



TABLE OF CONTENTS

Executive Summary	1
Assessment Summary	2
LeGrand High School	3
Gilman Middle School	4
Laurel Elementary School	5
District Athletic Facilities	6
Community Childcare Center	7
Supporting Reports	8

EAST MARSHALL COMMUNITY SCHOOL DISTRICT



FACILITY CONDITION ASSESSMENT
June 2, 2020

EXECUTIVE SUMMARY

Introduction

The Iowa Construction Advocate Team (ICAT) is a partnership of the Iowa Association of School Boards (IASB), and Estes Construction formed for the purpose of providing its members and affiliated industry associates with a quality construction and facility resource staffed with recognized experts in the school facility and construction industry. Team members are also knowledgeable in State of Iowa education issues, infrastructure funding & planning, future trends in education, and 21st century learning environments.

As part of its mission to provide the highest quality facilities, effective maintenance, continuous improvement, and plan for the future, the East Marshall Community School District (EMCSD) contracted with the Estes ICAT Program to conduct a comprehensive facility condition report.

The goal of this work is to identify short & longer term improvement needs in each facility, and utilize this information, along with other district input, to produce a District Facility Master Plan.

Assessment Overview

This report contains the results of the facility condition assessment for the buildings and grounds at the following district facilities:

LeGrand High School
Gilman Middle School
Laurel Elementary School
Athletic Facilities
- Baseball Field
- Softball Fields
- Football Stadium

The assessment is a visual, non-destructive, inspection identifying existing conditions and provides an opinion of probable costs to perform the necessary maintenance, repairs or renovations required to bring the current conditions into compliance with building codes, quality, comfort, improved learning environment, aesthetics, and accessibility requirements for the Americans with Disabilities Act (ADA).

The report is intended to be used as a planning tool to assist the district in making decisions needed in achieving short and long-term facility goals. The report contains data and exhibits meant to objectively describe the findings and summarize the results.

The assessment findings detailed in this report are derived from standard processes of collecting, recording and reporting. The information collecting process begins with review of the existing building plans, specifications, reports and other facility data available to prepare for the field investigation.

During the field investigation portion of the process, the ICAT Team utilized the knowledge and expertise of the district's administrative and facility maintenance personnel to assist in understanding facility issues, short-comings, district goals, and functional needs. Video and photos of areas requiring assessment were taken to document the findings, and then used in the assessment document. Smaller standard maintenance issues generally handled by facility maintenance staff are not included in this report.

Following the field investigation, the ICAT Team reviewed the findings with staff to confirm all issues were being addressed. The team then focused on solutions, identifying concepts, preparing probable cost data, and completing the report.

EXECUTIVE SUMMARY

District Overview

The Mission of the District is:

The East Marshall Community Schools instills a passion for learning to INSPIRE and to PREPARE students to ACHIEVE!

Current enrollment trends:

There is currently a decline of 5-10 students per year. Approximately 33% of the students are open enrolled.

District's objectives for this assessment:

Develop a 10-20 year blueprint for the district.
Identify options for district improvements and to further develop the connections of the towns for a centralized plan for the school district.

Probable Cost Ranges

When using this report, you will notice a range of probable costs. This is shown to indicate there are multiple solutions and many variables for each condition. For example, if new wall construction is required, this could be accomplished with drywall or masonry wall construction. Each of these has a different cost with masonry costing more than drywall. The intent is to show the full "range" of probable costs based on what could be a design solution.

The probable cost ranges shown include budgets for construction costs, bonds, insurance, and associated fees. It also includes budgets for other costs typically referred to as "soft" costs. These include architectural and engineering design fees, reimbursable expenses, contingencies, fixtures, furnishings and equipment.

Other costs such as land acquisition, financing, legal, and staffing are not included unless specifically stated. When considering the total project feasibility, these items and others should be analyzed to provide a complete budget.

While the assessment is segmented into individual elements, the probable cost ranges are based on an assembly of elements being completed at the same time for economy of scale. Should elements be completed on an individual basis, the probable cost ranges should be modified accordingly.

Facility conditions change subtly over time; however, they can also change quickly. Construction costs can also change based on a number of variables including work scope, quantity, quality, design, product selection, competition, and inflation. Construction inflation can vary as much as 4 to 8% per year. The probable cost ranges presented are based on today's costs. If projects are planned to be long-range, we recommend an inflation factor be included when evaluating future probable costs.

Ranges provided are schematic and not based on actual costs or bids. Variances to actual costs should be anticipated. These ranges are intended for project feasibility, planning and budgeting purposes only.

EXECUTIVE SUMMARY

School Infrastructure Funding Sources

School infrastructure funding in Iowa is limited by Iowa statutes, but does offer several avenues when planning for major renovations or new construction. These include a combination of school board and voter approved levies, sales tax funds, general obligation and revenue bonds. Most major facility plans will include a strategy to use one or more of these funding streams, including borrowing against future revenues to accelerate project funding. The benefit of borrowing against future revenues enables the district to accelerate projects, thereby offsetting the cost of construction inflation over many years, which is typically more than the cost of interest paid to borrow funds. The following is a description of possible sources.

General Operating Fund

The primary source of funding daily expenses and salaries can be used for infrastructure improvements, but generally these funds are required to fund the district's budgeted costs, and not available for improvements. The general fund is sometimes used for emergency repairs, but should not be considered a viable source for infrastructure projects.

Statewide School Sales Tax Revenue

Formerly known as the Local Option Sales and Service Tax (LOSST), and the School Infrastructure Local Option Sales Tax (SILO) programs, the state replaced the local options tax and made it statewide in 2008. Currently known as the Secure an Advance Vision for Education (SAVE) program. Sales tax funds can be used for the retirement of general obligation bonds or tax relief. Funds can be used for any school infrastructure that might otherwise qualify for the use of general obligation bonds. The district may borrow against future sales tax revenues up to 80% of the expected income. The current maximum term of borrowing is to 12/31/2051.

Voters must first approve a Revenue Purpose Statement (RPS) by a simple majority. Once approved, the board has the authority to spend or borrow up to the allowed amount and to authorize spending on a project or projects of the board's choosing. Once the RPS is approved, only the state legislature can make changes to the program.

Physical Plant & Equipment Levy (PPEL)

The Physical Plant & Equipment Levy is a designated source for infrastructure funding, but is often used to fund transportation, property, computers, technology, or equipment purchases and leases. It can also be used to fund energy improvements, demolition, hazardous material abatement, or facility repairs and maintenance.

The PPEL is a two part property tax levy, which includes both a school board approved and a voter approved levy. The board may levy up to \$0.33 per \$1,000 of property valuation, and the voters may approve up to \$1.34. The PPEL is typically approved for ten year increments, and borrowing against the PPEL is permissible, but only for the life of the approved levy.

Voters must approve the levy with a simple majority to pass. The ballot asks for approval of the levy, not for a specific project, or projects. Once approved, the board has the authority to spend or borrow up to the allowed amount. Elections may be held at four different times per year.

EXECUTIVE SUMMARY

School Infrastructure Funding Sources *(continued)*

General Obligation Bonds

General Obligation Bonds that are approved by at least 60 percent of the voters are essentially a loan to the district that is repaid or secured by a levy or tax on property values which will repay the principle and interest. The bonding capacity of a district is limited to 5% of the actual property valuation within the district less the current indebtedness. Until the other funding sources were added, this was the primary means for a district contemplating major renovation or new construction projects. With a single vote, Districts can levy up to \$2.70 per \$1,000 of assessed property value per year. With an additional vote, the maximum value can be raised to \$4.05 per \$1,000 of value.

The bond referendum requires a specific project or projects to be identified as the intended use of the funds. Elections are limited to four times per year, and if the election fails, the district must wait a minimum of 6 months, or until the next election after the 6 month period, before voting again.

Grants

Grants are another opportunity for infrastructure funding, however they are generally one time contributions, and should not be considered as a reliable and predictable funding source. Grants may require matching funds, and are awarded on an annual basis subject to funding of the programs. When accepting grants, districts are obligated to follow the grant guidelines, which may include additional costs to the district. Grants are typically awarded based on need by peer review, and limited based on the grant requirements. Grants may be available through state or federal agencies, or available through local and national foundations, however these are difficult to obtain, and typically competitive.

