

PRESTON MIDDLE SCHOOL
4901 CORBETT DRIVE

POUDRE SCHOOL DISTRICT PRESTON MIDDLE SCHOOL

FACILITY CONDITION ASSESSMENT

FORT COLLINS, CO

OCTOBER 2023



Together, Building a Thriving Planet



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Contacts

Key Contact Information

McKinstry Contacts

Devin Boyce
Program Manager, Facility Condition Assessments
720.408.4573
devinb@mckinstry.com

Roger Noonan
Senior Facility Assessment Consultant
970.531.1527
rogern@mckinstry.com

Josh Phillips
Facility Assessment Consultant
719.480.1372
joshph@mckinstry.com

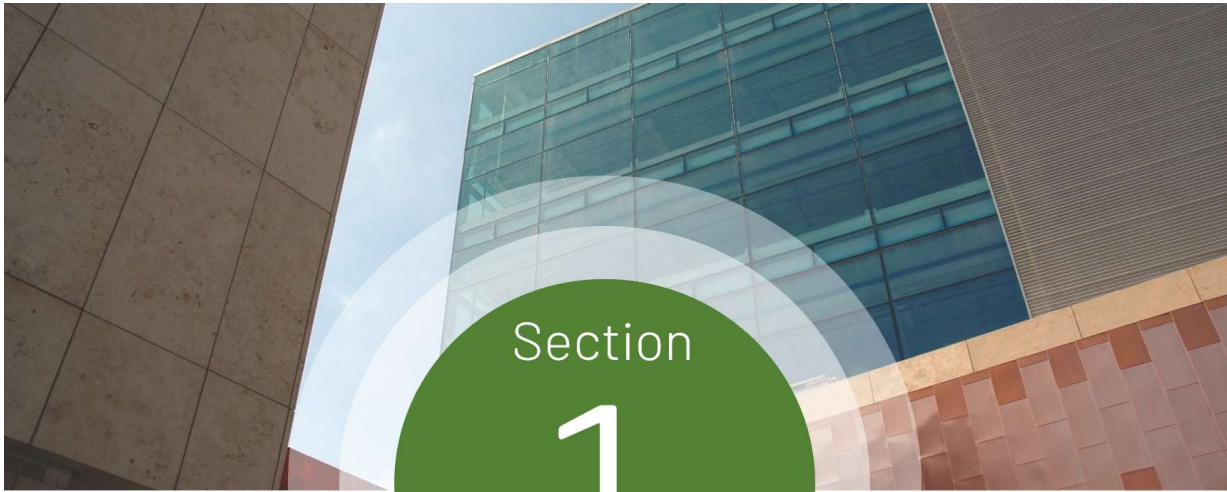
Tracey Cousins
Strategic Account Manager
720.445.7608
traceyc@mckinstry.com

Jaime Villarino-Eilenberger
Project Manager - Technical Services
949.933.7996
jaimev@mckinstry.com

Poudre School District Contacts

Trudy Trimbath
Energy and Sustainability Manager
970.490.3502
ttrimbath@psdschools.org

Jessie Ericson
Administrative Assistant - Operations
970.490.3080
jericson@psdschools.org



Executive Summary

Executive Summary

Project Goals

The contents of this report present the results of the Facility Condition Assessment (FCA) performed at Preston MS within the Poudre School District (PSD) on March 10, 2023. PSD intends to utilize the findings of this report to inform both capital and operating budgets, prioritize maintenance efforts, and optimize planning processes as replacements and upgrades of assets and facility systems become necessary in the future.

Facility List

The scope of the FCA project included the assessment of the following campus.

FACILITY NAME	AREA (SF)	YEAR(S) BUILT
PRESTON MS	127,966	1994
TOTAL	127,966	

Facility Summary

Preston MS

Preston MS is located at 4901 Corbett Dr., Fort Collins, CO 80528. This 127,966 SF facility consists of two levels and was initially constructed in 1994. The equity index for this school is 0.59.



Preston MS

Executive Summary

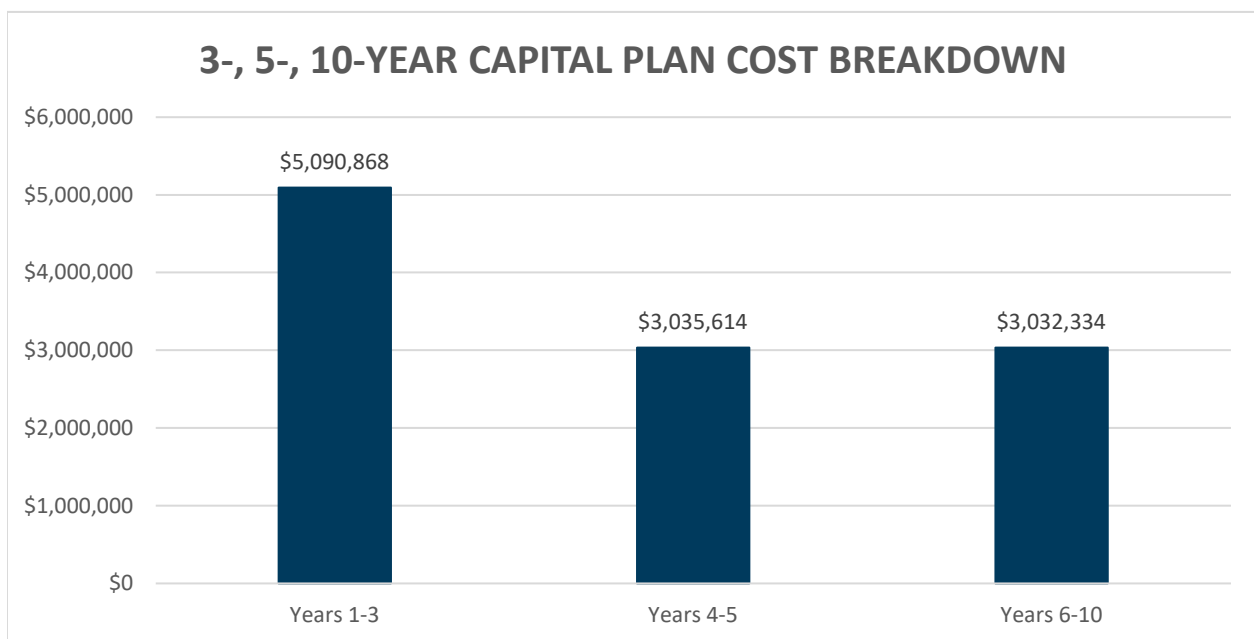
Assessment Summary

This section summarizes the building systems at the facility and describes the general condition observed based on the assessment performed on March 10, 2023. Additional details, findings and recommendations are presented in Section 3 of this report.

Capital Plan Summary

The estimated replacement costs for equipment expected to fail within the next ten years are shown below, divided into three separate plans. These plans are the 3-Year Plan, 5-Year Plan, and the 10-Year Plan. Each plan includes the cost for replacement of equipment expected to fail during these periods, based on the observed condition of the equipment at the time of the assessment.

Replacement costs include 3% inflation year over year.



