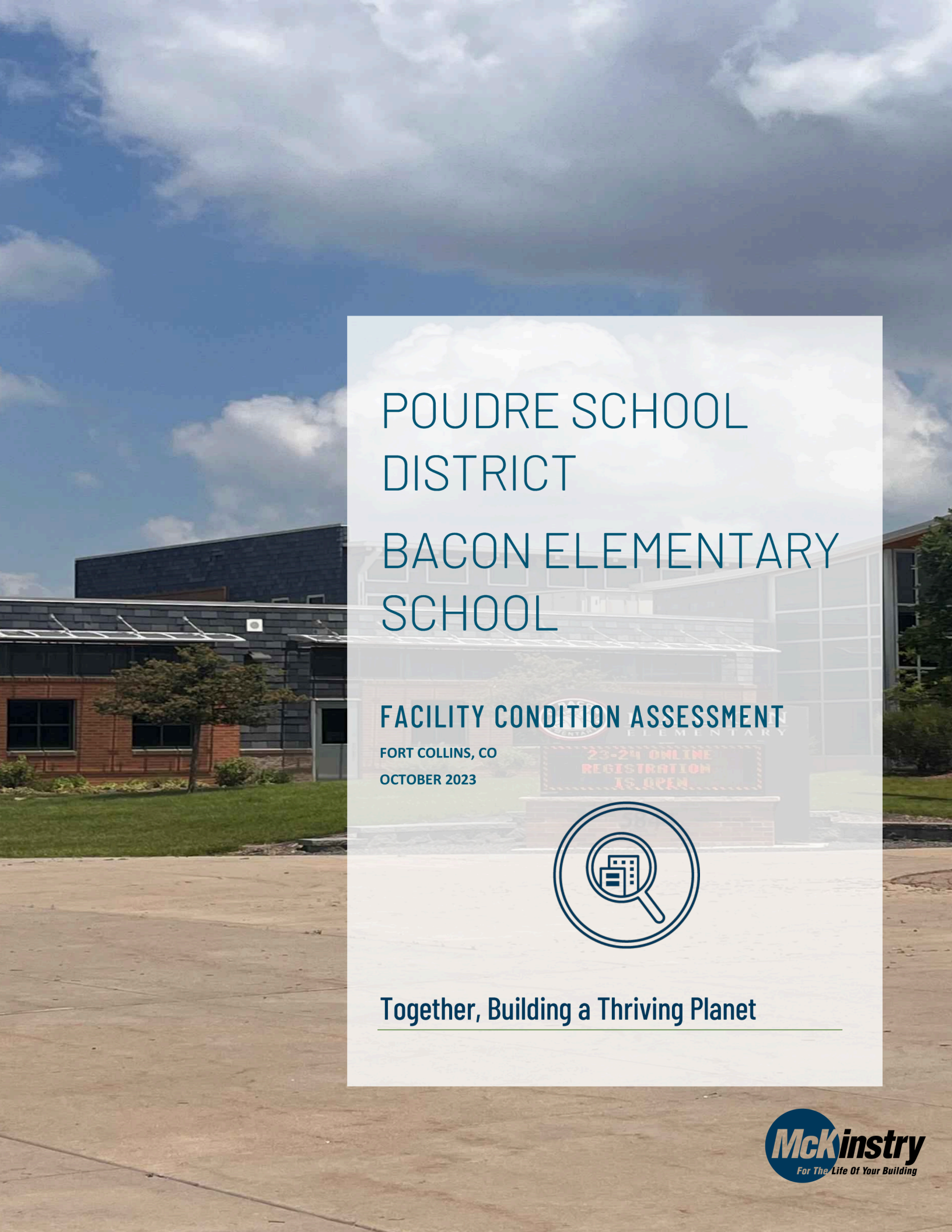

POUDRE SCHOOL DISTRICT

BACON ELEMENTARY SCHOOL

FACILITY CONDITION ASSESSMENT

FORT COLLINS, CO

OCTOBER 2023

Together, Building a Thriving Planet

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For The Life Of Your Building

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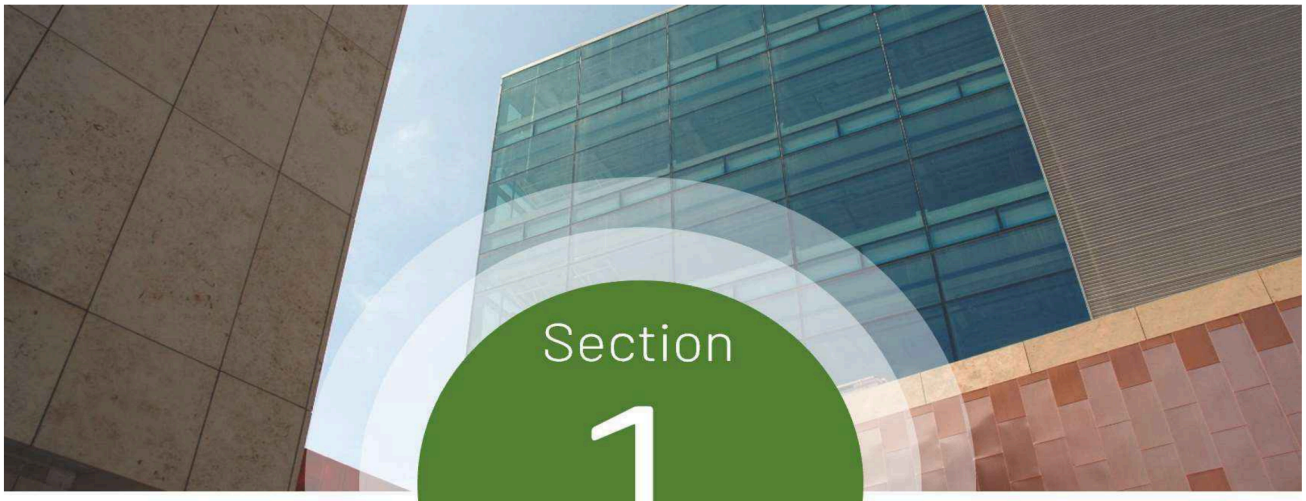

Section

1

Executive Summary

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Executive Summary

Project Goals

The contents of this report present the results of the Facility Condition Assessment (FCA) performed at Bacon ES within the Poudre School District (PSD) on June 5, 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
BACON ES	65,299	2003
TOTAL	**65,299**	

Facility Summary

Bacon ES

Bacon ES is located at 5844 S. Timberline Rd., Fort Collins, CO 80528 . This 65,299 SF facility consists of two levels and was initially constructed in 2003. The equity index for this school is 0.9.

