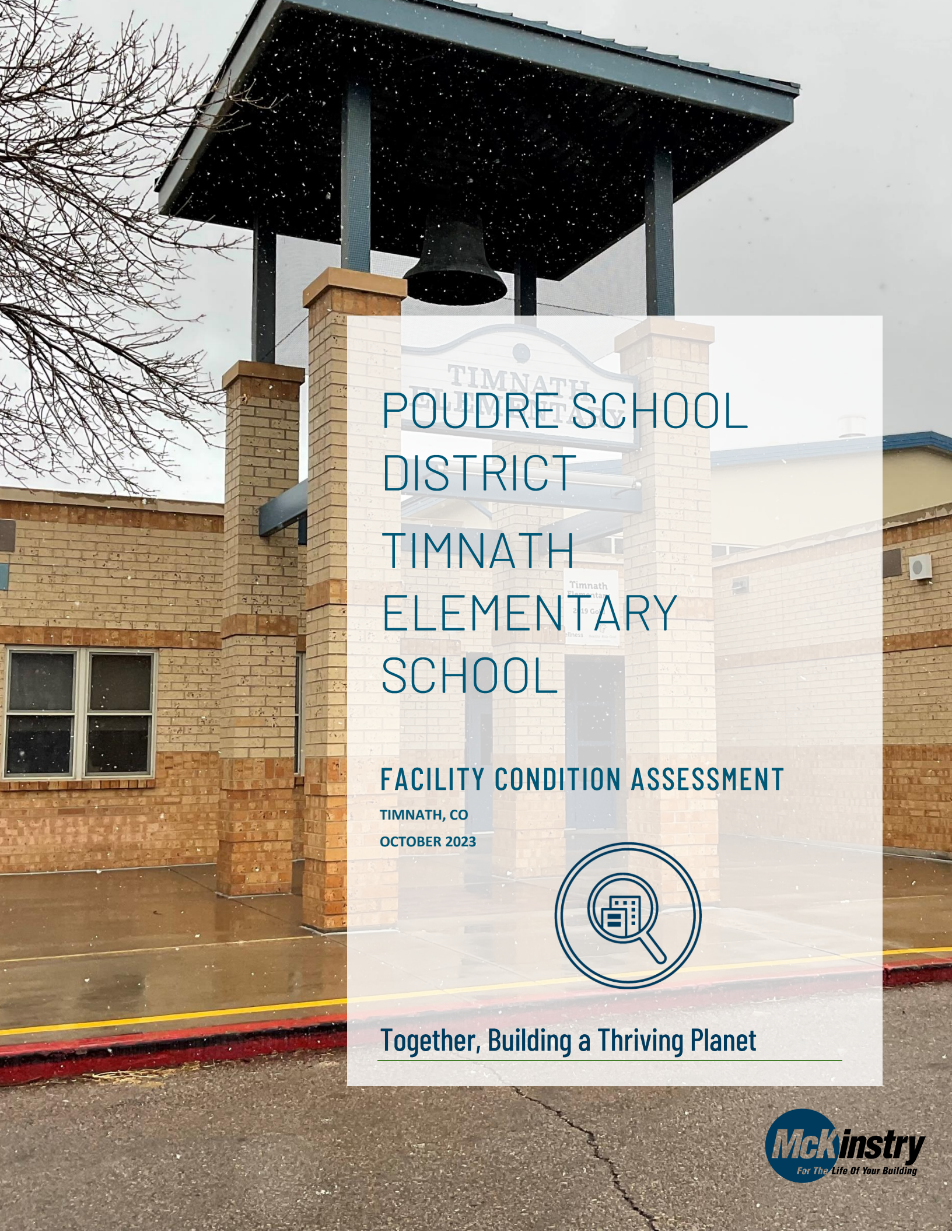




POUDRE SCHOOL DISTRICT TIMNATH ELEMENTARY SCHOOL

FACILITY CONDITION ASSESSMENT

TIMNATH, CO
OCTOBER 2023



Together, Building a Thriving Planet

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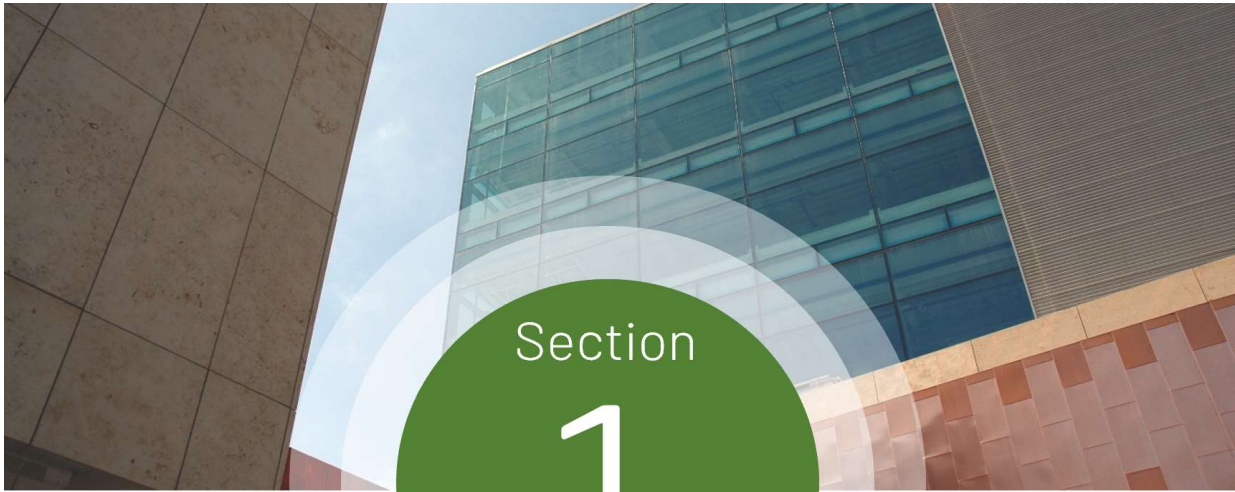
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Section

