _____.
Mode of operation	There is a keyed switch used only by building staff. Lights are turned on when staff arrives in the morning and shut off when janitors are finished at night.
When installed	
When last serviced	
Scheduled maintenance:	Annual cleaning of fixtures and replacement of broken parts.
Scheduled replacement	Group re-lamp scheduled for _____.
Energy Upgrade	Put hall lights on dual sensor occupancy sensors.
Notes:	Have custodians shut lights off in areas not currently in use. Replace any older fixtures with high performance T-8 fluorescents.

Lighting - Auditorium	
Type/number of fixtures	40 - 300 watt incandescent overhead fixtures. 20 wall sconces with 100 watt incandescent bulbs.
Mode of operation	There is a bank of switches by the entry door and dimmer switches for the overhead lights.
When installed	
When last serviced	
Scheduled maintenance:	Annual cleaning of fixtures and replacement of broken parts.
Scheduled replacement	
Energy Upgrade	Add fluorescent lighting to be used when dimmable lights are not needed. Replace incandescent bulbs in sconces with CFLs.
Notes:	Check for better alternative to dimmable incandescents i.e. – cold cathode CFLs.

Lighting – Gym/multipurpose Room	
Type/number of fixtures	20 - - 400 watt metal halides
Mode of operation	There is a bank of switches by the entry door.
When installed	
When last serviced	
Scheduled maintenance:	Annual cleaning of fixtures and replacement of broken parts.
Scheduled replacement	
Energy Upgrade	Convert to T-5 high bay fluorescent fixtures and control with occupancy sensors.
Notes:	

Exit Lights	
Type/number of fixtures	____ fixtures. Some LED some fluorescent. Some contain emergency lighting.
Mode of operation	Emergency lighting comes on in the event of a power failure.
When installed	
When last serviced	
Scheduled maintenance:	Annual cleaning of fixtures and replacement of broken parts. Test emergency lighting once a year.
Scheduled replacement	Change battery backups and notification panels every 5 years.
Energy Upgrade	Upgrade to all LED exit lights.
Notes:	

Lighting – Outside	
Type/number of fixtures	
Mode of operation	There is a timer located in the electrical panel room. Settings are from dusk till dawn and

	changed periodically with the seasons.
When installed	
When last serviced	
Scheduled maintenance:	Annual cleaning of fixtures and replacement of broken parts.
Scheduled replacement	Group re-lamp scheduled for _____. Replace battery in timer annually.
Energy Upgrade	Control outside lights with a timer with battery backup and a photocell. The timer enables the lights to come on and the photocell helps to ensure that they aren't left on unnecessarily. Schedule lights to come on at dark and shut off at 11 PM, come on again at 6 AM and off at 8 AM (during winter).
Notes:	

Lighting - _____	
Building Section(s)	
Type/number of fixtures	
Mode of operation	
When installed	
When last serviced	
Scheduled maintenance:	
Scheduled replacement	
Notes:	
Energy Upgrade	

Lighting - _____	
Building Section(s)	
Type/number of fixtures	
Mode of operation	
When installed	
When last serviced	
Scheduled maintenance:	
Scheduled replacement	
Notes:	
Energy Upgrade	

Lighting – Misc.	
Type/number of fixtures	30 incandescent and 35 fluorescent fixtures in misc. areas of the building.
Mode of operation	Controlled by wall switches.
When installed	
When last serviced	
Scheduled maintenance:	Annual cleaning of fixtures and replacement of broken parts.
Scheduled replacement	
Notes:	
Energy Upgrade	Replace incandescent bulbs with CFLs. Use dual sensor occupancy sensors to control lighting in areas with intermittent use. Replace older lighting with high performance T-8 units.

Electrical – Plug Loads

Computers	
Type/number of computers	There are three computer servers located in the room off the library. A total of 15 computers with CRT monitors and 30 with LCD screens.
Mode of operation	Servers are kept on 24/7 because of dial-in capability. Monitors are left off at the switch on the monitor except when needed. Other computers are turned on as needed by staff and have sleep software activated.
When last serviced	
Scheduled maintenance:	Check plugs and wires annually for frayed or broken insulation.
Scheduled replacement	
Energy Policy	All computers except servers to be on power strips and shut off at the end of the day.
Notes:	Annual teacher training to include advice on activating sleep software and shutting off computers and monitors when not in use.
Energy Upgrade	Consider getting a low cost Kill-a-Watt meter that can be used to see how much energy computers and other plug loads use on a regular basis. Consider Smart power strips.

Dishwashers	
Make and model Energy Usage	There is a commercial Hobart dishwasher model _____. The booster is electric and draws 45 kW.
Scheduled maintenance:	
Scheduled replacement	
Notes:	
Energy Upgrade	Convert to propane at time of booster replacement or consider low-temperature chemical wash to reduce demand charges.

Dishwashers	
Make and model Energy Usage	There is a commercial Hobart dishwasher model _____. The booster is propane fired.
Scheduled maintenance:	Check monthly for carbon monoxide and propane leaks.
Scheduled replacement	
Notes:	
Energy Upgrade	

School Bus Block Heaters	
Number and Watts	There are____ block heaters. They each draw_____ watts.
Scheduled maintenance:	
Scheduled replacement	
Notes:	They are on timers and come on at 5 AM during cold winter periods.
Energy Upgrade	

Kilns	
Type/energy draw	There are two kilns in the art room that each draw 11 kW.
Mode of operation	Kilns are used approximately once a week during the school year.
When last serviced	

Scheduled maintenance:	Check interlock with exhaust fan for proper operation.
Scheduled replacement	
Energy Policy	Use kilns after 3 PM so that their use doesn't coincide with peak electrical demand hours.
Notes:	
Energy Upgrade	

Kitchen Equipment	
Motor size, model, manufacturer	See kitchen equipment schedule with attachments.
Steamers	Check pressure relief valves for proper operation once a year. Clean and de-scale steamers once a year.
Freezers and coolers	Clean evaporator coils once a year. Oil motors once a year.
Ice Makers	Chemically clean once a year. Clean coils and oil motors annually.
Notes:	
Energy Upgrade	Check Consortium For Energy Efficiency website (www.cee1.org) for kitchen equipment upgrade options.

Refrigeration	
Type/number of refrigerators	There are five refrigerators in the kitchen area. A walk-in freezer. An older refrigerator in the teacher's lounge. There are 21 small refrigerators in classrooms.
Scheduled maintenance:	Clean condensers twice a year on all refrigeration units. Check gaskets annually on all units.
Scheduled replacement	Teachers lounge refrigerator to be replaced with an energy star rated unit in _____.
Energy Policy	Choices: - ban small refrigerators - - allow them but require they be taken home over holidays and summers - - require that they be energy star rated - - allow them but charge a monthly fee for those that want them.
Notes:	All energy using equipment brought into the school by staff should be approved and inspected by maintenance to ensure that they don't create a hazard.
Energy Upgrade	Consider replacing refrigerators in the kitchen with a walk-in cooler. Move condenser outside.

Phantom Loads	
Description	These are the many miscellaneous uses of power that add up in a large facility. Of special interest is all the units that appear to be off but still draw power. These include the little plug-in transformers (power cubes) and instant-on televisions etc.
Energy Policy	Place all miscellaneous loads on power strips that are shut off when not needed.
Notes:	All energy using equipment brought into the school by staff should be approved and inspected by maintenance to ensure that they don't create a hazard.
Energy Upgrade	Use only Energy-Star rated equipment.

_____	
Make and model Energy Usage	
Scheduled maintenance:	
Scheduled replacement	
Notes:	
Energy Upgrade	

Misc.

Misc – describe	
Building Section(s)	
Scheduled maintenance	
Scheduled replacement	
Notes:	
Energy Upgrade	

Misc – describe	
Building Section(s)	
Scheduled maintenance	
Scheduled replacement	
Notes:	
Energy Upgrade	

Misc – describe	
Building Section(s)	
Scheduled maintenance	
Scheduled replacement	
Notes:	
Energy Upgrade	

Non Energy Section

These are additional areas submitted by users and included here for your benefit.

Electrical / Maintenance	
Type/number of panels	
Mode of operation	
When installed	
When last serviced	
Scheduled maintenance:	Annually exercise switches and contacts. Tighten loose connections in panels. Check insulation on wiring.
Scheduled replacement	Replace pitted or corroded contacts.
Notes:	Take thermal pictures of panels to check for hot spots. Follow all required safety requirements when doing this work.
Energy Upgrade	

Fire Safety Equipment	
Type/number of fixtures	
Mode of operation	To provide notification to the fire and police departments in the event of a fire.
When installed	
When last serviced	
Scheduled maintenance:	Perform professional inspection on fire systems, sprinkler systems, and fire extinguishers annually. Perform monthly fire drills, using different pull stations every drill to verify each one functions properly. Perform monthly fire extinguisher inspections for proper charges.
Scheduled replacement	Clean smoke detectors annually or as needed. Replace when necessary.
Energy Upgrade	
Notes:	

Elevators and Lifts	
Type/number	
Mode of operation	To convey students and teachers to upper and lower levels of the building.
When installed	
When last serviced	
Scheduled maintenance:	Professionally inspected annually by a state inspector.
Scheduled replacement	Upgrade as needed to maintain code compliance.
Energy Upgrade	
Notes:	

District Required Training	
Asbestos Awareness	
Asbestos books notification to public.	
Six month asbestos inspection / replace as needed.	
Blood borne pathogens	
Asbestos books notification to public.	
Safety meetings	
Energy Upgrade	
Notes:	

Required Inspections and Trainings From Tim Pedrotty - VSBIT

Here is the Annual Inspection and Training Requirements. This info can be found on VSBIT's web site.

Inspection required annually:

* Sprinkler systems
* Fire extinguishers
* Fire alarm systems
* Kitchen hood fire suppression systems
* Boilers and pressure vessels - - including compressor tanks.
* Gym and stadium bleachers
* Elevators
* Septic Systems
* Water Systems
* AHERA - Asbestos Hazard Emergency Response Act
* TIER TWO, Vermont's Community Right -To-Know Program
* Backflow Preventer inspections

Required annual training:

* Respiratory, (PPE only) 1910.134(k)(4) (Carpenters, painters, HVAC mechanics, lead or asbestos abatement workers)

* Hazardous Materials 1910.120(e)(8) (Custodians, biology of chemistry teachers, office staff, receiving employees, maintenance personnel)

* Blood borne Pathogens 1910.1030(g)(2)(iv) (Nurses, staff trained and assigned to perform first aid, coaches, athletic trainers, plumbers, custodians)

* Fire Extinguisher and Hose 1910.157(g)(4) (Employees designated to use fire extinguishers or fire hoses to fight fires)

* Noise 1910.95(k)(l) (Grounds equipment operators, shop teachers) * Electrical 1910.269(a)(2)(iii) (Electricians)

* Health: Lead 1910.1025(l)(1)(iv) & Asbestos 1910.1001(j)(7)(ii)
(Painters, carpenters, electricians, teachers, custodians, ground workers)

Medical First Aid 1910.151(b) (In absence of an infirmary, clinic, or hospital in near proximity employees assigned to perform first aid)

* Confined Space 1910.146(g)(2)(i)-(iv) (HVAC mechanics, plumbers, electricians, grounds worker)

Key Websites

Links to Resources

Underground Storage Tank Requirements - - Agency of Natural Resources
http://www.anr.state.vt.us/dec/wastediv/ust/home.htm

Vermont Envision Program - - Indoor Air Quality Issues
http://healthvermont.gov/enviro/envision.aspx

Consortium for Energy Efficiency - - lists commercial energy efficient kitchen and other equipment. Information on a variety of energy products and strategies.
http://www.cee1.org/

Vermont School Board Insurance Trust - - Lot's of resources to help manage school buildings.
http://www.vsbit.org/htm/resource.html

Efficiency Vermont - - Information on incentives with downloadable prescriptive forms. Information on contractors and many energy issues.
http://www.efficiencyvermont.com/pages/

Department of Energy - - Energy Smart Schools
http://www1.eere.energy.gov/buildings/energysmartschools/

EPA – Tools for Schools
http://www.epa.gov/iaq/schools/actionkit.html

Usage Calculator - - shows cost of running equipment.
http://michaelbluejay.com/electricity/howmuch.html

Links to Manuals:
The Collaborative for High Performing Schools - - includes guides for best maintenance practices and many other documents. All downloadable, some printable, some not.
http://www.chps.net/manual/index.htm

Operations and Maint. Best Practices Guide - - designed for federal facilities but applicable to schools.
http://www1.eere.energy.gov/femp/operations_maintenance/om_bpguide.html

Planning Guide for Maintaining School Facilities – by U.S. Department of Education
http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003347

School Operations and Maint. - - Best Practices for Controlling Energy Costs - - A guidebook for K-12 School System Business Officers and Facilities Managers by US Department of Energy.
http://www.ase.org/uploaded_files/greenschools/School%20Energy%20Guidebook_9-04.pdf

New York State Education Department (and Energy Dept.) Capital & Maintenance Planning Reports Toolbox (Excel Spreadsheet)
http://www.emsc.nysed.gov/facplan/forms/Comprehensive_Maintenance_Plan_052005.xls

Sample Quick Sheet

Problem: Black smoke coming from chimney.

Immediate Action: Turn off the emergency switch to boilers. The switch has a red cover plate and is located just inside the door to the boiler room from the hallway. If the room is locked, the principal, custodians, and Mr. Jones has the key.

Next: Page facilities director, _____, at _____ and contact _____ Plumbing and Heating on their 24 hour hotline, _____.

Discussion: Black smoke from the chimney is an indication that the boiler is not firing correctly. This can result in fouling of the boiler and an increase in generation of carbon monoxide, a poisonous gas. The boiler shutdown eliminates the risk but the boiler must be fixed expeditiously, especially in cold weather. It is possible that the fix will not be too complicated and if the response will happen quickly, you may not need to cancel classes.

FACILITY CONDITION ASSESSMENT

prepared for

Vermont Agency of Education_FCA Phase Two
1 National Life Drive, Davis 5
Montpelier, VT 05620-2501

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BV PROJECT #:
158982.22R000-305.379

DATE OF REPORT:
September 12, 2023

ON SITE DATE:
August 1, 2023

SPAULDING UHS - Main Building (PS276-SU019)
155 Ayers Street
Barre, VT 05641

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1. Executive Summary

Property Overview and Assessment Details

General Information	
Property Type	School
School ID Number	PS276-SU019
Main Address	155 Ayers Street, Barre, VT 05641
E911 Address Verification	Zip 05641-4349, Standardized, Fixed abbreviations, Matched street and city and state, Confirmed entire address
GPS Location (Verified E911)	Main Building 44.18986, -72.493
Site Developed	1964 Renovated: 2002
Site Area	20.7 acres (estimated)
Parking Spaces	225 total spaces all in open lots; 8 of which are accessible
Building Square Footage	210,000 (Verified)
Number of Stories	3 above grade
Supervisory Union/ District	Barre Unified Union SD
Date(s) of Visit	August 1, 2023

Note: (Verified) in Square Foot signifies that the square footage of the facility has been verified to be accurate.

Significant/Systemic Findings and Deficiencies

Historical Summary

The building was originally constructed in 1964 and has had several additions since then. The latest addition occurred in 2002 and added classroom and gymnasium spaces. Th building houses both the high school and the technical center.

Architectural

The building is steel framed. There is a brick façade and metal panels on the exterior of the building. The windows are aluminum and were installed in 2002 or earlier. The roof of the main building is TPO/PVC material while the gymnasium roof is EPDM material. The interior finishes consist of wood floors and VCT in the gymnasium addition, and terrazzo, VCT and carpet in the main building and classrooms. The walls are painted CMU and gypsum board with ceramic tile accents. There are wood and steel doors throughout the building. All interior finishes have been maintained and updated as needed.

Mechanical, Electrical, Plumbing and Fire (MEPF)

Heating for the main building is mainly provided by two oil-fired boilers, as well as a wood chip boiler. The oil boilers are located in a boiler room in the main building. The wood chip boiler is located in a standalone boiler room. There is a smaller oil-fired boiler in the gymnasium addition that provides the heat for the area. Baseboard radiators are located throughout the building and are fed by heating water pumps. There are unit ventilators in some rooms. These pumps did not have VFDs. There are packaged units on the roof providing heating and air circulation to the building. There are also fans on the roof providing air extraction for the building. The electrical service feeds a 1200-amp switchboard located in the electrical room. The switchboard is original to the building. There are smaller distribution panels throughout the building. The interior lighting consists of mainly linear fluorescent bulbs, but sections of the building are being replaced with LED fixtures as of summer 2023. Most of the electrical service equipment and systems are well maintained and should be replaced during normal life expectancy. In general, the plumbing systems are adequate to serve the facilities, with equipment and fixtures to be updated as needed. The domestic water service within each facility is well maintained, with no evidence of leaks observed at the domestic piping. The domestic hot water service at the facilities consists of 2 electric heaters and a large indirect water heater. Lifecycle replacement of original domestic water and sanitary sewer systems is not anticipated. No major issues were observed or reported. Fire protection system consists of a hard-wired fire alarm system and a wet-type fire sprinkler system. The sprinkler system is throughout the building. The alarm system consists of strobes, pull stations, illuminated exit signs, emergency lighting and other modern life safety devices. The building also has a commercial kitchen with a exhaust hood extinguishing system.