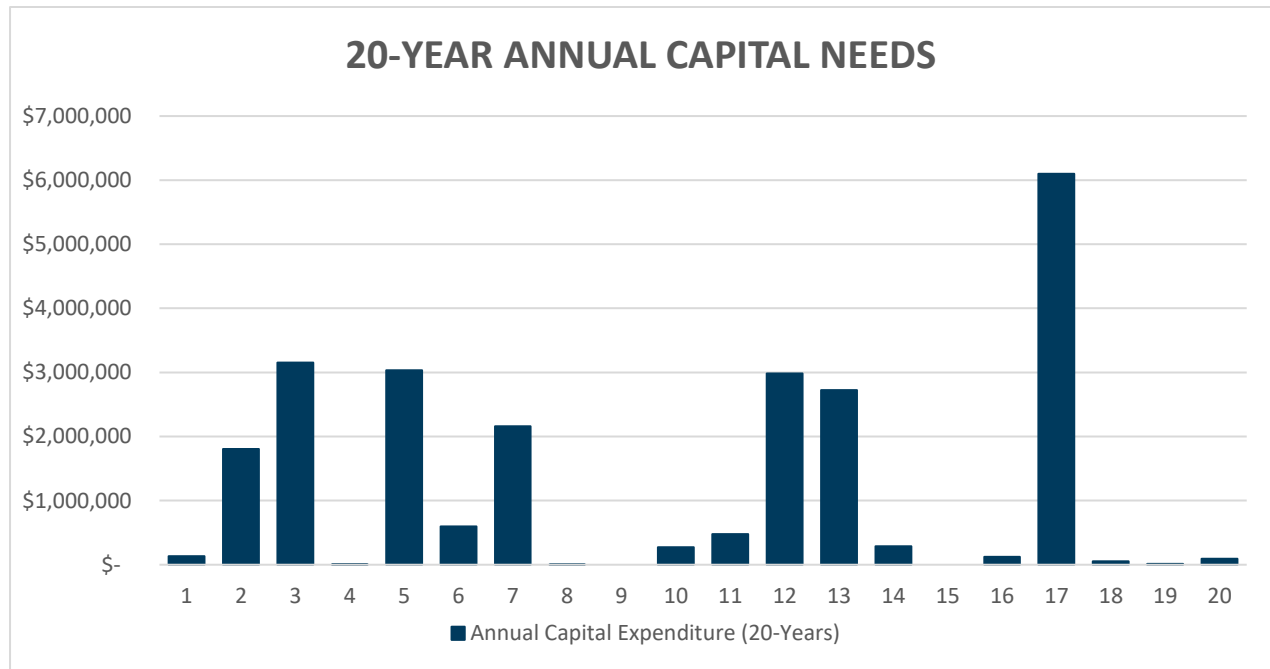
3-, 5-, 10-Year Capital Plan Cost Breakdown

Executive Summary

Annual Capital Expenditure (20 Years)

20-Year Annual Capital Needs and 20-Year Annual Capital Expenditure by Subsystem below indicate the estimated replacement costs for equipment expected to fail within the next twenty years, and are displayed both by year and by subsystem.

Replacement costs include 3% inflation year over year.



Annual Capital Expenditure by Year

Replacement costs associated with the Annual Capital Expenditure graph and table include values that are adjusted for inflation.

20-Year Annual Capital Expenditure by Subsystem

Subsystem	Years 1-5	Years 6-10	Years 11-15	Years 15-20
B20 - Enclosure	\$1,354,730	\$0	\$0	\$0
B30 - Roofing	\$731,897	\$49,111	\$0	\$0
C10 - Int. Construction	\$0	\$238,416	\$0	\$0
C20 - Stairs	\$0	\$0	\$0	\$0
C30 - Interior Finishes	\$2,684,179	\$126,402	\$2,027,047	\$299,806
D10 - Conveying	\$90,525	\$0	\$0	\$0
D20 - Plumbing	\$29,810	\$5,694	\$66,133	\$0
D30 - HVAC	\$1,047,802	\$723,143	\$417,250	\$6,063,766
D40 - Fire Suppression	\$1,588,611	\$0	\$0	\$0
D50 - Electrical	\$549,219	\$1,889,567	\$3,965,220	\$12,070
E10 - Equipment	\$49,709	\$0	\$0	\$0
Total:	\$8,126,481	\$3,032,334	\$6,475,650	\$6,375,642

Section

2

Approach and Methodology

Scope and Approach

Scope and Approach

SCOPE OF WORK

The scope of this facility condition assessment includes all major mechanical, electrical, and plumbing equipment, and commercial refrigeration equipment. In addition, the building enclosure, roofing, interior construction and finishes, and fire suppression systems are included within the assessment. Turf, site assets, kitchen assets besides walk-in freezers, exhaust fans and kitchen make up air units are not included in scope.

The following table lists the general asset types included within the scope of this assessment. Also shown is the corresponding Uniformat code, which has been used to catalog equipment based on type and intended use.

UniFormat Classification of Building Systems

UNIFORMAT CODE	CATEGORY DESCRIPTION
B20	Exterior Enclosure (i.e. windows, walls, doors)
B30	Roofing (i.e. roofing covering, skylights, etc.)
C10	Interior Construction (i.e. doors, walls)
C20	Interior Stairs (i.e. stair construction)
C30	Interior Finishes (i.e. flooring, ceiling finishes, etc.)
D10	Conveying (i.e., elevators)
D20	Plumbing (i.e., water heating, pumps, compressors)
D30	Heating, Ventilation, and Air Conditioning
D40	Fire Suppression Systems
D50	Electrical (panelboards, transformers, switchgear)
E10	Equipment, Kitchen Hoods, Walk-in Units, etc.

Scope and Approach

RATINGS, METHODS AND SCORING

To allow Poudre School District more flexibility in prioritizing capital planning efforts, McKinstry has developed the following metrics which assign various scores to each asset.

Asset Condition

Condition ratings are presented for each asset as a score of 1 – 5. Scores are based upon a visual inspection during the building evaluation period. A score of 1 signifies that the asset is in great, “like new” condition. A score of 2 indicates that the asset is in good condition. A score of 3 signifies that the asset is in expected “average” condition based on function and the age of the asset. A score of 4 signifies that the asset is in poor condition, in need of repair, and will require replacement in the near future. A score of 5 signifies that the asset is in very poor or failed condition and in need of imminent replacement.

SCORE	CONDITION ASSESSMENT
1	Asset is in great condition, no action required.
2	Asset is in good condition, regular maintenance expected.
3	Asset is in expected condition, regular replacement/maintenance expected.
4	Asset is in poor condition, maintenance/replacement recommended soon.
5	Asset is in very poor condition, urgent replacement needed.

Student/Teacher Impact

Student/Teacher Impact scores are presented for each asset on a scale of 1 – 5 (low to high impact). This metric considers educational (student and/or teacher) impact caused if the equipment were to fail. Assets serving classrooms and other educational spaces are assigned scores of 2-5 depending on the impact the failure of an asset would have and if backups are available. A student/teacher impact score of 1 indicates that there is little to no impact to educational activities.

SCORE	STUDENT/TEACHER IMPACT
1	Failure poses no significant educational impact.
2	Failure poses low educational impact.
3	Failure poses moderate impact. Asset serves teaching area, but has backup.
4	Failure poses high educational impact.
5	Failure poses severe impact. Asset serves teaching area and has no backup.

