APPENDIX D

FACILITY CONDITION ASSESSMENT REPORT

McKinstry, 2020

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Facility Condition Assessment
Executive Summary

Purpose

The intent of this study is to provide a Facility Condition Assessment of the facilities within the Beaverton School District. The assessment covered 62 district facilities including schools, administration, and support buildings, totaling nearly 6 million square feet of space. The study reviewed the physical condition of site elements (e.g. parking lots, site drainage), exterior systems (e.g. windows, roof), interior building systems (HVAC, electrical, flooring), and incorporated the existing recommendations from the KPFF Seismic Report. In-depth replacement costs of equipment and systems was estimated, and an estimated remaining life was assigned to all systems and equipment analyzed. Further project prioritization scoring was also included in the assessment in order to support data-driven decisions for capital replacements.

Measures of success as defined by the project team are:

- Enhanced Capital Planning – the outcome shouldn't be a report in a binder, but a tool that can be used for capital planning.
- Operation Excellence – provide the results in a format that can be utilized to improve operation of maintenance and capital teams.
- Comprehensive Reporting – data-driven reporting in a concise format
- Safety – perform on-site assessments in a safe manner and complete without injury.

Project Team

Members of the project team include:

- Ryan Dickerson, Assessor/PM
- Mark Hood, Assessor
- Rick Becker, Account Manager
- Stephanie Dost, Energy Services
- Eric Caldwell, Assessor
- Michael Weingarten, Assessor
- Peter Goodall, Architect
- TJ Mulqueen, Engineering
- Marla Corey-Loiola, Estimator
- Arial Chen, Assessor

This document combines observations and data generated by the project team. This information was gathered by visual inspection only. No tools were used, or destructive testing performed for our analysis.

Methodology

PHASE 1 – INFORMATION CONSOLIDATION

Develop Project Goals & Define Project Outcomes

As a team, Beaverton School District staff and McKinstry developed project goals and outcomes so we could together track the success of the project. We also established key performance indicators (KPIs) for the project

based on our shared understanding of the project as well as McKinstry's prior experience conducting facility assessments with large school districts.

Review District Documentation & Practices

The facility condition assessment team reviewed any previous reports, available information, energy use, drawings, O&M reports, capital project history and maintenance practices provided by the district to familiarize themselves with the facilities. McKinstry also incorporated the KPFF seismic assessments into our final reports.

Interviews with Project Stakeholders

Interviews were conducted with district maintenance staff and on-site points of contact to gather critical information on historic performance and known deficiencies. This information helped our team understand the human impact of the conditions we encountered.

PHASE 2 – CRITERIA FOR CONDITION ASSESSING

Aligning District and McKinstry Standards

McKinstry provided assessment information on systems that align with the district's standards listed below:

APPLICABLE EDUCATIONAL SPECIFICATION CATEGORIES

- Walls, Windows, Ceilings and Doors
- Environmental Conditions for Optimal Learning (HVAC/Indoor Air Quality)
- Furnishings, Fixtures, and Equipment
- Electricity
- Educational Adequacy
- Lighting
- Plumbing
- Flooring
- Security
- Communications

Develop Data Collection Format

McKinstry deployed our detailed K-12 facility assessment data collection tool and a portion of the ODE Facility Assessment Template for the Beaverton School District project. Together, our teams ensured that these checklists contained all the necessary elements for completing the project with Beaverton School District based on the documents and interviews conducted prior to the date of the on-site visits.

Our checklists and ratings included the following systems:

Fire and Life Safety – Identify alarm panels, emergency generators, security systems, and fire suppression systems.

Heating System - Identify boilers, furnaces, unit ventilators, terminal units, and other major equipment.

Ventilation System - Identify the ventilation systems at the property and assess its overall condition.

Air Conditioning System - Identify the material air-conditioning components, including cooling towers, chillers, and major labeled equipment.

Roofing System - Material roof systems, including roof-type, reported age, drainage, or any unusual roofing conditions. The team will observe for evidence of material repairs, significant ponding, or evidence of material roof leaks.

Electrical System - Identify the electrical service provided and distribution system at the subject property. Observation and evaluation will include switchgear, transformers, emergency generators and main distribution panels.

Plumbing - Identify the material plumbing systems at the subject property, including domestic water supply, domestic water heaters, sanitary sewer, or any special or unusual plumbing systems (such as fuel systems and gas systems).

Vertical Transportation - Identify the existing vertical transportation equipment and provide an overall assessment of condition. Detail deficiencies for each elevator and provide an analysis of the remaining useful life, along with budgets for any expected expenditures up to, and including, modernization or replacement.

Building Envelope - Identify the material elements of the building exterior, to include walls, doors, windows, and fire escapes. This will also include the façade, curtain-wall systems, glazing, exterior sealant, exterior balconies, and stairways. Observations may be subject to grade, accessible balconies, and rooftop vantage points.

Structural Components - Evaluate the footings, foundations, slabs, columns, floor framing system, and roof framing system as part of the structural inspection for soundness. Observations will be subject to grade and visibility of components. This is a visual inspection only, and no structural testing of components or materials will be undertaken.

Furnishing – Evaluate fixed furnishings (cabinets, casework, etc.).

Site Paving - Observe and evaluate the site paving and/or site components including pavement, curbs, drains and sidewalks.

Kitchen Equipment – Walk-in freezer and refrigerators, dishwashers, ovens, stoves, broilers, grills, fryers, and ice makers.

Site and other-

- Playgrounds
- Sports and ground facilities
- Auditorium
- Outbuildings
- Synthetic turf fields
- Natural fields
- Tracks
- Stadiums

PHASE 3—CONDITION ASSESSING

The McKinstry Facility Assessment Team conducted all condition assessments at the locations identified.

Perform Condition Assessments

Our dedicated facilities team performed assessments on all sites requested by the district. We worked with district staff to gain access to the facilities and perform our analysis. While on-site the team collected equipment and system inventories, categorized, and performed analysis on all system and asset types identified in Phase 2.

The following data was collected:

- Facility Name
- Location Type
- Building Name
- Location Description
- Asset Tag
- Asset Equipment Type
- Asset System
- Asset Sub System
- Manufacturer
- Model Number
- Serial Number
- Asset/Equipment Size

- Approximate Install Date
- Estimated Remaining Life
- Asset Condition
- Classroom Impact
- EUI Score
- Estimated Replacement Cost
- Notes
- Deficiencies

PHASE 4—DATA ANALYSIS

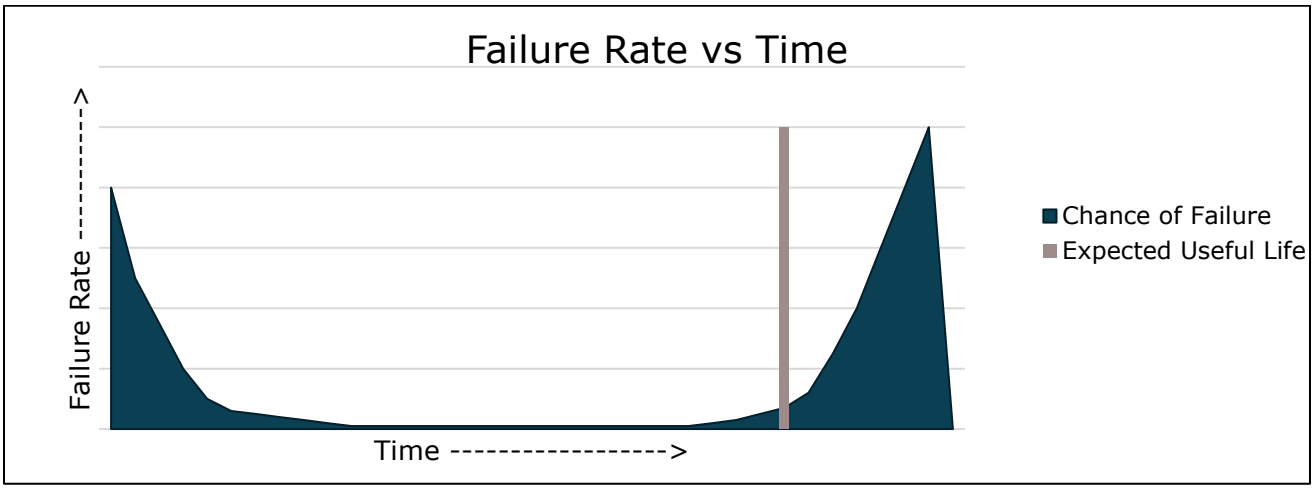
After on-site data was collected, the McKinstry team performed analysis on the information collected.

Assign Probable Costs

Using our team's experience with all the building systems, cost data, and past experiences, an opinion of probable cost was developed for each element within the report to assist in establishing appropriate repair budgets to be used in determining the Net Present Value of the Asset. Cost estimates are generated for equipment and systems based on a like-for like replacement. Where appropriate (typically items outside of the realm of maintenance replacement), the following costs were included in the estimates: Demo/removal of existing, materials, labor, contingency, general conditions, general requirements, bonds and insurance, and engineering fees. Additionally, multipliers may have been added for particular systems or equipment that may be less accessible, require cranes, or other special conditions.

Estimated Remaining Life

Estimated remaining life was calculated using three data points: the actual condition of the system, the expected useful life of the system, and the probability of failure of the system.



FCA Viz Tool

To make data actionable, McKinstry has provided a software tool that enables visualization of facilities data in service of capital planning. The Facility Condition Assessment Visualization Tool (FCA Viz) is an interactive data visualization tool, built in Tableau, that gives decision-makers the ability to navigate through their portfolio at an asset level and communicate goals and plans to stakeholders. The raw data and customized tool are yours to use for capital planning.

The FCA Viz tool allows you to weigh each of the qualitative criteria per asset to match your own priorities. For example, you may value the asset condition and the impact on the classroom, were it to fail, more highly than energy performance or maintenance intensity when prioritizing projects.

Asset Scoring Criteria

BEAVERTON SD – FACILITY CONDITION ASSESSMENT

At each location, the equipment and systems were given a score from one to five in four different categories. The scoring is defined below:

ASSET CONDITION SCORE (1 – 5)

1 – Excellent Condition New or easily restorable to "like new" condition.
2 – Good Condition Component is not new but exhibits no damage or excessive wear.
3 – Fair Condition Minor component wear, but operating properly.
4 – Poor Condition Component has significant wear and is approaching the end of its expected useful life.
5 – Very Poor Condition Component is at or past its expected useful life, has major damage, complete failure, or in need of replacement.

CLASSROOM IMPACT SCORE (1 – 5)

1 – Little or No Classroom Impact Occupants will not be impacted if the system or equipment fail.
2 – Mild Classroom Impact Few occupants will be impacted by the failure of the system or equipment.
3 – Moderate Occupant Impact Many occupants may be moderately or slightly impacted by the failure of the system or equipment.
4 – High Classroom Impact Many or all occupants may be highly impacted by the failure of the equipment or system.
5 – Space is Unusable Many or all occupants may not be able to perform their work because of the failure of the equipment or system.

EUI (ENERGY USE INTENSITY) SCORE (1 – 5)

1 – Top 20% of Energy Performing Buildings

2 – Top 20%-40% of Energy Performing Buildings
3 – Middle 40%-60% of Energy Performing Buildings
4 – Bottom 20%-40% of Energy Performing Buildings
5 – Bottom 20% of Energy Performing Buildings

PHASE 5—REPORT

Prepare Facilities Condition Assessment Report and Other Deliverables

We've compiled all field observation reports into a final working presentation document. We delivered executive summaries in our reports, walked our clients through their options, trained district staff on the FCA Viz Tool and provided the raw data that we used to come to our conclusions.

In all, Beaverton School District received the following deliverables from McKinstry:

- A summary description of each site and facility with necessary and recommended improvements, alongside photos and narratives.
- Analysis of critical (immediate) repairs, and repairs anticipated over the term of the analysis.
- Schedule for recommended replacement or repairs (schedule of priorities).
- 30-year capital plan with an executive summary. Including a graphic presentation of results to provide a quick, user-friendly summary of the facilities observed, their conditions and estimated costs assigned by category.
- The FCA Viz Tool to help interactively display Beaverton School District's data, plus training on how to use the tool.

Facility Condition Assessment Summary

DISTRICT STATISTICS

Measurable	Stat
Buildings	62
Asset Count	11,385
Average Condition Score	3.04 out of 5.00 (Fair)
30-Year Net Present Value to Replace Assets	$1.15 Billion
Average Estimated Remaining Life of Assets	10.3 Years
1st Year Estimated Capital Renewal Needs	$178 Million

The net present value of $1.15 Billion represents the cost of replacing all 11,385 assets captured in this study are on a regular replacement cycle over 30 years. That suggests that the district would need to spend approximately $38.3 Million a year on regular capital replacement needs. The 1st year estimated capital renewal needs indicates that the district hasn't been spending the suggested $38.3 Million per year and therefore has a multi-year backlog of deferred maintenance. Fortunately, the district's Maintenance Department utilizes strategies to extend the life of equipment and the Capital Department prioritizes

replacements based on impact to students and operations. It is also important to note that a significant portion of the capital renewal costs for the first 4 years is associated with seismic upgrades. If seismic upgrade costs are removed from the study, the recommended yearly capital renewal budget is approximately $29.3 Million per year.

30-YEAR CAPITAL NEEDS BY LOCATION

See table on next page.

BEAVERTON SD – FACILITY CONDITION ASSESSMENT

SUMMARY BY EQUIPMENT TYPE

Equipment Type	Average Condition Score
Structural	4.204
Mechanical Utilities	3.417
Portable Classroom	3.185
Mechanical	3.153
Site Work	3.017
Commercial Equipment	2.949
Electrical	2.931
Roofing	2.847
Exterior Enclosure	2.788
Furnishings	2.778
Equipment	2.743
Electrical Utilities	2.724
Interior Finishes	2.709
Fire & Life Safety	2.533
Conveyance	2.423
Grand Total	3.042

Equipment Type	1	2	3	4	5
Structural	$104,762,206	$66,839,119	$72,379,776	$21,928,928	$1,784,336
Mechanical Utilities	$640,000	$85,000	$100,000	$15,000	$30,000
Portable Classroom			$480,000	$400,000	$1,520,000
Mechanical	$42,600,572	$4,785,254	$11,199,763	$19,864,371	$26,420,945
Site Work	$602,017	$676,993	$48,670	$473,260	$2,183,401
Commercial Equipment	$212,150	$106,950	$436,789	$169,400	$943,872
Electrical	$9,303,718	$1,344,452	$1,356,842	$3,353,899	$8,848,681
Roofing	$10,397,636	$1,350,000	$10,791,157	$455,801	$12,583,466
Exterior Enclosure	$6,579,624	$712,611	$937,839	$649,027	$1,993,950
Furnishings	$1,029,684	$729,594	$477,042	$857,124	$602,478
Equipment	$92,920	$40,000	$40,000	$104,090	$337,788
Electrical Utilities	$137,483	$122,396	$632,759	$104,965	$1,013,034
Interior Finishes	$1,705,710	$3,711,285	$1,231,614	$1,468,879	$8,741,847
Fire & Life Safety		$2,100	$1,287		
Conveyance	$60,000	$30,500		$319,032	$66,408
Grand Total*	**$178,123,719**	**$80,536,254**	**$100,113,538**	**$50,163,776**	**$67,070,207**

*All numbers are displayed in 2020 dollars.

FACILITY CONDITION INDEX

The **Facility Condition Index** (FCI) is used in facilities management to provide a benchmark to compare the relative condition of a group of facilities. This index is determined by dividing the total deferred maintenance costs by the Current Replacement Value (CRV) of the facility. The basis of the index is to provide information to owners that will help them determine whether they should continue to maintain and perform capital replacement projects at a location versus completely replacing or renovating the facility. A rule of thumb for the index score is as follows:

Good < 0.05 – Continue predictive and preventive maintenance

Fair 0.05 – 0.10 – Continue maintenance with capital renewal

Poor 0.10 – Consider whole building replacement or renovation versus repair

As a K-12 portfolio, the district should target to get a majority of their buildings below the 0.10 number if they would like to continue to operate in the building. Typically, projects associated with HVAC, Roofing, Seismic, and Exterior Enclosure drive the FCI numbers down sharply.

High Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Terra Nova School	1938	$6,032,750.00	0.349	High School
Beaverton	1915/1938	$155,756,239.20	0.337	High School
Sunset	1958	$149,686,243.65	0.280	High School
Aloha	1968	$153,786,396.15	0.187	High School
Southridge	1999	$151,068,496.50	0.187	High School
Westview	1994	$165,883,910.85	0.176	High School
Merlo Station	1993	$26,137,656.25	0.173	High School
Merle Davies @ BHS	1915/1938	$23,008,050.00	0.048	High School
Mountainside	2017	$201,762,900.00	0.021	High School

Middle Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
ISB	1944	$40,362,390.00	0.361	Middle School
Whitford	1963	$62,457,708.00	0.316	Middle School
Highland Park	1965	$62,420,328.00	0.287	Middle School
Meadow Park	1963	$62,308,188.00	0.282	Middle School
Cedar Park	1965	$62,506,836.00	0.277	Middle School
Five Oaks	1976	$76,382,826.00	0.255	Middle School
Mountain View	1969	$71,525,028.00	0.221	Middle School
Stoller	1999	$76,782,792.00	0.201	Middle School
Conestoga	1994	$68,447,586.00	0.195	Middle School
Arts & Communication ACMA (Performing Arts Center)	2010	$13,083,000.00	0.079	Middle School
Timberland (new Middle School	2016	$88,644,000.00	0.032	Middle School

K-8 Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Raleigh Hills K-8	1927	$28,960,778.75	0.410	K-8
Aloha-Huber Park (K-8)	2006	$54,216,017.50	0.138	K-8

BEAVERTON SD – FACILITY CONDITION ASSESSMENT

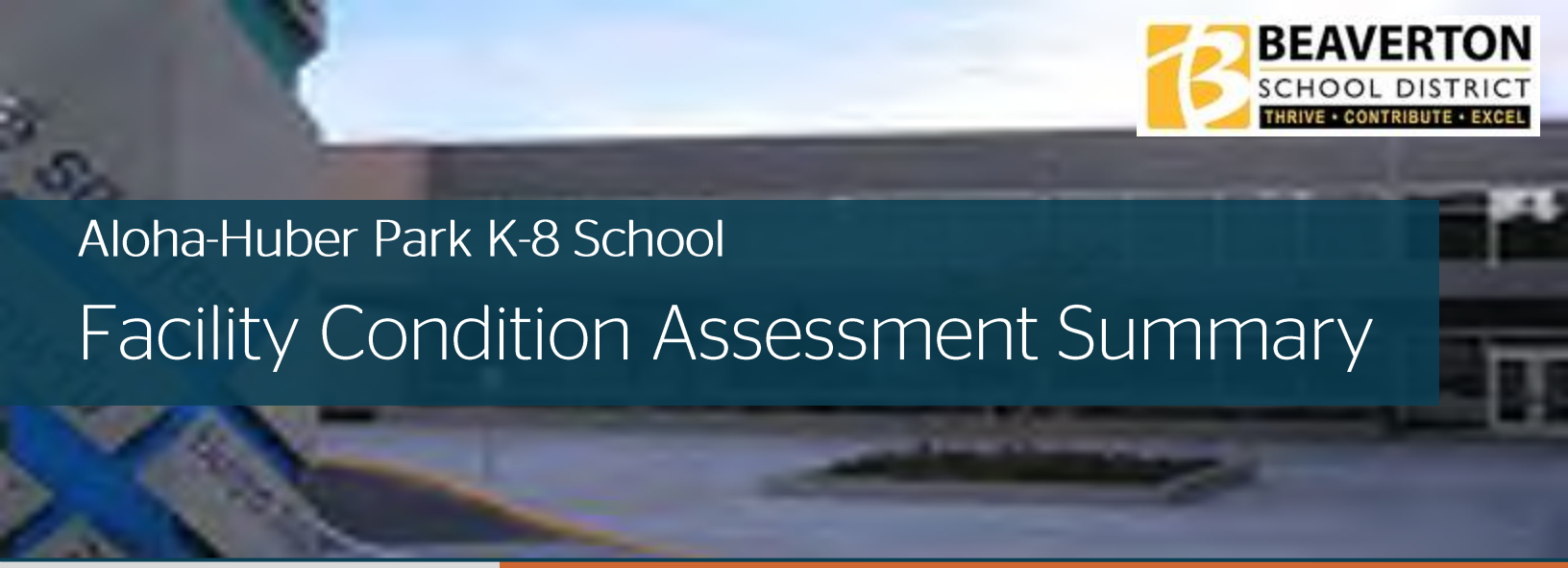
K-8 Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Springville (K-8)	2009	$44,584,067.50	0.120	K-8

Elementary Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Cedar Mill	1950	$20,989,368.75	0.347	Elementary School
Raleigh Park	1959	$23,091,117.50	0.344	Elementary School
Beaver Acres	1955	$40,647,953.75	0.325	Elementary School
Fir Grove	1954	$31,015,492.50	0.324	Elementary School
Cooper Mountain	1954	$28,027,236.25	0.312	Elementary School
West Tualatin View	1955	$22,212,278.75	0.309	Elementary School
Bethany	1971	$25,518,021.25	0.280	Elementary School
McKinley	1962	$31,321,731.25	0.279	Elementary School
Sexton Mountain	1989	$34,416,327.50	0.279	Elementary School
Mckay	1929	$24,916,280.00	0.252	Elementary School
Barnes	1927	$38,803,875.00	0.250	Elementary School
Kinnaman	1975	$41,327,916.25	0.246	Elementary School
Chehalem	1971	$27,769,055.00	0.237	Elementary School
Terra Linda	1970	$26,398,905.00	0.237	Elementary School
Hiteon	1974	$40,374,435.00	0.234	Elementary School
Nancy Ryles	1992	$36,359,588.75	0.233	Elementary School
Errol Hassell	1979	$30,851,381.25	0.233	Elementary School
Scholls Heights	1999	$35,246,086.25	0.232	Elementary School
Rock Creek	1975	$26,331,931.25	0.232	Elementary School
Elmonica	1980	$25,937,757.50	0.229	Elementary School
Greenway	1979	$28,114,148.75	0.224	Elementary School
Findley	1997	$36,836,585.00	0.221	Elementary School
Ridgewood	1958	$27,637,663.75	0.217	Elementary School
Montclair	1970	$19,696,417.50	0.206	Elementary School
Oak Hills	1967	$25,506,262.50	0.200	Elementary School
Jacob Wismer	2001	$37,251,208.75	0.149	Elementary School
Bonny Slope	2008	$41,107,056.25	0.120	Elementary School
Vose	2017	$45,501,250.00	0.028	Elementary School
Sato	2017	$45,501,250.00	0.027	Elementary School
William Walker	2019	$26,120,785.00	0.027	Elementary School
Hazeldale	2018	$45,501,250.00	0.025	Elementary School

BEAVERTON SD – FACILITY CONDITION ASSESSMENT

Administration Buildings				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Administration Center	1972	$18,120,602.90	0.233	Administration
Capital Center	1970	$53,303,619.86	0.227	Administration
Admin Aloha Branch	1999	$5,034,200.00	0.129	Administration

Ancillary Buildings				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Transportation 5th Street South	1965	$12,379,614.00	0.349	Ancillary Building
Transportation Allen	1969	$4,692,257.57	0.331	Ancillary Building
Maintenance Center	1971	$10,768,153.80	0.240	Ancillary Building
Transportation 5th Street North	2001	$2,465,846.37	0.231	Ancillary Building
Transportation and Support Center	1973	$20,794,266.52	0.168	Ancillary Building



Aloha-Huber Park K-8 School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Aloha-Huber Park K-8 School*

Age: 2006

Size (SF): 106,046

Area: *9.95* acres

Assessment Date: *11/5/19*

Student Population: 714

School Ratings

Facility Conditions Index: 0.138

Avg Condition Score: 2.82 out of 5

Asset Count: 208

Energy Use Intensity: 30.87
EUI Target (<50 hrs/wk): <29
EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $20,892,738

Year 1 Asset Replacement Cost: $277,522

Current Replacement Value: $54,216,018

Energy Spend*

Electricity: $51,931

Natural Gas: $14,642

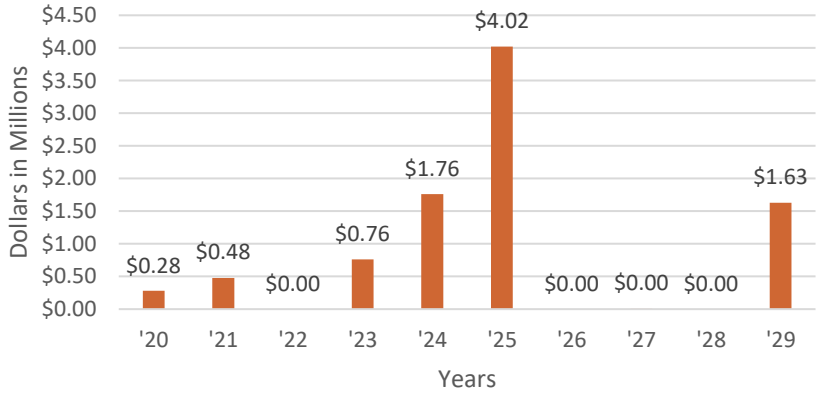
Water Spend*: $18,466

**3/19 – 2/20*

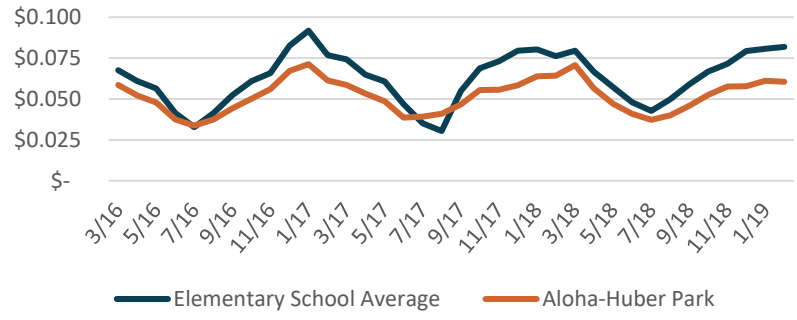
Critical Asset Infrastructure – Replacement Priority

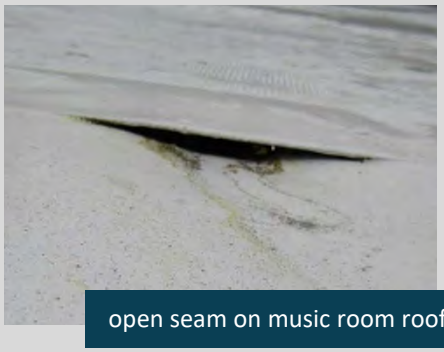
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,014,860	S3	NA
Mechanical	Plumbing	$87,852	5, 4	1, 2
Interior Finishes	Plumbing Fixtures	$265,115	5	5
Mechanical	HVAC	$456,741	4	4, 5
Mechanical Utilities	Storm Sewer	$25,000	4	1

NPV Chart
Asset Replacement Schedule

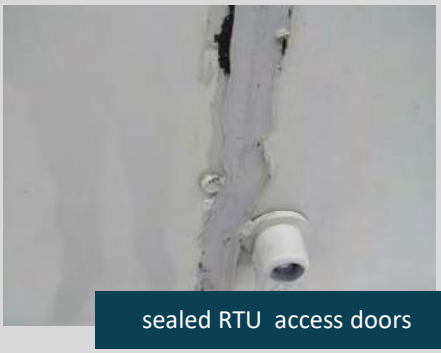


Monthly Energy Cost
($/SF)





open seam on music room roof



sealed RTU access doors

clogged rain water drainage

playground area trip hazard

General Building Condition

Roof

- Most of the school roof is in excellent condition as it was replaced in 2017.
- Roof over music room has open seams that need to be sealed.
- Ladder on roof is not bolted and should be affixed properly.

Mechanical/HVAC

- Natural gas main gas pipe does not have an earthquake valve and one should be installed as soon as possible.
- Boiler #2 was down for repairs at the time of the assessment. Additionally, the flue for boiler #2 is loose from the roof and causes rainwater infiltration.
- Several RTUs access doors have been sealed with roofing tar. This is an access issue that make it more difficult to get to the equipment when troubleshooting is needed.
- RTU AC-1 has a bent door strut that makes access difficult.
- Regular filter changes should be incorporated into the campus preventative maintenance plan.

Electrical

- Main electrical room is being used for storage, but proper clearances are being maintained. Any potentially flammable items should be relocated to proper storage area.

Plumbing

- Plumbing fixtures were identified to be in fair to good conditions.

Fire, Life, Safety

- Several clogged rainwater drainage points were identified on the roof. All storm drains should be cleaned

Interior Finishes

- Heavy wear on carpet in main corridors and main entrance.
- Some signs of heavy wear on stair finishes

Utilities

- Kitchen is undersized for school need

Site Improvements

- Some cracking on parking lot surfaces will need resurfacing and painting
- Pedestrian pathways could benefit from resurfacing
- Northeast gate needs lock
- South exit is a potential bottleneck for emergency egress with only two doors for the entire classroom wing
- Surrounding playground areas have curbs that are a trip hazard

BEAVERTON SCHOOL DISTRICT
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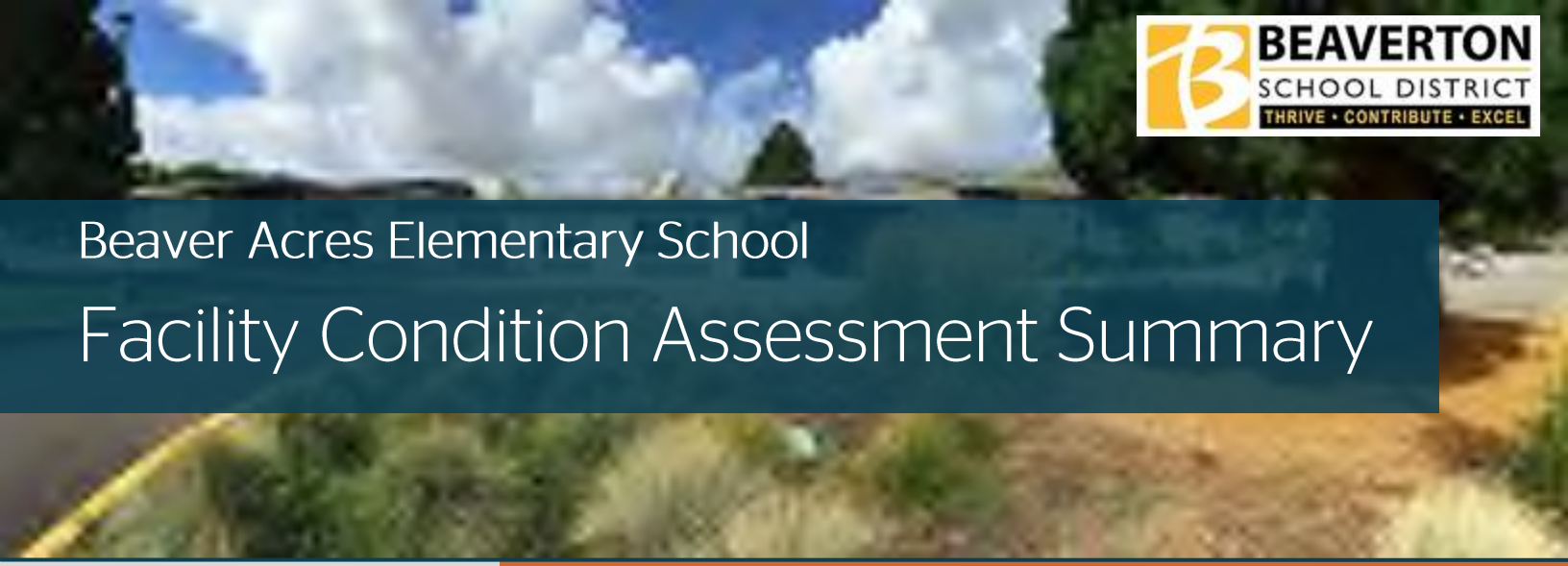


Beaver Acres Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Beaver Acres Elementary School*

Age: 1955

Size (SF): 79,507

Area: *13.6* acres

Assessment Date: *8/9/19*

Student Population: 708

School Ratings

Facility Conditions Index: 0.325

Avg Condition Score: 3.29 out of 5

Asset Count: 192

Energy Use Intensity: 50.09

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $20,091,739

Year 1 Asset Replacement Cost: $768,763

Current Replacement Value: $40,647,954

Energy Spend*

Electricity: $51,500

Natural Gas: $19,128

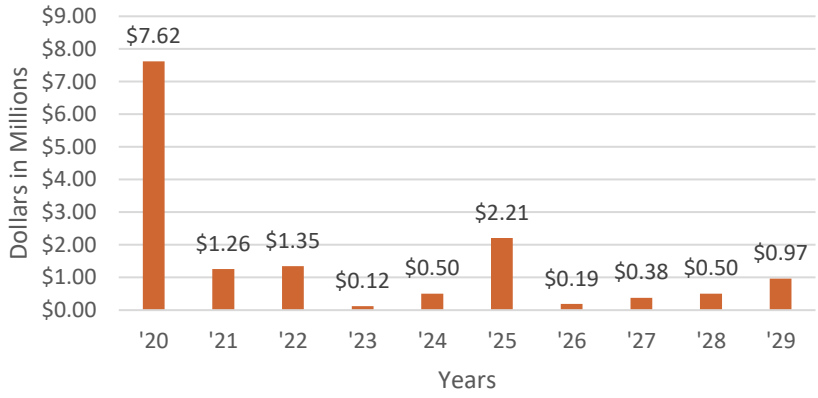
Water Spend*: $18,211

**3/19 – 2/20*

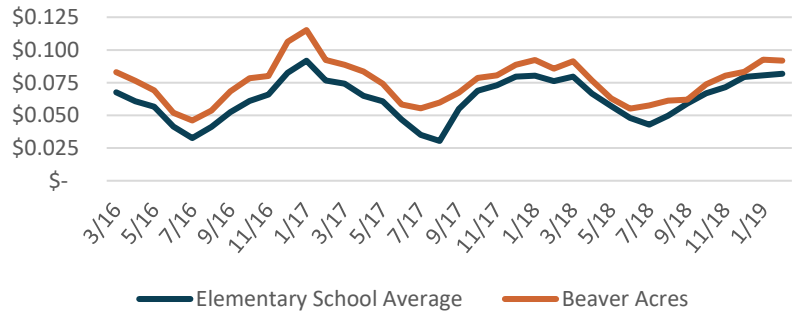
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$6,847,938	S5	NA
Site Work	Parking Lots	$210,930	4	2
Exterior Enclosures	Aluminum Windows	$477,042	4	1
Mechanical	HVAC	$1,557,720	4	2
Food Service	Oven, Walk-In	$37,600	4	3

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



poor asphalt roof condition

no pan or strapping on DHW

wood window condition

cracked parking lot paving

General Building Condition

Roof

- Asphalt sheet roof is in poor condition: drainage issue was noted on the north side of the kitchen, warping was noted over the main area, water was trapped at lip of north roof, and drains were clogged.
- Soft spots were noted in a few areas of the BUR ballasted roof.

