



School District of Bloomer Facility Audit



June
2019

C·E·S·A¹⁰

CONTENTS

History	5
Investment Grade Audit Process	7
Prioritization Factors	9
Introduction	11
Detailed Analysis of Facilities	13
Executive Summary	19
Referendum Considerations	21
Bloomer High School	23
Bloomer Middle School	51
Summary	71
Appendix	73

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HISTORY

CESA 10 FACILITIES MANAGEMENT DEPARTMENT - Established in Wisconsin in 1964, Cooperative Educational Service Agencies (CESAs) have a long history of partnering with school districts. CESA 10 Facilities Management Department (CESA FM) is a nonprofit educational service agency providing facilities management services to local government and school district customers throughout the state of Wisconsin.

With decades of experience and expertise in managing institutional facility needs, CESA FM helps to ensure customers benefit from CESA FM's trusted and unbiased judgment and experience gained through the execution of hundreds of investment grade audits, school energy efficiency, construction, renovation and environmental projects, and other facilities services.

CESA FM assists public entities in the management of their facilities needs in the areas of health, safety, energy efficiency, referendum and long-term planning, and construction management. The department's main areas of concentration are:

- **Investment Grade Audits including Long-Term Comprehensive Plans**
- **Referendum Planning**
- **Construction Management**
- **Owner's Representative**
- **Energy Management**
- **Environmental Health and Safety Consulting**
- **Environmental Project Consulting and Management**

CESA FM's vast knowledge of school facilities, coupled with a nonprofit mission to serve, makes a partnership with CESA FM a natural step in developing long-term facility solutions across school and government facilities. CESA FM shares a commitment to customer empowerment through customer-protective processes and customer-oriented solutions.

MISSION - With an entrepreneurial mindset and a nonprofit fee structure, CESA FM provides *Safe, Healthy, Efficient, Comfortable, Energy and Resource Conscious* environments for school and government entities through shared knowledge, linkage to resources, and sustainable actions.

VISION - Efficient buildings, safe people, healthy environments, sustainable change.

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INVESTMENT GRADE AUDIT PROCESS

Investment grade audits consist of facility-wide analyses that culminate in the quantification of project costs for educational, technological, infrastructure, and maintenance concerns. CESA FM's audits also include potential costs and energy savings as well as a prioritization tool. CESA FM's specific team approach focuses on customer input and includes the following steps:

- 1 Analyze energy use and building characteristics for a preliminary benchmarking analysis.** This involves analyzing historical utility use and cost and development of the energy utilization index (EUI) of the buildings and to compare the buildings' EUI to similar buildings.
- 2 Identify possible facility improvement measures (FIMs) and maintenance needs.** Based on energy usage, plan review, maintenance logs, past projects, safety issues, and staff input, CESA FM identifies possible projects and current and long-term maintenance needs.
- 3 Create a detailed facility audit.** This assesses current energy costs, condition, safety and compliance issues, and efficiency by carefully surveying each building. This analysis identifies low-cost/no-cost measures, capital improvements, and maintenance tasks that merit further consideration.
- 4 Confirm FIMs using an energy analysis, examining efficiency and infrastructure, and researching potential costs and savings.** This includes a more detailed building survey and energy analysis, including a breakdown of energy use in each building, a savings and cost analysis of all practical measures that meet the District's needs and constraints, and a discussion of any effect on operation and maintenance procedures. It also lists potential capital-intensive improvements that require more thorough data collection and analysis, along with an initial judgment of potential costs and savings.
- 5 Gather additional information as needed including a detailed analysis of capital-intensive modifications.** This step focuses on potential capital-intensive projects identified earlier in the process and involves more detailed field data gathering and an engineering analysis. It provides detailed project costs and savings information with a level of confidence high enough for major capital investment decisions.
- 6 Create and present the report to District and/or Board.** The CESA FM certified energy auditor will bring in subject matter experts (i.e. electrical, technology, environmental health, and safety), provide photographic documentation, and perhaps of most value, create a report of detailed, prioritized recommendations in a flexible format tool that can pivot based on District, Board, and community decisions regarding how to proceed.

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PRIORITIZATION FACTORS

In order to properly prioritize each building system and component District-wide, an assessment tool based on four criteria is utilized. The rationalization for each criterion is outlined below. Criteria are weighted, after discussion with District administration, to reflect current school and community priorities and funding sources.

Criteria 1

SAFETY/HEALTH/COMPLIANCE ISSUES

Staff and student health and safety are critically important. Examples of building systems or components that received priority because of safety, health or compliance concerns that need to be addressed include:

- HVAC Systems
- Building Envelope Maintenance
- Hardscapes & Landscapes
- Electrical
- Lighting
- Plumbing
- Flooring

Air quality makes a difference in learning - There are many benefits to prioritizing safety, health, and compliance issues. Results of poor indoor air quality in schools are documented on the EPA website: <http://www.epa.gov/iaq/schools/benefits.html>.

Excerpts from the EPA website:

Leaky roofs: *Problems with heating, ventilation and air conditioning systems; insufficient cleaning or excessive use of toxic cleaning chemicals; and other environmental issues can lead to poor IAQ and trigger health problems like asthma and allergies.*

Ability to Perform: *Research shows a school's physical environment can affect academic performance. Controlled studies show students perform school work faster as ventilation rates increase. The performance of teachers and staff also improves with higher ventilation rates.*

Test Scores: *Students in classrooms with higher fresh air ventilation rates tend to achieve higher scores on standardized tests in math and reading than students in poorly ventilated classrooms.*



**Criteria
2**

MATERIALS IN CRITICAL CONDITION/LACK OF FUNCTIONAL CONDITION

Closely related to safety, health, and compliance, the next criterion used to prioritize facility needs is equipment or materials in critical condition. Items with a high probability of failure in the short-term can generate much higher expenses and a variety of other issues if they are not taken care of promptly. For instance, failure to replace a roofing system now could generate much higher costs due to mold and water damage in the future. This criterion encompasses both the functional condition and remaining useful life of the facility and/or equipment.

As aptly stated in *Save a Penny, Lose a School*, published by the Rural Trust Policy Brief Series on Rural Education:

Reduced funding affects the quality of maintenance in many ways. Schools may be reluctant to follow manufacturers' recommendations if equipment seems to be functioning properly, but neglecting routine maintenance may reduce the life of the machinery and systems, increase the cost of operating them, and decrease their level of performance.

Proper maintenance is an important issue because deferring maintenance affects the health, safety, and morale of everyone who uses the facility, as well as the cost of operations. If the building requires extensive repairs, renovation, or replacement, deferred maintenance may even force its closure.

**Criteria
3**

PROJECTS WITH LONG-TERM FUTURES/RETURN ON INVESTMENT

After immediate needs and health/safety projects are completed, facilities with the highest probability of long-term use should be invested in. This includes long-term planning items such as the decision to renovate or build a new high school.

**Criteria
4**

PROJECT COST/PAYBACK CONSIDERATIONS

Long-term vision is also a factor for project prioritization. For instance, investment in a new heating system may be a wise choice to avoid utility costs, maintenance costs, and the need for multiple upgrades to the system in a short period of time. Additionally, relatively low-cost lighting and controls projects can start saving energy immediately, have fairly short paybacks and long-term savings.

Projects that have been prioritized by this study encompass many systems including each building's HVAC equipment, lighting, flooring, electrical, and plumbing. These upgrades will provide a return on investment from reduced maintenance, lower utility usage, and lower liability and training obligations, all while improving safety, occupant comfort, and providing the best possible learning environment for students.

INTRODUCTION

In 2019, the School District of Bloomer administration and School Board underwent talks with CESA 10 Facilities Management Department regarding the current state of its high school and middle school facilities, and the need to have additional information to assist in making important decisions regarding the future of the District.

The purpose of this audit is a facilities report and is not meant to address all of the facets of educational needs. In this report, the current condition of the high school and middle school facilities, systems and structures are reviewed, and recommendations are given regarding the costs of moving forward in a variety of different ways, providing objective third-party information to the District, the Board, and the community. The purpose of the report is to assist all parties in utilizing limited District funds as effectively as possible.

In April 2019, CESA 10 performed investment grade audits on the middle and high school facilities at the School District of Bloomer. The audits consisted of facility-wide analyses that culminated in the quantification of project costs, savings, and prioritization to provide value to the District, Board, and community now and for years to come.

The District has been discussing long-term options for the future of the high school facility, with a long-term goal of relocating the high school versus renovating the existing facility. The suggested location is next to the newer elementary and middle school facilities. This location would reduce the traffic and parking congestion experienced at the existing landlocked site, create a more centralized campus, and establish closer use of the sports facilities already in place at the suggested location.

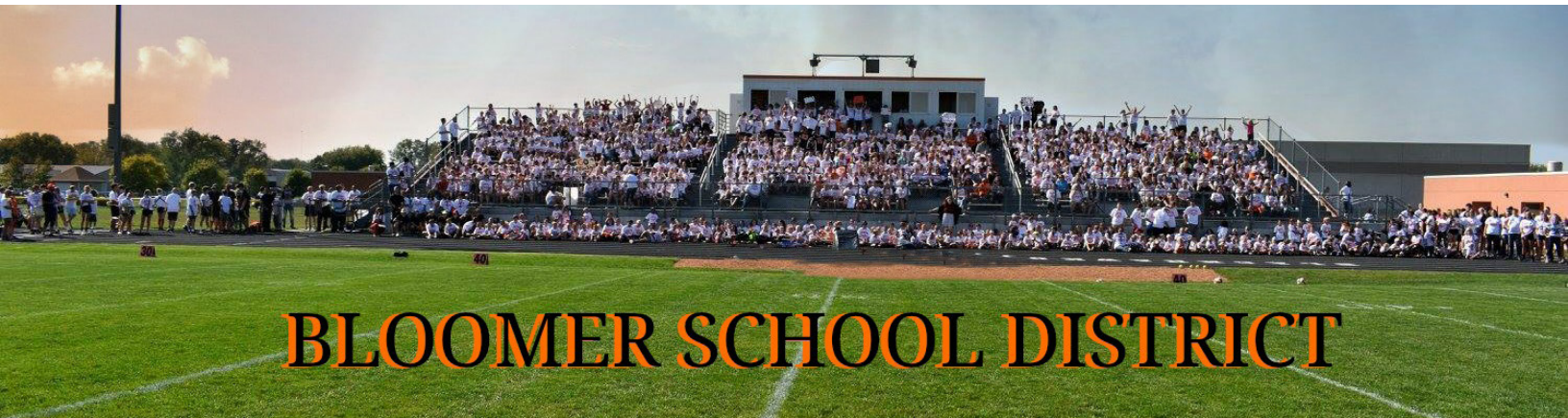
A project prioritization tool has been created as part of this report to reconfigure project lists to aid the District and Board in choosing an array of possible facilities decisions and determine if new construction is financially feasible. The tool also provides additional justification to build new versus renovating the existing high school facilities within the already too small property footprint. The project prioritization tool will be of use to the Board and District over the next several years.

Note: For this report, CESA 10 facilities experts focused on recommendations based on current facilities' needs and operations. The report recommendations are not based on future educational needs or detailed analysis of changes in increased enrollment. The District has analyzed these long-term trends in enrollment at different points in the past and provided documentation to CESA 10 consultants for informational purposes. The findings from this audit, projected future enrollments, and long-term educational needs should all be referenced and considered when making any decisions regarding the School District of Bloomer facilities.

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DETAILED ANALYSIS OF FACILITIES

DISTRICT-WIDE FACILITY ANALYSIS



The School District of Bloomer serves a rural, residential, and farm community of approximately 14,000 residents. The school district spans Chippewa and Dunn County and serves students from the City of Bloomer and the townships of Auburn, Bloomer, Cleveland, Cooks Valley, Eagle Point, Sampson, Tilden, Woodmohr, Grant, and Sand Creek.

The District serves approximately **1,200 - 1,300** students across the area, and enrollment numbers continue to grow. The District operates one elementary school (preschool through grade four), one middle school (grades five through eight), and one high school (grades nine through twelve), and partners with Chippewa Valley Technical College (CVTC) and the Chippewa Falls School District for alternative education programs.

The District recently adopted a five-year strategic plan that focuses on the following strategies:

- Student Achievement
- 21st Century Facilities
- Partnerships
- Highly Qualified Staff

This report directly serves the 21st Century Facilities component, with an intended result that District facilities will meet community and 21st Century educational expectations.

MISSION: In partnership with the community and its students, the School District of Bloomer is committed to excellence by empowering and challenging all students to achieve their potential as long-long learners in an every-changing global society.

VISION: Challenge. Empower. Achieve.

From an educational perspective, the Wisconsin DPI rates the District (2017-18 data) as “Meets Expectations.” It has a score of 66.4 which is average compared to the majority of school districts in the state. The District exceeds the priority area standard in on-track and postsecondary readiness, which is a testament to the District’s mission statement. However, there are facility needs that, if left unaddressed, could affect the health, safety, and achievement of students in the long term.

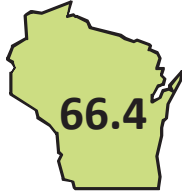
FINAL - PUBLIC REPORT - FOR PUBLIC RELEASE

November 13, 2018



Bloomer District Report Card | 2017-18 | Summary

Overall Score



Meets Expectations

Overall Accountability Ratings	Score
Significantly Exceeds Expectations	83-100 ★★★★★
Exceeds Expectations	73-82.9 ★★★★☆
Meets Expectations	63-72.9 ★★★☆☆
Meets Few Expectations	53-62.9 ★★☆☆☆
Fails to Meet Expectations	0-52.9 ★☆☆☆☆

District Information

Grades	K4-12
Enrollment	1,266
Within District Mobility	0.0%
Between District Mobility	2.5%
<i>Race/Ethnicity</i>	
American Indian or Alaskan Native	0.6%
Asian	0.5%
Black or African American	1.7%
Hispanic/Latino	1.1%
Native Hawaiian or Other Pacific Islander	0.2%
White	95.7%
Two or More Races	0.3%
<i>Student Groups</i>	
Students with Disabilities	12.6%
Economically Disadvantaged	29.2%
English Learners	1.1%

Priority Areas	District Score	District Max Score	State Score	State Max Score
Student Achievement	60.9/100		63.0/100	
English Language Arts (ELA) Achievement	30.9/50		32.1/50	
Mathematics Achievement	30.0/50		30.9/50	
District Growth	48.9/100		66.0/100	
English Language Arts (ELA) Growth	21.6/50		33.0/50	
Mathematics Growth	27.3/50		33.0/50	
Closing Gaps	66.2/100		67.9/100	
English Language Arts (ELA) Achievement Gaps	31.2/50		17.8/25	
Mathematics Achievement Gaps	35.0/50		17.3/25	
Graduation Rate Gaps	NA/NA		32.8/50	
On-Track and Postsecondary Readiness	87.8/100		85.0/100	
Graduation Rate	37.9/40		36.3/40	
Attendance Rate	37.2/40		36.7/40	
3rd Grade English Language Arts (ELA) Achievement	7.2/10		6.3/10	
8th Grade Mathematics Achievement	5.5/10		5.7/10	

Priority Area Weights	Percentage Weight
Student Achievement	28.9%
District Growth	21.1%
Closing Gaps	25.0%
On-Track and Postsecondary Readiness	25.0%

Note: For details about how weights are determined, see weighting calculator: https://oea-dpi.shinyapps.io/overall_weighting_calculator/

Student Engagement Indicators	Total Deductions: 0
Absenteeism Rate (goal <13%)	Goal met: no deduction
Dropout Rate (goal <6%)	Goal met: no deduction

Test Participation Information				
Includes Forward Exam (grades 3-8), ACT (grade 11), and Dynamic Learning Maps (grades 3-8 and 11)				
Group	ELA 1-Year	ELA 3-Year	Math 1-Year	Math 3-Year
All-Students Rate	98.9%	99%	98.9%	99.2%
Lowest Subgroup Rate: Econ Disadv	97.6%	98.1%	97.6%	98.3%

^Note: Outlier score fluctuation is noted by ^ when any school or district report card has a 10-point or greater change (up or down) in its Overall Score. This amount of change in a single year is considered an outlier, and may or may not be reflective of actual school/district change in performance. Careful and cautious review of the report card and all supplemental pages is recommended. For assistance in better understanding this report card, contact the Office of Educational Accountability: reportcardhelp@dpi.wi.gov.

TECHNOLOGY ASSESSMENT

“Technology is at the core of virtually every aspect of our daily lives and work, and we must leverage it to provide engaging and powerful learning experiences and content, as well as resources and assessments that measure student achievement in more complete, authentic, and meaningful ways.”

The National Education Technology Plan, pg. ix

This statement challenges every school district in the nation to provide the technology tools and connectivity to help teachers teach and students learn in a way that reflects the world in which they live. The School District of Bloomer has made progress in meeting this challenge, but as technology advances, so do the devices and ways to use them in the classroom. Upgrades to technology and the training to use it are a continuous pursuit and should be budgeted for accordingly each year. Ensuring adequate technological infrastructure not only enhances student learning but can also attract high-quality teachers and new students to the District.

Overview of the District’s Digital Technology Plan

The School District of Bloomer’s technology mission is to utilize appropriate and relevant technology to support student achievement and District operations. To support this mission, the District developed a technology plan in conjunction with the District’s strategic plan for 2015-2020. The technology plan contained the following goals:

- *Student Achievement:* All students will experience a quality, standards-based, technology-infused education that enhances learning.
- *Effective Teaching and Learning Practices:* The staff will have ready access to the technology needed to promote skills for effective and efficient enhancement of student learning.
- *Access to Information Resources and Learning Tools:* All staff and students will have access to technology tools and resources necessary to enhance teaching and learning.
- *Support Systems and Leadership:* The District will promote staffing, policies, procedures, communication systems, infrastructure and resources to enhance student learning.