1

Executive Summary

Executive Summary

Project Goals

The contents of this report present the results of the Facility Condition Assessment (FCA) performed at Timnath 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
TIMNATH ES	74,265	1919
TOTAL	74,265	

Facility Summary

Timnath ES

Timnath ES is located at 3909 Main St. Timnath, CO 80547. This 74,265 SF facility consists of three levels and was initially constructed in 1919. The equity index for this school is 1.05.



Timnath ES

Executive Summary

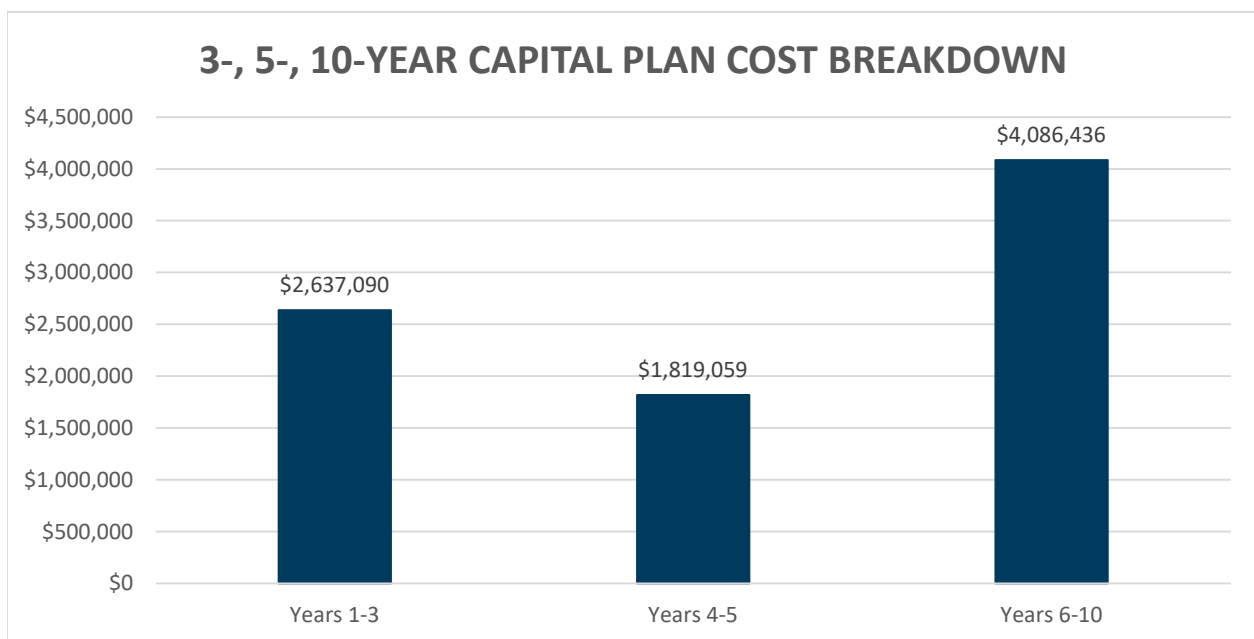
Assessment Summary

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.