Bacon ES

Executive Summary

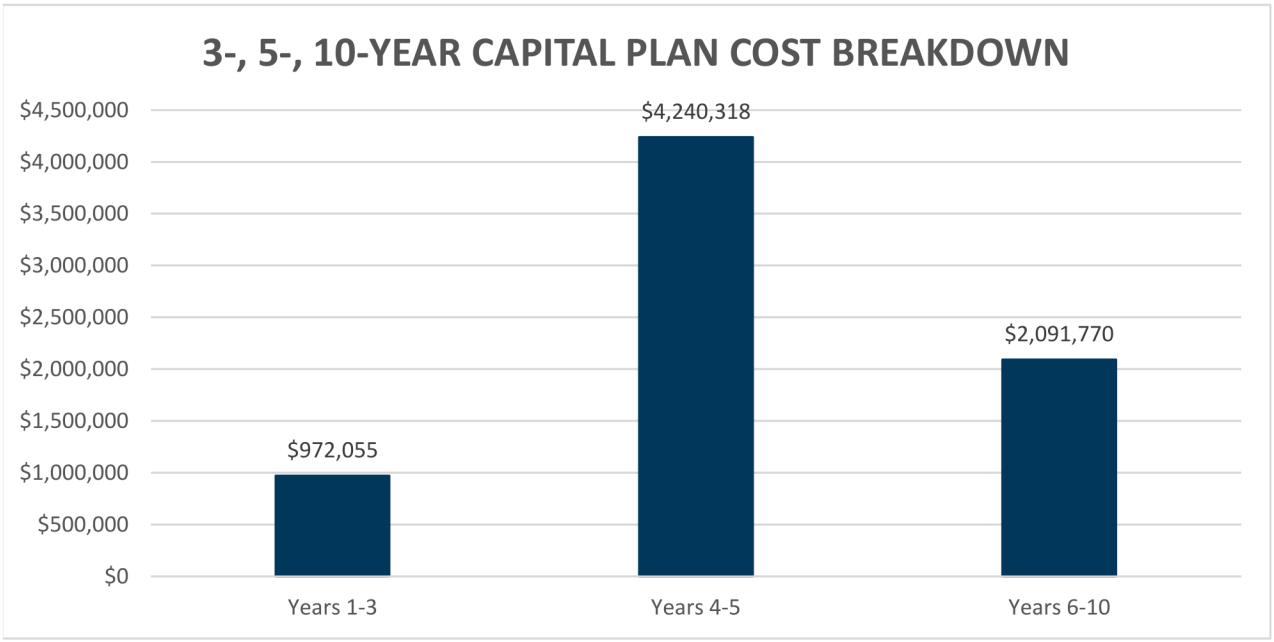
Assessment Summary

This section summarizes the building systems at the facility and describes the general condition observed based on the assessment performed on June 5, 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.



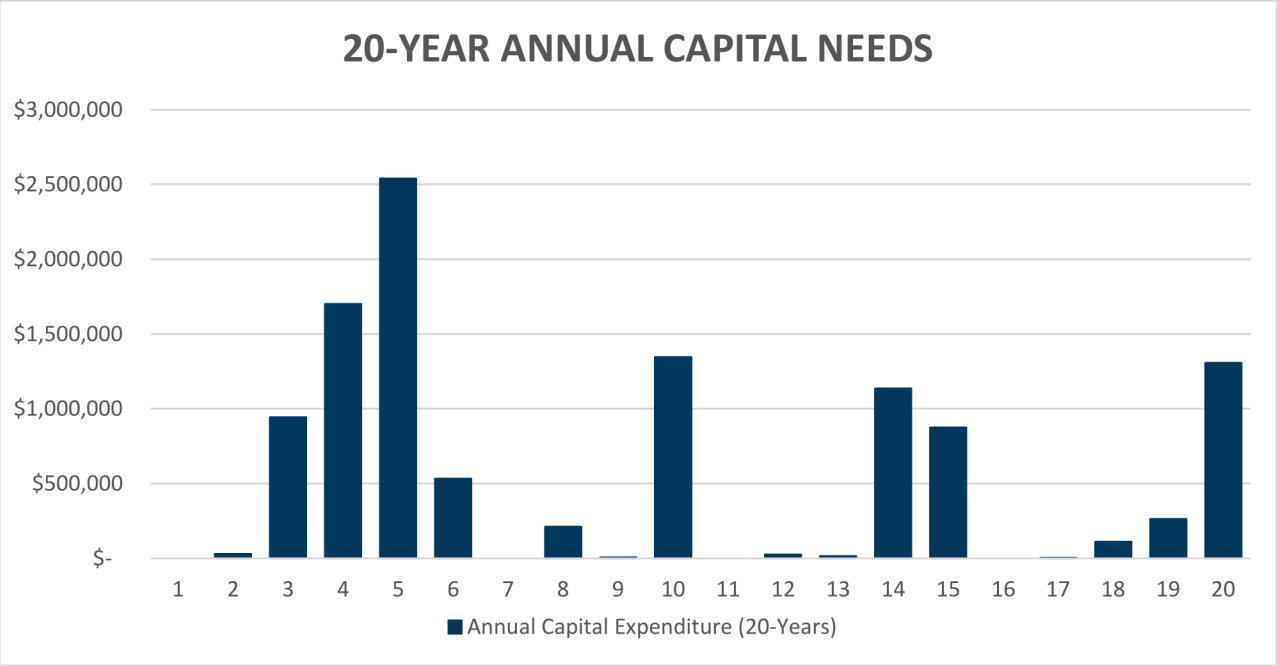
3-, 5-, 10-Year Capital Plan Cost Breakdown

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.