Other Sources

Other infrastructure funding may include cash reserves from accumulated sales tax or PPEL funds. Local utility providers may offer rebates for energy efficiency upgrades to lighting, heating and air conditioning equipment, as well as building envelope insulation improvements. Private contributions can also be another source.

East Marshall CSD Funding Options

Current total district property valuation:

438,706,451 assessed value

Sales Tax Revenues:

2,100,000 bonds w/repay thru 2030

3,700,000 to
4,600,000 bonds with extended RPS

PPEL Revenues:

900,000 available capital loan notes
Voter approval expires 2022

With PPEL extended 10 years
1,700,000 available notes at 0.67/1,000
3,500,000 available notes at 1.34/1,000

General Obligation Bond Funds:

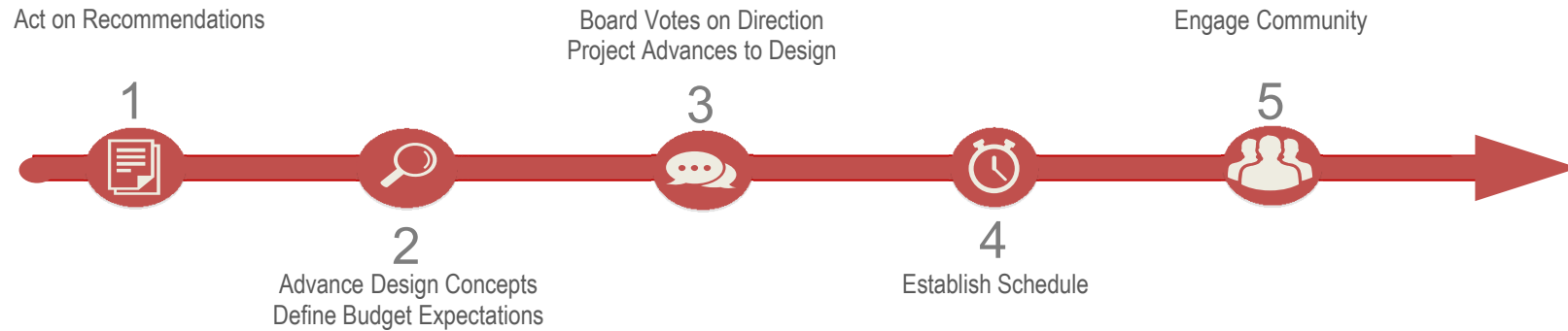
9,900,000 at 2.70 levy rate
15,600,000 at 4.05 levy rate

Other Funding Sources:

None indicated

Source: Piper Sandler correspondence on
June 9, 2020

EXECUTIVE SUMMARY



Next Steps

The assessment contains a vast amount of information for the use in developing solutions and timeframes for implementation. Some elements may require implementation sooner than later, and others may be future endeavors based on need and funding availability. The process doesn't end with this assessment. Actually, this is just the start of building a strategic facility master plan to reach the goals of the district.

The following is a general list of next steps to move the facility plan forward:

1. Select the group, committee or team to advance the process.

2. Prioritize the assessment elements into categories: Urgent, Required, Recommended or Suggested.
3. Determine funding sources, amounts, and availability. Match funding availability with priorities. Determine if a bond referendum process is required.
4. Make recommendations to the board.
5. Board acts on recommendations. Determines projects to proceed into design concepts.
6. Select architectural design team members. Advance design concepts.
7. Establish an overall project timeline and schedule.

8. Begin community engagement sessions, or if a referendum is required, begin referendum support process.
9. Secure public support & board approval to proceed.
10. Create construction documents, obtain bids, award contracts and complete construction.

Thank you for engaging your Estes ICAT team to help formulate solutions for your facility needs. We stand ready to continue supporting the district as well as facilitate, plan, prioritize, advocate, and move the process forward with the next steps in the process.

ASSESSMENT SUMMARY



LEGRAND HIGH SCHOOL		Low	High	Priority	Remarks
1	SAFETY & SECURITY	715,578	1,132,390		
1.01	Abatement	7,625	20,509	B	REQUIRED
1.02	New Accessibility Upgrades	188,820	301,527	A	URGENT
1.03	New Code Compliance Upgrades	151,058	368,664	A	URGENT
1.04	New Fire Suppression Upgrades	368,075	441,690	B	REQUIRED
2	BUILDING IMPROVEMENTS	658,502	803,998		
2.01	New Classroom & Gym Finishes	123,763	171,792	D	SUGGESTED
2.02	New Exterior Windows	32,391	40,488	C	RECOMMENDED
2.03	New HVAC Controls, Boiler Replacement	305,502	354,088	C	RECOMMENDED
2.04	New Lighting	161,953	191,399	C	RECOMMENDED
2.05	New Electrical Panels	11,778	16,195	B	REQUIRED
2.06	New Plumbing Upgrades	23,115	30,035	C	RECOMMENDED
LEGRAND HIGH SCHOOL TOTAL		1,374,080	1,936,388		
GILMAN MIDDLE SCHOOL		Low	High	Priority	Remarks
1	SAFETY & SECURITY	760,371	1,118,640		
1.01	Abatement	17,526	58,421	B	REQUIRED
1.02	New Accessibility Upgrades	180,411	255,656	A	URGENT
1.03	New Code Compliance Upgrades	211,422	383,350	A	URGENT
1.04	New Fire Suppression Upgrades	351,011	421,213	B	REQUIRED
2	BUILDING IMPROVEMENTS	3,301,033	3,783,549		
2.01	New Finishes	229,078	395,787	D	SUGGESTED
2.02	New Heating, Ventilation & Air Conditioning Systems	2,354,944	2,541,926	C	RECOMMENDED
2.03	New Lighting	154,592	176,676	C	RECOMMENDED
2.04	New Theatrical Lighting and Rigging System	206,122	294,460	D	SUGGESTED
2.05	New Electrical Upgrades	356,297	374,700	B	REQUIRED
GILMAN MIDDLE SCHOOL TOTAL		4,061,403	4,902,190		

ASSESSMENT SUMMARY



LAUREL ELEMENTARY SCHOOL		Low	High	Priority	Remarks
1	SAFETY & SECURITY	244,408	339,350		
1.01	New Code Compliance Upgrades	40,494	94,654	A	URGENT
1.02	New Fire Suppression Upgrades	203,914	244,696	B	REQUIRED
2	BUILDING IMPROVEMENTS	886,478	1,025,598		
2.01	New Exterior Windows	35,488	47,255	C	RECOMMENDED
2.02	New HVAC Controls and new boiler	770,013	871,602	C	RECOMMENDED
2.03	New Lighting	80,977	106,742	C	RECOMMENDED
3	SITE IMPROVEMENTS	283,358	461,288		
3.01	New Paving	283,358	461,288	D	SUGGESTED
LAUREL ELEMENTARY SCHOOL TOTAL		1,414,244	1,826,237		
DISTRICT ATHLETIC FACILITIES		Low	High	Priority	Remarks
1	SAFETY & SECURITY	163,857	230,107		
1.01	New Accessibility Upgrades	33,692	50,632	B	REQUIRED
1.02	New Athletic Fields Updates	130,165	179,475	C	RECOMMENDED
DISTRICT ATHLETIC FACILITIES TOTAL		163,857	230,107		
COMMUNITY CHILDCARE CENTER		Low	High	Priority	Remarks
4	NEW FACILITIES	1,892,274	2,285,525		
4.01	New Childcare Center	1,892,274	2,285,525	C	RECOMMENDED
COMMUNITY CHILDCARE CENTER TOTAL		1,892,274	2,285,525		

ASSESSMENT SUMMARY

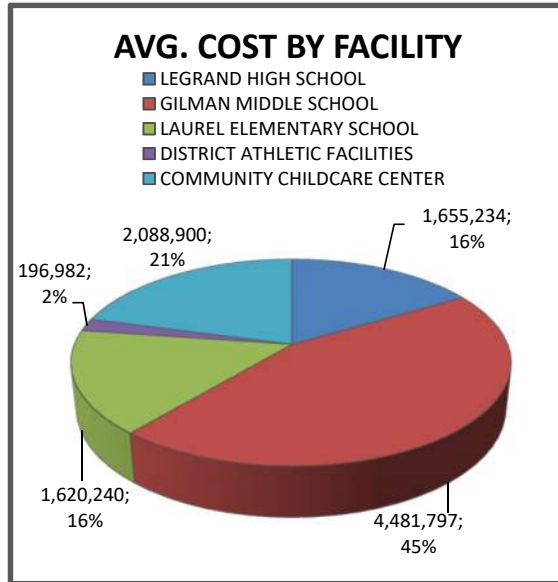


TOTAL COSTS BY FACILITY	Low	High
LEGRAND HIGH SCHOOL	1,374,080	1,936,388
GILMAN MIDDLE SCHOOL	4,061,403	4,902,190
LAUREL ELEMENTARY SCHOOL	1,414,244	1,826,237
DISTRICT ATHLETIC FACILITIES	163,857	230,107
COMMUNITY CHILDCARE CENTER	1,892,274	2,285,525
TOTAL COSTS BY FACILITY	8,905,858	11,180,448