Mechanical/HVAC

- Mechanical HVAC equipment and distribution systems were generally found to be in fair to good condition.

Electrical

- Improper storage noted in front of electrical panels is a safety concern. Items should be relocated to a more appropriate location.

Plumbing

- Domestic hot water heater in boiler room does not have drainage pan or earthquake strapping.

Fire, Life, Safety

- All storm drain should be cleaned. The gutter overflowing at the front of the building is causing damage to the building.

Interior Finishes

- Wood windows are single pane and in poor condition
- Wire glass doors were noted at A Hall and should be replaced
- Minor issues with interior wall and ceiling finishes. Minor damage noted on interior drywall. Minor staining evident on ceiling tiles.
- Interior resilient tile floor finishes are in poor condition. Tiles are damaged in kitchen area. Possible asbestos containing tiles were noted in old classrooms and gym.
- Fixed furnishings show severe wear in older areas

Utilities

- Site communication and security system noted to be in fair to good condition.

Site Improvements

- Overall asphalt parking lots are in poor condition. Cracking is evident and many areas need to be restriped.
- Tree roots are causing pedestrian paving to lift in some areas. Cracking is evident as a result.
- Masonry wall on north side has a penetration.
- Panel siding wall in poor condition. Wall on west side is bubbling and warping; and the front of the building shows signs of minor water intrusion.

Bethany Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Bethany Elementary School*

Age: 1971

Size (SF): 49,913

Area: *10.69* acres

Assessment Date: *10/22/19*

Student Population: 528

School Ratings

Facility Conditions Index: 0.280

Avg Condition Score: 3.45 out of 5

Asset Count: 111

Energy Use Intensity: 42.58
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,994,152

Year 1 Asset Replacement Cost: $2,090,379

Current Replacement Value: $25,518,021

Energy Spend*

Electricity: $32,716

Natural Gas: $9,684

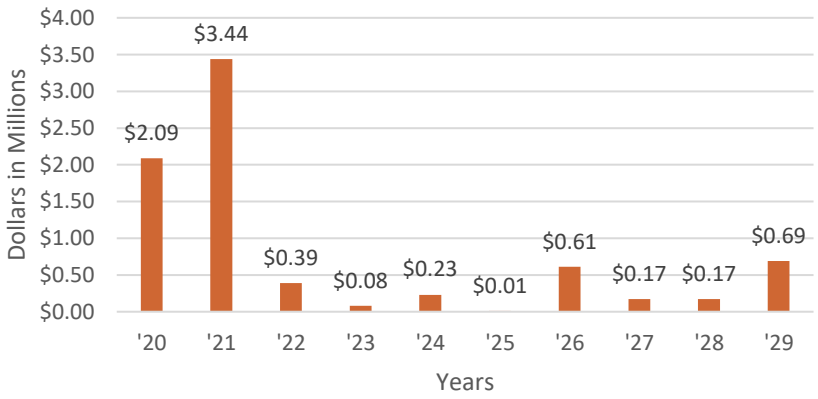
Water Spend*: $4,297

**3/19 – 2/20*

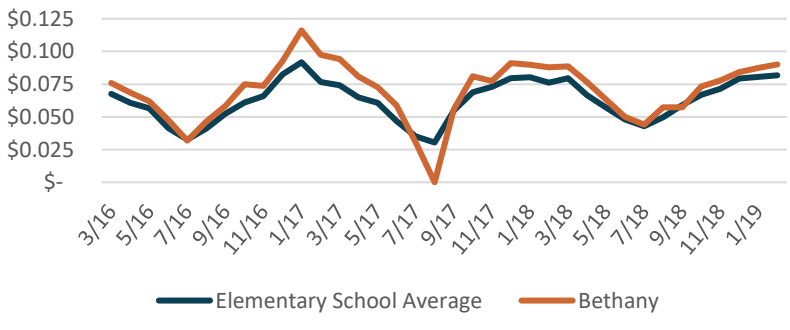
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,343,672	S5	NA
Mechanical	HVAC	$655,253	5, 4	1
Roofing	Built-Up	$1,297,738	4	1
Mechanical	Chiller, Controls	$289,306	4	3
Electrical	Comm & Security	$36,436	4	3
Interior Finishes	Carpet	$203,945	4	5
Food Service	Dishwasher, Food Warmer, Walk-ins	$36,200	4	2, 4

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



poor roof condition

rooftop HVAC equipment

water damage to ceiling tile

worn out parking painting

General Building Condition

Roof

- The overall roof is in poor condition with heavy moss build up, standing water, and exposed seams

Mechanical/HVAC

- HVAC distribution systems on site were noted to be in poor condition. Older JCI controls system could also benefit from an upgrade
- Mechanical equipment was overall found to be in fair condition

Electrical

- Electrical service and distribution equipment were noted to be in fair condition
- Access control system is in good condition
- Lighting control system was manual with lighting control panels

Plumbing

- Plumbing equipment and distribution system was noted overall to be in fair condition

Fire, Life, Safety

- Fire protection equipment was noted to be in fair condition
- All storm drain should be cleaned

Interior Finishes

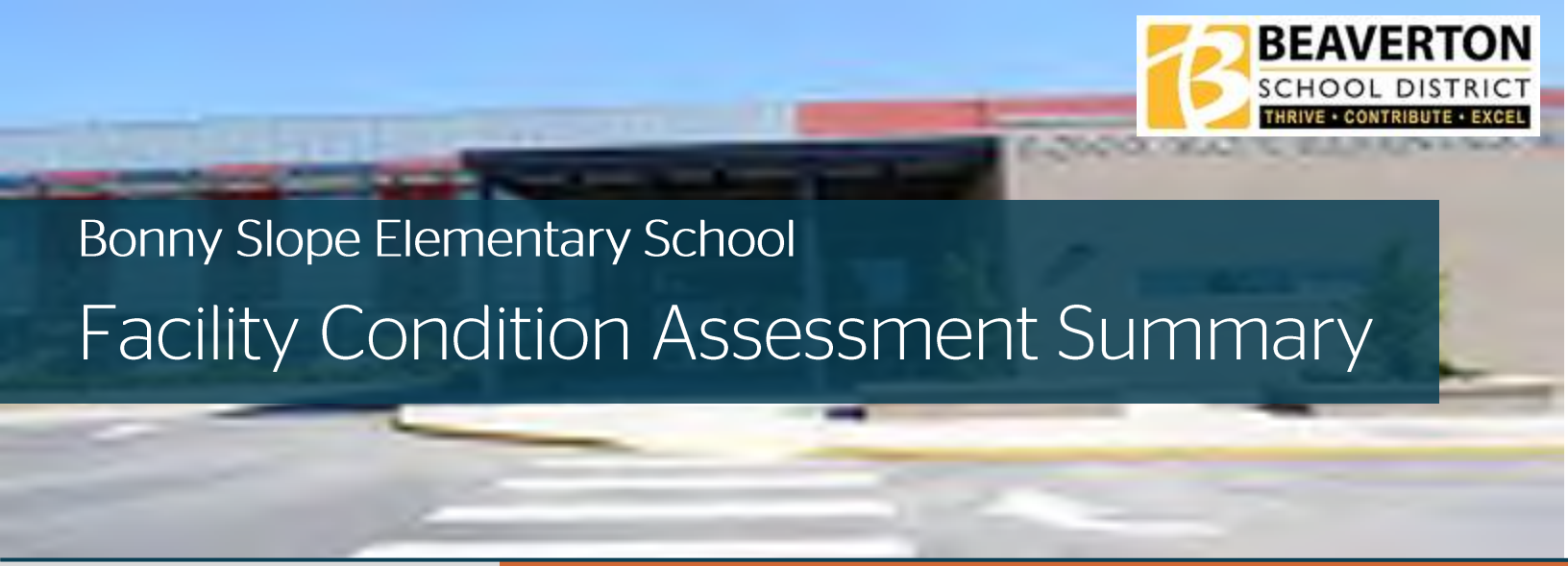
- Interior finishes (walls, floors, and ceilings) are generally in fair condition. Areas of note include heavy wear on some carpet areas, multiple cracks on resilient tile, minor damage to gym ceiling, and some water damage to ceiling tiles

Utilities

- Site communication and security was noted to be in good to fair condition

Site Improvements

- Parking lot paving is in fair condition with some minor cracking. The parking lot painting is worn and could benefit from repainting
- Playground equipment is in fair condition, but the playground area needs additional bark chips
- Exterior walls are in fair condition with only some minor damage to soffit



Bonny Slope Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Bonny Slope Elementary School*

Age: 2008

Size (SF): 80,405

Area: *8.34* acres

Assessment Date: *12/4/19*

Student Population: 625

School Ratings

Facility Conditions Index: 0.120

Avg Condition Score: 2.17 out of 5

Asset Count: 208

Energy Use Intensity: 45.67

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $12,133,850

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $41,107,056

Energy Spend*

Electricity: $48,490

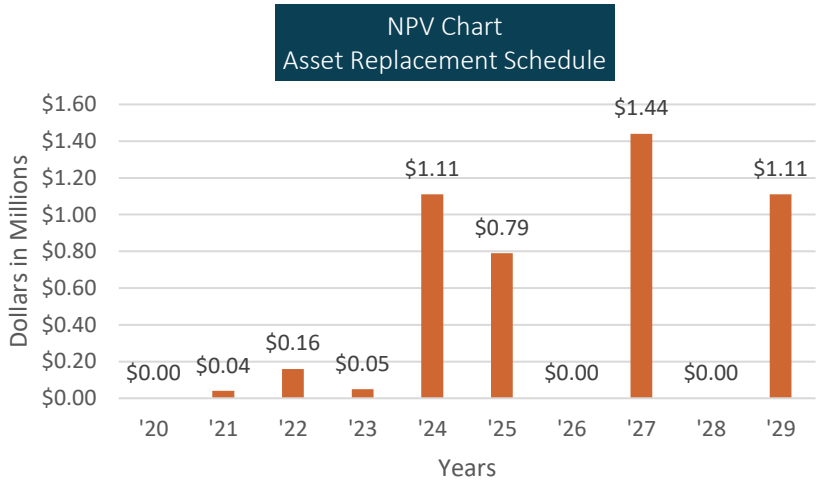
Natural Gas: $15,495

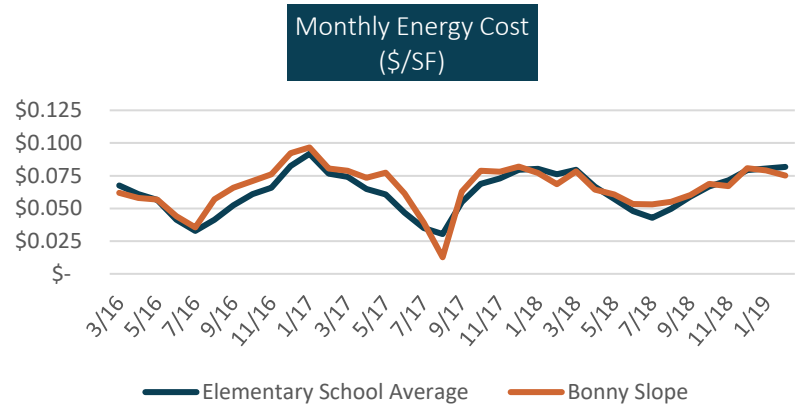
Water Spend*: $16,283

**3/19 – 2/20*

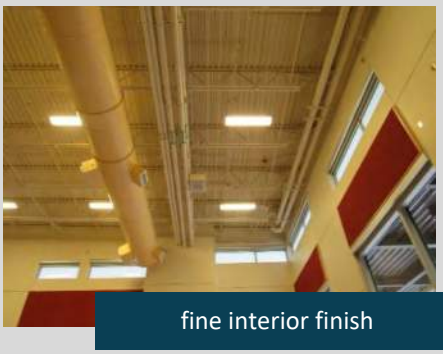
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Mechanical	Test & Balance, VFD	$159,411	4	3
Plumbing	Water Heater	32,604	3	3



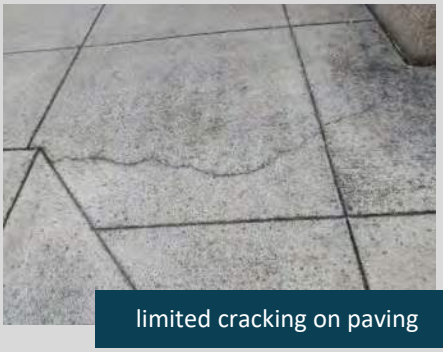


good TPO roof condition



fine interior finish

blocked electrical equipment



limited cracking on paving

General Building Condition

Roof

- TPO roof is in good condition though there are minor cracks in the walk pads. All roof drains were noted to be clear

Mechanical/HVAC

- Mechanical equipment and distribution system were found to be in good to fair condition

Electrical

- Improper storage of items was noted in front of electrical equipment in mechanical rooms. Items should be relocated to ensure adequate safe access to electrical panel
- LED, T8, CFL lighting was installed on site

Plumbing

- Manual plumbing fixtures were noted to be in fair condition. Domestic water distribution and sanitary waste system were in similarly fair condition

Fire, Life, Safety

- Fire protection system (sprinklers, standpipes, and associated specialties) were noted to be in good condition
- All storm drain should be cleaned

Interior Finishes

- Interior doors, stairs, and finishes (walls, floors, and ceilings) were all found to be in good condition

Conveyance

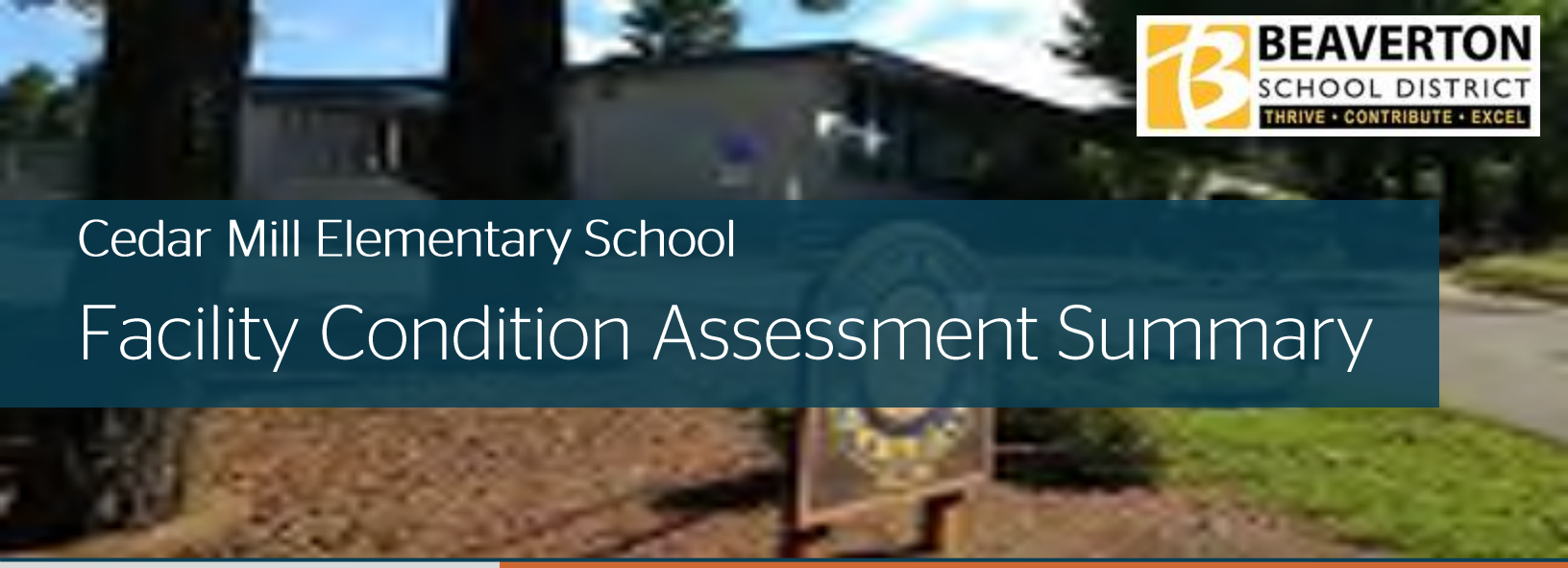
- One elevator and one ADA lift were noted on site. Both were found to be in good condition

Utilities

- Site communication and security was noted to be in good condition
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Playground equipment is in good condition through the playground area could use more wood chips for added coverage
- Parking lots and pedestrian paving was in good condition with only some minor cracking noted
- CFL and sodium site lighting was installed
- Exterior walls are in good condition with no cracks evident



BEAVERTON SCHOOL DISTRICT
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Cedar Mill Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Cedar Mill Elementary School*

Age: 1950

Size (SF): 41,055

Area: 5.62 acres

Assessment Date: 7/29/19

Student Population: 428

School Ratings

Facility Conditions Index: 0.347

Avg Condition Score: 2.94 out of 5

Asset Count: 96

Energy Use Intensity: 69.04
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,841,835

Year 1 Asset Replacement Cost: $1,622,563

Current Replacement Value: $20,989,369

Energy Spend*

Electricity: $23,865

Natural Gas: $17,689

Water Spend*: $5,330

**3/19 – 2/20*

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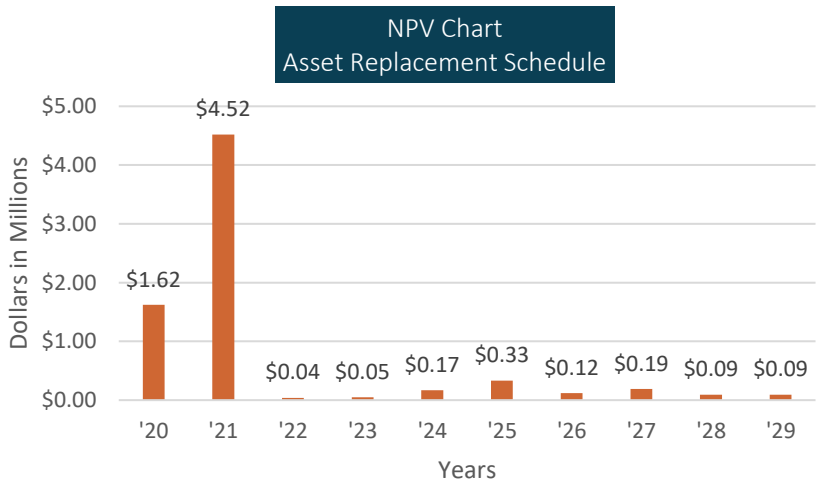
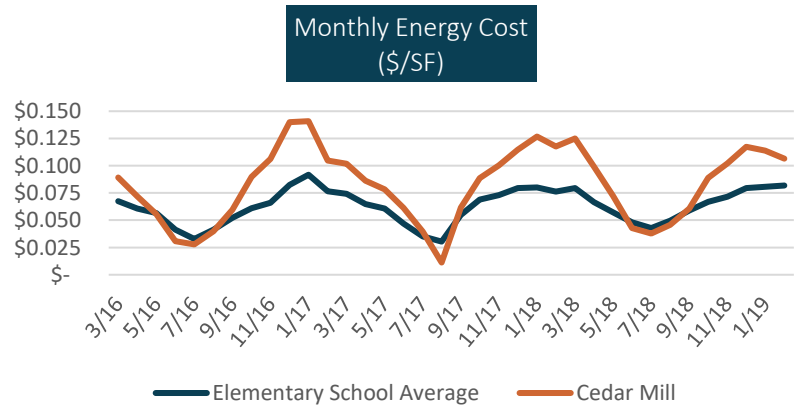
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,321,860	S5	NA
Exterior Enclosures	Aluminum Windows	$410,550	5	1
Electrical	Lighting	$133,429	4	1
Interior Finishes	Flooring, Ceiling	$257,415	4	1
Site Work	Parking Lots	$65,940	4	2





preparation for roof replacement

rusted rooftop RTUs

suspected asbestos tiles

cracked and worn paving

General Building Condition

Roof

- Single ply roof covering is fair condition but there is evidence of water penetration and leaking into the building. Ballasted roof is in very poor condition. This area is being prepared for a new TPO roof replacement

Mechanical/HVAC

- Overall HVAC equipment was noted to be in poor condition. Some equipment replacement was in progress on main building. Unit ventilators are being replaced with new rooftop units and some new ductwork. Extension building rooftop units should be replaced next as equipment is aged and rusting
- At the time of the site visit, the boiler was noted to be out of commission

Electrical

- Brand new electric distribution was noted in most of the building. The rest of the equipment is original and should be replaced soon
- Lighting and branch wiring on site were noted to be in poor condition.

Plumbing

- Hot water heater in boiler room is not strapped down and does not have a catch basin. Both items should be remediated

Fire, Life, Safety

- Poor sprinkler coverage was noted especially in the downstairs areas
- All storm drain should be cleaned

Interior Finishes

- Windows are in very poor condition and should be replaced soon. The single pane windows are inefficient, and the anti-glare coasting is wearing off
- Some interior doors were noted to have non-ADA compliant door handles
- Gym and cafeteria areas have resilient tiles with suspected asbestos contain material. Tiles are also in poor condition with some cracking
- Bathroom areas show signficiant wear in ceramic tiles
- Ceiling tiles were noted to be in overall poor condition. Frequent damage was noted throughout was several fallen tiles

Conveyance

- Two stair lifts were noted on site. Both were found to be in fair condition

Utilities

- Site communication and security was noted to be in fair condition

Site Improvements

- Most of the wood at the foundation is covered by bark. Over time this bark could potentially cause the wood here to rot. An alternative solution should be used in these areas
- Gaps below door and door frame noted in the extension building. These doors should be weather stripped to improve building efficiency
- Site equipment was noted to be primarily in fair condition considering the age. Restroom accessories and stalls have some cosmetic damage
- Poor overall site lighting coverage. Perimeter LED lighting has day burners
- North side of parking is in poor condition

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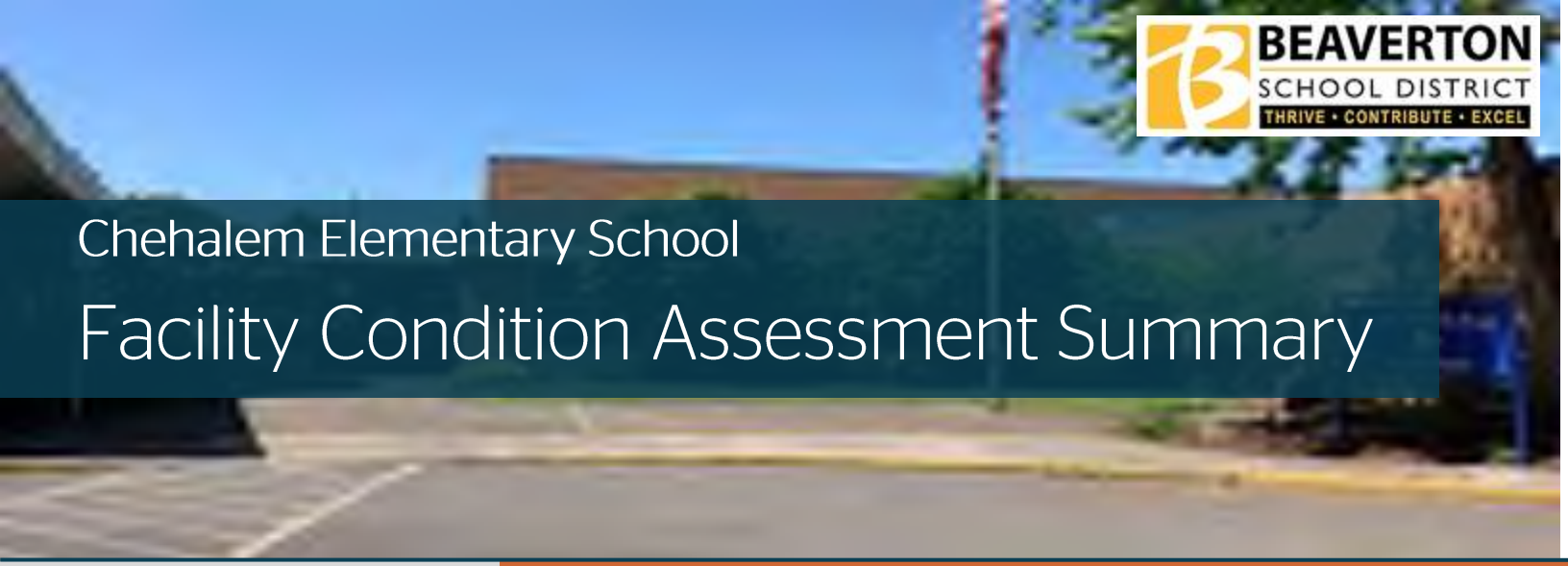


Chehalem Elementary School
Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Chehalem Elementary School*

Age: 1971

Size (SF): 54,316

Area: 10.0 acres

Assessment Date: *9/18/19*

Student Population: 459

School Ratings

Facility Conditions Index: 0.237

Avg Condition Score: 4.03 out of 5

Asset Count: 125

Energy Use Intensity: 45.01
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,495,979

Year 1 Asset Replacement Cost: $534,974

Current Replacement Value: $27,769,055

Energy Spend*

Electricity: $37,191

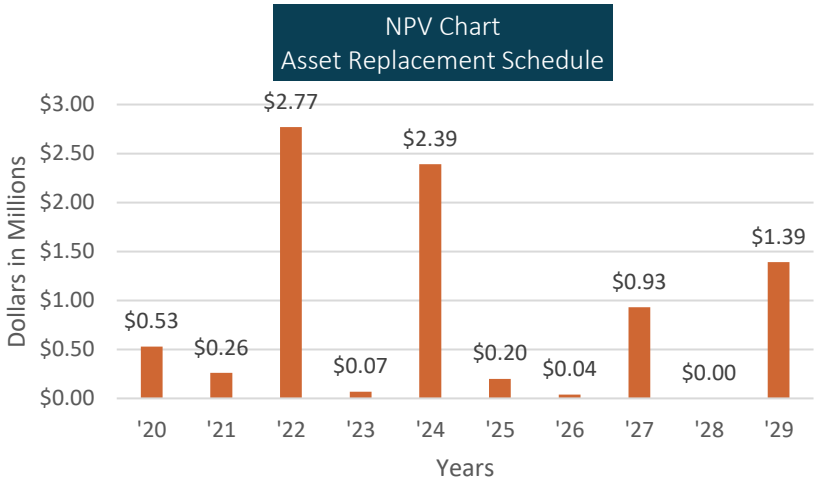
Natural Gas: $12,529

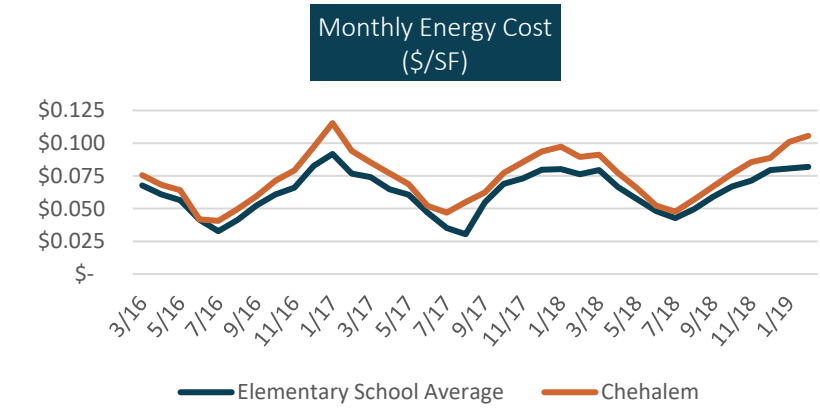
Water Spend*: $5,640

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

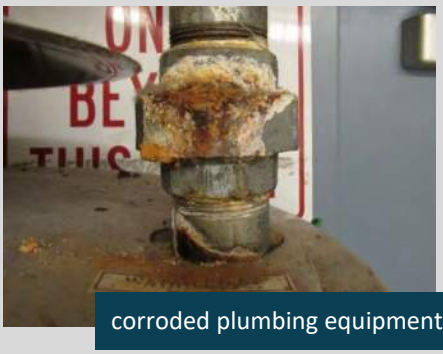
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,599,021	S4	NA
Electrical	Switchboard	$218,120	5	1
Interior Finishes	Flooring, Ceiling	$257,415	4	1
Plumbing	Water Heaters	$24,965	5	1
Plumbing	Domestic Water Distr.	$395,420	5	1
Exterior Enclosures	Aluminum Windows	$206,944	4	2
Site Work	Storm Sewer	$15,000	4	1





clogged drains and moss build up

gravel in equipment



corroded plumbing equipment

damaged pedestrian paving

General Building Condition

Roof

- Built-up gravel roof is in poor condition. Areas of concern include leaks, moss build-up, and clogged roof drains

Mechanical/HVAC

- Packaged units, resistant heaters, and pumps are aging. Gravel should be cleared from rooftop exhaust fan housing. RTU's have been vandalized. Faculty must keep all RTUs padlocked due to students accessing the roof
- Wild temperature swings in B-Hall due to a lack of wall insulation and the inefficient single pane windows
- HVAC ductwork was noted to not be insulated in areas
- Hot water system is aging and should be scheduled for replacement
- Controls system was noted to be aged and in poor condition
- High building internal air pressure prevents three main doors from closing

Electrical

- Electrical service and distribution equipment is in poor condition. Additionally, panels in main corridor should be locked for safety
- Site lighting is in poor condition. T8 and CFL lighting installed on site. Office light fixture covers are a hazard and should be replaced. The covers have previously fallen off and hit staff

Plumbing

- Overall plumbing fixture was noted to be in fair condition though the kitchen domestic water heater does not have earthquake straps and is suspected to have asbestos containing insulation
- Domestic water distribution was found to be in poor condition. Bad pressure relief valve and poor drainage for condensate was noted. The main water valve is padlocked in the open position with chains.
- Sanitary waste was noted to have overflowed last year but was fixed

Fire, Life, Safety

- Students can access roof by standing on gas meter cage. Gates should be added around the perimeter fence lines to secure the site
- All storm drain should be cleaned

Interior Finishes

- Inefficient single pane windows are in poor condition and should be replaced
- Some interior doors were noted to have wire glass which is a safety concern
- Ceiling tiles are in poor condition with leaks and missing tiles noted
- Interior resilient tiles are in poor condition. They are sinking and not level
- Wood stage floor is worn and should be resurfaced and stained

Utilities

- Water supply piping is corroded. Main building water supply suspected to contain asbestos
- Pipes old and need to be replaced. Classroom drops in the west end of building, hallway mains and building main in custodial closet, kitchen and cafeteria
- Intrusion alarm system was noted not to be active in portables

Site Improvements

- Parking lots and pedestrian paving were noted to be in poor condition even though painting is new. East side parking floods whenever it rains.

