



ADAMS-FRIENDSHIP AREA SCHOOL DISTRICT



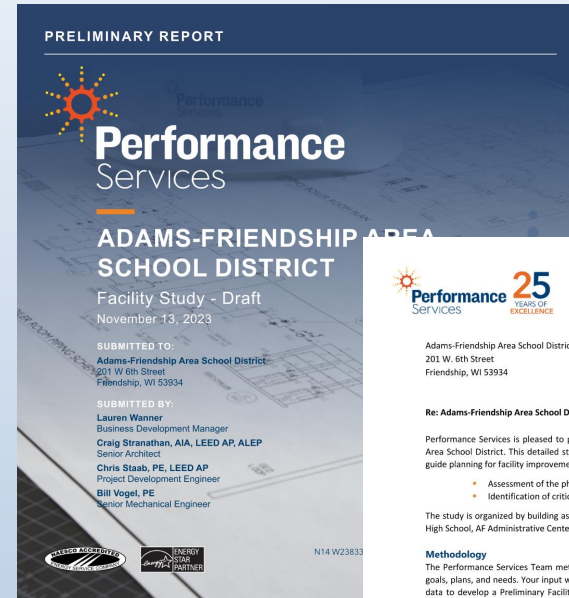
- Established in 1998 to serve K-12 Schools
- Integrated design and delivery projects
- 605+ projects
- \$2.2 billion in project value
- \$300M Bonding Capacity
- 220 employees in ten states
- 145 ENERGY STAR Certified buildings
- \$167M in cumulative energy savings for customers
- 1 Focus: 100% Customer Satisfaction

Commitment to 100% Customer Satisfaction

High Performing Building Specialist



- Key findings and recommended solutions
- Equipment inventory
- Condition of equipment
- Lifecycle evaluation
- Utility analysis
- Priority checklist for building improvements



Adams-Friendship Area School District
201 W. 6th Street
Friendship, WI 53934

November 13, 2023

Re: Adams-Friendship Area School District Study

Performance Services is pleased to present a Facility Conditions Assessment for the Adams-Friendship Area School District. This detailed study provides data to the Adams-Friendship Area School District to guide planning for facility improvements and provides data and analysis in the following areas:

- Assessment of the physical condition of facilities
- Identification of critical physical condition improvement needs

The study is organized by building assessment in separate tabs for AF Elementary, AF Middle School, AF High School, AF Administrative Center, AF Storage Facility, AF Bus Facility, and AF Outdoor Athletics.

Methodology

The Performance Services Team met with the Adams-Friendship Area School District to discuss facility goals, plans, and needs. Your input was considered along with our site visits and engineering analysis of data to develop a Preliminary Facility Conditions Report to address the objectives of the District. Our skilled team of Architects, Engineers, Building Envelope Specialists, and Drone Pilots visited the site, recording the existing conditions of the facilities. They then compiled the following report noting needs and potential improvements to consider.

Goal

Our Preliminary Facility Conditions Report intends to identify opportunities and offer solutions to save district facilities, will incorporate lan.

