

POUDRE SCHOOL DISTRICT LINCOLN MIDDLE SCHOOL

FACILITY CONDITION ASSESSMENT

FORT COLLINS, CO

OCTOBER 2023



Together, Building a Thriving Planet

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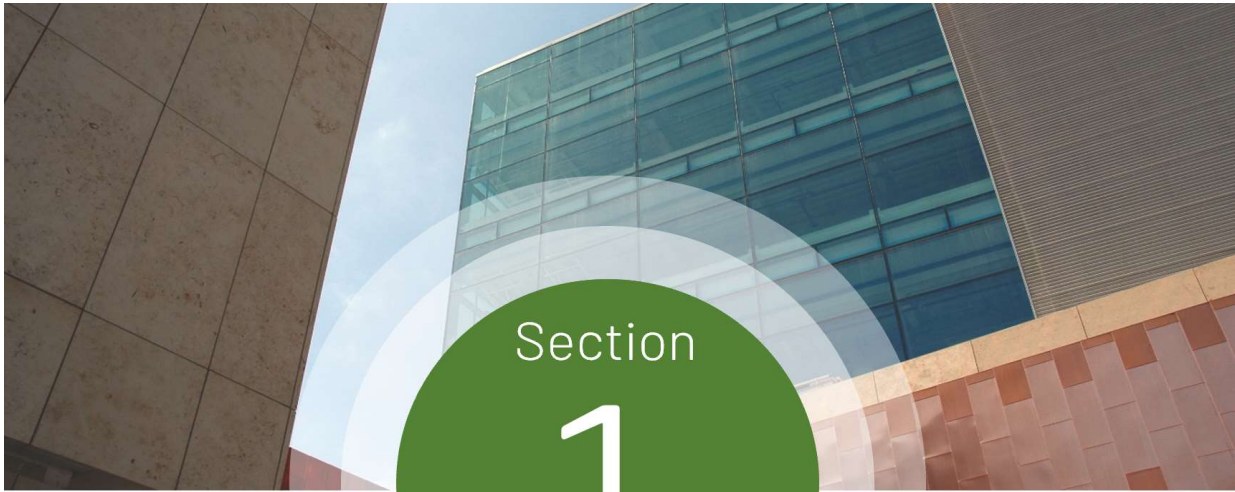
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Section

1

Executive Summary

Executive Summary

Project Goals

The contents of this report present the results of the Facility Condition Assessment (FCA) performed at Lincoln, IB World School within the Poudre School District (PSD) on July 11, 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
LINCOLN, IB WORLD SCHOOL	100,660	1974
TOTAL	100,660	

Facility Summary

Lincoln, IB World School

Lincoln, IB World School is located at 1650 W. Lancer Dr., Fort Collins, CO 80521. This 100,660 SF facility consists of one level and was initially constructed in 1974. The equity index for this school is 2.29.