The layout of this plan analyzes the District's current and anticipated needs. The plan aims to integrate technology in a responsible and feasible method to provide access to technology and library materials to all students. In addition to the focus on technology, the District combined technology goals with the school library program in an effort to strengthen the curriculum and ensure students are learning the skills necessary to succeed.

In any school district, technology is an important piece in enabling students and staff to reach their goals. Having a top notch technology program is a balancing act of keeping up with advances in technology while making wise choices that limit expenses and effectively utilize equipment on hand.

When reviewing technology plans, CESA FM often utilizes advice from the *Wisconsin Superintendent's Digital Learning Advisory Council and Future Ready Framework: A Systemic Approach to Implementation*. This resource recommends implementing technology further down into the elementary grades; developing a district-wide, strategic professional development plan for technology use in every classroom; and making a commitment to upgrade older technology when needed.

After reviewing the School District of Bloomer's technology plan, we don't need to pass these recommendations along, as the District is already doing an excellent job using information technology to effectively and efficiently improve learning and meet academic standards. The technology plan has kept up with the fast pace of the field and is well equipped to meet the District's goals. CESA FM auditors found the Information Technology program at the District to be well coordinated and the equipment well utilized and maintained.



SAFETY AND SECURITY

In today's climate, safety and security are of the utmost importance. The School District of Bloomer realizes the importance of protecting its building occupants and has invested a good deal of time and money to implement numerous security measures over the past few years. Recent updates include:

- Updating the camera monitoring system at the high school
- Installing a key fob system at the middle school
- Providing "Train the Trainers" opportunities for staff on ALICE training
- Locking all doors during school hours and providing regular door checks throughout the day
- Organizing medical emergency/crisis response teams
- Conducting ongoing safety and security drills throughout the school year

In addition to these proactive efforts, the District is also utilizing funds from the School Safety Initiative to install security film on exterior doors and office windows, extend the middle school vestibule, install push bars and door prop alarms, install a key fob system and card reader at the high school, further enhance the camera monitoring system, update its emergency operations plan, and send various staff to mental health training.

It's clear the School District of Bloomer holds safety to a high standard. One of its belief statements asserts that all individuals have a right to a safe, welcoming environment. This is further supported through an initiative in its strategic plan to develop and design safe, clean, and welcoming environments.

CESA FM keeps safety at the forefront when conducting our audits. The most significant safety concern we noted during our visit was in the high school parking lot. The cramped quarters, traffic congestion, and lack of adequate parking spots was worrisome. This design promotes students darting in front of vehicles and poses a massive liability to the District. Due to the landlocked location of the high school, providing a viable solution to this safety concern is problematic. This issue is mentioned in various sections throughout this report.



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EXECUTIVE SUMMARY

The School District of Bloomer is comprised of three educational facilities – an elementary, middle, and high school. The Bloomer facilities are notably different from most of the hundreds of other school districts CESA 10 has consulted for across Wisconsin. The most significant difference being the current central location for the elementary and middle school facilities. This central campus also includes the District outdoor athletic facilities, including those supporting the high school. The majority of districts with multiple schools are not in a shared location. Typically, there are varying distances between school sites creating challenges from facility maintenance, staffing, and transportation perspectives for the District and also for parents. **The School District of Bloomer currently benefits from the elementary and middle school consolidated sites and will benefit even more if the high school is consolidated to the same central campus site.**

The other noted difference from most other rural districts is the recent increase and future projected increase in student enrollment. This steady rise in attendance may be due to small class sizes, high-quality staff, and a pleasant environment. While the District should be commended on the ever-increasing student body, it also needs to be cognizant of spacial concerns related to this unforeseen growth. **Furthermore, in addition to spacial concerns due to the increase in students, state mandates have drastically changed since the 1960s to the 1980s, when the facility and subsequent sections were originally built. Changes to areas such as technology, special education classrooms, and square footage requirements need to be addressed to maintain compliance with today's standards.**

Bloomer's middle and high school facilities, despite ongoing maintenance, reflect their age. While the middle school does house some equipment, fixtures, and materials that are past their expected useful life, the largest percentage of needs were found in the high school. As a result, significant renovations at the high school are needed and discussed in detail throughout this report.

The **amount of renovations identified at the high school are significant**, and the need so immediate, that new construction must be considered. Whether renovation or new construction is chosen, both options will necessitate large short-term capital costs. Also, the limited high school property shape and size will not readily allow for renovation to address the existing congested traffic and parking, lack of outdoor activity areas, and ability to add building space to the existing high school facility.

NEW CONSTRUCTION: The estimated capital costs for building a new high school facility on the already owned property next to the middle school and elementary school is approximately \$35-45M. Construction inflation costs are estimated at 2.4% per year. This means costs will increase an estimated \$840,000 per year each year construction is delayed. While the initial investment of constructing a new school is high, the 21st century standards would be met as already accomplished at the middle and elementary schools. A modern, new high school would be safer, more efficient, require significantly less maintenance, and meet the changing educational needs of the District for many years into the future. **Additionally, the District has a healthy Fund 46 balance that can be used to maintain the new facilities, eliminating the need for a future operational referendum to cover unanticipated costs.** The portion of the projects targeted for the middle school is estimated at approximately \$500,000.



RENOVATIONS: Renovating the high school would need to address years of **deferred projects** as well as upgrades and improvements to meet the educational needs of the school. Estimated renovation costs are **approximately \$15,000,000 in totality** over the next five years. This investment would only bring the school up to compliance and up-to-date in a patchwork of additions from the 1960s forward. While the systems will gain compliance with the renovations, the educational spaces will still reflect that of a 1960s facility, and will not meet the 21st century standards achieved in the elementary and middle schools. **Additionally, if renovations are pursued, there is no adequate space in the current facility to place the students while these renovations occur. The District would need to find a suitable space to relocate students and learning during this time, which would result in additional costs. If the District chooses to pursue renovations at this time, the need for a new high school will still exist and need to be addressed at some point in the future.** The portion of the projects targeted for the middle school is the same as with new construction and is estimated at approximately \$500,000.

Annual operating efficiencies will need to be considered if the high school is renovated instead of abandoned due to new construction. Efficiency gains and therefore reductions in annual operating costs due to new construction will be significant as a result of changes in staffing, maintenance, utilities, and transportation opportunities. No detailed operating cost estimates were run for the purpose of this study.



REFERENDUM CONSIDERATIONS

Referendum options are somewhat variable, depending on the District's level of pursuit for the recommended projects. The existing funding limits and other obligations has disadvantaged the District's ability to sufficiently maintain the facilities at the desired facility standards. In order to maintain the facilities as close as possible to these standards, capital projects have been completed at standards less than preferred and projects have been delayed, resulting in the identified list of improvements. CESA FM and many other school districts have identified referendum as a viable consideration to fund facility improvements.

Many referendum options can be considered. CESA FM has found narrowing referendum options to only two options is best. The two options give the voters a clear choices between the recommended facility improvements to be made and the resulting impact to the tax levy. Due to this finding, CESA FM is presenting the School District of Bloomer with two potential referendum options.

REFERENDUM OPTION 1 - The first option includes securing **\$45,000,000** for the construction of a new high school, eliminating the deferred maintenance projects, and adding the desired facility improvements to the current best practice standards set by a District advisory committee. After conducting the initial audit and subsequent conversations with District administration, CESA FM feels the new high school project currently offers the best and most immediate improvement opportunities for the District. The intent for this option is to have the new high school construction bring the high school up to the 21st century standards, as already completed at the middle school and elementary school. The new construction would continue to use the proven improved facilities standards and conditions implemented in other schools in the district. Completing the new construction for the high school would meet all current compliance requirements and reduce facility operating costs. This number also reflects the estimated project costs to satisfy the identified deferred maintenance projects at the middle school, estimated at approximately \$500,000.

REFERENDUM OPTION 2 - The second option includes securing **\$15,000,000** to again renovate and remodel the high school in a series of phases over the next several years. Unfortunately, with only a high school renovation the existing building layout, space, and site limits the transformation of the school. Reaching the 21st century standards for the high school as already accomplished at the middle school and elementary school will not be met by this option. The renovation and remodel will correct current deficiencies, meet all current compliance requirements, and reduce facility operating costs. This option is anticipated to require more transition and disruption to the high school due to the invasive extent of work to be completed. This option is to fulfill all of the recommended high school and middle school deferred maintenance projects listed in this report except current space restraints and parking lot congestion and safety concerns. After conducting the initial audit and subsequent conversations with District administration, CESA FM feels these projects currently pose the greatest concern for the District. The intent for this option is to bring the high school and middle school back to original facility standards and meet all current compliance requirements. The identified deferred maintenance projects at the middle school are estimated at approximately \$500,000.

OTHER REFERENDUM OPTIONS - Other referendum options can be developed. The premature cost estimations for additional examples seems to be excessive at this time. Lessened funding amounts by reducing the projects to be completed can also be considered, if so desired.

CESA FM recommends the District uses this study to assist in developing the final improvements to be funded and completed. The following sections highlight existing conditions, recommendations, the scope of work, and benefits for each identified problem area. Projects are listed in the order of importance within their description. For example, the high school space needs are listed first, as they pose the greatest concern in consideration of the remainder of improvements identified. Other less concerning deficiencies are listed next in order of importance. This prioritization within the project description will help the District identify and manage the desired projects scope and costs.



BLOOMER HIGH SCHOOL

FACILITY ANALYSIS

Bloomer High School was built in 1963 and is currently serving 9-12 grades. The facility has a wide variety of equipment, construction materials, ages, and conditions. The newest additions are 16 years old and other additions are much older. The original building is 56 years old. This wide range of building addition ages was evident during the walk-through and assessment of capital project needs.

Since the school was constructed 56 years ago, the original equipment has far surpassed serviceable equipment life. Typical serviceable life for piping and infrastructure components is 50 years. Other components estimated serviceable life are much less. The estimated serviceable life for electrical distribution systems is 25-30 years, windows and doors 20-25 years, and HVAC and lighting 15-20 years. The original infrastructure is at the point to force the long-term cost decision to replace components rather than attempting more repairs. New construction is an option to consider in lieu of attempting major renovations to the original building. Some of the equipment and systems replaced and added in later additions have also reached the same conditions. The high school continues to experience structure, systems, and equipment failures and will continue to experience failures as the building continues to age.

The high school site grounds are bordered by Duncan Creek on the east, a smaller stream on the south, 17th Avenue on the north, and Oak Street to the west. The site includes tennis courts, a junior varsity baseball field, practice football field, practice track, and an old elementary playground. The varsity competitive athletic fields are inconveniently located near the middle school. The parking lots are asphalt with limited open and front entrance parking. The building has driveway access to only the north, west, and south sides of the building. The east side is turf connecting to the creek.

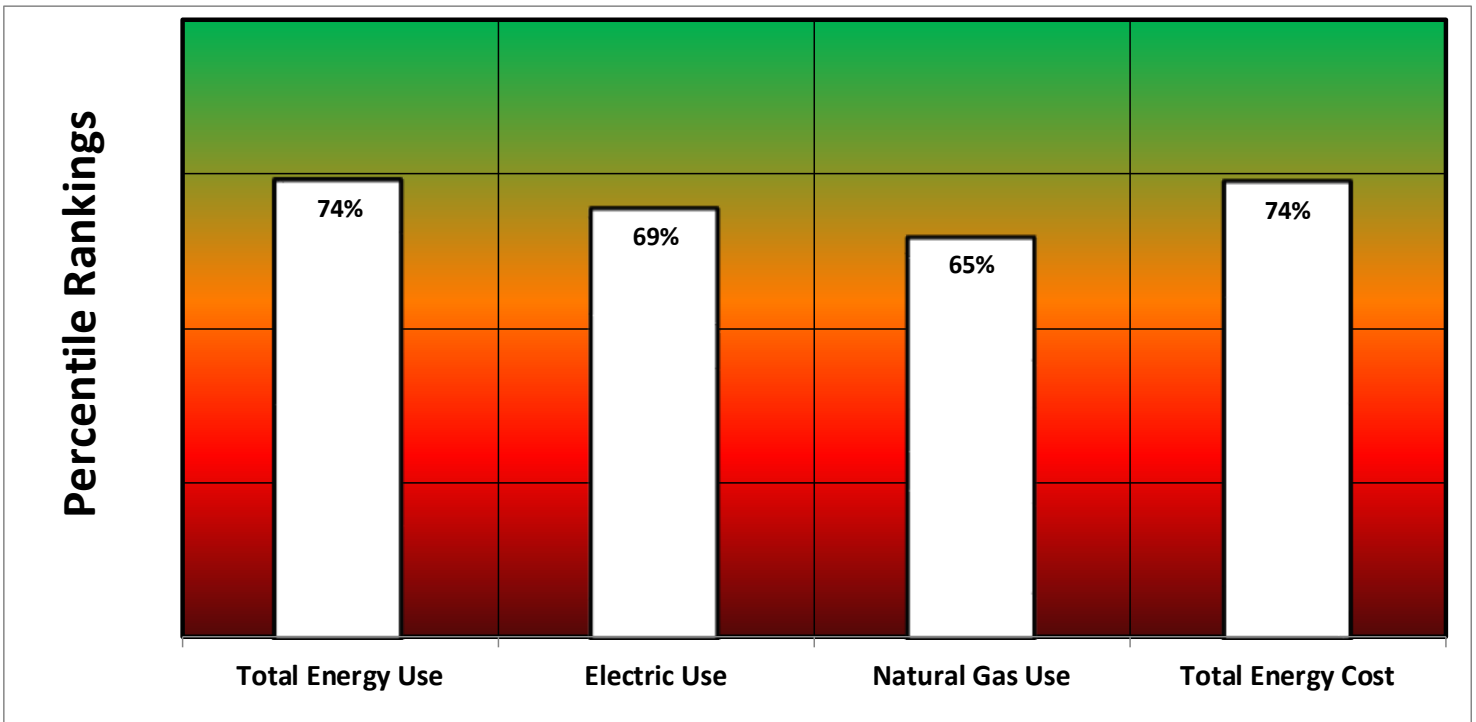
BLOOMER HIGH SCHOOL	
Year Constructed	1963 (78,915 GSF)
Tech and Ag Education Addition	1974 (16,000 GSF)
Music Room Addition	1987 (5,480 GSF)
IMC and District Office Additions	2003 (10,845 GSF)
Facility Size Total GSF	111,240
Site Area	18 Acres
2018-19 Electric Usage (kWh)	691,040
2018-19 Heating Fuel Usage (Therms)	47,070



ENERGY USE

The following benchmarking analysis compares Bloomer High School to an average high school in Wisconsin. The District uses less electricity and natural gas per square foot than the average high school in Wisconsin.