Site

The site has a large parking lot to the front, left, and rear sides of the building. There are large sports fields behind the building including a football field and a baseball field.

Recommended Additional Studies

No additional studies recommended at this time.

Facility Condition Index (FCI)

One of the major goals of the FCA is to calculate each building's Facility Condition Index (FCI), which provides a theoretical objective indication of a building's overall condition. By definition, the FCI is defined as the ratio of the cost of current needs divided by current replacement value (CRV) of the facility. The chart below presents the industry standard ranges and cut-off points.

FCI Ranges and Descriptions	
0 – 5%	In new or well-maintained condition, with little or no visual evidence of wear or deficiencies.
5 – 10%	Subjected to wear but is still in a serviceable and functioning condition.
10 – 30%	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
30% and above	Has reached the end of its useful or serviceable life. Renewal is now necessary.

The deficiencies and lifecycle needs identified in this assessment provide the basis for a portfolio-wide capital improvement funding strategy. In addition to the current FCI, extended FCI's have been developed to provide owners the intelligence needed to plan and budget for the "keep-up costs" for their facilities. As such the 3-year, 5-year, and 10-year FCI's are calculated by dividing the anticipated needs of those respective time periods by current replacement value. As a final point, the FCI's ultimately provide more value when used to relatively compare facilities across a portfolio instead of being over-analyzed and scrutinized as stand-alone values. The table below summarizes the individual findings for this FCA:

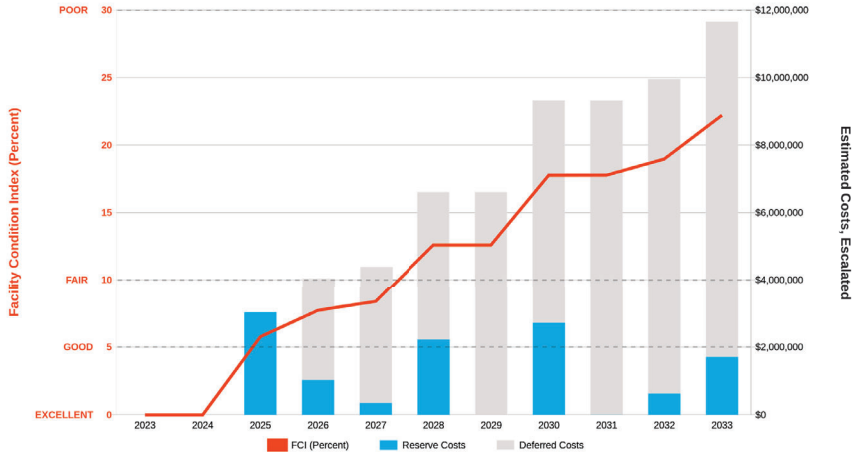
FCI Analysis			
Replacement Value	*Total SF*	*Cost/SF*	
$52,500,000	210,000	$250	
Current FCI		$0	**0.0%**
3-Year		$4,045,800	**7.7%**
5-Year		$6,614,000	**12.6%**
10-Year		$11,661,700	**22.2%**

Facility Level FCI:

The orange line in the graph below forecasts what would happen to the FCI (left Y axis) over time, assuming zero capital expenditures. The capital expenditures allocated for each year (blue bars) are associated with the dollar amounts along the right Y axis. If the school expends the average amount per year to maintain and replace systems, they will not incur the capital debt represented by the gray bars.

Needs by Year with Unaddressed FCI Over Time

Replacement Value: $52,500,000.00 **Inflation Rate: 3%** **Average Needs (per year - over next 10 years): $1,060,148.00**



Needs by Year with Unaddressed FCI Over Time (Table)

The above graph is a visual representation of the information contained in the table below.

Year	Reserve	Reserve Escalation	Recurrence	Recurrence Escalation	Total Escalation	Deferred	FCI
2023	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0
2025	2,849,450	173,532	0	0	173,532	3,022,982	0.06
2026	935,988	86,791	0	0	86,791	4,045,761	0.08
2027	307,600	38,607	0	0	38,607	4,391,968	0.08
2028	1,916,700	305,281	0	0	305,281	6,613,949	0.13
2029	0	0	0	0	0	6,613,949	0.13
2030	2,082,250	478,655	125,000	28,734	507,389	9,174,854	0.17
2031	2,100	560	0	0	560	9,177,514	0.17
2032	481,100	146,626	0	0	146,626	9,805,240	0.19
2033	1,267,000	435,742	0	0	435,742	11,507,982	0.22
2034	92,400	35,503	0	0	35,503	11,635,885	0.22
2035	217,700	92,688	717,450	305,462	398,150	11,946,273	0.23
2036	223,835	104,874	0	0	104,874	12,274,982	0.23
2037	264,500	135,580	0	0	135,580	12,675,062	0.24
2038	1,400	781	0	0	781	12,677,243	0.24
2039	9,200	5,563	0	0	5,563	12,692,006	0.24
2040	2,009,600	1,311,963	1,509,500	985,474	2,297,437	16,013,569	0.31
2041	0	0	114,501	80,429	80,429	16,013,569	0.31
2042	4,285,200	3,228,924	22,950	17,293	3,246,217	23,527,693	0.45

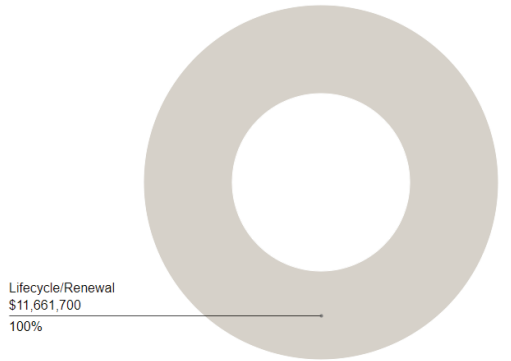
Plan Types

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the "why" part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the "best" fit, typically the one with the greatest significance. Each of the Key Findings identified below are assigned a Plan Type.

Plan Type Descriptions

Safety	■	An observed or reported unsafe condition that if left unaddressed could result in injury; a system or component that presents potential liability risk.
Performance/Integrity	■	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses risk to overall system stability.
Accessibility	■	Does not meet ADA, UFAS, Safety and/or other handicap accessibility requirements.
Environmental	■	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Retrofit/Adaptation	■	Components, systems, or spaces recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	■	Any component or system that is not currently deficient or problematic but for which future replacement or repair is anticipated and budgeted.

Plan Type Distribution (by Cost)



10-YEAR TOTAL: $11,661,700

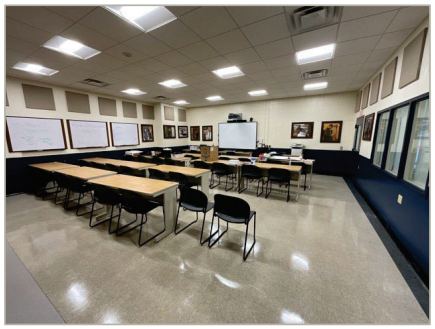
Immediate Needs

ID	Location Description	UF Code	Description	Condition	Plan Type	Cost
Total (0 items)	0	0	0	0	0	$0
					Total	**$0**

Key Findings

No Key Findings Exist For This Facility

2. Building and Site Information



System Summary

System	*Description*	*Condition*
Structure	Steel frame with concrete-topped metal decks over concrete pad column footings	Good
Facade	Primary Wall Finish: Brick Secondary Wall Finish: Metal siding Windows: Aluminum	Fair
Roof	Primary: Flat construction with single-ply TPO/PVC membrane Secondary: Flat construction with single-ply EPDM membrane	Fair
Interiors	Walls: Painted gypsum board, painted CMU, wood paneling, ceramic tile, stone Floors: Carpet, VCT, ceramic tile, quarry tile, wood strip, terrazzo, coated concrete Ceilings: Painted gypsum board and ACT, Unfinished/exposed	Fair
Elevators	Passenger: 1 hydraulic car serving all 3 floors	Fair
Plumbing	Distribution: Copper supply and cast-iron waste & venting Hot Water: Electric and indirect water heaters with integral tanks Fixtures: Toilets, urinals, and sinks in all restrooms	Fair
HVAC	Central System: Boilers, air handlers, feeding fan coil and hydronic baseboard radiators and cabinet terminal units Non-Central System: Packaged units, Split-system heat pumps Supplemental components: Suspended unit heaters	Fair
Safety and Security	Cameras, card readers, perimeter intrusion detection, security windows and doors, fencing, lighting, traffic gates. Multiple points of auto locking doors, main entry monitored, auto locking doors, internal locking on classroom doors, complete intercom system	Fair
Fire Suppression	Wet-pipe sprinkler system and fire extinguishers, and kitchen hood system	Fair
Electrical	Source & Distribution: Main switchboard with copper wiring Interior Lighting: LED and linear fluorescent Emergency Power: None	Fair

Fire Alarm	Alarm panel with smoke detectors, heat detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	Commercial kitchen equipment	Fair
Site Pavement	Asphalt lots with limited areas of concrete aprons and pavement and adjacent concrete sidewalks, curbs, ramps, and stairs	Fair
Site Development	Property entrance signage; chain link fencing Playgrounds and sports fields and courts with bleachers, dugouts, press box, fencing, and site lights Heavily furnished with park benches, picnic tables, trash receptacles	Fair
Landscaping & Topography	Significant landscaping features including lawns, trees, bushes, and planters Irrigation present Low to moderate site slopes throughout	Good
Utilities	Municipal water and sewer Local utility-provided electric and natural gas and fuel oil tanks	Fair
Site Lighting	Pole-mounted: LED Building-mounted: LED	Good
Ancillary Structures	Garages, Storage sheds, and greenhouse	Fair
Accessibility	Presently it does not appear an accessibility study is needed for this property.	
Key Issues and Findings	None observed at time of assessment.	

3. Supplemental Evaluations

Square Foot Verification

We have reviewed the square footage of 210,000 square feet and it is in the range of square foot calculations as reported by the school district. This confirmation of the square footage of the facility is based on the exterior wall dimensions and number of stories measured from Google Earth and other publicly available internet searches. This measurement may not reflect the actual heated square footage but provides a general size of the heated square feet of the overall building.

PCB Air Indoor Testing

At the time of the onsite evaluation of this facility PCB air testing has not been conducted. Further ongoing information can be found on the Agency of Natural Resources PCB in Schools website Agency of Natural Resources PCB in Schools.

School Educational Capacity and Programming Space

As part of the FCA report, school administrative staff were asked to conduct a self-assessment of whether their school building meets their space, operational needs and if they have sufficient building capacity and appropriate spaces to deliver educational programming. The school responses to the survey are reported in Appendix D. The respondents indicated that the following areas were inadequate to meet current needs:

A space needs self-assessment was conducted by the school administrative staff which identified space constraints in the following areas:

- Adequate number of classrooms.
- Adequate overall building space.
- Confidential space to maintain FERPA, HIPPA or IEP requirements.
- Administrative offices and/or office space for staff.
- Cafeteria, kitchen and/or gymnasium space.

The Depleted Value Facility Condition Index (FCI) is an estimate of a building's overall amount of consumed system life. The Depleted Value FCI ratings scale indicates the estimated condition of the system. Generally, the higher the Depleted Value FCI, the greater the need to repair or replace a system. Note that the FCI can also be calculated for system groups, building types and other aggregations. The estimated percentage of collective system life left in a building, also referred to as Remaining Useful Life (RUL). The higher the RUL, the newer the system. The sum of Depleted Value FCI and RUL will equal 100%.

Depleted Value Index

Index Value	**55.2%**

System Expenditure Forecast

System	Immediate	Short Term (1-2 yr)	Near Term (3-5 yr)	Med Term (6-10 yr)	Long Term (11-20 yr)	TOTAL
Structure	-	-	-	-	$260,100	$260,100
Facade	-	-	$20,700	$398,000	$3,037,800	$3,456,500
Roofing	-	-	-	$1,478,300	$36,100	$1,514,400
Interiors	-	$2,149,600	$627,200	$111,300	$2,486,700	$5,374,800
Conveying	-	$9,500	$5,800	$91,300	$14,900	$121,600
Plumbing	-	-	$44,400	$142,600	$4,298,500	$4,485,500
HVAC	-	$76,700	$1,930,800	$659,300	$2,425,000	$5,091,900
Fire Protection	-	-	$252,900	$15,100	$7,100	$275,100
Electrical	-	-	$112,700	$25,700	$3,208,400	$3,346,800
Fire Alarm & Electronic Systems	-	$557,000	$18,100	$1,717,500	$896,000	$3,188,600
Equipment & Furnishings	-	$144,200	$480,000	$234,200	$509,200	$1,367,500
Special Construction & Demo	-	-	-	$41,500	$347,900	$389,400
Site Development	-	-	$52,400	$33,200	$199,500	$285,200
Site Pavement	-	$85,900	-	$99,600	$1,303,200	$1,488,800
Site Utilities	-	-	$45,900	-	$17,100	$63,000
TOTALS	**$0**	**$3,022,900**	**$3,590,900**	**$5,047,600**	**$19,047,500**	**$30,709,200**

4. Property Space Use and Observed Areas

Areas Observed

The interior spaces were observed to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, the exterior of the property and the roofs.

Key Spaces Not Observed

All key areas of the property were accessible and observed.

5. ADA Accessibility

Generally, Title II of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of "areas of public accommodations" and "public facilities" on the basis of disability. Regardless of their age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).
A public entity (i.e., city governments) shall operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities.
However, this does not:

1. Necessarily requires a public entity to make each of its existing facilities accessible to and usable by individuals with disabilities.
2. Require a public entity to take any action that would threaten or destroy the historic significance of an historic property; or
3. Require a public entity to take any action that it can demonstrate would result in a fundamental alteration in the nature of a service, program, or activity or in undue financial and administrative burdens. In those circumstances where personnel of the public entity believe that the proposed action would fundamentally alter the service, program, or activity or would result in undue financial and administrative burdens, a public entity has the burden of proving that compliance with 35.150(a) of this part would result in such alteration or burdens. The decision that compliance would result in such alteration or burdens must be made by the head of a public entity or his or her designee after considering all resources available for use in the funding and operation of the service, program, or activity, and must be accompanied by a written statement of the reasons for reaching that conclusion. If an action would result in such an alteration or such burdens, a public entity shall take any other action that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the public entity.

Removal of barriers to accessibility should be addressed from a liability standpoint in order to comply with federal law, but the barriers may or may not be building code violations. The Americans with Disabilities Act Accessibility Guidelines are part of the ADA federal civil rights law pertaining to the disabled and are not a construction code. State and local jurisdictions have adopted the ADA Guidelines or have adopted other standards for accessibility as part of their construction codes.

During the FCA, Bureau Veritas performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to the same areas observed while performing the FCA and the categories set forth in the appendix. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of this particular assessment. A full measured ADA survey would be required to identify any and all specific potential accessibility issues. Additional clarifications of this limited survey:

- This survey was visual in nature and actual measurements were not taken to verify compliance.
- Only a representative sample of areas was observed.
- Two overview photos were taken for each subsection regardless of perceived compliance or non-compliance.
- Itemized costs for individual non-compliant items are not included in the dataset.
- For any "none" boxes checked or reference to "no issues" identified, that alone does not guarantee full compliance.

The facility was originally constructed in 1956. The facility was renovated in 1994 and has widespread accessibility.
No information about complaints or pending litigation associated with potential accessibility issues was provided during the interview process.

A detailed follow-up accessibility study is included as a recommendation based on the potential that specific ADA violations, not in this scope of services, may exist. Reference the appendix for specific data, photos, and tables or checklists associated with this limited accessibility survey.

6. Purpose and Scope

Purpose

Bureau Veritas was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

The physical condition of building systems and related components are typically defined as being in one of five condition ratings. For the purposes of this report, the following definitions are used:

Condition Ratings	
Excellent	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed, or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general-built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source. The preferred methodology is to have the client representative or building occupant complete a Pre-Survey Questionnaire (PSQ) in advance of the site visit. Common alternatives include a verbal interview just prior to or during the walk-through portion of the assessment.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report, which highlights key findings and includes a Facility Condition Index as a basis for comparing the relative conditions of the buildings within the portfolio.