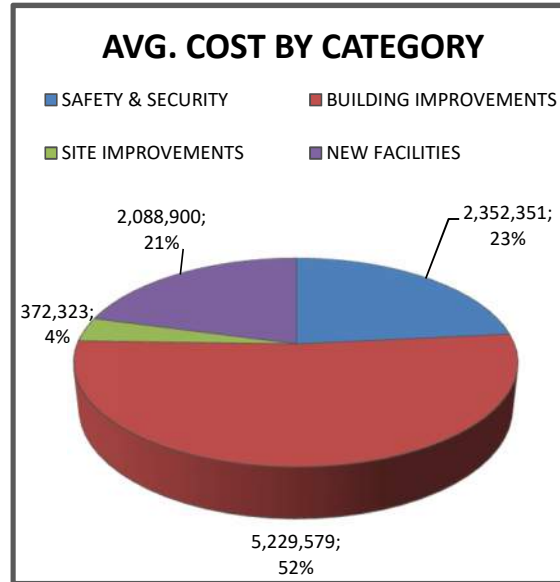
TOTAL COSTS BY CATEGORY	Low	High
1 SAFETY & SECURITY	1,884,213	2,820,488
2 BUILDING IMPROVEMENTS	4,846,013	5,613,146
3 SITE IMPROVEMENTS	283,358	461,288
4 NEW FACILITIES	1,892,274	2,285,525
TOTAL COSTS BY CATEGORY	8,905,858	11,180,448

TOTAL COSTS BY PRIORITY	Low	High
A URGENT	772,205	1,403,852
B REQUIRED	1,349,918	1,628,058
C RECOMMENDED	5,941,413	6,825,211
D SUGGESTED	842,321	1,323,327
TOTAL COSTS BY PRIORITY	8,905,858	11,180,448

ASSESSMENT SUMMARY



The pie charts shown on this page indicate the probable cost average and percentage as a visual aid when reviewing the assessment. These are calculated by sorting the assessment summary into different value breakdowns. The first chart above is sorted by the average probable costs per facility.



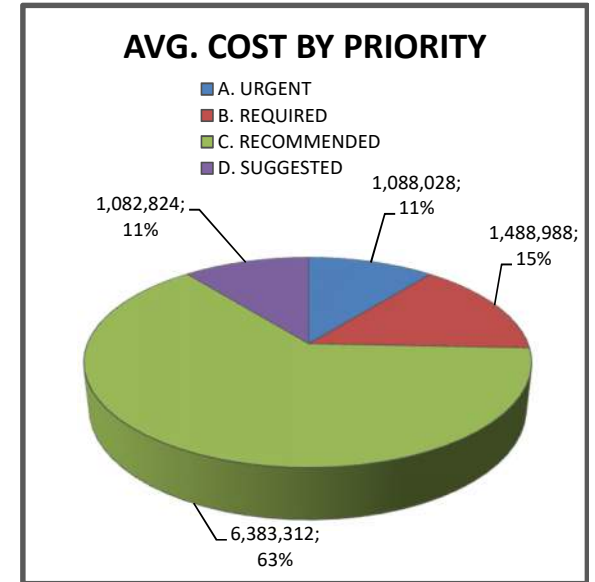
The chart above is sorted by the type of work required. These are separated by the following categories:

Safety & Security; Building code improvements, accessibility (ADA) requirements, building safety & security, exiting & egress requirements.

Building Improvements; Any building component improvements which are a part of the existing facility.

Site Improvements; Includes any site component improvements which are a part of the existing site conditions.

New Facilities; Includes new structures or additions to existing structures.



The chart above is sorted by the priority of the work, meaning when it may need to be completed. These are separated by the following categories:

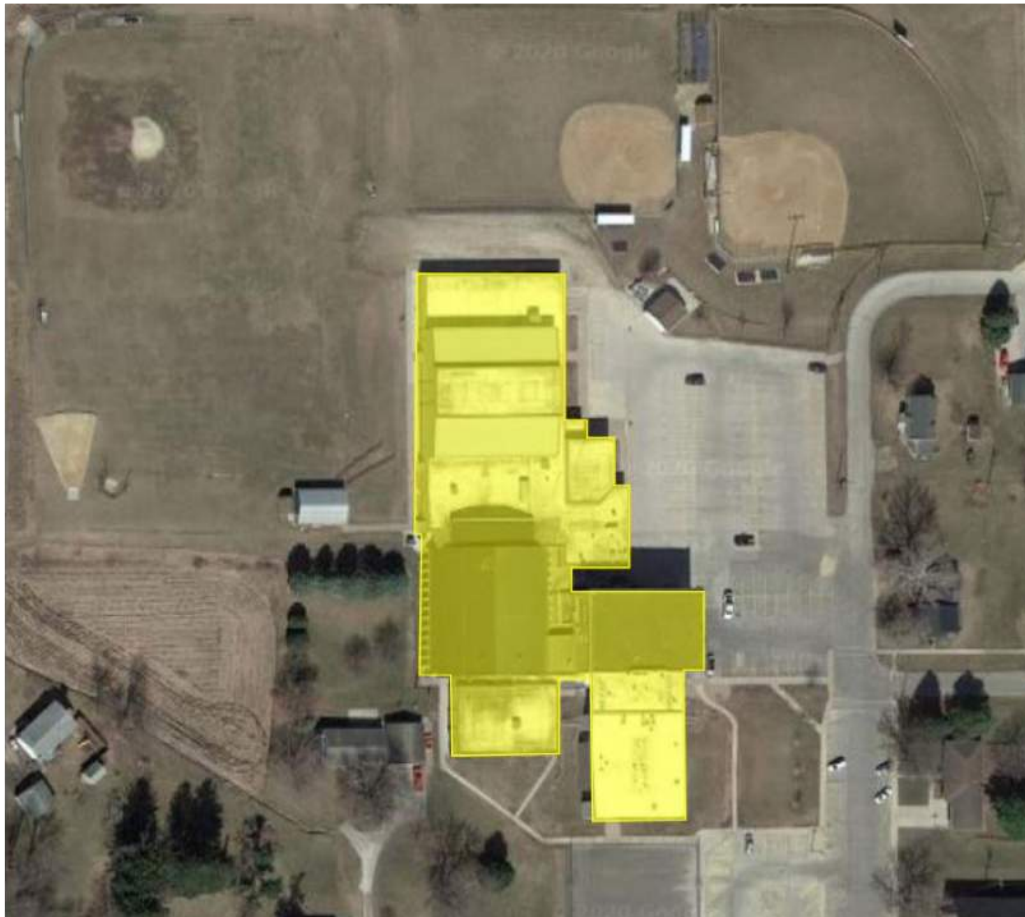
A. Urgent; This work should be completed within a year.

B. Required; This work should be completed within 1 to 5 years.

C. Recommended; This work may not be required to be completed at this time, but is recommended to be completed within 5 to 10 years.

D. Suggested; This work may not be required to be completed at this time, but is suggested to be completed 10+ years out.

LEGRAND HIGH SCHOOL



LeGrand High School

201 North Franklin
LeGrand, Iowa 50142

Type: Three Story
Masonry

Original Construction: 1923

Additions: 1978 and 2008

Current Grades: 9 - 12

Enrollment: 220

Building Area: 72,555 sf

Current Square Feet per Student: 329 sf

Region Average for High School:
192 sf per student

*Source: School Planning and Management
20th Annual School Construction Report*

SAFETY & SECURITY

1.01 Abatement

ASSESSMENT

Multiple classrooms flooring are vinyl asbestos tile (VAT) which does not comply with current building code requirements.

SOLUTION

Encapsulate asbestos containing material by applying new floor over the existing tile (lower cost), or remove the tile and adhesive, and provide a new flooring material (higher cost).