BEAVERTON SCHOOL DISTRICT
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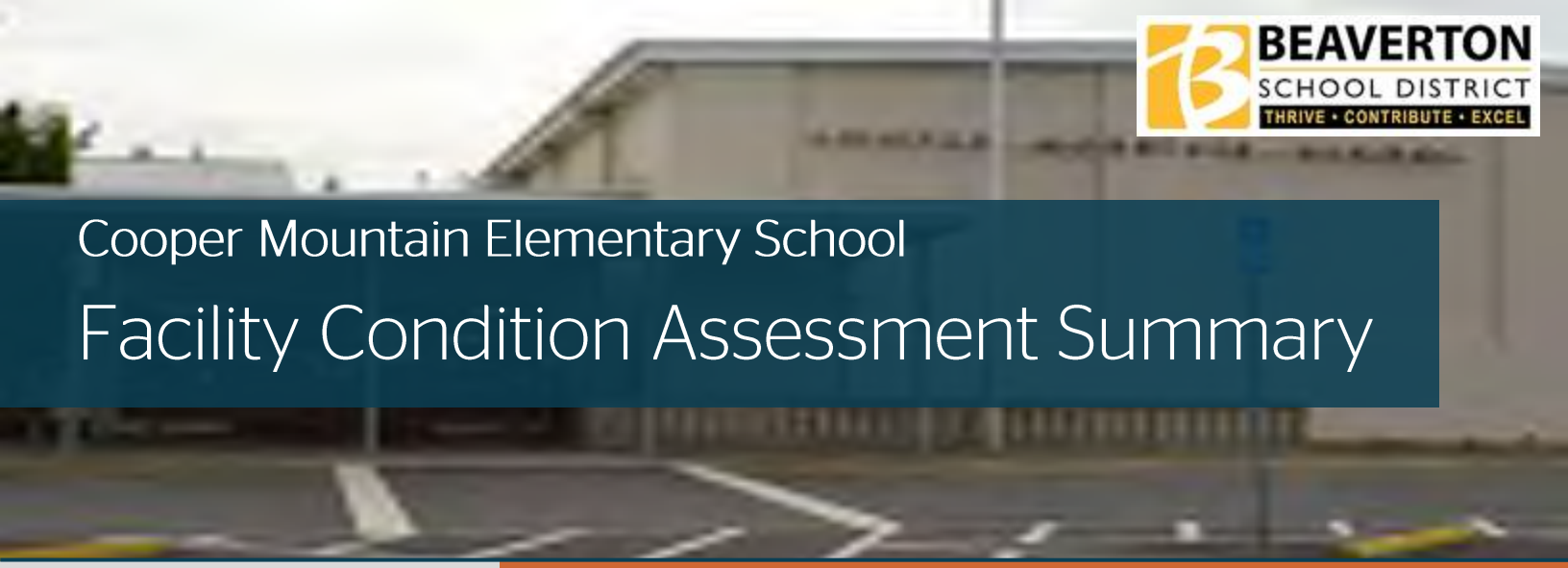


Cooper Mountain Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Cooper Mountain Elementary School*

Age: 1954

Size (SF): 54,821

Area: 8.07 acres

Assessment Date: 7/30/19

Student Population: 461

School Ratings

Facility Conditions Index: 0.312

Avg Condition Score: 3.31 out of 5

Asset Count: 98

Energy Use Intensity: 55.76

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $12,985,711

Year 1 Asset Replacement Cost: $1,265,970

Current Replacement Value: $28,027,236

Energy Spend*

Electricity: $46,164

Natural Gas: $16,259

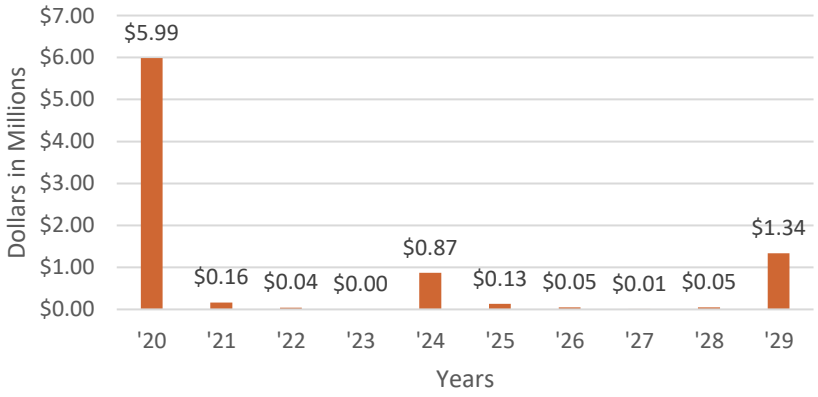
Water Spend*: $5,227

**3/19 – 2/20*

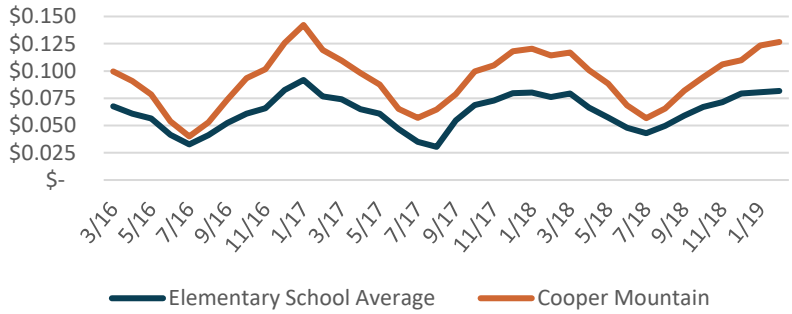
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,721,733	S4	NA
Roofing	Built-Up	$498,888	5	1
Electrical	Switchboard	$319,200	5	1
Exterior Enclosures	Aluminum Windows	$208,868	5	1
Plumbing	Water Heaters	$19,085	5	1
Mechanical	Air Handling Unit, Pumps	$28,050	5	1
Interior Finishes	Flooring, Ceiling	$130,633	4	2

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



ballasted roof condition

worn exhaust fan belt

worn carpet areas

cracking on pedestrian paving

General Building Condition

Roof

- Ballasted sections of the roof are in very poor condition and in need of immediate replacement. Moss accumulation is significant in these areas
- Roof access hatch is difficult to operate

Mechanical/HVAC

- HVAC equipment is aged but still functional
- Belts on rooftop exhaust fans are worn and need to be replaced

Electrical

- Electrical service and distribution equipment are in fair condition
- T8 lighting installed throughout the school

Plumbing

- Plumbing fixtures are aged but still functional. Consistent backup was noted in the custodial sink
- No seismic strap or concrete pad at domestic water heater

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Inefficient single pane exterior windows should be replaced
- Interior finish is mostly in fair to poor condition. Areas of concern include worn carpet, damaged wallboard, and misshaped ceiling tiles

Utilities

- Site communication and security was in fair to good condition

Site Improvements

- Exterior wall masonry is in poor condition with some cracking noted
- Additional bark chips should be added to playground area
- Parking lots and pedestrian paving was in fair condition. Some cracking and weed growth noted in parking area
- Site lighting is noted to be insufficient
- Chiller and generator are easily accessible. Area perimeter should be secured and locked to limit access

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BEAVERTON SCHOOL DISTRICT
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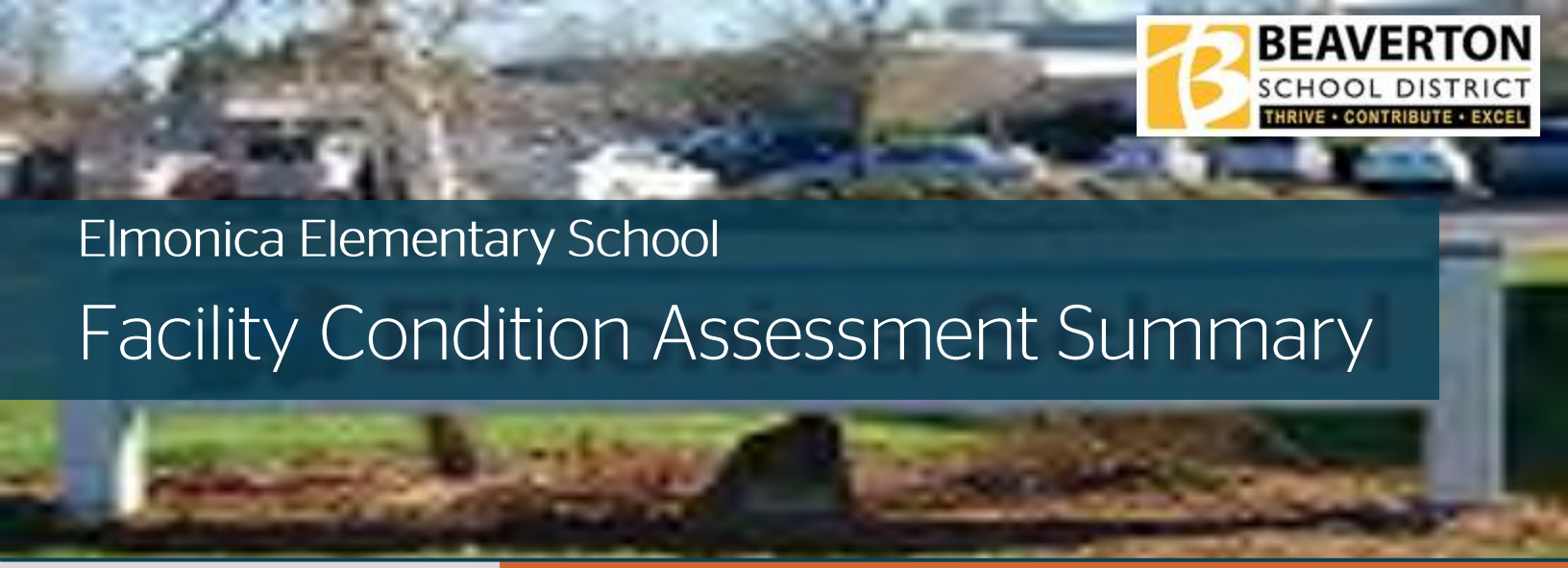


Elmonica Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Elmonica Elementary School*

Age: 1980

Size (SF): 50,734

Area: 8.76 acres

Assessment Date: 10/15/19

Student Population: 550

School Ratings

Facility Conditions Index: 0.229

Avg Condition Score: 3.60 out of 5

Asset Count: 166

Energy Use Intensity: 47.63

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,717,109

Year 1 Asset Replacement Cost: $829,744

Current Replacement Value: $25,937,758

Energy Spend*

Electricity: $40,391

Natural Gas: $8,018

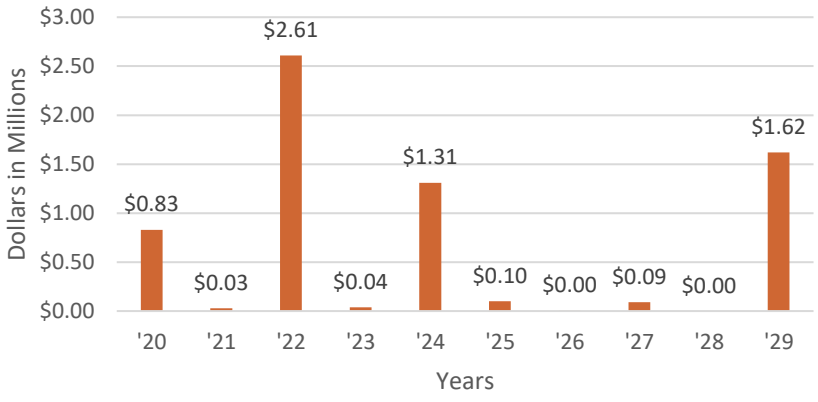
Water Spend*: $6,700

**3/19 – 2/20*

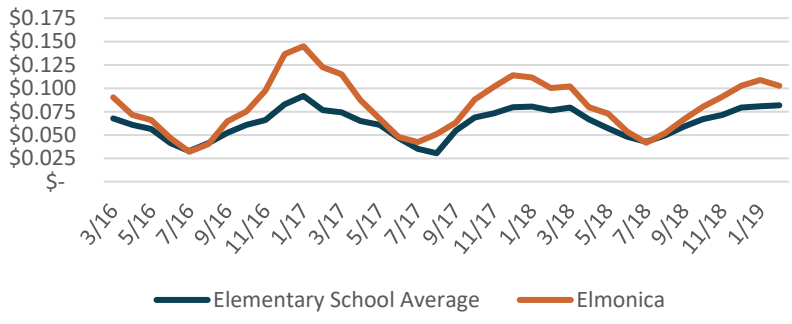
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,427,622	S4	NA
Mechanical	HVAC	$659,091	5	1
Electrical	Transformer/Elec Panel	$121,390	5	1
Exterior Enclosures	Aluminum Windows	$96,665	4	1
Site Work	Pedestrian Paving & Storm Sewer	$30,000	4	1
Roofing	Built-Up	$263,817	4	5

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



roof solar condition

damage to AC unit

metal mesh in door glass

cracked pedestrian paving

General Building Condition

Roof

- Majority of the roof is in good condition though the built-up section of the roof is in poor condition
- Solar panels on the roof are in good condition
- Damage noted to the soffit area above the metal exterior walls

Mechanical/HVAC

- Building controls are in poor condition and consists of a combination of pneumatic with JCI digital overlay
- Multiple hot and cold areas noted in the building
- Ductwork is a mix and new and older ducts
- Damage evident on kitchen air conditioning unit

Electrical

- Electrical service & distribution equipment is in generally poor condition.
- Some Electrical panels are over forty years old at past their expected useful life
- Lighting control system consists of some motion detectors
- T8 lighting is installed throughout the school with some LED on exterior

Plumbing

- Some hot water tanks are missing drains. Drains should be installed to ensure safe drainage in case of a leak
- Rainwater drainage on roof is clogged leading to water runoff over the side of the building. Drainage should be cleared

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Moveable walls in annex and library are in poor condition and should be replaced soon
- Metal mesh in interior door and window glass are a potential safety hazard
- Inefficient single pane windows should be replaced
- Water damage and dents noted to ceiling tiles
- Interior doors need to be refinished

Utilities

- Site communication & security systems are in good to fair condition
- Kitchen freezer capacity is limited and could benefit from increased capacity

Site Improvements

- Pedestrian paving is in poor condition with many cracks and uneven surfaces that pose a potential trip hazard
- Parking lot paving is in fair condition with some alligatoring and cracked curbs
- Perimeter lighting is LED and provides good site coverage
- Several ant trails into the building were found. New sealant or a better barrier should be installed to prevent ants from getting in
- Bark level in playground area is low and presents a potential trip hazard. Bark chips should be refilled in this area

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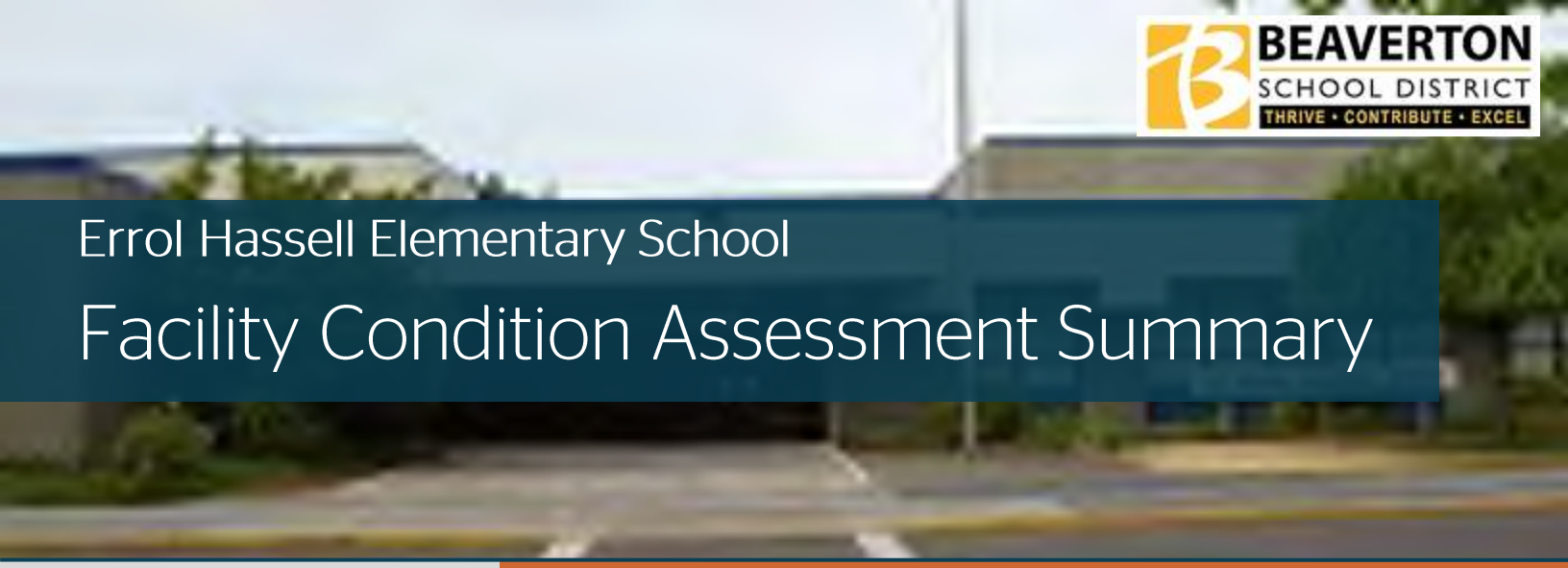


Errol Hassell Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Errol Hassell Elementary School*

Age: 1979

Size (SF): 60,345

Area: 9.20 acres

Assessment Date: 9/25/19

Student Population: 426

School Ratings

Facility Conditions Index: 0.233

Avg Condition Score: 3.82 out of 5

Asset Count: 147

Energy Use Intensity: 41.15

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $13,218,821

Year 1 Asset Replacement Cost: $1,544,433

Current Replacement Value: $30,851,381

Energy Spend*

Electricity: $36,020

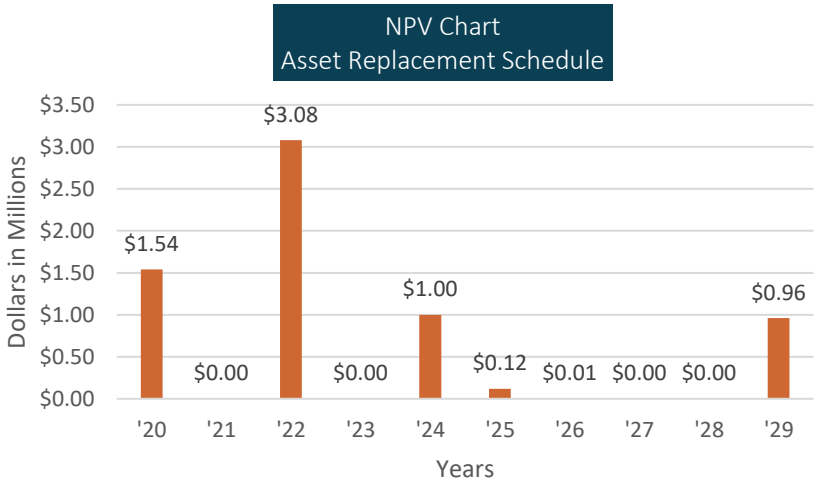
Natural Gas: $10,581

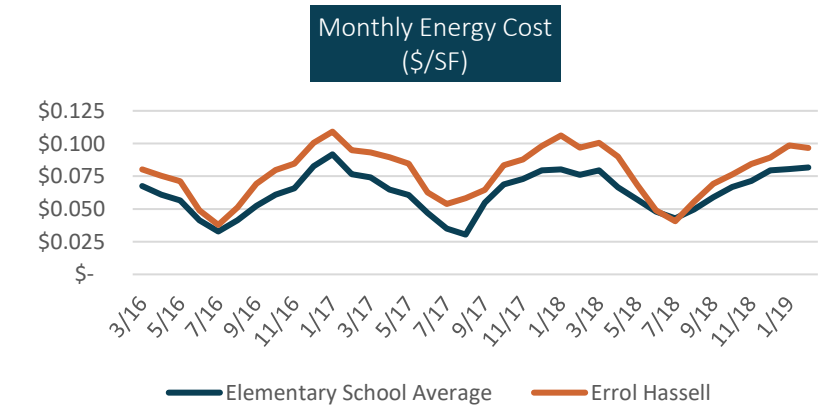
Water Spend*: $17,135

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

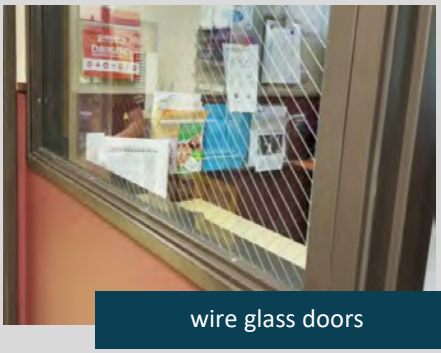
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,887,508	S4	NA
Mechanical	HVAC	$839,832	5	1
Commercial Equipment	Food Service	$17,200	4	3
Exterior Enclosures	Exterior Doors	$57,600	4	5
Interior Finishes	Carpet, Ceiling Tile	$171,929	4	5
Roofing	Built-Up	$156,987	4	5





moss build up on roof

damaged condenser coils



wire glass doors

spalling and cracked paving

General Building Condition

Roof

- Most of the roof is in good condition though the built-up ballasted portion of the roof is in poor condition with significant moss build up

Mechanical/HVAC

- HVAC equipment and distribution system were noted to be in overall fair condition. Damage to Carrier condenser coils were noted
- Aged pneumatic controls were noted to be in poor condition

Electrical

- Electrical service and distribution equipment is overall in fair condition.
- Staff indicated that breaker in kitchen trips frequently
- T8 lighting fixtures installed throughout the building

Plumbing

- Plumbing equipment was noted to be in fair condition overall

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Metal wire mesh was found on interior and exterior door windows which is a potential safety concern
- Carpet worn in high traffic areas
- Multiple stained and damaged ceiling tiles

Utilities

- Perimeter fencing at the front of the building prevents the site from being safety secured
- There is no way to properly secure and lockdown B Building
- More card reader access is recommended on site
- Walk-in refrigerator is undersized. Many repairs have been required to keep equipment running

Site Improvements

- Pedestrian paving was noted to be in poor condition with multiple repairs needed due to cracks, spalling, and worn painting
- Weather stripping on doors are in poor condition and should be replaced

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Findley Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Findley Elementary School*

Age: 1997

Size (SF): 72,052

Area: 9.96 acres

Assessment Date: 12/17/19

Student Population: 636

School Ratings

Facility Conditions Index: 0.221

Avg Condition Score: 3.34 out of 5

Asset Count: 114

Energy Use Intensity: 41.64

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,406,224

Year 1 Asset Replacement Cost: $187,386

Current Replacement Value: $36,836,585

Energy Spend*

Electricity: $63,496

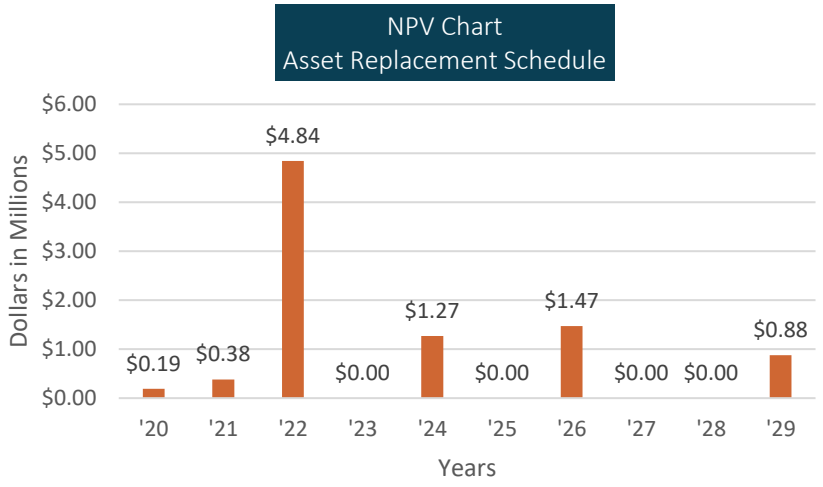
Natural Gas: $9,358

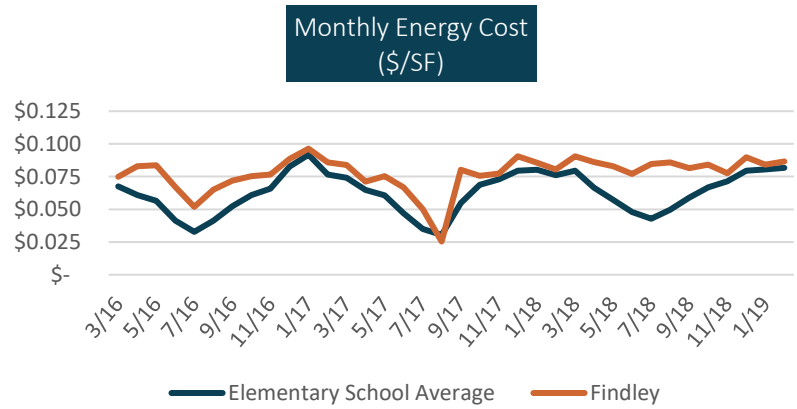
Water Spend*: $12,857

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,068,613	S4	NA
Mechanical	HVAC	$2,539,717	4	1-3
Site Work	Parking Lot	$88,077	4	5
Interior Finishes	Carpet, Doors	$401,654	4	2
Mechanical	Plumbing	$51,110	5	1





clogged roof drains

leaking drain damaging wall

suspected water heater leak

poorly secured gate

General Building Condition

Roof

- Roof is in fair condition with some clogged drains and moss growth
- Roof access hatches are in poor condition

Mechanical/HVAC

- HVAC equipment is generally in fair condition
- Some hot and cold areas noted in the building
- Boiler noted to have an unusually loud hum
- Building controls are in poor condition and do not have local access

Electrical

- Electrical service & distribution equipment is in generally fair condition
- Improper storage of items noted in front of electrical equipment
- Lighting control system consists of some motion sensors
- T8 and CFL lighting installed throughout the school

Plumbing

- Plumbing fixtures were noted to be in fair condition
- Exposed rust at the bottom of the water heater points to a potential leak
- Below grade waste pump noted to fail occasionally
- Potential leak in the drain near rear door results in moss growth

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Metal mesh in door glass is a potential safety hazard
- Old carpet from the 1990s noted on interior floors and stairs. This carpet is extremely worn and should be replaced soon
- Resilient floor tiles are old and in very poor condition. There are cracks and gaps in the tiles throughout the school
- Ceiling tiles are missing in the gym hallway
- Several window seals noted to be worn and should be resealed
- Several door seals are missing and damaged. Seals should be reapplied

Conveyance

- A single elevator is located at the school. The elevator is in fair condition

Utilities

- Site communications & security systems are in generally fair to good condition

Site Improvements

- Parking lot is in generally poor condition with moss growth, alligatoring, and cracked curbs throughout
- Pedestrian paving is in fair condition though there are some uneven pathways
- Re-caulking needed for some exterior concrete walls
- Gate in corner of playfield locks loosely

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Fir Grove Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Fir Grove Elementary School*

Age: 1954

Size (SF): 60,666

Area: 12.0 acres

Assessment Date: 7/30/19

Student Population: 387

School Ratings

Facility Conditions Index: 0.324

Avg Condition Score: 3.54 out of 5

Asset Count: 112

Energy Use Intensity: 33.69

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $14,746,103

Year 1 Asset Replacement Cost: $6,139,424

Current Replacement Value: $31,015,493

Energy Spend*

Electricity: $32,602

Natural Gas: $9,891

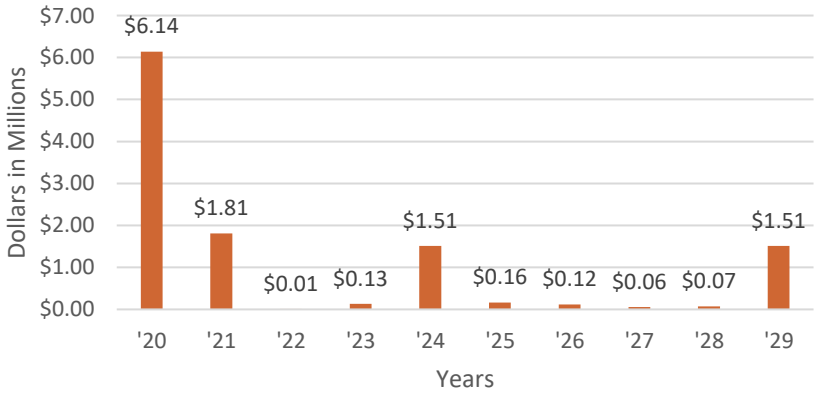
Water Spend*: $2,623

**3/19 – 2/20*

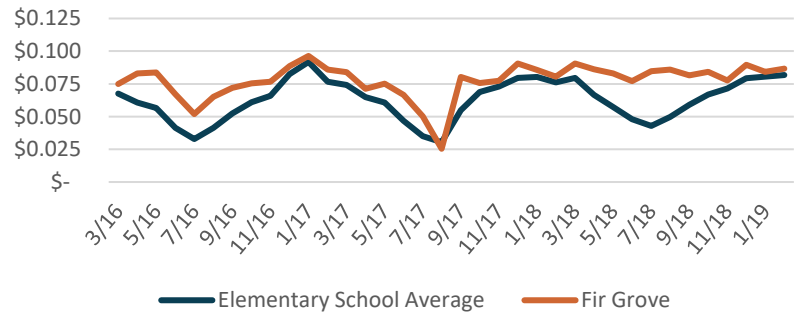
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,064,015	S6	NA
Mechanical	HVAC	$180,232	5,4	1
Electrical	Elec Panel, Switchboard	$212,385	5	1
Roofing	Built Up, Asphalt	$1,350,000	4	2
Exterior Enclosures	Windows, Doors, Siding	$1,355,414	5,4	1,5
Interior Finishes	Ceiling Tile	$73,406	4	2
Mechanical	Plumbing, Storm Sewer	$49,830	5,4	1,2

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



exposed ballasted roof surface

failed rooftop exhaust fan

switchgear condition

mold in windows

General Building Condition

Roof

- Asphalt shingle roof is in poor condition with significant moss build up
- Ballasted roof area is in very poor condition with significant debris and moss build up. Felt fibers are visible through roof tar

Mechanical/HVAC

- HVAC equipment was noted to be in poor condition overall. Two failed exhaust fans were noted on site and should be replaced

Electrical

- Main incoming switchgear in boiler room is in poor condition with duct tape noted over breakers
- Electrical equipment was generally found to be in poor condition

Plumbing

- Plumbing fixtures were noted to be in good condition overall
- B Wing restrooms and C Wing classroom sinks are prone to frequent back ups

Fire, Life, Safety

- With the exception of A Hall, fire alarming and notification was noted to be limited. Additional coverage is recommended
- No carbon monoxide monitoring noted near gas oven
- All storm drain should be cleaned

Interior Finishes

- Inefficient single paned wood windows are recommended for replacement
- Metal framed windows were noted to be moldy
- Interior stairs are in poor condition with significant wear. Additionally, the stairs off the gym storeroom to the attic is non code compliant
- Drywall finish needs patch and painting particularly north on A Hall
- The hallway between B and C Hall has a leaky roof
- Resilient tile is in poor condition throughout

Utilities

- Site communication and security was deemed minimal at best
- Storm sewer was backed up behind building
- Additional access control recommended on site. Card reader usage is limited

Site Improvements

- Exterior panel siding walls show signs of separation from building with numerous soft spot areas
- Site lighting is limited and could benefit from increased coverage
- Tree roots are causing damage to outside benches
- Exterior door weather stripping is worn and should be replaced
- Exterior room B126 east soffit is sagging

Greenway Elementary School
Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Greenway Elementary School*

Age: 1979

Size (SF): 54,991

Area: 9.45 acres

Assessment Date: 9/18/19

Student Population: 318

School Ratings

Facility Conditions Index: 0.224

Avg Condition Score: 4.07 out of 5

Asset Count: 156

Energy Use Intensity: 45.89
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,584,391

Year 1 Asset Replacement Cost: $1,007,558

Current Replacement Value: $28,114,149

Energy Spend*

Electricity: $40,118

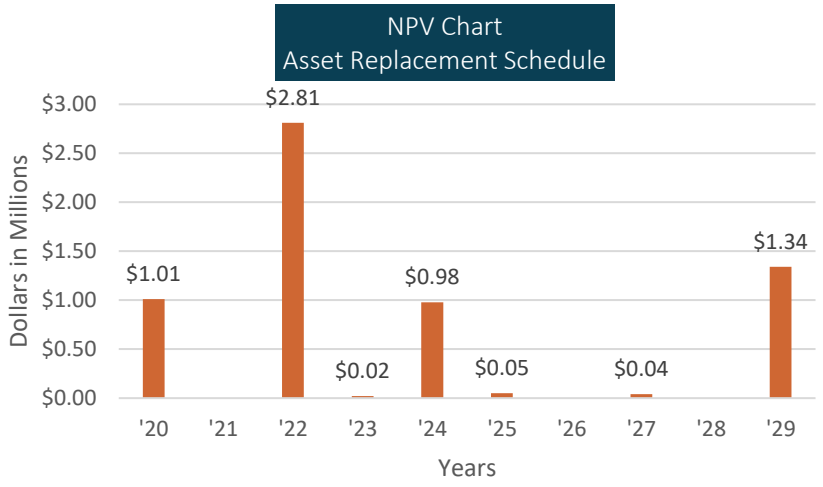
Natural Gas: $10,076

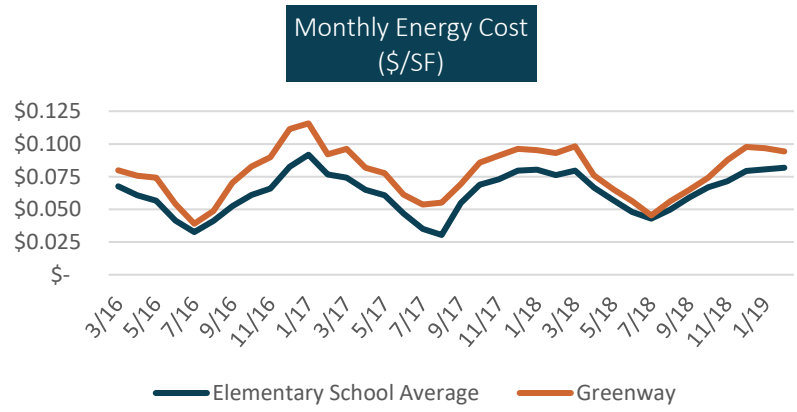
Water Spend*: $5,620

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

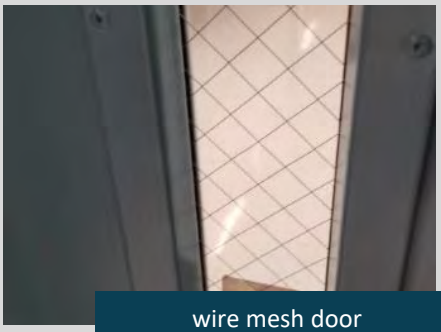
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,631,319	S4	NA
Mechanical	HVAC	$861,932	5	1
Roofing	Built Up with Gravel	$285,953	4	5
Mechanical Utilities	Storm Sewer	$15,000	4	1
Commercial Equipment	Food Service	$21,000	4	3,5





debris build up on roof

damaged ceiling tiles



wire mesh door

failing refrigerator insulation

General Building Condition

Roof

- Built-up M-Building roof is in poor condition
- TPO roof is in fair condition but has significant debris build up