7. Opinions of Probable Costs

Cost estimates are attached throughout this report, with the Replacement Reserves in the appendix. These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means, CBRE Whitestone,* and *Marshall & Swift,* Bureau Veritas's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing or bundling of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, use of subcontractors, and whether competitive pricing is solicited, etc. Certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, Bureau Veritas opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its *effective age*, whether explicitly or implicitly stated. Projections of Remaining Useful Life (RUL) are based primarily on age and condition with the presumption of continued use and maintenance of the Property similar to the observed and reported past use and maintenance practices, in conjunction with the professional judgment of Bureau Veritas's assessors. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be or were not derived from an actual construction document take-off or facility walk-through, and/or where systemic costs are more applicable or provide more intrinsic value, budgetary square foot and gross square foot costs are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Definitions

Immediate Needs

Immediate Needs are line items that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

For database and reporting purposes the line items with RUL=0, and commonly associated with *Safety* or *Performance/Integrity* Plan Types, are considered Immediate Needs.

Replacement Reserves

Cost line items traditionally called Replacement Reserves (equivalently referred to as Lifecycle/Renewals) are for recurring probable renewals or expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves generally exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, Bureau Veritas's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

Bureau Veritas's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning systems or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined as Immediate Needs.

For the purposes of 'bucketizing' the System Expenditure Forecasts in this report, the Replacement Reserves have been subdivided and grouped as follows: Short Term (years 1-3), Near Term (years 4-5), Medium Term (years 6-10), and Long Term (years 11-20).

Key Findings

In an effort to highlight the most significant cost items and not be overwhelmed by the Replacement Reserves report in its totality, a subsection of Key Findings is included within the Executive Summary section of this report. Key Findings typically include repairs or replacements of deficient items within the first five-year window, as well as the most significant high-dollar line items that fall anywhere within the ten-year term. Note that while there is some subjectivity associated with identifying the Key Findings, the Immediate Needs are always included as a subset.

Exceedingly Aged

A common scenario encountered during the assessment process, and a frequent source of debate, occurs when classifying and describing "very old" systems or components that are still functioning adequately and do not appear nor were reported to be in any way deficient. To help provide some additional intelligence on these items, such components will be tagged in the database as Exceedingly Aged. This designation will be reserved for mechanical or electrical systems or components that have aged well beyond their industry standard lifecycles, typically at least 15 years beyond and/or twice their Estimated Useful Life (EUL). In tandem with this designation, these items will be assigned a Remaining Useful Life (RUL) not less than two years but not greater than 1/3 of their standard EUL. As such the recommended replacement time for these components will reside outside the typical Short-Term window but will not be pushed 'irresponsibly' (too far) into the future.

8. STEM/STEAM Assessment

STEM and STEAM education is an integrated curriculum that is driven by exploratory project-based learning and student-centered development of ideas and solutions. BV has evaluated the facility for the existence of spaces and systems to provide STEM/STEAM education based on input from the point of contact for the school. The below table identifies the required standards and to what degree the requirements have been met for the facility.

STEM/STEAM Evaluations

Property Name	STEM/STEAM Suitability Score	Project Number	School Type	Square Footage
Spaulding UHS - Main Building	**79%**	158982.22R000-305.379	High	210,000

Suitability Classification	Scale
Compares Poorly	Score 0 - 25
Compares Marginally	Score 25-50
Compares Fairly	Score 50-75
Compares Well	Score 75 - 100

Score Value	Score Impact
1- Meets	100%
2- Partial	50%
3- Missing	0%

Details of the STEM/STEAM evaluation are included in the appendix of this report. Reference this appendix for specific data associated with this limited survey.

9. Energy Audit

The purpose of this Energy Audit is to provide Spaulding UHS with a baseline of energy usage, the relative energy efficiency of the facility, and specific recommendations for Energy Conservation Measures. Information obtained from these analyses may be used to support a future application to an Energy Conservation Program, Federal and Utility grants towards energy conservation, as well as support performance contracting, justify a municipal bond-funded improvement program, or as a basis for replacement of equipment or systems.

The energy audit consisted of an on-site visual assessment to determine current conditions, itemize the energy consuming equipment (i.e. Boilers, Make-Up Air Units, DWH equipment); review lighting systems both exterior and interior; and review efficiency of all such equipment. The study also included interviews and consultation with operational and maintenance personnel. The following is a summary of the tasks and reporting that make up the Energy Audit portion of the report.

The following is a summary of the tasks and reporting that make up the Energy Audit portion of the report.

Energy and Water Using Equipment

- Bureau Veritas has surveyed the common areas, offices, maintenance facilities and mechanical rooms to document utility-related equipment, including heating systems, cooling systems, air handling systems and lighting systems.

Building Envelope

- Bureau Veritas has reviewed the characteristics and conditions of the building envelope, checking insulation values and conditions. This review also includes an inspection of the condition of walls, windows, doors, roof areas, insulation and special use areas.

Recommendations for Energy Savings Opportunities

- Based on the information gathered during the on-site assessment, the utility rates, as well as recent consumption data and engineering analysis, Bureau Veritas has identified opportunities to save energy and provide probable construction costs, projected energy/utility savings and provide a simple payback analysis.

Analysis of Energy Consumption

- Based on the information gathered during the on-site assessment, Bureau Veritas has conducted an analysis of the energy usage of all equipment, and identified which equipment is using the most energy and what equipment upgrades may be necessary. As a result, equipment upgrades, or replacements are identified that may provide a reasonable return on the investment and improve maintenance reliability.

Energy Audit Process

- Interviewing staff and review plans and past upgrades
- Performing an energy audit for each use type
- Performing a preliminary evaluation of the utility system
- Analyzing findings, utilizing ECM cost-benefit worksheets
- Making preliminary recommendations for system energy improvements and measures
- Estimating initial cost and changes in operating and maintenance costs based on implementation of energy efficiency measures
- Ranking recommended cost measures, based on the criticality of the project and the largest payback

10. Historical Energy and Water Performance Metrics

Utility Data Tabulation Methodology

Establishing the energy baseline begins with an analysis of the utility cost and consumption of the facility. Utilizing the historical energy data and local weather information, we evaluate the existing utility consumption and assign it to the various end-uses throughout the buildings. The Historical Data Analysis breaks down utilities by consumption, cost and annual profile.

This data is analyzed using standard engineering assumptions and practices. The analysis serves the following functions:

- Allows our engineers to benchmark the energy and water consumption of the facilities against consumption of efficient buildings of similar construction, use and occupancy.
- Generates the historical and current unit costs for energy and water
- Provides an indication of how well changes in energy consumption correlate to changes in weather.
- Reveals potential opportunities for energy consumption and/or cost reduction. For example, the analysis may indicate that there is excessive, simultaneous heating and cooling, which may mean that there is an opportunity to improve the control of the heating and cooling systems.

By performing this analysis and leveraging our experience, our engineers prioritize buildings and pinpoint systems for additional investigation during the site visit, thereby maximizing the benefit of their time spent on-site and minimizing time and effort by the customer's personnel.

No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used average utility costs from other VT Agency of Education properties to approximate the utility costs for this property. Bureau Veritas will update the report on receipt of the actual data from the client.

Utilities Metering at a Glance	
Number of electric meters observed	One
Number of gas meters observed	One
Number of central steam meters observed	None
Number of domestic water meters observed	One

Average Utility Rates				
Electricity	Wood Chips	Natural Gas	No. 2 Oil	Water & Sewer
Average Rate	Average Rate	Average Rate	Average Rate	Blended Rate
$0.18 / kWh (est.)	$0.10 / Lb. (est.)	$1.20 / therm (est.)	$2.78 / Gal (est.)	$16.11 / kGal (est.)

Electricity

Green Mountain Power provides electrical service to the facility.

The consumption pattern likely remains relatively constant. Any seasonal variation in consumption is primarily attributed to periods when school is out of session, while the static base load primarily consists of domestic water heating, lighting, and appliances.

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the electric rate from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data from the client.

Wood Chips/Pellets

The wood chip fuel supplier to the facility was not provided. The deliveries are made on an as-needed basis.
The primary use of wood chips is for space heating. Any seasonal variation in consumption is primarily attributed to the heating loads.

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the utility rates from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data from the client.

Natural Gas

Vermont Gas provides natural gas to the facility.
The primary use of natural gas is for cooking. Any seasonal variation in consumption is primarily attributed to varying levels of cooking requirements based on weather and school being in session.

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the utility rates from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data from the client.

Propane or Fuel Oil

The fuel oil supplier to the facility was not provided. The deliveries are made on an as-needed basis.
The primary use of fuel oil is for space heating and domestic water heating. Any seasonal variation in consumption is primarily attributed to the heating loads, while the static base load primarily consists of domestic water heating.

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the utility rates from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data from the client.

Water and Sewer

The Town of Barre satisfies the water and sewer requirements of the facility.

The water consumption pattern most likely remains more or less flat over the 10-month period that school is in session.

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the utility rate from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data from the client.

11. Energy Conservation Measures

Bureau Veritas has conducted an Energy Audit on Spaulding UHS. The study included a review of the building's construction features, historical energy and water consumption and costs, review of the building envelope, HVAC equipment, heat distribution systems, lighting, and the building's operational and maintenance practices.

Bureau Veritas has evaluated five Energy Conservation Measures (ECMs) for this property. The savings for each measure are calculated using standard engineering methods followed in the industry, and detailed calculations for ECM are provided in Appendix H for reference. A 10% discount in energy savings was applied to account for the interactive effects amongst the ECMs. In addition to the consideration of the interactive effects, Bureau Veritas has applied a 15% contingency to the implementation costs to account for potential cost overruns during the implementation of the ECMs.

The following table summarizes the recommended ECMs in terms of description, investment cost, energy consumption reduction, and cost savings.

Recommended Non- Renewable Energy Conservation Measures: Financial Impact	
Total Projected Initial ECM Investment	$130,859
Estimated Annual Cost Savings Related to ECMs	$18,974
Net Effective ECM Payback	6.9 Years

Key Metrics to Benchmark the Subject Property's Energy Usage Profile

- Building Site Energy Use Intensity - The sum of the total site energy use in thousands of Btu per unit of gross building area. Site energy accounts for all energy consumed at the building location only not the energy consumed during generation and transmission of the energy to the site.
- Building Source Energy Use Intensity – The sum of the total source energy use in thousands of Btu per unit of gross building area. Source energy is the energy consumed during generation and transmission in supplying the energy to your site.
- Building Cost Intensity - This metric is the sum of all energy use costs in dollars per unit of gross building area.
- Greenhouse Gas Emissions - Although there are numerous gases that are classified as contributors to the total for Greenhouse Emissions, the scope of this energy audit focuses on carbon dioxide (CO_2). Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement).

Energy Conservation Measures Screening:

Bureau Veritas screens ECMs using the financial methodology below. ECMs which are considered financially viable must meet the criteria.

Simple Payback Period –The number of years required for the cumulative value of energy or water cost savings less future non-fuel or non-water costs to equal the investment costs of the building energy or water system, without consideration of discount rates. ECMs with a payback period greater than the Expected Useful Life (EUL) of the project are not typically recommended, as the cost of the project will not be recovered during the lifespan of the equipment. These ECMs are recommended for implementation during future system replacement. At that time, replacement may be evaluated based on the premium cost of installing energy efficient equipment.

Spaulding UHS

Energy Conservation Measures

	Description of ECM	Location	Net Projected Initial Investment ($)	Estimated Annual Savings Nat Gas (therms)	Estimated Annual Savings #2 Oil (Gal)	Estimated Annual Savings Electricity (kWh)	Estimated Annual Savings Water (kGal)	Total Energy Savings (MMBTU)	Total Green House Gas Savings ($MtCO^2/Yr.$)	Estimated Utility Cost Savings ($)	Estimated Annual O&M Savings ($)	Total Estimated Annual Cost Savings ($)	Simple Payback (Yrs)	Life Cycle Savings ($)	Expected Useful Life (EUL) (Yrs)
1	Replace Existing Linear Fluorescent Lamps: Replace 12x F42T8 with F42LED; Replace 22x F43T8 with F43LED; Replace 66x F42T8 with F42LED; Replace 96x F42T8 with F42LED; Replace 7x F42T8 with F42LED	Location: Throughout building interiors	$6,414	0.0	0.0	14,850.5	0.0	50.7	3.5	$2,673	$234	$2,907	2.2	$28,294	15
2	Install Low Flow Faucet Aerators; Replace 59x 1.5GPM rated bathroom aerators with 0.5GPM WaterSense certified aerators	Location: Restrooms, throughout building	$895	0.0	59.6	0.0	13.4	8.3	0.6	$166	$0	$382	2.3	$2,366	10
3	Replace Incandescent/CFL /Halogen Lamps With LED Lamps: Replace 60 Screw In-CFL20 with 11W LED A19	Location: Auditorium	$827	0.0	0.0	702.0	0.0	2.4	0.2	$126	$52	$178	4.6	$1,301	15
4	Re-Commission The Building & Its Control Systems; Improve building efficiency by 7% through re-commissioning	Location: Throughout building	$93,133	0.0	5,600.0	0.0	0.0	775.6	56.7	$15,568	$0	$15,568	6.0	$92,716	15
5	Install Variable Frequency Drives (VFD); Install (2x) VFDs on 20HP motors	Location: Boiler room	$12,521	0.0	0.0	11,370.8	0.0	38.8	2.7	$2,047	$0	$2,047	6.1	$11,913	15
Totals for no/low cost items			$1,722	0.0	59.6	702.0	13.4	10.7	0.8	$292	$52	$561	3.1		
Total for capital cost			$112,069	0.0	5,600.0	26,221.3	0.0	865.1	62.9	$20,288	$234	$20,522	5.5		
Interactive Savings Discount @10%				0.0	-566.0	-2,692.3	-1.3	-87.6	-6.4	-$2,058	-$29	-$2,108			
Total Contingency Expenses @ 15%			$17,069												
Totals for improvements			$130,859	0.0	5,093.7	24,231.0	12.1	788.1	57.3	$18,522	$258	$18,974	6.9		

12. Certification

Vermont Agency of Education, Phase Two (the Client) retained Bureau Veritas to perform this Facility Condition Assessment in connection with its continued operation of Spaulding UHS - Main Building, 155 Ayers Street, Barre, VT 05641, the "Property". It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling, or operating of equipment or in-depth studies were performed unless specifically required under the *Purpose and Scope* section of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas may have been observed (see Section 1 for specific details). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of the Client for the purpose stated within the *Purpose and Scope* section of this report. The report, or any excerpt thereof, shall not be used by any party other than the Client or for any other purpose than that specifically stated in our agreement or within the *Purpose and Scope* section of this report without the express written consent of Bureau Veritas.

Any reuse or distribution of this report without such consent shall be at the Client and the recipient's sole risk, without liability to Bureau Veritas.