Approximately 1,143 square feet

PROBABLE COST RANGE

\$7,625 - \$20,509



Existing asbestos containing floor tile

SAFETY & SECURITY

1.02 New Accessibility Upgrades

ASSESSMENT

Restrooms throughout the facility do not meet ADA requirements and have finishes at end of life. Drinking fountains and knob type door handles do not meet ADA requirements. Bleachers do not have ADA seating.

SOLUTION

Renovate restrooms to meet ADA requirements and update finishes. Provide dual height drinking fountains, replace knob type hardware with lever action. Modify 30 seats for ADA compliant seating at bleachers.

Approximately 1,280 square feet of restrooms and 10 doors affected

PROBABLE COST RANGE

\$188,820 - \$301,527



Existing conditions



Example of new ADA accessible restroom

SAFETY & SECURITY

1.03 New Code Compliance Upgrades

ASSESSMENT

Handrails and guardrails throughout the facility do not meet current building code. Wire glazing and glass block are located at multiple locations throughout the facility. Door frames are not fire rated but have fire rated doors at multiple locations. Emergency lighting is not up to code.

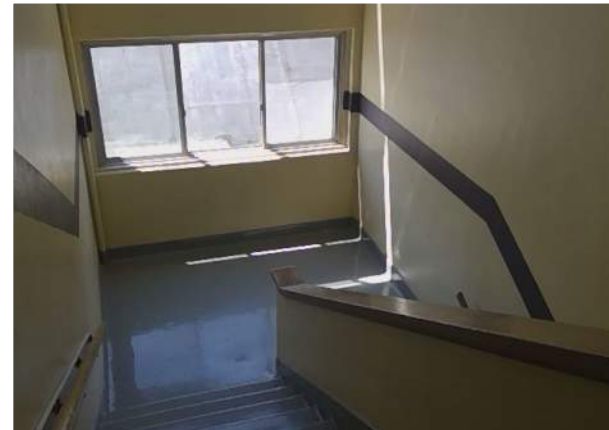
SOLUTION

Modify the existing handrails and guardrails to meet code (lower cost) or replace with new (higher cost). Replace wire glazing and glass block at fire rated walls with new fire rated glazing. Provide new hollow metal door frames and re-install existing doors. Provide emergency lighting to be code compliant.

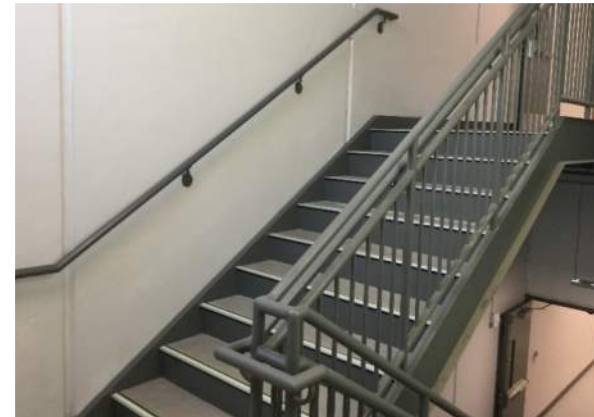
Approximately 590 linear feet of railing, 500 square feet of glazing and 30 doors

PROBABLE COST RANGE

\$151,058 - \$368,664



Existing conditions



Example of new code compliant railing

SAFETY & SECURITY

1.04 New Fire Suppression Upgrades

ASSESSMENT

Multiple areas in the facility do not have a fire-suppression system or fire alarm/smoke detection system.

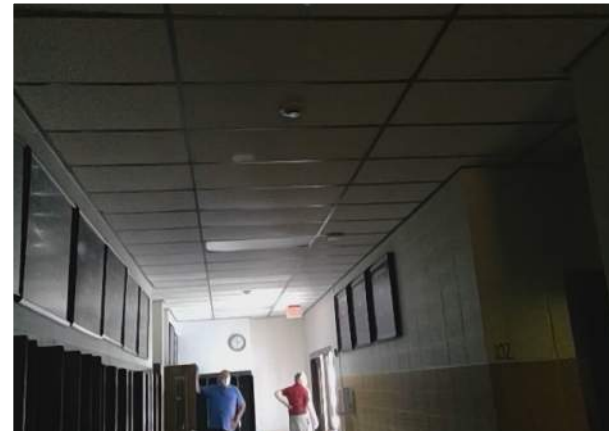
SOLUTION

Provide a new wet sprinkler system and fire alarm system throughout the areas in the facility where one is currently not present.

Approximately 50,000 square feet

PROBABLE COST RANGE

\$368,075 - \$441,690



Existing conditions



Example of new fire alarm system

BUILDING IMPROVEMENTS

2.01 New Classroom & Gym Finishes

ASSESSMENT

Ceiling finishes in select classrooms have reached end of useful life. Ceiling tiles in gym are susceptible to damage during activities.

SOLUTION

Provide new acoustic (ACT) ceiling systems in classrooms. Provide new abuse resistant adhered ceiling tiles in gym.

Approximately 2,146 square feet of ACT ceilings,
7,655 abuse resistant tiles

PROBABLE COST RANGE

\$123,763 - \$171,792



Existing conditions



Example of new acoustic ceiling

BUILDING IMPROVEMENTS

2.02 New Exterior Windows

ASSESSMENT

Exterior windows have single pane glazing and non-thermal rated frames.

SOLUTION

Remove existing windows and frames, and provide new thermal insulated aluminum framed windows.

Approximately 550 square feet

PROBABLE COST RANGE

\$32,391 - \$40,488



Existing conditions



Example of new glazing

BUILDING IMPROVEMENTS

2.03 New HVAC Controls, Boiler Replacement

ASSESSMENT

Steam heating units have manual controls. Trane through-wall units LAN boards are failing. No exhaust hoods above ranges in FCS. Boiler is nearing end of expected life.

SOLUTION

Provide new electronic control in steam heating units. Replace controls program in the Trane through-wall units. Provide exhaust hoods over ranges. Replace boiler in next 5 years.

Controls throughout entire facility and one boiler

PROBABLE COST RANGE

\$305,502 - \$354,088



Existing conditions



Existing conditions

BUILDING IMPROVEMENTS

2.04 New Lighting

ASSESSMENT

Light fixtures are older fluorescent style lamps. No occupancy sensors throughout facility.

SOLUTION

Replace existing light fixtures with new energy efficient LED fixtures/lamps. Update lighting controls using occupancy sensors and daylight harvesting.

Approximately 50% of facility

PROBABLE COST RANGE

\$161,953 - \$191,399



Existing conditions



Example of new LED lighting

BUILDING IMPROVEMENTS

2.05 New Electrical Panels

ASSESSMENT

Existing electrical panels have reached end of useful life.

SOLUTION

Replace existing electrical panels with new electrical panels.

2 panels

PROBABLE COST RANGE

\$11,778 - \$16,195



Existing conditions



Example of new electrical panel

BUILDING IMPROVEMENTS

2.06 New Plumbing Upgrades

ASSESSMENT

No backflow preventer on the domestic water. No emergency gas shutoff, emergency shower or eyewash stations in two science classrooms. There is a pipe that comes up through the middle of a storage room floor presenting a tripping hazard.

SOLUTION

Provide backflow preventer and ground jumper wire around the water meter. Provide new emergency gas shut off valve, new emergency shower and eyewash stations in both science classrooms. Relocate pipe to remove trip hazard.