Mechanical/HVAC

- HVAC distriution was noted to be in poor condition as multiple hot and cold areas were identified throughout the building
- HVAC controls are a combination of pneumatic and older JCI controls in poor condition
- Air leaks were noted at library air handling units

Electrical

- Electrical service and distribution equipment were found to be in fair condition
- Site lighting is a combination of T8 and LED lighting

Plumbing

- Plumbing fixtures were noted to be in generally fair condition
- No pan or earthquake strapping was noted on domestic water heaters

Fire, Life, Safety

- No fence is present at the front of the creek. This can be a potential access and safety concern
- All storm drain should be cleaned. Fern growing in drain

Interior Finishes

- Interior finishes are overall in fair condition. Some minor items of note include cracks on drywall, staining in carpet, and damaged ceiling tiles
- Metal mesh in door windows are a potential safety concern

Utilities

- RFID access is newly installed and still in excellent condition
- Walk in refrigerator insulation is failing and should be replaced

Site Improvements

- Exterior aluminum and fiberglass walls are in poor condition with missing panels, missing painting, and water damage
- Campus cannot be secured because of lack of fencing near creek
- Parking and pedestrian paving is in good condition with minor cracking
- Site lighting provide poor coverage and should be increased
- Wood fill at playground area is low and can be a tripping hazard

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Hazeldale Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Hazeldale *Elementary School*

Age: 1954, 2018

Size (SF): 89,000

Area: 7.20 acres

Assessment Date: 11/13/19

Student Population: 467

School Ratings

Facility Conditions Index: 0.025

Avg Condition Score: 1.47 out of 5

Asset Count: 219

Energy Use Intensity: 42.70
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $8,977,081

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $45,501,250

Energy Spend*

Electricity: $23,885

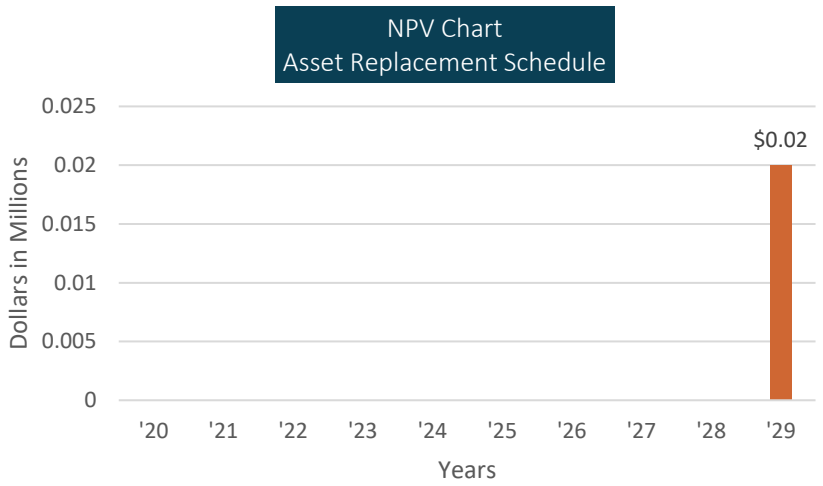
Natural Gas: $16,218

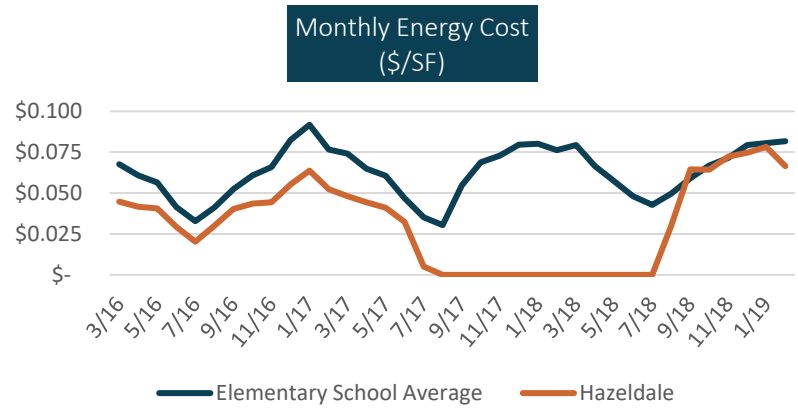
Water Spend*: $15,609

**3/19 – 2/20 School closed from 8/12-7/18 for remodel*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
None				





TPO roof condition

like new HVAC equipment

cracking on concrete floor

playground condition

General Building Condition

Roof

- TPO roof is in good condition. Most water drains are clean with some low spots with stagnant water

Mechanical/HVAC

- HVAC equipment and distribution system are in excellent condition

Electrical

- Electrical service and distribution equipment are in excellent condition
- Lighting control system includes daylight harvesting and occupancy sensors
- LED lighting installed throughout the campus

Plumbing

- Plumbing fixtures are in excellent condition and primarily low flow fixtures

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in excellent condition. A couple minor areas of note include small nicks in the wall, minor cracking, and areas of some concrete settling

Conveyance

- Elevator is in like-new excellent condition

Utilities

- Site communication and security was noted to be in excellent condition. Exterior cameras are installed along the perimeter

Site Improvements

- Exterior enclosure is in excellent condition
- Playground equipment is in excellent condition with AstroTurf installed in playground area
- Parking and pedestrian paving is in excellent condition

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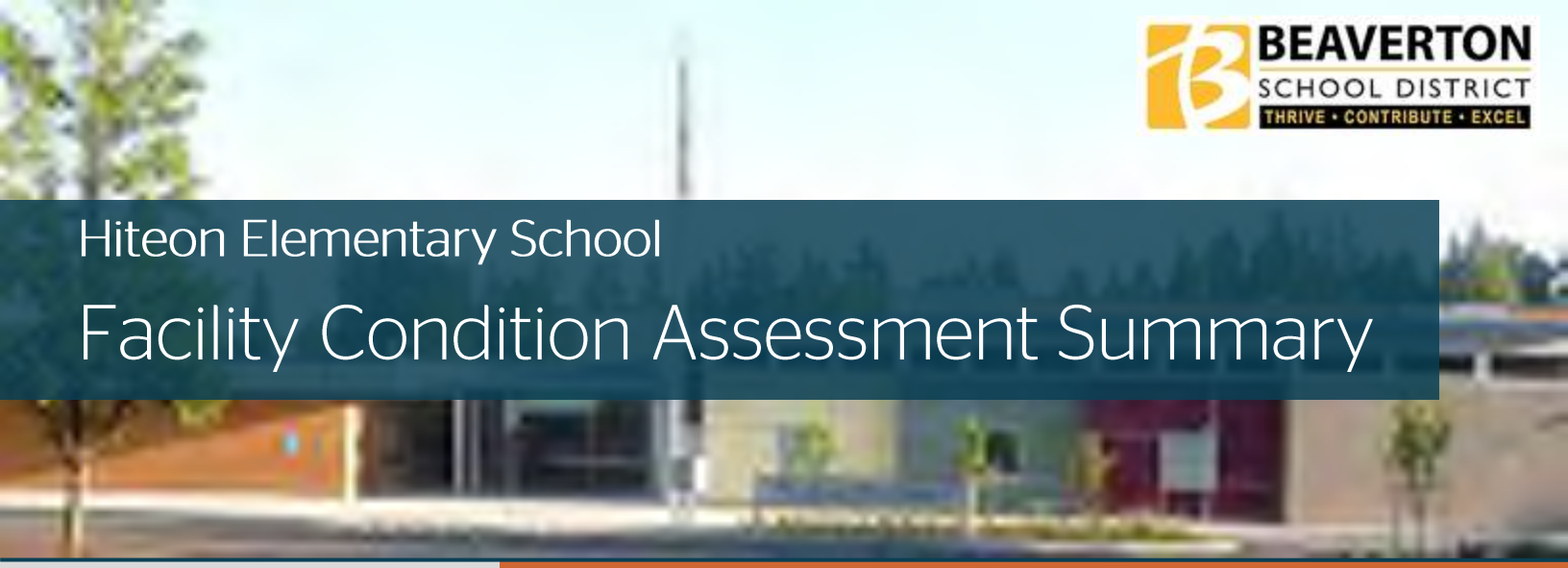


Hiteon Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Hiteon *Elementary School*

Age: 1974

Size (SF): 78,972

Area: 12 acres

Assessment Date: 9/1/19

Student Population: 634

School Ratings

Facility Conditions Index: 0.234

Avg Condition Score: 3.44 out of 5

Asset Count: 154

Energy Use Intensity: 40.34
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,728,184

Year 1 Asset Replacement Cost: $2,040,324

Current Replacement Value: $40,374,435

Energy Spend*

Electricity: $75,153

Natural Gas: $9,499

Water Spend*: $9,591

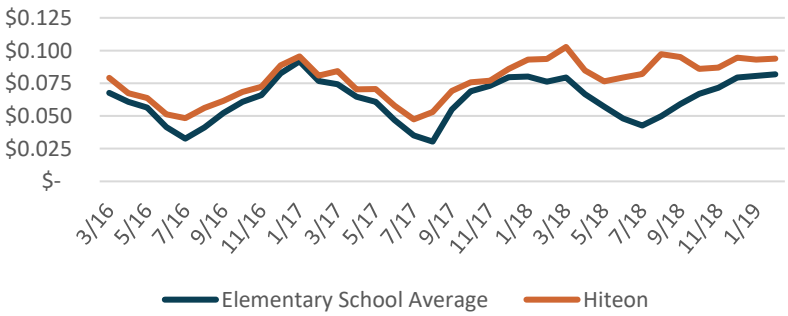
**3/19 – 2/20 School closed from 8/12-7/18 for remodel*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,778,810	S4	NA
Mechanical	HVAC-AHU, Fan, Etc.	$1,320,962	5, 4	1
Electrical	Switchboard	$148,960	5	1
Roofing	Built-Up	$1,026,636	4	3
Mechanical Utilities	Storm Sewer	$15,000	4	1
Interior Finishes	Floor Tile	$222,109	4	5

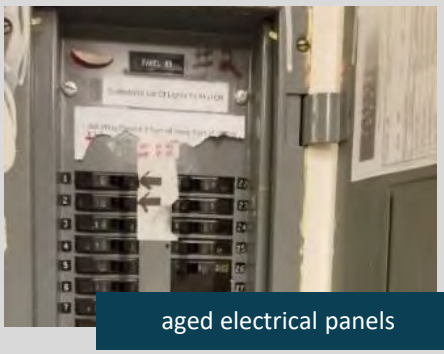
NPV Chart
Asset Replacement Schedule

Monthly Energy Cost
($/SF)

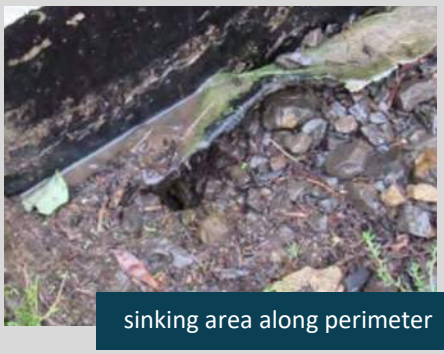


drainage issues on roof

newly installed chiller



aged electrical panels



sinking area along perimeter

General Building Condition

Roof

- Built up roof is in poor condition with standing water and moss growth in areas. This area should be scheduled for a replacement soon
- TPO section of the roof is in fair condition

Mechanical/HVAC

- Overall HVAC equipment was in fair condition. Items of note include a newly installed chiller and some failed Carrier condenser units
- Building controls were a combination of pneumatic and Metasys controls that were in poor condition

Electrical

- Several aged electrical panels were identified
- Lighting control system includes some motion sensing and some ultrasound
- T8 lighting was installed on site

Plumbing

- Plumbing equipment noted to be in overall fair condition
- A recent failed pressure regulator caused a flood and has since been fixed
- No pans were noted under domestic water heaters

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in fair condition. Areas of concern include some cracks on walls, wear to carpet tiles, and water stains to ceiling tiles
- Metal mesh in door glass and interior windows are a potential safety hazard
- Inefficient single pane windows should be replaced

Utilities

- Recommend increasing surveillance coverage
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Potential sinking area identified outside café at D Building due to rainwater overflow creating erosion
- Exterior enclosure is in overall fair condition with some minor hairline cracks and damage
- Pedestrian paving is in poor condition. Some sunken concrete at entry, damaged concrete new dumpster, and too narrow sidewalk new bus lane
- Site lighting coverage was assessed to be low and could benefit from increased coverage near corner of building

Jacob Wismer Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Jacob Wismer *Elementary School*

Age: 1999

Size (SF): 72,863

Area: 8.39 acres

Assessment Date: 12/11/19

Student Population: 727

School Ratings

Facility Conditions Index: 0.149

Avg Condition Score: 2.83 out of 5

Asset Count: 126

Energy Use Intensity: 38.08
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $12,313,176

Year 1 Asset Replacement Cost: $175,313

Current Replacement Value: $37,251,209

Energy Spend*

Electricity: $50,591

Natural Gas: $11,473

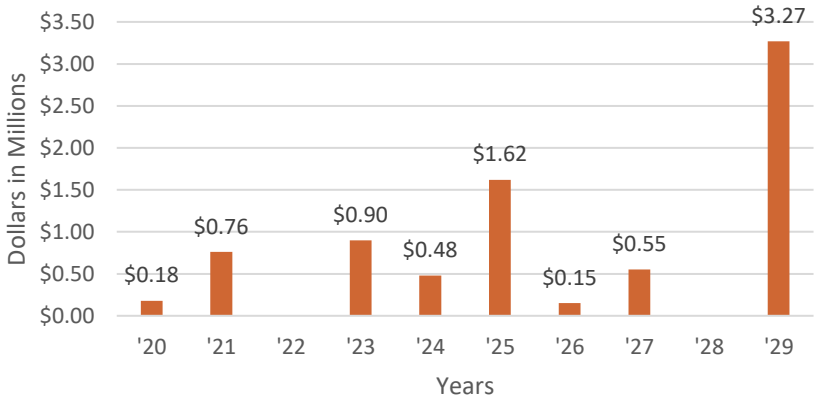
Water Spend*: $16,052

**3/19 – 2/20*

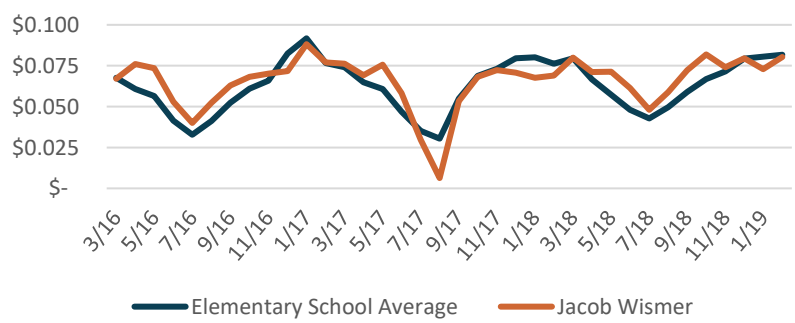
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$697,299	S4	NA
Mechanical	Boiler.	$102,856	4	2
Pluming	Pump. Water Heater	$69,333	4	1
Commercial Equipment	Food Service	$30,000	4	5
Electrical	Generator	$25,000	4	4
Interior Finishes	Carpet	$297,718	4	2

NPV Chart
Asset Replacement Schedule

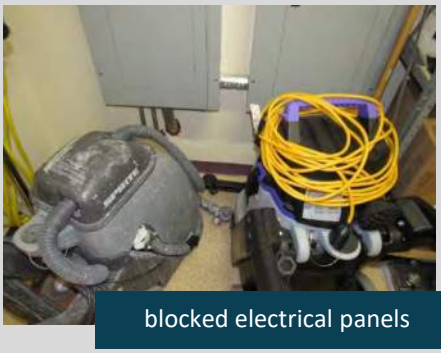


Monthly Energy Cost
($/SF)

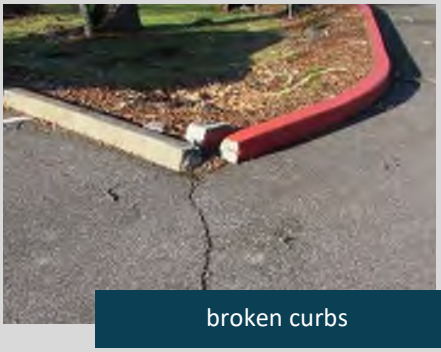


moss and other organic build up

rust on rooftop equipment



blocked electrical panels



broken curbs

General Building Condition

Roof

- Minor leaks and organic accumulation noted on roof. Overall roof is still in fair condition

Mechanical/HVAC

- HVAC equipment is primarily in fair condition with a couple items of note. Multiple repairs were noted on boiler. Rust evident on air conditioning units. No redundancy was available for boiler

Electrical

- Electrical system and distribution equipment were noted to be in fair condition. Improper storage of material was noted in front of electrical panel. Items should be relocated to allow for safe access to panels
- T8 lighting was installed throughout the school

Plumbing

- Plumbing fixtures were noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior floor finishes are in fair to poor condition. Significant wear noted in classroom carpet. Minor cracking evident in classroom resilient tiles
- Interior ceiling finish is in fair to good condition. Minor damage evident on some ceiling tiles
- Folding wall in gym is difficult to operate with components failing
- Wire mesh in door glass is a potential safety hazard

Conveyance

- One elevator and one ADA lift noted. Both are in good condition

Utilities

- Site communication and security equipment was noted to be in good to fair condition. Ten closed circuit surveillance cameras were installed on site
- Recommend increasing surveillance coverage
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Parking and pedestrian paving is in fair condition. Some broken curbs present a potential trip hazard
- Classrooms pods do not have door that can be secured which is a security and access concern
- Students can easily access roof using metal siding. Area should be secured to prevent unsafe access
- Rear fence noted to not be secured during the day. Fence should be properly locked during the day to secure the school
- Playground area is low on wood chips and should be refilled

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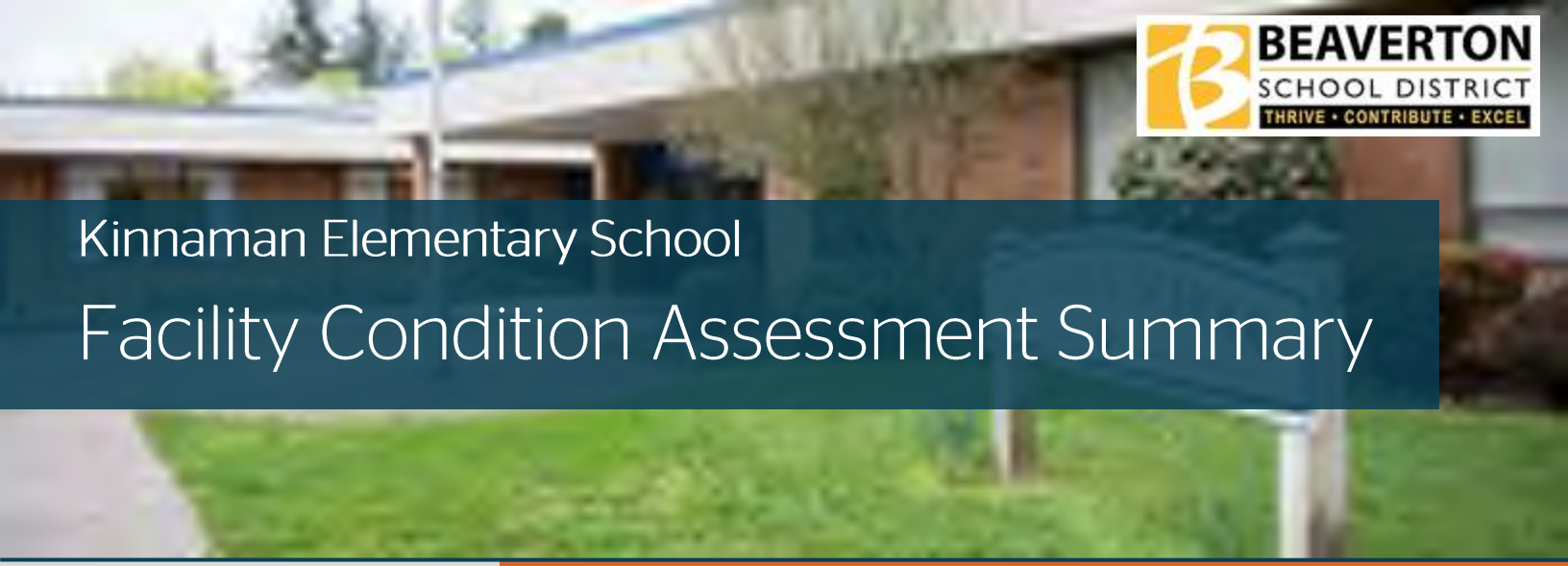


Kinnaman Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Kinnaman *Elementary School*

Age: 1975

Size (SF): 80,837

Area: 7.86 acres

Assessment Date: 10/15/19

Student Population: 599

School Ratings

Facility Conditions Index: 0.246

Avg Condition Score: 3.64 out of 5

Asset Count: 190

Energy Use Intensity: 37.58
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,775,033

Year 1 Asset Replacement Cost: $2,879,180

Current Replacement Value: $41,327,916

Energy Spend*

Electricity: $44,046

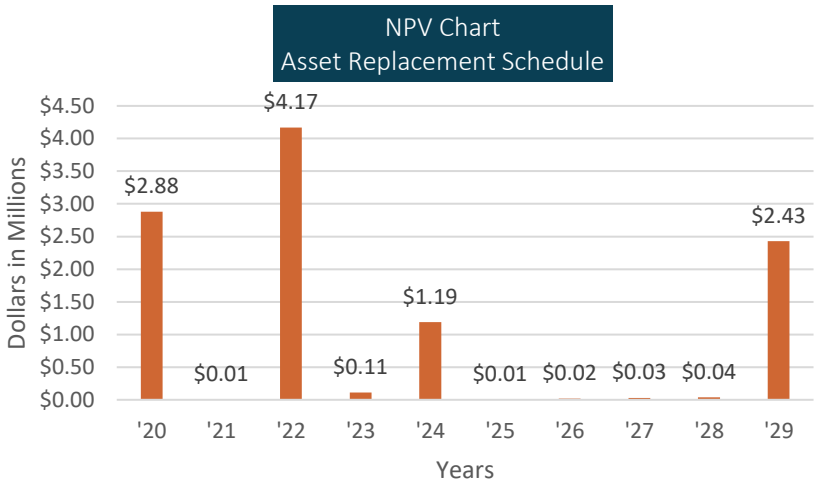
Natural Gas: $13,658

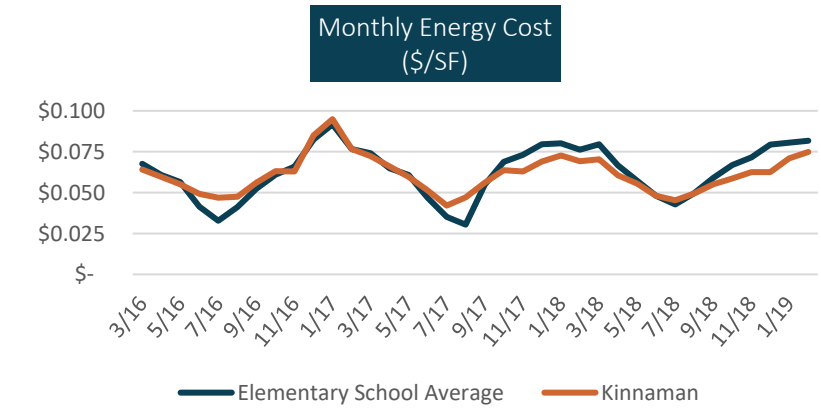
Water Spend*: $11,742

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,868,050	S4	NA
Mechanical	HVAC-AHU, Fans, Control.	$1,278,834	5, 4	1-5
Pluming	Pump. Sanitary Waste	$251,677	5, 4	1-5
Roofing	Single Ply	$1,584,405	5	1
Electrical	Switchboard	$181,520	5	1
Portable Classroom	Portable	$160,000	4	5





worn roof surface

corroded piping

water stained ceiling

cracked sidewalk curb

General Building Condition

Roof

- Singly ply ballasted roof is in very poor condition. Roof surface is worn and cracked with significant moss and debris accumulation. Staff noted that the roof is scheduled to be replaced in the next year

Mechanical/HVAC

- Newer chiller and pumps were installed in C-Hall
- Water leak noted near boiler and should be remediated
- Building controls were a combination of pneumatic controls with DDC layover
- The dishwasher generates a lot of steam which the exhaust hood cannot capture. This creates excessive temperature in the space. Ventilation capacity should be increased in this area
- Rooftop exhaust clogged with leaves and should be cleared

Electrical

- Electrical service and distribution equipment noted to be in generally poor condition. Improper storage of items was found in front of electrical panels. Items should be relocated to allow for safe access to panels
- Lighting control system is comprised of manual switches with motion detection
- T8 lighting was installed throughout the school

Plumbing

- Plumbing equipment noted to be in fair overall condition
- Inadequate roof drainage noted during heavy rains. Roof drains become clogged and overflows during heavy downpours
- Drain cover in boiler room is corroding

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

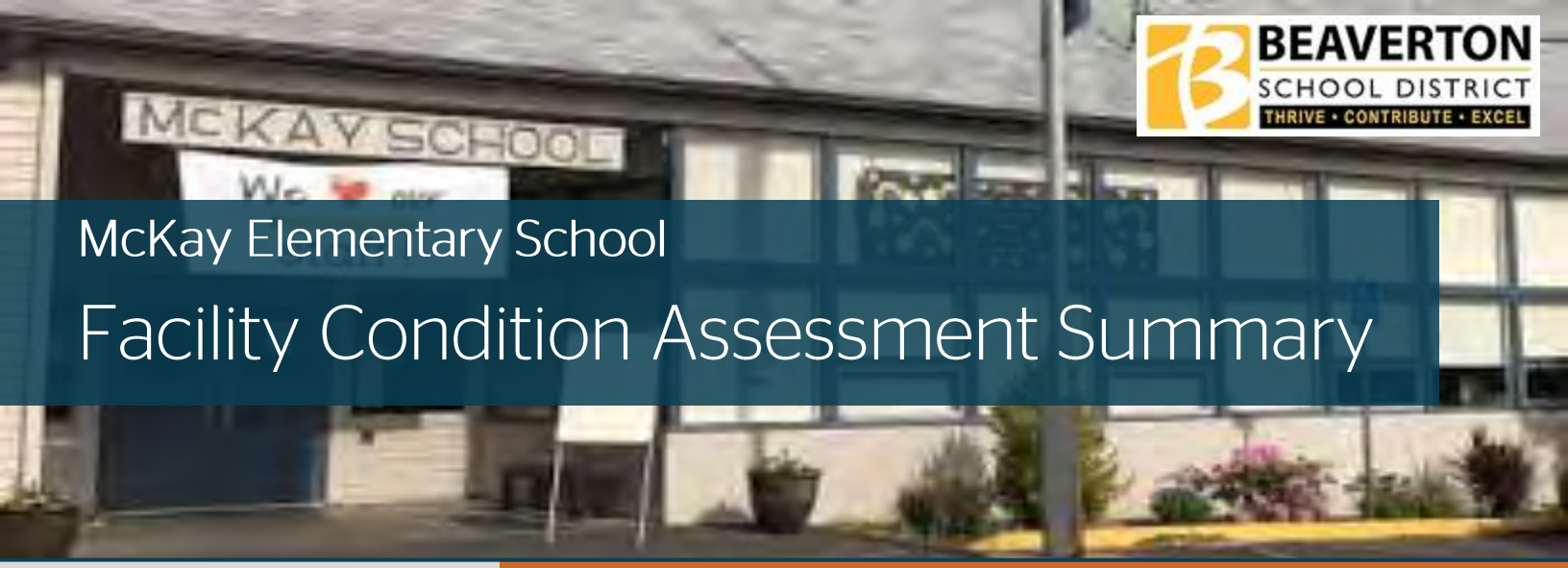
- Wall and floor finishes are in fair to good condition. Ceiling finishes show more wear with failing ceiling tiles, cracked panels, and water stains
- Inefficient single pane windows in lobby and A-Building should be replaced
- Metal mesh in door glass is a potential safety hazard
- Slip resistant sheets on stairs are significantly worn and present a potential safety hazard

Utilities

- Site communication & security equipment noted to be in fair condition

Site Improvements

- Parking lot and pedestrian paving is in fair condition. Parking lot has some alligatoring and cracks. Pedestrian paving has some minor cracks and sunken areas that present potential trip hazards
- Perimeter does not provide adequate security near C-Hall
- Playground area has low wood fill which can be a potential tripping hazard



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McKay Elementary School
Facility Condition Assessment Summary

QUICK FACTS

General Information

School: McKay *Elementary School*

Age: 1929

Size (SF): 48,736

Area: 5.44 acres

Assessment Date: 7/29/19

Student Population: 269

School Ratings

Facility Conditions Index: 0.252

Avg Condition Score: 3.14 out of 5

Asset Count: 146

Energy Use Intensity: 49.83
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,402,200

Year 1 Asset Replacement Cost: $3,524,971

Current Replacement Value: $24,916,280

Energy Spend*

Electricity: $30,087

Natural Gas: $13,335

Water Spend*: $1,842

**3/19 – 2/20*

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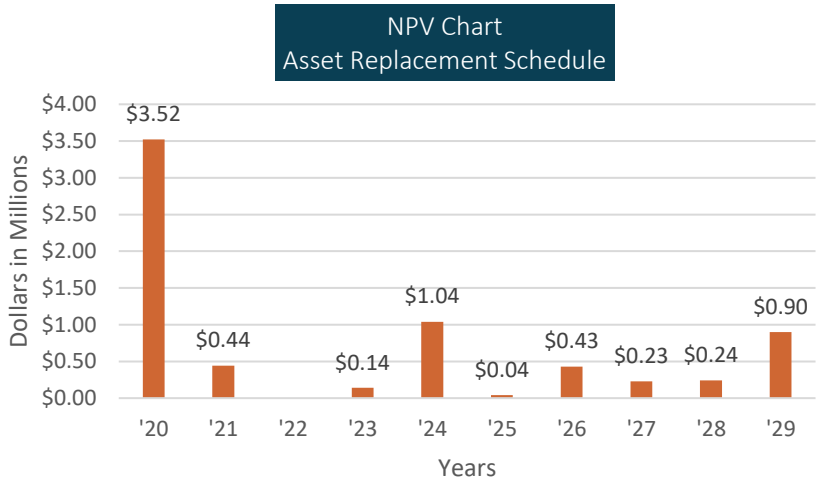
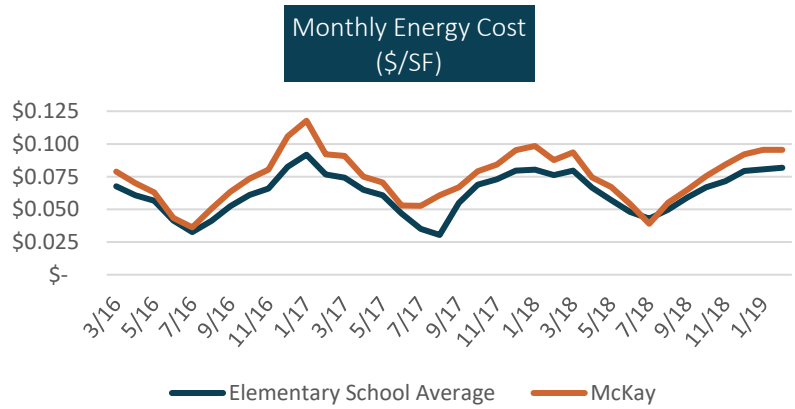
Critical Asset Infrastructure – Replacement Priority

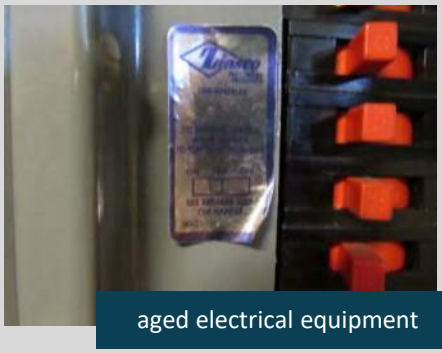
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,264,825	S6	NA
Mechanical	HVAC-UV, Fan	$106,103	5, 4	1-5
Roofing	Built-Up w/ Gravel	$253,27	4	5
Exterior Enclosures	Windows	$74,274	5	1
Interior Finishes	Floor, Doors	$176,162	4	2, 4





organic build up on roof

newer HVAC condition



aged electrical equipment

playground condition

General Building Condition

Roof

- Single ply roof is in very poor condition. Significant organic debris has built up in sections of the roof

Mechanical/HVAC

- HVAC equipment was noted to be in fair condition overall

Electrical

- Electrical service and distribution equipment is aged and in poor condition

Plumbing

- Plumbing fixture was noted to be in fair overall condition
- Rainwater drainage noted to be clogged on South Wing

Fire, Life, Safety

- All storm drain should be cleaned.