Energy Cost Impact

The Energy Impact score is presented for each asset on a scale of 1-5 (low to high impact). Each of the asset types within the scope of this assessment were evaluated based on their impact to energy cost and consumption (including electrical, natural gas, and liquid fuels). Assets with a higher Energy Cost Impact score indicate that the asset has a large contribution to the overall energy costs of the facility. A sample of Energy impact scores is shown below:

Scope and Approach

ASSET TYPE	ASSET SIZE	ENERGY COST IMPACT (1-5)
Air Handling Unit	less than 10,000 CFM	3
	between 10,000 CFM – 50,000 CFM	4
	greater than 50,000 CFM	5
Chiller	less than 200 tons	3
	between 200 – 500 tons	4
	greater than 500 tons	5
Computer Room AC Condensing Unit Heat Pump	less than 10 tons	2
	greater than 10 tons	3
Cooling Tower	less than 200 tons of rejection	2
	greater than 200 tons of rejection	3
Dust Collector	less than 5 HP	2
	between 5 HP and 25 HP	3
	greater than 25 HP	4
Exhaust Fan	less than 5000 CFM	2
	greater than 5000 CFM	3
Fan Coil Unit	greater than 3000 CFM	2
Fuel Fired Boiler	less than 200 MBH	2
	between 200 – 1000 MBH	3
	between 1000 – 2000 MBH	4
	greater than 2000 MBH	5
Furnace	less than 100 MBH	2
	between 100 and 500 MBH	3
	greater than 500 MBH	4
Generator	less than 500 KW	2
	greater than 500 KW	3
Lighting, Exterior	LED	2
	Fluorescent	3
	HID/Incandescent	4
Lighting, Interior	LED	2
	Fluorescent	4
	HID/Incandescent	5
Make-Up Air Unit	less than 5,000 CFM	3
	between 5,000 and 25,000 CFM	4
	greater than 25,000 CFM	5
Pumps	less than 25 HP	2
	between 25 -150 HP*	3
	greater than 150 HP*	4
Return Fan Supply Fan	less than 20 HP	2
	greater than 20 HP*	3

Scope and Approach

ASSET TYPE	ASSET SIZE	ENERGY COST IMPACT (1-5)
Rooftop Unit	less than 5 ton	2
	between 5 and 20 tons	3
	between 20 and 50 tons	4
	greater than 50 tons	5
Transformer	greater than 200 kVA	2
VFD	greater than 50 HP	2
Air Compressor	All sizes	2
Air Curtain		
Air Dryer		
Cabinet Unit Heater		
Dehumidifier		
Electric Duct Heater		
Humidifier		
Unit Heater		
Unit Ventilator		
Walk-In Condenser		
Walk-In Unit		
All Other	All sizes	1

*Add 1 for direct drive motors

Operational Impact

Operational Impact scores are presented for each asset on a scale of 1 – 5 (low to high impact). This metric considers the operational impact caused if the equipment were to fail. Assets serving critical administrative and district operational spaces are assigned scores of 2-5 depending on the impact the failure of an asset would have and if backups are available. An operational impact score of 1 indicates that there is little to no impact to administrative or operational activities.

SCORE	OPERATIONAL COST IMPACT SCORE
1	Asset has little to no operational impact.
2	Asset has a low level of operational impact.
3	Asset has a moderate operational impact.
4	Asset has a high level of operational impact.
5	Asset has severe operational impact.

Industry Life Expectancy

The designed life expectancy for a given asset is determined using a combination of widely accepted industry standards including ASHRAE and BOMA, as well as a manufacturers' database of equipment life expectancies. This value is expressed in number of years.

Scope and Approach

Observed Remaining Life

The Observed Remaining Life is also expressed in number of years and takes into consideration the function and operating environment of the asset, as well as a determination based upon a visual inspection of the asset. The Observed Remaining Life value may vary from the Design Life value. For example, a secondary heat exchanger that has been well maintained may have an Observed Remaining Life that is greater than the expected Design Life. Likewise, a primary chilled water pump that has not been well maintained, and shows visual signs of premature wear and tear, may have an Observed Remaining Life that is less than the expected Design Life.

Cost Estimating

Based on the constraints of the scope outlined in the contract we have based our asset pricing upon industry standards, RSMeans, and pricing data sourced through McKinstry's construction division. This information is intended to assist in the prioritization and resource allocation associated with maintenance and capital replacement projects. Cost estimates are determined using specific characteristics of each asset (tonnage, motor size, capacity, etc.) along with one of several cost information data sets. Standard equipment warranties are included.

To clarify, all Estimated Replacement Costs include averages of the material cost of the asset, the demolition and installation of that asset type and are expressed in 2023 dollars. Additionally, site specific construction and equipment invoices have been utilized as available.

Costs associated with project design, contractor competence, commissioning, test and balance services and are excluded from the estimate and are the responsibility of the Client. McKinstry assumed a 3% inflation, applied year over year. All work is during normal business hours. For mechanical equipment any duct work, piping, existing appurtenances are to be reused; costs to repair or replace any lines going to or coming from the units is excluded. Existing isolation valves to be used; repair or replacement of isolation valves is excluded.

Costs typically associated with project-specific parameters are excluded and should be added at the discretion of the Client. Such exclusions include risks or contingencies such as asbestos abatement, other hazardous waste abatement, scope changes, design changes, taxes, special wage requirements such as Prevailing Wage rates, warranty management and unknown site conditions. Overtime and after-hours work is excluded. Any necessary structural or electrical upgrades to replace equipment is excluded. Incidental code violations resulting from project scope or execution are excluded. Correction of any existing code violations are excluded. Temporary heating, cooling, ventilation, and power during construction and the warranty period are excluded. Moving of heavy equipment or furniture to complete the work is excluded. Running and terminating new IP drops for equipment is excluded. Any changes to fire and life safety systems for mechanical equipment upgrades is excluded.

Data-Driven Maintenance Approach

Included with the submission of this report is the FCA Data Collection Workbook, which includes all data collected for each asset. The Workbook can be used to quickly sort through equipment and prioritize maintenance and replacement efforts. Additional observations and equipment details are provided within the workbook for each asset.

Scope and Approach

Each asset is classified according to building system, size, capacity, and other standards, as well as ratings of current condition and impact of failure. Such organization and classification facilitate searching and sorting the data for maintenance and replacement priorities. As mentioned, the impact ratings help to compare one asset to another. Based on observed condition and impact scores, the future maintenance priorities for each building are described further in later sections.

As each of the components identified in the workbook is repaired or replaced, the information can be revised to reflect the new conditions. Remaining useful life values can also be manually iterated one year from the assessment date to reflect fewer remaining years of life. Assets no longer in service can be removed from the list. Similarly, assets that have been newly installed can be added to the list. Following the impact guidelines, relative priority can be calculated for these assets.

Equity Index

As an additional metric to the six existing areas of the Facilities Condition Assessment, Poudre School District has created an Equity Index to assist in prioritizing facilities improvement projects. This number takes into account student poverty, students qualifying for ELA services, students qualifying for Special Education services, and students who are homeless. The calculated score for each school is based on these factors and where it falls in relation to the district average. The formula would be:

$$\frac{\text{School Percentage in these areas added together as decimals}}{\text{District Percentages in these areas added together as decimals}}$$

In this formula, a school with student needs equal to the district average would have an equity index of 1.0. Schools with student needs higher than the district average would have an Equity Index greater than 1.0. Schools with student needs less than the district average would have an Equity Index less than 1.0.