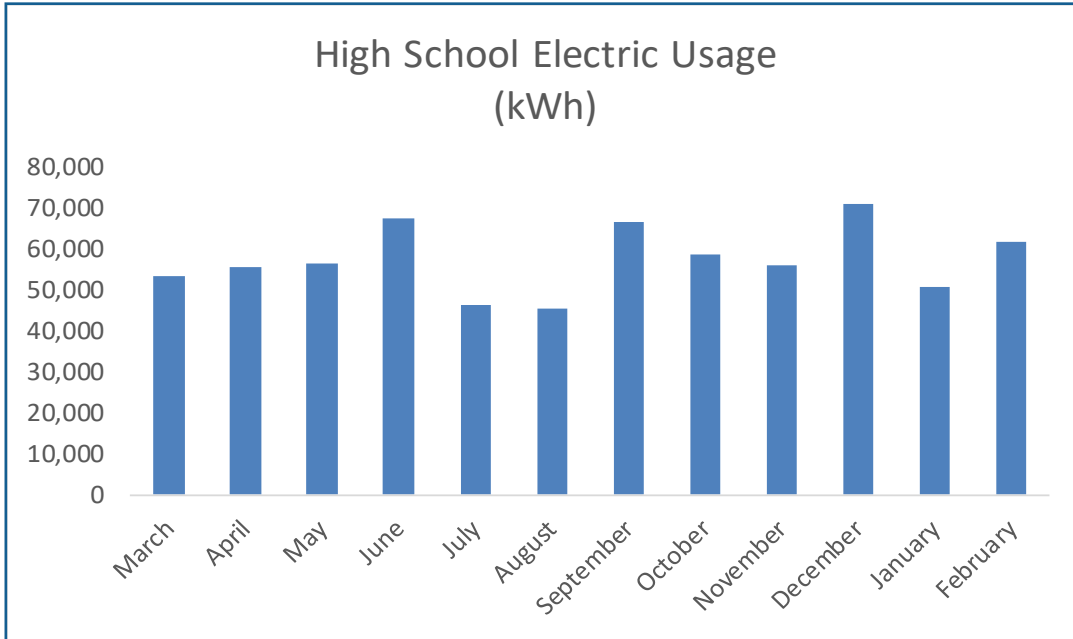
BLOOMER HIGH SCHOOL BENCHMARKING				
	Total Energy Use kBtu/ft2	Electric Use kWh/ft2	Natural Gas Use Btu/ft2/HDD	Total Energy Cost \$/ft2
Average High School	86.80	7.6	7.2	\$1.16
Bloomer High School	68.9	6.2	6.4	\$0.91
Percentile Rankings	74%	69%	65%	74%



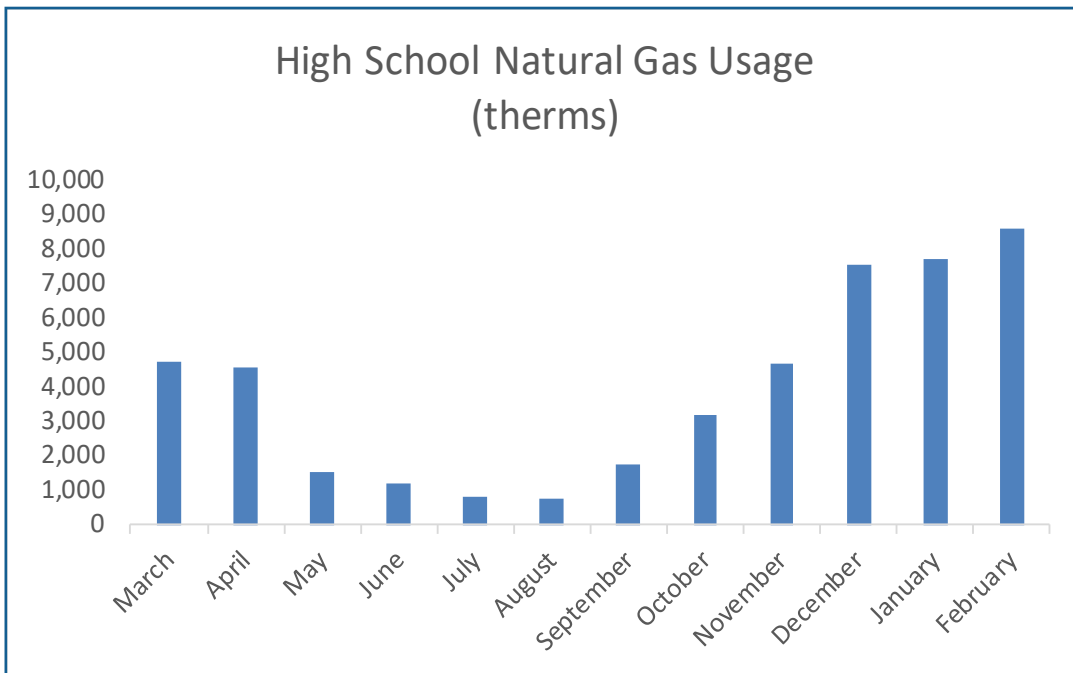
The chart above indicates the level of energy efficiency the facility is running at. Green equals good, yellow equals moderate, and red equals poor.

UTILITY ANALYSIS

The utility graph below demonstrates the electrical consumption at Bloomer High School from March 2018 through February 2019. This consumption decreases slightly over the summer months due to a decrease in building occupants and equipment usage.



Bloomer High School is heated using natural gas. As shown in the graph below, the gas load follows a typical profile for a building that is heated with natural gas and is exposed to Wisconsin's weather patterns.



PROJECT PRIORITIZATION

Based on the prioritization factors listed earlier in this report and discussions with District staff, CESA FM created a project prioritization matrix for each school. After identifying concerns and discussing possible solutions with the District, CESA FM picked out the most pressing issues facing each facility. These concerns are outlined in the following section by the existing conditions, recommended improvement measures, potential scope of work, and estimated annual savings.

A chart of the rating guidelines is included below. Projects are graded based on functional condition, predicted remaining useful life, environmental and safety concerns, project costs, and return on investment. Measures with the highest total points should be addressed in the immediate future.

Cost estimating at this juncture can prove difficult. For example, a facility improvement measure recommending a flooring project can vary based on the type of flooring the District chooses. Site conditions, environmental factors, and the availability of materials can also play a role in final project costs.

This report serves as an important first step in identifying facility needs. An itemized list for each school with estimated costs can be found in the appendix of this report. A copy of the entire prioritization matrix will be provided to the District in an Excel-based tool that can be adapted by District staff based on future replacement schedules, equipment conditions, and District priorities.

RATING GUIDELINES			
Criteria	Scoring System		
Functional Condition	Poor = 10	Average = 5	Good = 0
Predicted Remaining Useful Life	0% = 10	25% = 5	50% = 0
Environmental Health and Safety Concerns	High = 15	Medium = 8	Low = 0
Project Cost	Less than \$10,000 = 5	\$50,000 = 3	Greater than \$100,000 = 0
Return on Investment	Less than two years = 5	Five years = 3	Greater than 10 years = 0

HIGH SCHOOL INADEQUATE SPACE

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	10	15	0	0	35	\$725,000

Existing Condition

The high school site and building are congested with inadequate space for current use in many areas, including:

- Lack of an auditorium or another large presentation area
- Attached add-on food service refrigeration building
- Add-on extended greenhouse
- A patchwork of additions and corridors from past expansion
- Limited space in classrooms
- Inadequate storage space for adjacent areas of use
- Inappropriate storage in mechanical areas
- Outbuilding

The lack of interior space is also a consideration for attempting to update and improve the HVAC system. The site has limited parking in front of the building and other parking areas around the building. Vehicle parking was observed as full and congested on all sides with asphalt. The site also has limited green space and usable athletic areas: slow drainage and seasonal flooding in these outside spaces further limits use during the school year.

Each of the listed space needs for enhanced use is above and beyond the specific needs for improvements listed separately in this report. This concern is redundant. Consideration of single facility improvement measures will require deliberation to the lack of adjacent space and pathways to the potential improvement areas. Overall site and building design and engineering are needed to ensure improvements align and coordinate with desired and comprehensive building and site use.



Commons used for Auditorium



Bump-out refrigeration unit



Greenhouse extension



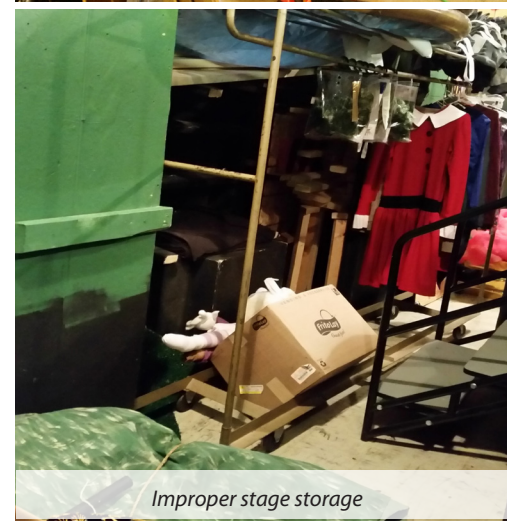
Recommendation

The first recommendation is to consider building a new high school. This option allows for the existing site and building to be used while the new construction is completed. The planning and design for the new building can remedy all of the space concerns while also improving the educational delivery and operational efficiencies. Identification of the funding for this option is a priority for the capital costs to complete.

The second recommendation in lieu of the first is to plan, design, and engineer in detail another renovation and remodel of the building and site. This option requires a large amount of transitional space for construction work to be completed or a long construction schedule with multiple phases over several years to complete. As with the other option, identification of funding for all phases to complete the renovation and remodel is a priority.



Improper mechanical room storage



Improper stage storage

Scope of Work

- Identify available funding to set budget limits for construction.
- Form advisory facilities committee to assist in prioritizing design, establish building use, and coordinate future operations.
- Contract project consultant or owner's representative to assist the district with planning, design, implementation, and close out of construction projects.
- Contract architect and engineering firm to design new high school or major renovation and remodel to existing site.
- Contract General Contractor to bid, schedule, and complete projects.

Benefits

- Major increase in occupant comfort and safety.
- Major aesthetics and use improvements.
- Moderate operations & maintenance savings.

HIGH SCHOOL AUDITORIUM

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	10	15	0	0	35	\$2,190,000

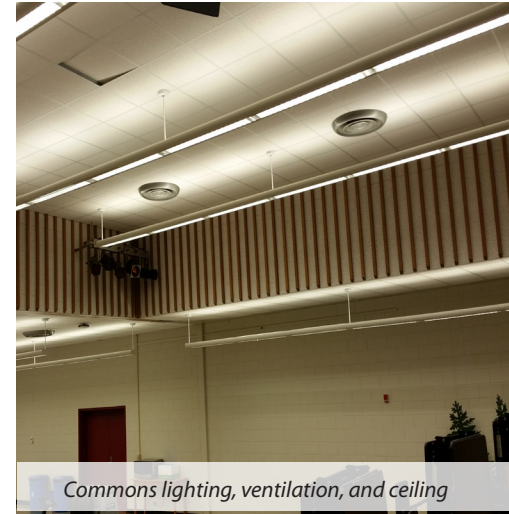
Existing Condition

The high school auditorium space consists of an original building stage in front of a commons area in the north side center of the school. The area was built in 1963, and little to no improvements have been made since that time. The layout, size, and lack of standard auditorium equipment and systems limit the educational and community use. The congested areas and lack of fixed seating or other auditorium amenities create a safety concern when occupied. The lack of auditorium amenities also requires extra set-up and take-down time to prepare and restore the area to commons after event uses.

The mechanical/HVAC/plumbing systems are undersized and create uncomfortable accommodations for those attending events in the area. The ceiling, floor, and wall finishes are old, stained, and dingy in appearance. The floor tiles appear to contain asbestos. The stage storage space is small, cluttered, and unorganized.

The concerns are the lack of a truly safe, usable, and comfortable auditorium space for the school. The lighting fixtures, controls, electrical panels, and hoist mechanism are electrical, fire, pinch, and falling object safety hazards. Potential overheating of controls, panels, and fixtures are the electrical and fire hazards. Hoist failure and fixture suspension system are pinch and falling object hazards.

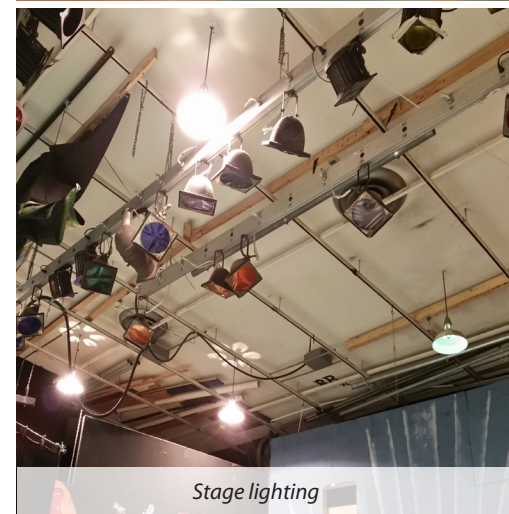
The stage lighting output is also considerably depreciated and inefficient to operate. The commons and stage area have limited ventilation volume and control for both areas. The areas are served by ventilation system requirements from the 1960s. The ventilation event demands during events are beyond the existing equipment capacity and operating conditions.



Commons lighting, ventilation, and ceiling



Commons floor



Stage lighting



Recommendation

The primary recommendation is to build a new space to house the auditorium. The current commons could be expanded and potentially include the much needed storage space for the commons area. Due to the other limited site and building space the exact location for the new auditorium spaced will need to be determined. A new building for the auditorium will most likely be necessary.

Scope of Work

- Locate the space and/or site for the new auditorium.
- Contract architect and engineering firm to design a new auditorium
- Upgrade the design to current auditorium use and size requirements.
- Include safety, comfort, and efficient operations in the design.

Benefits

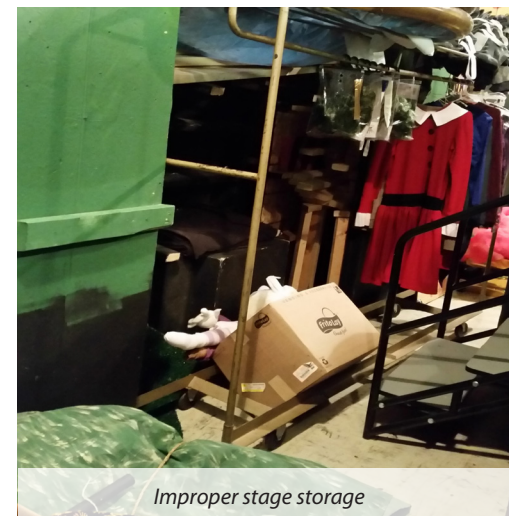
- Major increase in occupant comfort and safety.
- Major increase in student and community use.
- Major aesthetics and event improvements.
- Moderate operations & maintenance savings.
- Minor lighting electrical and heating gas savings.



Stage edge, steps, and floor



Commons stage



Improper stage storage

HIGH SCHOOL INTERIOR FINISHES

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	10	15	0	0	35	\$1,675,100

Existing Condition

Many of the interior areas have damaged or worn interior surfaces. Asbestos (vinyl asbestos) floor tile is in many of the areas and classrooms. Due to age and building expansion/contraction cracks have developed in old terrazzo flooring in the corridors. Ceiling tile replacement is an on-going task. Ceiling grids are stained in many areas. Ceiling tile deterioration and stains degrade the appearance of ceiling surfaces. Due to age and lighting, the wall surfaces appear worn and dingy.

Recommendation

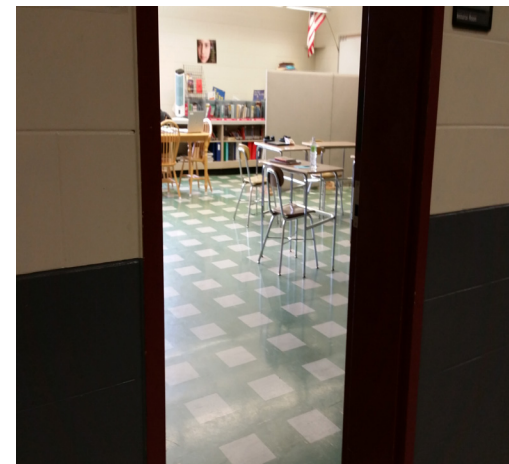
Remove hazardous asbestos floor tile, wall base, and adhering mastic; and replace floor tile with vinyl composition tile and non-hazardous mastic. Crack clean and fill cracked terrazzo and refinish surfaces. Remove floor stains and refinish terrazzo. Remove wall stains and appropriately refinish or paint. Replace the damaged and stained ceiling tiles; and paint or replace stained, bent, and discolored ceiling suspension grid to improve appearance.

Scope of Work

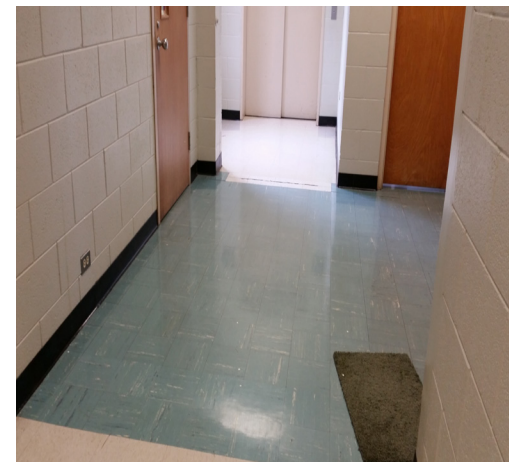
- Remove asbestos flooring and mastic per required safe abatement practices.
- Replace removed vinyl asbestos tile with vinyl composition tile and non-hazardous mastic.
- Remove stains in terrazzo, clean cracks, fill cracks and patch missing material areas, and refinish.
- Remove wall stains and refinish or paint.
- Replace stained and damaged ceiling tiles
- Replace or paint damaged or stained ceiling suspension grid.



Asbestos tile in classrooms



Asbestos tile in classrooms



Asbestos tile in corridor



Benefits

- Major aesthetics improvements.
- Moderate building maintenance and operations savings.

ADDITIONAL PICTURES



Patched asbestos tile



Cracked terrazzo flooring in corridor



Dingy and stained terrazzo stairs and walls



Stained brick walls in corridor



Stained terrazzo and block walls



Stained ceiling tiles

HIGH SCHOOL HVAC

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	10	14	0	0	34	\$1,354,000

Existing Condition

The heating, ventilation, and air conditioning (HVAC) systems at the high school are restricted by the current systems, equipment, and controls in use. The HVAC mechanical systems provide only marginal ventilation volumes, limited modulation, and inconstant desired temperatures and air flow for different areas of the building.

The heating plant consists of an old Kewaunee atmospheric boiler, and two 2009 Aerco condensing boilers relocated in used condition to the boiler room in 2013. The Kewaunee boiler is venting flue exhaust into the original chimney, and the make-up air for this boiler is through a side wall louver. The hot water heating pumps with variable frequency drives and control valves were installed in 2003. Sections of the original fifty plus years old steam piping are still in use after being converted for use in the now existing hot water heating system. The Kewaunee boiler breeching is uninsulated, and a fabricated wood make-up air vent cover is used manually to close the louver when the boiler is not in operation.

The cooling system consists of air conditioning condensing units installed in 2003 for air handling units 1, 2, and 3. The refrigerant in these units is R-22, which is no longer available for use and considered environmentally unsafe.

The majority of the ventilation system is per air handling units with variable air volume installed and retrofitted in 2003. Most of the overhead ductwork in good shape. Some return ductwork (i.e. wrestling and commons areas) are below the floor. The still in place pre-2003 ducts have loose and damaged insulation and potentially contain asbestos. The return air for the gym and commons are through side wall grilles. The other return air is through corridor ceiling grilles with air supplied from the rooms through the door and transfer grilles. The relief air is ducted to the same return corridor ceiling grilles and is no longer code compliant for new renovations or new construction. The gym air handling unit was replaced in 2011. The music room hot water heating units were installed in 1987. The shops and wrestling room heating units are original to those additions in 1974.