Preliminary Recommendations												
Adams-Friendship School District												
Energy Conservation Measures	Location	Location	Location	Location	Location	Location	Location	Location	Location	Location	Location	ECM Category
Description	Elementary School	Middle School	High School	District Office	Storage Facility	Bus Facility	Outdoor Athletics Facilities	SPED/IT Center	Conservation/Resource	Capital Improvement	Comfort	Renovation/Equipment
Site Paving												Exterior Work
Playground Areas		N/A	N/A	N/A	N/A	N/A	N/A					Exterior Work
Athletic Surfaces	N/A	See Outdoor Athletics	See Outdoor Athletics	N/A	N/A	N/A						Exterior Work
Exterior Walls							N/A	✓	✓	✓	✓	Building
Exterior Openings							N/A	✓	✓	✓	✓	Building
Roofs							N/A	✓	✓	✓	✓	Building
Structural Repair												Building
Flooring							N/A	✓	✓	✓	✓	Building
Interior Walls							N/A	✓	✓	✓	✓	Building
Interior Doors							N/A	✓	✓	✓	✓	Building
Interior Ceilings							N/A	✓	✓	✓	✓	Building
Accessibility								✓	✓	✓	✓	Building
Safety/Security							N/A	N/A	N/A	✓	✓	Building
Remote Learning Infrastructure				N/A	N/A	N/A	N/A	✓	✓	✓	✓	Behavioral
High-Efficiency Boiler/WH Plant Upgrades					N/A	N/A	N/A	✓	✓	✓	✓	Mechanical
High-Efficiency Chiller/CWH Plant Upgrades	N/A	N/A		N/A	N/A	N/A	N/A	✓	✓	✓	✓	Mechanical
BE Equipment (Packaged or Split) Improvements						N/A	N/A	✓	✓	✓	✓	Mechanical
Rooftop Unit Improvements	N/A					N/A	N/A	✓	✓	✓	✓	Mechanical
Air Handling Equipment Improvements				N/A	N/A	N/A	N/A	✓	✓	✓	✓	Mechanical
Terminal Unit Improvements					N/A	N/A	N/A	✓	✓	✓	✓	Mechanical
Replace Aging Control System					N/A	N/A	N/A	✓	✓	✓	✓	Controls
LED Lighting and Occupancy Sensor					N/A	N/A	N/A	✓	✓	✓	✓	Lighting
Electrical Distribution Upgrades					N/A	N/A	N/A	✓	✓	✓	✓	Electrical
Domestic HW Heater Replacement					N/A	N/A	N/A	✓	✓	✓	✓	Mechanical
Priority: Based on savings impact and/or customer input	Low	Medium	High									

Wisconsin 53168
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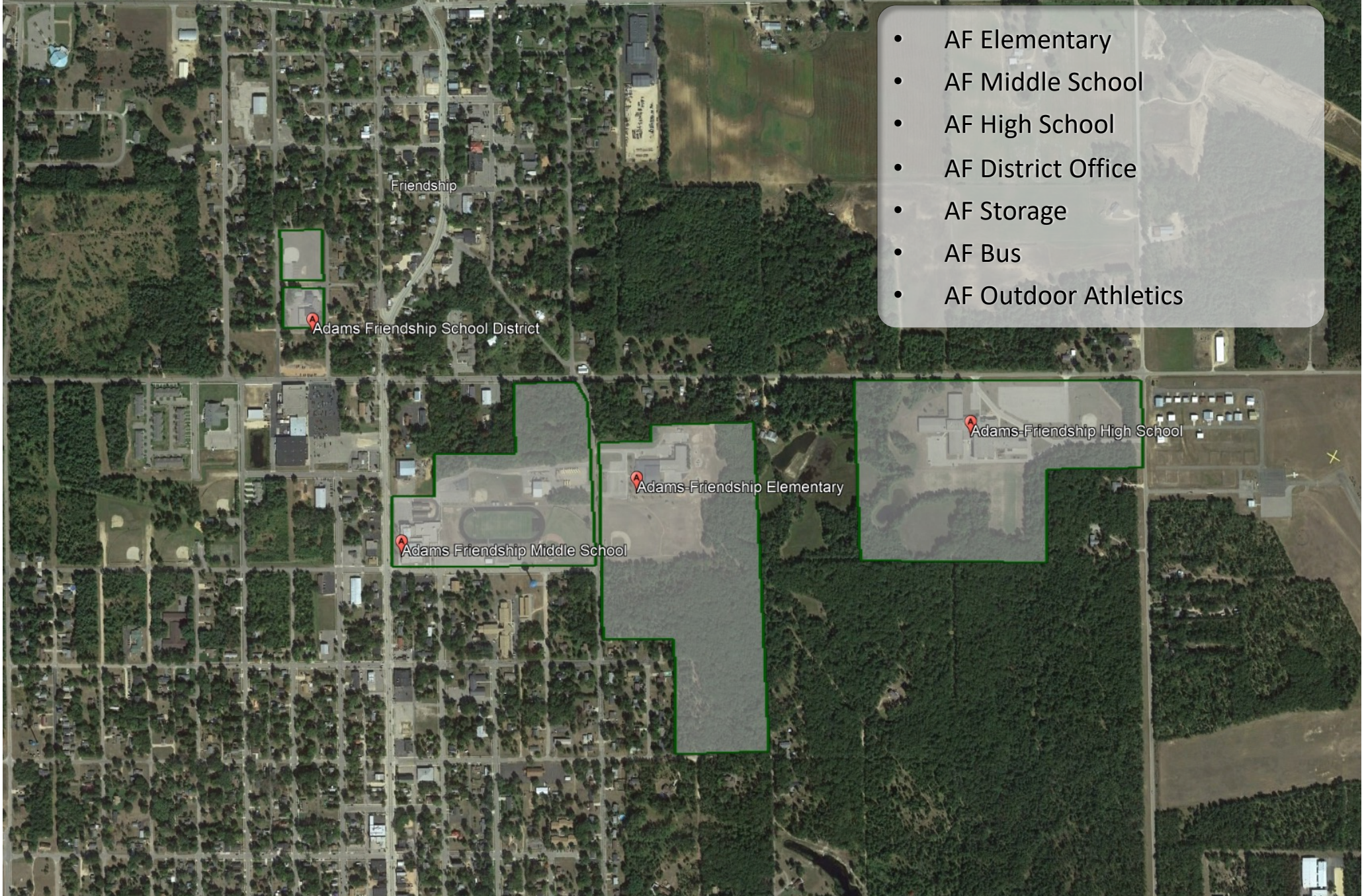
- Drone flights | Drone Deploy
- 360° Imagery | StructionSite