Category	Equity Index
Low	0.29
High	3.20
Average	1.11
Median	0.95

The equity index for Preston MS is 0.59.

Sample Calculation:

School Name	School Population K-12 Total	F/R	ELL	SPED	McKinney-Vento	Total of Previous Columns	Equity Index Number = school average / district average
Sample	381	15.20%	0.00%	8.40%	0.00%	0.24	0.24/0.48 = 0.49
Grand PSD Total - Oct 2022 Count	26,163	29.5%	5.8%	9.5%	3.4%	0.48	

F/R - Free or Reduced-Price Lunch; ELL- English Language Learners; SPED - Special Ed.; McKinney-Vento - Homeless Assistance

Section

3

Condition Assessment

Condition Assessment

SYSTEMS DESCRIPTION

This section summarizes the building systems at Preston MS and describes the general condition observed based on the assessment. Specific findings and recommendations are detailed later in this report.

Exterior Enclosure

The original building was constructed in 1994. Subsequent renovations to the school were completed in 2005 and 2015. Exterior walls are of stucco and concrete panel construction. Windows are of the aluminum framed type. Exterior doors consist of hollow metal and glass/metal types. One metal pan exterior stairwell is provided. There are three wood framed modular buildings on the site.

Roofing

Original 1994 rolled asphalt roofing is present on the majority of the building. There is a small section of original metal standing seam roofing as well. Metal flashing is also original. Rolled asphalt roofing is now 4 years past expected useful life.

Interior Construction and Finishes

The interior construction components of the building, including drywall and concrete masonry unit (CMU) walls are original. The interior doors are primarily of the wood and hollow metal type but also include automatic glass/metal. The majority of interior finishes are original to the 1994 construction, but carpeting was replaced in 2016.

Conveyance

A single passenger elevator is provided and serves the two floors of the building.

Electrical and Lighting

The building includes both 120/208V and 277/480V service. Electrical assets, including panelboards, transformers, and the main switchboard are typically of 1994 install. However, all VFDs were replaced in 2015. [REDACTED]

[REDACTED] Emergency back-up lighting appears to have been updated in 2015 along with the fire alarm system and the security system. Though the building's interior lighting system was replaced in 2015 all lighting fixtures are of the fluorescent type with the exception of the lighting in the Main Gym which has been updated to LED fixtures. Recommend replacement of the fluorescent lighting fixtures with LED lighting fixtures in approximately 12 years.

HVAC Systems

The HVAC assets include (12) rooftop units, (40) exhaust fans, (3) duct heating units, (20) cabinet unit heaters, (3) furnaces, (20) VAVs, and (72) vertical unit ventilators. RTU-5 and RTU-7 were observed to be [REDACTED] requiring replacement within the year. The (72) VUVs present in the building which provide outside ventilation air, hydronic heating, and hydronic cooling capabilities. A cooling tower and heat exchanger were newly installed in 2015 in order to provide cooling to the VUV units. The heating water system features two gas-fired boilers with associated circulation pumps.

Plumbing

Plumbing assets include a single gas-fired water heater and one circulation pump. Four backflow preventers, one thermostatic mixing valve, one hydronic filter, and a chemical treatment system are provided. All plumbing assets were replaced between 2011 and 2015.

Fire Suppression

The fire alarm system was updated in 2015, though the wet fire sprinkler system dates to the 1994 original construction. The Fire Protection System appears to be well maintained and updated per fire code requirements. No deficiencies were noted with this system.

Equipment

The Kitchen area is provided one walk-in cooler and one walk-in freezer with associated condensing units. Both are original to the 1994 construction.

Condition Assessment

PRIORITIES

SPECIFIC PRIORITIES

The top capital measures (up to five max) have been detailed in the following tables. Each measure receives a priority level of 1, 2, or 3. A priority level of 1 indicates that the measure is considered an immediate concern or a potential hazard and should be addressed as soon as possible. A priority level of 2 indicates that the measure is considered urgent, but not a potential hazard or there is a less severe impact to occupants. A priority level of 3 indicates that the assets associated with the measure are nearing end of life, but have not yet failed or have a mild to moderate impact on occupant safety and comfort.

Preston MS

1. Replace Rooftop Units

RTUs 01 through 08 are original to the 1994 construction. All eight are now 14 years past expected useful life. RTU-05 and RTU-07 are [REDACTED] requiring replacement within the year. RTUs 01,02,03,04,06, and 08 are [REDACTED] requiring replacement within two years.

The following assets are included within this measure:

FCAID-45134, FCAID-45135, FCAID-45136, FCAID-45137, FCAID-45138, FCAID-45139, FCAID-45140, FCAID-45141



Priority Level:	2
Estimated Cost:	\$371,800
Remaining Life:	1-2 Years

Condition Assessment

2. Heating Water Pumps Replacement

Heating Water System Pumps P-1, P-2, P-3, and P-4 are original to the 1994 construction. All four pumps are now 9 years past expected useful life. P-3 and P-4 are [REDACTED] requiring replacement within the year. P-1 and P-2 are [REDACTED] requiring replacement within two years.



The following assets are included within this measure:

FCAID-45128, FCAID-45129, FCAID-45130, FCAID-45131



Priority Level: 2
Estimated Cost: \$42,980
Remaining Life: 1-2 Years

3. Exhaust Fan Replacements

EF-01 through EF-39 (28 EFs total) are original to the 1994 construction. These EFs are now 9 years past expected useful life. All 28 EFs have sustained substantial hail damage. EF-01 and EF-02 are [REDACTED] requiring replacement within the year. The remaining 26 EFs are [REDACTED] requiring replacement within two years.



The following assets are included within this measure:

FCAID-45075 through FCAID-45114

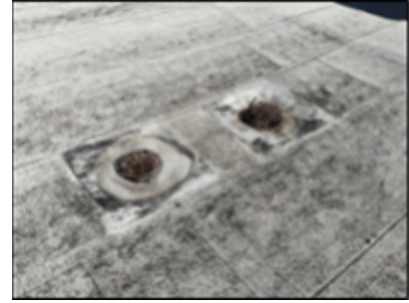


Priority Level: 2
Estimated Cost: \$208,790
Remaining Life: 1-2 Years

Condition Assessment

4. Replace Rolled Asphalt Roofing

The 1994 original rolled asphalt roof is now four years past expected useful life [REDACTED]. Roofing material is bubbled up and has visible cracks. Recommend replacement of the 1994 original rolled asphalt roof within two years.



The following assets are included within this measure:

FCAID-45011



Priority Level: 2
Estimated Cost: \$710,580
Remaining Life: 2 Years

5. Replace Acoustical Tile Ceiling

The 1994 original acoustical ceiling panels are now 10 years past expected useful life [REDACTED]. Multiple water leaks were observed. Recommend replacement of the 1994 original acoustical ceiling panels within two years.