Kewaunee boiler



Boiler wood make-up air cover



Boiler make-up air intake louver

All of the air handling units except those replaced in the 2003 and 2011 are past ASHRAE expected service life. The kitchen exhaust hood with retrofitted fire suppression was installed in 2003. The kitchen hood is constant exhaust only, and there is no exhaust hood over the dishwasher. Building controls are direct digital control replaced in 2003. Various additions, replacement, and retrofitted HVAC systems controls and components appear to be unbalanced, uncalibrated, and out of alignment for holistic building comfort and efficiency.

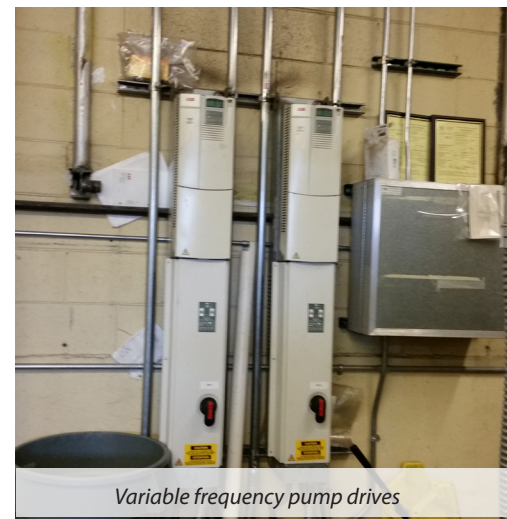
There are currently boilers, condensing units, air handling units, cabinet heaters, exhaust fans, and unit heaters past or near end of expected service life. The delay or lack of preventive action to replace these pieces of equipment will result in a lack in occupant comfort, reduction in indoor air quality, additional downtime, additional labor costs, additional replacement costs, and losses in overall building operations efficiencies.

Recommendation

Update, repair, replace, and re-commission the HVAC systems, equipment, and controls for the building. This includes evaluating, updating and replacing as needed the failed, beyond expected service life, and near expected end of service life equipment to provide consistent operations and prevent system failures. After the updates, repairs, and replacements are complete the entire HVAC system should be retro-commissioned to ensure:

- The existing and new equipment are installed and running correctly
- Able to deliver the demand volumes and temperatures throughout the entire building
- Equipment and controls are calibrated for optimal performance
- Set points and sequence of operations match the actual building usage hours and occupancy levels

After retro-commissioning is complete a schedule for periodic recommissioning should be adhered to. The on-going examination, cleaning, fixing, replacing and resetting of HVAC systems, equipment, and controls will require periodic commissioning to restore the entire building HVAC to the desired optimal comfort and efficiency levels. This is not accomplished by only commissioning portions of the systems, equipment, and components as they are replaced and maintained. The changes in building usage hours and occupancy level will also require periodic recommissioning.



Scope of Work

- Inventory, inspect, and investigate all HVAC equipment operating condition.
- Set building HVAC load requirements for current and near future use and occupancy.
- Demolish out and discard or salvage all decommissioned HVAC equipment and controls including the abating of all hazardous materials.
- Replace all near end of expected service life equipment.
- Repair and upgrade all failed and inoperable equipment.
- Add equipment and systems to meet HVAC load requirements.
- Retro-commission building wide HVAC systems, equipment, and controls.
- Set and adhere to recommission schedule for the entire building HVAC systems.



Kitchen exhaust hood

Benefits

- Major occupant comfort, safety, and risk mitigation improvements
- Major building operations & maintenance savings
- Moderate heating gas savings.

HIGH SCHOOL ELECTRICAL

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	10	12	0	0	32	\$440,500

Existing Condition

The majority of the electrical distribution systems are the same age as the age of each building addition. There are minimal to no spare breaker spaces and extra panel boxes (tubs) available in additions prior to 2003.

Many of the electrical receptacles are also due for replacement in the older areas of the building. A failed receptacle was noted as an example of the need for other receptacles to be replaced as a preventive and routine electrical maintenance measure.

The lighting throughout the building is predominately T8 fluorescent with fixtures in many areas over twenty years old. The majority of the lighting is due for replacement with LED to provide a better quality light, proper lighting levels per area use, reduced maintenance and decreased utility costs.

The fluorescent fixtures in the kitchen areas were observed without lamp covers or diffusers. Occupancy sensors are used in most areas except the corridors.

Emergency egress lighting is supported by the on-site electric emergency generator. The emergency generator is an eighty kW power back-up generator approximately twenty years old. The two generators automatic transfer switches separate emergency and other designated standby loads. A documented full load and automatic transfer switch testing have not been completed recently.



Recommendation

Replacement is advised for all equipment installed prior to 2003, including all remaining IT equipment for which parts are no longer available and older electrical receptacles in the pre-2003 additions of the building.

Tube LED retrofit replacements have been tested in the building and were accepted by occupants for use. CESA FM recommends replacing all of the older lighting fixtures. Due to the age and conditions of the older fixtures, the recommendation is to replace the entire fixture and not just a lamp retrofit.

The lighting recommendation is also to set a standard LED fixture replacement and use the standard replacement in the entire building. The benefits from this recommendation include an improved appearance, elimination of some of the patchwork appearance between building additions, streamlining maintenance, and maximizing energy savings. The tube LED retrofits can be considered for retrofit replacements temporarily or in place of using the newly set standard as a more capital economical option until funding is available for the entire lighting update.

The recommendation for the lighting fixtures in the kitchen areas is to replace the open fixtures with LED fixtures for damp use applications and protective lenses/diffusers to prevent damage from moisture and contamination to exposed components, reduce cleaning time, and provide improved and more efficient sanitation.

Specialty lighting for the stage, in the kitchen areas, in labs, greenhouses, gym, shops, and building exterior should also be replaced with new LED fixtures or retrofitted to LED.

A full load and transfer switches testing along with frequent run tests and comprehensive annual preventive maintenance are recommended for the electrical generator and automatic transfer switches to verify load coverage, code compliance, and operation when needed.



Exterior wall pack lighting



Generator automatic transfer switches

Scope of Work

- Inventory, inspect (including use of infrared scanning), and document all electrical distribution equipment operating conditions.
- Set for building wide standardization of LED lighting fixtures and areas of use lighting levels.
- Replace all fluorescent, incandescent, and high intensity discharge lighting fixtures with standardized LED lighting fixtures.
- Set building electric load requirements for current and near future use and occupancy including load reductions associated with the extensive lighting upgrades.
- Demolish out and discard or salvage all decommissioned electrical equipment including the abating of all hazardous materials.
- Replace all near end of expected service life electrical equipment.
- Repair and upgrade all failed and inoperable electrical equipment.
- Add equipment and systems to meet electrical load requirements.



- Complete a full load and transfer switch test for emergency generator.
 - Verify and complete frequent run tests and comprehensive annual preventive maintenance for electrical generator.
 - Set and adhere to a routine inspection schedule for the entire building electrical systems including lighting and lighting controls.
-

Benefits

- Major occupant comfort, safety, and risk mitigation improvements
- Major building operations & maintenance savings
- Major lighting electrical savings.

HIGH SCHOOL PLUMBING

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	10	12	0	0	32	\$515,300

Existing Condition

A majority of interior building plumbing upgrades were made in 2004 and are typically good for twenty to thirty years. The domestic water piping is copper and galvanized steel piping. Continuous maintenance of older portions of piping will be required as those sections continue to age and fail. The valves controlling these piping systems are suspect to periodic failure, and no documentation was available to verify routine exercising (opening and closing).

The majority of the domestic water heaters were installed in 2004 with an anticipated fifteen to twenty-year service life. Two of the five domestic water heaters inspected were inoperable. The domestic water heaters will require maintenance and parts as the equipment continues to age.

The natural gas piping is black steel with an anticipated service life of fifty plus years. The gas pressure regulars will require inspection and preventive maintenance on a routine schedule with cleaning and repairs before failure.

As mentioned earlier in this report, the sections of the original fifty plus years old steam piping converted for use in the now existing hot water heating system is suspect to failures in the near future. The kitchen dishwasher booster heater is electric. The kitchen grease traps and the chemical waste dilution tanks and vents appear to be functioning.

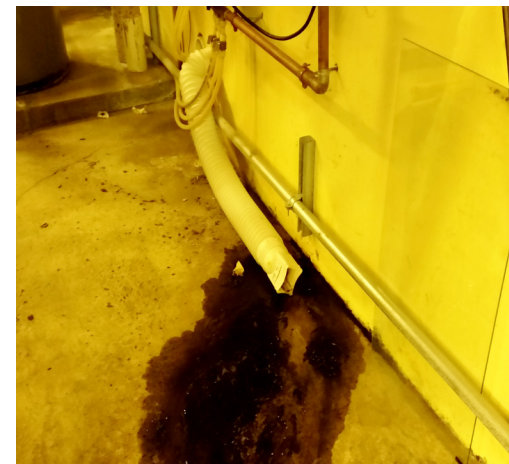
Recommendation

The recommendation is to provide a continuous monitoring of suspect portions of piping and replace as inspections warrant. Per the monitoring, anticipate potential failures and document valve locations, valves operating conditions, and plan for response to plumbing failures. All inoperable and suspect to fail valves should be replaced.

Schedule and complete the exercising of all critical flow and shut off valves on the set frequency at a minimum of a couple of times per year. Repair or replace the inoperable domestic hot



Interior condensate pipe and channels



Infiltration pipe discharge



Central domestic water heating



water heaters. Continue to centralize the domestic water heating where possible. Isolate water heating per demand temperatures and eliminate cold water tempering. Schedule and complete at least annual inspection and cleaning of all gas regulators. Closely monitor the original converted steam pipe to anticipate failures and repairs. Replace the kitchen dishwasher electric booster heater with a gas booster heater. Schedule and complete quarterly grease trap inspection and cleaning. Increase the frequency if a more frequent cleaning frequency has already been established. Schedule and complete chemical waste dilution tanks and vents annual inspection and cleaning frequency of every three to five years.

Scope of Work

- Inventory, inspect (use of drain camera for sanitary septic and stormwater piping), and investigate all plumbing and piping systems operating condition
- Set building supply demand and discharge volume requirements for current and near future use and occupancy.
- Demolish out and discard or salvage all decommissioned plumbing equipment and piping including the abating of all hazardous materials.
- Replace all near end of expected service life plumbing equipment.
- Repair and upgrade all failed and inoperable plumbing equipment.
- Add equipment and systems to meet plumbing supply demands and discharge volumes.
- Conduct inspections, complete clean of chemical dilution systems and grease traps as needed, and set follow inspection and preventive maintenance services schedule.
- Set and adhere to a routine inspection preventive maintenance schedule for the entire building plumbing systems.

Benefits

- Major indoor air and sanitation quality, safety, and risk mitigation improvements
- Major reduction in potential building operations & maintenance disruptions.
- Moderate improvement in site utilization.



Domestic water heater temp control



Isolated water heater

HIGH SCHOOL SAFETY & SECURITY

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	7	15	0	0	32	\$830,750

Existing Condition

The parking lot during school hours was very congested and full. Minimal reserved visitor parking was available in front of the school. Parked vehicles wrapped around three sides of the building. The walkways across the large lots were not marked, and visitors have to cross the lot roadway to get to the building perimeter sidewalk to the entrance.

The door security system is adequate. The interior room doors rooms 160 and 160 A-E are not ADA compliant. The clock system is battery operated, and the data and phone systems are adequate.

The fire alarm system is an Edwards Systems Technology EST2 addressable fire alarm system and is approximately twenty years old. The fire suppression protection is limited and only includes the kitchen exhaust hood and the small area in Tech Ed. The dumpster, generator, gas supply connection, and electric system main transformer are not secured and located next to parking and drive areas. Bollards are on two sides of the transformer with the front facing the driveway and the back unprotected next to the building.



No marked walkways from main parking



Non-ADA compliant door hardware



Unsecured dumpster

Recommendation

The site needs additional parking areas to be installed. The cost will be high due to limited access and poorly drained site. Pedestrian walkways should be added to the parking areas to provide safe access to the walks around the building perimeter. The new walkways will take away some existing parking requiring even more additional parking area to be provided.

The door hardware for rooms 160 and 160A through 160E should be replaced with ADA compliant door hardware. The fire alarm system is near the end of its expected life and should be upgraded or replaced. Especially if additional building space is constructed and infrastructure systems are to be replaced. The addition of more building space and replacement of infrastructure systems would also warrant adding more fire suppression coverage for the larger building.



For securing the external utility and hazardous work areas, the recommendation is to fence with locked gate the unsecured dumpster, gas supply meter and distribution tree, electrical transformer, and emergency generator areas. The second recommendation is to remove all non-electrical system storage from the main electrical room.

Scope of Work

- Add additional parking lots with pedestrian walkways.
- Include lot drainage system to protect new parking areas and to minimize additional runoff to fields and other site activity areas.
- Update door hardware to ADA compliant for rooms 160 and 160A through 160E.
- Update or replace fire alarm system.
- Install chain link fencing and locked gates around the dumpster, gas supply meter and distribution tree, electrical transformer, and emergency generator areas.
- Remove all inappropriately stored items as noted in the "Inadequate Space" section of this report.

Benefits

- Major increase in safety and security.
- Moderate improvement in occupant convenience and use.



Unsecured generator



Unsecured electrical transformer



Unsecured natural gas connection

HIGH SCHOOL HARDSCAPES

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	8	10	0	0	28	\$221,750

Existing Condition

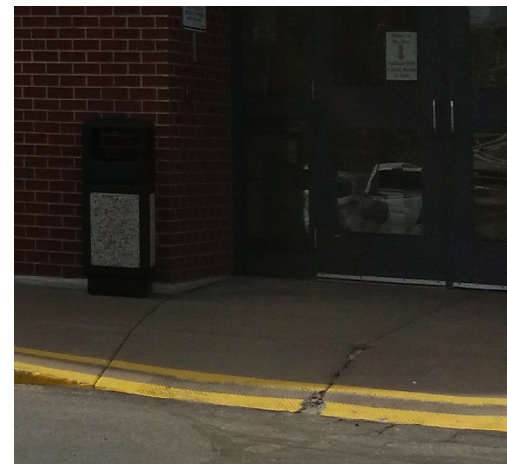
The hardscapes (concrete and asphalt) are in varied conditions around the site. The type of deterioration and failed concrete is minimal and varies. The concrete concerns include exit/entry landings, walkways, and curbing. The asphalt concerns are sizable with many cracks, worn seal, and fading paint.

The concrete landings, walkways, and curbing repairs needed suggest salt deterioration and shifting concrete slabs. The unevenness is a trip hazard safety concern. The deterioration will continue at an increasing rate without immediate correction. The asphalt has been maintained and now has many filled and open cracks, worn asphalt seal, and faded paint.

The dumpster is in asphalt, only causing excessive stress and wear on and around the dumpster. The planning for future concrete curbing and asphalt replacement in some areas should be anticipated as early as in another five years. Prior to replacement, specifications for improvements should be documented.



Broken out curbing in front of school



Deteriorating entrance landing and walk

Recommendation

The recommendation is to repair and replace all cracked, deteriorated, and missing concrete to prevent slips, trips, and falls; improve evacuation egress, and protect entrance thresholds. Earlier in this report, damaged thresholds were identified. In areas with uneven edges between concrete joints and concrete/asphalt joints mudjacking level or grind to eliminate trip hazards. Also earlier in this report the need for additional parking areas including marked pedestrian walkways was mentioned.

A master plan for parking is recommended prior to making other improvements to the parking asphalt and concrete curbing. The specific improvements for hardscapes, the additional parking and egress to the building, the securing of utility and work area equipment, and drainage for the area should all be considered holistically so not to require re-work in the near future. The site space limitations and water shedding requirements also need to be taken into account as part of the hardscapes mater planning.



The area under the dumpster and dumpster loading area should be concrete; the bus loading and unloading parking areas should be asphalt at least four inches thick; all pedestrian walkways should end in ADA compliant ramps through curb cuts to the parking and roadway elevations; full barrier curbs should be maintained around the building and walkway perimeter of the lots and roadways to protect pedestrians and the building; and roll over curbs should be maintained around the outer perimeter of lots and roadways to allow for improved water shedding and easy access for pushing snow from the lots and roadways.

After the major project work is completed follow through on a planned asphalt crack clean and fill, seal coat, and re-paint project routine every two to three years depending on condition is recommended.

Scope of Work

- Develop a master plan for hardscapes including drainage, new parking areas, walkways and egress to the building, security fencing, concrete repairs and additions, and future cyclic asphalt maintenance.
- Implement a master plan for hardscapes.

Benefits

- Major safety improvements, risk mitigation improvements.
- Moderate longevity improvement of hardscape areas, improved site drainage, and operations & maintenance savings.
- Minor improved aesthetics.



Asphalt cracked, worn, and faded paint



Asphalt dumpster area

HIGH SCHOOL LANDSCAPE

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	10	8	0	0	28	\$923,500

Existing Condition

The athletic fields, playground, track, and tennis courts are poorly drained and too low of an elevation for the frequent and desired use. The water infiltration causes damage to the fields, excessive work to maintain, and increased repair/replacement projects. The area is not currently suited for regular and frequent use.

Recommendation

The long term landscapes recommendation is to add a drainage system and raise the elevation of all field areas. Remove the playground equipment if no longer in use. Replace the tennis courts and provide perimeter buffer barrier protection around the courts. Replace the JV baseball field, practice football field, and track.