Interior Finishes

- Interior finishes (walls, ceilings, and floors) are overall in fair condition. Carpet is severely worn in some classroom areas
- Wire mesh in door glass is a potential safety concern
- Inefficient single pane windows should be replaced
- Fixed furnishing still functional but old and outdated

Conveyance

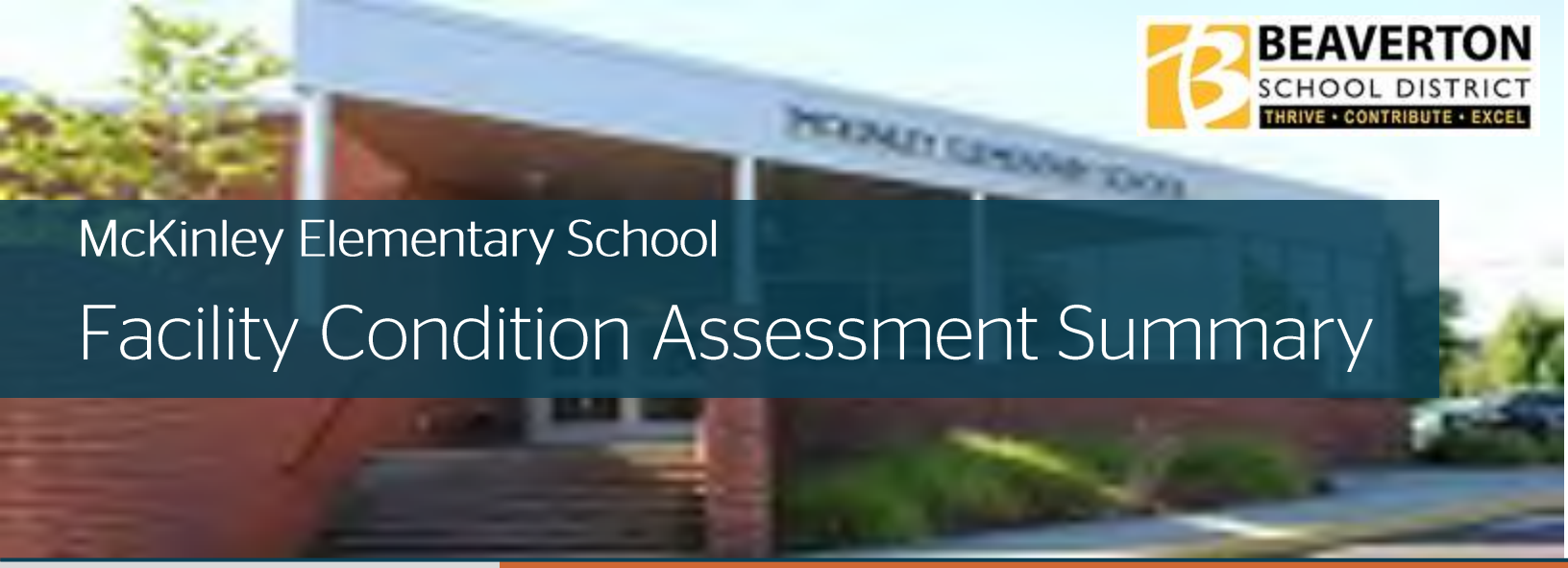
- One elevator located on site. Elevator was noted to be in good condition

Utilities

- Site communication & security system was noted to be in fair condition

Site Improvements

- Parking lots and pedestrian paving are in fair condition
- Site landscaping is in excellent condition
- Weatherstripping is worn on exterior doors and should be replaced
- Site lighting coverage is limited to the perimeter. Additional coverage is recommended



McKinley Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: McKinley *Elementary School*

Age: 1944

Size (SF): 61,265

Area: 10.02 acres

Assessment Date: 8/27/19

Student Population: 634

School Ratings

Facility Conditions Index: 0.279

Avg Condition Score: 3.43 out of 5

Asset Count: 180

Energy Use Intensity: 48.13
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $14,870,794

Year 1 Asset Replacement Cost: $358,007

Current Replacement Value: $31,321,731

Energy Spend*

Electricity: $48,939

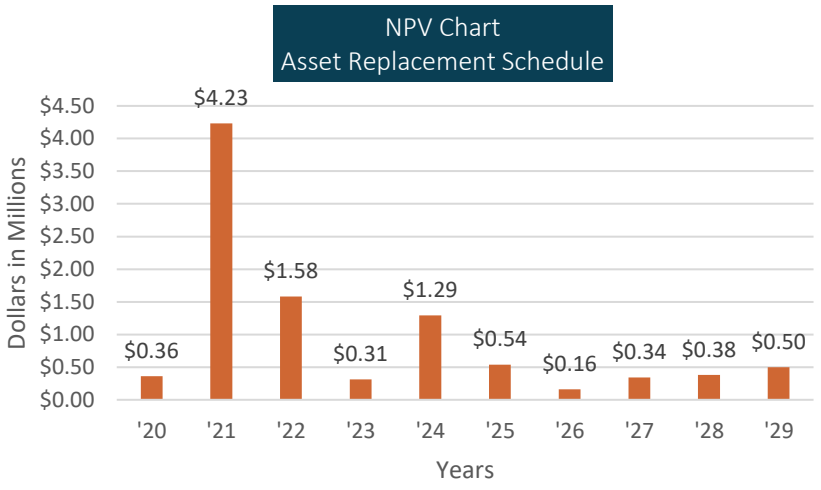
Natural Gas: $14,119

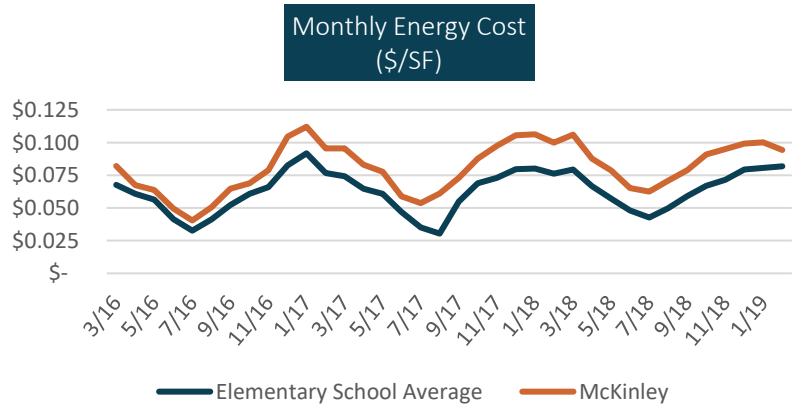
Water Spend*: $8,006

**3/19 – 2/20*

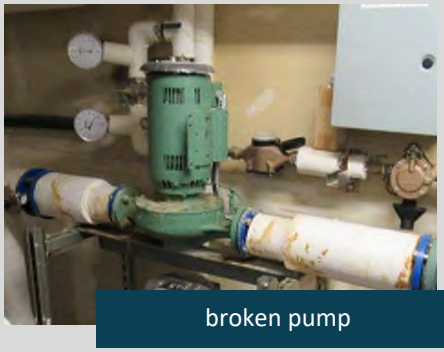
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,104,142	S5	NA
Mechanical	HVAC-AHU, AC	$587,588	5, 4	1, 4
Plumbing	Domestic Water System	$446,009	5	2
Roofing	Built-Up & Sky Light	$1,461,101	4	3
Exterior Enclosures	Aluminum Windows	$116,710	4	5
Mechanical Utilities	Storm Sewer	$15,000	4	1





poorly sealed skylights



broken pump

wall damage from plumbing leak

mold growth along ceiling

General Building Condition

Roof

- Roof is in poor condition with some moss build up and leaking areas
- Skylights above play area are poorly sealed

Mechanical/HVAC

- Major positive pressure issue noted in M5 building which prevents the main entrance from closing properly
- Boiler #1 hot water circulation pump (P-1) needs to be replaced
- Exhaust fan on northeast side of main building has a broken fan belt
- JCI Metasys and programmable thermostats are dated

Electrical

- Improper storage of items blocking access to electrical equipment
- Electrical service & distribution equipment is in generally fair condition
- Lighting control system consists of manual switches with a digital panel
- T5, T8, and CFL lighting installed throughout the school

Plumbing

- Leaks in southwest boy's restroom leads to regular drywall repairs
- Toilets have recurring issues with leaks and backups
- Domestic hot water heater #2 does not have proper clearance since room is used for storage.
- Domestic water pipes are old and need replaced in E & W halls, two restrooms and city main tie-in

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Resilient floor tile has cracking and uneven surfaces throughout which presents a potential trip hazard
- Stage area requires a new finish
- Ceiling tiles in W Hall have signs of mold evident
- Inefficient single pane windows should be replaced
- Metal mesh in door glass is a potential safety hazard

Utilities

- Card reader access is not installed at all entrances and is recommended to be added at all entrances

Site Improvements

- Site lighting provides inadequate coverage of building perimeter and parking
- Bark levels in playground area are dangerously low leading to a 10" drop from the playground edge. Bark chips should be refilled
- Kids are able to access roof of the main building. This area should be properly secured to prevent unwanted access
- Large hornets noted to return every year under covered play area
- Overgrown blackberry bushes noted along south side of main building
- Center courtyard has a rodent infestation
- Stair foundation to northwest door of M5 building is crumbling
- Minor cracking noted on exterior walls

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Montclair Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Montclair *Elementary School*

Age: 1970

Size (SF): 38,526

Area: 7.2 acres

Assessment Date: 9/6/19

Student Population: 319

School Ratings

Facility Conditions Index: 0.206

Avg Condition Score: 3.53 out of 5

Asset Count: 103

Energy Use Intensity: 47.91
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $7,581,028

Year 1 Asset Replacement Cost: $525,305

Current Replacement Value: $19,696,418

Energy Spend*

Electricity: $26,441

Natural Gas: $9,510

Water Spend*: $9,191

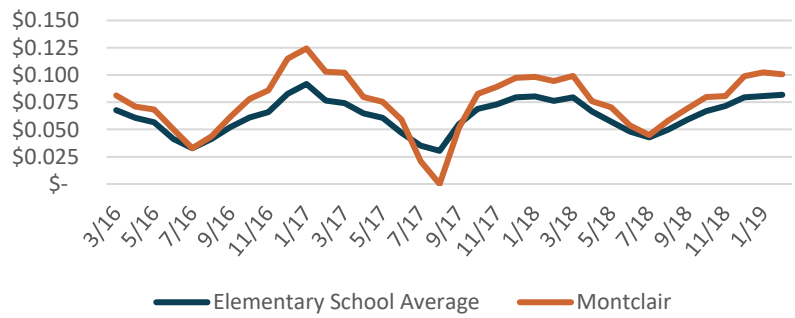
**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,106,081	S4	NA
Plumbing	Water Heater, Exp Tank	$27,095	5	1
Roofing	Built-Up w/ Gravel	$851,425	5	1
Electrical	Switchboard, VFD	$328,570	5	1
Exterior Enclosures	Aluminum Windows	$73,392	4	1
Electrical	Comm & Security	$78,978	4	2, 3
Mechanical	HVAC	$120,870	4	1-5

NPV Chart
Asset Replacement Schedule

Monthly Energy Cost
($/SF)



moss build up on roof

exhaust fan condition

undersized walk-in fridge

cracking paving

General Building Condition

Roof

- Built up asphalt roof is in poor condition with significant moss growth and evidence of leaks throughout

Mechanical/HVAC

- HVAC equipment is in generally poor condition
- There is no cooling in the gym
- Modular rooftop units have bad Magnehelic gauges
- Hot water circulation pump (P2) VFD is missing its controller face

Electrical

- Electrical service & distribution equipment generally in poor condition
- Breaker missing in main electrical room Panel E
- Improper storage of items block access to electrical equipment. Items should be relocated to ensure safe access to equipment
- Lighting control system consists of manual switches
- T8 and CFL lighting installed throughout the school

Plumbing

- Main domestic water heater pan is full and should be emptied. Auxiliary domestic water heater does not have a drip pan or earthquake straps
- Very poor site drainage noted

Fire, Life, Safety

- Sprinklers limited to the main building only
- All storm drain should be cleaned

Interior Finishes

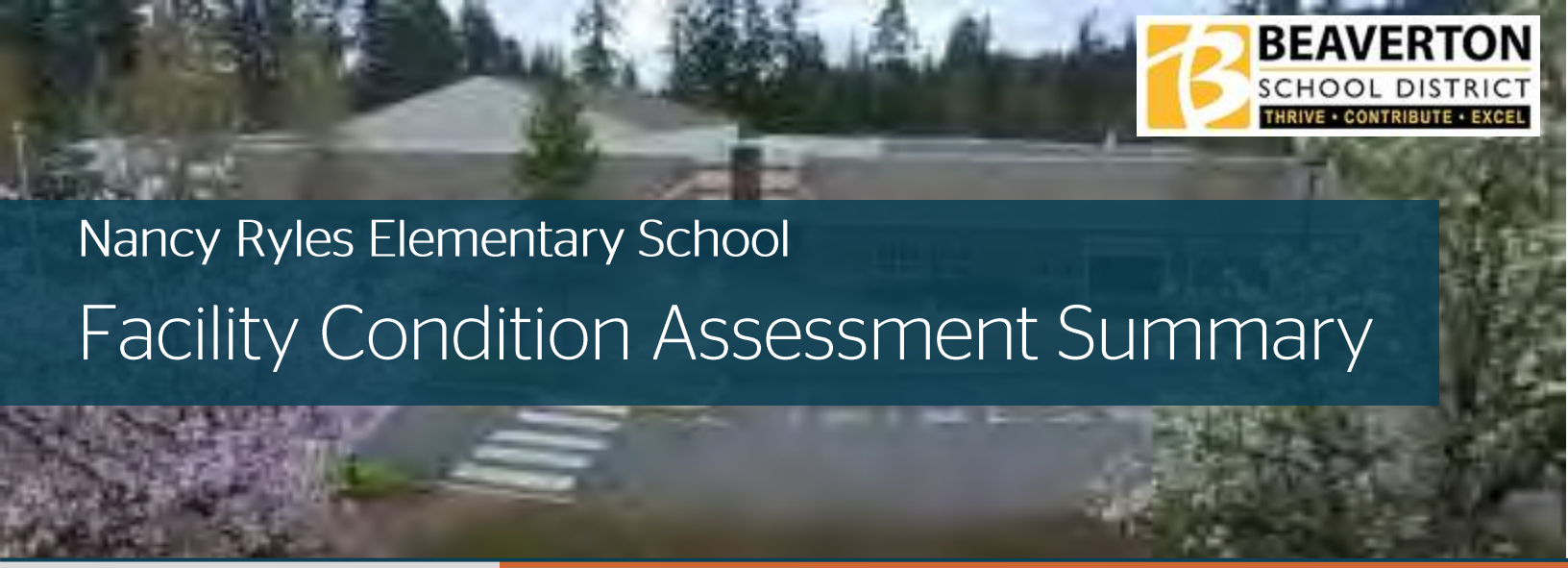
- Area of original carpet are in poor condition and very worn
- Minor damage to ceiling tiles due to leaks
- Inefficient single pane windows should be replaced
- Stage area needs to be resurfaced and stained
- Wire mesh in door glass is a potential safety hazard

Utilities

- Outdoor PA system noted to be too quiet for the students and staff
- Walk-in fridges are noted to be undersized and inadequate for school needs

Site Improvements

- Parking lot and pedestrian paving are in poor condition and needs repainting
- Lots of blackberries and weeds noted along the north perimeter
- Site lighting does not provide sufficient coverage over parking lots
- Playfield is not level and in poor condition
- Perimeter fencing needs to be better secured
- Minor cracking noted along masonry exterior walls



Nancy Ryles Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Nancy Ryles *Elementary School*

Age: 1992

Size (SF): 71,119

Area: 7.0 acres

Assessment Date: 11/4/19

Student Population: 630

School Ratings

Facility Conditions Index: 0.233

Avg Condition Score: 3.59 out of 5

Asset Count: 155

Energy Use Intensity: 38.89
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,489,916

Year 1 Asset Replacement Cost: $398,398

Current Replacement Value: $36,359,589

Energy Spend*

Electricity: $55,057

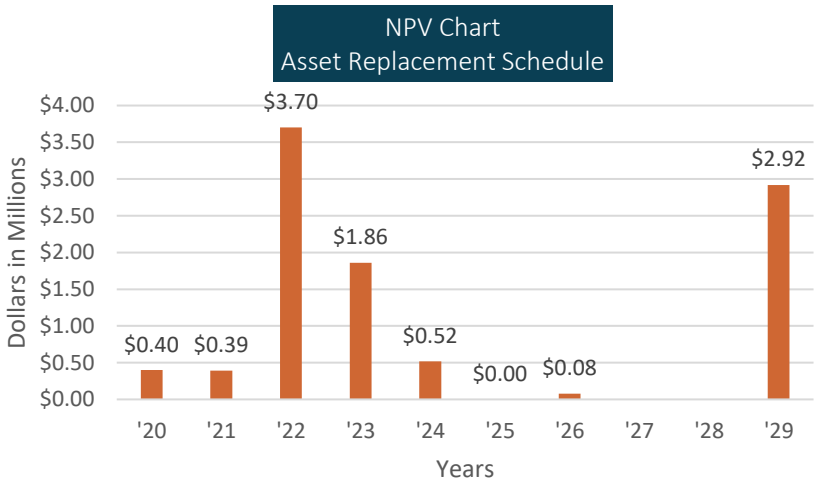
Natural Gas: $9,778

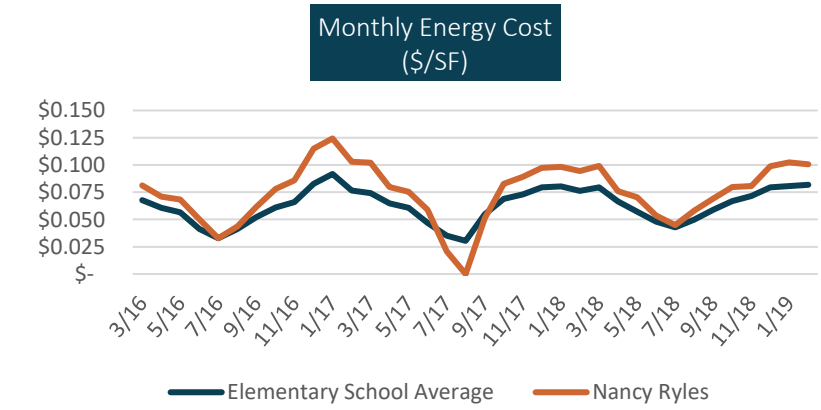
Water Spend*: $7,130

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

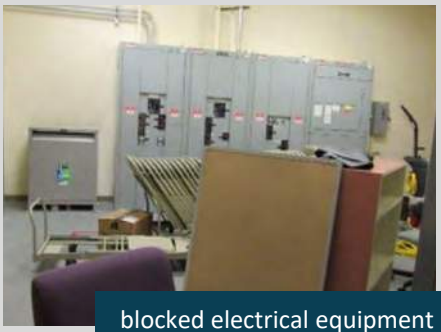
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,403,044	S4	NA
Plumbing	Water Heater, Pump	$51,734	5	1
Mechanical	HVAC-Chiller, MAU	$401,671	5	1, 2
Electrical	Switchboard, VFD	$328,570	5	1
Site Work	Parking Lots, Pedestrian	$70,397	4	1, 5
Electrical	Lighting, Generator, MCC	$148,240	4	2, 4
Mechanical	HVAC-AHU, Boiler, VAV	$1,581,035	4	4





cracking on roof surface

rusted rooftop equipment



blocked electrical equipment

overgrown drainage

General Building Condition

Roof

- Asphalt shingle roof is in fair condition with moderate moss growth
- Some cracking noted on single ply roof edge and seam

Mechanical/HVAC

- McQuay chiller is rusted, and enclosure is overgrown with moss.
- Refrigerant piping is failing and should be replaced
- Some rusting components noted on rooftop units and condensing units. Condenser units on roof have failed refrigerant pipe insulation
- No cooling noted in gym which is causing overheating during high peak loads
- Exterior damage noted to Boiler 1 and exhaust fans
- VFDs are recommended for pumps
- Building controls is a combination of pneumatics and JCI Metasys

Electrical

- Electrical panels in hallways are unlocked. These panels should be locked for occupant safety
- Improper storage of items was noted in front of panels and transformers in custodial office and main electrical room. Items should be relocated for safe access to the electrical equipment
- Lighting control system includes occupancy sensors and daylighting controls
- T8 lighting was installed throughout the campus

Plumbing

- Plumbing fixtures were noted to be generally in fair condition

Fire, Life, Safety

- No sprinklers noted in portables
- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, ceilings, and floors) are in fair to good condition. Minor areas of wear on carpet tiles

Conveyance

- One elevator and one stage lift noted on site. Both are in good condition

Utilities

- Communication system could benefit from upgrades. Intercom system in gym and outdoor PA system needs replacement

Site Improvements

- Perimeter fencing could be better secured. Through traffic ends up using school grounds
- Rainwater drainage has led to water damage to exterior masonry wall
- Parking lot and pedestrian paving are in poor condition. Cracking and worn painting noted throughout
- Main entrance layout creates a bottleneck that causes parent to drop off on residential streets and create prolonged traffic jams

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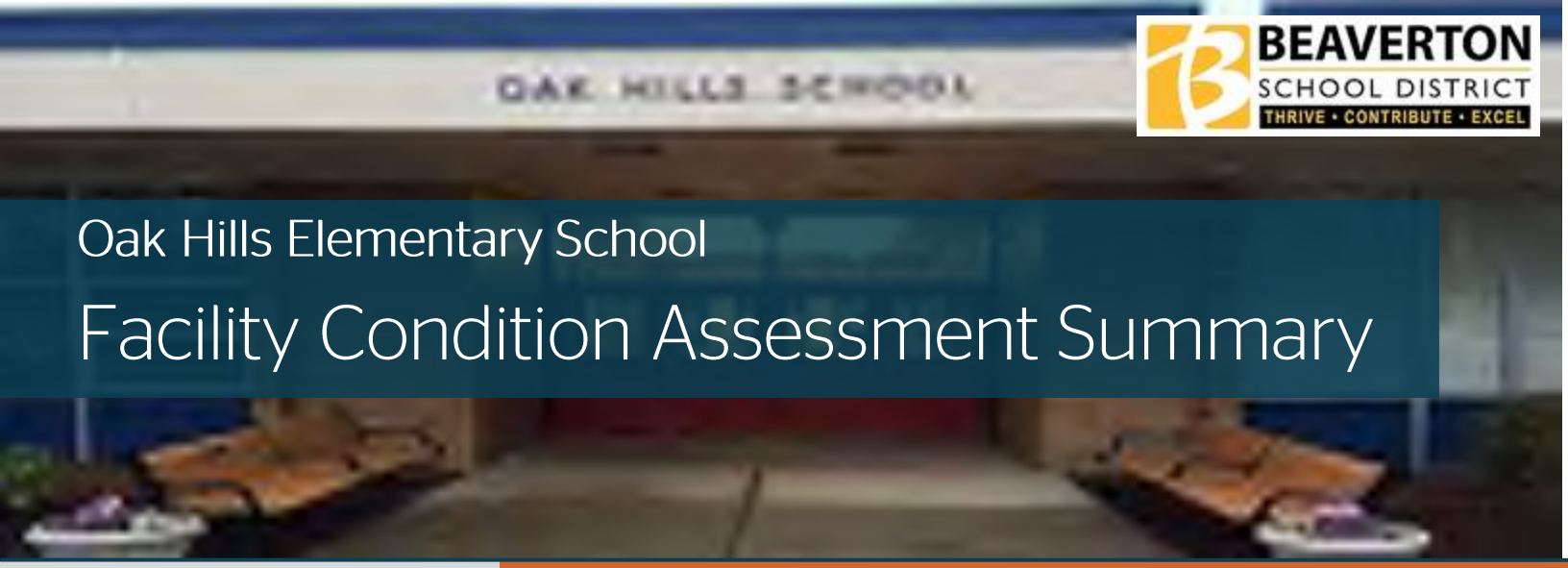

BEAVERTON SCHOOL DISTRICT
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Oak Hills Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Oak Hills *Elementary School*

Age: 1967

Size (SF): 49,890

Area: 9.02 acres

Assessment Date: 10/18/19

Student Population: 551

School Ratings

Facility Conditions Index: 0.200

Avg Condition Score: 3.69 out of 5

Asset Count: 107

Energy Use Intensity: 44.73
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $8,656,387

Year 1 Asset Replacement Cost: $703,804

Current Replacement Value: $25,506,263

Energy Spend*

Electricity: $39,655

Natural Gas: $9,338

Water Spend*: $6,968

**3/19 – 2/20*

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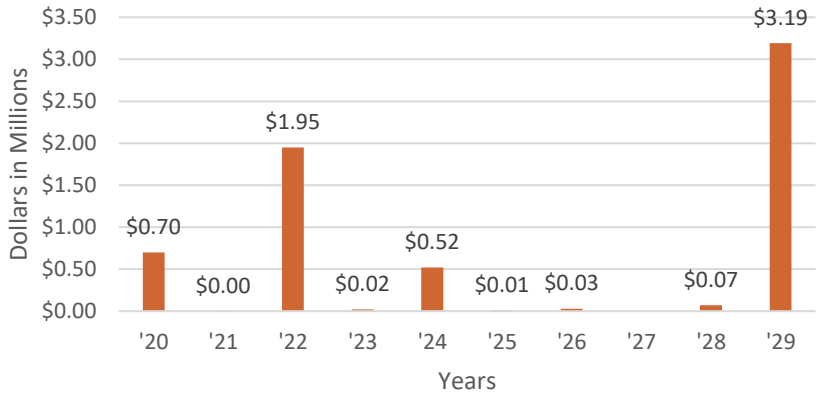
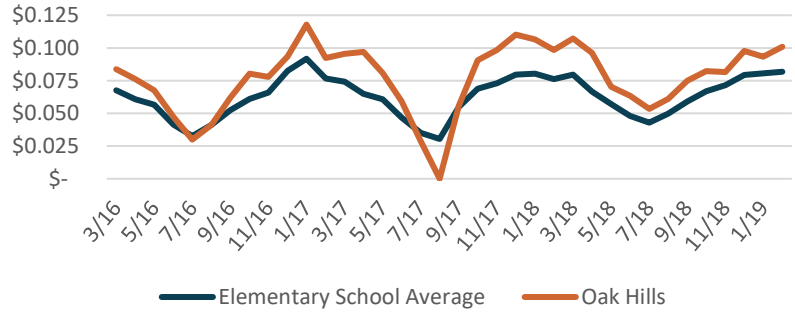
Critical Asset Infrastructure – Replacement Priority

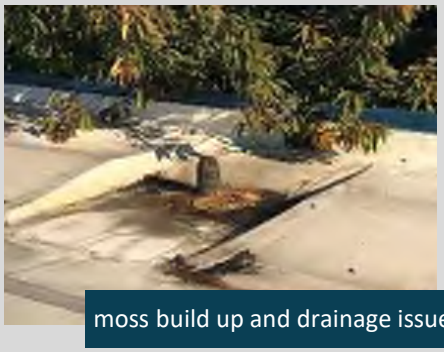
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,432,342	S4	NA
Mechanical	HVAC-AHU, MAU, Boiler	$504,603	5, 4	1
Electrical	Lighting, VFD	$104,160	5	1
Site Work	Parking Lots, Pedestrian	$65,476	4	5
Exterior Enclosures	Aluminum Windows	$95,040	5	1

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)





moss build up and drainage issues

rust on top of ductwork

potential panel fire hazard

worn out parking lots

General Building Condition

Roof

- Roof is in fair condition though there are a couple of areas with standing water, clogged drains and moss growth
- Ladder to gym roof is missing extendable handle for safe access

Mechanical/HVAC

- HVAC equipment was noted to be in generally fair condition
- Refrigerant piping at roof is frozen and should be better insulated
- Some rust on ductwork and exterior of rooftop air conditioning
- Modine air handling unit above café has outside air damper shut at 100%

Electrical

- Aged Zinsco panels are a potential fire hazard and should be scheduled for replacement
- Lighting control system included manual switches with motion detection
- Frequent breaker trips noted in kitchen area
- T8 lighting installed throughout the campus

Plumbing

- Plumbing fixtures were noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, ceilings, and floors) are mostly in fair condition. Some areas of the carpet is worn and needs replacement. Signs of water damage to ceiling tiles noted particularly in kitchen and main hall area
- Wire mesh in glass door is a potential safety hazard
- Inefficient single pane windows are recommended for replacement

Utilities

- Site communications & security system noted to be in fair condition

Site Improvements

- Parking lot and pedestrian paving are in poor condition. Both have cracking, alligatoring, and uneven surfaces. Parking lots need restriping. Pedestrian paving needs removal of accumulated moss
- Site lighting noted to provide poor coverage between the school and portables
- Exterior lighting noted to be on during the day

Raleigh Hills K-5 School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Raleigh Hills K-5 School*

Age: 1927

Size (SF): 56,647

Area: *10* acres

Assessment Date: 6/4/19

Student Population: 359

School Ratings

Facility Conditions Index: 0.410

Avg Condition Score: 3.54 out of 5

Asset Count: 169

Energy Use Intensity: 46.3

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $17,151,119

Year 1 Asset Replacement Cost: $9,504,064

Current Replacement Value: $28,960,779

Energy Spend*

Electricity: $38,738

Natural Gas: $14,616

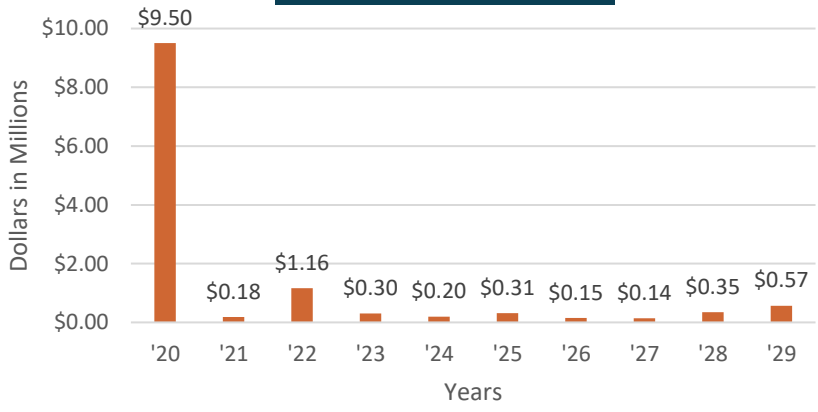
Water Spend*: $10,108

**3/19 – 2/20*

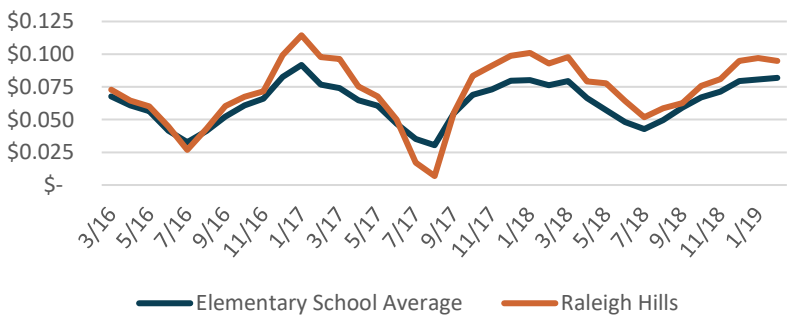
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,879,006	S6	NA
Roof	Built-Up	$637,279	5	0
Roof	Metal	$538,147	4	0
Mechanical	HVAC	$1,067,088	4, 5	1-3
Mechanical	Steam Piping	$566,470	4	0
Exterior Enclosures	Walls/Windows	$1,178,257	4	0
Plumbing	Domestic Water Dist	$793,058	4	0

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



rotting roof soffits

Aged fire sprinkler system

inaccessible water heater

worn site paving

General Building Condition

Roof

- Roof is in very poor condition, significant moss growth, soft spots, metal is warped, and soffits have rot and damage in many areas due to leaks.

Mechanical/HVAC

- Steam distribution pipes are original (80 years old) and can be assumed to start failing.
- Building control systems are obsolete

Electrical

- Exposed Electrical connection to several condensing units on the rooftop (notified maintenance)
- Exterior lighting is sparse and should be upgraded to newer LED lamps

Plumbing

- Water heaters are at or exceed expected useful life and water heater located in LL18 is inaccessible due to clutter in the closet. Closet should be cleared of storage items, so a code required clearance is available for the water heater (notified maintenance).

Fire, Life, Safety

- Fire sprinkler system components are obsolete and only provides partial coverage.
- No surveillance present

Interior Finishes

- Interior paint needs a refresh, patch and repair.
- Flooring is stained, worn, and/or cracked. Potential asbestos containing material (encapsulated).
- Stained and/or damaged ceiling tiles throughout, should be replaced.

Exterior Enclosures

- Original building (A Wing) has many cracks and water intrusion at foundation
- A Wing's northeast facing brick is in bad condition, leaks into the basement
- Single pane windows for a majority of the school. Recommend caulking if they're not going to be replaced

Utilities

- Sanitary waste system appears to be not adequately sized or designed to keep up with demand. Formally on septic system.
- Storm drains should be cleaned.