The following assets are included within this measure:

FCAID-45025



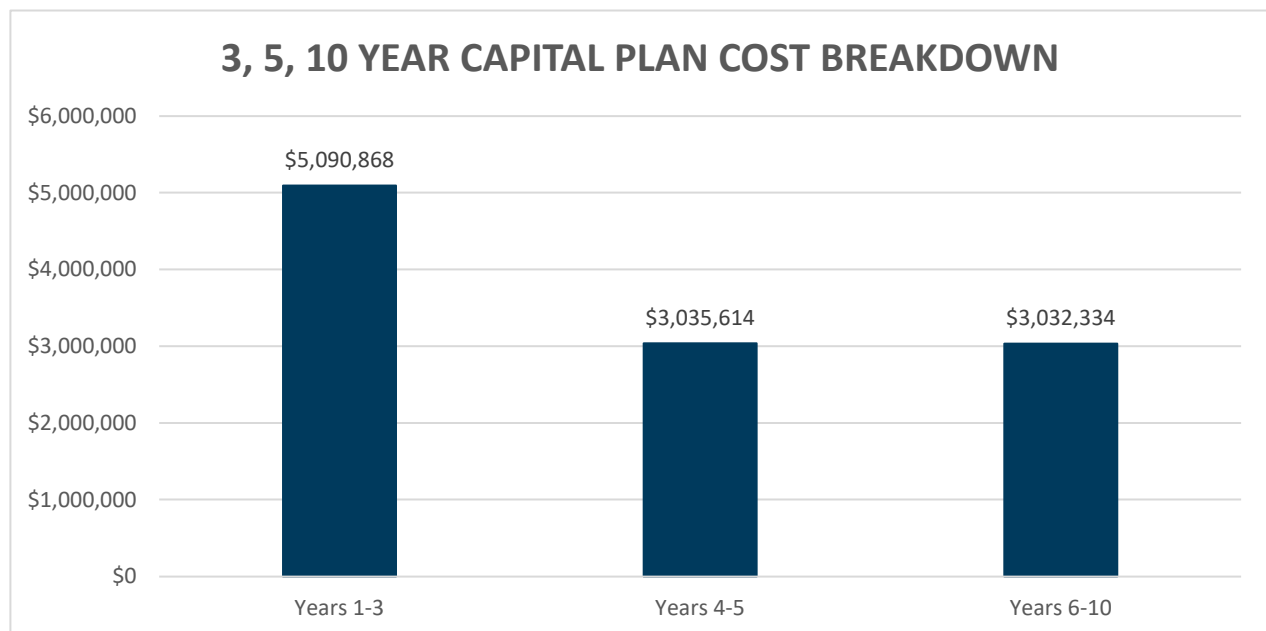
Priority Level: 2
Estimated Cost: \$1,004,530
Remaining Life: 2 Years

Condition Assessment

3-, 5-, 10-YEAR PLANS

The following sections present the expected equipment replacement costs over the next ten years, broken into three separate plans. These plans are the 3-Year Plan, 5-Year Plan, and the 10-Year Plan. Each plan includes the equipment expected to fail during these periods, based on the observed condition of the equipment at the time of the assessment. Note, the 3-Year Plan includes assets failing within the next three years, the 5-Year Plan includes assets failing between four and five years, and the 10-Year Plan includes assets failing between in the next six to ten years from the assessment date.

The chart below presents the total expected replacement costs for each plan. Note that these figures include 3% inflation YOY.



Future Capital Plan

The table below displays replacement costs for the campus, and the number of associated assets expected to fail within the next ten years. Assets requiring replacement or extensive maintenance in this plan are presented in Appendices A, B, and C.

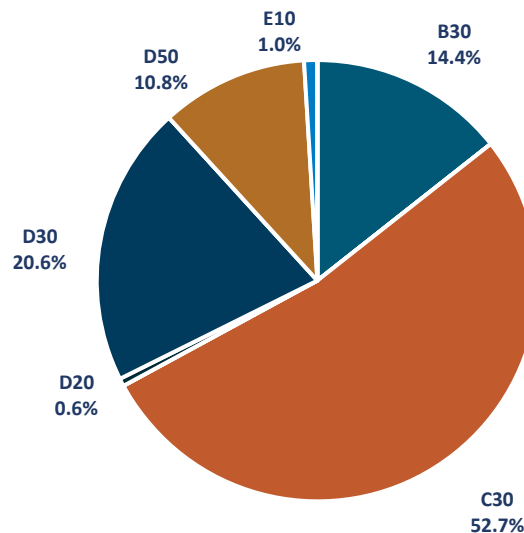
REPLACEMENT PERIOD	ASSET QUANTITY	CUMULATIVE REPLACEMENT COST
3-Year Plan	96	\$5,090,868
5-Year Plan	8	\$3,035,614
10-Year Plan	57	\$3,032,334
Total	161	\$11,158,815

Condition Assessment

3-YEAR PLAN BREAKDOWN

The three-year plan includes the estimated capital expenditure needed to replace assets reaching end of life in years 1-3, or between 2024 and 2026. The sum of the anticipated capital needs is \$5,090,868. The specific assets that will reach end of life in this period are listed in Appendix A.

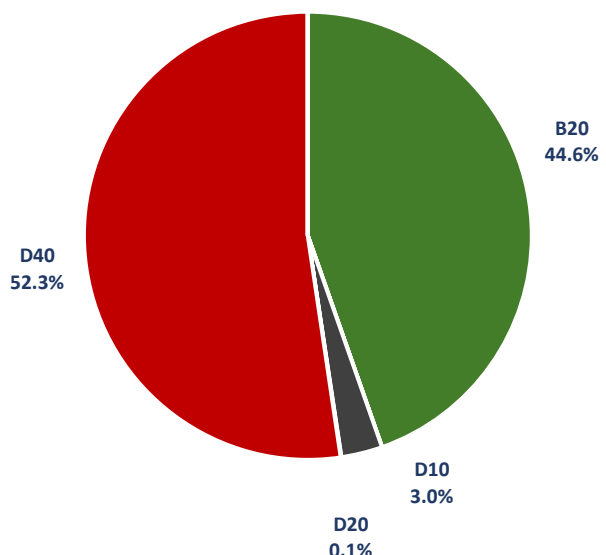
SUBSYSTEM	Years 1-3	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$0	0%
B30 - Roofing	\$731,897	14%
C10 - Int. Construction	\$0	0%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$2,684,179	53%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$28,062	1%
D30 - HVAC	\$1,047,802	21%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$549,219	11%
E10 - Equipment	\$49,709	1%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$0	0%



5-YEAR PLAN BREAKDOWN

The five-year plan includes the estimated capital expenditure needed to replace assets reaching end of life in years 4-5, or between 2027 and 2028. The sum of the anticipated capital needs is \$3,035,614. The specific assets that will reach end of life in this period are listed in Appendix A.