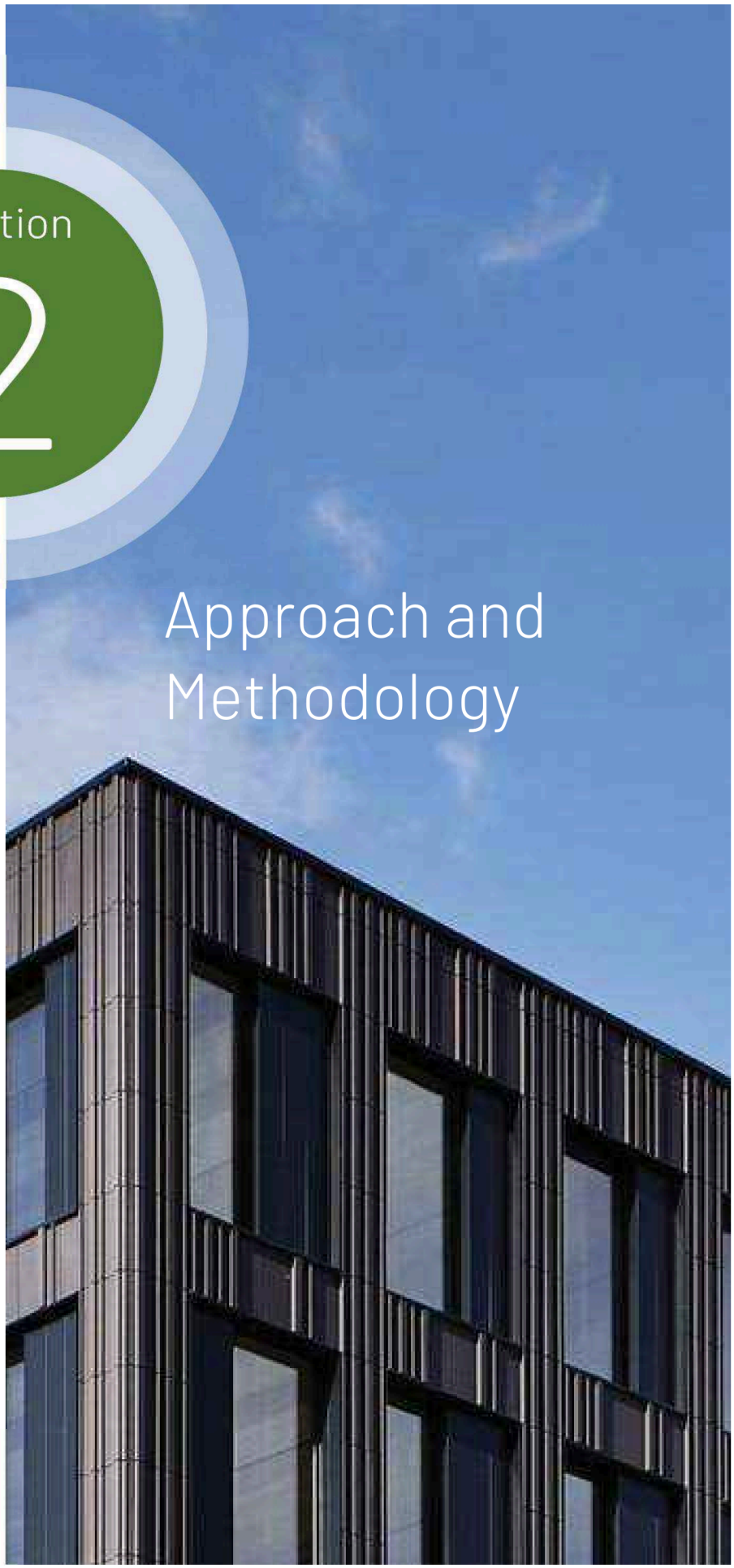
20-Year Annual Capital Expenditure by Subsystem

Subsystem	Years 1-5	Years 6-10	Years 11-15	Years 15-20
B20 - Enclosure	$0	$579,503	$0	$0
B30 - Roofing	$345,439	$0	$0	$0
C10 - Int. Construction	$0	$19,376	$0	$0
C20 - Stairs	$0	$0	$0	$0
C30 - Interior Finishes	$1,007,330	$531,458	$1,135,294	$253,271
D10 - Conveying	$0	$0	$121,658	$0
D20 - Plumbing	$39,420	$0	$25,276	$0
D30 - HVAC	$1,511,701	$21,671	$13,530	$185,947
D40 - Fire Suppression	$0	$939,763	$0	$0
D50 - Electrical	$2,289,247	$0	$752,634	$1,239,589
E10 - Equipment	$19,235	$0	$0	$0
Total:	**$3,859,603**	**$961,434**	**$913,099**	**$1,425,536**

Section

2

Approach and Methodology



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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

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:

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

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 Bacon ES is 0.9.

Sample Calculation:

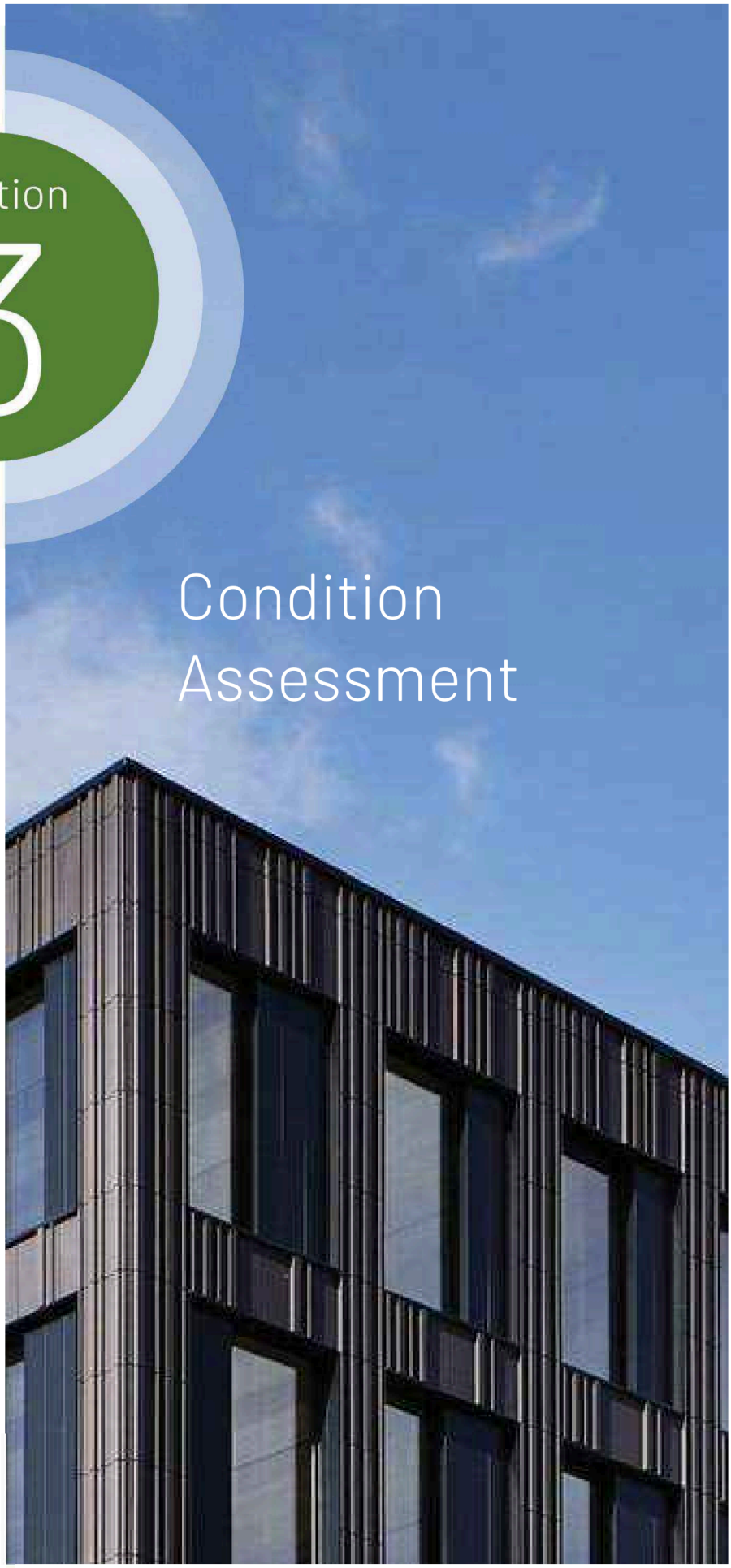
School Name	School Population K-12 Total	F/R	ELL	SPED	McKinney-Vento	Total of Previous Columns	Equity Index Number = school average / district average
Sample	381	15.20%	0.00%	8.40%	0.00%	0.24	0.24/0.48 = 0.49
Grand PSD Total - Oct 2022 Count	**26,163**	**29.5%**	**5.8%**	**9.5%**	**3.4%**	**0.48**	

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

Section

3

Condition Assessment



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Condition Assessment

SYSTEMS DESCRIPTION

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

Exterior Enclosure

The building's exterior walls consist primarily of concrete masonry unit (CMU), and are original to the building's initial construction in 2007. Exterior doors include both single and double meta doors, as well as aluminum/glass storefront doors for the main entrance. The exterior doors are original. Exterior glazing is primarily metal clad (operable) wood windows with some metal framed windows at entry elements and 2nd story common areas. No major deficiencies were noted with the building's exterior enclosure.

Roofing

The building's roofing consists of a combination of flat rolled asphalt, and standing seam accents [redacted]

Interior Construction and Finishes

Interior Finishes in the building has CMU walls [redacted]n common areas otherwise ACT in classrooms ... and concrete/carpet/tile/athletic flooring. The original buildings interior finishes are masonry walls, drywall/ACT ceilings and carpeted flooring.

Conveyance

The school has an elevator that serves two floors a[redacted]

Electrical and Lighting

The building's electrical distribution equipment consists predominately of 480/277 panels, transformers, and switchgear. [redacted] The fire alarm system dates to 2011. Interior lighting consists mostly of fluorescent fixtures. Exterior lighting is made up of a mixture of fluorescent, incandescent, and LED lights [redacted] Consider upgrading the remainder of interior and exterior lighting to light emitting diode (LED) fixtures to reduce energy costs and maintenance needs.

HVAC Systems

The building's heating, ventilation, and air conditioning (HVAC) system consists of a combination of unit ventilators serving the classrooms, and air handlers serving the FLEX gymnasium space. The unit ventilators units were installed in 2003, and are equipped with both heating and cooling coils. Heating water is provided by two (2) fuel fired boilers installed in 2023. Cooling is provided by one (1) Air-Cooled Chiller installed in 2002 along with an Ice Storage Unit being installed in 2018. Additional HVAC equipment includes packaged (DX) rooftop units, rooftop exhaust fans, fan coil units, and heating and cooling water distribution equipment. [redacted]r the Air-Cooled Chiller is at it anticipated end of life expectancy.

Plumbing

Domestic hot water is provided by a natural gas fired water heater along with a 250 gal storage tank and were both installed in 2003. Additional plumbing equipment includes four (4) backflow preventers. [redacted]

Fire Suppression

[redacted].

Equipment

There are two (2) walk-in coolers in use at this school, these units are equip[redacted]

Condition Assessment

PRIORITIES

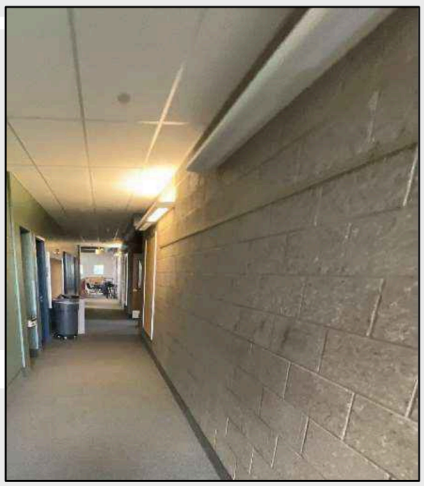
SPECIFIC PRIORITIES

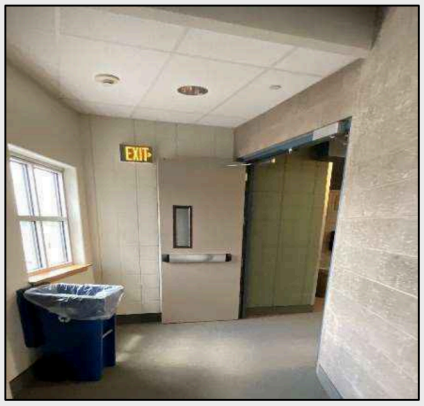
The top capital measures (up to five max) have been detailed in the following tables. Each measure receives a priority level of 1, 2, or 3. A priority level of 1 indicates that the measure is considered an immediate concern or a potential hazard and should be addressed as soon as possible. A priority 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.