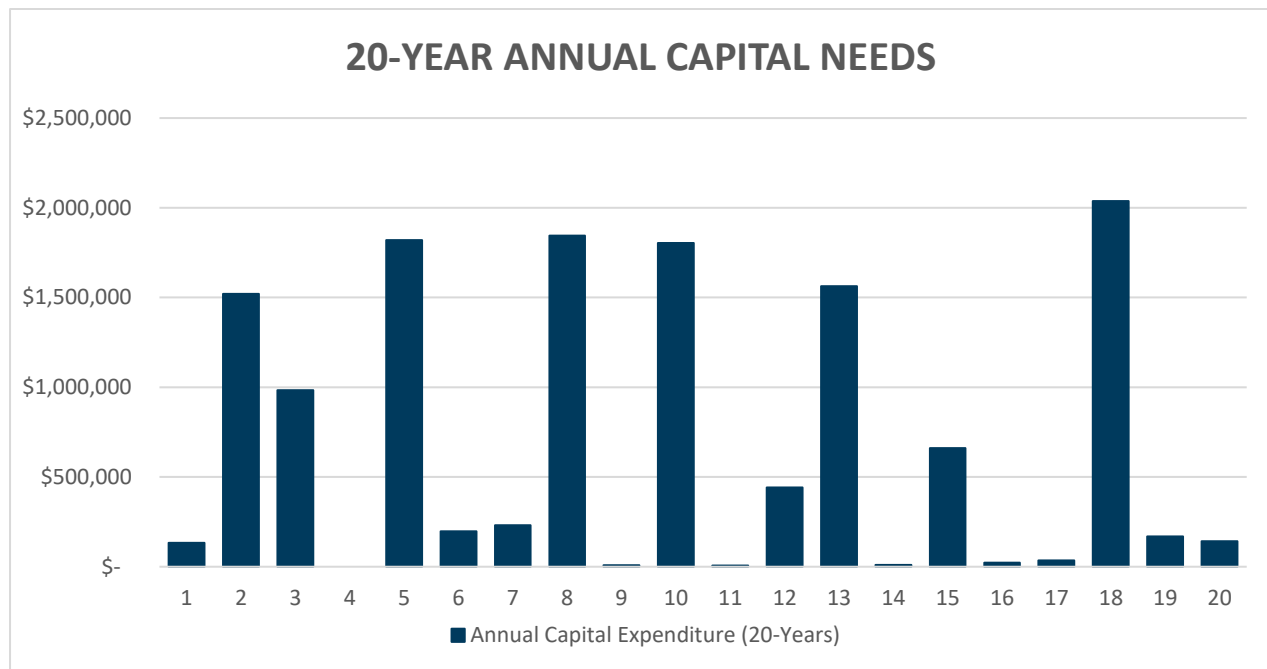
3-, 5-, 10-Year Capital Plan Cost Breakdown

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	\$696,019	\$1,241,368	\$0	\$0
B30 - Roofing	\$120,273	\$113,985	\$51,469	\$870,121
C10 - Int. Construction	\$63,119	\$727,372	\$125,742	\$0
C20 - Stairs	\$20,620	\$96,879	\$0	\$0
C30 - Interior Finishes	\$925,018	\$318,754	\$1,506,445	\$93,567
D10 - Conveying	\$0	\$0	\$0	\$0
D20 - Plumbing	\$40,645	\$5,528	\$52,186	\$0
D30 - HVAC	\$1,354,352	\$481,311	\$114,233	\$1,264,841
D40 - Fire Suppression	\$0	\$0	\$0	\$0
D50 - Electrical	\$1,236,103	\$1,071,575	\$831,227	\$175,007
E10 - Equipment	\$0	\$29,665	\$0	\$0
Total:	\$4,456,149	\$4,086,436	\$2,681,301	\$2,403,535

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 Timnath ES is 1.05.

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 Timnath ES 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 is a three story brick building constructed in 1919. Subsequent additions to the school were completed in 1953 (Gym), 1988, and 2001 (Cafeteria/Kitchen). All sections of the school are primarily of brick construction, but the Gym is also provided stucco walls. Exterior doors and windows are of varying ages and condition. [REDACTED]

Roofing

Roofing includes sections of 2001 rolled asphalt, 2001 built-up, 2016 EPDM, and 2016 metal standing seam. The rolled asphalt roofing is expected to require replacement in approximately three years.

Interior Construction and Finishes

Interior walls are primarily of brick and CMU and vary in age. Many of the interior finish components were updated in 2001 but some original finishes remain, especially historic original components in the 1919 building. Carpeting is expected to be replaced within three years, and VCT tile flooring within five years.

Conveyance

The building is not provided an elevator, [REDACTED]

Electrical and Lighting

The building includes both 120/208V and 277/480V service. Electrical assets, including panelboards, transformers, and switchboards vary in age. [REDACTED]

[REDACTED] The Gym and Media Center were updated to LED fixtures in 2018. [REDACTED] The security system and fire alarm system were replaced in 2016.

HVAC Systems

HVAC assets include three 2001-built AHUs, two furnaces, two RTUs, CUHs, BBRs, Exhaust Fans, and (28) VUVs of varying ages. The Heating System is comprised of three boilers and four HWP's. All three boilers are at expected life and are expected to require replacement within two years. P-1 and P-2 date to 1992, are 11 years past expected life, and are expected to require replacement within two years. The BAS was updated in 2016.

Plumbing

Plumbing assets include two BFPs, two DHW circulation pumps, [REDACTED] and four gas-fired water heaters. Two instantaneous water heaters date to 2014. GWH-1 was replaced in 2010 and is expected to require replacement in three years. GWH-3 (located in Annex Building) dates to 2005 is [REDACTED] requiring replacement in two years.

Fire Suppression

The fire alarm system was replaced in 2016 and is consistent with current fire code requirements. Anticipate replacement of the fire alarm system within 5 years.

Equipment

The Walk-In Cooler and Walk-In Freezer date to the construction of the 2001 Addition and have an estimated 8 years of remaining life. [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.