Scope of Work

- Request proposals for site renovations and drainage. Coordinate request with hardscapes master plan. Install per bids received.
- Install new tennis courts, JV baseball field, track, practice football field, and track.

Benefits

- Major frequency of use improvement.
- Moderate safety, aesthetic, and operations and maintenance improvements.



Athletic fields aerial map



Lateral cracks in track



Cracks on tennis courts

HIGH SCHOOL BUILDING ENVELOPE

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	7	10	0	0	27	\$568,600

Existing Condition

The high school window systems in different parts of the building are failing. The IMC (instructional media center) windows, room 128, and the greenhouse are examples of the insulating area between the glass panes filling with moisture, clouding the view, and staining the internal glass surfaces. The glazing sealant around windows in rooms 120, 122, and 123 have failed, causing similar problems. The roofing on the building is primarily in two age groups. Approximately half of the roofing is over sixteen years old. The other half of the roof area is nine years old. Failing seams and water ponding roofing problems are anticipated to increase as this older roofing ages. Replacement is anticipated for half of the roof area in the next five to ten years.

On the front of the building near the main entrance, there is staining on the exterior walls. The limestone sills under and the area above the metal sheet patches are deeply stained. These blocked old gym views in the front exterior walls are not aesthetically pleasing for the school. Many of the exit door thresholds are cracked and unstable. The original greenhouse exterior wall base (foundation concrete pad) is deteriorating and failing.

Recommendation

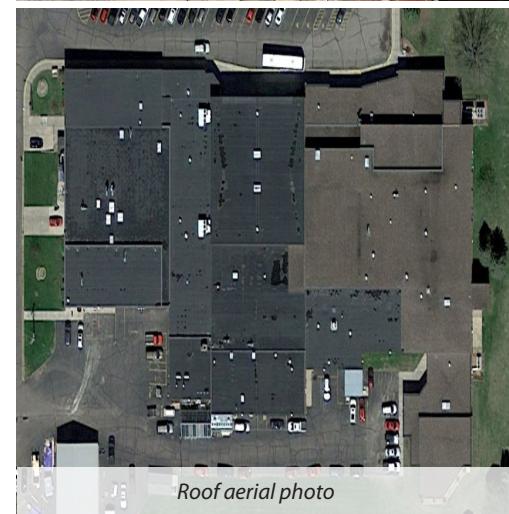
The failed windows and window systems should be repaired or replaced. The tempered air leaking in and out of the window insulation area is causing occupant discomfort during the heating season, blocks window views, and looks dirty. The failed windows are also wasting energy. The cracked concrete exit door thresholds should also be repaired or replaced. The cracked thresholds allow for water infiltration into the door frames causing premature door replacement needs and potential door exiting failures. The water and air infiltration also create occupant safety hazards, occupant discomfort, and wastes energy.



Room 128 window



Greenhouse windows



Roof aerial photo

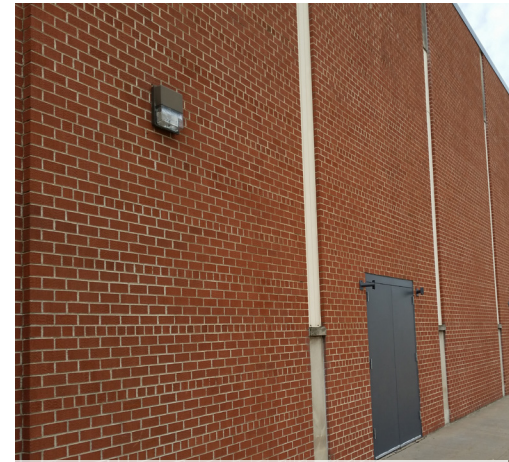
The limestone trim on the exterior brick walls should be deep cleaned to bring back original appearance. The metal panels used to close of original views should be replaced. The panels are loosening and do not match the other building trim. Roof leak concerns and repair needs will increase in frequency as the single ply roofing continues to age. Thorough roof inspection and maintenance should occur each spring and fall. Due to the sixteen year age of approximately half of the roof area, plans for replacement in the next five to ten years should be made.

Scope of Work

- Request proposals for window repair or replacements. Repair or replace per bids received.
- Request proposals for exit door thresholds repair or replacements. Repair or replace per bids received.
- Request proposals for limestone cleaning. Clean per bids received.
- Request proposals for metal gym view cover panel replacements. Replace per bids received.
- Conduct semi-annual (spring and fall) roof inspections with immediate maintenance for all deficiencies noted.
- Replace roof on the east half of building in the next 5-10 years.

Benefits

- Major aesthetic improvements.
- Moderate occupant comfort improvement.
- Moderate safety improvements.
- Moderate operations & maintenance savings.
- Minor energy conservation improvement.




Metal exterior wall panels & limestone





Cracked exit door threshold



Deteriorating greenhouse wall base

 Facility Improvement Measures School District of Bloomer High School		Project Recommendation Priority Order						
		0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	
Inadequate Space	Many areas are too small for current use. Storage areas are limited. Corridor flow is not smooth due to the patchwork of additions to the building. Space restrictions are also evident on the site grounds with limited visitor and parking in general for the school.	10	10	15	0	35	0	\$725,000
Auditorium	There is no auditorium or large meeting space in the building. The stage off of the commons is used with portable chairs for seating. Ventilation, audio, lighting, media projection are inadequate for auditorium purposes. In addition, due to age, finish materials, and lighting the surfaces appear worn and dingy.	10	10	15	0	35	0	\$2,190,000
Interior Finishes	Many of the interior areas have damaged or worn flooring and ceilings. Asbestos floor tile is in many room areas. Ceiling tile replacement is an on-going task. Due to age and lighting, the surfaces appear worn and dingy. Vinyl asbestos tile in many classrooms. Lights and lighting controls are outdated and inefficient. Ceiling grids stained. Ceiling tile deterioration and unfinished appearance of ceiling surfaces. Lights and lighting controls are outdated and inefficient. Stained ceiling tiles and suspension grid in many corridors areas.	10	10	15	0	35	0	\$1,675,100
HVAC	Heating per (2) 2009 Aerco boilers relocated to HS boiler room in 2013 and original Kewaunee Boiler. Kewaunee boiler is venting into the original chimney and side wall louver. HWH pumps with VFDs installed in 2003. HWH control valves installed in 2003. Original (50+) steam piping used for HWHAC Condensing units installed in 2003 for AHU 1, 2, and 3 use refrigerant is R-22 (no longer available for use). Ventilation is AHU with VAV in 2003. Most overhead ductwork in good shape. Some return ductwork (wrestling & commons) is below the floor. Pre-2003 ducts insulation damaged and/or loose. Return air gym and commons through side wall grilles. Other return through corridor ceiling grilles with air from rooms through the door and transfer grilles. Relief air is ducted to ceiling grilles. Relief air transferred through corridor is no longer code compliant. Gym AHU replaced in 2011. Music room HHU installed in 1987. Shop and wrestling room are original to the additions. All AHU's except 2003 and 2011 replacements are past ASHRAE service life. Kitchen exhaust installed with retrofitted fire suppression hood in 2003. Exhaust only with no hood over the dishwasher. Building controls are DDC. Systems not replaced in 2003 are 50+ years old with a typical service life of 20-25 years.	10	10	14	0	34	0	\$1,354,000

 Facility Improvement Measures School District of Bloomer High School		Project Recommendation Priority Order						
		0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Electrical	Existing electrical service is approx. 20 years old. The distribution system is the same as per the addition ages. Minimal to no spare breakers and tubs are available in additions before 2003. Replacement is advised for all equipment installed before 2003 (includes all remaining ITE equipment which parts are no longer available.) Receptacles are also due for replacement in the older areas. A failed receptacle was noted needed to be replaced. Predominately T8 florescent lights are approximately 20 years old and due for LED replacement. There are no lenses on kitchen fixtures. Occupancy sensors are used in most areas except corridors. Egress lighting is served through the generator. Existing 80 kW power back up generator is approximately 20 years old. Transfer switches (2) separate emergency and standby loads. A full load and transfer switch testing are recommended to verify code compliant operation.	10	10	12	0	32	0	\$440,500
Plumbing	Majority upgrades made in 2004 and good for 20-30 years. At half life. Piping is copper and galvanized. Continuous maintenance of older portions of systems will be required. Valves in these areas are suspect to fail and should be exercised or replaced prior to failure. Chemical waste vents and Food Service grease traps appear to be functioning and should be inspected with dilution tanks cleaned to prevent failure. Water heaters installed in 2004 with anticipated 15-20 year life and will require maintenance and parts as aged. Natural gas piping is black steel with a 50+ year live expectancy. Gas pressure regulars will require preventive maintenance and should be inspected and repaired before failure.	10	10	12	0	32	0	\$515,300
Safety & Security	The door security system is adequate. Battery operated clock system. Data and phone systems are adequate. Edwards Systems Technology EST2 addressable fire alarm system is approx. 20 years old. A small amount of fire protection system is limited to kitchen exhaust hood and tech ed area.	10	7	15	0	32	0	\$830,750

 Facility Improvement Measures School District of Bloomer High School		Project Recommendation Priority Order						
		0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Hardscape	Asphalt requires bi-annual preventive maintenance. Limited and congested parking along the front of building and throughout parking lot areas. No drive access to the east side of the building.	10	8	10	0	28	0	\$221,750
Landscape	The grounds south of the building have poor drainage and seasonal flooding.	10	10	8	0	28	0	\$923,500
Building Envelope	Windows with thermal and moisture leakage; clouded and stain glass; and failed glazing sealant. Water ponding on gym roof. Staining on exterior walls near main entrance.	10	7	10	0	27	0	\$588,600

BLOOMER MIDDLE SCHOOL

FACILITY ANALYSIS

The Bloomer Middle School was built in 2002 with one addition and remodeling project in 2017. The building was initially designed to accommodate only 6th- 8th grades. The middle school now serves grades 5 through 8. Due to overcrowding, the 2017 addition was constructed. This addition created more classrooms, a science room, Tech. Ed classroom, flexible computer lab/meeting room, and storage areas. The kitchen and special education areas were also remodeled in 2017.

The majority of the equipment in the middle school was added in 2017 or updated since the facility was built. The original building is now 17 years old with some systems and equipment due for replacement or renovation. The original sections of the middle school building have some high priority needs and will have an increasing demand for capital projects to maintain the school over the next five years. The newer addition and recently renovated areas are in good shape. Routine maintenance, minor corrective actions, and planned capital projects should keep the costs to a minimum over the next 10-15 years for this school building.

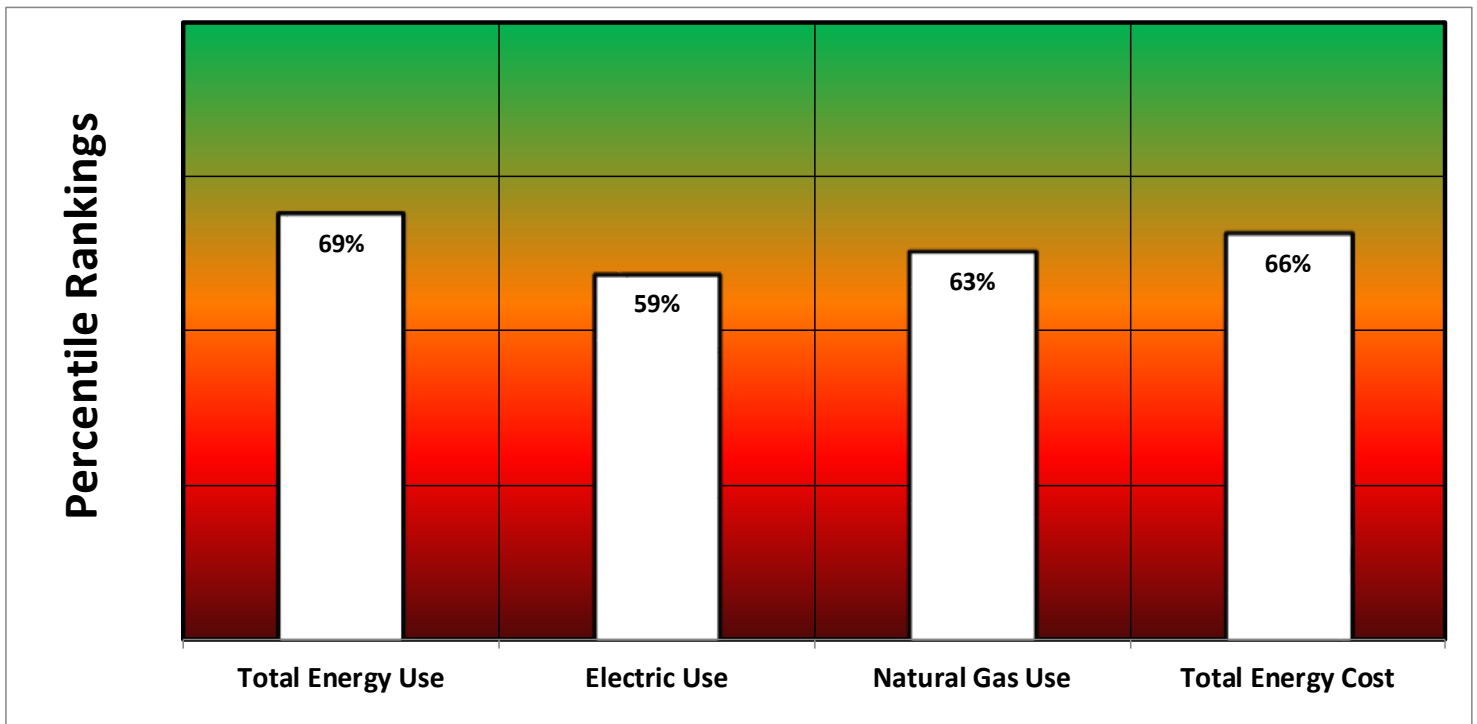
BLOOMER MIDDLE SCHOOL	
Year Constructed	2002 (69,830 GSF)
Addition	2017 (13,720 GSF)
Facility Size Total GSF	83,550
Site Area	38 Acres (Includes athletic fields and open land)
2018-19 Electric Usage (kWh)	492,640
2018-19 Heating Fuel Usage (Therms)	32,668



ENERGY USE

The following benchmarking analysis compares Bloomer Middle School to an average middle school in Wisconsin. The District uses less electricity and natural gas per square foot than the average middle school in Wisconsin.

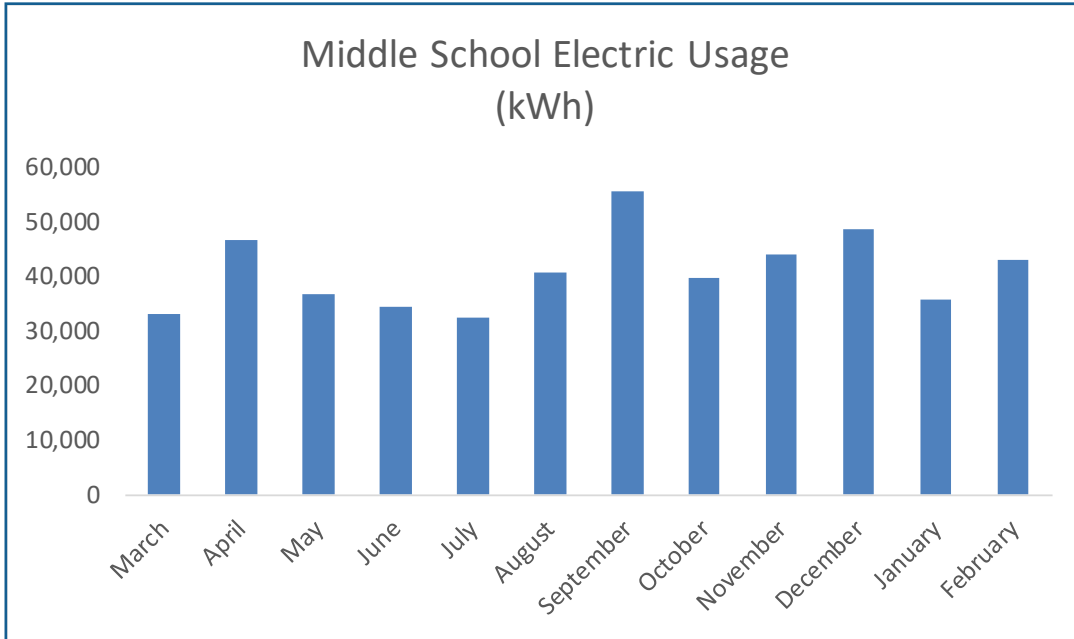
BLOOMER MIDDLE SCHOOL BENCHMARKING				
	Total Energy Use kBtu/ft2	Electric Use kWh/ft2	Natural Gas Use Btu/ft2/HDD	Total Energy Cost \$/ft2
Average Middle School	78.23	6.5	6.6	\$1.02
Bloomer Middle School	64.2	5.9	5.9	\$0.86
Percentile Rankings	69%	59%	63%	66%



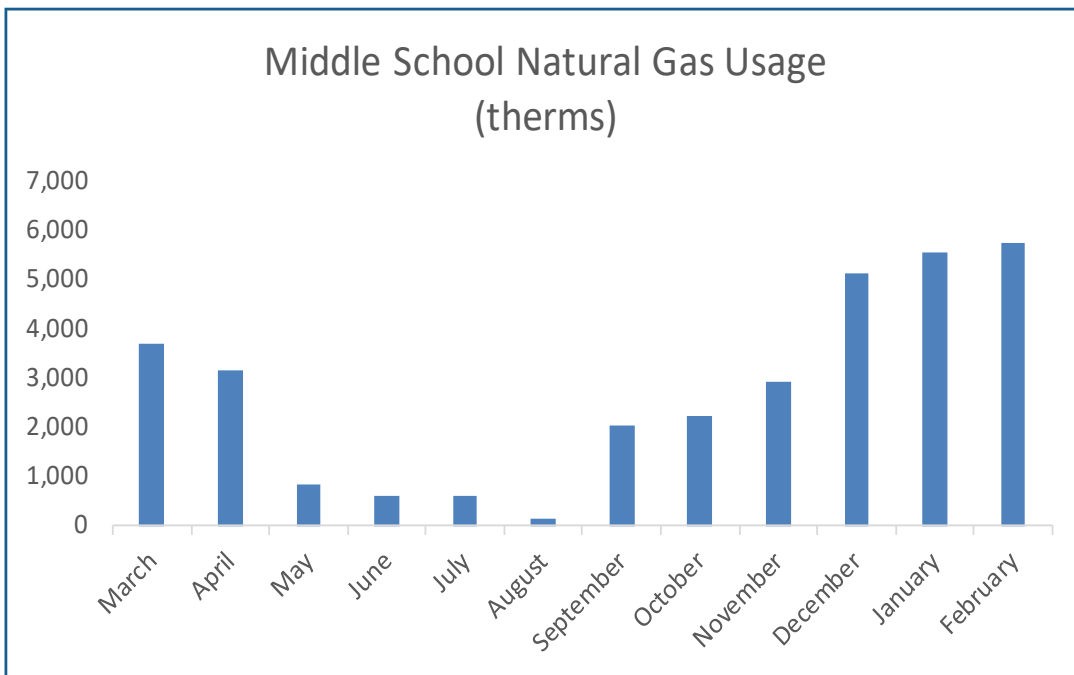
The chart above indicates the level of energy efficiency the facility is running at. Green equals good, yellow equals moderate, and red equals poor.