Prepared by: Bureau Veritas Technical Assessments

13. Appendices

SPAULDING UHS - MAIN BUILDING
BUREAU VERITAS PROJECT: 158982.22R000-305.379

Appendix A:
Photographic Record

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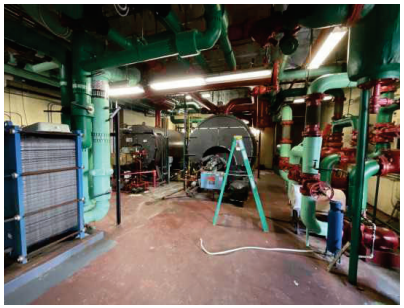
Photographic Overview

1 - FRONT ELEVATION

2 - LEFT ELEVATION

3 - REAR ELEVATION

4 -RIGHT ELEVATION

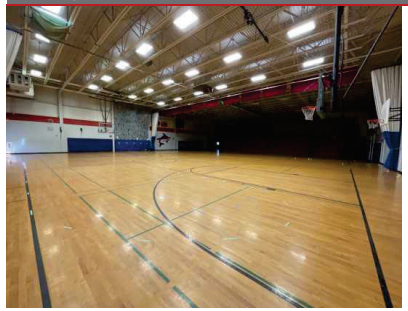


5 - BOILER ROOM OVERVIEW PHOTO

6 - WOOD CHIP BOILER ROOM

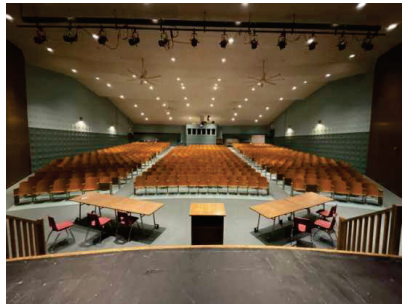
SPAULDING UHS - MAIN BUILDING BUREAU VERITAS PROJECT: 158982.22R000-305.379

Photographic Overview



7 - GYMNAISUM OVERVIEW PHOTO

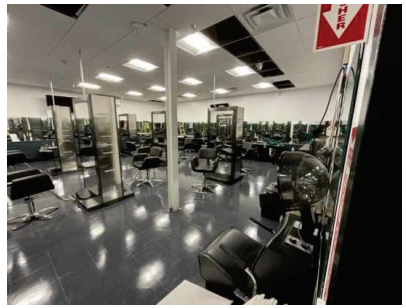
8 - OVERVIEW OF TECHNICAL CLASSROOM



9 - PHOTO OF AUDITORIUM FROM STAGE

10 - WOOD SHOP OVERVIEW PHOTO

11 - CAFETERIA OVERVIEW PHOTO



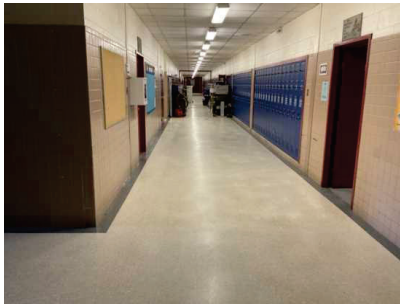
12 - WORKOUT ROOM OVERVIEW

Photographic Overview

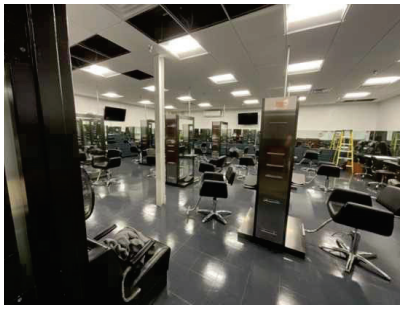
13 - HOME ECONOMICS CLASSROOM

14 - LABORATORY CLASSROOM OVERVIEW

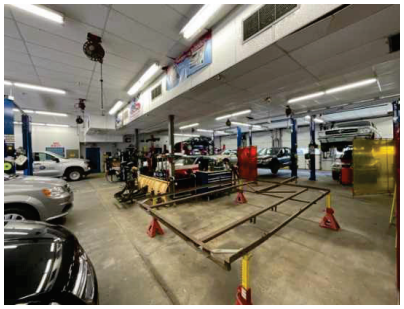
15 - STANDARD TEACHING CLASSROOM OVERVIEW



16 - OVERVIEW OF AVERAGE HALLWAY



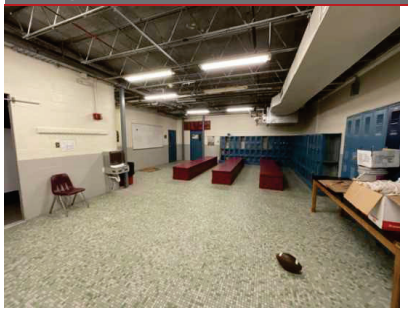
17 - PHOTO OF COSMETOLOGY CLASSROOM



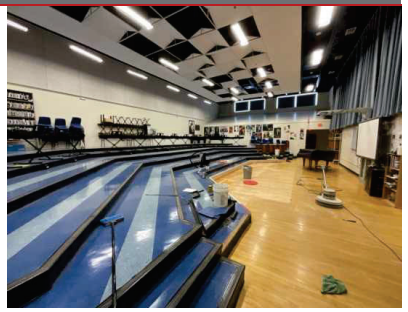
18 - OVERVIEW OF AUTOMOTIVE SHOP

SPAULDING UHS - MAIN BUILDING BUREAU VERITAS PROJECT: 158982.22R000-305.379

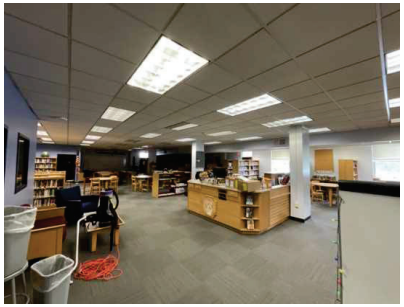
Photographic Overview



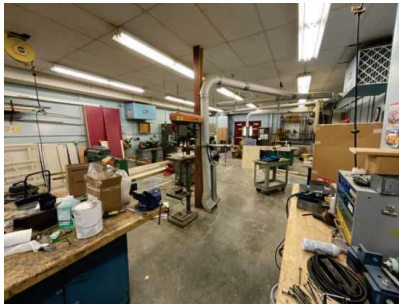
19 - OVERVIEW OF LOCKER ROOM



20 - OVERVIEW OF CHORUS ROOM

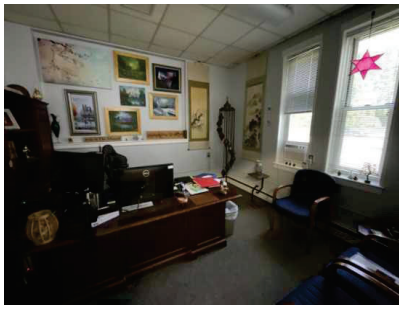


21 - OVERVIEW OF LIBRARY



22 - OVERVIEW OF SHOP SPACE

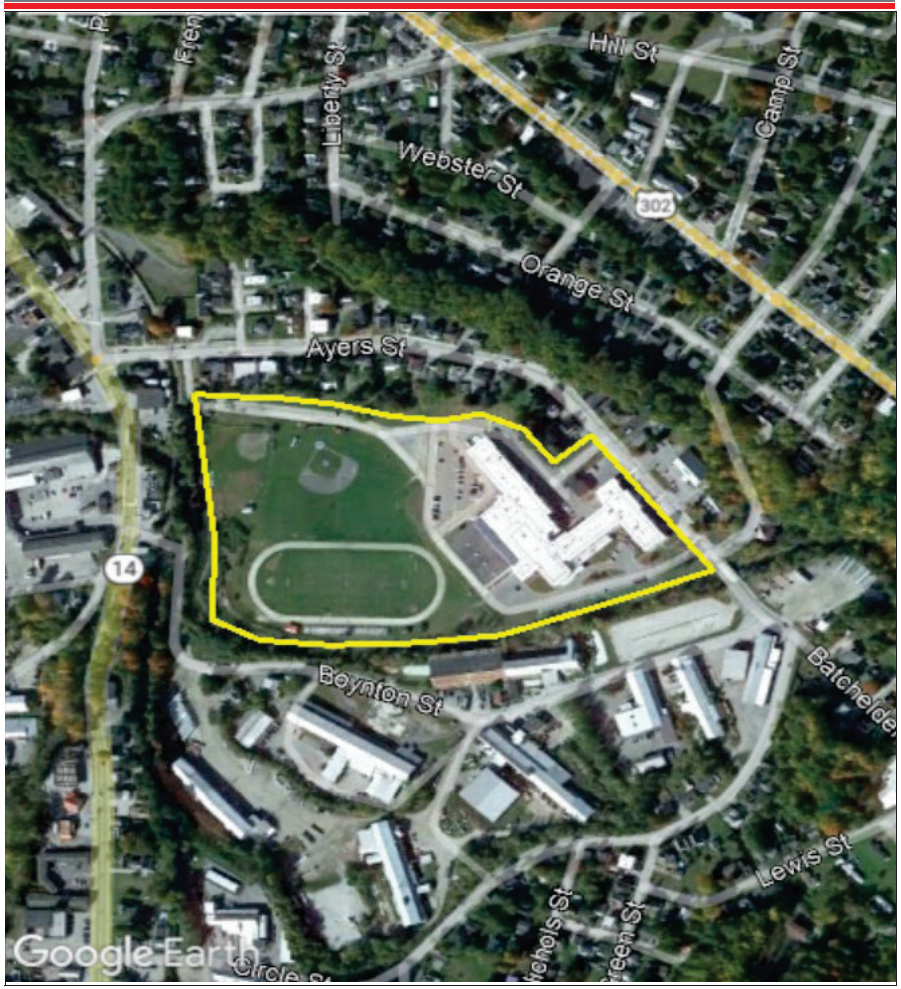
23 - TEACHING KITCHEN OVERVIEW PHOTO



24 - OFFICE

Appendix B:
Site Plans

Site Plan



Project Name	Project Number
Vermont Agency of Education	158982.22R000-305.379 Spaulding High School Main Building

Source	On-Site Date
Google MyMaps	August 1-4, 2023

Appendix C:
Stem/Steam Assessment

STEM/STEAM Evaluation

Property Name	STEM/STEAM Suitability Score	Project Number	School Type	Square Footage
Spaulding UHS - Main Building	79%	158982.22R000-305.379	High	210,000

Suitability Classification	Scale
Compares Poorly	Score 0 - 25
Compares Marginally	Score 25-50
Compares Fairly	Score 50-75
Compares Well	Score 75 - 100

Score Value	Score Impact
1- Meets	100%
2- Partial	50%
3- Missing	0%

Rooms to support STEM/STEAM Curriculum - X= Required by School Type

Room Types	Room Present (Yes/No)	Elementary School	Middle School	High School
Does the facility have an Art Room?	Yes	X	X	X
Does the facility have a Science Lab?	Yes		X	X
Does the facility have a Shop (Machine, Wood, Metal, etc.)?	Yes		X	X
Does the facility have a Computer Lab?	Yes	X	X	X
Does the facility have a dedicated STEM/STEAM Room?	Yes	X	X	X

	Overall Compliance				
Questions	Art Room	Science Labs	Shops	Computer Lab	STEM/STEAM
Does the room have chemical resilient perimeter counters with a minimum of two sinks, one being ADA accessible?	1- Meets	1- Meets	2- Partial		1- Meets
Does the room have electrical outlet distribution along perimeter walls and from the ceiling?	2- Partial	2- Partial	1- Meets	2- Partial	2- Partial
Does the room have open shelving and lockable storage cabinets?	1- Meets	1- Meets	1- Meets		1- Meets
Does the room have technology connectivity and an interactive display?	1- Meets	1- Meets	2- Partial	1- Meets	1- Meets
Does the room have appropriate wet floor finishes?	1- Meets	1- Meets	1- Meets		1- Meets
Does the room have visual display boards?	1- Meets	1- Meets	1- Meets	1- Meets	1- Meets
Does the room have Prep/Storage Room?	1- Meets	1- Meets	1- Meets	1- Meets	1- Meets
Does the room have direct access to the exterior?	3- Missing	2- Partial	1- Meets		3- Missing
Does the room the ability to structurally suspend items from the ceiling?	3- Missing	3- Missing	1- Meets		3- Missing
Does the have goggle cabinets, fire extinguisher, eye wash and deluge shower?	2- Partial	2- Partial	1- Meets		2- Partial
Room Type Score	70%	75%	90%	88%	70%

Appendix D:
School Educational Capacity and Programming Space

School Educational Capacity and Programming Space

As part of Act 72, AOE has contracted with Bureau Veritas (BVNA) to complete a Facility Condition Assessment (FCA) of very public school building in Vermont. One component of the FCA report will be to identify whether the size and configuration of your current facility is meeting your school's educational and operational needs. In order for us to accurately capture your facility space needs, it is necessary for the AOE and BVNA to receive your input. To complete this brief survey, we recommend that you consult with school building leadership and facilities/custodial staff.

School Name

Spaulding Union High School

SU/SD

Barre Supervisory Union

Does the school have an adequate number of classrooms to meet student enrollment needs?

Yes

Please provide some explanation and/or context (known needs, barriers, other constraints outside of space, etc.):

Yes we have adequate space.

Does the school have adequate space to accommodate all the current educational programs being offered?

Yes

Please describe capacity of your school building(s) to deliver educational programming:

We have had declining enrollment.

Would the school provide additional programming if available space was provided?

Yes

.

More students staying in the school setting if there were more space.

Does the school have adequate confidential space to provide 1:1 services to students as required to maintain FERPA, HIPPA or IEP requirements?

Yes

Please describe:

No

Do the school have adequate administrative offices and/or office space for staff?

No

Please describe:

Yes

Based on the size of enrollment does the size of the cafeteria, kitchen and gymnasium meet the current and future enrollment needs?

No

Please describe:

Yes

Appendix E:
Accessibility Review & Photos

Visual Survey - ADA Standards for Accessible Design

Property Name: Spaulding High School

BV Project Number: 158982.22R000-305.379

Facility History & Interview

Question	Yes	No	Unk	Comments
1. ADA: Has an accessibility study been performed at the site? If so, when?			X	
2. ADA: If a study has occurred, have the associated recommendations been addressed? In full or in part?			X	
3. ADA: Have there been regular complaints about accessibility issues, or previous or pending litigation?			X	

Building : Accessibility Issues

Category	Major Issues (ADA study recommended)	Moderate Issues (ADA study recommended)	Minor Issues	None*
Parking				None
Exterior Route				None
Building Entrances				None
Interior Route				None
Elevators				None
Public Restrooms				None

**Be cognizant that if the "None" box is marked that does not guarantee full compliance; this study is limited in nature*

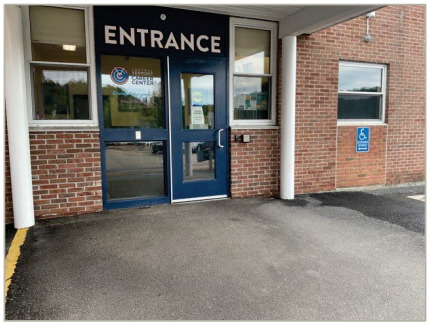
1 - OVERVIEW OF ACCESSIBLE PARKING AREA

2 - 2ND ACCESSIBLE PARKING AREA

3 - PRIMARY PATH OF TRAVEL

4 - CURB CUT

5 - MAIN ACCESSIBLE ENTRANCE

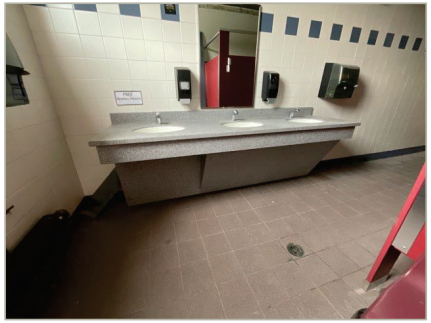


6 - SIGNAGE/HARDWARE

7 - ACCESSIBLE INTERIOR PATH

8 – INTERIOR PATH DOOR HARDWARE

9 - TOILET STALL OVERVIEW



10 - SINK, FAUCET HANDLES or ACCESSORIES

13 - LOBBY VIEW OF CABS, WITH DOORS OPEN

14 - IN-CAB CONTROLS/EMERGENCY CALL PANEL

The table below is intended to be used as a general reference guide to help differentiate the orders of magnitude between some of the more commonly observed accessibility issues. The table is not intended to be all-inclusive, and boxes checked in the tables above do not necessarily mean those specific problems or shortcomings cited as examples below exist at the subject buildings and sites. Reference the data and photos above and/or the *Key Findings* section in the body of the report for visuals and/or more specifics about the particular subject site conditions.