Timnath ES

Replace Back-Up Generator & ATS-1

The back-up generator serving this building dates to 1992 [REDACTED]
[REDACTED] Total Run Hours = 753.0 . The associated ATS-1 dates to 1997 and should be replaced at the time that the generator is replaced.

The following assets are included within this measure:

FCAID-560059, FCAID-560161



Priority Level:	1
Estimated Cost:	\$55,610
Remaining Life:	1-3 Years

Condition Assessment

Replace Boiler-1-North, Boiler-2-North, Boiler-3-South

All three boilers are at expected life and are expected to require replacement within two years. [REDACTED]



The following assets are included within this measure:

FCAID-560106, FCAID-560107, FCAID-560108



Priority Level: 2
Estimated Cost: \$231,380
Remaining Life: 2 Years

Replace P-1 & P-2

Heating Water Pumps P-1 and P-2 date to 1992, are 11 years past expected life, and are expected to require replacement within two years.



The following assets are included within this measure:

FCAID-560044, FCAID-560044



Priority Level: 2
Estimated Cost: \$23,800
Remaining Life: 2 Years

Condition Assessment

Replace (17) Incandescent Exterior Wall Packs

[REDACTED]



The following assets are included within this measure:

FCAID-560163, FCAID-560164

Priority Level: 2
Estimated Cost: \$10,310
Remaining Life: 1-3 Years

Replace GWH-3 (Annex)

GWH-3 (located in Annex Building) dates to 2005 [REDACTED] requiring replacement in two years.



The following assets are included within this measure:

FCAID-560052

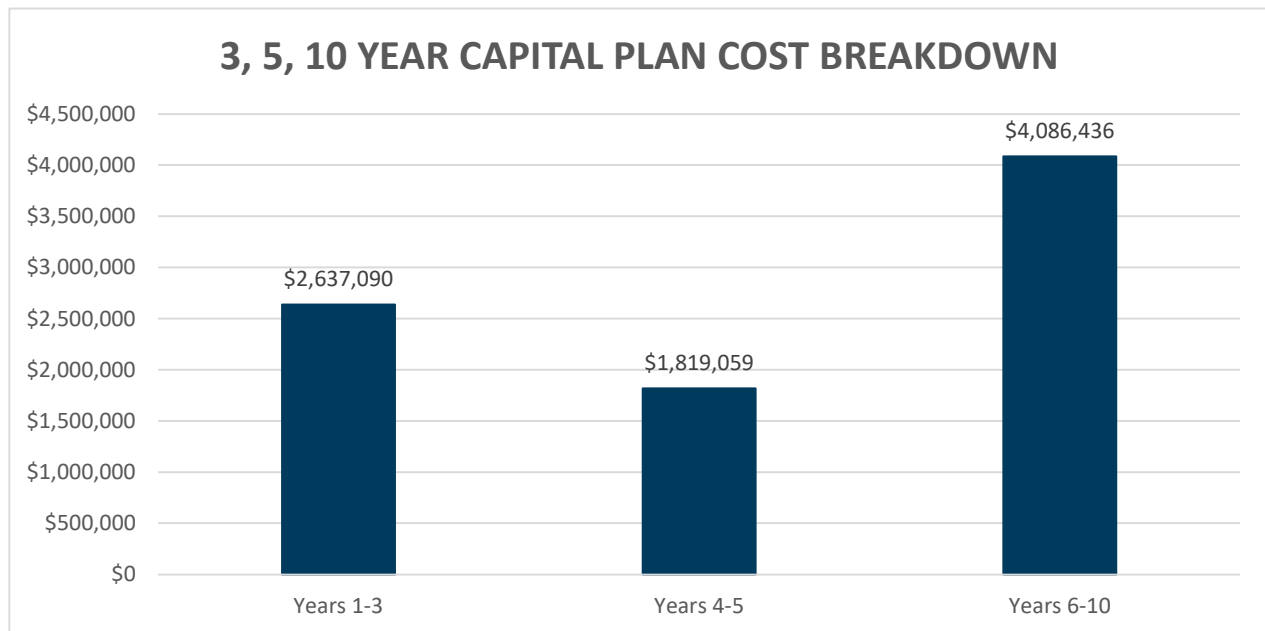
Priority Level: 2
Estimated Cost: \$9,650
Remaining Life: 2 Years

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.