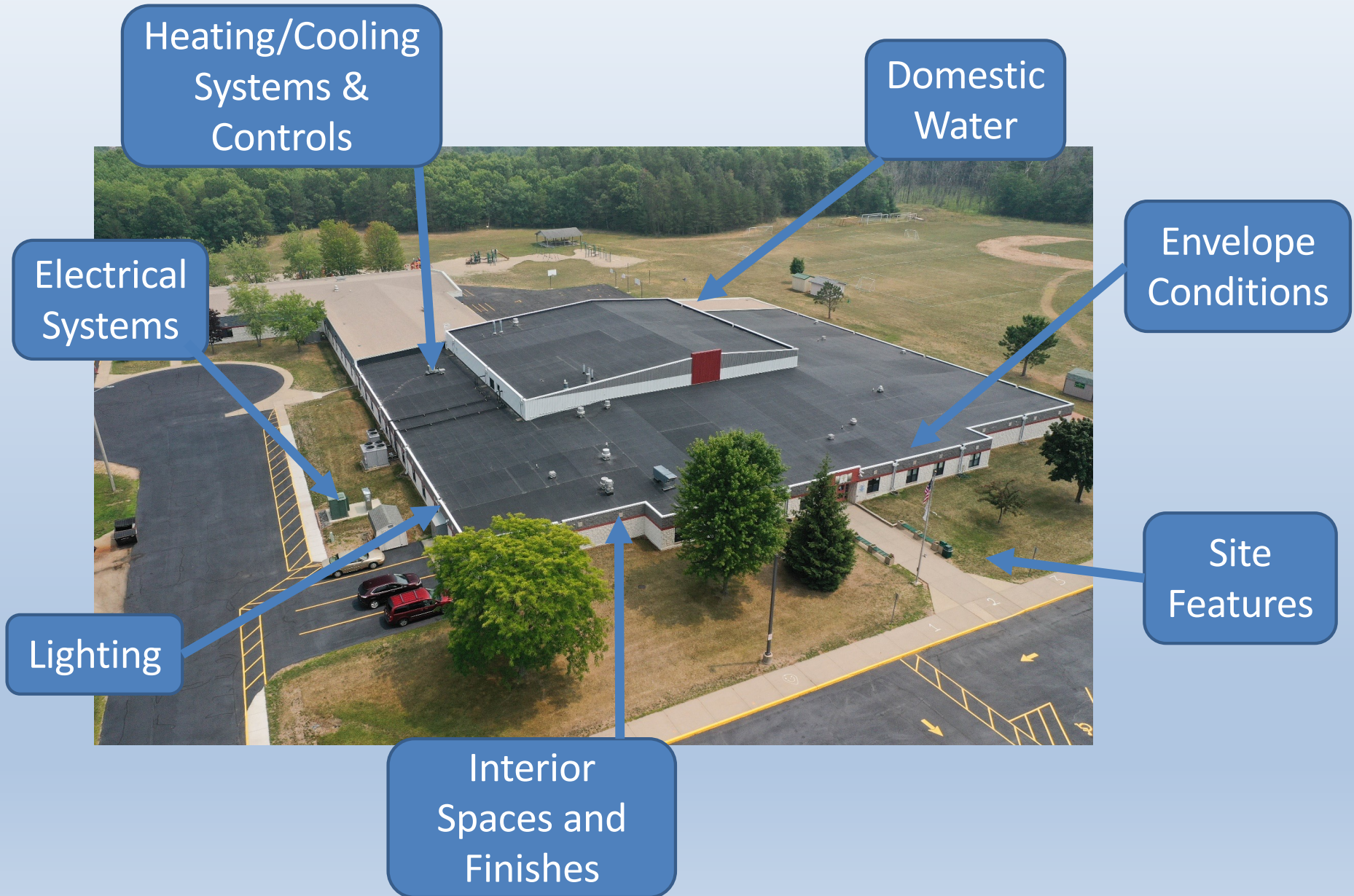


District's Facility Locations



- AF Elementary
- AF Middle School
- AF High School
- AF District Office
- AF Storage
- AF Bus
- AF Outdoor Athletics







- Current Information about Facility
- Year Constructed
- Grades Served
- Annual Building Energy Use Intensity

Performance Services

FACILITY STUDY FOR
Adams-Friendship Area School District

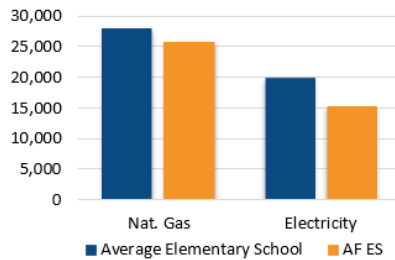
Adams-Friendship Elementary School



Building Performance:

Building Area (est):	64,000 SF	
Annual Electric Cost:	\$39,497	\$0.62/SF
Annual Gas Cost:	\$3,907	\$0.06/SF
Total Utility Cost:	\$43,404	\$0.68/SF
Electric Usage Intensity:	15,285 BTU/SF	
Gas Usage Intensity:	25,738 BTU/SF	
Total Energy Intensity:	41,023 BTU/SF	

Average Usage vs. AF ES (EUI)



Building Overview:

Adams-Friendship Elementary School is a 64,000 square foot, EC-4th Grade facility with approximately 466 students and 82 Staff. The building is on a large, open, but partially wooded site near residential areas in Adams.

The original school was built in 1991 as a Middle School. Still, by constructing the high school, moving the middle school to the old high school, and consolidating other



■ 1991
■ 1997



- Parking Lots
- Sidewalks
- Site Drainage

Site Features & Improvements

Site Adequacy:

Site Size

- The site for Adams-Friendship Elementary School is approximately 22.9 acres of athletic fields, open green space, playground space, and some wooded area.