Reference Guide

	Major Issues *(ADA study recommended)*	Moderate Issues *(ADA study recommended)*	Minor Issues
Parking	- Needs full reconstruction - Excessive slopes over 3% require major re-grading - No level locations to add required spaces	- No or non-compliant curb cuts - Moderate difficulty to add required accessible spaces - Slopes close to compliant	- Painting of markings needed - Signage height non-compliant - Signage missing
Exterior Route	- Large areas of sidewalks with excessive slopes - No ramp when needed - Ramps with excessive slopes	- Ramps need rails - Ramps need rail extensions - All or most entrance door exterior maneuvering clearance areas with excessive slopes	- One entrance door exterior maneuvering clearance area with excessive slope - Non-compliant signage
Building Entrances	- No compliant entrance exists - Exterior entry door/s not wide enough - Entrance vestibule requires complete reconstruction / reconfiguration due to clearance	- Need significant # of lever handles - Need to add or modify automatic door opener - Entrance vestibule requires limited reconfigurations	- A few doorknobs instead of lever handles - Non-compliant door threshold
Interior Route	- All or most interior doors appear less than 32" wide - Corridors less than 36" wide - No ramp when needed - Ramps with excessive slopes - Non-compliant treads/risers at means of egress stairways	- Single height drinking fountains - Drinking fountain too high or protrudes into accessible route - Ramps need rails - Ramps need rail extensions - Need significant # of lever handles - Non-compliant rail extensions at egress stairways - All/most door thresholds high	- One door threshold too high - A few doorknobs instead of lever handles - Non-compliant Door pressures - Non-compliant signage - Switches not within reach range
Elevators	- No elevator present when required - Elevator cab too small	- Panel control buttons not at compliant height - No hands-free emergency communication system - Elevator only has mechanical stops	- Audible/visual signals at every floor may be lacking - Minor signage / Braille issues
Public Restrooms	- No ADA RR on each accessible floor - Restroom(s) too small - Entire restroom(s) requires renovation - Water closet clearance requires moving walls	- Interior doors appear less than 32" wide - Missing or non-compliant grab bars - Easily fixable clearance issues	- Minor height adjustments required - Non-compliant door pressures - Missing a visual strobe (only required if audible fire alarm already present) - Missing lavatory pipe wraps - Signage not compliant
Kitchens/Kitchenettes	- Clear space for each appliance not present - Clearance between opposing counters too narrow	- Sink and counter too high - Sink knee and toe clearance not provided where required (built-in) - Less than 50% of cabinetry within reach range	- Dispensers not within reach range - Switches not within reach range - Missing sink pipe wraps if knee and toe clearance required
Playgrounds & Pools	- Large areas of surfacing non-compliant - Install compliant play structures - No pool lift provided	- Small area/s of surfacing or equipment non-compliant - Moderate issues with path of travel to playground/pool	- Minor issues with path of travel to playground/pool

Appendix F:
Component Condition Report

Component Condition Report | SPAULDING UHS - Main Building

UF L3 Code	Location	Category	Condition	Asset/Component/Repair	Quantity	Unit	RUL	ID
Structure								
B1080	Stairwells	Structure	Fair	Stairs, Metal or Pan-Filled, Interior	3,000	SF	20	6895262
Facade								
B2010	Building Exterior	Facade	Fair	Exterior Walls, Brick Veneer	61,820	SF	20	6895206
B2010	Building Exterior	Facade	Fair	Exterior Walls, Metal/Insulated Sandwich Panels	23,740	SF	24	6895293
B2010	Building Exterior	Facade	Fair	Exterior Walls, Metal/Insulated Sandwich Panels	6,300	SF	24	6895196
B2020	Building Exterior	Facade	Fair	Window, Aluminum Double-Glazed, 16-25 SF	263		9	6895330
B2050	Building Exterior	Facade	Fair	Overhead/Dock Door, Steel, 20'x14' (280 SF)	2		5	6895370
B2050	Building Exterior	Facade	Fair	Exterior Door, Aluminum-Framed & Glazed, Standard Swing	12		9	6895283
B2050	Building Exterior	Facade	Fair	Exterior Door, Steel, Standard	22		19	6895168
B2050	Building Exterior	Facade	Fair	Exterior Door, Wood, Solid-Core	8		3	6895337
B2050	Building Exterior	Facade	Fair	Overhead/Dock Door, Aluminum, 12'x12' (144 SF)	9		9	6895245
Roofing								
B3010	Roof	Roofing	Fair	Roofing, Single-Ply Membrane, EPDM	2,300	SF	12	6895228
B3010	Roof	Roofing	Fair	Roofing, Single-Ply Membrane, EPDM	15,000	SF	10	6895236
B3010	Roof	Roofing	Fair	Roofing, Single-Ply Membrane, TPO/PVC	55,000	SF	10	6895268
Interiors								
C1030	Throughout building	Interiors	Fair	Interior Door, Steel, Standard	105		17	6895350
C1030	Throughout building	Interiors	Fair	Interior Door, Steel, w/ Extensive Glazing	50		17	6895274
C1070	Throughout building	Interiors	Fair	Suspended Ceilings, Acoustical Tile (ACT)	210,000	SF	2	6895349
C1090	Hallways	Interiors	Fair	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H	400		5	6895316
C2010	Hallways	Interiors	Fair	Wall Finishes, Ceramic Tile	2,000	SF	17	6895222
C2010	Locker room	Interiors	Fair	Wall Finishes, Ceramic Tile	1,000	SF	19	6895248
C2010	Auditorium	Interiors	Fair	Wall Finishes, Wood Paneling, Raised Architectural Wainscot	2,500	SF	10	6895242
C2010	Throughout building	Interiors	Fair	Wall Finishes, any surface, Prep & Paint	325,000	SF	2	6895218
C2010	Hallway	Interiors	Fair	Wall Finishes, Granite Veneer	750	SF	29	6895352
C2030	Cosmetology	Interiors	Fair	Flooring, Laminate Faux Wood	2,000	SF	7	6895345
C2030	Auditorium	Interiors	Fair	Flooring, Wood, Strip	5,000	SF	11	6895179
C2030	Restrooms	Interiors	Fair	Flooring, Ceramic Tile	500	SF	5	6895320
C2030	Boiler room	Interiors	Fair	Flooring, any surface, w/ Paint or Sealant, Prep & Paint	1,500	SF	2	6895197
C2030	Throughout building	Interiors	Fair	Flooring, Terrazzo	20,000	SF	5	6895281
C2030	Cafeteria	Interiors	Fair	Flooring, Ceramic Tile	3,000	SF	19	6895240
C2030	Kitchen	Interiors	Fair	Flooring, Quarry Tile	2,000	SF	5	6895307
C2030	Storage	Interiors	Fair	Flooring, Vinyl Tile (VCT), w/ Asbestos Abatement	500	SF	2	6895217
C2030	Throughout building	Interiors	Fair	Flooring, Vinyl Tile (VCT)	152,000	SF	2	6895339
C2030	Throughout building	Interiors	Fair	Flooring, Carpet, Commercial Standard	5,000	SF	2	6895176
Conveying								
D1010	Elevator	Conveying	Fair	Elevator Controls, Automatic, 1 Car	1		5	6895161
D1010	Elevator	Conveying	Fair	Passenger Elevator, Hydraulic, 3 Floors, Renovate	1		9	6895275
D1010	Elevator	Conveying	Fair	Elevator Cab Finishes, Standard	1		2	6895361
Plumbing								

UF L3 Code	Location	Category	Condition	Asset/Component/Repair	Quantity	Unit	RUL	ID
D2010	Restroom	Plumbing	Fair	Toilet, Commercial Water Closet	52		7	6895336
D2010	Hallways	Plumbing	Fair	Drinking Fountain, Wall-Mounted, Single-Level	1		7	6895276
D2010	Boiler room	Plumbing	Fair	Pump, Circulation, Domestic Water	2		7	6895288
D2010	Teaching Kitchen	Plumbing	Fair	Sink/Lavatory, Commercial Kitchen, 3-Bowl	2		9	6895356
D2010	Boiler room	Plumbing	Good	Water Heater, Electric, Commercial (36 kW)	1		14	6895169
D2010	Throughout building	Plumbing	Fair	Sink/Lavatory, Service Sink, Laundry	2		17	6895253
D2010	Kitchen	Plumbing	Fair	Sink/Lavatory, Commercial Kitchen, 2-Bowl	1		9	6895327
D2010	Locker room	Plumbing	Fair	Shower, Valve & Showerhead	13		9	6895213
D2010	Labs	Plumbing	Good	Sink/Lavatory, Trough Style, Solid Surface	14		22	6895366
D2010	Kitchen	Plumbing	Fair	Sink/Lavatory, Commercial Kitchen, 1-Bowl	3		17	6895328
D2010	Utility closet	Plumbing	Fair	Sink/Lavatory, Service Sink, Wall-Hung	1		22	6895368
D2010	Kitchen	Plumbing	Fair	Emergency Plumbing Fixtures, Eye Wash	1		7	6895189
D2010	Kitchen	Plumbing	Fair	Sink/Lavatory, Commercial Kitchen, 1-Bowl	1		9	6895259
D2010	Restrooms	Plumbing	Fair	Urinal, Standard	21		17	6895378
D2010	Boiler room	Plumbing	Fair	Water Heater, Indirect	3		3	6895237
D2010	Cosmetology	Plumbing	Fair	Water Heater, Electric, Residential, 53 to 120 GAL	1		4	6895375
D2010	Boiler room	Plumbing	Fair	Pump, Circulation, Domestic Water, 1 HP	4		7	6895250
D2010	Restroom	Plumbing	Fair	Sink/Lavatory, Wall-Hung, Vitreous China	53		17	6895365
D2010	Gymnasium	Plumbing	Fair	Water Heater, Oil	1		5	6895202
D2010	Throughout building	Plumbing	Fair	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures)	210,000	SF	19	6895162
D2010	Utility closet	Plumbing	Fair	Sink/Lavatory, Service Sink, Floor	1		14	6895286
D2010	Restrooms	Plumbing	Fair	Sink/Lavatory, Vanity Top, Solid Surface or Vitreous China	6		17	6895329
D2060	Boiler room	Plumbing	Fair	Supplemental Components, Compressed Air Dryer, Process Support	1		7	6895249
D2060	Boiler room	Plumbing	Fair	Air Compressor, Tank-Style	1		4	6895277
D2060	Boiler room	Plumbing	Fair	Air Compressor, Tank-Style	1		3	6895182
HVAC								
D3010	Boiler room	HVAC	Fair	Supplemental Components, Tank Monitoring System, Fuel Oil	1		7	6895319
D3010	Boiler room	HVAC	Fair	Pump, Fuel Oil	3		2	6895201
D3010	Boiler room	HVAC	Fair	Storage Tank, Fuel, Interior	1		12	6895167
D3020	Boiler room	HVAC	Fair	Unit Heater, Electric	1		7	6895227
D3020	Throughout building	HVAC	Fair	Radiator, Hydronic, Baseboard (per LF)	800	LF	5	6895303
D3020	Gymnasium	HVAC	Fair	Boiler, Oil, HVAC	1		7	6895165
D3020	Roof	HVAC	Fair	Replace Energy Recovery Ventilator 180 to 315 CFM, Energy Recovery	1		3	6895221
D3020	Roof	HVAC	Good	Air Ventilator, Energy Recovery Unit, up to 6500 CFM	3		13	6895338
D3020	Boiler room	HVAC	Fair	Wood Pellet Boiler, Hopper and Chute Feeder	1		3	6895164
D3020	Roof	HVAC	Good	Air Ventilator, Energy Recovery Unit, up to 6500 CFM	2		13	6895355
D3020	Roof	HVAC	Fair	Air Ventilator, Energy Recovery Unit, up to 6500 CFM	1		3	6895304
D3020	Boiler room	HVAC	Fair	Boiler, Gas, HVAC, 2001 to 2500 MBH	1		9	6895296
D3020	Boiler room	HVAC	Fair	Boiler Supplemental Components, Expansion Tank	1		25	6895260
D3020	Boiler room	HVAC	Fair	Boiler, Oil, HVAC	1		5	6895216
D3020	Boiler room	HVAC	Fair	Boiler, Oil, HVAC	1		3	6895203

UF L3 Code	Location	Category	Condition	Asset/Component/Repair	Quantity	Unit	RUL	ID
D3020	Boiler room	HVAC	Fair	Unit Heater, Hydronic	1		3	6895156
D3020	Gymnasium	HVAC	Fair	Unit Heater, Hydronic	1		3	6895264
D3020	Boiler room	HVAC	Fair	Heat Exchanger, Plate & Frame, HVAC	1		14	6895220
D3020	Gymnasium	HVAC	Fair	Heat Exchanger, Plate & Frame, HVAC	1		12	6895377
D3020	Shops	HVAC	Fair	Unit Heater, Hydronic	1		2	6895188
D3030	Classrooms	HVAC	Fair	Unit Ventilator, approx/nominal 2 Ton	20		13	6895308
D3030	Roof	HVAC	Fair	Split System Ductless, Single Zone, 0.75 to 1 TON	4		7	6895219
D3030	Roof	HVAC	Fair	Split System Ductless, Single Zone, 2.5 to 3 TON	1		7	6895312
D3050	Roof	HVAC	Fair	Packaged Unit, RTU, Pad or Roof-Mounted	1		10	6895235
D3050	Roof	HVAC	Fair	Packaged Unit, RTU, Pad or Roof-Mounted	1		10	6895170
D3050	Boiler room	HVAC	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1		2	6895297
D3050	Boiler room	HVAC	Good	Pump, Distribution, HVAC Heating Water	2		24	6895254
D3050	Throughout building	HVAC	Fair	HVAC System, Hydronic Piping, 2-Pipe	210,000	SF	19	6895190
D3050	Gymnasium	HVAC	Fair	Pump, Distribution, HVAC Heating Water	2		2	6895200
D3050	Gymnasium	HVAC	Fair	Air Handler, Interior AHU, Easy/Moderate Access	4		7	6895266
D3050	Shops	HVAC	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1		12	6895332
D3050	Roof	HVAC	Fair	Packaged Unit, RTU, Pad or Roof-Mounted	1		10	6895181
D3050	Boiler room	HVAC	Fair	Pump, Distribution, HVAC Heating Water	2		4	6895376
D3050	Locker room	HVAC	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1		16	6895243
D3050	Boiler room	HVAC	Good	Pump, Distribution, HVAC Heating Water	2		23	6895158
D3050	Throughout building	HVAC	Fair	HVAC System, Ductwork, Medium Density	210,000	SF	5	6895364
D3050	Auditorium	HVAC	Fair	Air Handler, Interior AHU, Easy/Moderate Access	2		3	6895267
D3050	Attic	HVAC	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1		5	6895205
D3050	Roof	HVAC	Fair	Packaged Unit, RTU, Pad or Roof-Mounted	2		11	6895314
D3050	Roof	HVAC	Fair	Packaged Unit, RTU, Pad or Roof-Mounted	1		10	6895224
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	5		10	6895210
D3060	Roof	HVAC	Fair	Exhaust Fan, Centrifugal, 12" Damper	1		15	6895334
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	10		10	6895175
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	2		10	6895324
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1		11	6895325
D3060	Kitchen	HVAC	Fair	Exhaust Fan, Propeller, less than 0.25 HP Motor	1		3	6895347
D3060	Shops	HVAC	Fair	Supplemental Components, Air Purifier, Electrostatic	5		2	6895246
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	6		10	6895363
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	4		10	6895215
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	2		10	6895177
D3060	Boiler room	HVAC	Fair	Exhaust Fan, Centrifugal, 16" Damper	1		4	6895284
D3060	Roof	HVAC	Fair	Axial Flow Fan, In-Line, up to 1 HP Motor	1		8	6895342
D3060	Boiler room	HVAC	Fair	Exhaust Fan, Centrifugal, 24" Damper	1		4	6895323
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	10		10	6895225
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1		10	6895258
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	2		9	6895344
D3060	Roof	HVAC	Fair	Exhaust Fan, Roof or Wall-Mounted, 28" Damper	1		10	6895172
Fire Protection								
D4010	Kitchen	Fire Protection	Fair	Fire Suppression System, Commercial Kitchen, per LF of Hood	20	LF	7	6895357

UF L3 Code	Location	Category	Condition	Asset/Component/Repair	Quantity	Unit	RUL	ID
D4010	Throughout building	Fire Protection	Fair	Fire Suppression System, Existing Sprinkler Heads, by SF	210,000	SF	4	6895346
D4030	Kitchen	Fire Protection	Good	Fire Extinguisher, Wet Chemical/CO2	1		9	6895301
D4030	Throughout building	Fire Protection	Good	Fire Extinguisher, Type ABC, up to 20 LB	25		9	6895298
Electrical								
D5020	Boiler room	Electrical	Fair	Distribution Panel, 120/208 V	1		3	6895247
D5020	Shops	Electrical	Fair	Distribution Panel, 120/208 V	1		9	6895295
D5020	Electrical room	Electrical	Fair	Secondary Transformer, Dry, Stepdown	1		9	6895287
D5020	Electrical room	Electrical	Fair	Switchboard, 120/208 V	1		5	6895174
D5020	Boiler room	Electrical	Fair	Distribution Panel, 120/208 V	1		9	6895194
D5030	Boiler room	Electrical	Fair	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	1		3	6895289
D5030	Throughout building	Electrical	Fair	Electrical System, Wiring & Switches, High Density/Complexity	210,000	SF	19	6895372
D5030	Boiler room	Electrical	Fair	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	1		3	6895373
D5040	Throughout building	Electrical	Good	Interior Lighting System, Full Upgrade, High Density & Standard Fixtures	210,000	SF	17	6895159
Fire Alarm & Electronic Systems								
D6060	Throughout building	Fire Alarm & Electronic Systems	Fair	Intercom/PA System, Public Address Upgrade, Facility-Wide	210,000	SF	7	6895278
D7030	Throughout building	Fire Alarm & Electronic Systems	Fair	Security/Surveillance System, Full System Upgrade, Average Density	210,000	SF	7	6895192
D7050	Front entrance	Fire Alarm & Electronic Systems	Fair	Fire Alarm Panel, Annunciator	1		3	6895348
D7050	Throughout building	Fire Alarm & Electronic Systems	Fair	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade/Install	210,000	SF	7	6895252
D7050	Front entrance	Fire Alarm & Electronic Systems	Fair	Fire Alarm Panel, Fully Addressable	1		3	6942094
D8010	Throughout building	Fire Alarm & Electronic Systems	Fair	BAS/HVAC Controls, Basic System or Legacy Upgrades, Upgrade/Install	210,000	SF	2	6895290
Equipment & Furnishings								
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Refrigerator	1		3	6895359
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Dairy Cooler/Wells	4		12	6895270
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Exhaust Hood, 8 to 10 LF	1		3	6895223
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Dishwasher Commercial	1		2	6895331
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer	1		2	6895272
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Exhaust Hood, 8 to 10 LF	1		7	6895279
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Refrigerator, 2-Door Reach-In	1		7	6895353
E1030	Teaching Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Refrigerator, 1-Door Reach-In	1		12	6895265
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Steam Kettle	1		17	6895154
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Convection Oven, Double	1		2	6895257
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Dishwasher Commercial	1		2	6895238
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Range/Oven, 8-Burner	1		7	6895163
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Convection Oven, Single	2		7	6895204