SUBSYSTEM	Years 4-5	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$1,354,730	45%
B30 - Roofing	\$0	0%
C10 - Int. Construction	\$0	0%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$0	0%
D10 - Conveying	\$90,525	3%
D20 - Plumbing	\$1,748	<1%
D30 - HVAC	\$0	0%
D40 - Fire Protection	\$1,588,611	52%
D50 - Electrical	\$0	0%
E10 - Equipment	\$0	0%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$0	0%

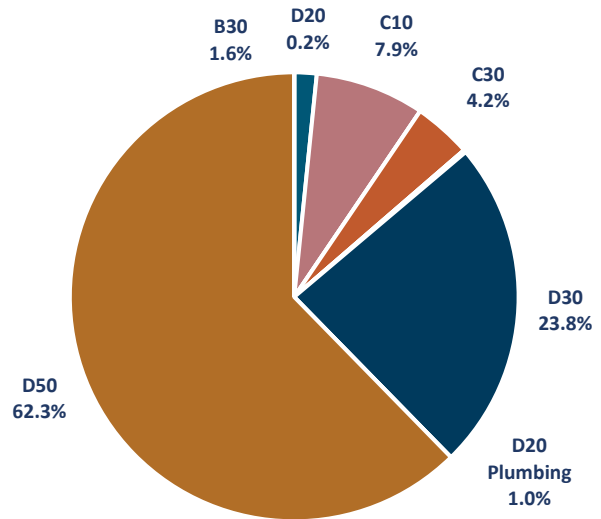


Condition Assessment

10-YEAR PLAN BREAKDOWN

The ten-year plan includes the estimated capital expenditure needed to replace assets reaching end of life in years 6-10, or between 2029 and 2033. The sum of the anticipated capital needs is \$3,032,334. The specific assets that will reach end of life in this period are listed in Appendix A.

SUBSYSTEM	Years 6-10	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$0	0%
B30 - Roofing	\$49,111	2%
C10 - Int. Construction	\$238,416	8%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$126,402	4%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$5,694	<1%
D30 - HVAC	\$723,143	24%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$1,889,567	62%
E10 - Equipment	\$0	0%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$0	0%



Condition Assessment

PRIORITY SUMMARY

The summary below assigns a composite Overall Priority Score to the campus as of the assessment date. Priority Scores range from 6 (low priority) to 30 (high priority), and are based on asset condition, operating impact, student impact, energy impact, estimated replacement cost, and observed remaining life.

In addition to the Overall Priority Score, each Subsystem category within the site is assigned a Priority Score. This score can differentiate systems that may need more attention than others, due to condition or impact on occupants or operations. Each Subsystem category includes a general narrative section under the Description column.

Future Capital Plan

The Subsystem scores are color coded to reflect the level of priority: ≤ 12 = Green, 12.1-23.9 = Yellow, ≥ 24 = Red. Higher priority scores indicate that a system should be considered for maintenance or capital improvements before other systems with lower scores. The rating scale for Priority Score is visualized below.

LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH
6	12	18	24	30

Condition Assessment

PRIORITY SCORE SUMMARY - PRESTON MS

		PRESTON MS	
		BUILDING TYPE:	Middle School
		YEAR BUILT:	1994
		GROSS AREA (SF):	127,966
		DATE ASSESSED:	March 10, 2023
		PRIORITY SCORE:	16.1
SUBSYSTEM:	DESCRIPTION	PRIORITY SCORE	
B20 - Ext. Enclosure	The original building was constructed in 1994. Subsequent renovations to the school were completed in 2005 and 2015. Exterior walls are of stucco and concrete panel construction. Windows are of the aluminum framed type. Exterior doors consist of hollow metal and glass/metal types. One metal pan exterior stairwell is provided. There are three wood framed modular buildings on the site.	13.9	
B30 - Roofing	Original 1994 rolled asphalt roofing is present on the majority of the building. There is a small section of original metal standing seam roofing as well. Metal flashing is also original. Rolled asphalt roofing is now 4 years past expected useful life.	18.0	
C10 - Int. Construction	The interior construction components of the building, including drywall and concrete masonry unit (CMU) walls are original. The interior doors are primarily of the wood and hollow metal type but also include automatic glass/metal. The majority of interior finishes are original to the 1994 construction, but carpeting was replaced in 2016.	13.4	
C30 - Interior Finishes		16.3	
D20 - Plumbing	Plumbing assets include a single gas-fired water heater and one circulation pump. Four backflow preventers, one thermostatic mixing valve, one hydronic filter, and a chemical treatment system are provided. All plumbing assets were replaced between 2011 and 2015.	12.1	
D30 - HVAC	The HVAC assets include (12) rooftop units, (40) exhaust fans, (3) duct heating units, (20) cabinet unit heaters, (3) furnaces, (20) VAVs, and (72) vertical unit ventilators. RTU-5 and RTU-7 were observed to be [REDACTED] requiring replacement within the year. The (72) VUVs present in the building which provide outside ventilation air, hydronic heating, and hydronic cooling capabilities. A cooling tower and heat exchanger were newly installed in 2015 in order to provide cooling to the VUV units. The heating water system features two gas-fired boilers with associated circulation pumps.	15.4	
D40 - Fire Suppression	The fire alarm system was updated in 2015, though the wet fire sprinkler system dates to the 1994 original construction. The Fire Protection System appears to be well maintained and updated per fire code requirements. No deficiencies were noted with this system.	22.0	
D50 - Electrical	The building includes both 120/208V and 277/480V service. Electrical assets, including panelboards, transformers, and the main switchboard are typically of 1994 install. However, all VFDs were replaced in 2015. [REDACTED] Emergency back-up lighting appears to have been updated in 2015 along with the fire alarm system and the security system. Though the building's interior lighting system was replaced in 2015 all lighting fixtures are of the fluorescent type with the exception of the lighting in the Main Gym which has been updated to LED fixtures. Recommend replacement of the fluorescent lighting fixtures with LED lighting fixtures in approximately 12 years.	19.9	
E10 - Equipment	The Kitchen area is provided one walk-in cooler and one walk-in freezer with associated condensing units. Both are original to the 1994 construction.	17.5	

System priority scored from 6 (lowest priority) to 30 (highest priority) based on condition, operating impact, student/teacher impact, energy impact, estimated replacement cost, and observed remaining life. [≤ 12 = green, 12-24 = yellow, ≥ 24 = red]

Appendices

A. 3-YEAR PLAN ASSETS LIST

B. 5-YEAR PLAN ASSETS LIST

C.10-YEAR PLAN ASSETS LIST

Appendix A

APPENDIX A: 3-YEAR PLAN ASSETS LIST

The individual assets associated with the 3-Year Plan are shown below, sorted from highest to lowest priority score. The priority score key is shown below for convenience.

Note that these values represent current replacement costs expressed in 2023 dollar amounts and are not adjusted for inflation.

LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH
6	12	18	24	30

The asset ID listed for each entry has been assigned during this assessment and reflects the corresponding asset in the FCA workbook.