1 backflow preventer, 2 shut-off valves and 2 eyewash stations

PROBABLE COST RANGE

\$23,115 - \$30,035

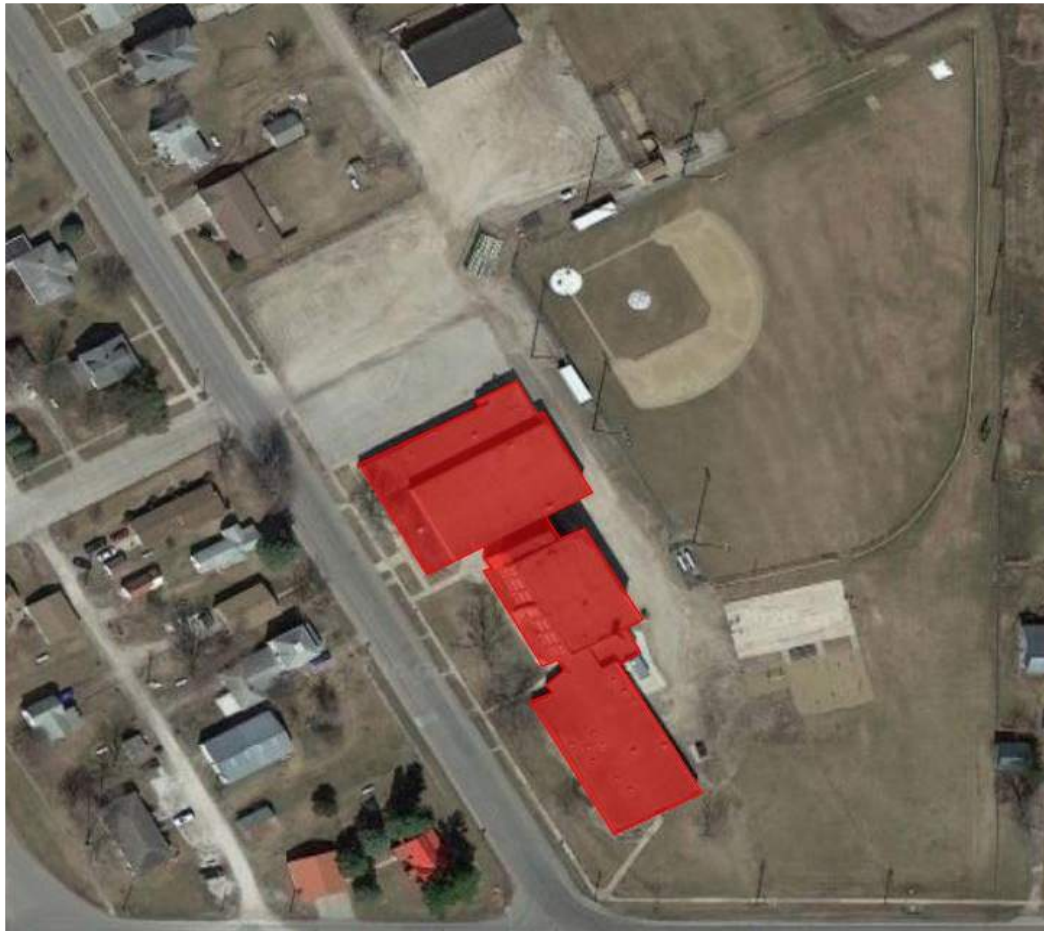


Existing conditions



Example of new eyewash station

GILMAN MIDDLE SCHOOL



Gilman Middle School

225 South Elm Street
Gilman, Iowa 50106

Type: Three Story
Masonry

Original Construction: 1922

Additions: 1958 & 1983

Current Grades: 4 - 8

Enrollment: 333

Building Area: 47,682 sf

Current Square Feet per Student: 143 sf

Region Average for Middle School:
184 sf per student

Source: *School Planning and Management*
20th Annual School Construction Report

SAFETY & SECURITY

1.01 Abatement

ASSESSMENT

Multiple classrooms flooring are vinyl asbestos tile (VAT) which does not comply with current building code requirements.

SOLUTION

Encapsulate asbestos containing material by applying new floor over the existing tile (lower cost), or remove the tile and adhesive, and provide a new flooring material (higher cost).

Approximately 3,964 square feet

PROBABLE COST RANGE

\$17,526 - \$58,421



Existing asbestos containing floor tile

SAFETY & SECURITY

1.02 New Accessibility Upgrades

ASSESSMENT

Restrooms throughout the facility do not meet ADA requirements (shower stalls, urinals, water closets, drinking fountains). Knob type door handles are not ADA compliant. Bleachers do not have ADA seating. Sinks in restrooms do not have lavatory guards on pipes. No handicap access to stage.

SOLUTION

Renovate the restrooms(re-work shower stalls, new urinal, new water closet) to meet ADA requirements. Provide dual height drinking fountains, replace the knob type handles with lever action. Modify 20 bleacher seats for ADA compliant seating area. Provide lavatory guards at restroom sinks. Provide new stair climber.

3 doors, 4 water fountains, 9 shower stalls, 1 urinal, 1 water closet. 1 stair climber

PROBABLE COST RANGE

\$180,411 - \$255,656



Existing conditions



Example of new ADA compliant fountain

SAFETY & SECURITY

1.03 New Code Compliance Upgrades

ASSESSMENT

Handrails and guardrails throughout the facility do not meet current building code. Wire glazing is located at multiple locations throughout the facility. Door frames are not fire rated but have fire rated doors at multiple locations.

SOLUTION

Modify the existing handrails and guardrails to meet code (lower cost) or replace with new (higher cost). Replace wire glazing with code compliant glazing. Provide hollow metal frames at wood frames that are not fire rated.

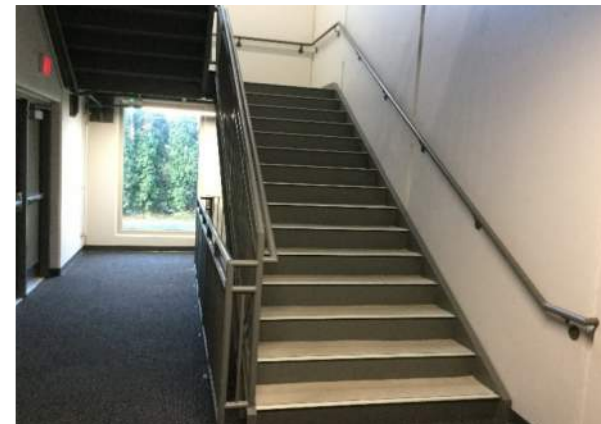
Approximately 440 lineal feet of handrails, 25 square feet of glazing, 27 door frames

PROBABLE COST RANGE

\$211,422 - \$383,350



Existing conditions



Example of new code compliant railing

SAFETY & SECURITY

1.04 New Fire Suppression Upgrades

ASSESSMENT

Facility does not have a fire-suppression system and current fire alarm system does not meet current code.

SOLUTION

Provide a new wet sprinkler system throughout the facility and update fire alarm system.

Entire facility

PROBABLE COST RANGE

\$351,011 - \$421,213



Existing conditions



Example of new fire alarm system

BUILDING IMPROVEMENTS

2.01 New Finishes

ASSESSMENT

The existing facilities interior floor, wall, and ceiling finishes are near end of useful life in select locations (classrooms, cafeteria, locker rooms). Cabinets have reached or are nearing end of useful life. Locker Room finishes are end of useful life.

SOLUTION

Remove and replace floor and ceiling finishes in select locations (classrooms, cafeteria, locker rooms). Refinish walls in rooms and where paint is peeling due to water infiltration. Remove the affected cabinets and replace with new. Update locker room finishes (walls, ceilings, floors).

Approximately 3,500 square feet

PROBABLE COST RANGE

\$229,078 - \$395,787



Existing conditions



Example of new finishes

BUILDING IMPROVEMENTS

2.02 New Heating, Ventilation & Air Conditioning Systems

ASSESSMENT

Heat control is an issue throughout entire facility. The boiler and gym unit heaters have reached end of useful life. Facility is not air conditioned. There are un-insulated pipes. Art room kiln is not exhausted and should not be in classroom.

SOLUTION

Provide a new building automation system to control temperature, a new boiler and air conditioning system. Provide new gym unit heaters with more efficient models. Insulate piping to provide improved energy efficiency. Relocate kiln and provide exhaust.

Entire facility

PROBABLE COST RANGE

\$2,354,944 - \$2,541,926



Existing conditions



Example of new system

BUILDING IMPROVEMENTS

2.03 New Lighting

ASSESSMENT

Lamps for light fixtures are fluorescent. No occupancy sensors are installed at light fixtures.

SOLUTION

Replace existing light fixtures with new energy efficient LED fixtures/lamps. Update lighting controls using occupancy sensors and daylight harvesting.

Approximately 75% of facility

PROBABLE COST RANGE

\$154,592 - \$176,676



Existing conditions



Example of new LED lighting

BUILDING IMPROVEMENTS

2.04 New Theatrical Lighting and Rigging System

ASSESSMENT

Stage light fixtures have reached end of useful life. The existing rigging system does not meet current standards. Stage curtains are worn and dated.

SOLUTION

Provide new stage lighting, curtains and rigging system.