Bacon ES

1. Replace outdated Lighting

A portion of the building's interior lighting utilizes fluorescent (T8) technology. This includes the classroom spaces, corridors, and administrative areas. Consider replacing these fixtures with light emitting diode (LED) fixtures to reduce the building's energy costs and maintenance needs. [redacted]





The following assets are included within this measure:

- Interior Lighting, Fluorescent (FCAID-010124)
- Emergency Back-up Lighting (FCAID-010122)

Priority Level:	2
Estimated Cost:	$1,248,520
Remaining Life:	5 years

Condition Assessment

2. Update Fire Alarm System

The fire alarm system was installed when Bacon Elementary School was built in 2011, [redacted]

The following assets are included within this measure:

- Fire Alarm System (FCAID-010121)

Priority Level: 2
Estimated Cost: $508,680
Remaining Life: 5 Years

3. Replace outdated HVAC (RTU / Package Units)

Eight (8) outdated HVAC (RTU / Package Units) need replacement [redacted]

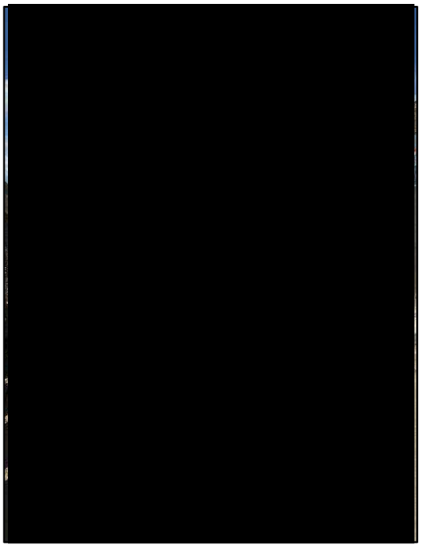
The following assets are included within this measure:

- RTU-1 (FCAID-010064)
- RTU-5 (FCAID-010068)
- RTU-4 (FCAID-010067)
- RTU-3 (FCAID-010066)
- RTU-2 (FCAID-010065)
- RTU-6 (FCAID-010069)
- CLRTU-2 (FCAID-010063)
- CLRTU-1 (FCAID-010062)

Priority Level: 1
Estimated Cost: $727,230
Remaining Life: 3 Years

4. Replace outdated Chiller

The main Chiller is a 50 Ton unit [redacted] beyond its anticipated life expectancy and needs replacing.



The following assets are included within this measure:

-CH-1 (FCAID-010031)

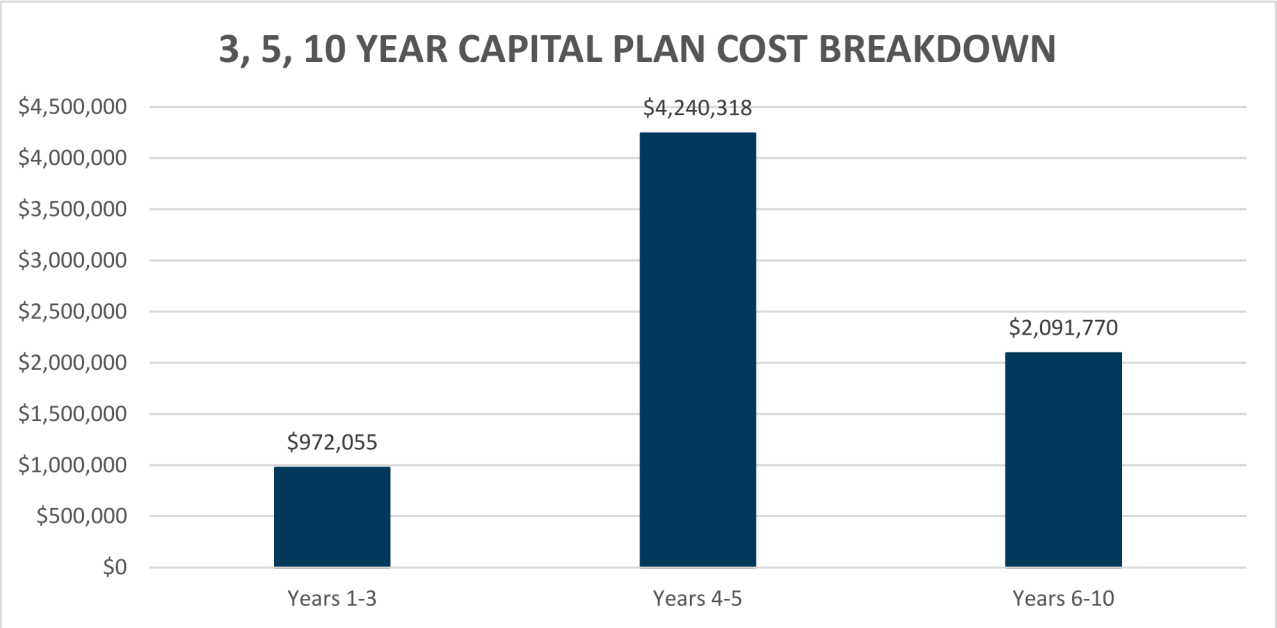
Priority Level:	2
Estimated Cost:	$142,666
Remaining Life:	4 Years

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.