Lincoln, IB World School

Executive Summary

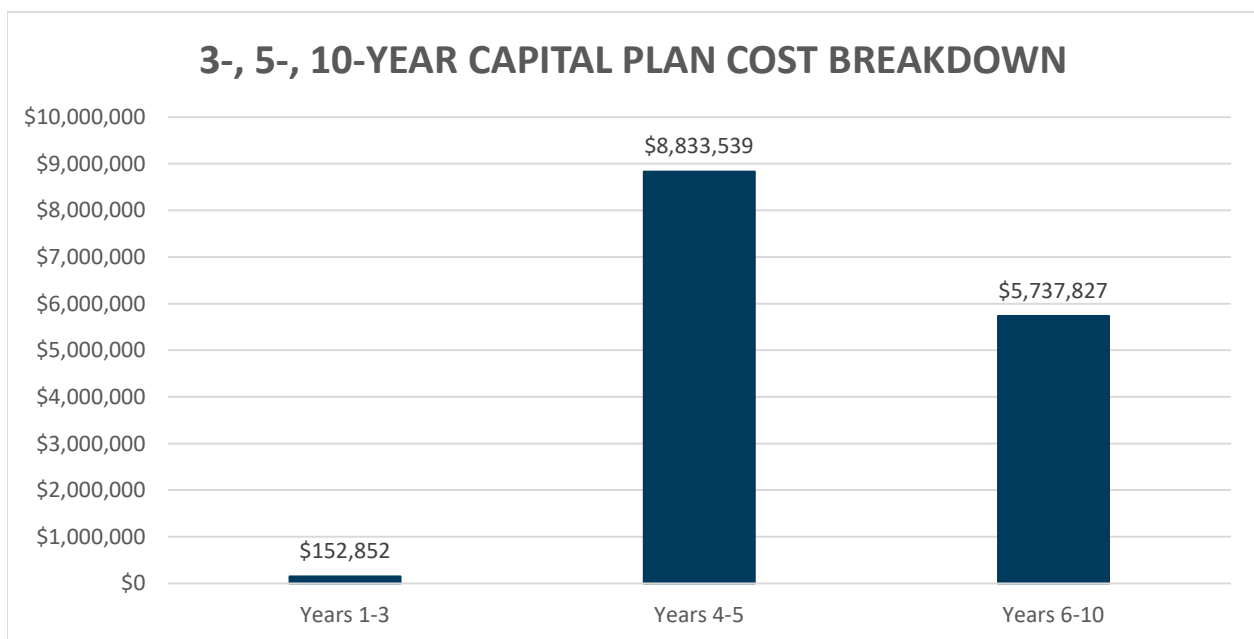
Assessment Summary

This section summarizes the building systems at the facility and describes the general condition observed based on the assessment performed on July 11, 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.



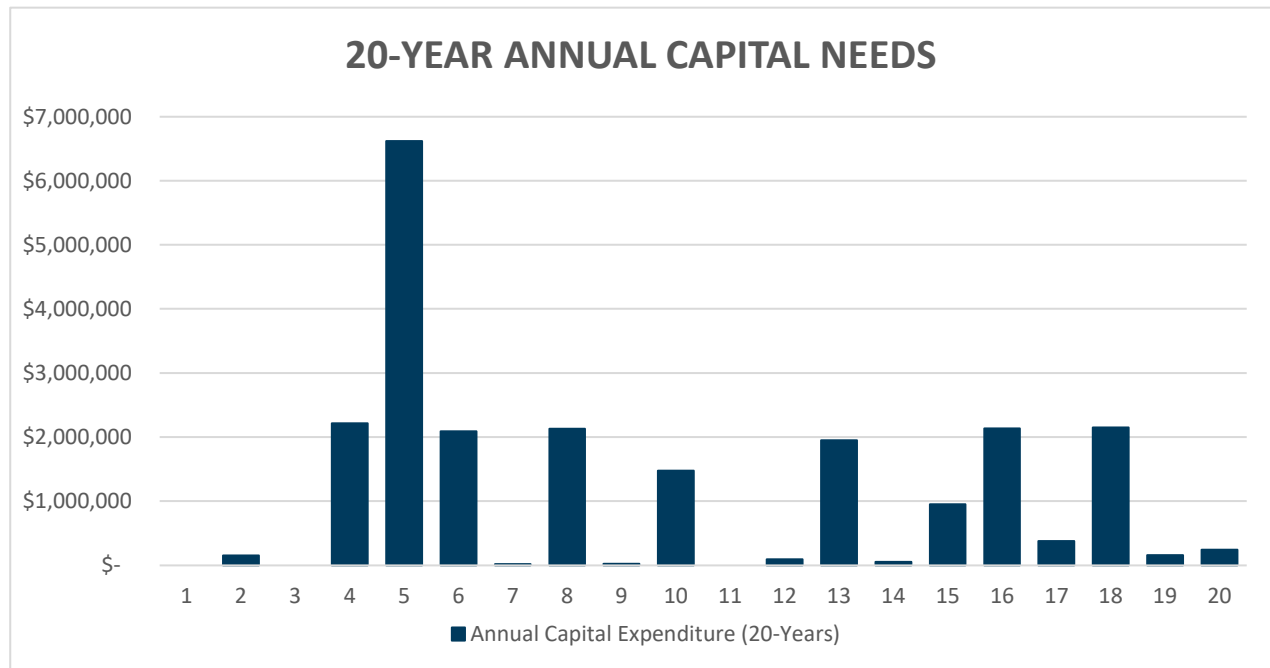
3-, 5-, 10-Year Capital Plan Cost Breakdown