Site Improvements

- Parking lot is alligatoring

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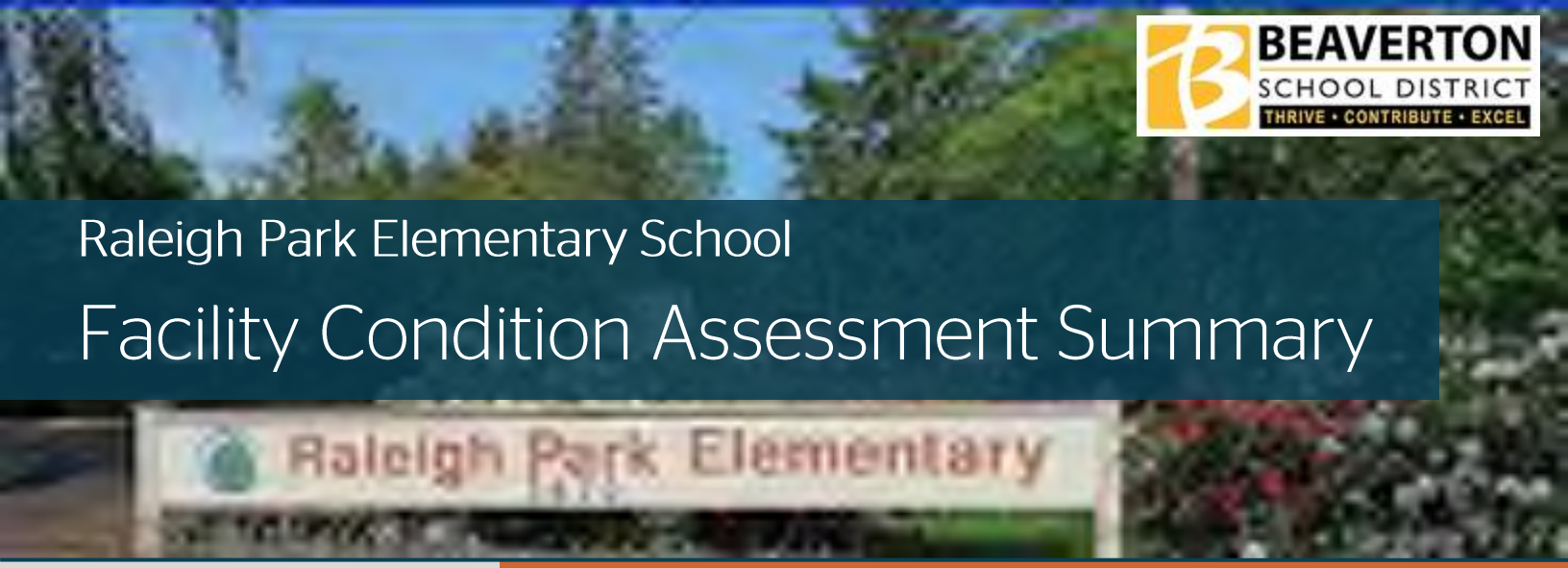

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Raleigh Park Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Raleigh Park *Elementary School*

Age: 1957

Size (SF): 45,166

Area: 15.5 acres

Assessment Date: 8/27/19

Student Population: 332

School Ratings

Facility Conditions Index: 0.344

Avg Condition Score: 3.81 out of 5

Asset Count: 113

Energy Use Intensity: 40.40
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $12,540,585

Year 1 Asset Replacement Cost: $5,816,423

Current Replacement Value: $23,091,118

Energy Spend*

Electricity: $21,685

Natural Gas: $8,040

Water Spend*: $4,640

**3/19 – 2/20*

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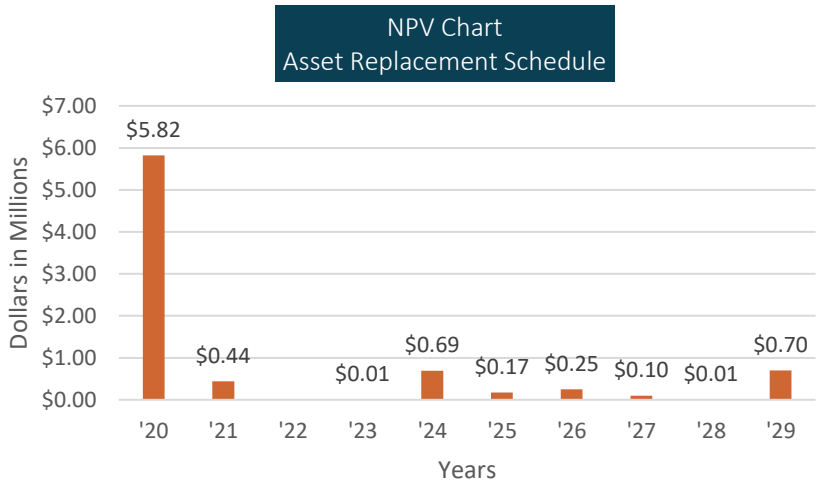
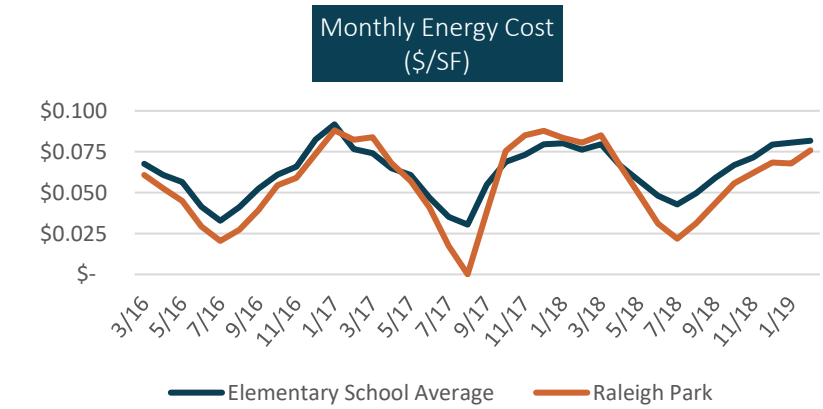
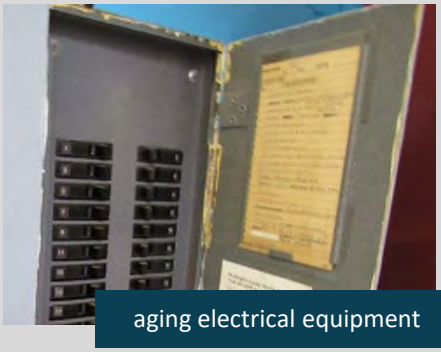
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,890,148	S6	NA
Mechanical	HVAC-Unit Vent., Controls	$789,201	5, 4	1, 2
Roofing	Built-Up	$1,174,316	5	1
Commercial Equipment	Food Services	$30,500	5	1
Electrical	Lighting & Controls	$54,199	4	2
Exterior Enclosures	Aluminum Windows	$172,082	5	2





poor roof condition



aging electrical equipment

wire mesh in door glass

unsecure campus perimeter

General Building Condition

Roof

- Built up gravel roof is in very poor condition at the end of its useful life. The roof has excessive moss build up and signs up leaks throughout

Mechanical/HVAC

- HVAC equipment is in generally good condition
- Building controls are in poor condition with a combination of older pneumatic and JCI Metasys controls

Electrical

- Electrical service & distribution equipment is in very poor condition with equipment well past its useful life
- Lighting control system is in poor condition. Photocells fail annually and gym light controls consists of breakers only with panel cover cut
- Lighting and branch wiring is in very poor condition with aging equipment and a conduit on the roof detached

Plumbing

- Plumbing fixtures are in generally fair condition
- Rainwater drainage is very poor. Low points with no drains cause extensive flooding about 3 to 4 times a year on east side of the building and play area when it rains

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Metal mesh in door glass is a potential safety hazard
- Inefficient single pane windows should be replaced
- Stage area need to be resurfaced and restained

Utilities

- Existing site communication & security systems are in good to fair condition but recommend adding surveillance cameras to the property

Site Improvements

- Parking lots and pedestrian paving are in fair condition with minor cracking and areas of worn paint
- Trees along the perimeter of the building needs to be trimmed back because it is compounding moss growth on the roof
- Property is not properly fenced and does not properly secure the school
- Site lighting does not provide sufficient coverage in the parking area
- Paved play areas are sloped with no drainage and floods several times a year
- Abandoned drain near edge of school presents a potential infiltration and trip hazard concern

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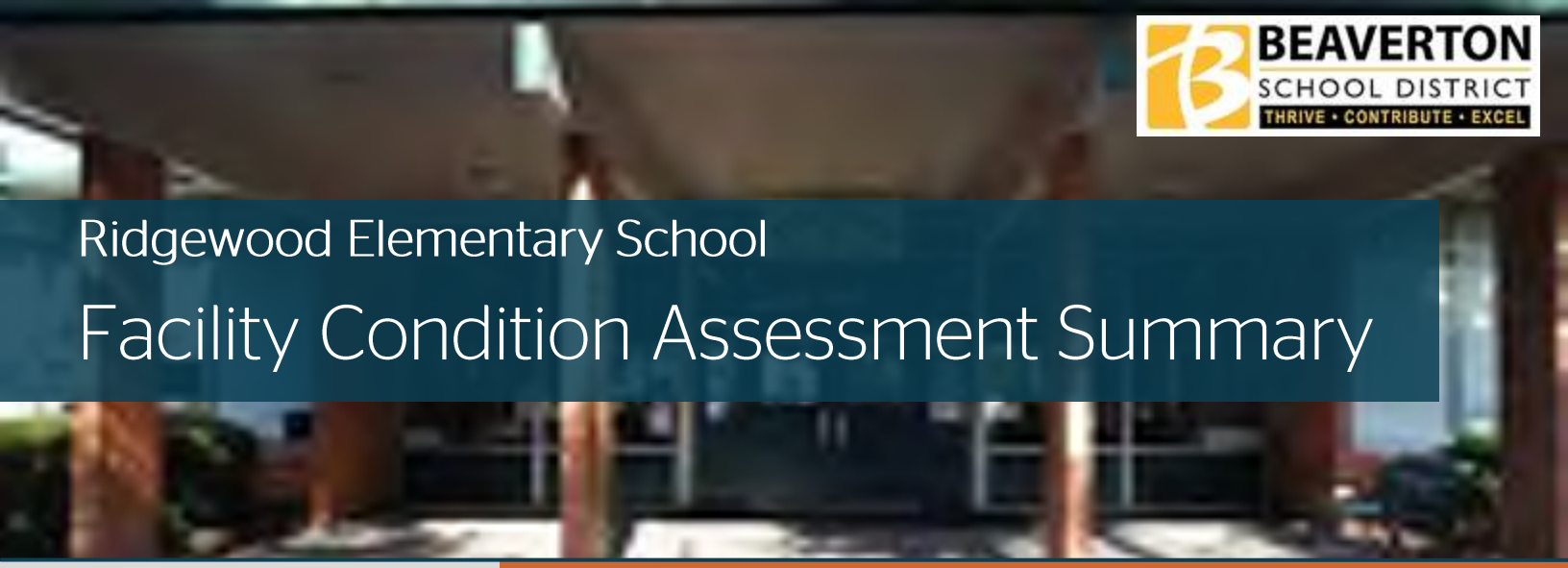


Ridgewood Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Ridgewood *Elementary School*

Age: 1958

Size (SF): 54,059

Area: 7.0 acres

Assessment Date: 8/8/19

Student Population: 410

School Ratings

Facility Conditions Index: 0.217

Avg Condition Score: 2.42 out of 5

Asset Count: 171

Energy Use Intensity: 38.80

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,626,041

Year 1 Asset Replacement Cost: $218,854

Current Replacement Value: $27,637,664

Energy Spend*

Electricity: $35,896

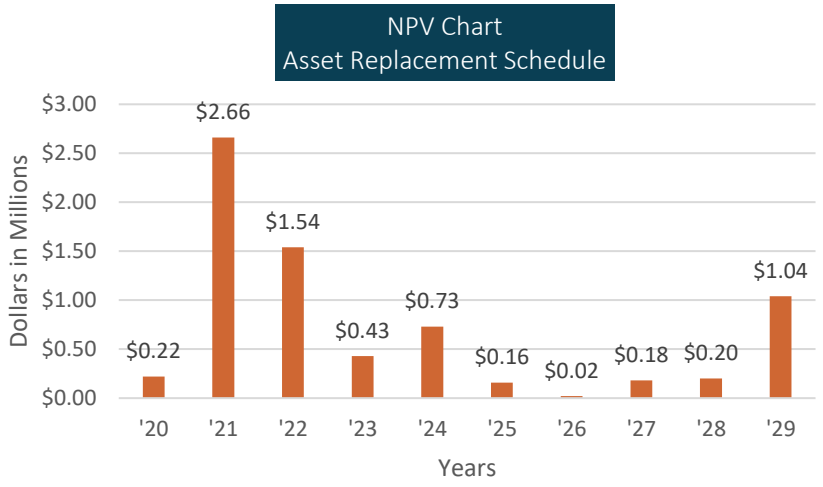
Natural Gas: $8,977

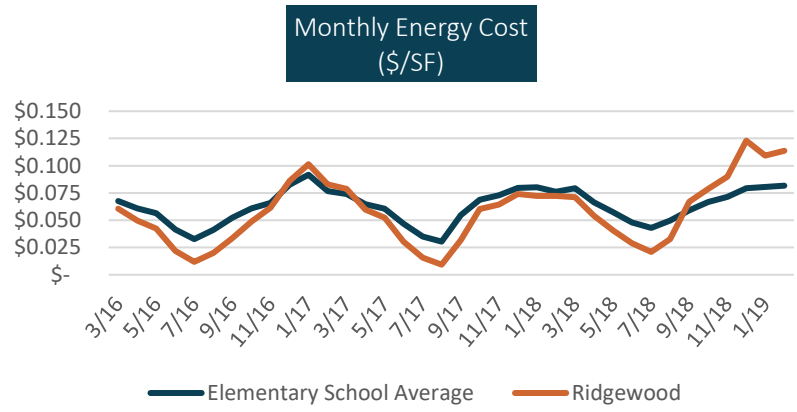
Water Spend*: $14,498

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,586,723	S5	NA
Mechanical	HVAC-AHU, UH	$88,321	5	1
Roofing	Built-Up w/ Gravel	$1,405,534	4	3
Electrical Utilities	Site Lighting	$39,463	4	3
Exterior Enclosures	Aluminum Windows	$205,965	4	5





moss growth around skylights

newer HVAC equipment

loose ceiling tile edges

playground condition

General Building Condition

Roof

- BUR Ballasted roof is in poor condition with several worn areas and moss growth evident throughout

Mechanical/HVAC

- Most HVAC equipment appeared to be fairly new and in good condition
- New VRF system was recently installed in office area
- Debris should be cleared from condensate drain for unit ventilators
- HVAC ductwork is brand new and in excellent condition

Electrical

- Electrical equipment noted to be in generally fair condition though some panels have exceeded their useful life

Plumbing

- Plumbing equipment is noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

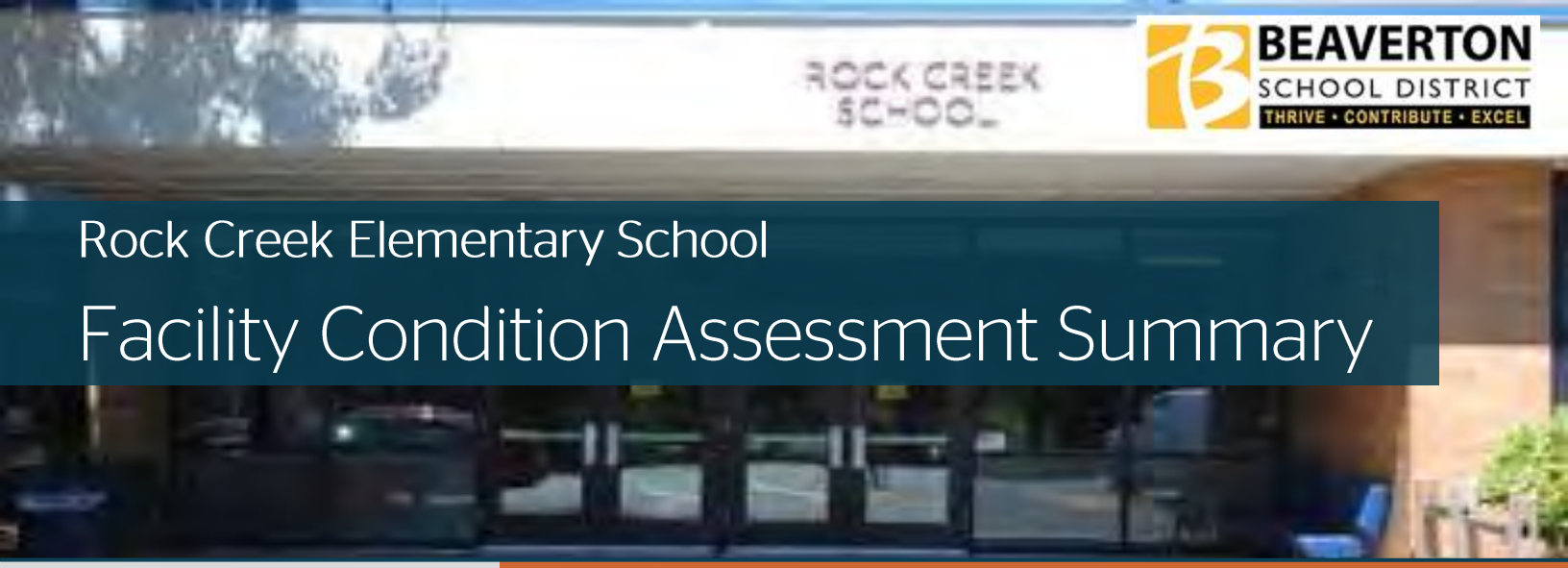
- Interior finishes (ceilings, walls, and floors) are generally in fair to good condition. Some ceiling tiles were noted to be loose at the edge
- Wire mesh in door glass is a potential safety hazard
- Inefficient single pane windows should be replaced

Utilities

- Site communication & security system was noted to be in fair condition

Site Improvements

- Parking lot paving is in fair condition but needs to be restriped
- Site lighting coverage provides poor coverage and should be increased. Exterior site lighting was also noted to be on during the day
- Playground equipment is older but still functional
- Weatherstripping at exterior doors are worn and should be replaced



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Rock Creek Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Rock Creek *Elementary School*

Age: 1975

Size (SF): 51,505

Area: 17,37 acres

Assessment Date: 10/22/19

Student Population: 516

School Ratings

Facility Conditions Index: 0.232

Avg Condition Score: 3.57 out of 5

Asset Count: 129

Energy Use Intensity: 40.50
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,774,468

Year 1 Asset Replacement Cost: $945,312

Current Replacement Value: $26,331,931

Energy Spend*

Electricity: $45,739

Natural Gas: $6,933

Water Spend*: $12,019

**3/19 – 2/20*

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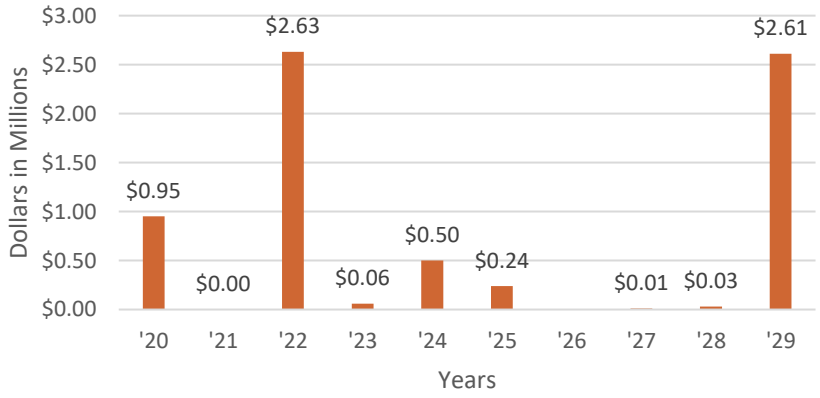
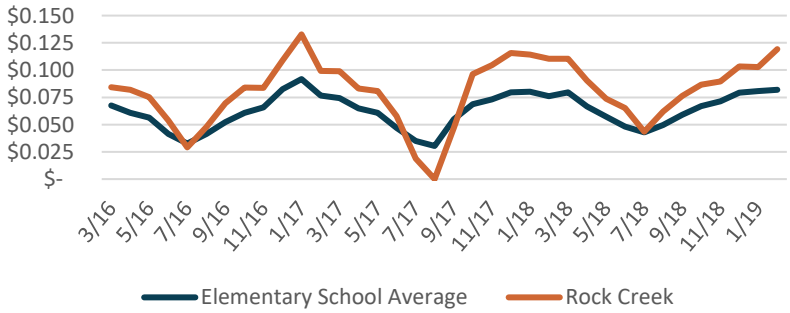
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,464,514	S4	NA
Mechanical	HVAC-AHU, UH, Fans	$841,722	5	1
Electrical	Switchboard	$42,560	5	1
Commercial Equipment	Food Service	$39,200	4	2, 3, 5

NPV Chart
Asset Replacement Schedule



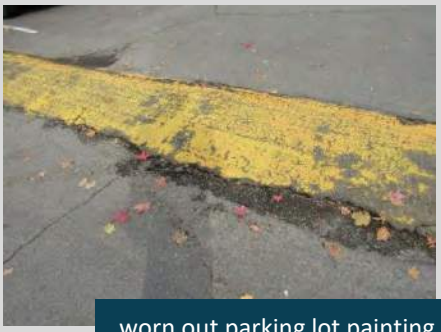
Monthly Energy Cost
($/SF)



moss build up on roof

aged electrical panel

wire mesh in door glass



worn out parking lot painting

General Building Condition

Roof

- Built up roof is in fair condition with some minor cracking and moss build up
- Minor damage to metal soffits

Mechanical/HVAC

- HVAC equipment was generally found to be in fair condition
- Most exhaust fans were noted to have met or exceed its expected useful life. A plan should be put in place for replacement

Electrical

- Many electrical panels have met or exceed their useful life
- Lighting control system includes manual switches with motion detection
- T8 lighting installed throughout the campus

Plumbing

- Plumbing fixtures were noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, ceilings, and floors) are in generally fair condition. Heavy wear noted on select areas of the carpet. Some ceiling tiles had minor damage
- Wire mesh in door glass is a potential safety hazard

Utilities

- Site communication & security system generally found to be in fair to good condition

Site Improvements

- Gaps were noted in the perimeter security fence. These areas should be reinforced to safely secure the site
- Parking lot paving has some minor cracking and needs repainting
- Pedestrian paving is in fair condition with some areas of concrete grounded down for safety

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Sato Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Sato *Elementary School*

Age: 2017

Size (SF): 89,000

Area: 8.81 acres

Assessment Date: 12/9/19

Student Population: 649

School Ratings

Facility Conditions Index: 0.027

Avg Condition Score: 1.03 out of 5

Asset Count: 220

Energy Use Intensity: 37.40

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $8,921,339

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $45,501,250

Energy Spend*

Electricity: $28,261

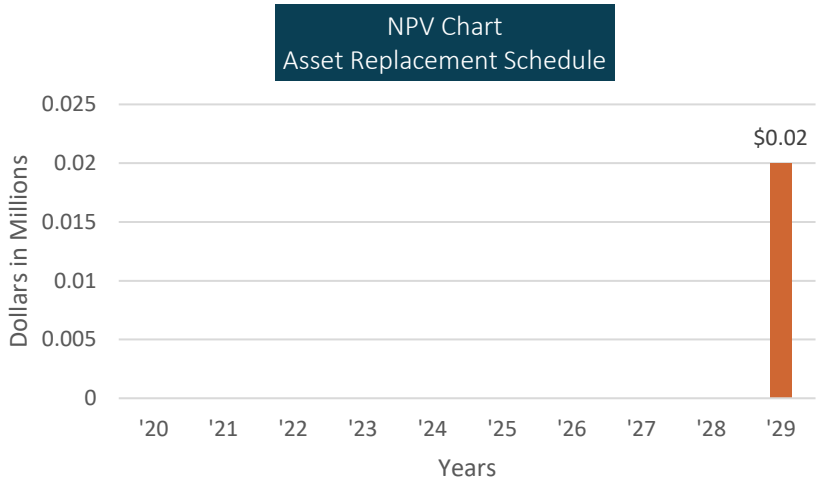
Natural Gas: $21,190

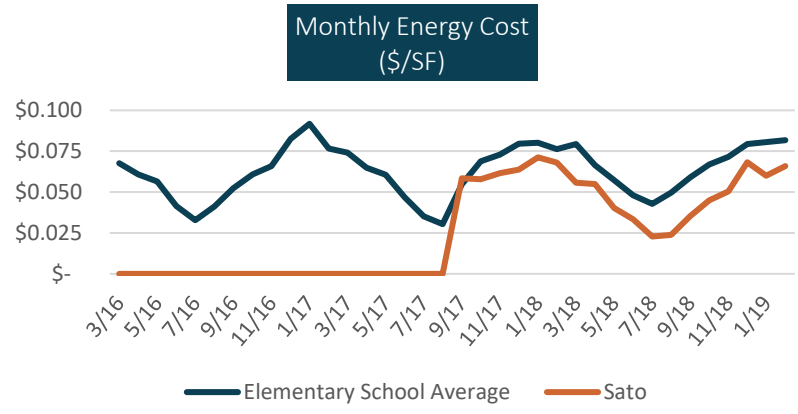
Water Spend*: $15,622

**3/19 – 2/20*

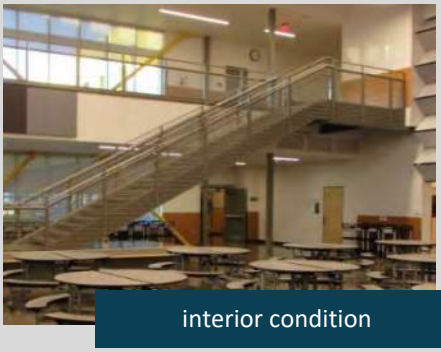
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
None				





roof condition



interior condition

electrical equipment condition

excellent paving condition

General Building Condition

Roof

- Roof is in good condition with most water drains clear. Some low spots with stagnant water were noted
- Solar panels on roof are still in excellent condition

Mechanical/HVAC

- HVAC equipment was noted to be in excellent condition.
- Building controls included relatively new JCI BACNET controls

Electrical

- Electrical panels were noted to be in excellent condition
- Lighting control system includes daylight harvesting and occupancy sensors
- LED lighting installed throughout the school

Plumbing

- Plumbing fixtures are in excellent condition with low flow fixtures installed
- Domestic water distribution is well sized and can hold additional capacity

Fire, Life, Safety

- Fire sprinkler system includes four west systems and one dry system
- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in good to excellent condition. Minor areas of note include some small holes in the gym wall, minor cracking in tiles and concrete floors, and small tears in ceiling tiles

Conveyance

- A single elevator is located on site. The elevator is still in excellent condition

Utilities

- Site communication & security systems noted to be in excellent condition

Site Improvements

- LED lighting used for site lighting and provides excellent coverage
- Playground equipment and AstroTurf is in excellent condition
- Perimeter security notes to be excellent

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Scholls Heights Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Scholls Heights *Elementary School*

Age: 1999

Size (SF): 68,941

Area: 8.7 acres

Assessment Date: 11/18/19

Student Population: 571

School Ratings

Facility Conditions Index: 0.232

Avg Condition Score: 3.37 out of 5

Asset Count: 140

Energy Use Intensity: 48.38
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,842,604

Year 1 Asset Replacement Cost: $1,289,632

Current Replacement Value: $35,246,086

Energy Spend*

Electricity: $50,152

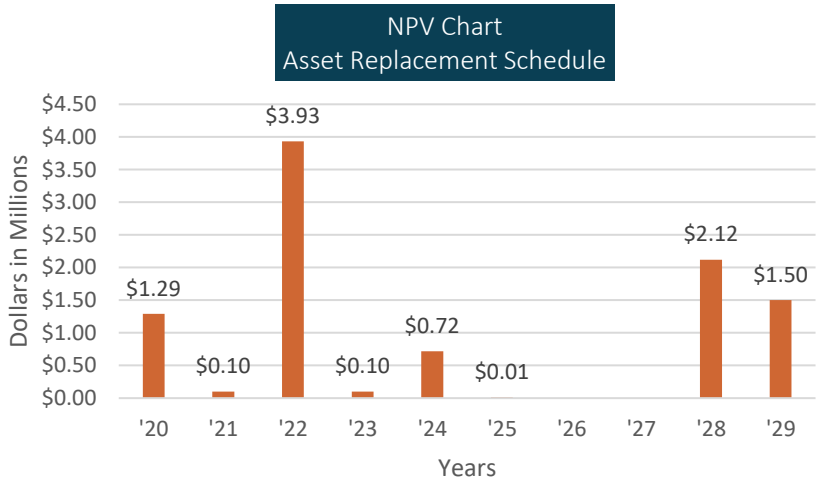
Natural Gas: $15,913

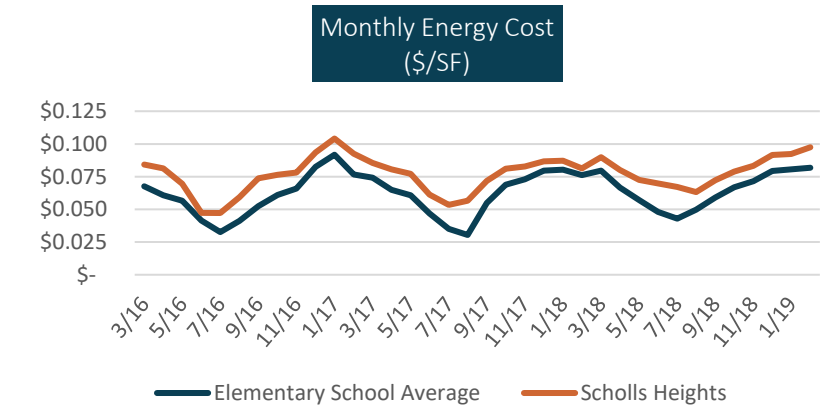
Water Spend*: $10,059

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,979,296	S4	NA
Mechanical	HVAC	$2,546,516	5, 4	1, 3
Mechanical	Plumbing	$56,516	5	1
Mechanical Utilities	Storm Sewer	$15,000	4	1
Interior Finishes	Doors	$55,670	4	5





moss build up on roof

rust on rooftop equipment

interior finish condition

cracking and moss on paving

General Building Condition

Roof

- Roof is in fair condition with some moderate moss growth. Walkway pads on TPO roof are deteriorating

Mechanical/HVAC

- HVAC equipment was noted to be in poor overall condition. Staff stated there are some frequent hot and cold areas
- Multiple repairs needed on the boiler in recent years. The boiler is suspected to be undersized for the school
- RTU-2 has significant rust on unit

Electrical

- Electrical service & distribution equipment noted to be in good condition
- Lighting control system includes manual switches with some motion sensors
- T8 lighting is installed throughout the school

Plumbing

- Plumbing fixtures were noted to be in fair overall condition
- Domestic hot water heaters need drip pans installed

Fire, Life, Safety

- Fire sprinkler system includes two wet system
- All storm drain should be cleaned

Interior Finishes

- Original carpet from 1999 on floors and stairway are extremely worn in high traffic areas and in need of replacement
- Some cracking on resilient tile flooring
- Ceiling tiles are aged and have a fair amount of water stains
- Inefficient single pane windows should be replaced
- Metal mesh in door glass is a potential safety hazard

Conveyance

- A single elevator is located at the school. The elevator is in fair condition

Utilities

- Surveillance system includes cameras on campus front and rear

Site Improvements

- Parking lot is in good condition but has some moss growth that needs cleaning
- Pedestrian paving is in good condition but has cracks on playground path
- Site lighting coverage noted to be insufficient in play areas
- Some peeling paint noted in the read of school
- Playground equipment and athletic field is noted to be in fair condition

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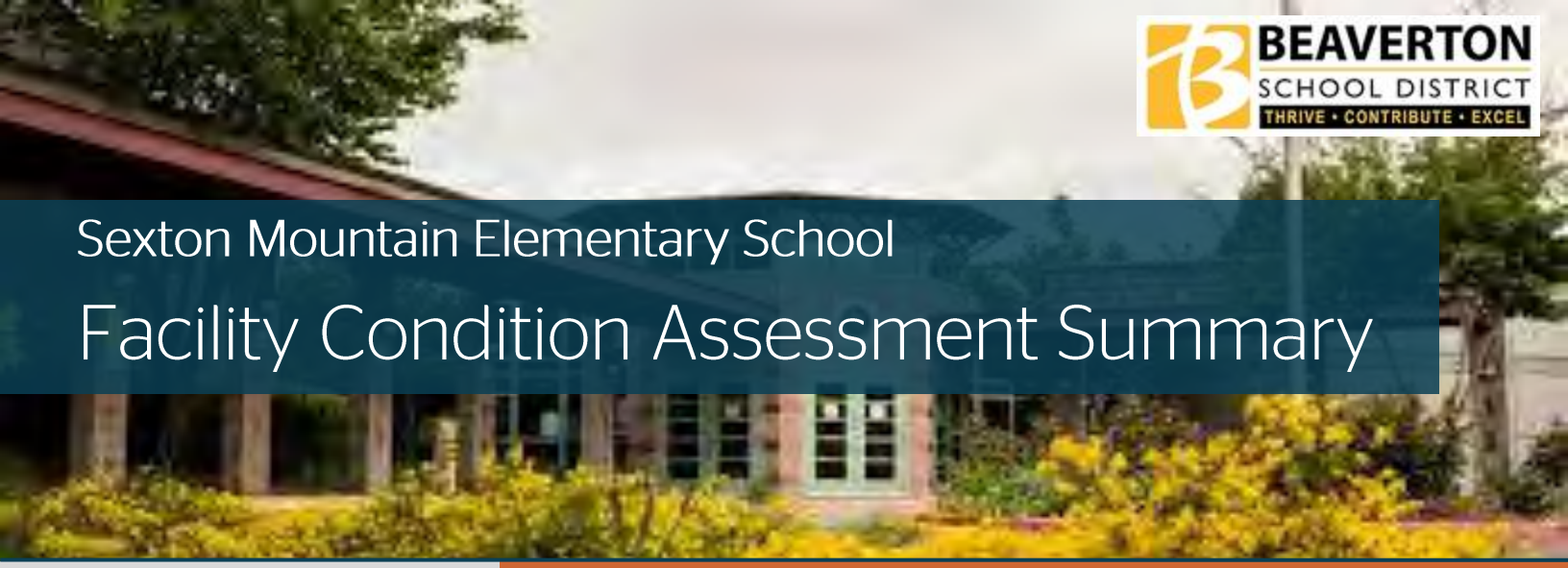


Sexton Mountain Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Sexton Mountain *Elementary School*

Age: 1989

Size (SF): 67,318

Area: 10.83 acres

Assessment Date: 9/26/19

Student Population: 511

School Ratings

Facility Conditions Index: 0.279

Avg Condition Score: 3.49 out of 5

Asset Count: 154

Energy Use Intensity: 44.69
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $17,439.779