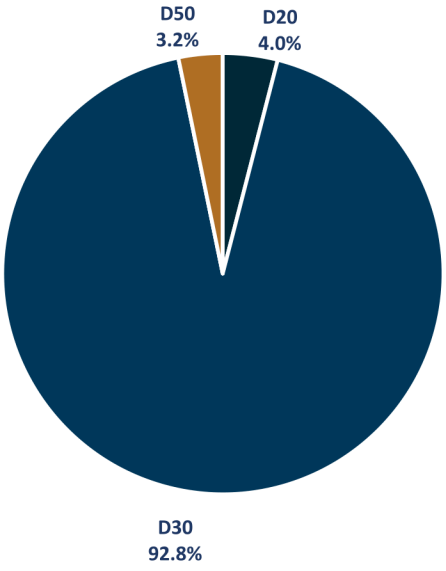
REPLACEMENT PERIOD	ASSET QUANTITY	CUMULATIVE REPLACEMENT COST
3-Year Plan	19	$972,055
5-Year Plan	84	$4,240,318
10-Year Plan	10	$2,091,770
Total	**113**	**$7,304,143**

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 $972,055. The specific assets that will reach end of life in this period are listed in Appendix A.

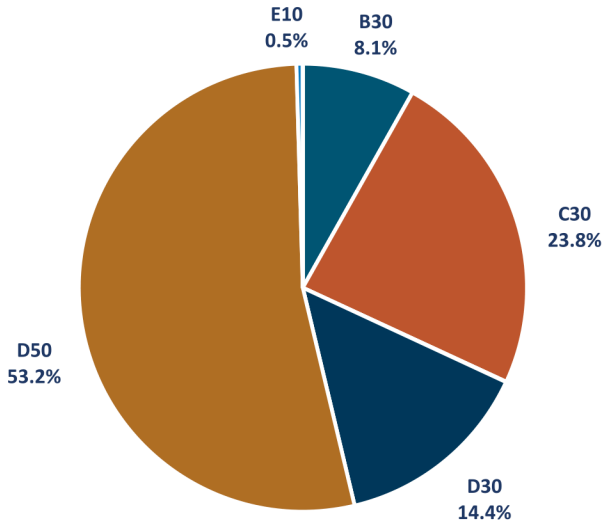
SUBSYSTEM	Years 1-3	Percent
A10 - Foundations	$0	0%
B10 - Superstructure	$0	0%
B20 - Exterior Enclosure	$0	0%
B30 - Roofing	$0	0%
C10 - Int. Construction	$0	0%
C20 - Stairs	$0	0%
C30 - Interior Finishes	$0	0%
D10 - Conveying	$0	0%
D20 - Plumbing	$38,983	4%
D30 - HVAC	$901,585	93%
D40 - Fire Protection	$0	0%
D50 - Electrical	$31,488	3%
E10 - Equipment	$0	0%
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 $4,240,318. 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	$0	0%
B30 - Roofing	$345,439	8%
C10 - Int. Construction	$0	0%
C20 - Stairs	$0	0%
C30 - Interior Finishes	$1,007,330	24%
D10 - Conveying	$0	0%
D20 - Plumbing	$437	<1%
D30 - HVAC	$610,117	14%
D40 - Fire Protection	$0	0%
D50 - Electrical	$2,257,759	53%
E10 - Equipment	$19,235	<1%
G20 - Site Improvements	$0	0%
G40 - Site Electrical	$0	0%

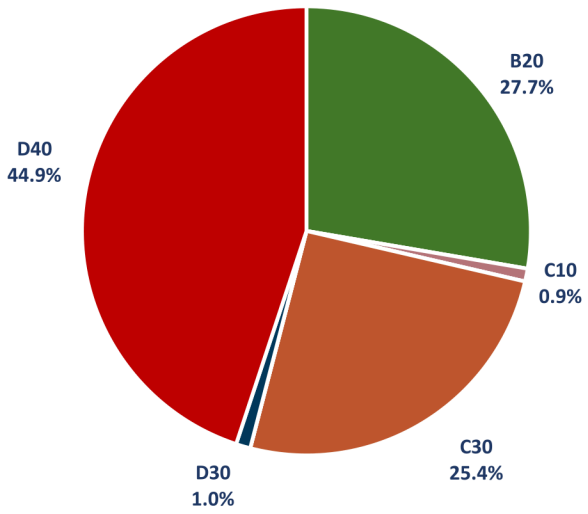


Condition Assessment

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 $2,091,770. 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	$579,503	28%
B30 - Roofing	$0	0%
C10 - Int. Construction	$19,376	1%
C20 - Stairs	$0	0%
C30 - Interior Finishes	$531,458	25%
D10 - Conveying	$0	0%
D20 - Plumbing	$0	0%
D30 - HVAC	$21,671	1%
D40 - Fire Protection	$939,763	45%
D50 - Electrical	$0	0%
E10 - Equipment	$0	0%
G20 - Site Improvements	$0	0%
G40 - Site Electrical	$0	0%



Condition Assessment

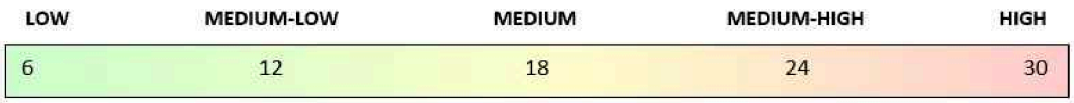
PRIORITY SUMMARY

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.

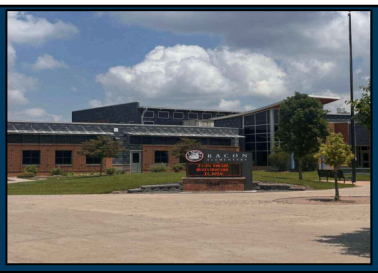
Future Capital Plan

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.