▲ *Site Conditions:*

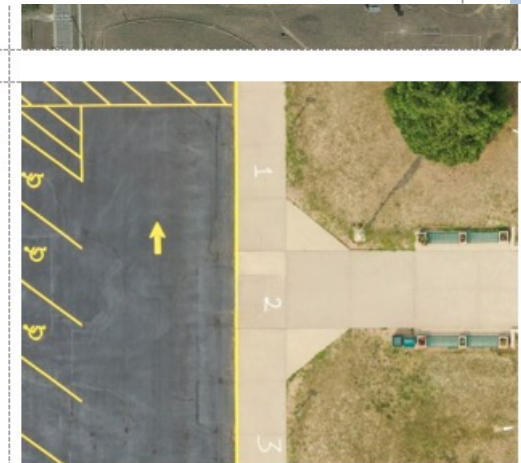
Topography

- The site's topography is relatively flat, lending to the building's single-story design.

Soil/Drainage

- Generally, the site is appropriately drained for stormwater runoff; however, one playground is noted for collecting water at

- The site has appropriate curb cuts and accessible pathways. Because of the site's reasonably flat nature, no ramps or stair structures are required for access.



- Exterior Façade
- Roofs
- Windows
- Doors

Building Envelope & Structure

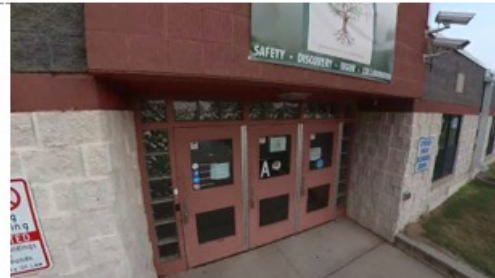
Exterior Wall Condition

- The foundation has no observable cracks or failures noted.

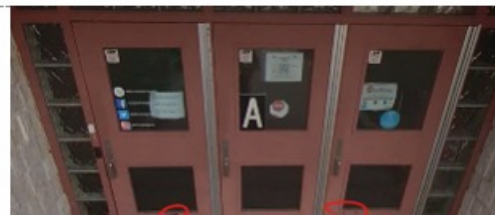


Entrances and Exits

- Exterior doors allow for efficient entry and exit for arrival/dismissal and recess purposes.
- Entrances are minimally sheltered from the sun and weather.



- Most doors are in good working condition, free of deterioration.
- The main entry door has some rusting evident, and the paint has faded significantly. Consider repairing or even replacing the door and frame.





- Interior Walls
- Doors
- Flooring
- Ceilings
- Sound Quality

Interior Spaces & Finishes

Building Safety:

Secure Entry Sequence

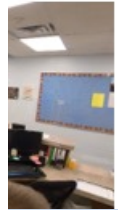
- The building does have a secure vestibule sequence that directs visitors into the office prior to releasing them into the school. The visibility of the approach to the front door is limited.



Circulation and Public Spaces:

Corridor Navigation / Wayfinding

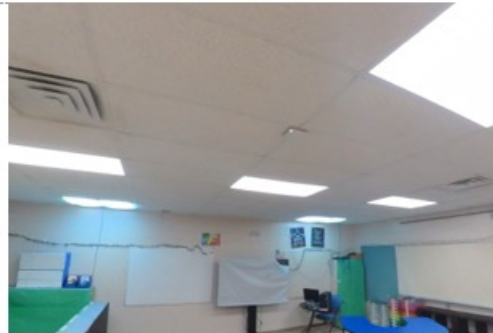
- The building splits off from the commons into two wings, which keeps circulation simple if you know which wing your destination lies in.
- Recommend a directory sign pointing toward grade levels and specials classes.



Finishes

Classroom Ceilings

- Classroom ceilings are in good condition but are showing signs of sagging.





- Heating Systems
- Temperature Control

Central Heating System

Existing Conditions:

The building has a single heating plant which was upgraded in 2020.