1 location

PROBABLE COST RANGE

\$206,122 - \$294,460



Existing conditions



Example of new lighting & rigging

BUILDING IMPROVEMENTS

2.05 New Electrical Upgrades

ASSESSMENT

Electrical distribution panels have outlived expected life cycle and parts are hard to acquire due to age. Electrical panel at stage has outlived expected life cycle. Electrical equipment located under kitchen exhaust hood are not shunt trip protected. See IMEG report in section 8 for more details.

SOLUTION

Replace distribution panels with new. Provide new electrical panel at stage. Modify electrical components under the kitchen hood to be shunt tripped off on Ansul system activation.

Entire facility

PROBABLE COST RANGE

\$356,297 - \$374,700



Existing conditions



Example of new electrical panels

BUILDING IMPROVEMENTS

2.06 New Plumbing Upgrades

ASSESSMENT

Coaches' restroom does not have a functioning urinal and water closet.

SOLUTION

Provide new urinal and water closet.

1 location

PROBABLE COST RANGE

\$13,251 - \$17,668



Existing conditions



Example of new ADA compliant stall and urinal

LAUREL ELEMENTARY SCHOOL



Laurel Elementary School

201 East Weissenburger
Laurel, Iowa 50141

Type: Single Story
Masonry

Original Construction: 1920

Additions: 1991, 2000, 2016

Current Grades: PreK - 3

Enrollment: 255

Building Area: 27,700 sf

Current Square Feet per Student: 108 sf

Region Average for Elementary School:
240 sf per student

Source: *School Planning and Management*
20th Annual School Construction Report

SAFETY & SECURITY

1.01 New Code Compliance Upgrades

ASSESSMENT

Knob type door handles do not meet ADA requirements. Select doors have reached end of useful life. Sinks in restrooms do not have lavatory guards on pipes. Wire glazing is not allowed per current building code. Current coiling counter door at cafeteria / kitchen is not fire rated. Door frames are not fire rated.

SOLUTION

Replace the knob type hardware with lever action hardware. Provide lavatory guards at restroom sinks. Replace existing non-compliant glazing with new safety rated or tempered glass. Provide fire rated coiling door and tie into the fire alarm system. Provide hollow metal frames over existing wood frames to achieve fire rating per code.

Approximately 50 lineal feet of railing, 60 square feet of glazing and 43 door frames

PROBABLE COST RANGE

\$40,494 - \$94,654



Existing conditions



Example of code compliant label

SAFETY & SECURITY

1.02 New Fire Suppression Upgrades

ASSESSMENT

Fire alarm system has reached end of useful life.
Portions of the building are not fully sprinkled.

SOLUTION

Provide new fire alarm system with voice notification. Provide sprinkler system within building for full coverage.

Entire facility

PROBABLE COST RANGE

\$203,914 - \$244,696



Existing conditions



Example of new fire alarm system

BUILDING IMPROVEMENTS

2.01 New Exterior Windows

ASSESSMENT

Exterior windows have single pane glazing which is not up to current code.

SOLUTION

Remove existing windows and frames, and provide new thermal insulated aluminum framed windows.

Approximately 525 square feet

PROBABLE COST RANGE

\$35,488 - \$47,255



Existing conditions



Example of new thermally broken window

BUILDING IMPROVEMENTS

2.02 New HVAC Controls and New Boiler

ASSESSMENT

Steam heating system has manual control. Trane through-wall units LAN boards are failing. Boiler has outlived expected life cycle. Only half of the facility is air conditioned.

SOLUTION

Provide new automated, electronic control system. Replace controls program in the Trane through-wall units. Provide new boiler. Provide new air conditioning system in portion of building with none.

Control units at all through wall units, air conditioning for approximately 13,850 square feet

PROBABLE COST RANGE

\$770,013 - \$871,602



Existing conditions



Example of new system

BUILDING IMPROVEMENTS

2.03 New Lighting

ASSESSMENT

Lighting in gymnasium and most of the school is comprised of fluorescent lighting. Occupancy sensors are not installed throughout school.

SOLUTION

Replace existing light fixtures with new energy efficient LED fixtures/lamps. Update lighting controls using occupancy sensors and daylight harvesting.

Approximately 15,500 square feet

PROBABLE COST RANGE

\$80,977 - \$106,742



Existing conditions



Example of new LED lighting

SITE IMPROVEMENTS

3.01 New Paving

ASSESSMENT

Existing entrance drive and parking area are gravel.

SOLUTION

Provide entrance drive and parking with asphalt (lower cost) or concrete (higher cost) pavement. Provide new storm sewer, and site lighting.

Approximately 29,729 square feet

PROBABLE COST RANGE

\$283,358 - \$461,288



Existing conditions



Example of new paving

DISTRICT ATHLETIC FIELDS



District Athletic Facilities

Football Stadium
IA-146 (2394 Zeller Avenue)
LeGrand, IA 50142

Softball Fields
201 North Franklin Street
LeGrand, IA 50142

Baseball Field
225 South Elm Street
Gilman, IA 50106

SAFETY & SECURITY

1.01 New Accessibility Upgrades

ASSESSMENT

Door handles at the softball complex are knob style. There is no concrete sidewalk for ADA patrons to access the concession/restroom facilities or an area to watch the games at softball/baseball field. No concrete walk leading to the home bleachers or concessions/restrooms at the football field. No ADA markings on football field home bleachers.

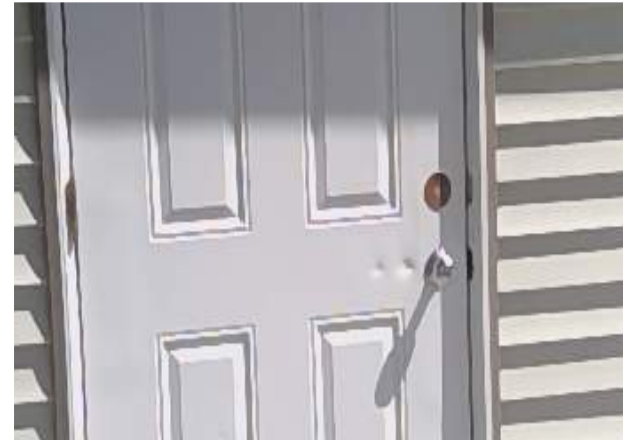
SOLUTION

Replace knob style handles with lever style handles for compliance with ADA. Provide new sidewalk to connect entrance to concession / restroom facilities and paved viewing area at softball/baseball fields. Provide new concrete walk leading to the concessions/restrooms and the ramp for ADA access to the home football bleachers. Provide ADA markings for seating on bleachers.

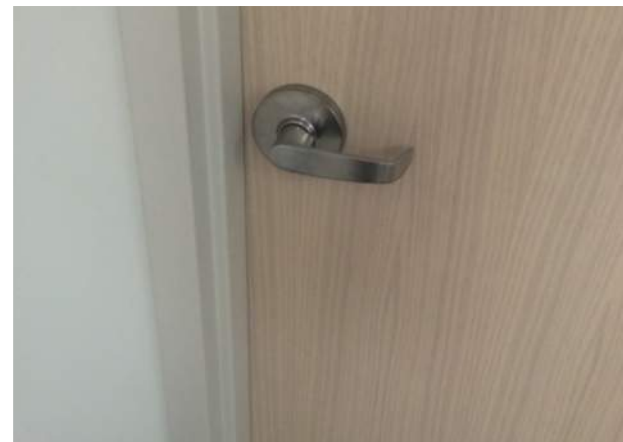
Approximately 3 doors, 50 lineal feet of paved sidewalk and a seating area of 500 square feet

PROBABLE COST RANGE

\$33,692 - \$50,632



Existing conditions



Example of new hardware

DISTRICT ATHLETIC FIELDS



SITE IMPROVEMENTS

1.02 New Athletic Fields Updates

ASSESSMENT

Goal posts, visitor bleachers and scoreboard are past expected life. No ADA markings on home bleachers. No bleachers at baseball field. The current discus / shot put field is several blocks from the track and would be more convenient if throwing field was located closer to the track / football field.

SOLUTION

Provide new goal posts and bleachers on visitors side of football stadium and new scoreboard and bleachers at baseball field. Relocate discus ring and throwing field near current bus barn, site is relatively flat.