UF L3 Code	Location	Category	Condition	Asset/Component/Repair	Quantity	Unit	RUL	ID
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Condenser for Refigerator/Freezer	1		2	6895299
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Griddle	2		2	6895317
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	2		12	6895233
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Prep Table Refrigerated, Salad/Sandwich	3		3	6895271
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Broiler	1		7	6895371
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer	1		2	6895234
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Freezer, 3-Door Reach-In	1		3	6895185
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Slicer	1		2	6895209
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Garbage Disposal, 1 to 3 HP	1		14	6895263
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Steam Kettle	1		17	6895157
E1030	Teaching Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Refrigerator, 2-Door Reach-In	2		3	6895302
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Refrigerator	1		3	6895322
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Griddle	1		2	6895232
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Icemaker, Freestanding	1		12	6895374
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer	1		3	6895160
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer	1		13	6895369
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Combination Freezer/Refigerator	1		3	6895311
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4)	1		4	6895178
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Refrigerator, 3-Door Reach-In	2		2	6895208
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Convection Oven, Double	1		2	6895229
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Convection Oven, Single	1		7	6895340
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Range/Oven, 6-Burner	1		7	6895273
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Refrigerator, Undercounter 1-Door	1		7	6895291
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Freezer	1		7	6895166
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Range/Oven, 6-Burner	1		7	6895171
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Deep Fryer	1		2	6895212
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Walk-In, Condenser for Refigerator/Freezer	1		13	6895309
E1030	Kitchen	Equipment & Furnishings	Good	Foodservice Equipment, Convection Oven, Single	1		7	6895187
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer	1		3	6895326
E1030	Kitchen	Equipment & Furnishings	Fair	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer	1		3	6895313
E1040	Labs	Equipment & Furnishings	Fair	Laboratory Equipment, Exhaust Hood, Constant Volume 6 LF	5		3	6895362

UF L3 Code	Location	Category	Condition	Asset/Component/Repair	Quantity	Unit	RUL	ID
E2010	Classrooms	Equipment & Furnishings	Fair	Casework, Cabinetry Economy	600	LF	7	6895300
E2010	Gymnasium	Equipment & Furnishings	Fair	Bleachers, Telescoping Power-Operated, up to 15 Tier (per Seat)	200		3	6895214
E2010	Site	Equipment & Furnishings	Fair	Bleachers, Fixed Steel Frame, Aluminum Benches (per Seat)	120		2	6895269
E2010	Auditorium	Equipment & Furnishings	Fair	Fixed Seating, Auditorium/Theater, Metal Cushioned Standard	600		3	6942095
Special Construction & Demo								
F1020	Site	Special Construction & Demo	Fair	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal	200	SF	7	6895321
F1020	Site	Special Construction & Demo	Fair	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal	300	SF	7	6895335
F1020	Site	Special Construction & Demo	Fair	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Standard	300	SF	7	6895191
F1020	site	Special Construction & Demo	Fair	Ancillary Building, Wood-Framed or CMU, Standard	2,300	SF	14	6895315
F1020	Site	Special Construction & Demo	Fair	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal	100	SF	7	6895251
F1020	Site	Special Construction & Demo	Fair	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal	150	SF	7	6895294
F1020	Site	Special Construction & Demo	Good	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Standard	1,200	SF	22	6895211
F1020	Site	Special Construction & Demo	Good	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal	700	SF	22	6895256
F1020	Site	Special Construction & Demo	Good	Ancillary Building, Greenhouse, Truss Frame w/ Plastic Walls & Roof	125	SF	22	6895244
Pedestrian Plazas & Walkways								
G2020	Site	Pedestrian Plazas & Walkways	Fair	Parking Lots, Pavement, Asphalt, Seal & Stripe	180,000	SF	2	6941883
G2020	Site	Pedestrian Plazas & Walkways	Good	Parking Lots, Pavement, Asphalt, Mill & Overlay	180,000	SF	17	6895292
G2030	Site	Pedestrian Plazas & Walkways	Fair	Sidewalk, Asphalt	1,600	SF	12	6895282
G2030	Site	Pedestrian Plazas & Walkways	Fair	Sidewalk, Concrete, Large Areas	1,000	SF	29	6895186
Athletic, Recreational & Playfield Areas								
G2050	Gymnasium	Athletic, Recreational & Playfield Areas	Fair	Sports Apparatus, Basketball, Backboard/Rim/Pole	2		12	6895155
G2050	Gymnasium	Athletic, Recreational & Playfield Areas	Fair	Play Structure, Climbing Wall, by vertical surface area	200	SF	7	6895239
G2050	Gymnasium	Athletic, Recreational & Playfield Areas	Fair	Sports Apparatus, Basketball, Backboard/Rim/Pole	6		12	6895199
G2050	Gymnasium	Athletic, Recreational & Playfield Areas	Fair	Sports Apparatus, Scoreboard, Electronic Basic	3		7	6895226
G2050	Site	Athletic, Recreational & Playfield Areas	Fair	Sports Apparatus, Baseball, Backstop Chain-Link	2		7	6895360
G2050	Site	Athletic, Recreational & Playfield Areas	Fair	Sports Field and Court Lighting, Light Fixture w/ Lamps	7		4	6895184
G2050	Site	Athletic, Recreational & Playfield Areas	Fair	Sports Apparatus, Scoreboard, Electronic Standard	3		12	6895343
G2050	Site	Athletic, Recreational & Playfield Areas	Fair	Sports Apparatus, Baseball, Dugout	4		4	6895367
G2050	Site	Athletic, Recreational & Playfield Areas	Fair	Sports Apparatus, Football, Goal Post	2		12	6895310
Sitework								
G2060	Site	Sitework	Good	Park Bench, Precast Concrete	1		17	6895231
G2060	Site	Sitework	Fair	Fences & Gates, Fence, Chain Link 6'	300	LF	17	6895193
G2060	Site	Sitework	Fair	Picnic Table, Wood/Composite/Fiberglass	12		12	6895341

UF L3 Code	Location	Category	Condition	Asset/Component/Repair	Quantity	Unit	RUL	ID
G4050	Site	Sitework	Fair	Pole Light Fixture w/ Lamps, any type 20' High, w/ LED Replacement, Replace/Install	10		3	6895333
G4050	Building exterior	Sitework	Fair	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	20		12	6895241

Appendix G:
Replacement Reserves

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Replacement Reserves Report
SPAULDING UHS - Main Building

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Total Escalated Estimate
$0	$0	$3,022,982	$1,022,779	$346,207	$2,221,981	$0	$2,714,639	$2,660	$627,726	$1,702,742	$127,903	$1,333,300	$328,709	$400,080	$2,181	$14,763	$5,816,536	$194,930	$7,554,367	$3,274,733	$30,709,219

Uniformat Code	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate
B1080	6895262	Stairs, Metal or Pan-Filled, Interior, Replace	50	30	20	3000	SF	$48.00	$144,000																					$144,000	$144,000
B2010	6895206	Exterior Walls, Brick Veneer, Replace	50	30	20	61820	SF	$27.00	$1,669,140																					$1,669,140	$1,669,140
B2020	6895330	Window, Aluminum Double-Glazed, 16-25 SF, Replace	30	21	9	263	EA	$950.00	$249,850										$249,850												$249,850
B2050	6895337	Exterior Door, Wood, Solid-Core, Replace	25	22	3	8	EA	$700.00	$5,600				$5,600																		$5,600
B2050	6895283	Exterior Door, Aluminum-Framed & Glazed, Standard Swing, Replace	30	21	9	12	EA	$1,300.00	$15,600										$15,600												$15,600
B2050	6895168	Exterior Door, Steel, Standard, Replace	40	21	19	22	EA	$600.00	$13,200																				$13,200		$13,200
B2050	6895370	Overhead/Dock Door, Steel, 20'x14' (280 SF), Replace	30	25	5	2	EA	$6,300.00	$12,600						$12,600																$12,600
B2050	6895245	Overhead/Dock Door, Aluminum, 12'x12' (144 SF), Replace	30	21	9	9	EA	$4,400.00	$39,600										$39,600												$39,600
B3010	6895236	Roofing, Single-Ply Membrane, EPDM, Replace	20	10	10	15000	SF	$11.00	$165,000											$165,000											$165,000
B3010	6895268	Roofing, Single-Ply Membrane, TPO/PVC, Replace	20	10	10	55000	SF	$17.00	$935,000											$935,000											$935,000
B3010	6895228	Roofing, Single-Ply Membrane, EPDM, Replace	20	8	12	2300	SF	$11.00	$25,300													$25,300									$25,300
C1030	6895350	Interior Door, Steel, Standard, Replace	40	23	17	105	EA	$600.00	$63,000																		$63,000				$63,000
C1030	6895274	Interior Door, Steel, w/ Extensive Glazing, Replace	40	23	17	50	EA	$950.00	$47,500																		$47,500				$47,500
C1070	6895349	Suspended Ceilings, Acoustical Tile (ACT), Replace	25	23	2	210000	SF	$3.50	$735,000			$735,000																			$735,000
C1090	6895316	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H, Replace	20	15	5	400	EA	$500.00	$200,000						$200,000																$200,000
C2010	6895222	Wall Finishes, Ceramic Tile, Replace	40	23	17	2000	SF	$18.00	$36,000																		$36,000				$36,000
C2010	6895248	Wall Finishes, Ceramic Tile, Replace	40	21	19	1000	SF	$18.00	$18,000																				$18,000		$18,000
C2010	6895242	Wall Finishes, Wood Paneling, Raised Architectural Wainscot, Replace	30	20	10	2500	SF	$28.00	$70,000											$70,000											$70,000
C2010	6895218	Wall Finishes, any surface, Prep & Paint	10	8	2	325000	SF	$1.50	$487,500			$487,500										$487,500									$975,000
C2030	6895197	Flooring, any surface, w/ Paint or Sealant, Prep & Paint	10	8	2	1500	SF	$1.50	$2,250			$2,250										$2,250									$4,500
C2030	6895320	Flooring, Ceramic Tile, Replace	40	35	5	500	SF	$18.00	$9,000						$9,000																$9,000
C2030	6895307	Flooring, Quarry Tile, Replace	50	45	5	2000	SF	$26.00	$52,000						$52,000																$52,000
C2030	6895240	Flooring, Ceramic Tile, Replace	40	21	19	3000	SF	$18.00	$54,000																				$54,000		$54,000
C2030	6895179	Flooring, Wood, Strip, Replace	30	19	11	5000	SF	$15.00	$75,000												$75,000										$75,000
C2030	6895217	Flooring, Vinyl Tile (VCT), w/ Asbestos Abatement, Replace	15	13	2	500	SF	$8.00	$4,000			$4,000															$4,000				$8,000
C2030	6895339	Flooring, Vinyl Tile (VCT), Replace	15	13	2	152000	SF	$5.00	$760,000			$760,000															$760,000				$1,520,000
C2030	6895345	Flooring, Laminate Faux Wood, Replace	15	8	7	2000	SF	$7.00	$14,000								$14,000														$14,000
C2030	6895281	Flooring, Terrazzo, Replace	50	45	5	20000	SF	$14.00	$280,000						$280,000																$280,000
C2030	6895176	Flooring, Carpet, Commercial Standard, Replace	10	8	2	5000	SF	$7.50	$37,500			$37,500										$37,500									$75,000
D1010	6895361	Elevator Cab Finishes, Standard, Replace	15	13	2	1	EA	$9,000.00	$9,000			$9,000															$9,000				$18,000
D1010	6895161	Elevator Controls, Automatic, 1 Car, Replace	20	15	5	1	EA	$5,000.00	$5,000						$5,000																$5,000
D1010	6895275	Passenger Elevator, Hydraulic, 3 Floors, Renovate	30	21	9	1	EA	$70,000.00	$70,000										$70,000												$70,000
D2010	6895237	Water Heater, Indirect, Replace	15	12	3	3	EA	$4,800.00	$14,400				$14,400															$14,400			$28,800
D2010	6895375	Water Heater, Electric, Residential, 53 to 120 GAL, Replace	15	11	4	1	EA	$1,600.00	$1,600					$1,600															$1,600		$3,200
D2010	6895202	Water Heater, Oil, Replace	18	13	5	1	EA	$2,900.00	$2,900						$2,900																$2,900
D2010	6895288	Pump, Circulation, Domestic Water, Replace	15	8	7	2	EA	$3,300.00	$6,600								$6,600														$6,600
D2010	6895250	Pump, Circulation, Domestic Water, 1 HP, Replace	15	8	7	4	EA	$3,300.00	$13,200								$13,200														$13,200
D2010	6895169	Water Heater, Electric, Commercial (36 kW), Replace	20	6	14	1	EA	$18,500.00	$18,500															$18,500							$18,500
D2010	6895162	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures), Replace	40	21	19	210000	SF	$11.00	$2,310,000																				$2,310,000		$2,310,000
D2010	6895276	Drinking Fountain, Wall-Mounted, Single-Level, Replace	15	8	7	1	EA	$1,200.00	$1,200								$1,200														$1,200

Uniformat Code	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate
D2010	6895189	Emergency Plumbing Fixtures, Eye Wash, Replace	20	13	7	1	EA	$1,500.00	$1,500								$1,500														$1,500
D2010	6895336	Toilet, Commercial Water Closet, Replace	30	23	7	52	EA	$1,300.00	$67,600								$67,600														$67,600
D2010	6895327	Sink/Lavatory, Commercial Kitchen, 2-Bowl, Replace	30	21	9	1	EA	$2,100.00	$2,100										$2,100												$2,100
D2010	6895213	Shower, Valve & Showerhead, Replace	30	21	9	13	EA	$800.00	$10,400										$10,400												$10,400
D2010	6895259	Sink/Lavatory, Commercial Kitchen, 1-Bowl, Replace	30	21	9	1	EA	$1,600.00	$1,600										$1,600												$1,600
D2010	6895356	Sink/Lavatory, Commercial Kitchen, 3-Bowl, Replace	30	21	9	2	EA	$2,500.00	$5,000										$5,000												$5,000
D2010	6895286	Sink/Lavatory, Service Sink, Floor, Replace	35	21	14	1	EA	$800.00	$800															$800							$800
D2010	6895253	Sink/Lavatory, Service Sink, Laundry, Replace	30	13	17	2	EA	$900.00	$1,800																		$1,800				$1,800
D2010	6895328	Sink/Lavatory, Commercial Kitchen, 1-Bowl, Replace	30	13	17	3	EA	$1,600.00	$4,800																		$4,800				$4,800
D2010	6895378	Urinal, Standard, Replace	30	13	17	21	EA	$1,100.00	$23,100																		$23,100				$23,100
D2010	6895365	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	13	17	53	EA	$1,500.00	$79,500																		$79,500				$79,500
D2010	6895329	Sink/Lavatory, Vanity Top, Solid Surface or Vitreous China, Replace	30	13	17	6	EA	$1,100.00	$6,600																		$6,600				$6,600
D2060	6895182	Air Compressor, Tank-Style, Replace	20	17	3	1	EA	$10,600.00	$10,600				$10,600																		$10,600
D2060	6895277	Air Compressor, Tank-Style, Replace	20	16	4	1	EA	$10,600.00	$10,600					$10,600																	$10,600
D2060	6895249	Supplemental Components, Compressed Air Dryer, Process Support, Replace	20	13	7	1	EA	$5,600.00	$5,600								$5,600														$5,600
D3010	6895201	Pump, Fuel Oil, Replace	15	13	2	3	EA	$2,600.00	$7,800			$7,800															$7,800				$15,600
D3010	6895319	Supplemental Components, Tank Monitoring System, Fuel Oil, Replace	20	13	7	1	EA	$11,000.00	$11,000								$11,000														$11,000
D3010	6895167	Storage Tank, Fuel, Interior, Replace	25	13	12	1	EA	$6,600.00	$6,600														$6,600								$6,600
D3020	6895164	Wood Pellet Boiler, Hopper and Chute Feeder, Replace	20	17	3	1	EA	$11,287.00	$11,287				$11,287																		$11,287
D3020	6895203	Boiler, Oil, HVAC, Replace	30	27	3	1	EA	$320,000.00	$320,000				$320,000																		$320,000
D3020	6895216	Boiler, Oil, HVAC, Replace	30	25	5	1	EA	$320,000.00	$320,000						$320,000																$320,000
D3020	6895165	Boiler, Oil, HVAC, Replace	30	23	7	1	EA	$160,000.00	$160,000								$160,000														$160,000
D3020	6895296	Boiler, Gas, HVAC, 2001 to 2500 MBH, Replace	30	21	9	1	EA	$60,400.00	$60,400										$60,400												$60,400
D3020	6895377	Heat Exchanger, Plate & Frame, HVAC, Replace	35	23	12	1	EA	$11,400.00	$11,400													$11,400									$11,400
D3020	6895220	Heat Exchanger, Plate & Frame, HVAC, Replace	35	21	14	1	EA	$11,400.00	$11,400															$11,400							$11,400
D3020	6895188	Unit Heater, Hydronic, Replace	20	18	2	1	EA	$2,100.00	$2,100			$2,100																			$2,100
D3020	6895156	Unit Heater, Hydronic, Replace	20	17	3	1	EA	$1,700.00	$1,700				$1,700																		$1,700
D3020	6895264	Unit Heater, Hydronic, Replace	20	17	3	1	EA	$1,700.00	$1,700				$1,700																		$1,700
D3020	6895221	Replace Energy Recovery Ventilator 180 to 315 CFM, Energy Recovery, Replace	15	12	3	1	EA	$2,134.00	$2,134				$2,134															$2,134			$4,268
D3020	6895304	Air Ventilator, Energy Recovery Unit, up to 6500 CFM, Replace	15	12	3	1	EA	$12,987.00	$12,987				$12,987															$12,987			$25,974
D3020	6895303	Radiator, Hydronic, Baseboard (per LF), Replace	30	25	5	800	LF	$150.00	$120,000						$120,000																$120,000
D3020	6895227	Unit Heater, Electric, Replace	20	13	7	1	EA	$1,800.00	$1,800								$1,800														$1,800
D3020	6895338	Air Ventilator, Energy Recovery Unit, up to 6500 CFM, Replace	15	2	13	3	EA	$12,987.00	$38,961														$38,961								$38,961
D3020	6895355	Air Ventilator, Energy Recovery Unit, up to 6500 CFM, Replace	15	2	13	2	EA	$12,987.00	$25,974														$25,974								$25,974
D3030	6895219	Split System Ductless, Single Zone, 0.75 to 1 TON, Replace	15	8	7	4	EA	$3,500.00	$14,000								$14,000														$14,000
D3030	6895312	Split System Ductless, Single Zone, 2.5 to 3 TON, Replace	15	8	7	1	EA	$6,100.00	$6,100								$6,100														$6,100
D3030	6895308	Unit Ventilator, approx/nominal 2 Ton, Replace	20	7	13	20	EA	$7,400.00	$148,000														$148,000								$148,000
D3050	6895200	Pump, Distribution, HVAC Heating Water, Replace	25	23	2	2	EA	$6,100.00	$12,200			$12,200																			$12,200
D3050	6895376	Pump, Distribution, HVAC Heating Water, Replace	25	21	4	2	EA	$6,500.00	$13,000					$13,000																	$13,000
D3050	6895190	HVAC System, Hydronic Piping, 2-Pipe, Replace	40	21	19	210000	SF	$5.00	$1,050,000																				$1,050,000		$1,050,000
D3050	6895297	Air Handler, Interior AHU, Easy/Moderate Access, Replace	25	23	2	1	EA	$6,200.00	$6,200			$6,200																			$6,200
D3050	6895267	Air Handler, Interior AHU, Easy/Moderate Access, Replace	25	22	3	2	EA	$15,000.00	$30,000				$30,000																		$30,000
D3050	6895364	HVAC System, Ductwork, Medium Density, Replace	30	25	5	210000	SF	$4.00	$840,000						$840,000																$840,000