Year 1 Asset Replacement Cost: $678,386

Current Replacement Value: $34,416,328

Energy Spend*

Electricity: $43,065

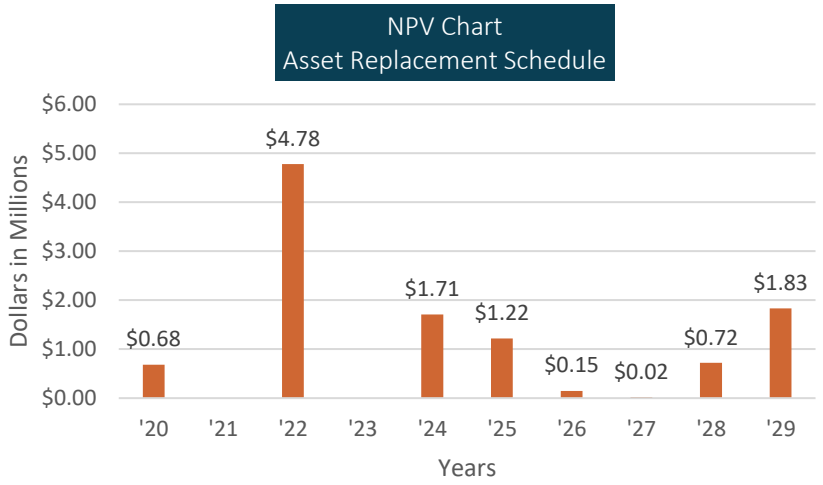
Natural Gas: $13,836

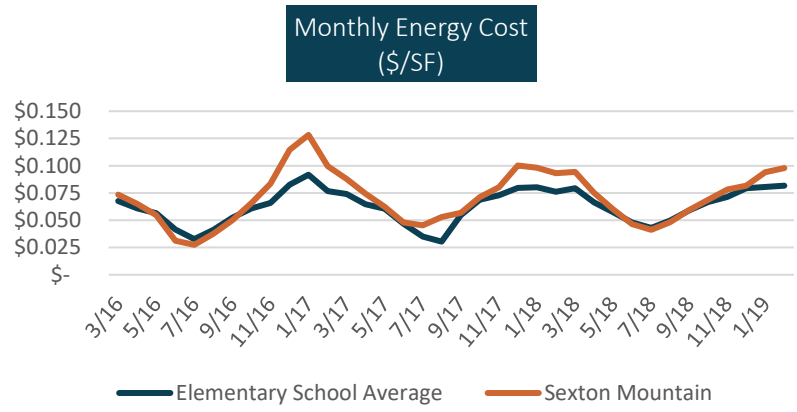
Water Spend*: $9,032

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,509,633	S4	NA
Mechanical	HVAC-VAV, MAU	$521,804	5	1
Mechanical	Plumbing	$21,538	5	1
Conveyance	Elevator	$15,000	5	1
Roofing	Built-Up	$1,225,188	4	5





moss growth on roof

rooftop equipment condition

damaged ceiling tiles

cracking paving throughout

General Building Condition

Roof

- Built up roof is in poor condition. Roof drains are clogged, and a number of low points collect stagnant water. Moss growth is evident throughout

Mechanical/HVAC

- Multiple complaints were noted about insufficient airflow in rooms and some rooms running hot
- Crushed ductwork noted on roof and presents a risk of a leak or water intrusion. This area should be reinforced
- Building controls are in poor condition

Electrical

- Electrical service and distribution equipment noted to be in fair condition
- T8 lighting installed throughout the school

Plumbing

- Plumbing fixtures were noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in generally fair condition
- Minor cracking noted in resilient floor tiles
- Ceiling tiles have some cracks and staining
- Wallpaper fabric is coming loose in multiple places
- Metal mesh in interior window glass are a potential safety hazard

Utilities

- Site communications & security systems noted to be in fair to good condition
- RFID access if brand new and still in good condition

Site Improvements

- Parking lots and pedestrian paving are in poor condition. Cracks and curb damage need repair. Painting noted to be newly completed
- Minor water damage noted on exterior fiberglass walls
- Minor cracking evident on exterior masonry walls
- Playground equipment noted to be in fair condition

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BEAVERTON SCHOOL DISTRICT
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Springville Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Springville *Elementary School*

Age: 2009

Size (SF): 87,206

Area: 10.02 acres

Assessment Date: 11/19/19

Student Population: 724

School Ratings

Facility Conditions Index: 0.120

Avg Condition Score: 2.19 out of 5

Asset Count: 208

Energy Use Intensity: 50.14
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $14,286,101

Year 1 Asset Replacement Cost: $15,000

Current Replacement Value: $44,584,068

Energy Spend*

Electricity: $50,142

Natural Gas: $17,185

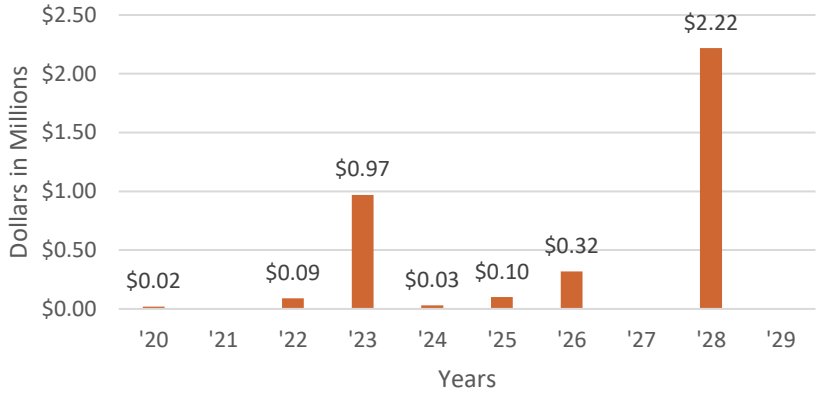
Water Spend*: $25,240

**3/19 – 2/20*

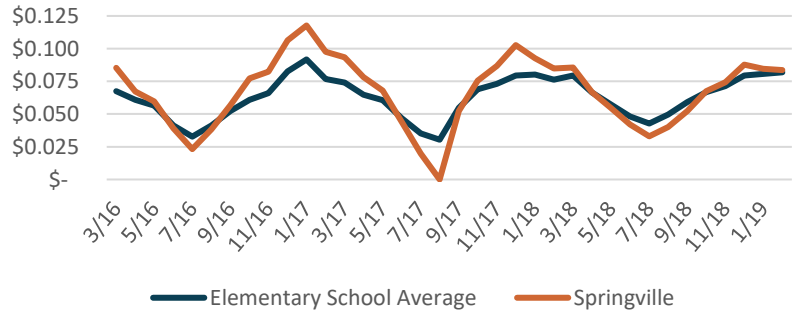
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Mechanical Utilities	Storm Sewer	$15,000	4	1
Mechanical	HVAC	$127,321	4	4
Mechanical	Plumbing	$8,222	4	4, 5

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



moss growth on roof

corroded piping

electrical equipment condition

cracking throughout paving

General Building Condition

Roof

- Roof is in fair to good condition. Ballasted built up section of the roof has heavy moss growth
- Poor roof rainwater drainage further exasperates moss growth
- Roof access hatch is difficult to operate and poses a potential safety hazard

Mechanical/HVAC

- The flue on Boiler #2 and the heating valve in the multipurpose mezzanine is leaking heavily and should be replaced. There is moisture from sustained flue gas condensation due to the hot water return temperature being below the dewpoint temperature. This condensate is highly corrosive, and a condensate collection pan should be installed. Flexible piping appears to be draining condensate from the low section in the vertical pipe rather than at the beginning of the horizontal flange
- Corrosion evidence indicates that there are some failed seals on the how water circulation pumps.
- The refrigerant piping for outdoor heat pump condensing units is damaged

Electrical

- Electrical service & distribution equipment noted to be in good condition
- Lighting control system includes digital controls and occupancy sensors
- CFL and T8 lighting installed throughout the school

Plumbing

- Plumbing fixtures are in good condition with low flow flush valves and aerators

Fire, Life, Safety

- No fire sprinklers noted in portables
- All storm drain should be cleaned

Interior Finishes

- Resilient floor tiles show signs of settling and cracking. This is pronounced behind the CMU retaining wall in the cafeteria

Conveyance

- A single elevator is located at the school. The elevator is in excellent condition

Utilities

- Surveillance system is obsolete, and system cannot be updated. This system should be replaced with increased coverage
- Communication system performs poorly and does not reach portables

Site Improvements

- Bark chip levels in playground is low and should be refilled. Bark chips also clog the site drains leading to muddy conditions
- Emergency egress issue noted on the south end. A locking gate at this end could provide an additional egress in case of emergency
- Parking lot and pedestrian paving have moderate cracking throughout

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Terra Linda Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Terra Linda *Elementary School*

Age: 1970

Size (SF): 51,636

Area: 10.44 acres

Assessment Date: 10/24/19

Student Population: 349

School Ratings

Facility Conditions Index: 0.237

Avg Condition Score: 3.73 out of 5

Asset Count: 140

Energy Use Intensity: 39.61

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,054,398

Year 1 Asset Replacement Cost: $1,575,449

Current Replacement Value: $26,398,905

Energy Spend*

Electricity: $31,147

Natural Gas: $9,446

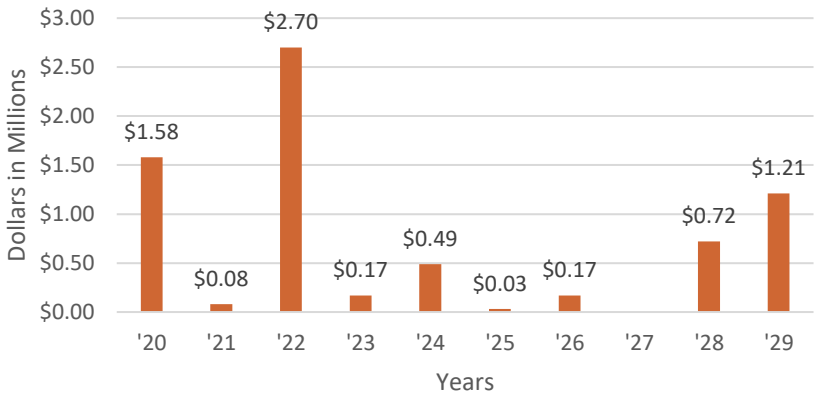
Water Spend*: $4,821

**3/19 – 2/20*

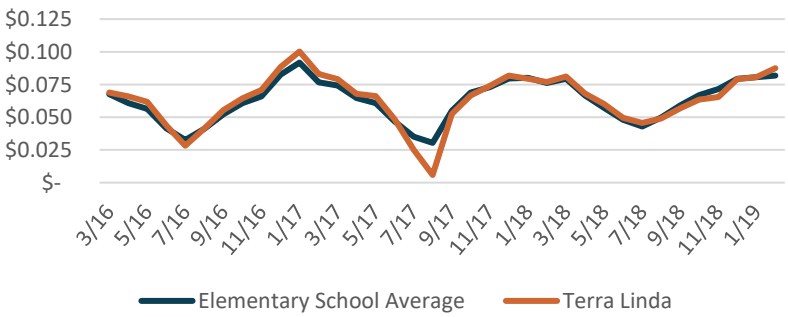
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,470,783	S4	NA
Mechanical	HVAC-Fans, Boiler, VAV	$74,918	5, 4	1, 3, 4
Mechanical	Plumbing	$10,868	5	1
Roofing	Built-Up	$1,208,282	5	1
Mechanical Utilities	Storm Sewer	$15,000	4	1
Exterior Enclosures	Aluminum Windows	$118,040	4	1
Equipment	Playground	$40,000	4	3
Electrical	Comm & Security	$57,574	4	2, 5

NPV Chart
Asset Replacement Schedule

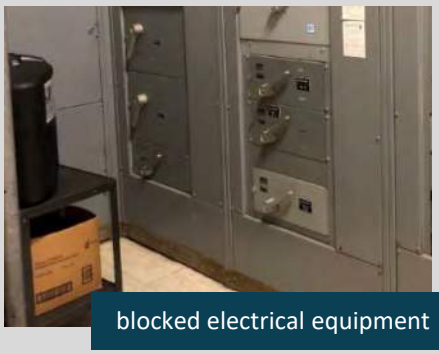


Monthly Energy Cost
($/SF)



moss build up on roof

improper condensate drainage



blocked electrical equipment

uneven site paving

General Building Condition

Roof

- Built up asphalt roof is in very poor condition with excessive moss growth, poor drainage, and multiple signs of leaks

Mechanical/HVAC

- Boiler condensate drain is not up to code and consists of plastic bins and pvc pipes. This needs to be addressed before the condensate corrodes through the bin and then the floor

Electrical

- Main electrical room is being used for storage. Items should be relocated to ensure proper safe access to equipment
- Lighting control system consists primarily of manual switches
- T8 and CFL lighting is installed throughout the school

Plumbing

- Plumbing fixtures noted to be in generally fair condition
- Old piping presents an issue as grit in pipes clog often and impedes drainage

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

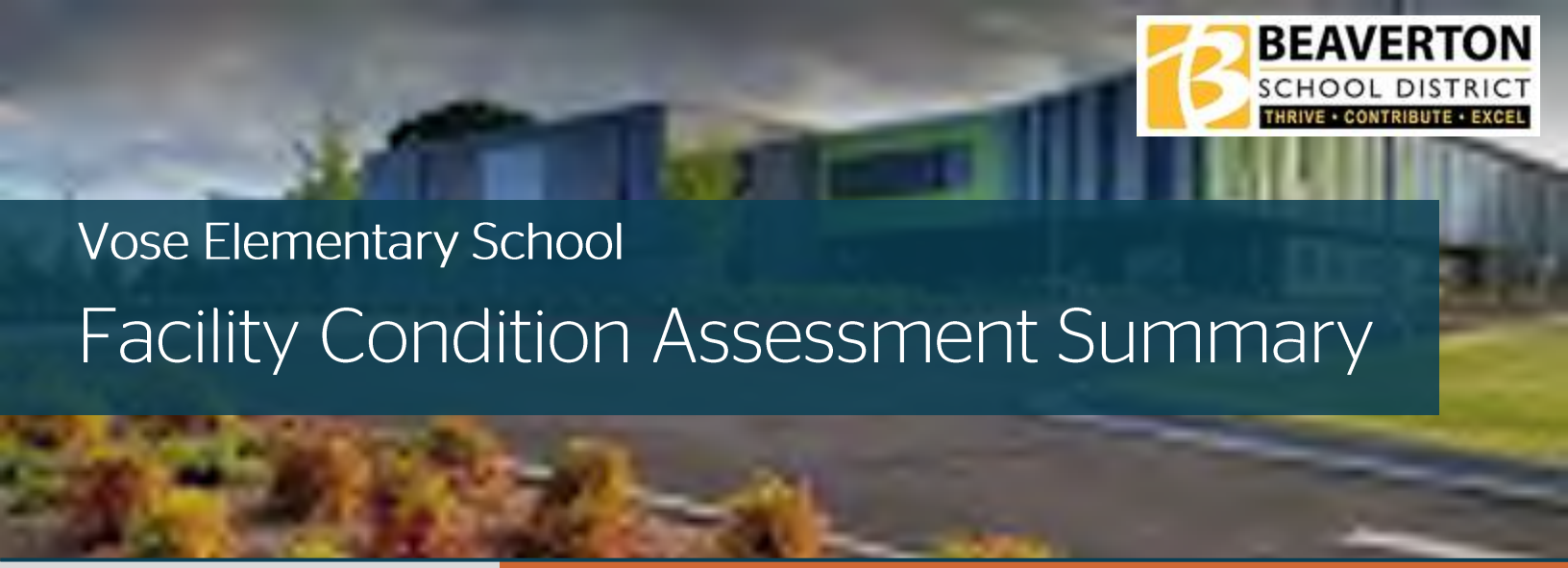
- Interior finishes are in generally fair condition. Carpets show the most signs of wear. Leak damage located throughout ceiling tiles
- Wire mesh in door glass is a potential safety hazard
- Inefficient single pane windows should be replaced

Utilities

- Alarm system noted to have multiple issues and require troubleshooting

Site Improvements

- Wood chip levels in playground area are low and is a potential trip hazard
- Athletic track is in bad shape and not level. A low point on the north side also does not drain properly and is a slipping hazard
- Parking lots and pedestrian paving are in fair condition with some cracking throughout and uneven surfaces.
- North side of play field needs a gated fence for the bus lane
- Site lighting coverage should be increased in play field area
- Canopy light fixtures need to be cleaned
- Minor cracking and fading noted on exterior masonry wall



Vose Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Vose *Elementary School*

Age: 1959/2017

Size (SF): 89,000

Area: 8.81 acres

Assessment Date: 11/6/19

Student Population: 693

School Ratings

Facility Conditions Index: 0.028

Avg Condition Score: 1.74 out of 5

Asset Count: 209

Energy Use Intensity: 34.98

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $8,442,348

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $56,501,250

Energy Spend*

Electricity: $36,617

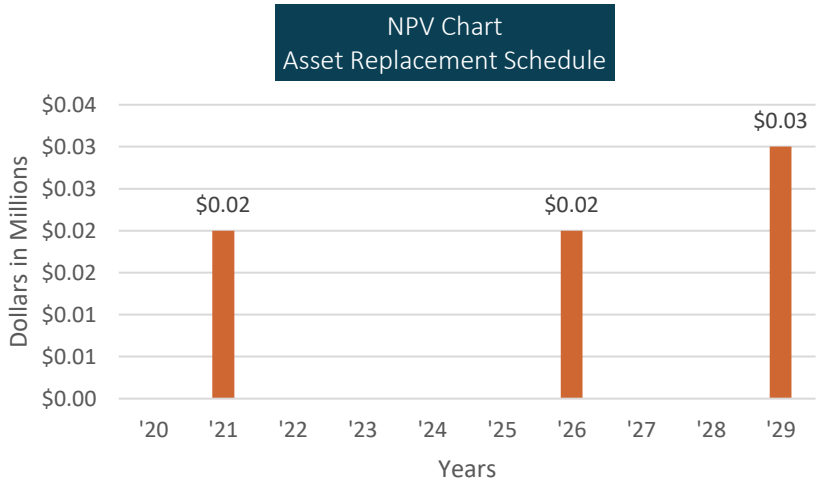
Natural Gas: $18,319

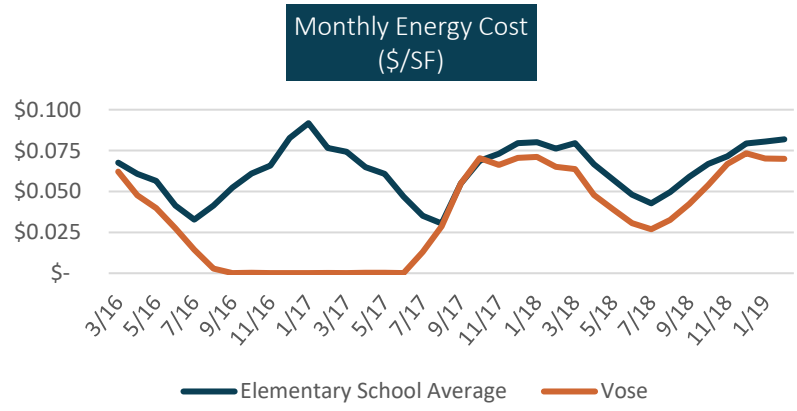
Water Spend*: $11,525

**3/19 – 2/20*

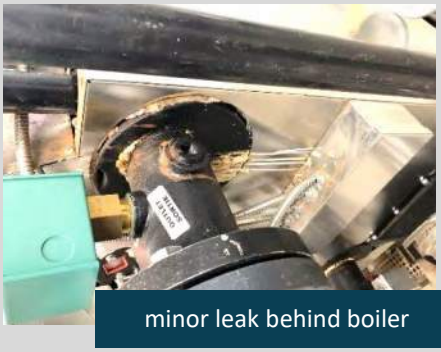
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Exterior Enclosures	Aluminum Windows	$16,955	1	2





drainage issues on roof



minor leak behind boiler

cracking in concrete floor

playground condition

General Building Condition

Roof

- Roof is in excellent condition though there are some clogged roof drains and low spots that need repairing

Mechanical/HVAC

- HVAC equipment is noted to be in excellent condition though there is evidence of some minor leaks from rear of boilers

Electrical

- Electrical service & distribution equipment is in excellent condition
- Lighting control system consists of daylight harvesting and occupancy sensors. Some occupancy sensors were noted to not be working during site visit
- LED lighting installed throughout the school

Plumbing

- Plumbing fixtures are in excellent condition and include low flow flush valves and aerators
- Domestic how water can hold additional capacity

Fire, Life, Safety

- All storm drains should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in excellent to good condition. Minor areas of note include some nicks to the Wainscot walls, minor cracking on polished concrete floor, and minor damage to ceiling tiles

Conveyance

- One elevator and one stage lift located on site. Both are in excellent condition

Utilities

- Site communication & security systems are in excellent condition

Site Improvements

- Parking lot and pedestrian paving are in good condition with some minor cracking and worn paint
- Playground equipment and area is in excellent condition
- Site lighting is LED. Some exterior lights noted to be on during the day
- Perimeter security is in great condition

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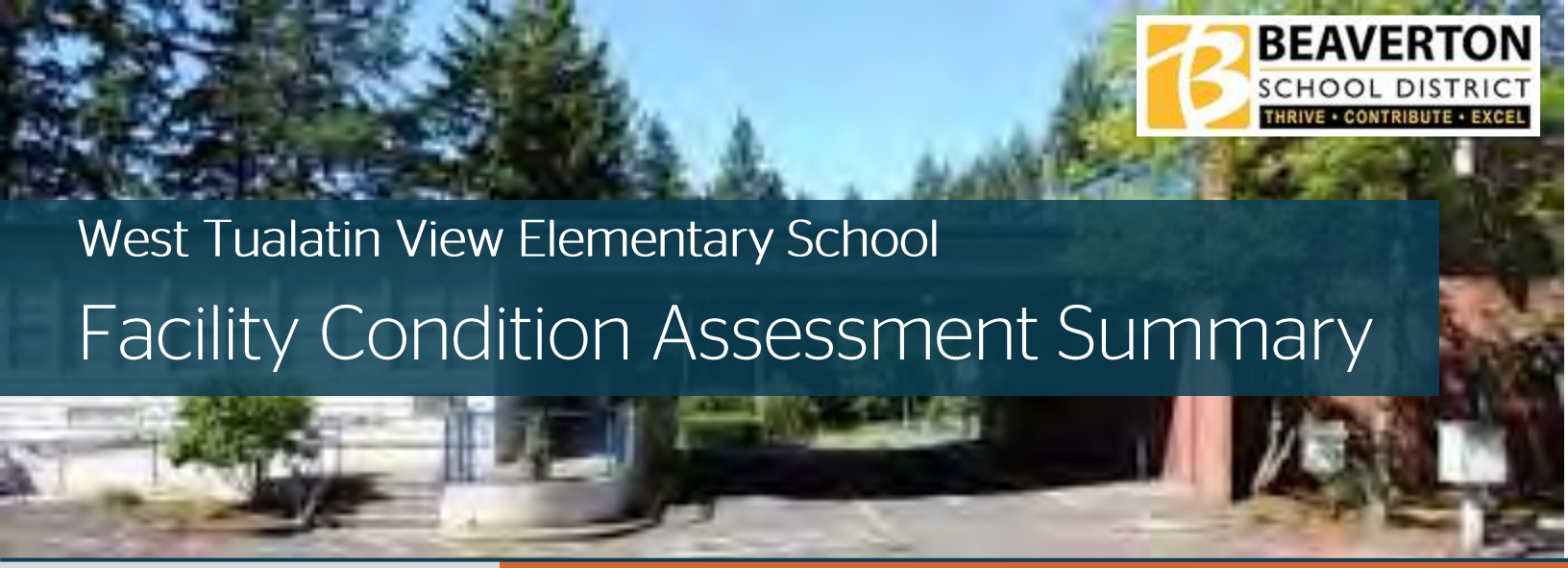


West Tualatin View Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: West Tualatin View *Elementary School*

Age: 1955

Size (SF): 43,447

Area: 7.05 acres

Assessment Date: 8/8/19

Student Population: 336

School Ratings

Facility Conditions Index: 0.309

Avg Condition Score: 3.72 out of 5

Asset Count: 134

Energy Use Intensity: 48.91

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,420,158

Year 1 Asset Replacement Cost: $4,596,075

Current Replacement Value: $22,212,279

Energy Spend*

Electricity: $24,183

Natural Gas: $11,493

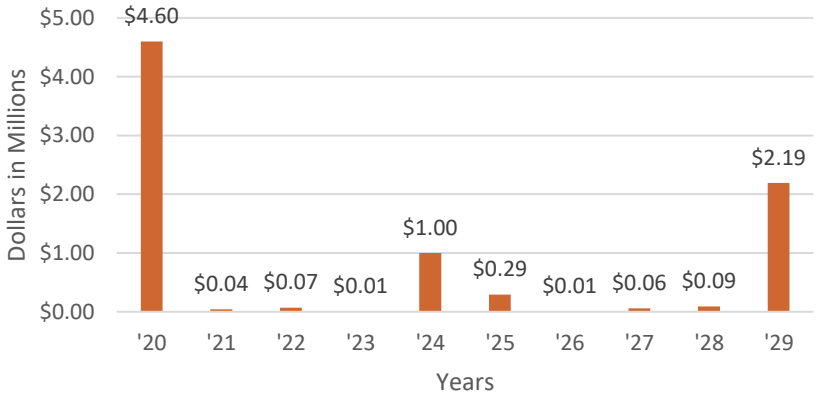
Water Spend*: $6,463

**3/19 – 2/20*

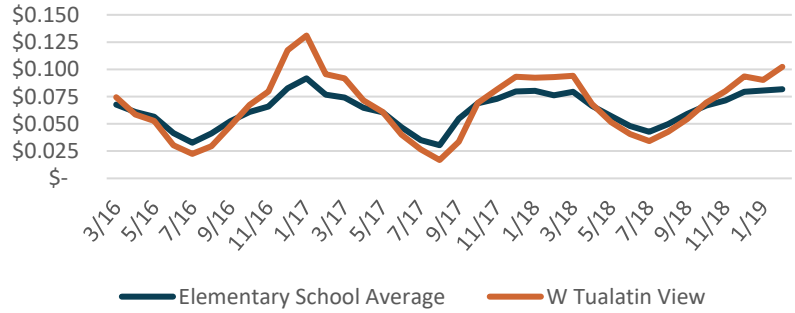
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,742,090	S6	NA
Mechanical	HVAC	$71,051	5, 4	1-3
Plumbing	Sanitary Waste	$89,935	5	1
Mechanical	Plumbing	$14,653	5	1
Electrical	Switchboard	$36,472	5	1
Interior Finishes	Doors	$24,000	4	2

NPV Chart
Asset Replacement Schedule

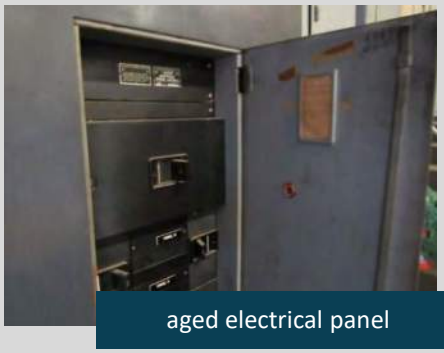


Monthly Energy Cost
($/SF)



excessive moss growth on roof

aged air compressor



aged electrical panel

alligatoring on paving

General Building Condition

Roof

- Roof is in generally fair condition. Serious moss growth noted on commons roof and eaves have signs of dry rot. Some roof work was being completed at the time of site visits
- Main building hatch is very difficult to operate which poses a safety hazard
- Wasp nest located in commons roof hatch and poses a safety hazard

Mechanical/HVAC

- HVAC system consists of a newer boiler with an old steam radiator system
- Air conditioning is not available throughout the school

Electrical

- Main electrical panels have exceeded useful life
- Improper storage and lockout tagout in electrical rooms noted. Items should be relocated to allow safe access to equipment
- Lighting control system consists of occupancy sensors
- T8 lighting installed throughout the school

Plumbing

- Plumbing fixtures are aged but otherwise in good condition
- Domestic hot water heater in commons is leaking
- Health room needs an eyewash station
- Drains in kitchen are clogged

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Gym stage storage has floor tiles with suspected asbestos containing material
- Ceiling tiles have some cracks, tears, and stains
- Nurse station floor tiles needs repair
- Significant wear and tear on Wainscot wall finish
- Metal mesh in door glass is a potential safety hazard
- Inefficient single pane windows are in very poor condition

Conveyance

- A single elevator is located at the school. The elevator is in fair condition

Utilities

- Alarm system is aged and should be considered for replacement
- Newer door key cards installed throughout the school
- Sanitary Waste system is undersized and has failed many times. Needs immediate replacement

Site Improvements

- Parking lot paving in fair condition with some alligatoring and cracking
- Linear drains near covered play area are backed up. Other drains around perimeter need to be cleared as well
- Exterior lights noted to be on during daylight hours
- Stair railing at rear of building exterior is not up to code

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William Walker Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: William Walker *Elementary School*

Age: 2019

Size (SF): 51,092

Area: 9.20 acres

Assessment Date: 11/18/19

Student Population: 487

School Ratings

Facility Conditions Index: 0.027

Avg Condition Score: 1.78 out of 5

Asset Count: 157

Energy Use Intensity: No Data
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $7,618,699

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $26,120,785

Energy Spend*

Electricity: $UNK

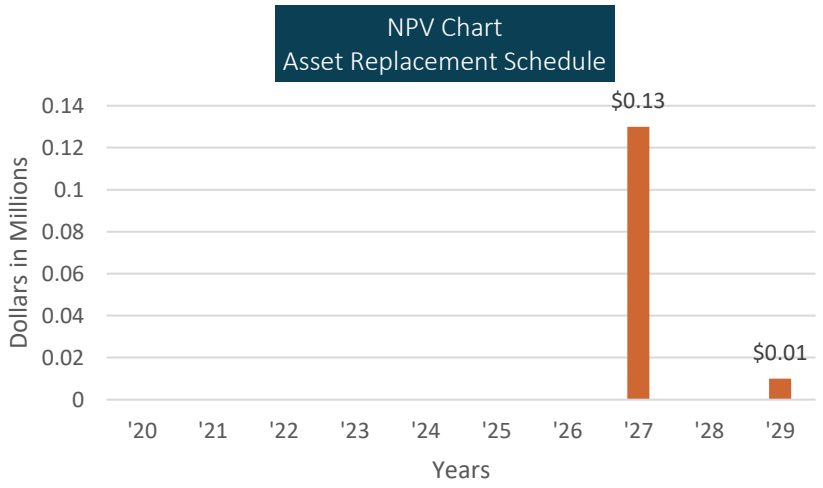
Natural Gas: $UNK

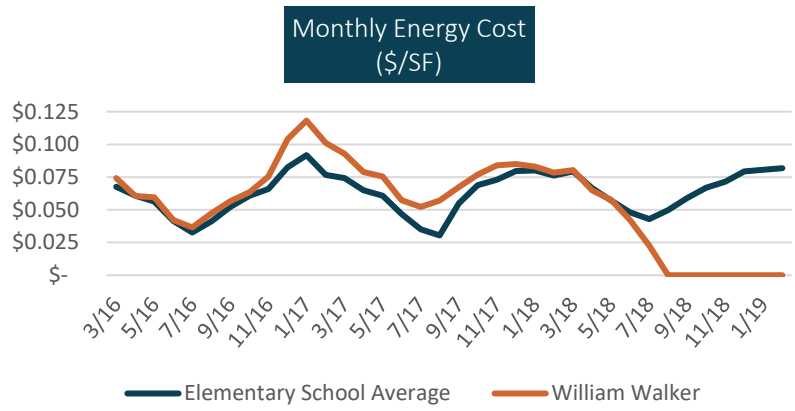
Water Spend*: $UNK

**new school*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
None				





roof condition

HVAC condition

interior condition

clogged storm drain

General Building Condition

Roof

- Roof is in good condition with drains clear. Some low spots noted with stagnant water

Mechanical/HVAC

- HVAC equipment and distribution system is in excellent condition
- Building controls are JCI BACNET

Electrical

- Electrical service & distribution equipment noted to be in excellent condition
- Lighting control system consists of daylight harvesting and occupancy sensors
- LED lighting installed throughout the school

Plumbing

- Plumbing fixtures are in excellent condition with low flow fixtures
- Domestic water distribution has room for additional capacity

Fire, Life, Safety

- Fire sprinkler system consists of four west systems and one dry system
- All storm drain should be cleaned

Interior Finishes

- Interior finishes (ceilings, walls, and floors) are in generally excellent condition. Some small nicks noted in drywall

Conveyance

- One elevator noted on site. Elevator is in excellent condition

Utilities

- Site communication & security systems are in excellent condition

Site Improvements

- Parking lots and pedestrian paving are in excellent condition
- Weatherstripping on some exterior doors are worn and needs to be restripped
- Playground equipment and areas are in excellent condition
- Perimeter security is in great condition

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BEAVERTON SCHOOL DISTRICT
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Cedar Park Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Cedar Park Middle School*

Age: 1965

Size (SF): 117,054

Area: 16.8 acres

Assessment Date: 10/4/19

Student Population: 941

School Ratings

Facility Conditions Index: 0.277

Avg Condition Score: 2.15 out of 5

Asset Count: 213

Energy Use Intensity: 44.64

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $27,995.646

Year 1 Asset Replacement Cost: $10,501,916

Current Replacement Value: $62,506,836

Energy Spend*

Electricity: $67,459

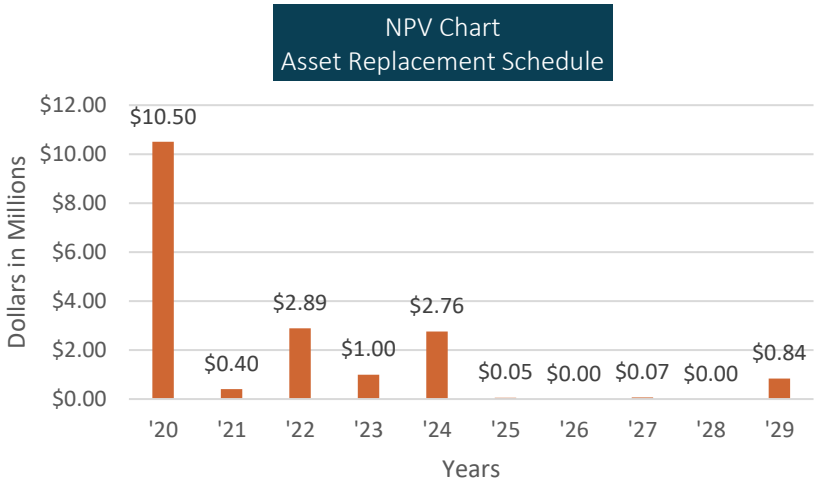
Natural Gas: $27,122

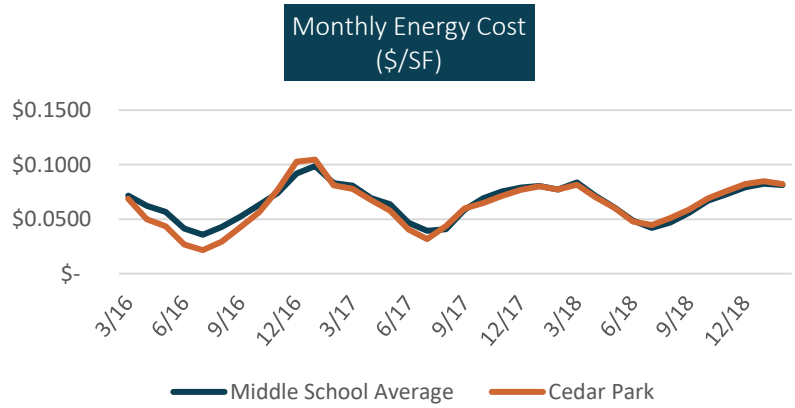
Water Spend*: $20,671

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

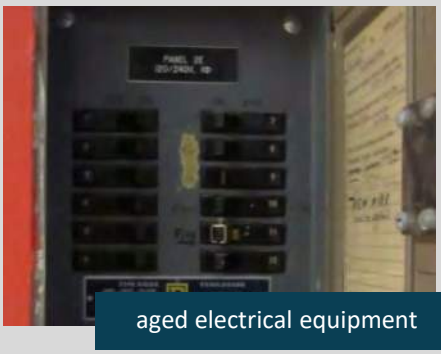
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$10,081,861	S6	NA
Mechanical	System Test & Balance	$170,889	4	1
Utilities	Storm Sewer Site Work	$15,000	4	1
Roof	Built-Up & Skylights	$2,686,893	4	2
Commercial Equipment	Food Service Refrigerator	$17,500	4	2
Interior Finishes	Glued-Up Ceiling Tile	$384,288	3	2





water intrusion at skylights

newer rooftop equipment



aged electrical equipment

alligatoring in paving

General Building Condition

Roof

- Roof is in poor condition with cracks, brittle spots, and moss growth
- Area around skylights show signs of water intrusion. These skylights should be resealed.