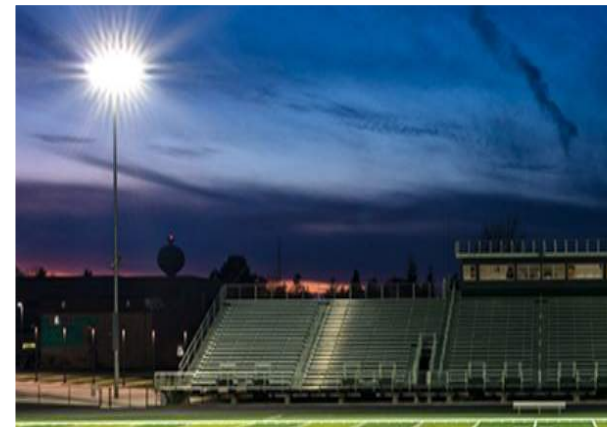
Approximately 2 goal posts and 250 bleacher seats at football field, 100 seat bleachers at baseball field, 52,500 square feet of discus field

PROBABLE COST RANGE

\$130,165 - \$179,475

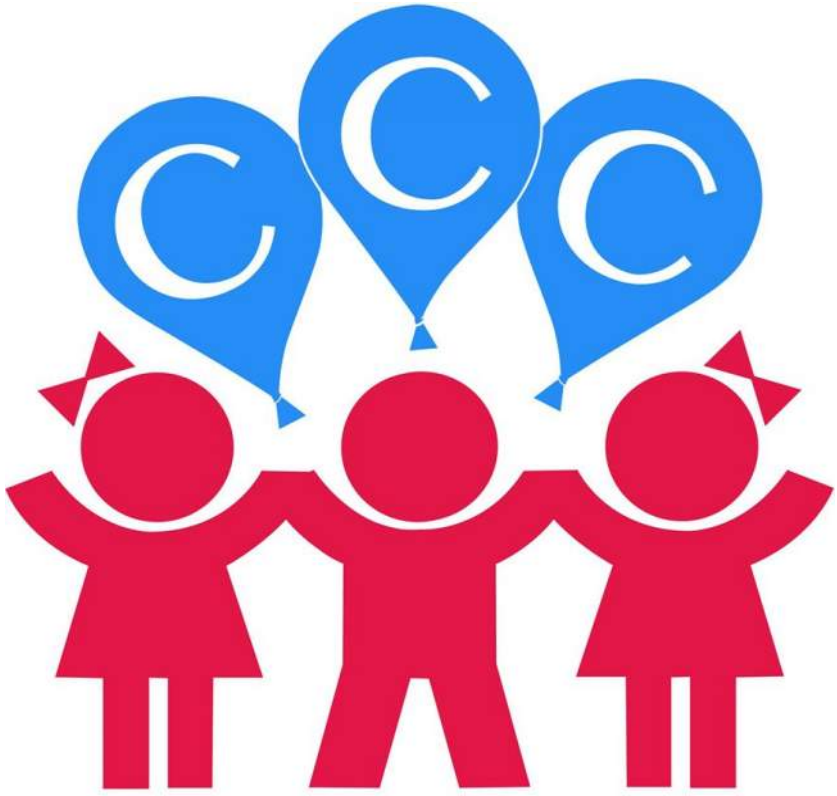


Existing conditions



Example of new bleachers

COMMUNITY CHILDCARE CENTER



Community Childcare Center

New Community Childcare Center

Location: TBD

Type: Single Story
Wood Framed, Masonry Skin and Asphalt
Shingled Roof

Estimated Enrollment: 100 children

COMMUNITY CHILDCARE CENTER



NEW FACILITIES

4.01 New Childcare Center

ASSESSMENT

The school district does not have a childcare center. The district is interested in building a center to benefit the surrounding communities.

SOLUTION

New single story wood framed brick veneer building with asphalt shingled roof planned for 100 children. Assumed 1 acre site and site utilities available at property line. 30 car gravel parking lot. Allowance of \$75,000 for playground equipment is included.



Example of new childcare facility

Approximately 5,500 SF to 7,000 SF facility

PROBABLE COST RANGE

\$1,581,434 - \$2,285,525



**EAST MARSHALL COMMUNITY SCHOOL DISTRICT
MEPT FACILITIES ASSESSMENT
Laurel, Gilman and LeGrand, Iowa**

SCOPE

The purpose of this report is to assess the condition of the mechanical, electrical, plumbing, and technology systems for East Marshall Community School District. This report contains a summary of existing conditions, recommendations, and probable construction costs.

This report is intended to relay information based on findings observed during our site visit as they pertain to potential scope of work items for the School District. Opinions of probable cost have been provided as a guide to aid in the project scope decisions.

FINDINGS

The Pre-School/Elementary School is in good condition. However, it only has air conditioning in 50% of the facility and we understand there is a need to have the facility 100% air conditioned. There are also some items that are at the end of their life cycle that should be put on a schedule for replacement. These items are identified in this report.

The Middle School is in average condition for its age and has a number of issues. There is no air conditioning in this facility and the heating system needs better control to provide more even heat throughout the facility.

The High School is in good condition, but is having issues with the through-the-wall heat pumps and not all of the facility is air conditioned. The fire alarm system needs to be upgraded. Emergency lighting is also an area that needs improvement.

Technology in all buildings appeared to be up to date and no concerns were reported.

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Des Moines, Iowa 50322

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EXISTING CONDITIONS

Pre-School/Elementary School

The fire alarm system in the building is an older zone-type system that has outlived its life cycle. We recommend that this be replaced with a new addressable system with voice notification to meet code. Depending on the Authority Having Jurisdiction (AHJ) in the area, a fully sprinkled building may be required if upgrading the fire alarm system.



Fire Alarm Panel

The steam heat has manual control. The units would be better controlled with an automated, electronic control system. This would also allow the building maintenance engineer to adjust the temperatures from a computer. It will not help with uneven heat.



Boilers at North Mechanical Room

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EXISTING CONDITIONS, CONTINUED

Pre-School/Elementary School, Continued

The control boards on the Trane through-the-wall units are failing. The boards cost \$2,000 to replace and do not give the desired control. We recommend the school contact a controls contractor to address this. We discussed with Woodman Controls in Des Moines who believes they can help with this issue.



Trane Through-the-Wall Unit

Restrooms also do not meet current ADA standards for handicapped access. There are no lavatory guards on the pipes under the sinks.



Sinks not to ADA Standards

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EXISTING CONDITIONS, CONTINUED

Pre-School/Elementary School, Continued

Steam unit heater in gym has outlived its life cycle and should be replaced with a more energy efficient heater.



Gym Steam Unit Heater

There is fluorescent lighting in the gym and most of the school. Better and more efficient LED lighting should be considered to replace the old fluorescent lighting; this would include the rest of the school. Use LED replacement lamps.



Fluorescent Lighting

Tables are blocking access to the electrical panels and are creating a code violation. Code requires 36" clearance in front of panels for accessibility. No cost on this as it is a housekeeping issue.



Electrical Panels

Occupancy Sensors should be added to classrooms and restrooms.

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EXISTING CONDITIONS, CONTINUED

Pre-School/Elementary School, Continued

The electrical equipment under the exhaust hood is not shunt tripped off on Ansul activation. This is required per current code, but does not need to be done unless a kitchen upgrade is done.



Electrical Equipment Under Kitchen Exhaust Hood

Per current code, all receptacles in the kitchen shall be GFCI protected. If a kitchen upgrade is done, these receptacles would need to be changed to GFCI.



Non-GFCI Receptacles in Kitchen

The boilers have outlived their life cycle and should be put on a schedule to be replaced.



Boiler

The emergency boiler shut down is a typical light switch and should be a mushroom-head type, so that it does not get shut off by accident.



Boiler Emergency Shut-off Switch

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T 515.334.9906

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EXISTING CONDITIONS, CONTINUED

Pre-School/Elementary School, Continued

The restrooms in the older part of the facility do not meet current ADA standards. There are no lavatory guards on the pipes under the sinks.



Sink Without Lavatory Guard

Building is only partially air conditioned. Air condition remainder of the building.

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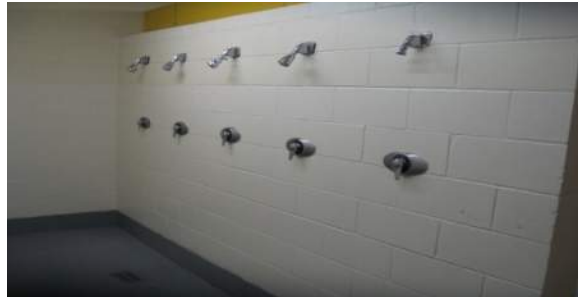
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EXISTING CONDITIONS, CONTINUED

Middle School

The locker room showers are not ADA compliant. Gang type showers do not meet ADA Standards; individual shower stalls are now required. This would not need to be updated until a renovation is done. Price is for replacing all fixtures.