Condition Assessment

PRIORITY SCORE SUMMARY - BACON ES



BACON ES

BUILDING TYPE:	Elementary School
YEAR BUILT:	2003
GROSS AREA (SF):	65,299
DATE ASSESSED:	June 7, 2023
PRIORITY SCORE:	**16.7**

SUBSYSTEM:	DESCRIPTION	PRIORITY SCORE
B20 - Ext. Enclosure	The building's exterior walls consist primarily of concrete masonry unit (CMU), and are original to the building's initial construction in 2007. Exterior doors include both single and double meta doors, as well as aluminum/glass storefront doors for the main entrance. The exterior doors are original. Exterior glazing is primarily metal clad (operable) wood windows with some metal framed windows at entry elements and 2nd story common areas. No major deficiencies were noted with the building's exterior enclosure.	**13.1**
B30 - Roofing	The building's roofing consists of a combination of flat rolled asphalt, and standing seam accents above skylights and roof edges. There are multiple light pipes installed on the rooftop, which appear to have been installed in 2017. [redacted]	**16.5**
C10 - Int. Construction	Interior Finishes in the building has CMU walls [redacted] in common areas otherwise ACT in classrooms ... and concrete/carpet/tile/athletic flooring. The original buildings interior finishes are masonry walls, drywall/ACT ceilings and carpeted flooring.	**14.0**
C30 - Interior Finishes		**15.9**
D20 - Plumbing	Domestic hot water is provided by a natural gas fired water heater along with a 250 gal storage tank and were both installed in 2003. Additional plumbing equipment includes four (4) backflow preventers. [redacted]	**14.9**
D30 - HVAC	The building's heating, ventilation, and air conditioning (HVAC) system consists of a combination of unit ventilators serving the classrooms, and air handlers serving the FLEX gymnasium space. The unit ventilators units were installed in 2003, and are equipped with both heating and cooling coils. Heating water is provided by two (2) fuel fired boilers installed in 2023. Cooling is provided by one (1) Air-Cooled Chiller installed in 2002 along with an Ice Storage Unit being installed in 2018. Additional HVAC equipment includes packaged (DX) rooftop units, rooftop exhaust fans, fan coil units, and heating and cooling water distribution equipment. [redacted] however the Air-Cooled Chiller is at it anticipated end of life expectancy.	**17.0**
D40 - Fire Suppression	[redacted]	**20.0**
D50 - Electrical	The building's electrical distribution equipment consists predominately of 480/277 panels, transformers, and switchgear. [redacted] The fire alarm system dates to 2011. Interior lighting consists mostly of fluorescent fixtures. Exterior lighting is made up of a mixture of fluorescent, incandescent, and LED lights [redacted] Consider upgrading the remainder of interior and exterior lighting to light emitting diode (LED) fixtures to reduce energy costs and maintenance needs.	**22.0**
E10 - Equipment	There are two (2) walk-in coolers in use at this school, these units are equipped with rooftop condensers. [redacted]	**15.0**

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

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.

BACON ES

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING	REPLACEMENT COST	PRIORITY SCORE
FCAID-010068	RTU-5	D30 - HVAC	3	$176,330	22
FCAID-010064	RTU-1	D30 - HVAC	3	$189,840	22
FCAID-010067	RTU-4	D30 - HVAC	3	$127,980	20
FCAID-010065	RTU-2	D30 - HVAC	3	$81,050	19
FCAID-010069	RTU-6	D30 - HVAC	3	$35,550	19
FCAID-010066	RTU-3	D30 - HVAC	3	$85,320	19
FCAID-010062	CLRTU-1	D30 - HVAC	3	$31,160	18
FCAID-010063	CLRTU-2	D30 - HVAC	3	$31,160	18
FCAID-010119	Backup Generator	D50 - Electrical	3	$22,400	17
FCAID-010026	WH-1	D20 - Plumbing	2	$18,260	16
FCAID-010070	SF-1	D30 - HVAC	3	$6,560	16
FCAID-010028	Cabinet Unit Heaters	D30 - HVAC	3	$52,850	16
FCAID-010024	P-8	D20 - Plumbing	3	$4,630	14
FCAID-010023	P-7	D20 - Plumbing	3	$4,630	14
FCAID-010025	ST-2	D20 - Plumbing	2	$10,050	14
FCAID-010120	Exterior Lighting: Wall Packs, Incandescent	D50 - Electrical	3	$7,280	14
FCAID-010071	UH-1	D30 - HVAC	3	$4,520	13
FCAID-010053	ET-3	D30 - HVAC	3	$18,250	11
FCAID-010054	ET-1	D30 - HVAC	3	$9,260	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.

BACON ES

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-010124	Interior Lighting - Fluorescent	D50 - Electrical	5	$999,730	24
FCAID-010122	Emergency Back-Up Lighting	D50 - Electrical	5	$248,790	24
FCAID-010121	Fire Alarm System	D50 - Electrical	5	$508,680	22
FCAID-010031	CH-1	D30 - HVAC	4	$142,670	21
FCAID-010141	Security System	D50 - Electrical	5	$248,790	20
FCAID-010010	Roofing: Rolled Asphalt	B30 - Roofing	4	$290,180	18
FCAID-010017	Interior Finishes: Carpet	C30 - Int. Finishes	4	$773,080	17
FCAID-010048	RH-105	D30 - HVAC	5	$6,710	16
FCAID-010051	RH-202	D30 - HVAC	5	$6,710	16
FCAID-010049	RH-106	D30 - HVAC	5	$6,710	16
FCAID-010052	RH-203	D30 - HVAC	5	$6,710	16
FCAID-010050	RH-201	D30 - HVAC	5	$5,550	16
FCAID-010047	RH-104	D30 - HVAC	5	$6,710	16
FCAID-010046	RH-103	D30 - HVAC	5	$6,710	16
FCAID-010044	RH-101	D30 - HVAC	5	$6,710	16
FCAID-010045	RH-102	D30 - HVAC	5	$6,710	16
FCAID-010150	Evaporator: Walk-in Cooler	E10 - Equipment	5	$6,030	15
FCAID-010149	Walk-In Condenser	E10 - Equipment	5	$5,030	15
FCAID-010033	EF-1	D30 - HVAC	5	$27,120	15
FCAID-010151	Evaporator: Walk-in Freezer	E10 - Equipment	5	$6,030	15
FCAID-010030	P-4	D30 - HVAC	5	$11,900	14
FCAID-010029	P-3	D30 - HVAC	5	$11,900	14
FCAID-010059	P-1	D30 - HVAC	5	$11,900	14
FCAID-010009	Solar Tunnel	B30 - Roofing	5	$25,190	14
FCAID-010060	P-2	D30 - HVAC	5	$11,900	14