- (3) Thermal Solutions condensing boilers
 - In good condition
 - Average service life is 20 years
- Boiler circulation pumps are provided as part of each boiler
 - In good condition
 - Manufactured by Taco
 - Pumps are constant volume
 - In good condition
 - Average service life on inline pumps is 10 years
- Main heating water pumps are variable speed pumps
 - (2) pumps manufactured by Taco
 - In good condition





- Cooling Source
- Distribution

Central Cooling System

Existing Conditions:

- No central cooling system present. Split DX air-cooled condensing units tied to air handling units provide cooling to various areas of the building.
- (5) Air Cooled Condensing Units serve Air Handling Units
 - Manufactured by Trane and Carrier
 - (1) R410A unit installed in 2016 / 7 years old
 - (4) R410A units installed in 2019 / 4 years old
 - In good condition
 - Average service life of condensing units is 20 years
- (1) Ductless Minisplit System serving Room 189
 - In fair condition
 - Average service life is 15-20 years
- (1) Indoor Packaged Air Conditioning Unit serving Room 116
 - In fair condition
 - Average service life is 15-20 years



Recommendations:



- Heating Source
- Softeners Present
- Distribution

Domestic Water System

Existing Conditions:

- ✓ The water heaters and circulation pump were replaced in 2013 and are in good condition.
 - Average service life is 20 years.



Recommendations:



Electrical

- Electrical Distribution and Capacity
- Emergency Power

Lighting

- Type
- Levels
- Controls

Electrical

Existing Conditions:

- ✓ Electrical service is 208V/3 phase, 1600A



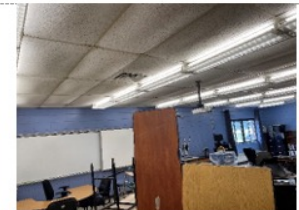
- ✓ Main Distribution Panel inside the building is rated for 800A
 - Installed in 2022
 - In good condition



Lighting

Existing Conditions:

- ✓ Building lighting is fluorescent lighting.



Recommendations:

- ✓ Replace remaining fluorescent lighting with LED.
- ✓ New LED lighting will provide more consistent lighting levels and allow for programming to meet changes required in the space. The onboard daylighting sensors will automatically dim fixtures to maintain the programmed lighting levels as the outdoor light becomes brighter throughout the day. The sensors will also increase the lighting output levels to maintain programmed light levels in the mornings and afternoons. The onboard occupancy sensors will automatically save

HVAC Equipment Inventory



Adams-Friendship Elementary School												
Building HVAC Equipment Inventory												
Equipment	Make	Model	Quantity	Installed Year	Age	Expected Useful Life	Condition	Targeted Replacement Date				Outstanding Issues and/or Notes
								1-2 Years	2-5 Years	5-10 Years	10+ Years	

HW Boiler (B-1)	Thermal Solutions	AMP-12										
HW Boiler Pumps	Taco	Inline										
HW System Pumps	Taco	Base M										
Domestic HW Heater	AO Smith	BTH-25C										
Domestic HW Recirc Pump	B&G	Inline										
HW Duct Heating Coils	Various	Various										
HW Cabinet Unit Heater	Various	Various										
HW Convactor	Various	Various										
Electric Duct Heater												
Computer Room Air Conditioner	Liebert											
Computer Lab Unit (CRU-1)												
Condensing Unit for CRU-1 (CU-1)	Trane	4TTA30										
Exhaust Fans	Various	Various										
Mini Split Indoor Unit												
Mini Split Condensing Unit												

Adams-Friendship Elementary School												
Building HVAC Equipment Inventory												
Equipment	Make	Model	Quantity	Installed Year	Age	Expected Useful Life	Condition	Targeted Replacement Date				Outstanding Issues and/or Notes
								1-2 Years	2-5 Years	5-10 Years	10+ Years	
Gym AHU Fan			1	1991	32	30		✓				Could not access
Gym AHU HW Coil			1	1991	32	30		✓				Could not access
Gym AHU DX Coil			1	2019	4	20					✓	Could not access
Condensing Unit for Gym AHU (DX-2)	Carrier	38APD030	1	2019	4	20	Good				✓	
Classroom AHU Fan			1	1991	32	30		✓				Could not access
Classroom AHU HW Coil			1	1991	32	30		✓				Could not access
Classroom AHU DX Coil			1	2019	4	20					✓	Could not access
Condensing Unit for Classroom AHU (DX-1)	Carrier	38APD060	1	2019	4	20	Good				✓	
Air Handling Unit (AHU-1)	Trane	MCCA040	1	1997	26	30	Good		✓			HW Heat and DX Cooling
AHU-1 DX Coil			1	2019	4	20	Good				✓	
Condensing Unit for AHU-1 (DX-3)	Carrier	38APD040	1	2019	4	20	Good				✓	
Air Handling Unit (AHU-2)	Trane		1	1997	26	30			✓			HW Heat and DX Cooling located above Room 129
AHU-2 DX Coil			1	2019	4	20					✓	
Condensing Unit for AHU-2 (DX-4)	Carrier		1	2019	4	20	Good				✓	