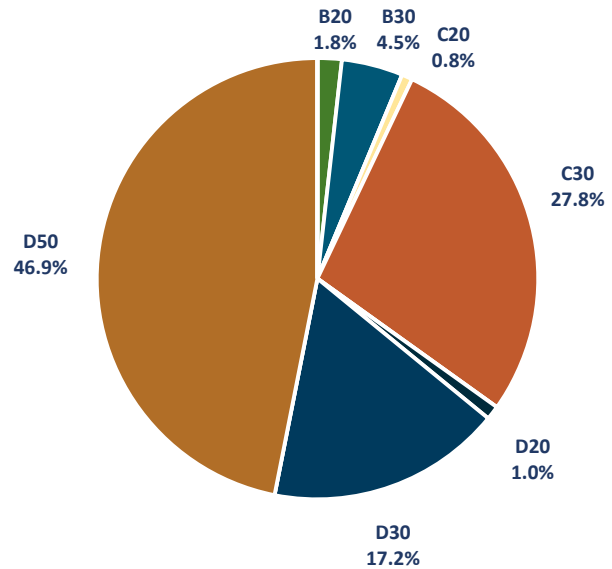
REPLACEMENT PERIOD	ASSET QUANTITY	CUMULATIVE REPLACEMENT COST
3-Year Plan	36	\$2,637,090
5-Year Plan	61	\$1,819,059
10-Year Plan	44	\$4,086,436
Total	141	\$8,542,585

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 \$2,637,090. The specific assets that will reach end of life in this period are listed in Appendix A.

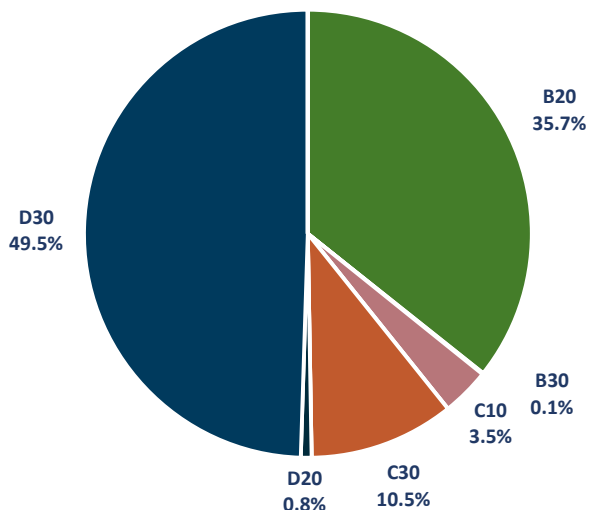
SUBSYSTEM	Years 1-3	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$46,600	2%
B30 - Roofing	\$118,810	5%
C10 - Int. Construction	\$0	0%
C20 - Stairs	\$20,620	1%
C30 - Interior Finishes	\$734,323	28%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$26,621	1%
D30 - HVAC	\$454,012	17%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$1,236,103	47%
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 \$1,819,059. 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	\$649,419	36%
B30 - Roofing	\$1,463	<1%
C10 - Int. Construction	\$63,119	3%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$190,695	10%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$14,024	1%
D30 - HVAC	\$900,340	49%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$0	0%
E10 - Equipment	\$0	0%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$0	0%

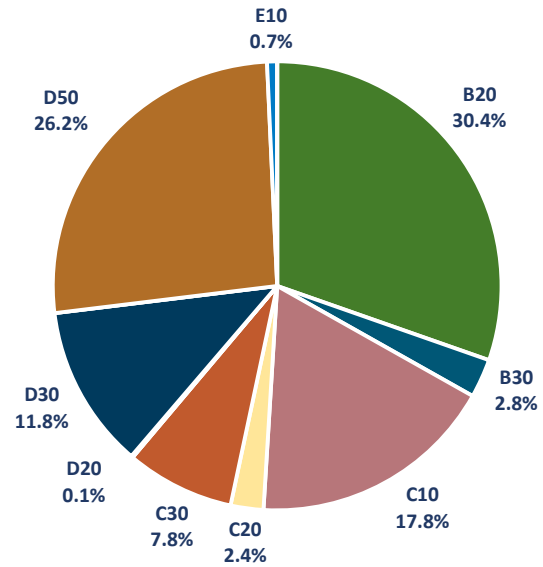


Condition Assessment

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 \$4,086,436. 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	\$1,241,368	30%
B30 - Roofing	\$113,985	3%
C10 - Int. Construction	\$727,372	18%
C20 - Stairs	\$96,879	2%
C30 - Interior Finishes	\$318,754	8%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$5,528	<1%
D30 - HVAC	\$481,311	12%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$1,071,575	26%
E10 - Equipment	\$29,665	1%
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 - TIMNATH ES