UTILITY ANALYSIS

The utility graph below demonstrates the electrical consumption at Bloomer Middle School from March 2018 through February 2019. This consumption decreases over the summer months due to a decrease in building occupants and equipment usage.



Bloomer Middle School is heated using natural gas. As shown in the graph below, the gas load follows a typical profile for a building that is heated with natural gas and is exposed to Wisconsin's weather patterns.





PROJECT PRIORITIZATION

Based on the prioritization factors listed earlier in this report and discussions with District staff, CESA FM created a project prioritization matrix for each school. After identifying concerns and discussing possible solutions with the District, CESA FM picked out the most pressing issues facing each facility. These concerns are outlined in the following section by the existing conditions, recommended improvement measures, potential scope of work, and estimated annual savings.

A chart of the rating guidelines is included below. Projects are graded based on functional condition, predicted remaining useful life, environmental and safety concerns, project costs, and return on investment. Measures with the highest total points should be addressed in the immediate future.

Cost estimating at this juncture can prove difficult. For example, a facility improvement measure recommending a flooring project can vary based on the type of flooring the District chooses. Site conditions, environmental factors, and the availability of materials can also play a role in final project costs.

This report serves as an important first step in identifying facility needs. An itemized list for each school with estimated costs can be found in the appendix of this report. A copy of the entire prioritization matrix will be provided to the District in an Excel-based tool that can be adapted by District staff based on future replacement schedules, equipment conditions, and District priorities.

RATING GUIDELINES			
Criteria	Scoring System		
Functional Condition	Poor = 10	Average = 5	Good = 0
Predicted Remaining Useful Life	0% = 10	25% = 5	50% = 0
Environmental Health and Safety Concerns	High = 15	Medium = 8	Low = 0
Project Cost	Less than \$10,000 = 5	\$50,000 = 3	Greater than \$100,000 = 0
Return on Investment	Less than two years = 5	Five years = 3	Greater than 10 years = 0

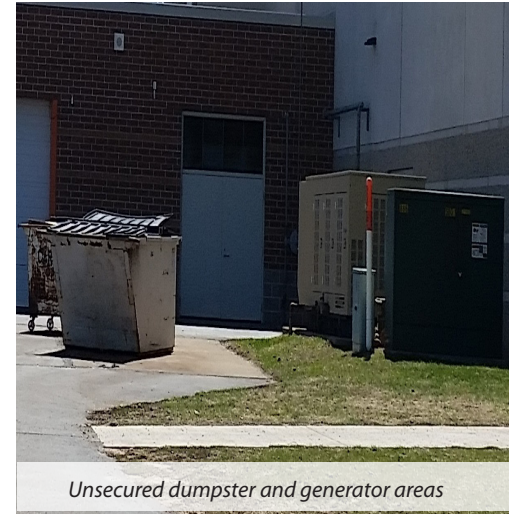
MIDDLE SCHOOL SAFETY & SECURITY

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	5	15	3	0	33	\$23,500

Existing Condition

The door security system is adequate. The Edwards Systems Technology EST2 addressable fire alarm system is seventeen years old.

On the exterior of the building, there are several exposed equipment and hazardous operations areas. The dumpster, gas supply meter and distribution tree, electrical transformer, and emergency generator areas are all unsecured. As mentioned earlier in this report, the improperly stored items in the main electrical room are also a safety concern.



Unsecured dumpster and generator areas

Recommendation

The first recommendation is to fence with locked gate the unsecured dumpster, gas supply meter and distribution tree, electrical transformer, and emergency generator areas. The District example to follow is the fencing around the chiller at the middle school.

The second recommendation is to remove all non-electrical system storage from the main electrical room. The last recommendation for safety and security is to plan for the upgrade or replacement of the fire alarm system in the next five years.

Scope of Work

- Install chain link fencing and locked gates around the dumpster, gas supply meter and distribution tree, electrical transformer, and emergency generator areas.
- Remove all non-electrical system storage from the main electrical room.
- Request proposals for fire alarm upgrade or replacement to establish budget amount and specifications for replacement or upgrade in the near future.

Benefits

- Major increase in safety and security.
- Minor operations & maintenance savings.

MIDDLE SCHOOL BUILDING ENVELOPE

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	7	10	3	0	30	\$18,500

Existing Condition

The main office windows are clouded and stained. The glazing seal barrier in the window system is damaged, causing to leak tempered air and fill with moisture. For several days after the rain, there is ponding on the gym roof. The exterior walls near the main entrance are stained. The north entry canopy needs to be re-painted. There is a rotting insulated wood box containing a hose bib near the chiller on the outside wall of the building.

Recommendation

The first recommendation is to repair or replace the main office windows. The leaking is causing occupant discomfort during the heating season. The leaking is also wasting energy used to temper the air in the office area.

The second recommendation is to inspect the gym roof ponding areas to determine the cause for lack of water shedding. Repair if due to failed roof drain or scupper. If due to roof slope, document areas of ponding and specify proper sloping needed for repair during next roof replacement.

The third recommendation is to clean the staining on the exterior walls. The fourth recommendation is to paint the north entrance canopy.

The last recommendation is to remove the rotting insulated box. Inspect the wall and hose bib for proper operation and wall insulation and sealing to prevent freezing.



Scope of Work

- Request a proposal for window repair or replacement. Repair or replace per bids received.
- Inspect gym roof, make repairs as needed, and document future improvements to be made during next roof replacement.
- Clean the exterior walls with mild detergent. Do not use harsh acidic or caustic chemicals to clean. Set a schedule to quickly re-clean annually to prevent staining build up in the future.
- Prepare north canopy rusted surfaces for painting. Paint to match existing colors.
- Remove rotting wood insulated box. Clean and repair the brick wall area. Inspect hose bib and wall for proper operation and insulation.

Benefits

- Major occupant comfort improvement
- Moderate aesthetic improvements.
- Minor energy conservation improvement.
- Minor operations & maintenance savings.



Rust on north entry canopy



Rotting insulated box

MIDDLE SCHOOL ELECTRICAL

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	0	15	3	1	29	\$22,600

Existing Condition

The majority of the electrical distribution systems are the same age as per the age of each building addition. There are spare breaker spaces and extra panel boxes (tubs) available in both the original building and 2017 addition. A documented infrared electrical panel connections test has not been completed recently. The main electrical equipment room does not adequately provide the recommended working clearances. Electrical equipment has improperly stored items on and around it. The main electrical room should have a second exit door installed for safety due to the lack of clearances. The electrical receptacles and other components appear to be in good shape.

The lighting throughout the original building is predominately T8 fluorescent fixtures that are seventeen years old. The lighting in the original building is due for a replacement to LED fixtures or retrofit to LED lamps. The lighting in the newer section is predominately LED. The LED replacement or retrofits will provide a better quality light, proper lighting levels per area use, reduced maintenance, and decreased utility costs. A minimal number of skylights are also in use and successfully provide additional lighting. Occupancy sensors are used in most areas except corridors. The parking areas are lit with LED pole lighting and controlled by photocells.

The building is supported by an on-site 150kW electric emergency generator installed as part of the original building. The two automatic transfer switches separate emergency and other designated standby loads. A documented full load and automatic transfer switch testing have not been completed recently. The generator and main transformer are located on the exterior of the original building and are not secured within a fenced off area.



Main electrical room improper storage



Main electrical room lack of clearance



Generator transfer switches

Recommendation

For safety, the recommendation is for all non-electrical service items to be removed for the main electrical room. This includes all items on and around the electrical equipment in the main electrical room. The recommendation is to at a minimum retrofit all of the original building T8 lighting fixtures to LED lamps. Tube LED retrofit replacements have been tested by the district and were accepted by occupants for use. The tube LED retrofits can be considered for retrofit replacements temporarily as a more economical option than full fixture replacement. The original building fixtures are at only half the expected service life and in good condition. The lighting recommendation is also to set a standard LED fixture replacement and use the standard replacement in the entire building. Suspect problem fixtures should be replaced with the standard LED fixture for the district. The benefits of this recommendation include an improved appearance, streamlining maintenance, and maximizing energy savings. Specialty lighting for the stage and gym should also be replaced with new LED fixtures or retrofitted to LED. A full load and transfer switches testing along with frequent run tests and comprehensive annual preventive maintenance are recommended for the electrical generator and automatic transfer switches to verify load coverage, code compliance, and operation when needed.

Scope of Work

- Inventory, inspect (including use of infrared scanning), and document all electrical distribution equipment operating conditions.
- Set for building wide standardization of LED lighting fixtures and areas of use lighting levels.
- Replace or retrofit all fluorescent, incandescent, and high intensity discharge lighting fixtures with LED lamps or standardized LED lighting fixtures.
- Complete a full load and transfer switch test for emergency generator.
- Verify and complete frequent run tests and comprehensive annual preventive maintenance for electrical generator.
- Set and adhere to a routine inspection schedule for the entire building electrical systems including lighting and lighting controls.

Benefits

- Moderate safety and security improvement
- Minor building operations & maintenance savings
- Minor lighting electrical savings.



Unsecured transformer & generator



T8 fluorescent gym lights



Corridor sky light

MIDDLE SCHOOL HARDSCAPES

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
10	5	10	2	0	27	\$94,000

Existing Condition

The hardscapes (concrete and asphalt) are in varied conditions around the site. The type of deterioration and failed concrete is minimal and varies. The concrete concerns include exit/entry landings and walkways. The asphalt concerns are also minimal with small cracks, worn seal, and fading paint.

The concrete repairs needed suggest salt deterioration and shifting concrete slabs. The unevenness is a safety concern. The deterioration can also be a trip hazard and will continue at an increasing rate without immediate correction.

The minor asphalt cracks, worn asphalt seal, and faded paint should be corrected per the past practice of cyclic crack cleaning, crack filling, sealing, and painting. This work is scheduled for the summer of 2020.

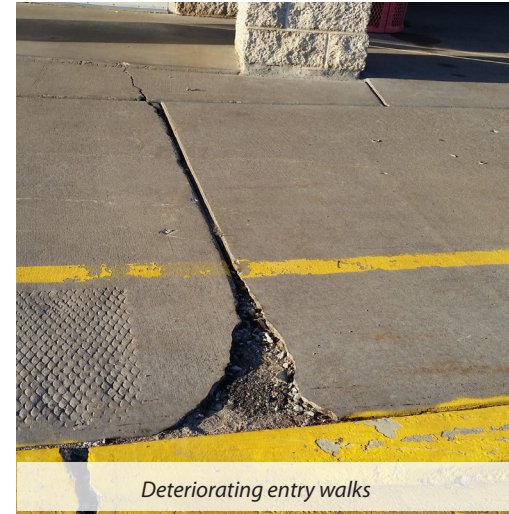
The planning for future concrete curbing and asphalt replacement in some areas should be anticipated as early as in another five years. Prior to replacement, specifications for improvements should be documented.

Recommendation

The recommendation is to repair and replace all cracked, deteriorated, and missing concrete to prevent slips, trips, and falls; improve evacuation egress, and protect entrance thresholds. In areas with uneven edges between concrete joints and concrete/asphalt joints mudjacking level or grind to eliminate trip hazards.

Follow through on planned asphalt crack clean and fill, seal coat, and re-paint project routine every two to three years depending on condition. Plan for future hardscape replacements by setting specifications and using the specifications as modifications are made.

For planning the area under the dumpster and dumpster loading area should be concrete; the bus loading and unloading parking areas should be asphalt at least four inches thick; all pedestrian walkways should end in ADA compliant ramps through curb cuts



Deteriorating entry walks



Deteriorating entry walks



Uneven and cracked landings

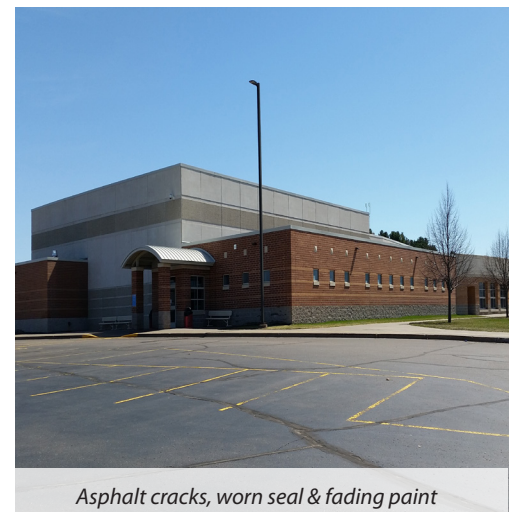
to the parking and roadway elevations; full barrier curbs should be maintained around the building and walkway perimeter of the lots and roadways to protect pedestrians and the building; and roll over curbs should be maintained around the outer perimeter of lots and roadways to allow for improved water shedding and easy access for pushing snow from the lots and roadways.

Scope of Work

- Repair and replace cracked, deteriorated, and missing concrete.
- Level uneven edges of concrete joints and concrete/asphalt joints.
- Continue routine asphalt cyclic maintenance on a two to three-year cycle.
- Plan for replacements and document improvement specifications for modifications prior to replacement and for future replacement.

Benefits

- Major safety improvements, risk mitigation improvements.
- Moderate longevity improvement of hardscape areas.
- Moderate future replacement improvements.
- Minor operations & maintenance savings.



MIDDLE SCHOOL HVAC

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
0	0	8	3	2	13	\$147,200

Existing Condition

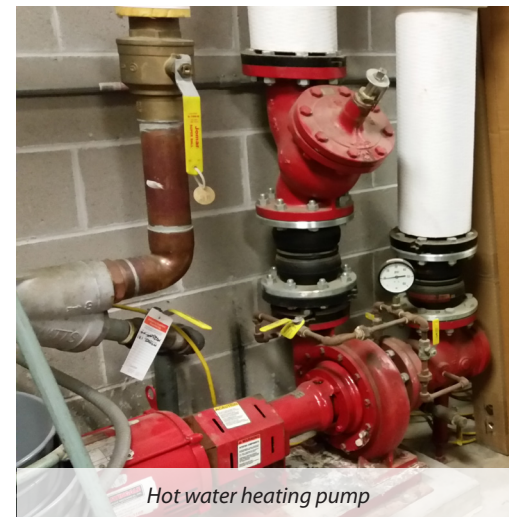
The direct digital controlled heating plant at the middle school is in good condition. The plant consists of two Burnham atmospheric boilers with standard operating efficiency installed in 2002 and secured in the locked boiler room. Wall louvers provide the makeup air, and the exhaust is vented through the roof. The boiler hot water heating pumps were installed in 2002. The pump motors with variable frequency drives were installed in 2013. The hot water piping for building heating is located overhead above the ceiling tiles. The vestibules, mechanical rooms, mezzanine, storage areas an toilet rooms are supported by wall hot water cabinet heaters, unit heaters, and wall-mounted convectors.

The direct digital controlled cooling system is in excellent shape. The system consists of an air-cooled chiller with variable speed compressor installed in 2017. The refrigerant used in the chiller is R-134A, which is available for use and considered environmentally safe. The chiller is located outside the building on a concrete pad in the southeast corner and is secured by a chain-link fence. The chilled water pumps with variable frequency drives were installed in 2017. The chilled water piping for building cooling is located overhead above the ceiling tiles.