Work with district and building leadership to:

- Determine additional programming needs.
- Review educational adequacy of current spaces.
- Develop Budgets for Solutions
- Develop Solutions that are right for Adam-Friendship
- Support the District's Community Engagement efforts



Department/Program and Staff	Course	Current		
		Room Number	Quantity	Sq Ft
MS/HS History			4	
Henrigillis	Hist 8, Am History	201		880
Reed	World History	206		746
Zischka	Govt, AP Euro	106		743
Zuehls	Area St, Career 8	204		830
HS Business			1	
Waara	Coll Acct, P/Pbus, Cons Man	403		1,313
Art			1	
Devroy	Painting, Drawing, Ceramics, Art 7 & 8, Adv Art	500		2,047
Choral			1	
Hickey	MS Chorus, HS Chorus	404		1,135
	stor			174
Band			1	
Shuffield	MS Band, HS Band	401		3,564
MS/HS Physical Ed/Health			2	
Morrell	Health/PE 7 & 8	304		
Schoenebeck	PE 1, Weight Tr	306		
Health Classroom			0	
Library/Media Center			1	

Proposed Capital Improvement Plan

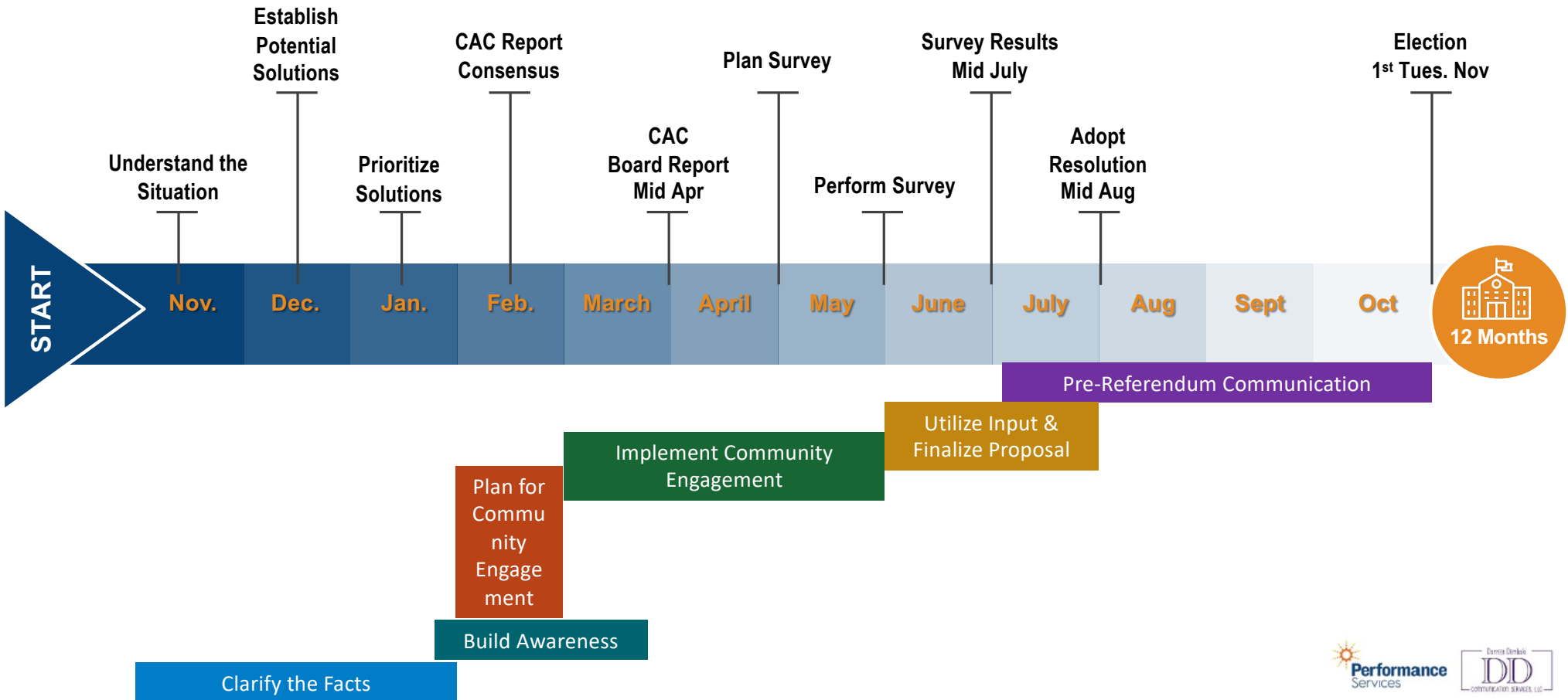


Performance Services		East Troy Community School District Improvement List June 29, 2022				
Scope Item	Priority Level	Improvement Summary	Estimated Budget Range (2023)		Estimated Budget with Project	
			Low	High	1 Year (2024)	2 Years (2025)
Little Prairie Elementary						
ECM-1	High	Review HVAC Controls and Add CO2 Controls * Review Hot Water reset curve * Review RTUs' discharge air temperature reset curves * Add system level CO2 control of RTUs' outside air dampers	\$ 106,622	\$ 127,335	\$ 137,522	\$ 147,148