			TIMNATH ES	
			BUILDING TYPE:	Elementary School
			YEAR BUILT:	1919
			GROSS AREA (SF):	74,265
			DATE ASSESSED:	June 5, 2023
			PRIORITY SCORE:	16.3
SUBSYSTEM:	DESCRIPTION	PRIORITY SCORE		
B20 - Ext. Enclosure	The original building is a three story brick building constructed in 1919. Subsequent additions to the school were completed in 1953 (Gym), 1988, and 2001 (Cafeteria/Kitchen). All sections of the school are primarily of brick construction, but the Gym is also provided stucco walls. Exterior doors and windows are of varying ages and condition. [REDACTED]	13.6		
B30 - Roofing	Roofing includes sections of 2001 rolled asphalt, 2001 built-up, 2016 EPDM, and 2016 metal standing seam. The rolled asphalt roofing is expected to require replacement in approximately three years.	14.5		
C10 - Int. Construction	Interior walls are primarily of brick and CMU and vary in age. Many of the interior finish components were updated in 2001 but some original finishes remain, especially historic original components in the 1919 building. Carpeting is expected to be replaced within three years, and VCT tile flooring within five years.	12.8		
C30 - Interior Finishes		15.1		
D20 - Plumbing	Plumbing assets include two BFPs, two DHW circulation pumps, one 1988 sump pump in very poor condition, and four gas-fired water heaters. Two instantaneous water heaters date to 2014. GWH-1 was replaced in 2010 and is expected to require replacement in three years. GWH-3 (located in Annex Building) dates to 2005 [REDACTED] requiring replacement in two years.	14.2		
D30 - HVAC	HVAC assets include three 2001-built AHUs, two furnaces, two RTUs, CUHs, BBRs, Exhaust Fans, and (28) VUVs of varying ages. The Heating System is comprised of three boilers and four HWP's. All three boilers are at expected life and are expected to require replacement within two years. P-1 and P-2 date to 1992, are 11 years past expected life, and are expected to require replacement within two years. The BAS was updated in 2016.	15.8		
D40 - Fire Suppression	The fire alarm system was replaced in 2016 and is consistent with current fire code requirements. Anticipate replacement of the fire alarm system within 5 years.	N/A		
D50 - Electrical	The building includes both 120/208V and 277/480V service. Electrical assets, including panelboards, transformers, and switchboards vary in age. [REDACTED] [REDACTED] The Gym and Media Center were updated to LED fixtures in 2018. [REDACTED] [REDACTED] The security system and fire alarm system were replaced in 2016.	23.0		
E10 - Equipment	The Walk-In Cooler and Walk-In Freezer date to the construction of the 2001 Addition and have an estimated 8 years of remaining life. [REDACTED] [REDACTED]	14.0		

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

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.

TIMNATH ES

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING	REPLACEMENT COST	PRIORITY SCORE
FCAID-560166	Emergency Back-Up Lighting	D50 - Electrical	2	\$282,950	27
FCAID-560167	Interior Lighting: Fluorescent	D50 - Electrical	2	\$852,750	27
FCAID-560107	Boiler-2-North	D30 - HVAC	2	\$93,980	22
FCAID-560108	Boiler-3-South	D30 - HVAC	2	\$43,420	22
FCAID-560106	Boiler-1-North	D30 - HVAC	2	\$93,980	22
FCAID-560059	Back-Up Generator	D50 - Electrical	1	\$51,270	20
FCAID-560033	Exterior Stairs: 1919 Concrete	C20 - Stairs	1	\$20,620	19
FCAID-560125	RTU-Main Office	D30 - HVAC	3	\$31,160	18
FCAID-560126	RTU-Room 34	D30 - HVAC	3	\$24,290	18
FCAID-560010	Exterior Windows: 1953 Steel Framed	B20 - Ext. Enclosure	1	\$46,600	18
FCAID-560163	Exterior Lighting: 1988 Wall Packs, Incandescent	D50 - Electrical	1	\$7,880	17
FCAID-560044	P-1	D30 - HVAC	2	\$11,900	17
FCAID-560045	P-2	D30 - HVAC	2	\$11,900	17
FCAID-560036	Interior Flooring: Carpeting	C30 - Int. Finishes	3	\$692,170	17
FCAID-560160	VUV-2-Room 31	D30 - HVAC	3	\$27,370	17
FCAID-560019	Roofing: Rolled Asphalt	B30 - Roofing	3	\$111,990	16
FCAID-560051	GWH-1	D20 - Plumbing	3	\$9,650	16
FCAID-560066	CUH-Floor-3	D30 - HVAC	2	\$6,610	16
FCAID-560061	CUH-1	D30 - HVAC	2	\$8,750	16
FCAID-560052	GWH-3	D20 - Plumbing	2	\$9,650	16
FCAID-560063	CUH-3	D30 - HVAC	2	\$8,750	16
FCAID-560067	CUH-Floor-4	D30 - HVAC	2	\$6,610	16
FCAID-560096	EF-9	D30 - HVAC	2	\$12,980	16
FCAID-560068	CU-1-Walk-In Cooler	D30 - HVAC	3	\$10,050	16
FCAID-560062	CUH-2	D30 - HVAC	2	\$8,750	16
FCAID-560069	CU-1-Walk-In Freezer	D30 - HVAC	3	\$10,050	16

FCAID-560065	CUH-Floor-2	D30 - HVAC	2	\$6,610	16
FCAID-560064	CUH-Floor-1	D30 - HVAC	2	\$8,750	16
FCAID-560043	Bypass Feeder-2	D30 - HVAC	1	\$750	14
FCAID-560041	BFP-Boiler-1&2-North Makeup	D20 - Plumbing	2	\$400	14
FCAID-560164	Exterior Lighting: 2001 Wall Packs, Incand	D50 - Electrical	3	\$2,430	14
FCAID-560042	BFP-Boiler-3-South Makeup	D20 - Plumbing	2	\$400	14
FCAID-560050	SP-1	D20 - Plumbing	1	\$5,620	14
FCAID-560058	AS-1	D30 - HVAC	2	\$7,530	13
FCAID-560161	ATS-1	D50 - Electrical	3	\$4,340	13
FCAID-560111	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.