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	\$155,320	\$763,540	\$0
B30 - Roofing	\$6,171,683	\$35,925	\$0	\$0
C10 - Int. Construction	\$0	\$448,846	\$49,159	\$38,682
C20 - Stairs	\$0	\$17,934	\$0	\$0
C30 - Interior Finishes	\$132,472	\$2,845,844	\$139,415	\$2,343,483
D10 - Conveying	\$0	\$0	\$0	\$0
D20 - Plumbing	\$10,815	\$49,762	\$17,554	\$66,876
D30 - HVAC	\$481,191	\$1,663,584	\$748,453	\$1,979,583
D40 - Fire Suppression	\$0	\$0	\$0	\$0
D50 - Electrical	\$2,163,083	\$520,613	\$1,332,307	\$633,884
E10 - Equipment	\$27,147	\$0	\$0	\$0
Total:	\$8,986,391	\$5,737,827	\$3,050,428	\$5,062,508

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 Lincoln, IB World School is 2.29.

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 Lincoln, IB World School and describes the general condition observed based on the assessment. Specific findings and recommendations are detailed later in this report.

Exterior Enclosure

The exterior of this facility is primarily masonry (oversized brick or CMU) with Aluminum Storefront windows. The vast majority of the exterior façade is part of the 1974 construction while there are some small sections that are part of a 1995 addition. At major entry points there are large cantilevered overhangs with stucco ceiling elements. Of note are two (2) interior courtyards that are primarily storefront.

Roofing

The roofing is ballast over rolled asphalt. [REDACTED]

Interior Construction and Finishes

Interior partitions in this facility are primarily masonry (to match the exterior) with carpet flooring and ACT ceilings. Additional floor finishes include concrete, VCT, tile, and hardwood floors. Additional ceiling finishes include drywall and wood slat (library). Of note there are cracks in the floor near the gym area.

Conveyance

N/A

Electrical and Lighting

The building's electrical distribution equipment consists of panels, transformers, and switchgear. Generally, these assets are in good condition, aside from the emergency generator which has surpassed its industry life expectancy. The fire alarm system dates to 2021. Interior lighting consists of mostly fluorescent fixtures. Exterior lighting is made up of a mixture of fluorescent, incandescent, and LED lights and is, generally, in poor condition. Consider upgrading the 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 hot water system, three air handling units, 19 rooftop units, and hot water coils and VAVs. The building automation system is made up of Honeywell controls. Additional HVAC equipment includes makeup air units, exhaust fans, and unit heaters. The air handling units, two rooftop units, and a few exhaust fans [REDACTED] have surpassed their life expectancies and should be replaced within the next 4-5 years.

Plumbing

Domestic hot water is provided by two (2) natural gas fired water heater installed in 2017 and 2018. Additional plumbing equipment includes backflow preventers, a thermostatic mixing valve, expansion tanks, and pumps. The sump pump is estimated to have been installed in approximately 1974 and has surpassed its life expectancy and is anticipated to need replacement within the next two years. Overall, the rest of the plumbing system is in good condition.

Fire Suppression

N/A

Equipment

There is one (1) walk-in cooler and one (1) walk-in freezer in the school's kitchen. [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.

Lincoln, IB World School

Replace Air Handling Units

The three air handling units serving the gym and mini gym areas [REDACTED] appear to have been installed during original construction in 1974. These units have surpassed their industry life expectancies and should be replaced within the next five years.

The following assets are included within this measure:

FCAID-330055, FCAID-330056, FCAID-330057



Priority Level:	2
Estimated Cost:	\$255,960
Remaining Life:	5 years

Condition Assessment

Replace Rooftop Units

RTU-18 and RTU-19 serving the locker room areas [REDACTED] have surpassed their industry life expectancies and should be replaced within the next four years.