The original building ventilation system includes three air handling units. In the 2017 addition, two additional units were added for a total of five. The building-wide ventilation systems are direct digital controlled. The 2002 original ventilation system is in good shape and consists of two variable air volume air handling units and a separate gym constant volume air handling unit. The 2017 addition ventilation system is in excellent shape and consists of two additional variable air volume air handling units, including one separate unit serving the Tech Ed/Ag area. The interior classroom areas are also served by an air-to-air energy recovery unit. The Tech Ed/Ag area is also served by a dust collection system installed in 2017. The ventilation is ducted overhead with insulated supply ductwork and is in good shape.



2002 Burnham boiler



Hot water heating pump



2017 chiller

Recommendation

Currently, the boilers are near the end of the expected service life. The boilers are only standard efficiency, and energy-saving condensing boiler replacements are recommended. The delay or lack of preventive action to replace these pieces of equipment in the near future may result in additional downtime, additional labor costs, additional replacement costs, and losses in overall building operations efficiencies including natural gas energy costs.

The heating plant, cooling plant, ventilation, and HVAC controls were only commissioned for the addition in 2017. The HVAC system for the entire building should be retro-commissioned to ensure the existing equipment is running correctly; delivering the desired demand volumes and temperatures throughout the entire building; equipment and controls are calibrated for optimal performance and set points and sequence of operations match the actual building usage hours and occupancy levels.

After retro-commissioning is complete, a schedule for periodic recommissioning should be adhered to. The on-going examination, cleaning, fixing, replacing, and resetting of HVAC systems, equipment, and controls will require periodic commissioning to maintain the entire building HVAC systems to the desired optimal comfort and efficiency levels. The changes in building usage hours and occupancy level will also require periodic recommissioning.

Scope of Work

- Replace boilers with condensing boilers.
- Inspect, test, and replace boiler hot water pump motors if suspect of operation issues or known failures.
- Retro-commission building wide HVAC systems, equipment, and controls.
- Set and adhere to recommission schedule for the entire building HVAC systems.

Benefits

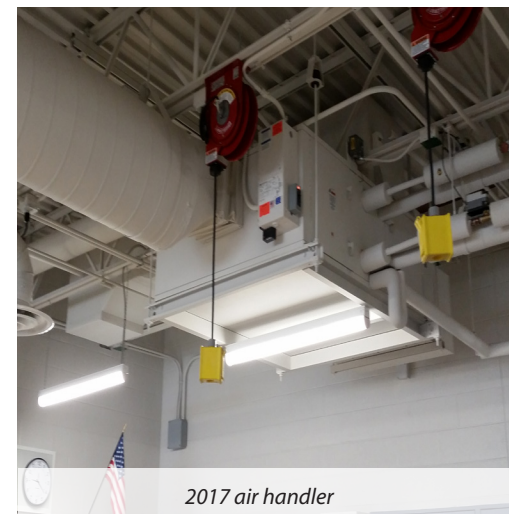
- Minor occupant comfort, safety, and risk mitigation improvements
- Minor building operations & maintenance savings
- Minor heating gas savings.



2017 chilled water pump



2017 digital controlled VFD air handler



2017 air handler

MIDDLE SCHOOL INTERIOR FINISHES

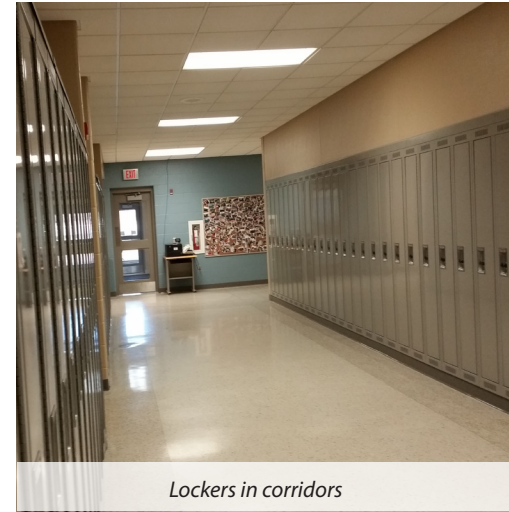
Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
5	0	0	3	0	8	\$15,700

Existing Condition

The original lockers in the 2002 section of the building do not easily operate. The lockers and locker doors are in good shape. The lock sets fail and are hard for students to use. The vinyl resin partitions in the restrooms are discolored.

Recommendation

The recommendation is to replace lock sets in original lockers to allow students to easily secure their belongings in the lockers. For the restroom partition, the recommendation is to first attempt to deep or aggressively clean the discolored partitions. If the discoloration is not removed, consider replacing the partitions.



Lockers in corridors

Scope of Work

- Replace lock sets in original lockers.
- Inspect and clean restroom partitions. Replace permanently discolored partitions.

Benefits

- Moderate occupant use and occupant belongings security improvement.
- Moderate restroom aesthetics improvement.

MIDDLE SCHOOL PLUMBING

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
0	0	0	5	0	5	\$7,000

Existing Condition

The interior original building plumbing is only seventeen years old and the new addition only two years old. Plumbing is in good condition and should be suitable for at least thirty to forty more years. The domestic water piping is L or blue copper piping with solder joints. The valves controlling these piping systems are in good condition and should be exercised (opening and closing) at least annually.

The domestic water heaters were installed recently with label dates of 2016 with an expected service life of fifteen to twenty years. For energy conservation, a separate water heater for food service is isolated with the higher temperature set point.

The natural gas piping is black steel with an expected service life of fifty plus years. The gas pressure regulars will require inspection and preventive maintenance on a routine schedule with cleaning and repairs as needed. The kitchen grease traps and the chemical waste dilution tanks and vents appear to be functioning well.

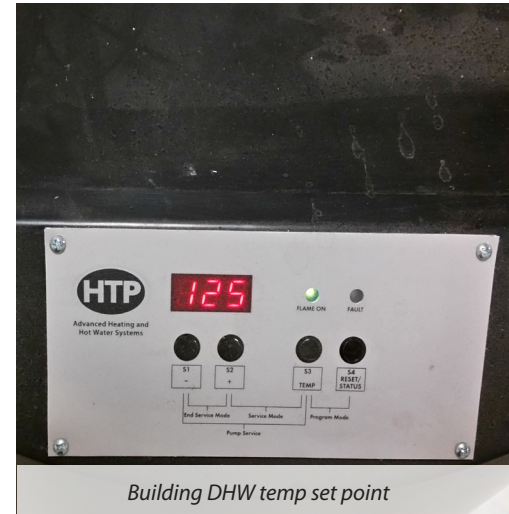
Recommendation

The recommendation is to schedule and complete the exercising of all critical flow and shut off valves on a set frequency at a minimum of annually. Maintain isolated water heating per demand temperatures to eliminate the need for cold water tempering. Schedule and complete at least annually inspection and cleaning of all gas regulators. Schedule and complete grease trap quarterly inspection and cleaning frequency. Increase the frequency if a more frequent cleaning has already been established.

The District should schedule and complete chemical waste dilution tanks and vents annual inspection and cleaning frequency of every three to five years. Due to recent high snowfall amounts and accumulation consider extending pipe vents when replacing or repairing.



Kitchen DHW temp set point

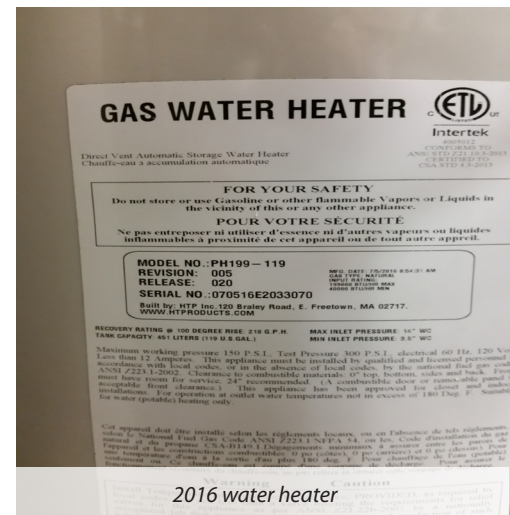


Building DHW temp set point



Scope of Work

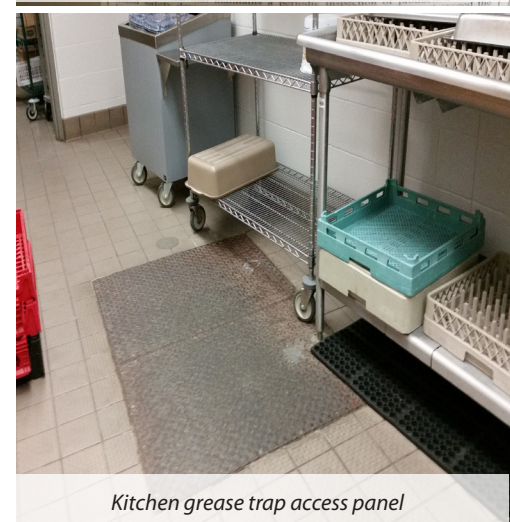
- Inventory, inspect, and investigate all plumbing and piping systems operating condition.
- Schedule and complete the exercising of all critical flow and shut off valves at least annually.
- Set and adhere to a routine inspection preventive maintenance schedule for the plumbing systems include gas regulators, water heater temperature set points, and critical flow valves.
- Conduct inspections, complete cleaning of chemical dilution systems and grease traps as needed, and set follow inspection and preventive maintenance services schedule.



2016 water heater

Benefits

- Moderate reduction in potential building operations and maintenance disruptions.
- Minor indoor air and sanitation quality, safety, and risk mitigation improvements.



Kitchen grease trap access panel

MIDDLE SCHOOL LANDSCAPE

Function Condition	Predicted Useful Life	Environ/Safety Concern	Project Cost	Return on Investment	Total Points	Cost Estimate
0	0	0	5	0	5	\$3,300

Existing Condition

The scoreboard support beams (columns) are not painted. The varsity track was resurfaced in 2016 and will require resurfacing in eight to twelve years.

Recommendation

The recommendation is to paint the scoreboard support beams to protect the metal and improve the appearance of the athletic fields. Due to the costly expense to maintain the varsity track, the recommendation is to set an annual project routine for extending the track's longevity and set a plan for replacement. Budget allocations for significant expenses such as a track replacement should be documented in a life-cycle plan.

Scope of Work

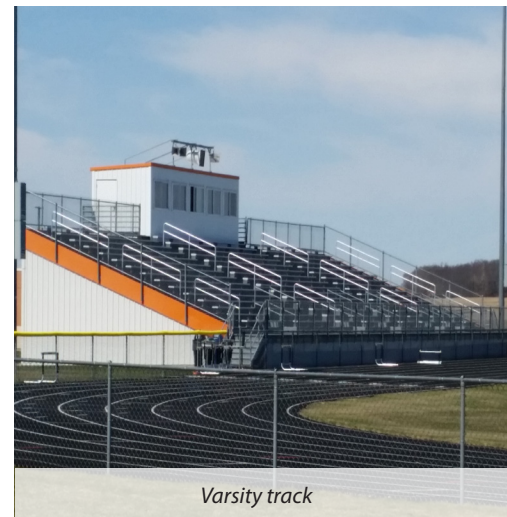
- Paint scoreboard support beams.
- Document and follow through on life cyclic maintenance and replacement for varsity track.

Benefits


- Major capital planning improvement.
- Moderate aesthetic improvement for athletic fields.
- Minor longevity improvement of scoreboard.




Scoreboard support beams



Varsity track

 Facility Improvement Measures School District of Bloomer Middle School		Project Recommendation Priority Order						
		0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Safety & Security	The door security system is adequate. The addressable fire alarm system is seventeen years old. On the exterior of the building, there are several exposed equipment and hazardous operations areas. The dumpster, gas supply meter and distribution tree, electrical transformer, and emergency generator areas are all unsecured. The improperly stored items in the main electrical room is also a safety concern.	10	5	15	0	33	3	\$23,500
Building Envelope	The main office windows are clouded, stained, leaking tempered air, and fills with moisture. For several days after the rain there is ponding on the gym roof. The exterior walls near the main entrance are stained. The north entry canopy needs to be re-painted. There is a rotting insulated wood box containing a hose bib near the chiller on the outside wall of the building.	10	7	10	0	30	3	\$18,500
Electrical	The electrical distribution systems are the same age as per the age of each building addition. There are spare breaker spaces and extra panel boxes (tubs) available. The main electrical equipment room does not adequately provide the recommended working clearances. Electrical equipment has improperly stored items on and around the equipment. The electrical receptacles and other components appear to be in good shape.	10	0	15	1	29	3	\$22,600
Hardscape	The hardscapes (concrete and asphalt) are in varied conditions around the site. The type of deterioration and failed concrete is minimal and varies. The asphalt concerns are also minimal with small cracks, worn seal, and fading paint.	10	5	10	0	27	2	\$94,000

 Facility Improvement Measures School District of Bloomer Middle School		Project Recommendation Priority Order						
		0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
HVAC	The direct digital controlled heating plant at the middle school is in good condition. The direct digital controlled cooling system is in excellent shape. The original ventilation system is in good shape, and the addition ventilation system is in excellent shape.	0	0	8	2	13	3	\$147,200
Interior Finishes	The original lockers in the 2002 section of the building do not easily operate. The lockers and locker doors are in good shape. The lock sets fail and are hard for students to use. Some of the vinyl resin partitions in the restrooms are discolored.	5	0	0	0	8	3	\$15,700
Plumbing	Plumbing is in good condition and should be suitable for at least thirty to forty more years. The valves controlling these piping systems are in good condition. The domestic water heaters were installed recently with an expected service life of fifteen to twenty years. The natural gas piping has an expected service life of fifty plus years. The kitchen grease traps and the chemical waste dilution tanks and vents appear to be functioning well.	0	0	0	0	5	5	\$7,000
Landscape	The scoreboard support beams (columns) are not painted. The varsity track was resurfaced in 2016 and will require resurfacing in eight to twelve years.	0	0	0	0	5	5	\$3,300

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SUMMARY

There is a need for substantial, short-term capital investment in the facilities that comprise the Bloomer High School and Bloomer Middle School to address deferred maintenance, bring existing spaces up to date, and to reduce future costs. The most urgent facility improvement measures proposed by CESA 10 for the District encompass a range of facility needs including:

- Asbestos abatement
- Mechanical controls
- Indoor air quality improvements
- Energy efficiency projects
- Infrastructure improvements.

These upgrades are for both the high school and middle school. The updates for the high school need to be carried out in the very short term to reduce labor and operational costs while improving occupant health, safety, and comfort. New construction for the high school should be considered for all of the same improvement reasons along with the other geographic, logistic, and operational efficiencies to be gained. Also, new construction for the high school will be easier to maintain into the future.

The complete facilities report and accompanying spreadsheet provide prioritized lists of facility needs and projects that are flexible enough to provide value to the District and Board in making informed decisions in the longer term, regardless of whether the District chooses to renovate existing facilities or to build a new high school facility.

Any questions about this report can be directed to John Berget at 715-720-2196.





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APPENDIX


The following pages contain itemized facility improvement measures and cost estimates for each facility. A copy of the entire prioritization matrix will be provided to the District in an Excel-based tool that can be adapted by District staff based on future replacement schedules, equipment conditions, and District priorities.