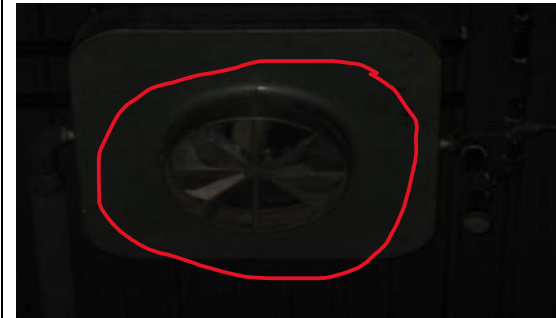
Locker Room Showers

The lavatories do not meet current ADA standards, as they do not have pipe guards under the sink.



Locker Room Lavatory

The gym steam unit heaters have outlived their life cycle and should be scheduled for replacement with a more energy efficient model.



Steam Unit Heater in Gym

The electrical panel on the stage has outlived its life cycle. These panels have not been made since the early 1970's and should be replaced as parts are hard to find.



Breaker Panel

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EXISTING CONDITIONS, CONTINUED

Middle School, Continued

The stage lighting has outlived its life cycle and should be scheduled for replacement.



Stage Lighting

There are three water fountains that we saw the do not meet current ADA standards. We recommend that these be scheduled for replacement.



Water Fountain

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Coaches restroom does not have a functioning urinal and the water closet does not meet current ADA Standards.



Coaches Room



EXISTING CONDITIONS, CONTINUED

Middle School, Continued

Heat control in this room is very uneven due to the uninsulated pipes, consistently giving off heat. Recommend insulating pipes.



Uninsulated Pipes



Uninsulated Pipes

Room heat is very uneven. This condition is typical with steam heat in large rooms with the heaters on one side of the room. Electronic control would allow better control of the system, but will not help with uneven heat.



Room Steam Heat

The restroom sinks do not meet ADA standards. Pipes under the sinks do not have lavatory guards on them and the faucets are not bath-handle type. These would need to be replaced if there is an upgrade to the restrooms.



Restroom Lavatory

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EXISTING CONDITIONS, CONTINUED

Middle School, Continued

Per the ASCIP (Alliance of Schools for Cooperative Insurance Programs) a kiln should not be operated in a classroom. Kilns put off a lot of heat, and even with an exhaust hood, could give off harmful fumes when opened. It is not good practice to put kilns in the classroom. The kiln and associated exhaust and electrical should be moved to another room. See Estes to enclose or make a room for this.



Kiln in Classroom

We were informed that the through-the-wall heaters are noisy and give uneven heat in the room.



Through-the-wall Unit Ventilator

The building has humidity issues causing damage to the facility. New HVAC System



Dehumidifier

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Des Moines, Iowa 50322

T 515.334.9906

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EXISTING CONDITIONS, CONTINUED

Middle School, Continued

There are several cover plates missing in the art room. This creates a safety hazard and a code violation.



Receptacles Without Cover Plates

The eyewash by the sink is blocked by a chemical rack. Should consider having a combination eyewash/shower.



Eyewash Blocked

Restroom does not meet ADA standards; there are no lavatory guards on the pipes under the sink.



Sink Without Lavatory Guard

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EXISTING CONDITIONS, CONTINUED

Middle School, Continued

There is no ground jumper on the water meter. This is an electrical code violation. There should also be a backflow preventer.



Missing Jumper on Water Meter

The boiler has outlived its life cycle and should be replaced.



Boiler

There is no emergency stop button at the boiler room outside the entry/exit. This is a code violation at two doors.



No E-stop Button at Door Entry/Exit

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EXISTING CONDITIONS, CONTINUED

Middle School, Continued

The electrical distribution panel has outlived its life cycle and should be scheduled for replacement. While parts are currently still available, it should be replaced in the future. Replace all the old panels.



Electrical Distribution Panel

The kitchen exhaust hood has electrical equipment under the hood. Current code calls for the electrical appliances under the hood to be shunt tripped off on Ansul system activation.



Electrical Appliances Under Hood

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EXISTING CONDITIONS, CONTINUED

Middle School, Continued

Receptacle in kitchen shows signs of high heat. It probably has a loose connection causing it to build heat. It should be replaced before it causes problems.

Robb (with CSD) stated he would have this changed.



Receptacle Shows Signs of High Heat

The fire alarm system appears to have been replaced at one time. However, it does not meet code. The building has no sprinkler system and should have a full smoke detection system in place. Many of the classrooms do not have smoke detection. Depending on the AHJ when updating the fire alarm, they may require that a sprinkler system be installed.



Room Showing no Smoke Detection

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EXISTING CONDITIONS, CONTINUED

Middle School, Continued

Light at outside entrance should have a wire guard or be an enclosed fixture instead of an exposed light bulb.



Light Outside Entrance

There could be energy savings on lighting with the use of occupancy sensors and LED fixtures, or lamp replacement, with removing the ballast.

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EXISTING CONDITIONS, CONTINUED

High School

Restrooms are not ADA compliant.



Restroom Sinks

Emergency lighting is not up to code. There are some wall packs but not as many as there should be.



Corridor with no Emergency Lighting

There is no smoke detection in many of the rooms. Code requires either a sprinkled or fully smoke detected building. Many of these classrooms do not have smoke detection.



Classroom Without Smoke Detection

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EXISTING CONDITIONS, CONTINUED

High School, Continued

There is no backflow preventer on the water entrance for domestic water and there is no ground jumper wire around the water meter.



Water Meter

There are two science classrooms and one emergency gas shutoff that feeds both rooms. Each room should have its own emergency gas shut off.



Science Room Without Emergency Gas Shut Off

The control boards on the Trane through-the-wall units are failing. The boards cost \$2,000 to replace and do not give the desired control. We recommend the school contact a controls contractor to address this. We discussed with Woodman Controls in Des Moines who believes they can help with this issue. Circuit boards would need to be changed out and then new controls.



Through-the-wall Unit

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EXISTING CONDITIONS, CONTINUED

High School, Continued

There is no emergency shower in the science classrooms and the eyewash station that is there does not have tempered water. This does not meet the current code. It should have an emergency eyewash/shower in each room, with tempered water.



Science Room Without a Combination Eyewash/Shower

There are no exhaust hoods over the range.



No range Exhaust Hood

The boiler was installed in 2008 and is nearing the end of its life cycle. It should be scheduled to be replaced in the next 5 to 10 years.



Existing Boiler

Access to the panels is blocked which is a code issue. No cost housekeeping issue.



Table Blocking Access to Panels

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EXISTING CONDITIONS, CONTINUED

High School, Continued

The automatic soap/chemical cleaning dispenser is connected to a faucet that does not have a vacuum breaker on it. If the water were left in the on position, the soap/chemical could contaminate the domestic water supply.



Faucet without a vacuum breaker

The light fixtures have older fluorescent lamps. Energy could be saved with using LED lamps or LED fixture, occupancy sensor should also be added.



Old Fluorescent Light Fixture

The facility has steam heat with manual control. Electronic control would allow facility maintenance to change the temperature without going into the classrooms.



Radiator with Manual Control

There is a pipe in the middle of the floor that creates a trip hazard.



Pipe in Middle of Floor

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EXISTING CONDITIONS, CONTINUED

High School, Continued

This is an old Federal Pacific electrical panel. Parts have not been made for this since the early 1970's and parts are getting hard to find. This panel should be scheduled for replacement soon.



Federal Pacific Electrical Panel

Stage lighting has outlived its life cycle and should be scheduled to be replaced.



Stage Lights

This is another old Federal Pacific electrical panel that needs to be replaced. We assume that duct tape was used because a blank filler plate is no longer available. This is a code issue. This panel should be scheduled for replacement.



FPE Electrical Panel

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T 515.334.9906

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EXISTING CONDITIONS, CONTINUED

High School, Continued

There does not appear to be a balancing damper in any of the ducts going to the welding stations. This can cause one station to work well and others will not.



Needs Balancing Damper at Each Station

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