The following assets are included within this measure:

FCAID-330128, FCAID-330129



Priority Level: 2
Estimated Cost: \$69,970
Remaining Life: 4 years

Replace Lighting Fixtures

Interior lighting consists of mostly fluorescent fixtures. Exterior lighting is made up of a mixture of fluorescent, incandescent, and LED lights [REDACTED]. Consider upgrading the interior and exterior lighting to light emitting diode (LED) fixtures to reduce energy costs and maintenance needs.

The following assets are included within this measure:

FCAID-330139, FCAID-330140, FCAID-330141, FCAID-330142, FCAID-330143, FCAID-330144, FCAID-330145, FCAID-330146, FCAID-330147, FCAID-330148, FCAID-330149, FCAID-330150, FCAID-330152, FCAID-330153



Priority Level: 2
Estimated Cost: \$1,986,740
Remaining Life: 2-4 years

Condition Assessment

Replace Emergency Generator

The emergency generator has surpassed its industry life expectancy and is anticipated to need replacement within the next six years



The following assets are included within this measure:

FCAID-330138

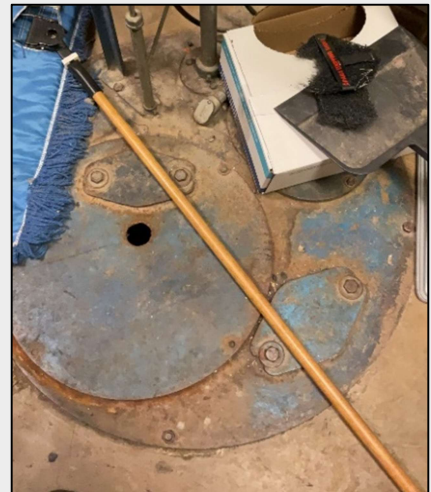
Priority Level:	2
Estimated Cost:	\$42,220
Remaining Life:	6 years

Replace Sump Pump

The sump pump is estimated to have been installed in approximately 1974 and has surpassed its life expectancy and is anticipated to need replacement within the next two years.

The following assets are included within this measure:

FCAID-330050



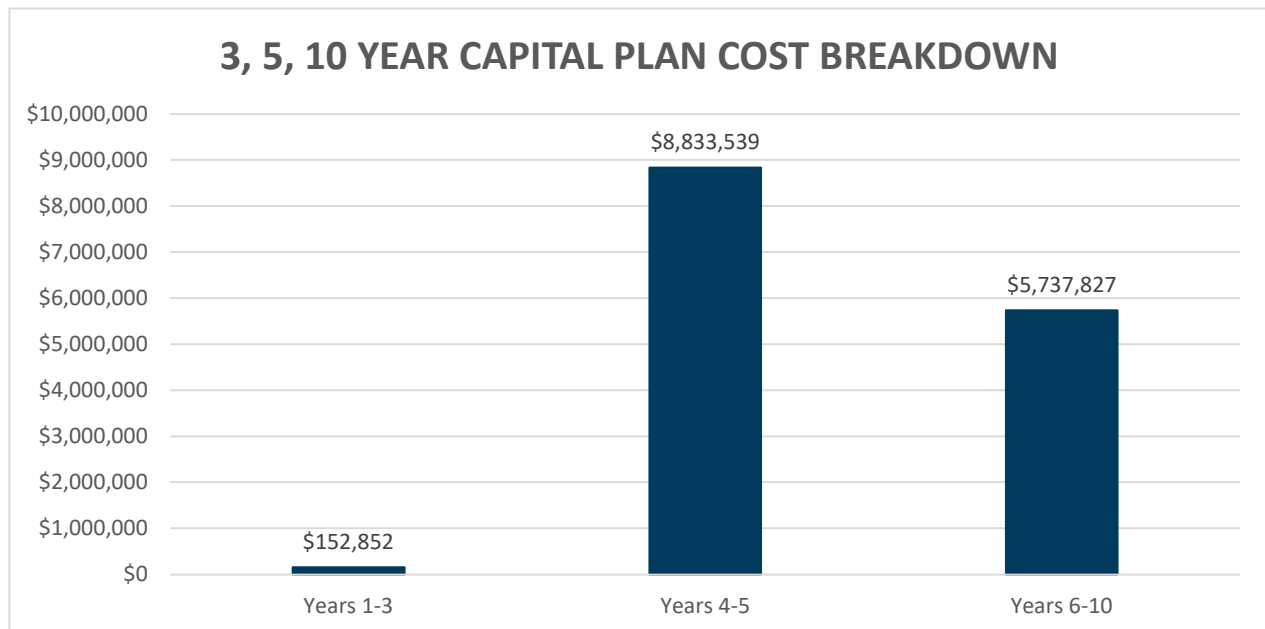
Priority Level:	2
Estimated Cost:	\$8,300
Remaining Life:	2 years

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.