Uniformat Code	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate
D3050	6895205	Air Handler, Interior AHU, Easy/Moderate Access, Replace	25	20	5	1	EA	$9,200.00	$9,200						$9,200																$9,200
D3050	6895266	Air Handler, Interior AHU, Easy/Moderate Access, Replace	30	23	7	4	EA	$31,000.00	$124,000								$124,000														$124,000
D3050	6895235	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	10	10	1	EA	$7,500.00	$7,500											$7,500											$7,500
D3050	6895170	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	10	10	1	EA	$5,000.00	$5,000											$5,000											$5,000
D3050	6895181	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	10	10	1	EA	$5,500.00	$5,500											$5,500											$5,500
D3050	6895224	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	10	10	1	EA	$15,000.00	$15,000											$15,000											$15,000
D3050	6895314	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	9	11	2	EA	$7,500.00	$15,000												$15,000										$15,000
D3050	6895332	Air Handler, Interior AHU, Easy/Moderate Access, Replace	25	13	12	1	EA	$9,200.00	$9,200													$9,200									$9,200
D3050	6895243	Air Handler, Interior AHU, Easy/Moderate Access, Replace	25	9	16	1	EA	$9,200.00	$9,200																	$9,200					$9,200
D3060	6895342	Axial Flow Fan, In-Line, up to 1 HP Motor, Replace	20	12	8	1	EA	$2,100.00	$2,100										$2,100												$2,100
D3060	6895347	Exhaust Fan, Propeller, less than 0.25 HP Motor, Replace	20	17	3	1	EA	$500.00	$500				$500																		$500
D3060	6895284	Exhaust Fan, Centrifugal, 16" Damper, Replace	25	21	4	1	EA	$2,400.00	$2,400					$2,400																	$2,400
D3060	6895323	Exhaust Fan, Centrifugal, 24" Damper, Replace	25	21	4	1	EA	$3,000.00	$3,000					$3,000																	$3,000
D3060	6895344	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	11	9	2	EA	$1,400.00	$2,800										$2,800												$2,800
D3060	6895210	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	10	10	5	EA	$1,200.00	$6,000											$6,000											$6,000
D3060	6895175	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	10	10	10	EA	$1,400.00	$14,000											$14,000											$14,000
D3060	6895363	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	10	10	6	EA	$1,400.00	$8,400											$8,400											$8,400
D3060	6895215	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	10	10	4	EA	$2,400.00	$9,600											$9,600											$9,600
D3060	6895177	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	10	10	2	EA	$1,400.00	$2,800											$2,800											$2,800
D3060	6895324	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	10	10	2	EA	$2,400.00	$4,800											$4,800											$4,800
D3060	6895225	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	10	10	10	EA	$1,200.00	$12,000											$12,000											$12,000
D3060	6895258	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	10	10	1	EA	$2,400.00	$2,400											$2,400											$2,400
D3060	6895172	Exhaust Fan, Roof or Wall-Mounted, 28" Damper, Replace	20	10	10	1	EA	$4,000.00	$4,000											$4,000											$4,000
D3060	6895325	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	9	11	1	EA	$2,400.00	$2,400												$2,400										$2,400
D3060	6895334	Exhaust Fan, Centrifugal, 12" Damper, Replace	25	10	15	1	EA	$1,400.00	$1,400																$1,400						$1,400
D3060	6895246	Supplemental Components, Air Purifier, Electrostatic, Replace	5	3	2	5	EA	$8,800.00	$44,000			$44,000					$44,000					$44,000						$44,000			$176,000
D4010	6895346	Fire Suppression System, Existing Sprinkler Heads, by SF, Replace	25	21	4	210000	SF	$1.07	$224,700					$224,700																	$224,700
D4010	6895357	Fire Suppression System, Commercial Kitchen, per LF of Hood, Replace	20	13	7	20	LF	$400.00	$8,000								$8,000														$8,000
D4030	6895301	Fire Extinguisher, Wet Chemical/CO2, Replace	10	1	9	1	EA	$300.00	$300										$300										$300		$600
D4030	6895298	Fire Extinguisher, Type ABC, up to 20 LB, Replace	10	1	9	25	EA	$150.00	$3,750										$3,750										$3,750		$7,500
D5020	6895174	Switchboard, 120/208 V, Replace	40	35	5	1	EA	$66,000.00	$66,000						$66,000																$66,000
D5020	6895287	Secondary Transformer, Dry, Stepdown, Replace	30	21	9	1	EA	$6,700.00	$6,700										$6,700												$6,700
D5020	6895247	Distribution Panel, 120/208 V, Replace	30	27	3	1	EA	$6,000.00	$6,000				$6,000																		$6,000
D5020	6895295	Distribution Panel, 120/208 V, Replace	30	21	9	1	EA	$6,000.00	$6,000										$6,000												$6,000
D5020	6895194	Distribution Panel, 120/208 V, Replace	30	21	9	1	EA	$7,000.00	$7,000										$7,000												$7,000
D5030	6895372	Electrical System, Wiring & Switches, High Density/Complexity, Replace	40	21	19	210000	SF	$4.00	$840,000																				$840,000		$840,000
D5030	6895289	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	20	17	3	1	EA	$12,400.00	$12,400				$12,400																		$12,400
D5030	6895373	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	20	17	3	1	EA	$14,700.00	$14,700				$14,700																		$14,700

Uniformat Code	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate
D5040	6895159	Interior Lighting System, Full Upgrade, High Density & Standard Fixtures, Replace	20	3	17	210000	SF	$5.00	$1,050,000																		$1,050,000				$1,050,000
D6060	6895278	Intercom/PA System, Public Address Upgrade, Facility-Wide, Replace	20	13	7	210000	SF	$1.65	$346,500								$346,500														$346,500
D7030	6895192	Security/Surveillance System, Full System Upgrade, Average Density, Replace	15	8	7	210000	SF	$2.00	$420,000								$420,000														$420,000
D7050	6895348	Fire Alarm Panel, Annunciator, Replace	15	12	3	1	EA	$1,580.00	$1,580				$1,580															$1,580			$3,160
D7050	6942094	Fire Alarm Panel, Fully Addressable, Replace	15	12	3	1	EA	$15,000.00	$15,000				$15,000															$15,000			$30,000
D7050	6895252	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade/Install	20	13	7	210000	SF	$3.00	$630,000								$630,000														$630,000
D8010	6895290	BAS/HVAC Controls, Basic System or Legacy Upgrades, Upgrade/Install	15	13	2	210000	SF	$2.50	$525,000			$525,000															$525,000				$1,050,000
E1030	6895331	Foodservice Equipment, Dishwasher Commercial, Replace	10	8	2	1	EA	$21,500.00	$21,500			$21,500										$21,500									$43,000
E1030	6895272	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer, Replace	15	13	2	1	EA	$4,600.00	$4,600			$4,600															$4,600				$9,200
E1030	6895257	Foodservice Equipment, Convection Oven, Double, Replace	10	8	2	1	EA	$9,500.00	$9,500			$9,500										$9,500									$19,000
E1030	6895238	Foodservice Equipment, Dishwasher Commercial, Replace	10	8	2	1	EA	$21,500.00	$21,500			$21,500										$21,500									$43,000
E1030	6895299	Foodservice Equipment, Walk-In, Condenser for Refigerator/Freezer, Replace	15	13	2	1	EA	$6,300.00	$6,300			$6,300															$6,300				$12,600
E1030	6895317	Foodservice Equipment, Griddle, Replace	15	13	2	2	EA	$7,000.00	$14,000			$14,000															$14,000				$28,000
E1030	6895234	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer, Replace	15	13	2	1	EA	$4,600.00	$4,600			$4,600															$4,600				$9,200
E1030	6895209	Foodservice Equipment, Slicer, Replace	10	8	2	1	EA	$3,200.00	$3,200			$3,200										$3,200									$6,400
E1030	6895232	Foodservice Equipment, Griddle, Replace	15	13	2	1	EA	$7,000.00	$7,000			$7,000															$7,000				$14,000
E1030	6895208	Foodservice Equipment, Refrigerator, 3-Door Reach-In, Replace	15	13	2	2	EA	$6,400.00	$12,800			$12,800															$12,800				$25,600
E1030	6895229	Foodservice Equipment, Convection Oven, Double, Replace	10	8	2	1	EA	$9,500.00	$9,500			$9,500										$9,500									$19,000
E1030	6895212	Foodservice Equipment, Deep Fryer, Replace	15	13	2	1	EA	$7,000.00	$7,000			$7,000															$7,000				$14,000
E1030	6895358	Foodservice Equipment, Walk-In, Refrigerator, Replace	20	17	3	1	EA	$15,000.00	$15,000				$15,000																		$15,000
E1030	6895223	Foodservice Equipment, Exhaust Hood, 8 to 10 LF, Replace	15	12	3	1	EA	$4,500.00	$4,500				$4,500															$4,500			$9,000
E1030	6895271	Foodservice Equipment, Prep Table Refrigerated, Salad/Sandwich, Replace	15	12	3	3	EA	$4,700.00	$14,100				$14,100															$14,100			$28,200
E1030	6895185	Foodservice Equipment, Freezer, 3-Door Reach-In, Replace	15	12	3	1	EA	$6,800.00	$6,800				$6,800															$6,800			$13,600
E1030	6895302	Foodservice Equipment, Refrigerator, 2-Door Reach-In, Replace	15	12	3	2	EA	$4,600.00	$9,200				$9,200															$9,200			$18,400
E1030	6895322	Foodservice Equipment, Walk-In, Refrigerator, Replace	20	17	3	1	EA	$15,000.00	$15,000				$15,000																		$15,000
E1030	6895160	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer, Replace	15	12	3	1	EA	$4,600.00	$4,600				$4,600															$4,600			$9,200
E1030	6895311	Foodservice Equipment, Walk-In, Combination Freezer/Refigerator, Replace	20	17	3	1	EA	$35,000.00	$35,000				$35,000																		$35,000
E1030	6895326	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer, Replace	15	12	3	1	EA	$4,600.00	$4,600				$4,600															$4,600			$9,200
E1030	6895313	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer, Replace	15	12	3	1	EA	$4,600.00	$4,600				$4,600															$4,600			$9,200
E1030	6895178	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4), Replace	15	11	4	1	EA	$5,700.00	$5,700					$5,700															$5,700		$11,400
E1030	6895279	Foodservice Equipment, Exhaust Hood, 8 to 10 LF, Replace	15	8	7	1	EA	$4,500.00	$4,500								$4,500														$4,500
E1030	6895353	Foodservice Equipment, Refrigerator, 2-Door Reach-In, Replace	15	8	7	1	EA	$4,600.00	$4,600								$4,600														$4,600
E1030	6895163	Foodservice Equipment, Range/Oven, 8-Burner, Replace	15	8	7	1	EA	$7,400.00	$7,400								$7,400														$7,400
E1030	6895204	Foodservice Equipment, Convection Oven, Single, Replace	10	3	7	2	EA	$5,600.00	$11,200								$11,200										$11,200				$22,400
E1030	6895371	Foodservice Equipment, Broiler, Replace	15	8	7	1	EA	$8,400.00	$8,400								$8,400														$8,400