TIMNATH ES

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-560145	UV-Room 23	D30 - HVAC	5	\$26,130	16
FCAID-560154	UV-Room 39	D30 - HVAC	5	\$27,360	16
FCAID-560149	UV-Room 33	D30 - HVAC	5	\$27,360	16
FCAID-560158	UV-Room 44	D30 - HVAC	5	\$26,130	16
FCAID-560143	UV-Room 20	D30 - HVAC	5	\$26,130	16
FCAID-560159	UV-Room 5	D30 - HVAC	5	\$26,130	16
FCAID-560147	UV-Room 25	D30 - HVAC	5	\$26,130	16
FCAID-560133	UV-1-Media	D30 - HVAC	5	\$26,130	16
FCAID-560151	UV-Room 36A	D30 - HVAC	5	\$26,130	16
FCAID-560134	UV-3-Media	D30 - HVAC	5	\$26,130	16
FCAID-560156	UV-Room 41	D30 - HVAC	5	\$27,360	16
FCAID-560135	UV-4-Media	D30 - HVAC	5	\$26,130	16
FCAID-560144	UV-Room 22	D30 - HVAC	5	\$26,130	16
FCAID-560136	UV-6-Media	D30 - HVAC	5	\$26,130	16
FCAID-560146	UV-Room 24	D30 - HVAC	5	\$26,130	16
FCAID-560137	UV-Room 11	D30 - HVAC	5	\$26,130	16
FCAID-560148	UV-Room 26	D30 - HVAC	5	\$26,130	16
FCAID-560138	UV-Room 14	D30 - HVAC	5	\$26,130	16
FCAID-560150	UV-Room 35	D30 - HVAC	5	\$26,130	16
FCAID-560139	UV-Room 16	D30 - HVAC	5	\$26,130	16
FCAID-560153	UV-Room 38	D30 - HVAC	5	\$27,360	16
FCAID-560140	UV-Room 17	D30 - HVAC	5	\$26,130	16
FCAID-560155	UV-Room 40	D30 - HVAC	5	\$27,360	16
FCAID-560141	UV-Room 19	D30 - HVAC	5	\$26,130	16
FCAID-560157	UV-Room 42	D30 - HVAC	5	\$26,130	16

FCAID-560142	UV-Room 19	D30 - HVAC	5	\$26,130	16
FCAID-560032	Interior Doors: Wood, Single	C10 - Int. Construct.	5	\$45,400	15
FCAID-560001	Exterior Walls: 1953 Stucco	B20 - Ext. Enclosure	5	\$476,760	15
FCAID-560029	Interior Doors: Wood, Double	C10 - Int. Construct.	5	\$10,680	14
FCAID-560037	Interior Flooring: Ceramic Tile	C30 - Int. Finishes	5	\$116,070	14
FCAID-560114	BBR-2nd Floor South Stairway	D30 - HVAC	5	\$3,820	13
FCAID-560118	BBR-Gym Unisex Restroom-2	D30 - HVAC	5	\$3,820	13
FCAID-560116	BBR-Gym Storage 107B	D30 - HVAC	5	\$3,820	13
FCAID-560009	Exterior Doors: Hollow Metal, Single	B20 - Ext. Enclosure	5	\$39,680	13
FCAID-560007	Exterior Doors: Hollow Metal, Double	B20 - Ext. Enclosure	5	\$49,600	13
FCAID-560016	Roofing: Metal Flashing	B30 - Roofing	5	\$1,300	13
FCAID-560113	BBR-2nd Floor North Stairway	D30 - HVAC	5	\$3,820	13
FCAID-560053	Instantaneous Gas Water Heater-1	D20 - Plumbing	5	\$6,230	13
FCAID-560115	BBR-Gym Storage 107A	D30 - HVAC	5	\$3,820	13
FCAID-560054	Instantaneous Gas Water Heater-2	D20 - Plumbing	5	\$6,230	13
FCAID-560117	BBR-Gym Unisex Restroom-1	D30 - HVAC	5	\$3,820	13
FCAID-560072	EF-11	D30 - HVAC	5	\$12,980	13
FCAID-560119	BBR-Library North Corner	D30 - HVAC	5	\$3,820	13
FCAID-560074	EF-15	D30 - HVAC	5	\$6,710	13
FCAID-560080	EF-21	D30 - HVAC	5	\$16,270	13
FCAID-560081	EF-22	D30 - HVAC	5	\$8,190	13
FCAID-560124	HW Coil-5-Main Office RTU	D30 - HVAC	5	\$1,500	12
FCAID-560122	HW Coil-3-Room 34	D30 - HVAC	5	\$1,500	12
FCAID-560131	UH-4	D30 - HVAC	5	\$4,020	12
FCAID-560039	Interior Flooring: VCT	C30 - Int. Finishes	5	\$53,360	12
FCAID-560123	HW Coil-4-Main Office RTU	D30 - HVAC	5	\$1,500	12
FCAID-560130	UH-3	D30 - HVAC	5	\$4,020	12
FCAID-560127	GUH-1	D30 - HVAC	5	\$4,020	12
FCAID-560120	HW Coil-1-AHU-1	D30 - HVAC	5	\$2,500	12
FCAID-560132	UH-5	D30 - HVAC	5	\$4,020	12
FCAID-560121	HW Coil-2-AHU-1	D30 - HVAC	5	\$2,500	12
FCAID-560129	UH-2	D30 - HVAC	5	\$4,020	12
FCAID-560128	UH-1	D30 - HVAC	5	\$4,020	12
FCAID-560003	Exterior Walls: 1953 Brick	B20 - Ext. Enclosure	5	\$10,960	11
FCAID-560103	ET-1	D30 - HVAC	5	\$5,790	10
FCAID-560104	ET-2	D30 - HVAC	5	\$4,110	10