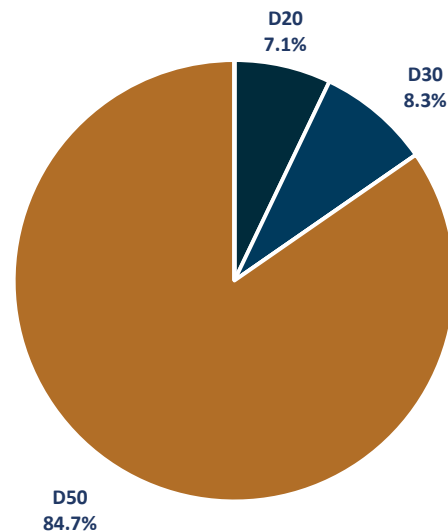
REPLACEMENT PERIOD	ASSET QUANTITY	CUMULATIVE REPLACEMENT COST
3-Year Plan	11	\$152,852
5-Year Plan	33	\$8,833,539
10-Year Plan	45	\$5,737,827
Total	89	\$14,724,219

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 \$152,852. The specific assets that will reach end of life in this period are listed in Appendix A.

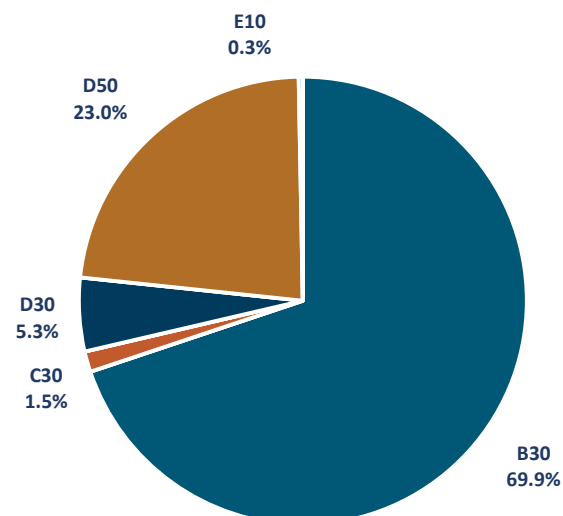
SUBSYSTEM	Years 1-3	Percent
A10 - Foundations	\$0	0%
B10 - Superstructure	\$0	0%
B20 - Exterior Enclosure	\$0	0%
B30 - Roofing	\$0	0%
C10 - Int. Construction	\$0	0%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$0	0%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$10,815	7%
D30 - HVAC	\$12,628	8%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$129,409	85%
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 \$8,833,539. 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	\$6,171,683	70%
C10 - Int. Construction	\$0	0%
C20 - Stairs	\$0	0%
C30 - Interior Finishes	\$132,472	1%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$0	0%
D30 - HVAC	\$468,563	5%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$2,033,674	23%
E10 - Equipment	\$27,147	<1%
G20 - Site Improvements	\$0	0%
G40 - Site Electrical	\$0	0%