PRESTON MS

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING	REPLACEMENT COST	PRIORITY SCORE
FCAID-450139	RTU-07	D30 - HVAC	1	\$45,410	22
FCAID-450134	RTU-02	D30 - HVAC	2	\$47,000	21
FCAID-450136	RTU-04	D30 - HVAC	2	\$47,000	21
FCAID-450135	RTU-03	D30 - HVAC	2	\$47,000	21
FCAID-450140	RTU-08	D30 - HVAC	2	\$72,910	21
FCAID-450137	RTU-05	D30 - HVAC	1	\$32,740	21
FCAID-450133	RTU-01	D30 - HVAC	2	\$47,000	21
FCAID-450011	Roofing: Rolled Asphalt	B30 - Roofing	2	\$710,580	20
FCAID-450138	RTU-06	D30 - HVAC	2	\$32,740	20
FCAID-450042	Back-Up Generator	D50 - Electrical	2	\$22,610	19
FCAID-450070	CU-Walk-In Freezer	E10 - Equipment	1	\$12,060	19
FCAID-450069	CU-Walk-In Cooler	E10 - Equipment	1	\$12,060	19
FCAID-450130	P-4	D30 - HVAC	1	\$8,300	18
FCAID-450131	MAU-01	D30 - HVAC	2	\$55,360	18
FCAID-450245	Emergency Back-Up Lighting	D50 - Electrical	3	\$487,550	18
FCAID-450129	P-3	D30 - HVAC	1	\$8,300	18
FCAID-450141	RTU-09	D30 - HVAC	3	\$31,160	18
FCAID-450081	EF-07	D30 - HVAC	2	\$16,720	17
FCAID-450075	EF-01	D30 - HVAC	1	\$1,260	17
FCAID-450074	Duct Heating Coil-HC-8	D30 - HVAC	2	\$4,520	17
FCAID-450027	Interior Finishes: Carpet	C30 - Interior Finishes	3	\$1,421,730	17
FCAID-450076	EF-02	D30 - HVAC	1	\$11,560	17
FCAID-450072	Duct Heating Coil-HC-6	D30 - HVAC	2	\$4,520	17
FCAID-450127	P-1	D30 - HVAC	2	\$13,190	17
FCAID-450073	Duct Heating Coil-HC-7	D30 - HVAC	2	\$4,520	17
FCAID-450128	P-2	D30 - HVAC	2	\$13,190	17

FCAID-450101	EF-27	D30 - HVAC	2	\$13,670	16
FCAID-450054	CUH-19	D30 - HVAC	2	\$10,740	16
FCAID-450109	EF-35	D30 - HVAC	2	\$6,710	16
FCAID-450030	Interior Finishes: VCT	C30 - Interior Finishes	2	\$129,920	16
FCAID-450097	EF-23	D30 - HVAC	2	\$8,190	16
FCAID-450057	CUH-3	D30 - HVAC	2	\$6,480	16
FCAID-450105	EF-31	D30 - HVAC	2	\$6,210	16
FCAID-450058	CUH-4	D30 - HVAC	2	\$10,740	16
FCAID-450113	EF-39	D30 - HVAC	2	\$7,270	16
FCAID-450059	CUH-5	D30 - HVAC	2	\$10,740	16
FCAID-450095	EF-21	D30 - HVAC	2	\$8,190	16
FCAID-450060	CUH-6	D30 - HVAC	2	\$10,740	16
FCAID-450099	EF-25	D30 - HVAC	2	\$8,190	16
FCAID-450061	CUH-7	D30 - HVAC	2	\$10,740	16
FCAID-450103	EF-29	D30 - HVAC	2	\$7,270	16
FCAID-450077	EF-03	D30 - HVAC	2	\$6,710	16
FCAID-450107	EF-33	D30 - HVAC	2	\$7,690	16
FCAID-450078	EF-04	D30 - HVAC	2	\$9,590	16
FCAID-450111	EF-37	D30 - HVAC	2	\$6,710	16
FCAID-450079	EF-05	D30 - HVAC	2	\$6,210	16
FCAID-450052	CUH-17	D30 - HVAC	2	\$7,850	16
FCAID-450080	EF-06	D30 - HVAC	2	\$9,060	16
FCAID-450094	EF-20	D30 - HVAC	2	\$11,560	16
FCAID-450062	CUH-8	D30 - HVAC	2	\$10,740	16
FCAID-450096	EF-22	D30 - HVAC	2	\$6,210	16
FCAID-450082	EF-08	D30 - HVAC	2	\$1,260	16
FCAID-450098	EF-24	D30 - HVAC	2	\$6,710	16
FCAID-450083	EF-09	D30 - HVAC	2	\$5,770	16
FCAID-450100	EF-26	D30 - HVAC	2	\$8,190	16
FCAID-450084	EF-10	D30 - HVAC	2	\$10,650	16
FCAID-450102	EF-28	D30 - HVAC	2	\$6,710	16
FCAID-450038	GWH-1	D20 - Plumbing	2	\$10,610	16
FCAID-450104	EF-30	D30 - HVAC	2	\$6,710	16
FCAID-450025	Interior Finishes: Acoustical Tile	C30 - Interior Finishes	3	\$904,080	16
FCAID-450106	EF-32	D30 - HVAC	2	\$5,550	16
FCAID-450063	CUH-9	D30 - HVAC	2	\$10,740	16
FCAID-450108	EF-34	D30 - HVAC	2	\$6,710	16
FCAID-450045	CUH-10	D30 - HVAC	2	\$10,740	16
FCAID-450110	EF-36	D30 - HVAC	2	\$6,710	16
FCAID-450047	CUH-12	D30 - HVAC	2	\$10,740	16
FCAID-450112	EF-38	D30 - HVAC	2	\$5,550	16
FCAID-450048	CUH-13	D30 - HVAC	2	\$10,740	16
FCAID-450056	CUH-20	D30 - HVAC	2	\$10,740	16
FCAID-450050	CUH-15	D30 - HVAC	2	\$10,740	16
FCAID-450288	Walk-In Freezer	E10 - Equipment	3	\$12,060	16
FCAID-450046	CUH-11	D30 - HVAC	2	\$10,740	16
FCAID-450088	EF-14	D30 - HVAC	2	\$7,690	16

FCAID-450132	Baseboard Radiant Heaters	D30 - HVAC	2	\$8,040	16
FCAID-450044	CUH-1	D30 - HVAC	2	\$6,610	16
FCAID-450049	CUH-14	D30 - HVAC	2	\$10,740	16
FCAID-450090	EF-16	D30 - HVAC	2	\$10,650	16
FCAID-450051	CUH-16	D30 - HVAC	2	\$10,740	16
FCAID-450091	EF-17	D30 - HVAC	2	\$8,190	16
FCAID-450053	CUH-18	D30 - HVAC	2	\$7,850	16
FCAID-450092	EF-18	D30 - HVAC	2	\$6,210	16
FCAID-450055	CUH-2	D30 - HVAC	2	\$6,610	16
FCAID-450093	EF-19	D30 - HVAC	2	\$8,190	16
FCAID-450085	EF-11	D30 - HVAC	2	\$1,260	16
FCAID-450287	Walk-In Cooler	E10 - Equipment	3	\$12,060	16
FCAID-450086	EF-12	D30 - HVAC	2	\$5,550	16
FCAID-450087	EF-13	D30 - HVAC	2	\$5,550	16
FCAID-450089	EF-15	D30 - HVAC	2	\$5,770	16
FCAID-450126	HWCP-1	D30 - HVAC	3	\$4,630	15
FCAID-450039	Chemical Treatment System - CWS	D20 - Plumbing	2	\$5,500	15
FCAID-450148	UH-1	D30 - HVAC	2	\$3,220	15
FCAID-450029	Interior Flooring Finishes: Ceramic Tile	C30 - Interior Finishes	3	\$78,150	14
FCAID-450243	ATS-1	D50 - Electrical	3	\$4,340	13
FCAID-450281	Surge Protector-1	D50 - Electrical	3	\$3,850	12
FCAID-450145	ST-1	D20 - Plumbing	3	\$10,810	12
FCAID-450124	Gas Meter	D30 - HVAC	3	\$3,430	11

Appendix B

APPENDIX B: 5-YEAR PLAN ASSETS LIST

The individual assets associated with the 5-Year Plan are shown below, sorted from highest to lowest priority score. The priority score key is shown below for convenience.