Uniformat Code	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate
E1030	6895340	Foodservice Equipment, Convection Oven, Single, Replace	10	3	7	1	EA	$5,600.00	$5,600								$5,600										$5,600				$11,200
E1030	6895273	Foodservice Equipment, Range/Oven, 6-Burner, Replace	15	8	7	1	EA	$6,000.00	$6,000								$6,000														$6,000
E1030	6895291	Foodservice Equipment, Refrigerator, Undercounter 1-Door, Replace	15	8	7	1	EA	$1,100.00	$1,100								$1,100														$1,100
E1030	6895166	Foodservice Equipment, Walk-In, Freezer, Replace	20	13	7	1	EA	$25,000.00	$25,000								$25,000														$25,000
E1030	6895171	Foodservice Equipment, Range/Oven, 6-Burner, Replace	15	8	7	1	EA	$6,000.00	$6,000								$6,000														$6,000
E1030	6895187	Foodservice Equipment, Convection Oven, Single, Replace	10	3	7	1	EA	$5,600.00	$5,600								$5,600										$5,600				$11,200
E1030	6895270	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	3	12	4	EA	$3,600.00	$14,400													$14,400									$14,400
E1030	6895265	Foodservice Equipment, Refrigerator, 1-Door Reach-In, Replace	15	3	12	1	EA	$2,700.00	$2,700													$2,700									$2,700
E1030	6895233	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	3	12	2	EA	$1,700.00	$3,400													$3,400									$3,400
E1030	6895374	Foodservice Equipment, Icemaker, Freestanding, Replace	15	3	12	1	EA	$6,700.00	$6,700													$6,700									$6,700
E1030	6895369	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer, Replace	15	2	13	1	EA	$4,600.00	$4,600														$4,600								$4,600
E1030	6895309	Foodservice Equipment, Walk-In, Condenser for Refigerator/Freezer, Replace	15	2	13	1	EA	$6,300.00	$6,300														$6,300								$6,300
E1030	6895263	Foodservice Equipment, Garbage Disposal, 1 to 3 HP, Replace	15	1	14	1	EA	$3,800.00	$3,800															$3,800							$3,800
E1030	6895157	Foodservice Equipment, Steam Kettle, Replace	20	3	17	1	EA	$30,000.00	$30,000																		$30,000				$30,000
E1030	6895154	Foodservice Equipment, Steam Kettle, Replace	20	3	17	1	EA	$30,000.00	$30,000																		$30,000				$30,000
E1040	6895362	Laboratory Equipment, Exhaust Hood, Constant Volume 6 LF, Replace	15	12	3	5	EA	$4,000.00	$20,000				$20,000															$20,000			$40,000
E2010	6895300	Casework, Cabinetry Economy, Replace	20	13	7	600	LF	$175.00	$105,000								$105,000														$105,000
E2010	6895269	Bleachers, Fixed Steel Frame, Aluminum Benches (per Seat), Replace	25	23	2	120	EA	$120.00	$14,400			$14,400																			$14,400
E2010	6895214	Bleachers, Telescoping Power-Operated, up to 15 Tier (per Seat), Replace	20	17	3	200	EA	$450.00	$90,000				$90,000																		$90,000
E2010	6942095	Fixed Seating, Auditorium/Theater, Metal Cushioned Standard, Replace	20	17	3	600	EA	$350.00	$210,000				$210,000																		$210,000
F1020	6895321	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal, Replace	30	23	7	200	SF	$25.00	$5,000								$5,000														$5,000
F1020	6895335	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal, Replace	30	23	7	300	SF	$25.00	$7,500								$7,500														$7,500
F1020	6895191	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Standard, Replace	30	23	7	300	SF	$50.00	$15,000								$15,000														$15,000
F1020	6895251	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal, Replace	30	23	7	100	SF	$25.00	$2,500								$2,500														$2,500
F1020	6895294	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Basic/Minimal, Replace	30	23	7	150	SF	$25.00	$3,750								$3,750														$3,750
F1020	6895315	Ancillary Building, Wood-Framed or CMU, Standard, Replace	35	21	14	2300	SF	$100.00	$230,000															$230,000							$230,000
G2020	6941883	Parking Lots, Pavement, Asphalt, Seal & Stripe	5	3	2	180000	SF	$0.45	$81,000			$81,000					$81,000					$81,000					$81,000				$324,000
G2020	6895292	Parking Lots, Pavement, Asphalt, Mill & Overlay	25	8	17	180000	SF	$3.50	$630,000																		$630,000				$630,000
G2030	6895282	Sidewalk, Asphalt, Replace	25	13	12	1600	SF	$5.50	$8,800													$8,800									$8,800
G2050	6895184	Sports Field and Court Lighting, Light Fixture w/ Lamps, Replace	25	21	4	7	EA	$5,000.00	$35,000					$35,000																	$35,000
G2050	6895367	Sports Apparatus, Baseball, Dugout, Replace	15	11	4	4	EA	$2,900.00	$11,600					$11,600															$11,600		$23,200
G2050	6895360	Sports Apparatus, Baseball, Backstop Chain-Link, Replace	20	13	7	2	EA	$5,000.00	$10,000								$10,000														$10,000
G2050	6895226	Sports Apparatus, Scoreboard, Electronic Basic, Replace	25	18	7	3	EA	$3,000.00	$9,000								$9,000														$9,000
G2050	6895155	Sports Apparatus, Basketball, Backboard/Rim/Pole, Replace	25	13	12	2	EA	$9,500.00	$19,000													$19,000									$19,000
G2050	6895199	Sports Apparatus, Basketball, Backboard/Rim/Pole, Replace	25	13	12	6	EA	$9,500.00	$57,000													$57,000									$57,000
G2050	6895343	Sports Apparatus, Scoreboard, Electronic Standard, Replace	25	13	12	3	EA	$8,000.00	$24,000													$24,000									$24,000

Uniformat Code	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate
G2050	6895310	Sports Apparatus, Football, Goal Post, Replace	25	13	12	2	EA	$5,000.00	$10,000													$10,000									$10,000
G2050	6895239	Play Structure, Climbing Wall, by vertical surface area, Replace	15	8	7	200	SF	$40.00	$8,000								$8,000														$8,000
G2060	6895341	Picnic Table, Wood/Composite/Fiberglass, Replace	20	8	12	12	EA	$600.00	$7,200													$7,200									$7,200
G2060	6895231	Park Bench, Precast Concrete, Replace	25	8	17	1	EA	$1,000.00	$1,000																		$1,000				$1,000
G2060	6895193	Fences & Gates, Fence, Chain Link 6', Replace	40	23	17	300	LF	$21.00	$6,300																		$6,300				$6,300
G4050	6895333	Pole Light Fixture w/ Lamps, any type 20' High, w/ LED Replacement, Replace/Install	20	17	3	10	EA	$4,200.00	$42,000				$42,000																		$42,000
G4050	6895241	Exterior Fixture w/ Lamp, any type, w/ LED Replacement, Replace	20	8	12	20	EA	$600.00	$12,000													$12,000									$12,000
								Totals, Unescalated		$0	$0	$2,849,450	$935,988	$307,600	$1,916,700	$0	$2,207,250	$2,100	$481,100	$1,267,000	$92,400	$935,150	$223,835	$264,500	$1,400	$9,200	$3,519,100	$114,501	$4,308,150	$1,813,140	$21,248,564
								Totals, Escalated (3.0% inflation, compounded annually)		$0	$0	$3,022,982	$1,022,779	$346,207	$2,221,981	$0	$2,714,639	$2,660	$627,726	$1,702,742	$127,903	$1,333,300	$328,709	$400,080	$2,181	$14,763	$5,816,536	$194,930	$7,554,367	$3,274,733	$30,709,219

Appendix H:

Depleted Value Report

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SPAULDING UHS - Main Building

Depleted Value Index

55.2%

System	System Contribution	System Value
Air Compressor	$ 6,360	$ 10,600
Air Compressor	$ 2,827	$ 10,600
Air Handler	$ 3,720	$ 6,200
Air Handler	$ 107,467	$ 124,000
Air Handler	$ 7,820	$ 9,200
Air Handler	$ 8,464	$ 9,200
Air Handler	$ 23,000	$ 30,000
Air Handler	$ 6,440	$ 9,200
Air Ventilator	$ 32,468	$ 38,961
Air Ventilator	$ 23,377	$ 25,974
Air Ventilator	$ 4,870	$ 12,987
Ancillary Building	$ 149,500	$ 230,000
Ancillary Building	$ 3,938	$ 4,375
Axial Flow Fan	$ 1,470	$ 2,100
BAS/HVAC Controls	$ 367,500	$ 525,000
Bleachers	$ 48,000	$ 90,000
Bleachers	$ 7,560	$ 14,400
Boiler	$ 138,667	$ 160,000
Boiler	$ 45,300	$ 60,400
Boiler	$ 208,000	$ 320,000
Boiler	$ 160,000	$ 320,000
Boiler Supplemental Components	$ 1,416	$ 3,540
Casework	$ 52,500	$ 105,000
Distribution Panel	$ 3,000	$ 6,000
Distribution Panel	$ 2,700	$ 6,000
Distribution Panel	$ 5,950	$ 7,000
Drinking Fountain	$ 600	$ 1,200
Electrical System	$ 420,000	$ 840,000
Elevator Cab Finishes	$ 4,500	$ 9,000
Elevator Controls	$ 4,200	$ 5,000
Emergency Plumbing Fixtures	$ 1,260	$ 1,500
Exhaust Fan	$ 3,000	$ 6,000
Exhaust Fan	$ 700	$ 1,400
Exhaust Fan	$ 7,700	$ 14,000
Exhaust Fan	$ 2,400	$ 4,800
Exhaust Fan	$ 1,680	$ 2,400
Exhaust Fan	$ 263	$ 500

System	System Contribution	System Value
Exhaust Fan	$ 7,392	$ 8,400
Exhaust Fan	$ 3,840	$ 9,600
Exhaust Fan	$ 1,680	$ 2,800
Exhaust Fan	$ 1,120	$ 2,400
Exhaust Fan	$ 1,400	$ 3,000
Exhaust Fan	$ 6,900	$ 12,000
Exhaust Fan	$ 1,920	$ 2,400
Exhaust Fan	$ 2,240	$ 2,800
Exhaust Fan	$ 2,600	$ 4,000
Exterior Door	$ 1,560	$ 15,600
Exterior Door	$ 1,320	$ 13,200
Exterior Door	$ 3,640	$ 5,600
Exterior Fixture w/ Lamp	$ 10,080	$ 12,000
Exterior Walls	$ 1,418,769	$ 1,669,140
Exterior Walls	$ 278,549	$ 522,280
Exterior Walls	$ 87,780	$ 138,600
Fences & Gates	$ 5,513	$ 6,300
Fire Alarm Panel	$ 1,264	$ 1,580
Fire Alarm Panel	$ 13,500	$ 15,000
Fire Alarm System	$ 330,750	$ 630,000
Fire Extinguisher	$ 270	$ 300
Fire Extinguisher	$ 3,250	$ 3,750
Fire Suppression System	$ 6,933	$ 8,000
Fire Suppression System	$ 179,760	$ 224,700
Fixed Seating	$ 178,500	$ 210,000
Flooring	$ 2,800	$ 14,000
Flooring	$ 60,000	$ 75,000
Flooring	$ 7,200	$ 9,000
Flooring	$ 1,950	$ 2,250
Flooring	$ 149,333	$ 280,000
Flooring	$ 28,800	$ 54,000
Flooring	$ 10,400	$ 52,000
Flooring	$ 600	$ 4,000
Flooring	$ 608,000	$ 760,000
Flooring	$ 30,000	$ 37,500
Foodservice Equipment	$ 8,000	$ 15,000
Foodservice Equipment	$ 4,320	$ 14,400
Foodservice Equipment	$ 3,900	$ 4,500
Foodservice Equipment	$ 18,633	$ 21,500
Foodservice Equipment	$ 920	$ 4,600
Foodservice Equipment	$ 3,600	$ 4,500
Foodservice Equipment	$ 2,453	$ 4,600
Foodservice Equipment	$ 2,340	$ 2,700

System	System Contribution	System Value
Foodservice Equipment	$ 24,000	$ 30,000
Foodservice Equipment	$ 7,600	$ 9,500
Foodservice Equipment	$ 1,433	$ 21,500
Foodservice Equipment	$ 1,110	$ 7,400
Foodservice Equipment	$ 8,960	$ 11,200
Foodservice Equipment	$ 5,355	$ 6,300
Foodservice Equipment	$ 12,133	$ 14,000
Foodservice Equipment	$ 680	$ 3,400
Foodservice Equipment	$ 11,280	$ 14,100
Foodservice Equipment	$ 1,120	$ 8,400
Foodservice Equipment	$ 3,910	$ 4,600
Foodservice Equipment	$ 4,987	$ 6,800
Foodservice Equipment	$ 2,773	$ 3,200
Foodservice Equipment	$ 3,040	$ 3,800
Foodservice Equipment	$ 9,000	$ 30,000
Foodservice Equipment	$ 4,907	$ 9,200
Foodservice Equipment	$ 8,000	$ 15,000
Foodservice Equipment	$ 4,550	$ 7,000
Foodservice Equipment	$ 3,573	$ 6,700
Foodservice Equipment	$ 3,987	$ 4,600
Foodservice Equipment	$ 613	$ 4,600
Foodservice Equipment	$ 10,500	$ 35,000
Foodservice Equipment	$ 4,560	$ 5,700
Foodservice Equipment	$ 10,240	$ 12,800
Foodservice Equipment	$ 5,700	$ 9,500
Foodservice Equipment	$ 3,680	$ 5,600
Foodservice Equipment	$ 3,150	$ 6,000
Foodservice Equipment	$ 917	$ 1,100
Foodservice Equipment	$ 16,250	$ 25,000
Foodservice Equipment	$ 3,450	$ 6,000
Foodservice Equipment	$ 4,025	$ 7,000
Foodservice Equipment	$ 945	$ 6,300
Foodservice Equipment	$ 4,480	$ 5,600
Foodservice Equipment	$ 3,450	$ 4,600
Foodservice Equipment	$ 3,833	$ 4,600
Heat Exchanger	$ 7,980	$ 11,400
Heat Exchanger	$ 5,700	$ 11,400
HVAC System	$ 525,000	$ 1,050,000
HVAC System	$ 420,000	$ 840,000
Intercom/PA System	$ 155,925	$ 346,500
Interior Door	$ 31,500	$ 63,000
Interior Door	$ 15,200	$ 47,500
Interior Lighting System	$ 630,000	$ 1,050,000

System	System Contribution	System Value
Laboratory Equipment	$ 6,400	$ 20,000
Lockers	$ 140,000	$ 200,000
Overhead/Dock Door	$ 5,040	$ 12,600
Overhead/Dock Door	$ 21,120	$ 39,600
Packaged Unit	$ 3,938	$ 7,500
Packaged Unit	$ 4,250	$ 5,000
Packaged Unit	$ 220	$ 5,500
Packaged Unit	$ 8,000	$ 15,000
Packaged Unit	$ 13,800	$ 15,000
Park Bench	$ 840	$ 1,000
Parking Lots	$ 70,200	$ 81,000
Parking Lots	$ 50,400	$ 630,000
Passenger Elevator	$ 37,333	$ 70,000
Picnic Table	$ 6,000	$ 7,200
Play Structure	$ 6,400	$ 8,000
Plumbing System	$ 924,000	$ 2,310,000
Pole Light Fixture w/ Lamps	$ 21,000	$ 42,000
Pump	$ 13,600	$ 27,200
Pump	$ 4,620	$ 6,600
Pump	$ 6,507	$ 12,200
Pump	$ 9,967	$ 13,000
Pump	$ 5,980	$ 7,800
Pump	$ 10,427	$ 13,600
Pump	$ 10,120	$ 13,200
Radiator	$ 92,000	$ 120,000
Replace Energy Recovery Ventilator 180 to 315 CFM	$ 569	$ 2,134
Roofing	$ 6,747	$ 25,300
Roofing	$ 115,500	$ 165,000
Roofing	$ 486,200	$ 935,000
Secondary Transformer	$ 2,814	$ 6,700
Security/Surveillance System	$ 294,000	$ 420,000
Shed/Gazebo/Shade Structure	$ 2,167	$ 5,000
Shed/Gazebo/Shade Structure	$ 5,250	$ 7,500
Shed/Gazebo/Shade Structure	$ 4,000	$ 15,000
Shed/Gazebo/Shade Structure	$ 1,083	$ 2,500
Shed/Gazebo/Shade Structure	$ 1,393	$ 3,750
Shed/Gazebo/Shade Structure	$ 42,000	$ 60,000
Shed/Gazebo/Shade Structure	$ 7,583	$ 17,500
Shower	$ 6,240	$ 10,400
Sidewalk	$ 3,813	$ 8,800
Sidewalk	$ 4,800	$ 9,000
Sink/Lavatory	$ 2,667	$ 5,000
Sink/Lavatory	$ 936	$ 1,800

System	System Contribution	System Value
Sink/Lavatory	$ 1,092	$ 2,100
Sink/Lavatory	$ 25,200	$ 35,000
Sink/Lavatory	$ 3,120	$ 4,800
Sink/Lavatory	$ 728	$ 1,400
Sink/Lavatory	$ 1,173	$ 1,600
Sink/Lavatory	$ 41,340	$ 79,500
Sink/Lavatory	$ 672	$ 800
Sink/Lavatory	$ 3,960	$ 6,600
Split System Ductless	$ 7,280	$ 14,000
Split System Ductless	$ 3,660	$ 6,100
Sports Apparatus	$ 12,350	$ 19,000
Sports Apparatus	$ 37,050	$ 57,000
Sports Apparatus	$ 8,280	$ 9,000
Sports Apparatus	$ 8,750	$ 10,000
Sports Apparatus	$ 18,400	$ 24,000
Sports Apparatus	$ 7,540	$ 11,600
Sports Apparatus	$ 8,500	$ 10,000
Sports Field and Court Lighting	$ 29,750	$ 35,000
Stairs	$ 129,600	$ 144,000
Storage Tank	$ 2,310	$ 6,600
Supplemental Components	$ 19,067	$ 44,000
Supplemental Components	$ 4,760	$ 5,600
Supplemental Components	$ 9,350	$ 11,000
Suspended Ceilings	$ 422,625	$ 735,000
Switchboard	$ 34,650	$ 66,000
Toilet	$ 45,067	$ 67,600
Unit Heater	$ 1,440	$ 1,800
Unit Heater	$ 714	$ 1,700
Unit Heater	$ 510	$ 1,700
Unit Heater	$ 1,680	$ 2,100
Unit Ventilator	$ 108,533	$ 148,000
Urinal	$ 16,683	$ 23,100
Variable Frequency Drive	$ 8,680	$ 12,400
Variable Frequency Drive	$ 12,495	$ 14,700
Wall Finishes	$ -	$ 36,000
Wall Finishes	$ -	$ 18,000
Wall Finishes	$ -	$ 70,000
Wall Finishes	$ -	$ 487,500
Wall Finishes	$ -	$ 82,500
Water Heater	$ -	$ 18,500
Water Heater	$ -	$ 14,400
Water Heater	$ -	$ 1,600
Water Heater	$ -	$ 2,900

System	System Contribution	System Value
Window	$ -	$ 249,850
Totals	**$ 10,848,823**	**$ 19,662,871**