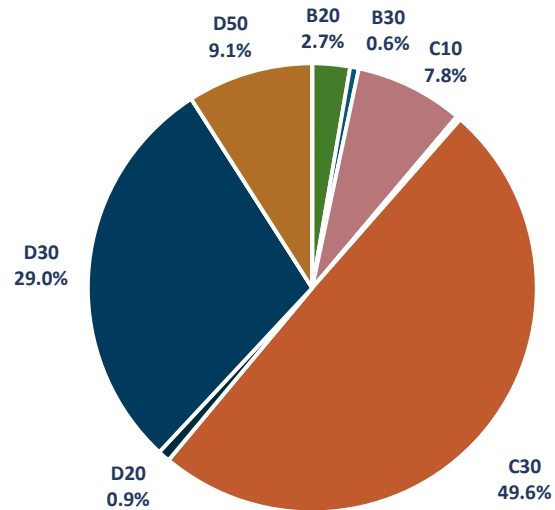


Condition Assessment

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 \$5,737,827. 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	\$155,320	3%
B30 - Roofing	\$35,925	1%
C10 - Int. Construction	\$448,846	8%
C20 - Stairs	\$17,934	<1%
C30 - Interior Finishes	\$2,845,844	50%
D10 - Conveying	\$0	0%
D20 - Plumbing	\$49,762	1%
D30 - HVAC	\$1,663,584	29%
D40 - Fire Protection	\$0	0%
D50 - Electrical	\$520,613	9%
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 - LINCOLN, IB WORLD SCHOOL

		LINCOLN, IB WORLD SCHOOL	
		BUILDING TYPE:	Middle School
		YEAR BUILT:	1974
		GROSS AREA (SF):	100,660
		DATE ASSESSED:	July 12, 2023
		PRIORITY SCORE:	15.9
SUBSYSTEM:	DESCRIPTION	PRIORITY SCORE	
B20 - Ext. Enclosure	The exterior of this facility is primarily masonry (oversized brick or CMU) with Aluminum Storefront windows. The vast majority of the exterior façade is part of the 1974 construction while there are some small sections that are part of a 1995 addition. At major entry points there are large cantilevered overhangs with stucco ceiling elements. Of note are two (2) interior courtyards that are primarily storefront.	12.8	
B30 - Roofing	The roofing is ballast over rolled asphalt. There are several large built up storefront skylight assemblies on the east end of the building. [REDACTED]	16.9	
C10 - Int. Construction	Interior partitions in this facility are primarily masonry (to match the exterior) with carpet flooring and ACT ceilings. Additional floor finishes include concrete, VCT, tile, and hardwood floors. Additional ceiling finishes include drywall and wood slat (library). Of note there are cracks in the floor near the gym area.	13.2	
C30 - Interior Finishes		14.4	
D20 - Plumbing	Domestic hot water is provided by two (2) natural gas fired water heater installed in 2017 and 2018. Additional plumbing equipment includes backflow preventers, a thermostatic mixing valve, expansion tanks, and pumps. The sump pump is estimated to have been installed in approximately 1974 and has surpassed its life expectancy and is anticipated to need replacement within the next two years. Overall, the rest of the plumbing system is in good condition.	11.7	
D30 - HVAC	The building's heating, ventilation, and air conditioning (HVAC) system consists of a hot water system, three air handling units, 19 rooftop units, and hot water coils and VAVs. The building automation system is made up of Honeywell controls. Additional HVAC equipment includes makeup air units, exhaust fans, and unit heaters. The air handling units, two rooftop units, and a few exhaust fans are in very poor condition have surpassed their life expectancies and should be replaced within the next 4-5 years.	15.4	
D40 - Fire Suppression	N/A	N/A	
D50 - Electrical	The building's electrical distribution equipment consists of panels, transformers, and switchgear. [REDACTED] The fire alarm system dates to 2021. Interior lighting consists of mostly fluorescent fixtures. Exterior lighting is made up of a mixture of fluorescent, incandescent, and LED lights [REDACTED]. Consider upgrading the interior and exterior lighting to light emitting diode (LED) fixtures to reduce energy costs and maintenance needs.	21.8	
E10 - Equipment	There is one (1) walk-in cooler and one (1) walk-in freezer in the school's kitchen. [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

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.