Note that these values represent current replacement costs expressed in 2023 dollar amounts and are not adjusted for inflation.

LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH
6	12	18	24	30

The asset ID listed for each entry has been assigned during this assessment and reflects the corresponding asset in the FCA workbook.

PRESTON MS

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-450242	Wet Fire Sprinkler System	D40 - Fire Protection	5	\$1,411,460	22
FCAID-450007	Exterior Windows: Aluminum Framed	B20 - Exterior Enclosu	5	\$978,520	17
FCAID-450031	Elevator-1	D10 - Conveying	5	\$80,430	15
FCAID-450004	Exterior Doors: Metal/Glass, Double	B20 - Exterior Enclosu	5	\$109,120	14
FCAID-450003	Exterior Doors: Hollow Metal, Double	B20 - Exterior Enclosu	5	\$39,680	13
FCAID-450005	Exterior Doors: Hollow Metal, Single	B20 - Exterior Enclosu	5	\$47,710	13
FCAID-450006	Exterior Doors: Metal/Glass, Single	B20 - Exterior Enclosu	5	\$28,630	13
FCAID-450032	BFP - Fire	D20 - Plumbing	4	\$1,600	12

Appendix C

APPENDIX C: 10-YEAR PLAN ASSETS LIST

The individual assets associated with the 10-Year Plan are shown below, sorted from highest to lowest priority score. The priority score key is shown below for convenience.

Note that these values represent current replacement costs expressed in 2023 dollar amounts and are not adjusted for inflation.

LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH
6	12	18	24	30

The asset ID listed for each entry has been assigned during this assessment and reflects the corresponding asset in the FCA workbook.

PRESTON MS

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-450119	Boiler-1	D30 - HVAC	6	\$154,620	23
FCAID-450120	Boiler-2	D30 - HVAC	6	\$154,620	23
FCAID-450247	Fire Alarm System	D50 - Electrical	7	\$996,860	22
FCAID-450266	Security System	D50 - Electrical	7	\$487,550	20
FCAID-450143	RTU-11	D30 - HVAC	7	\$51,940	18
FCAID-450144	RTU-12	D30 - HVAC	7	\$45,410	18
FCAID-450142	RTU-10	D30 - HVAC	7	\$31,160	17
FCAID-450066	CU-1	D30 - HVAC	7	\$10,050	15
FCAID-450067	CU-2	D30 - HVAC	7	\$10,050	15
FCAID-450068	CU-3	D30 - HVAC	7	\$10,050	15
FCAID-450020	Interior Construction: Glass Block Window	C10 - Interior Constr	6	\$128,000	13
FCAID-450026	Interior Flooring Finishes: Athletic Hardwo	C30 - Interior Finishes	7	\$105,860	13
FCAID-450021	Interior Construction: Steel Framed Windo	C10 - Interior Constr	6	\$77,660	12
FCAID-450147	GUH-2	D30 - HVAC	7	\$3,280	12
FCAID-450146	GUH-1	D30 - HVAC	7	\$3,280	12
FCAID-450037	P-8	D20 - Plumbing	8	\$4,630	12
FCAID-450264	Panel W1M	D50 - Electrical	10	\$3,600	11
FCAID-450260	Panel W1C	D50 - Electrical	10	\$3,600	11
FCAID-450258	Panel W1AE	D50 - Electrical	10	\$3,600	11
FCAID-450275	Transformer C1B	D50 - Electrical	10	\$8,190	11
FCAID-450262	Panel W1HA	D50 - Electrical	10	\$3,600	11
FCAID-450272	Transformer - MMP	D50 - Electrical	10	\$4,310	11
FCAID-450010	Roofing: Metal Flashing	B30 - Roofing	7	\$41,130	11
FCAID-450251	Panel C1A-2	D50 - Electrical	10	\$3,600	11
FCAID-450259	Panel W1B	D50 - Electrical	10	\$3,600	11

FCAID-450252	Panel C1H	D50 - Electrical	10	\$3,600	11
FCAID-450261	Panel W1H	D50 - Electrical	10	\$3,600	11
FCAID-450253	Panel C2B	D50 - Electrical	10	\$3,600	11
FCAID-450263	Panel W1HE	D50 - Electrical	10	\$3,600	11
FCAID-450276	Transformer C2 A&B	D50 - Electrical	10	\$7,240	11
FCAID-450265	Panel WM	D50 - Electrical	10	\$3,600	11
FCAID-450255	Panel MMP	D50 - Electrical	10	\$12,370	11
FCAID-450257	Panel W1A	D50 - Electrical	10	\$3,600	11
FCAID-450254	Panel KB	D50 - Electrical	10	\$3,600	11
FCAID-450250	Panel C1A-1	D50 - Electrical	10	\$3,600	11
FCAID-450279	Transformer W1B (Gym)	D50 - Electrical	10	\$7,240	11
FCAID-450237	VAV-12-2	D30 - HVAC	10	\$6,730	10
FCAID-450221	VAV-10-1	D30 - HVAC	10	\$9,020	10
FCAID-450222	VAV-10-10	D30 - HVAC	10	\$3,160	10
FCAID-450223	VAV-10-2	D30 - HVAC	10	\$4,300	10
FCAID-450235	VAV-11-5	D30 - HVAC	10	\$6,310	10
FCAID-450224	VAV-10-3	D30 - HVAC	10	\$3,160	10
FCAID-450239	VAV-12-4	D30 - HVAC	10	\$5,100	10
FCAID-450225	VAV-10-4	D30 - HVAC	10	\$3,160	10
FCAID-450041	AS-1	D30 - HVAC	7	\$10,330	10
FCAID-450226	VAV-10-5	D30 - HVAC	10	\$5,100	10
FCAID-450234	VAV-11-4	D30 - HVAC	10	\$9,020	10
FCAID-450227	VAV-10-6	D30 - HVAC	10	\$5,900	10
FCAID-450236	VAV-12-1	D30 - HVAC	10	\$9,020	10
FCAID-450228	VAV-10-7	D30 - HVAC	10	\$3,430	10
FCAID-450238	VAV-12-3	D30 - HVAC	10	\$7,140	10
FCAID-450229	VAV-10-8	D30 - HVAC	10	\$3,160	10
FCAID-450240	VAV-12-5	D30 - HVAC	10	\$8,900	10
FCAID-450230	VAV-10-9	D30 - HVAC	10	\$2,860	10
FCAID-450231	VAV-11-1	D30 - HVAC	10	\$9,960	10
FCAID-450232	VAV-11-2	D30 - HVAC	10	\$9,960	10
FCAID-450233	VAV-11-3	D30 - HVAC	10	\$3,430	10