ECM-2	High	Replace Door #7	\$ 32,534	\$ 39,041	\$ 42,165	\$ 45,116
ECM-3	High	Replace Localized Roofing * Replace roofing at roof top units	\$ -	\$ -	\$ -	\$ -
ECM-4	High	Caulk Precast Panel End * Caulk and seal exposed insulation in precast concrete gym wall	\$ 7,836	\$ 9,403	\$ 10,156	\$ 10,866
ECM-5	High	Slab Crack Repair * Remove floor finish, repair slab, reinstall floor finish	\$ 56,797	\$ 68,156	\$ 73,608	\$ 78,761
ECM-6	High	Replace Locksets on Doors	\$ 34,495	\$ 41,394	\$ 44,705	\$ 47,835
ECM-7	High	Repair Gypsum Board Crack and Addition of Control Joints	\$ 38,234	\$ 45,881	\$ 49,551	\$ 53,020
ECM-8	High	Prep and Repaint all roof steel	\$ 45,202	\$ 54,243	\$ 58,582	\$ 62,683
ECM-9	Low	Acoustical Treatment * Library, Commons, and Gymnasium sound absorption	\$ 76,162	\$ 91,395	\$ 98,706	\$ 105,616
ECM-10	Medium	Add Solar PV Generation to Roof	\$ 100,096	\$ 120,115	\$ 129,725	\$ 138,805
Total for Little Prairie Elementary			\$ 497,469	\$ 596,963	\$ 644,720	\$ 689,850
High Priority Total			\$ 321,211	\$ 385,453	\$ 416,289	\$ 445,429
Medium Priority Total			\$ 100,096	\$ 120,115	\$ 129,725	\$ 138,805
Low Priority Total			\$ 76,162	\$ 91,395	\$ 98,706	\$ 105,616

Priority level listed above is specific to this facility. A District level list is to be developed with District's input. Estimated budgets are based on conservative estimate with each scope item as an independent project. Economies of scale may apply if similar projects can be grouped into

Questions?

Critical Milestones (Nov)



Critical Milestones (April)