LINCOLN, IB WORLD SCHOOL

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING	REPLACEMENT COST	PRIORITY SCORE
FCAID-330139	Exterior Lighting: Recessed Can	D50 - Electrical	2	\$52,200	16
FCAID-330092	EF-44	D30 - HVAC	2	\$6,710	16
FCAID-330091	EF-43	D30 - HVAC	2	\$5,550	16
FCAID-330140	Exterior Lighting: Recessed Can	D50 - Electrical	2	\$52,200	16
FCAID-330144	Exterior Lighting: Soffit Fixture 2	D50 - Electrical	2	\$1,820	15
FCAID-330143	Exterior Lighting: Soffit Fixture	D50 - Electrical	2	\$1,820	15
FCAID-330145	Exterior Lighting: Wall Pack	D50 - Electrical	2	\$13,960	15
FCAID-330141	Exterior Lighting: Soffit Fixture	D50 - Electrical	2	\$1,820	15
FCAID-330142	Exterior Lighting: Soffit Fixture	D50 - Electrical	2	\$1,820	15
FCAID-330047	Thermostatic Mixing Valve	D20 - Plumbing	2	\$2,200	13
FCAID-330050	SP-1	D20 - Plumbing	2	\$8,300	13

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.

LINCOLN, IB WORLD SCHOOL

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-330153	Interior Lighting: Fluorescent	D50 - Electrical	4	\$1,463,640	25
FCAID-330152	Emergency Lighting: Fluorescent	D50 - Electrical	4	\$383,510	25
FCAID-330129	RTU-19	D30 - HVAC	4	\$45,410	20
FCAID-330055	Gym AHU 1	D30 - HVAC	5	\$85,320	19
FCAID-330056	Gym AHU 2	D30 - HVAC	5	\$85,320	19
FCAID-330057	Mini Gym AHU	D30 - HVAC	5	\$85,320	19
FCAID-330128	RTU-18	D30 - HVAC	4	\$24,560	18
FCAID-330008	Roofing: Skylight	B30 - Roofing	5	\$518,700	17
FCAID-330012	Roofing: Ballasted over Rolled Asphalt	B30 - Roofing	5	\$4,912,920	17
FCAID-330185	Walk-in Cooler	E10 - Equipment	5	\$12,060	15
FCAID-330186	Walk-in Freezer	E10 - Equipment	5	\$12,060	15
FCAID-330015	Roofing: Metal Flashing	B30 - Roofing	5	\$38,500	14
FCAID-330098	EF-50	D30 - HVAC	4	\$5,550	14
FCAID-330093	EF-46	D30 - HVAC	4	\$8,190	14
FCAID-330100	EF-52	D30 - HVAC	4	\$5,550	14
FCAID-330099	EF-51	D30 - HVAC	4	\$8,190	14
FCAID-330094	EF-47	D30 - HVAC	4	\$12,980	14
FCAID-330095	EF-48	D30 - HVAC	4	\$4,910	14
FCAID-330096	EF-49	D30 - HVAC	4	\$4,910	14
FCAID-330009	Roofing: Skylight	B30 - Roofing	5	\$5,930	13
FCAID-330150	Exterior Lighting: Wall Pack	D50 - Electrical	4	\$1,210	13
FCAID-330149	Exterior Lighting: Wall Pack	D50 - Electrical	4	\$610	13
FCAID-330053	AC-1	D30 - HVAC	4	\$3,820	13
FCAID-330054	AC-2	D30 - HVAC	4	\$3,820	13
FCAID-330146	Exterior Lighting: Wall Pack	D50 - Electrical	4	\$9,710	13

FCAID-330010	Roofing: Solar Tube	B30 - Roofing	5	\$7,410	13
FCAID-330148	Exterior Lighting: Wall Pack	D50 - Electrical	4	\$1,210	13
FCAID-330147	Exterior Lighting: Wall Pack	D50 - Electrical	4	\$1,210	13
FCAID-330040	Interior Floor Finish: Sheet Vinyl	C30 - Int. Finishes	5	\$60,500	12
FCAID-330042	Interior Floor Finish: VCT	C30 - Int. Finishes	5	\$57,200	12
FCAID-330108	ET-3	D30 - HVAC	4	\$18,250	11
FCAID-330106	ET-1	D30 - HVAC	4	\$18,250	11
FCAID-330060	Bypass Feeder	D30 - HVAC	5	\$750	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.