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.

TIMNATH ES

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-560165	Fire Alarm System	D50 - Electrical	8	\$578,520	21
FCAID-560185	Security System	D50 - Electrical	8	\$282,950	19
FCAID-560057	AHU-Gym	D30 - HVAC	8	\$71,100	18
FCAID-560055	AHU-1	D30 - HVAC	8	\$71,100	18
FCAID-560040	Interior Flooring: 1953 Hardwood	C30 - Int. Finishes	7	\$189,320	15
FCAID-560152	UV-Room 37	D30 - HVAC	8	\$27,360	15
FCAID-560011	Exterior Windows: Aluminum Framed	B20 - Ext. Enclosure	8	\$182,500	15
FCAID-560028	Interior Doors: 1919 Wood, Single	C10 - Int. Construct.	10	\$109,480	14
FCAID-560112	MAU-1	D30 - HVAC	8	\$53,260	14
FCAID-560188	Walk-In Cooler	E10 - Equipment	8	\$12,060	14
FCAID-560189	Walk-In Freezer	E10 - Equipment	8	\$12,060	14
FCAID-560094	EF-7	D30 - HVAC	6	\$6,710	13
FCAID-560070	EF-1	D30 - HVAC	6	\$16,270	13
FCAID-560048	DHWCP-1	D20 - Plumbing	7	\$4,630	13
FCAID-560073	EF-13	D30 - HVAC	6	\$6,710	13
FCAID-560092	EF-5	D30 - HVAC	6	\$12,980	13
FCAID-560075	EF-16	D30 - HVAC	6	\$6,710	13
FCAID-560100	RH-1-North AHU-Room 7	D30 - HVAC	6	\$5,430	13
FCAID-560076	EF-17	D30 - HVAC	6	\$6,710	13
FCAID-560034	Interior Stairwells	C20 - Stairs	10	\$74,250	13
FCAID-560077	EF-18	D30 - HVAC	6	\$6,710	13
FCAID-560091	EF-4	D30 - HVAC	6	\$6,710	13
FCAID-560078	EF-2	D30 - HVAC	6	\$6,710	13
FCAID-560093	EF-6	D30 - HVAC	6	\$6,710	13
FCAID-560027	Interior Walls: 1919 Plaster	C10 - Int. Construct.	10	\$447,990	13

FCAID-560095	EF-8	D30 - HVAC	6	\$8,660	13
FCAID-560084	EF-26	D30 - HVAC	6	\$6,710	13
FCAID-560101	RH-1-North AHU-Room 8	D30 - HVAC	6	\$5,430	13
FCAID-560087	EF-29	D30 - HVAC	6	\$6,710	13
FCAID-560012	Roofing: Built-Up	B30 - Roofing	8	\$92,680	13
FCAID-560088	EF-3	D30 - HVAC	6	\$16,270	13
FCAID-560182	Panel Room 31	D50 - Electrical	6	\$3,270	13
FCAID-560089	EF-30	D30 - HVAC	6	\$6,710	13
FCAID-560071	EF-10	D30 - HVAC	6	\$8,660	13
FCAID-560090	EF-31	D30 - HVAC	6	\$6,710	13
FCAID-560002	Exterior Walls: 1919 Brick	B20 - Ext. Enclosure	10	\$751,330	13
FCAID-560079	EF-20	D30 - HVAC	6	\$6,710	13
FCAID-560171	Panel B	D50 - Electrical	9	\$3,270	12
FCAID-560170	Panel A	D50 - Electrical	9	\$3,270	12
FCAID-560006	Exterior Doors: Hollow Metal, Double	B20 - Ext. Enclosure	8	\$19,840	11
FCAID-560038	Interior Flooring: 2016 Rolled VCT	C30 - Int. Finishes	8	\$75,370	11
FCAID-560008	Exterior Doors: Hollow Metal, Single	B20 - Ext. Enclosure	8	\$9,920	11
FCAID-560105	ET-3	D30 - HVAC	6	\$5,790	10
FCAID-560056	AHU-2-North Basement	D30 - HVAC	8	\$11,380	0