 Facility Improvement Measures School District of Bloomer High School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Inadequate Space	Inadequate storage space in Rooms 202 and 329A.	Properly store amount size per available space. Store other items elsewhere.	10	10	15	0	40	5	\$7,500
Inadequate Space	Rooms 170A, 204, 101, 156, 154,302, and 329B are too small for current use.	Limit occupancy per available space. Identify additional times of use or other areas.	10	10	15	0	38	3	\$18,000
Inadequate Space	Unsafe storage in mechanical rooms 224 and 205.	Remove all improperly stored items. Properly store amount size per available space. Store other items elsewhere.	10	5	15	0	35	5	\$8,000
Inadequate Space	Art kiln in room 224 is located through the maintenance area.	Relocate art kiln or reassign maintenances spaces. Separate plant operations and maintenance from student-teacher activities.	10	5	15	0	33	3	\$42,500
Inadequate Space	Limited front visitor parking.	Restrict more stalls to "Visitor Only." Construct additional parking in areas "to be determined."	10	10	8	0	31	3	\$35,000
Inadequate Space	Limited side and back student and employee parking.	Add adjacent or off site parking.	10	10	8	0	31	3	\$45,000
Inadequate Space	Outbuilding used for storage.	Add additional out buildings if no interior space is available.	8	10	8	0	29	3	\$48,000
Inadequate Space	Commons and stage are inadequate for presentations and special events.	Build a new auditorium or reassign space for auditorium.	10	10	8	0	28	0	\$475,000
Inadequate Space	Gym equipment cluttered and improperly stored.	Properly store amount size per available space. Store other items elsewhere.	10	10	0	0	25	5	\$7,500
Inadequate Space	Gym perimeter space is limited.	Limit fan access to the larger area around the competitive courts.	10	10	0	0	25	5	\$8,500
Inadequate Space	Kitchen refrigeration is inadequate.	Add on exterior room/out building.	8	0	8	0	19	3	\$30,000


 Facility Improvement Measures School District of Bloomer High School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Auditorium	Portable chair seating is inadequate and labor intensive.	Add fixed or movable auditorium style seating.	10	10	15	0	38	3	\$50,000
Auditorium	Inadequate presentation space on stage.	Upgrade stage area.	10	10	15	0	35	0	\$156,250
Auditorium	No large presentation or auditorium space.	Build new 10,000 sq. ft. auditorium at approximately \$219/sq ft.	10	10	10	0	30	0	\$2,190,000
		Reassign space and renovate 10,000 sq. ft. area to house auditorium at approximately \$161/sq. ft.	10	10	10	0	30	0	\$1,610,000
Auditorium	Lighting and electrical systems are outdated and inefficient.	Replace lighting and general electrical.	10	10	0	3	23	0	\$320,000
Auditorium	Mechanical/HVAC/Plumbing are inadequate.	Upgrade Mechanical/HVAC/Plumbing systems.	10	10	0	3	23	0	\$400,000
Auditorium	No functional theatrical equipment.	Add theatrical equipment, stage curtains, and rigging.	10	10	0	0	23	3	\$90,000
Auditorium	Fire protection and sprinkler and alarm are inadequate.	Add fire protection sprinkler and alarm system.	10	10	0	0	23	3	\$50,000
Auditorium	Audio and AV system are inadequate.	Replace audio and AV systems. Add an acoustical system.	10	10	0	0	20	0	\$100,000
Auditorium	Interior finishes and acoustics are inadequate.	Upgrade interior finishes and add acoustical system.	10	10	0	0	20	0	\$312,500


 Facility Improvement Measures School District of Bloomer High School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Interior Finishes	Anti-slip treads are missing on stair steps.	Add strips.	10	10	8	3	36	5	\$5,500
Interior Finishes	Damaged and worn asbestos flooring, base, and mastic.	Rooms 154, 156, 123, 126, 128, 130, 131, 204, 306, 309, 310, 314, 315, 317, 320, 120, 121, second-floor elevator, and vestibule.	10	10	15	0	35	0	\$1,250,000
Interior Finishes	Door off and cabinetry in bad condition.	Gym	10	10	0	0	25	5	\$3,800
Interior Finishes	Tears in some wall protective pads.	Gym	5	5	8	0	23	5	\$2,500
Interior Finishes	Damaged and stained corridor, restrooms, and stairwell accessories.	Replace fixtures.	10	5	0	0	18	3	\$45,000
Interior Finishes	Interior door damage.	Repair or refinish doors.	10	5	0	0	18	3	\$27,500
Interior Finishes	Expansion cracks in terrazzo flooring.	First-floor corridor.	5	10	0	0	18	3	\$36,800
Interior Finishes	Damaged and worn flooring.	Second-floor corridor.	5	10	0	0	18	3	\$28,000
Interior Finishes	Damaged and worn ceilings.	Rooms 120, 122, 123, 128, 130, 131, 129, 306, 309, 310, 314, 315, 317, 320, second-floor corridor, and other corridors and areas.	5	10	0	0	15	0	\$258,000
Interior Finishes	Discolored vinyl stall partitions look dirty.	Replace panels.	10	0	0	0	13	3	\$18,000


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Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
HVAC	Unsafe fabricated wood makeup air vent cover in room 224.	Remove and replace boiler with heating plant upgrade.	10	10	15	0	40	5	\$2,500
HVAC	Original boiler in room 224 past typical service life.	Add new boiler to maintain more efficient heating load for cold periods.	10	10	15	0	38	3	\$75,000
HVAC	Old boiler in room 224 is uninsulated.	Insulate if not replacing the boiler.	10	10	8	3	36	5	\$4,500
HVAC	Original equipment condenser units with R-22 refrigerant in 113A and 127D.	Upgrade equipment with compliant and available refrigerant.	10	10	15	0	35	0	\$215,000
HVAC	Original equipment Cabinet Heaters next to rooms 173 and 215 past typical service life.	RCx the equipment and repair/replace as needed.	10	10	8	3	34	3	\$50,000
HVAC	Original exhaust fans in rooms 160D, 139, and 140 past typical service life.	RCx the equipment and repair/replace as needed.	10	10	8	3	34	3	\$15,000
HVAC	Original exhaust fans in rooms 227, 230A, 201 (2), and 204 past typical service life.	RCx the equipment and repair/replace as needed.	10	10	8	3	34	3	\$15,000
HVAC	Original equipment unit heaters in rooms 223, 224, and 134 past typical service life.	RCx the equipment and repair/replace as needed.	10	10	8	3	34	3	\$15,700
HVAC	Original air handlers in rooms 171 (2) and 220 (2) past typical service life.	RCx the equipment and repair/replace as needed.	10	10	8	3	31	0	\$250,000
HVAC	First and second-floor corridors are being used for return/relief/transfer air restricting return air flow.	Add direct duct return.	10	10	8	0	28	0	\$495,000
HVAC	Relocated boilers (2) in room 224 are at typical service life (16 yrs.)	Replace and reconfigure boiler loads and size per current and planned building size.	10	10	8	0	28	0	\$165,000


 Facility Improvement Measures School District of Bloomer High School			Project Recommendation Priority Order						
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Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
HVAC	Air handler in room 202 ductwork insulation is in need of repair.	Test for asbestos. Properly remove and repair.	10	10	0	3	28	5	\$3,200
HVAC	HVAC actuators out of alignment or mode.	RCx HVAC actuators for entire building.	5	5	8	5	28	5	\$8,900
HVAC	HVAC controls sequence and set point are out of calibration.	RCx HVAC controls for entire building.	5	5	8	5	26	3	\$13,600
HVAC	HVAC air distribution and flow is not balanced and sufficient.	RCx HVAC air distribution for entire building.	5	5	8	5	26	3	\$12,800
HVAC	Kitchen exhaust hood is constant volume.	Add sensor and VFD for variable exhaust volume.	5	5	0	5	20	5	\$6,600
HVAC	There is no exhaust hood over the dishwasher.	Install exhaust hood over the dishwasher.	5	5	0	5	20	5	\$6,200


 Facility Improvement Measures School District of Bloomer High School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Electrical	Incandescent can and theater lighting.	Replace with LED lighting.	10	10	15	3	43	5	\$2,200
Electrical	Open lighting fixtures in the kitchen.	Replace fixtures with appropriate lenses.	10	10	15	3	43	5	\$8,200
Electrical	Predominately T8 fluorescent lighting.	Replace with LED lighting (TLED tubes tested and accepted).	10	10	15	3	38	0	\$64,500
Electrical	Rooms 160D, 160, 201, 154, and 143, first-floor corridor (3), and second-floor corridor (2).	Panels are at the end of their useful life, recommend replacement.	10	10	14	0	34	0	\$295,000
Electrical	Panels and feeders not recently tested.	Infrared test and tighten or replace suspect conductors.	5	5	15	0	30	5	\$5,400
Electrical	Emergency generator is not fully tested.	A full load and transfer switch testing is recommended to verify a code compliant operation.	5	5	0	3	18	5	\$7,200
Electrical	Damaged receptacles needs replacement in room 302.	Receptacles in original section of the building are at the end of their useful life. Recommend replacement.	5	5	8	0	18	0	\$58,000


 Facility Improvement Measures School District of Bloomer High School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Plumbing	Original plumbing piping past typical life expectancy.	Inspect, test, and replace as needed.	10	10	12	0	35	3	\$18,500
Plumbing	Original converted steam pipe past typical service life.	Monitor closely, anticipate failures, and repair as suspect or upon failures.	10	10	15	0	35	0	\$462,000
Plumbing	Two of the five water heaters are not operating.	Repair or replace inoperable water heaters. Continue to centralize domestic hot water heating where possible. Isolated water heating per different water temperature demands.	10	10	8	1	34	5	\$6,800
Plumbing	Chilled water loop valves not exercised.	Inspect, test, and replace as needed.	10	10	0	0	25	5	\$3,600
Plumbing	Hot water heating loop valves not exercised.	Inspect, test, and replace as needed.	10	10	0	0	25	5	\$3,600
Plumbing	Gas regulator inspection documentation was not available.	Inspect, test, and replace as needed.	10	10	0	0	25	5	\$1,800
Plumbing	Kitchen grease traps require frequent cleaning.	Replace with higher volume trap system.	5	5	8	0	23	5	\$4,800
Plumbing	Science dilution tanks need to be inspected.	Inspect, clean, and verify venting is appropriate.	5	5	8	0	23	5	\$2,800
Plumbing	Heating plant valves not exercised.	Inspect, test, and replace as needed.	5	5	0	3	16	3	\$3,600
Plumbing	Electric kitchen booster heater	Replace electric booster with gas.	5	0	0	2	12	5	\$7,800


 Facility Improvement Measures School District of Bloomer High School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Safety and Security	Congested and limited parking.	Add parking area and adequate marked walkways to building with warning signage.	10	5	15	0	30	0	\$320,000
Safety and Security	Unsecured dumpster area.	Add fence and gate(s) to enclose dumpster.	10	5	10	0	30	5	\$2,750
Safety and Security	Unsecured gas supply meter and distribution tree.	Add fence and gate(s) to enclose gas meter and supply connection to the building.	10	5	10	0	30	5	\$2,750
Safety and Security	Unsecured exterior electrical transformer and emergency generator.	Add fence and gate(s) to enclose transformer and generator.	10	5	10	0	30	5	\$2,750
Safety and Security	Aged fire alarm system.	Upgrade or replace fire alarm system.	10	5	10	0	25	0	\$320,000
Safety and Security	Minimal fire suppression system.	Expand fire suppression system.	10	5	10	0	25	0	\$180,000
Safety and Security	Non-ADA compliant door hardware.	Age shop rooms 160D, 160E, 160B, and 160.	10	10	0	0	25	5	\$2,500


 Facility Improvement Measures School District of Bloomer High School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Hardscape	Front concrete walks cracked with damaged curbs.	Replace and repair.	10	0	15	5	33	3	\$15,800
Hardscape	Bus loading/unloading asphalt areas.	Replace with additional asphalt lifts in heavy equipment and bus areas.	10	0	15	3	28	0	\$120,000
Hardscape	Parking and outer drive perimeters.	Replace curbing with drive over curbing in areas of snow removal operations.	10	5	8	0	26	3	\$78,000
Hardscape	Dumpster landing	Not concrete and on asphalt only.	10	0	0	3	18	5	\$7,950
Landscape	South Turf & Fields	Slow drainage of storm water. Raise elevations and add drainage tile system.	10	5	15	0	30	0	\$350,000
Landscape	JV Baseball Field	JV baseball field backstop in need of repair or replacement.	5	5	0	3	18	5	\$8,500
Landscape	JV Baseball Field	Floods in spring. Raise elevations and add drainage tile system.	5	5	0	0	10	0	\$225,000
Landscape	There are large cracks across the tennis courts.	Raise, add drainage tiles, and re-install.	5	5	0	0	10	0	\$200,000
Landscape	Practice Track	Raise and replace track base.	5	5	0	0	10	0	\$140,000

 Facility Improvement Measures School District of Bloomer High School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Building Envelope	Windows with thermal and moisture leakage.	Repair or replace failed windows.	10	10	5	1	29	3	\$85,000
Building Envelope	Clouded and stained windows.	Repair or replace failed windows.	10	10	5	1	29	3	\$46,000
Building Envelope	Sealant around windows failed.	Repair or replace failed windows.	10	10	5	1	29	3	\$18,500
Building Envelope	Thresholds and wall base failing.	Repair and replace concrete thresholds and wall base.	5	10	8	0	26	3	\$48,000
Building Envelope	Staining on walls near main entry.	Deep clean limestone lentils, panels, and sills.	10	10	0	0	23	3	\$12,500
Building Envelope	Metal patched views on exterior walls.	Remove and replace with matching material and colors.	10	10	0	0	23	3	\$18,600
Building Envelope	Sixteen-year-old roofing area (approximately half of the total roofing area).	Plan for future replacement in the next five to ten years.	7	7	5	1	20	0	\$360,000

 Facility Improvement Measures School District of Bloomer Middle School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Safety and Security	Improperly stored items in main electrical room.	Remove all non-electrical service items from the room. Keep all stored items off and away from electrical equipment.	10	10	15	0	40	5	\$2,750
Safety and Security	Unsecured dumpster area.	Add fence and gate(s) to enclose dumpster.	10	5	10	0	30	5	\$2,750
Safety and Security	Unsecured gas supply meter and distribution tree.	Add fence and gate(s) to enclose gas meter and supply connection to the building.	10	5	10	0	30	5	\$2,750
Safety and Security	Unsecured exterior electrical transformer and emergency generator.	Add fence and gate(s) to enclose transformer and generator.	10	5	10	0	30	5	\$2,750
Safety and Security	Snow depths up to and potentially over stacks and exhaust on top of roof.	Raise stacks and exhausts above prior year snow depths.	5	0	8	0	16	3	\$12,500
Building Envelope	Rotting wood insulated hose bib box next to the new chiller.	Remove and insulate around hose bib. Verify hose bib operation and repair if necessary.	10	10	8	0	33	5	\$1,000
Building Envelope	Air and moisture infiltration around office windows.	Inspect, repair or replace as needed.	10	10	8	0	31	3	\$12,000
Building Envelope	North entrance canopy needs to be painted.	Paint north entrance canopy.	5	5	0	0	15	5	\$2,000
Building Envelope	There are stains on the exterior walls near the main entry.	Clean surfaces and seal cracks.	5	5	0	0	15	5	\$3,500

 Facility Improvement Measures School District of Bloomer Middle School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Electrical	Inadequate working clearances in main electrical room.	Provide for clearances and additional exit.	10	10	15	0	40	5	\$2,500
Electrical	Panels and feeders not recently tested.	Infrared test panels and feeders.	5	5	15	0	30	5	\$7,200
Electrical	Emergency generator not fully tested.	Full load test generator and switch gears.	5	5	10	0	25	5	\$3,400
Electrical	Non-LED stage-theater lighting.	Replace with LED lighting.	5	10	0	3	23	5	\$5,500
Electrical	Non-LED screw in lighting.	Replace lamps with LED.	5	10	0	3	23	5	\$4,000
Hardscape	Asphalt re-sealing due in 2020.	Crack clean and fill, re-seal surface, and paint.	5	5	8	0	21	3	\$28,000
Hardscape	Curbing without ramps for pedestrian access (ADA and a safety concern).	Consider curb cuts for improved pedestrian use.	5	0	10	0	20	5	\$5,000
Hardscape	Bus loading/unloading asphalt light vehicle lift thickness.	Add additional lift height during next replacement.	5	0	8	0	16	3	\$46,000
Hardscape	Curbing around outer perimeter obstructs snow removal operations.	Add drive over curbing as curbing is repaired or replaced.	5	0	8	0	16	3	\$15,000

 Facility Improvement Measures School District of Bloomer Middle School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
HVAC	HVAC controls sequence and set point are out of calibration.	The original building ventilation system includes three air handling units and in 2017 addition two additional units were added for a total of five. The building wide ventilation systems are direct digital controlled. The 2002 original ventilation system is in good shape and consists of two variable air volume air handling units and a separate gym constant volume air handling unit. The 2017 addition ventilation system is in excellent shape and consists of two additional variable air volume air handling units including one separate unit serving the Tech Ed/Ag area. The interior classroom areas are also served by an air to air energy recovery unit. The Tech Ed/Ag area is also served by a dust collection system installed in 2017. The ventilation is ducted overhead with insulated supply ductwork and is in good shape.	10	0	8	5	28	5	\$7,200
HVAC	Ventilation system for both 2002 and 2017 additions need to be air balanced.	Test and balance the entire ventilation system.	10	0	8	5	26	3	\$13,500
HVAC	Boiler pump motors and variable speed drives only installed in 2013.	The direct digital controlled cooling system is in excellent shape. The system consists of an air cooled chiller with variable speed compressor installed in 2017. The refrigerant used in the chiller is R-134A, which is available for use and considered environmentally safe. The chiller is located outside the building on the southeast corner and is secured by chain link fencing around the unit and on a concrete pad. The chilled water pumps with variable frequency drives were installed in 2017. The chilled water piping for building cooling is located overhead above the ceiling tiles.	5	10	0	2	22	5	\$6,500
HVAC	Boilers at expected service life (installed in 2002).	Replace with new condensing boilers.	5	10	0	1	16	0	\$120,000

 Facility Improvement Measures School District of Bloomer Middle School			Project Recommendation Priority Order						
			0%=10 25%= 5 50%= 0	High=15 Med=8 Low=0	Poor =10 Ave =5 Great =0	<2 yr=5 5 yr= 3 10 yr= 0	Priority	<\$10K=5 \$50K=3 >100K=0	
Area of Improvement	General Description	Description of Most Urgent Needs	Useful Life	EHS Concern	Func. Cond.	ROI	Total Points	Proj. Cost	Cost Est.
Interior Finishes	Student lockers from 2002 are hard to operate.	Replace lock sets.	10	0	0	0	15	5	\$7,200
Interior Finishes	Discolored vinyl resin restroom stall partitions look dirty.	Refinish or replace.	5	0	0	0	10	5	\$8,500
Plumbing	Flow valves are not routinely exercised.	Inspect and exercise flow valves at least annually.	10	10	0	0	20	0	\$1,000
Plumbing	Gas regulator inspection documentation was not available.	Inspect, test, and replace as needed.	0	0	8	0	13	5	\$1,000
Plumbing	Kitchen grease traps require frequent cleaning.	Maintain at least annual inspection and cleaning. More often if already on a more frequent schedule or experiencing need.	0	0	8	0	13	5	\$2,500
Plumbing	Chemical dilution tanks need to be inspected.	Inspect, clean, and verify venting is appropriate.	0	0	8	0	13	5	\$2,500
Landscape	Varsity football field scoreboard columns are not painted.	Paint scoreboard support columns.	0	0	0	0	5	5	\$1,800
Landscape	Varsity track resurfaced in 2016. Anticipate resurfacing in 8-12 years.	Plan, estimate, and budget for resurfacing. Cost listed is for planning and not actual resurfacing.	0	0	0	0	5	5	\$1,500