LINCOLN, IB WORLD SCHOOL

ASSET ID	DESCRIPTION	SUBSYSTEM	OBSERVED REMAINING LIFE	REPLACEMENT COST	PRIORITY SCORE
FCAID-330130	RTU-2	D30 - HVAC	8	\$133,900	19
FCAID-330135	RTU-8	D30 - HVAC	8	\$133,900	19
FCAID-330189	Security System	D50 - Electrical	8	\$383,510	19
FCAID-330133	RTU-6	D30 - HVAC	8	\$93,020	18
FCAID-330127	RTU-17	D30 - HVAC	8	\$93,020	18
FCAID-330123	RTU-13	D30 - HVAC	8	\$93,020	18
FCAID-330120	RTU-10B	D30 - HVAC	8	\$93,020	18
FCAID-330121	RTU-11	D30 - HVAC	8	\$78,460	17
FCAID-330131	RTU-4	D30 - HVAC	8	\$51,940	17
FCAID-330124	RTU-14	D30 - HVAC	8	\$51,940	17
FCAID-330136	RTU-9	D30 - HVAC	8	\$78,460	17
FCAID-330132	RTU-5	D30 - HVAC	8	\$51,940	17
FCAID-330119	RTU-10A	D30 - HVAC	8	\$65,780	17
FCAID-330134	RTU-7	D30 - HVAC	8	\$47,000	17
FCAID-330122	RTU-12	D30 - HVAC	8	\$47,000	17
FCAID-330118	RTU-1	D30 - HVAC	8	\$51,940	17
FCAID-330126	RTU-16	D30 - HVAC	8	\$65,780	17
FCAID-330125	RTU-15	D30 - HVAC	8	\$51,940	17
FCAID-330138	Emergency Generator	D50 - Electrical	6	\$42,220	16
FCAID-330034	Interior Floor Finish: Carpet	C30 - Int. Finishes	6	\$1,371,720	16
FCAID-330117	MAU-1	D30 - HVAC	6	\$43,870	15
FCAID-330105	Relief Hood	D30 - HVAC	9	\$6,210	15
FCAID-330019	Interior Wall Construction: Drywall	C10 - Int. Construct.	6	\$195,000	14
FCAID-330030	Ramp	C20 - Stairs	6	\$12,890	14
FCAID-330032	Wood Stairs	C20 - Stairs	6	\$2,580	14

FCAID-330039	Interior Floor Finish: Tile Floor 2	C30 - Int. Finishes	6	\$26,350	13
FCAID-330061	EF	D30 - HVAC	7	\$5,550	13
FCAID-330033	Interior Ceiling Finish: ACT	C30 - Int. Finishes	10	\$760,000	13
FCAID-330051	WH-1	D20 - Plumbing	8	\$30,160	12
FCAID-330011	Roof Ladder	B30 - Roofing	8	\$8,750	12
FCAID-330037	Interior Wall Finish: Tile Wall	C30 - Int. Finishes	6	\$26,350	12
FCAID-330026	Interior Windows: Metal Framed	C10 - Int. Construct.	6	\$74,000	12
FCAID-330043	Interior Floor Finish: Hardwood	C30 - Int. Finishes	10	\$148,860	12
FCAID-330052	WH-2	D20 - Plumbing	7	\$10,610	12
FCAID-330014	Roofing: Metal Bracing	B30 - Roofing	8	\$8,400	12
FCAID-330013	Roofing: Ladder	B30 - Roofing	8	\$5,830	12
FCAID-330029	Interior Ceiling Finish: Wood	C10 - Int. Construct.	10	\$105,000	11
FCAID-330004	Exterior Door: Metal, double	B20 - Exterior Enclosu	10	\$39,680	11
FCAID-330006	Exterior Door: Metal, Single	B20 - Exterior Enclosu	10	\$29,760	11
FCAID-330005	Exterior Door: Aluminum, Single	B20 - Exterior Enclosu	10	\$49,600	11
FCAID-330036	Interior Wall Finish: Wood	C30 - Int. Finishes	6	\$7,500	11
FCAID-330137	UH-01	D30 - HVAC	8	\$4,020	10
FCAID-330007	Roof Hatch	B30 - Roofing	8	\$6,230	9
FCAID-330058	AS-1	D30 - HVAC	9	\$11,310	9
FCAID-330112	Glycol Feeder	D30 - HVAC	8	\$1,780	8