FCAID-010079	TB1-106A	D30 - HVAC	4	$3,300	13
FCAID-010114	TB5-216	D30 - HVAC	4	$5,640	13
FCAID-010094	TB4-114	D30 - HVAC	4	$3,300	13
FCAID-010019	Interior Finishes: VCT	C30 - Int. Finishes	4	$49,590	13
FCAID-010078	TB1-105	D30 - HVAC	4	$4,700	13
FCAID-010020	Interior Finishes: VCT Rolled Goods	C30 - Int. Finishes	4	$49,590	13
FCAID-010086	TB1-110	D30 - HVAC	4	$3,300	13
FCAID-010018	Interior Finishes: Laminate	C30 - Int. Finishes	4	$49,590	13
FCAID-010111	TB5-213	D30 - HVAC	4	$5,640	13
FCAID-010107	TB5-125	D30 - HVAC	4	$7,270	13
FCAID-010043	EF-9	D30 - HVAC	5	$6,710	13
FCAID-010039	EF-5	D30 - HVAC	5	$16,270	13
FCAID-010101	TB5-119	D30 - HVAC	4	$4,700	13
FCAID-010108	TB5-126	D30 - HVAC	4	$7,270	13
FCAID-010083	TB1-108	D30 - HVAC	4	$3,300	13
FCAID-010109	TB5-127	D30 - HVAC	4	$7,270	13
FCAID-010088	TB1-203	D30 - HVAC	4	$3,300	13
FCAID-010038	EF-4	D30 - HVAC	5	$6,710	13
FCAID-010102	TB5-120	D30 - HVAC	4	$3,300	13
FCAID-010035	EF-11	D30 - HVAC	5	$5,550	13
FCAID-010113	TB5-215	D30 - HVAC	4	$5,640	13
FCAID-010036	EF-2	D30 - HVAC	5	$5,550	13
FCAID-010034	EF-10	D30 - HVAC	5	$5,550	13
FCAID-010040	EF-6	D30 - HVAC	5	$5,550	13
FCAID-010077	TB1-104	D30 - HVAC	4	$7,270	13
FCAID-010037	EF-3	D30 - HVAC	5	$5,550	13
FCAID-010104	TB5-122	D30 - HVAC	4	$3,300	13
FCAID-010042	EF-8	D30 - HVAC	5	$8,190	13
FCAID-010105	TB5-123	D30 - HVAC	4	$3,300	13
FCAID-010076	TB1-103	D30 - HVAC	4	$4,700	13
FCAID-010112	TB5-214	D30 - HVAC	4	$3,300	13
FCAID-010098	TB4-208	D30 - HVAC	4	$4,700	13
FCAID-010074	TB1-102A	D30 - HVAC	4	$2,680	13
FCAID-010117	TB6-130	D30 - HVAC	4	$4,700	13
FCAID-010081	TB1-106C	D30 - HVAC	4	$2,680	13
FCAID-010082	TB1-107	D30 - HVAC	4	$3,300	13
FCAID-010116	TB6-129	D30 - HVAC	4	$2,680	13
FCAID-010084	TB1-109	D30 - HVAC	4	$3,300	13
FCAID-010041	EF-7	D30 - HVAC	5	$8,190	13
FCAID-010087	TB1-202	D30 - HVAC	4	$3,300	13
FCAID-010099	TB4-209	D30 - HVAC	4	$5,640	13
FCAID-010093	TB4-113	D30 - HVAC	4	$3,300	13
FCAID-010100	TB4-210	D30 - HVAC	4	$5,640	13
FCAID-010095	TB4-115	D30 - HVAC	4	$3,300	13
FCAID-010103	TB5-121	D30 - HVAC	4	$5,640	13
FCAID-010080	TB1-106B	D30 - HVAC	4	$7,270	13
FCAID-010110	TB5-212	D30 - HVAC	4	$5,640	13

FCAID-010106	TB5-124	D30 - HVAC	4	$3,300	13
FCAID-010073	TB1-101	D30 - HVAC	4	$5,640	13
FCAID-010115	TB6-128	D30 - HVAC	4	$3,300	13
FCAID-010089	TB1-204	D30 - HVAC	4	$5,640	13
FCAID-010075	TB1-102B	D30 - HVAC	4	$2,680	13
FCAID-010090	TB1-205	D30 - HVAC	4	$5,640	13
FCAID-010091	TB4-111	D30 - HVAC	4	$2,680	13
FCAID-010092	TB4-112	D30 - HVAC	4	$5,640	13
FCAID-010085	TB-111	D30 - HVAC	4	$2,300	13
FCAID-010096	TB4-117	D30 - HVAC	4	$5,640	13
FCAID-010097	TB4-118	D30 - HVAC	4	$5,640	13
FCAID-010022	BFP-Domestic Cold Water	D20 - Plumbing	4	$400	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.

BACON ES

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-010118	Wet Sprinkler System	D40 - Fire Prot.	10	$720,250	20
FCAID-010016	Interior Finishes: Acoustical Tile	C30 - Int. Finishes	6	$458,440	15
FCAID-010032	CU-1	D30 - HVAC	8	$10,050	14
FCAID-010004	Exterior Doors: Metal/Glass, Double	B20 - Ext. Enclosure	10	$188,480	13
FCAID-010007	Exterior Walls: Fabricated Shingles	B20 - Ext. Enclosure	8	$157,470	13
FCAID-010072	UH-2	D30 - HVAC	9	$4,020	11
FCAID-010005	Exterior Doors: Metal/Glass, Single	B20 - Ext. Enclosure	10	$47,710	11
FCAID-010003	Exterior Doors: Hollow Metal, Double	B20 - Ext. Enclosure	10	$59,520	11
FCAID-010058	Gas Meter	D30 - HVAC	8	$3,430	9
FCAID-010014	Interior Windows: Steel Casement	C10 - Int. Construct.	10	$14,850	9