Mechanical/HVAC

- Mechanical equipment was noted to be in fair condition with some newer HVAC equipment installed within the last couple of years
- Staff noted that unit heaters in classrooms are loud and vibrate which can be disruptive to learning

Electrical

- Electrical equipment was assessed to be in poor condition with some electrical equipment installed over 50 years ago. Immediate replacement is recommended
- Some T12 lighting was noted on site. These should be replaced with more efficient alternatives

Plumbing

- Backflow issues noted with domestic water distribution that leads to hot water in the cold line
- Staff noted that drainage by dumpster does not drain well

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

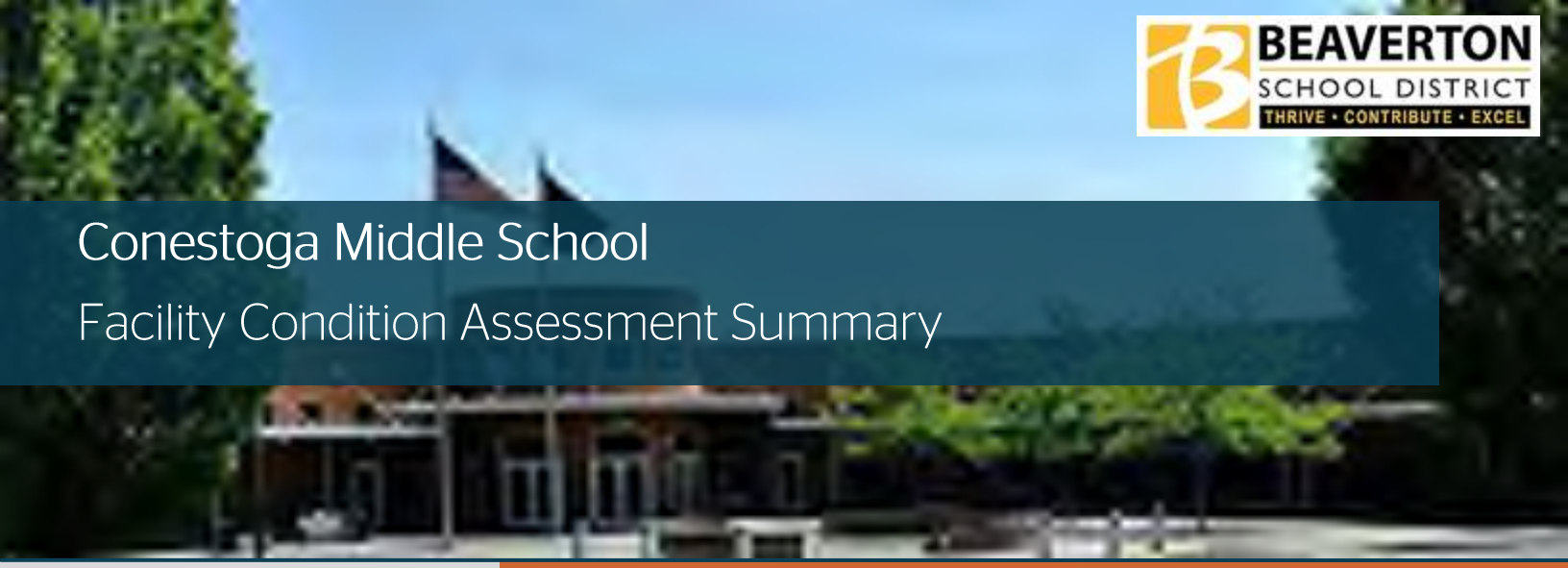
- Exterior windows are single pane and in very poor condition. Replacement of these windows are recommended
- Some interior windows have metal mesh which is a safety hazard
- Floor finishes are in fair condition though carpeted areas show more signs of wear with missing patches and rips in some areas.
- Areas of interior walls have minor cracking, damage, and stains.
- Ceiling finishes show signs of minor damage throughout the school. This includes improperly sealed tiles, sagging tiles, water damaged areas, missing tiles, and penetrated and dented areas.
- Cracks and damage noted on stair finishes
- The surface of some interior wood doors are in need of refinishing

Utilities

- Food services equipment is in good condition though the dishwasher was noted to act up occasionally
- Lighting could benefit from increased automation

Site Improvements

- Site paving is in fair condition though a couple trip hazards and alligatoring areas were noted
- Exterior doors have some dents



Conestoga Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Conestoga Middle School*

Age: 1994

Size (SF): 128,179

Area: 25.01 acres

Assessment Date: 9/5/19

Student Population: 975

School Ratings

Facility Conditions Index: 0.195

Avg Condition Score: 3.71 out of 5

Asset Count: 239

Energy Use Intensity: 37.46

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $27,117,445

Year 1 Asset Replacement Cost: $310,994

Current Replacement Value: $68,447,586

Energy Spend*

Electricity: $81,700

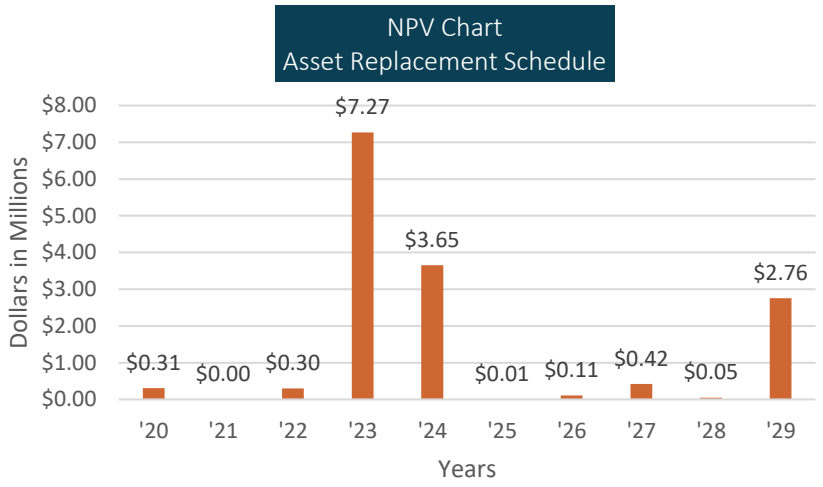
Natural Gas: $21,019

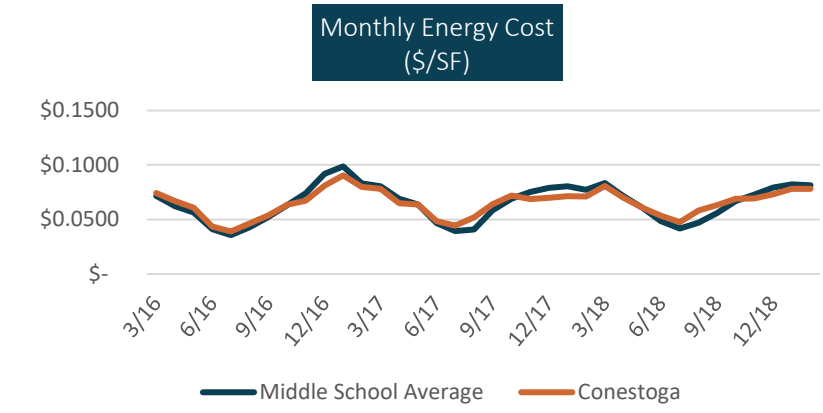
Water Spend*: $14,028

**3/19 – 2/20*

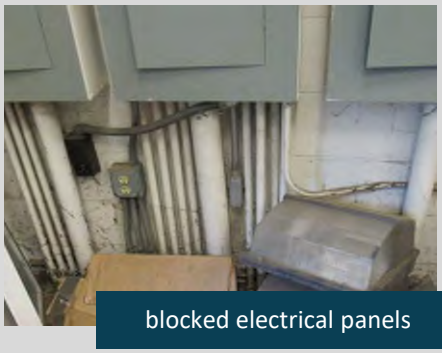
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$6,133,365	S4	NA
Mechanical	Make-up Air Unit	$83,333	5	1
Plumbing	Water Heater, Pump	$30,269	5	1
Exterior Enclosures	Stucco Walls	$173,618	5	2
Mechanical	Boiler	$282,222	4	3





debris accumulated on roof



blocked electrical panels

rust on rooftop equipment

Damage to curb

General Building Condition

Roof

- Roof is in overall good condition with some accumulated debris in areas

Mechanical/HVAC

- Mechanical equipment was found to be in fair condition
- Rooftop equipment shows signs of wear and rust from weather
- Refrigerant leak on AHU-04
- No exhaust fan was noted in science spaces. Ventilation should be increased in these spaces

Electrical

- Improper storage of equipment was found in electrical rooms to be blocking panels. Items should be relocated to allow for safe access to equipment.

Plumbing

- Plumbing equipment and water distribution found to be in fair condition.
- No earthquake valve noted at exterior main gas supply.

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Exterior windows and doors are in good condition
- While interior doors are mostly in fair condition, some metal mesh doors present a safety concern
- Interior wall and floor finishes are mostly in fair condition. A couple areas of note: resilient tiles show signs up warping and cracking, gym walls have signs up water damage, and gym floor finish is poorly applied in areas
- Heavy moisture in gym hallway has led to rust on drop ceiling grid
- Stair finishes showing signs of wear
- Minor ceiling tile damage noted

Exterior Finishes

- Exterior stucco surface is failing and in need of replacement

Conveyance

- ADA lift is in fair condition.

Utilities

- Communication and security systems were noted to be in fair to good condition

Site Improvements

- Severe damage to curbs requires repair and repainting
- Uneven and cracked sidewalk noted near entrance
- Gravel is tracking inside at rear of building. Recommend removal of gravel

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Five Oaks Park Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Five Oaks Middle School*

Age: 1976

Size (SF): 143,039

Area: 32.23 acres

Assessment Date: 10/16/19

Student Population: 1,010

School Ratings

Facility Conditions Index: 0.255

Avg Condition Score: 3.38 out of 5

Asset Count: 188

Energy Use Intensity: 55.15

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $33,350,135

Year 1 Asset Replacement Cost: $3,107,627

Current Replacement Value: $76,382,826

Energy Spend*

Electricity: $99,058

Natural Gas: $36,001

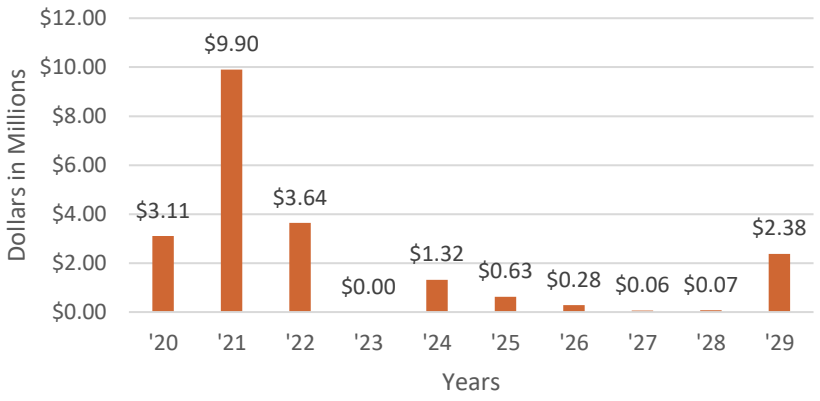
Water Spend*: $8,396

**3/19 – 2/20*

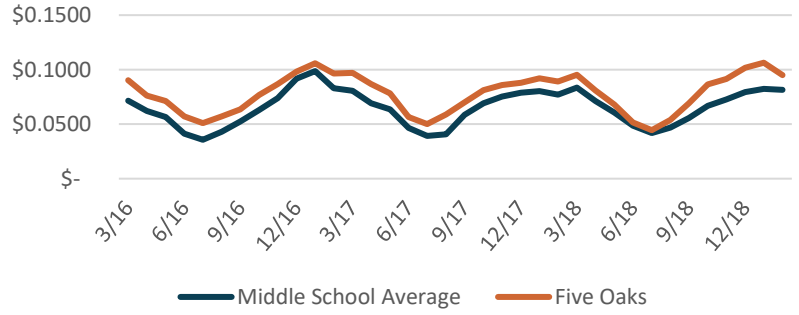
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$9,582,183	S5	NA
Mechanical	HVAC – Air Handling Units	$1,806,250	5	1
Electrical	Switchboards, Motor Control Center	$500,840	5	1
Mechanical	Other	$414,101	5	1
Mechanical	HVAC- Boiler	$172,900	5	1
Roof	Built-Up	$3,347,113	4	3

NPV Chart
Asset Replacement Schedule

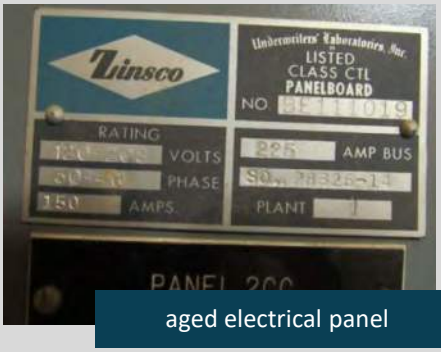


Monthly Energy Cost
($/SF)

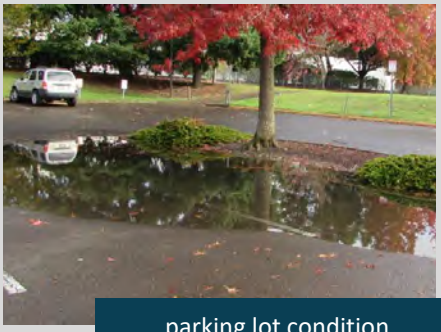


Roof exposed seams and bubbles

pneumatic controls



aged electrical panel



parking lot condition

General Building Condition

Roof

- Built-up area of roof with rock ballast is in poor condition with several areas of exposed seams and bubbles.

Mechanical/HVAC

- Ductwork is a mix of new and old ducts that are overall in fair condition
- Some pneumatic controls with DDC overlay found. These controls could benefit from an upgrade

Electrical

- Electrical equipment was noted to be in poor condition. Some Zinsco panels were aged and identified as potential fire hazards

Plumbing

- Plumbing fixtures were noted to be in fair condition
- Gutter was noted to be leaking in some areas

Fire, Life, Safety

- All storm drain should be cleaned. Northeast sewer is clogged leading to overflow

Interior Finishes

- Exterior windows are double paned and in fair condition
- Interior hollow metal doors are in poor condition. Wire mesh in door windows is a safety hazard. Some doors require repainting.
- Interior wall finishes have some cracks and holes from removal of fixed furnishing. Stains and cracked grout noted in other areas
- Floor finishes are generally in fair condition although there are a couple areas of note: computer lab carpet is worn; resilient tiles are worn, uneven, and missing in some areas; damage and cracks in gym flooring; ceramic tiles are cracked and missing in some areas; and polished concrete flooring has cracks and gaps that need filling
- Some stains and damage to ceiling tiles

Conveyance

- Elevator is older but still functional

Utilities

- Site communication and security is in fair to good condition.
- Arcing noted at booster heater outlet in kitchen

Site Improvements

- Parking lot in poor condition: moss growing in multiple areas, restriping needed, alligatoring on surface, and water collecting at low points.
- Playground equipment appears to be in good condition
- Tennis court surface is warped, and fence needs repair

Highland Park Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Highland Park Middle School*

Age: 1965

Size (SF): 116,892

Area: 19.00 acres

Assessment Date: 9/23/19

Student Population: 777

School Ratings

Facility Conditions Index: 0.287

Avg Condition Score: 3.91 out of 5

Asset Count: 251

Energy Use Intensity: 46.06

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $29,585,515

Year 1 Asset Replacement Cost: $13,607,020

Current Replacement Value: $62,420,328

Energy Spend*

Electricity: $40,473

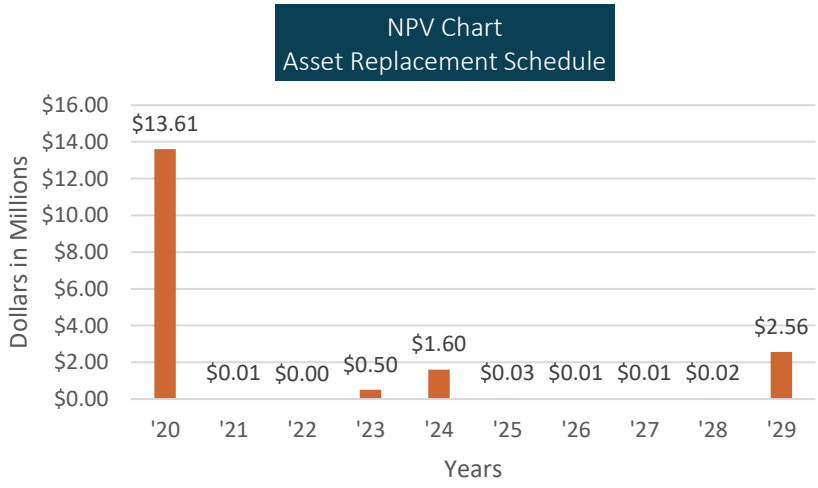
Natural Gas: $25,753

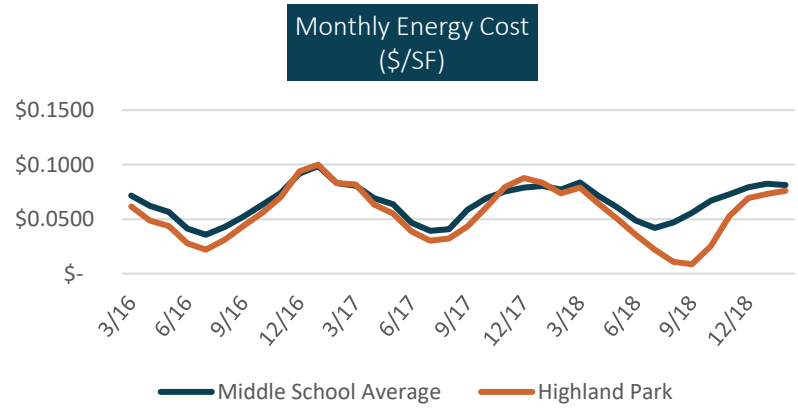
Water Spend*: $13,599

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$10,067,908	S6	NA
Mechanical	Unit Ventilators	$1,819,562	5	1
Mechanical	HVAC – Air Handling Units	$543,750	5	1
Mechanical	HVAC- Chillers	$111,139	5	1
Plumbing	Water Heater, Pump	$95,668	5	1
Exterior Enclosures	Aluminum Windows	$445,359	5	1





newly installed roof

stains and holes in ceiling tiles

water intrusion at window

potholes in parking lots

General Building Condition

Roof

- Roof is newly replaced and still in like-new condition. Multiple skylights found to be in good condition
- Cracks noted in caulking seams on roof

Mechanical/HVAC

- Mechanical equipment generally found to be in fair condition. Unit ventilators are scheduled for replacement
- Some holes noted in ductwork and needs to be patched
- Building was noted to run warm and not provide sufficient cooling
- Pneumatic controls noted in some areas
- No exhaust fan was noted in science rooms. Additional ventilation should be added to these spaces

Electrical

- Electrical equipment was noted to be generally in fair condition
- Cracked T8 lighting fixtures were noted and should be replaced

Plumbing

- Plumbing fixture were noted to be in generally good condition
- Sanitary waste system is in poor condition and requires frequent snaking

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Exterior windows are in poor condition. Single pane windows need to be replaced. Areas of water leaks noted through window caulking
- Some interior doors were found to have wire mesh glass panels which are a potential safety hazard
- Glued up wall tiles were found to be in poor condition with dents, pen marks and other signs of damage
- Carpet and tile floor finishes are in poor condition. Deteriorating carpet areas should be replaced. Tiles show signs up high wear and are suspected to be asbestos tiles
- Fiberglass ceiling tiles are in poor condition with stains and sagging. Other ceiling finishes showed more minor signs of wear.
- Some stair finishes were found to need work. Tiles were very worn in places and even separating from stairs. Painting in some areas require touch up
- Fixed furnishing is dated but in good condition

Utilities

- Site communication and security systems noted to be in fair to good condition. RFID access control is installed on site

Site Improvements

- Parking lot has poor paint striping, multiple potholes, and alligatoring.
- Two openings were noted in fence near tennis courts

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Meadow Park Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Meadow Park Middle School*

Age: 1963

Size (SF): 116,682

Area: 19.39 acres

Assessment Date: 10/5/19

Student Population: 834

School Ratings

Facility Conditions Index: 0.282

Avg Condition Score: 3.07 out of 5

Asset Count: 233

Energy Use Intensity: 40.60

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $31,260,649

Year 1 Asset Replacement Cost: $695,829

Current Replacement Value: $62,308,188

Energy Spend*

Electricity: $54,714

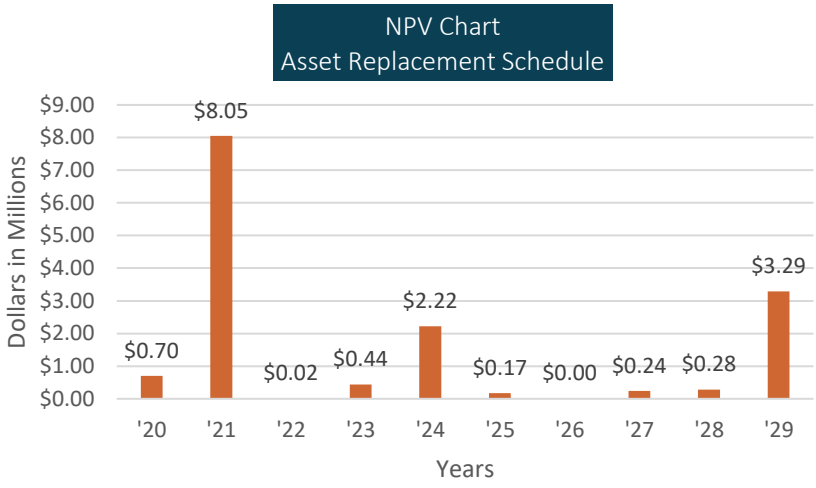
Natural Gas: $22,419

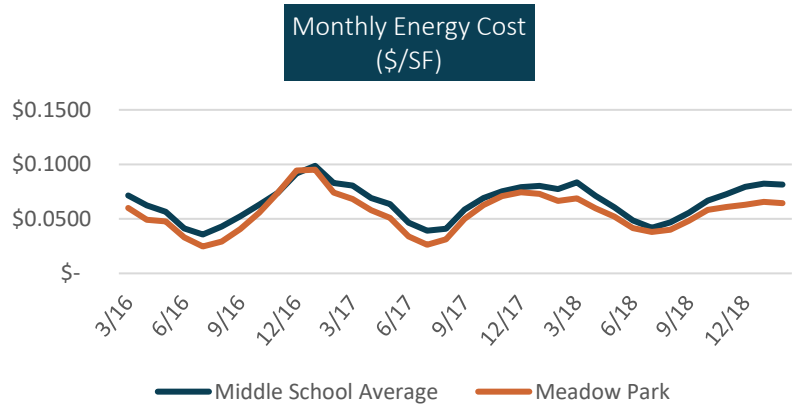
Water Spend*: $7,625

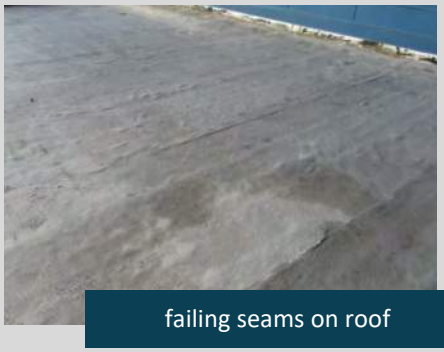
**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

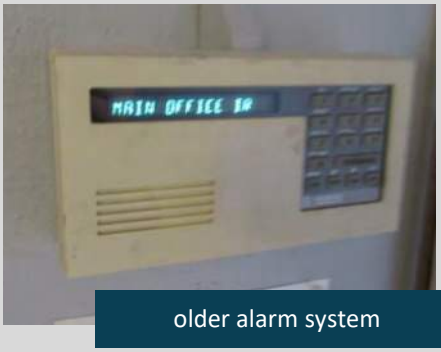
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$7,816,527	S5	NA
Mechanical	HVAC – Air Handling Units	$262,500	5	1
Mechanical	Other	$109,082	5	1
Exterior Enclosures	Walls & Windows	$109,739	4	1







failing seams on roof



older alarm system

new HVAC unit in classroom

cracking on site paving

General Building Condition

Roof

- Single play roof is in poor condition. The seams were noted to be failing in several areas

Mechanical/HVAC

- Mechanical equipment was noted to be in mostly fair condition with some newer heating and cooling units in classrooms
- Science room was noted to have inadequate ventilation and could benefit from increased ventilation in these spaces

Electrical

- Electrical equipment found to be in good condition though dust collecting at the base of some panels present arc flash danger

Plumbing

- In cafeteria, water heaters have corrosion at the base and are leaking (notified maintenance already); causing damage to wallboard
- Mixing station for domestic hot water of the east side of campus is heavily corroded and leaking (district has been notified)

Fire, Life, Safety

- Sprinklers were noted to only cover main hallways near office and entry
- Perimeter fencing needs to be upgraded to better secure the grounds
- Older alarm panel is in poor condition and should be replaced soon
- All storm drain should be cleaned

Interior Finishes

- Interior doors are aged but still functional. Many wood doors have mesh in glass which are a potential safety hazard
- Interior wall finishes are in fair condition with some areas recently painted
- Resilient tile flooring are in poor condition and were identified potentially to contain asbestos due to age
- Ceiling tiles show signs of previous leaks, some damage throughout, and a couple fallen tiles
- Wood flooring in gym is in poor condition with coating poor applied

Utilities

- Food services and locker equipment noted to be in poor condition

Site Improvements

- Site lighting appears to provide insufficient and could benefit from increased coverage for better visibility and safety
- Parking lot paving and painting are in very poor condition and in need of replacement soon
- Pedestrian paving is in similarly poor condition with multiple cracks and tripping hazards

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Mountain View Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Mountain View Middle School*

Age: 1969

Size (SF): 133,942

Area: 23.18 acres

Assessment Date: 10/14/19

Student Population: 853

School Ratings

Facility Conditions Index: 0.221

Avg Condition Score: 3.76 out of 5

Asset Count: 161

Energy Use Intensity: 50.11

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $26,587,328

Year 1 Asset Replacement Cost: $10,625,793

Current Replacement Value: $71,525,028

Energy Spend*

Electricity: $80,678

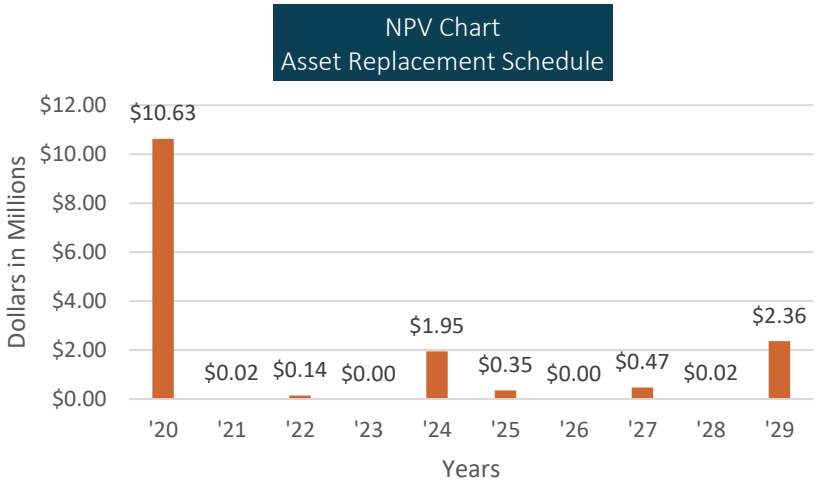
Natural Gas: $36,238

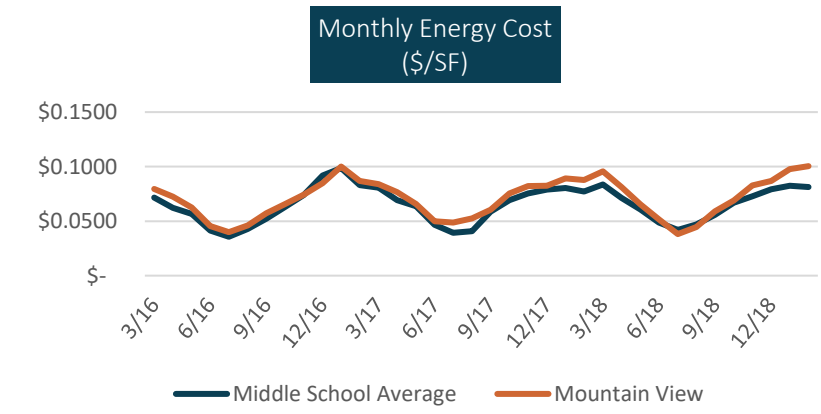
Water Spend*: $40,652

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$8,972,775	S6	NA
Electrical	Switchboards, Panels	$672,070	5	1
Electrical	Lighting	$435,312	5	1
Electrical	Voice/Data Systems	$200,913	5	1
Mechanical	HVAC – Exhaust fans	$50,500	5	1
Mechanical	HVAC – Make-up Air Unit	$119,086	4	3

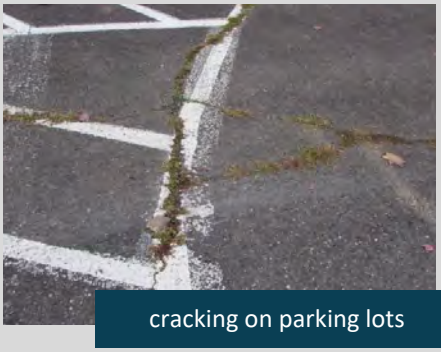




newly installed TPO roof

damage to gym ceiling

heavy dust at base of panels



cracking on parking lots

General Building Condition

Roof

- Newer TPO roof is in excellent condition

Mechanical/HVAC

- School wide controls issues were noted that cause package units to need to be reset for heating and cooling loads
- Mechanical equipment is overall in fair condition.
- Inadequate exhaust was noted in science rooms. Ventilation should be increased in these spaces

Electrical

- Zinsco electrical panels were noted be in very poor condition and present a potential fire hazard
- Electrical panels have accumulated heavy dust at the base of panels which are a serious arc flash hazard. These should be cleaned to minimize the hazard. Additionally, some panels are missing cover plate

  Lighting panels have also accumulated some dust and should be cleaned as well to minimize safety hazard

Plumbing

- Plumbing fixtures are noted to be in fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Many doors are in poor condition in need of re-finishing. Some doors also have metal mesh in glass which is a safety hazard and should be replaced
- Inefficient single-paned windows are recommended for replacement
- Interior wall finishes are in good to fair condition. Only minor dents were noted in the drywall
- Resilient tile and sheet flooring has minor damage and cracking
- Ceiling finishes are in fair condition. Some areas show signs of water stains and damage
- Carpet floor and stair finishes are in poor condition with significant wear and staining in areas. These carpet areas should be replaced soon

Utilities

- Bell schedule system fails frequently and should be replaced
- Camera system in place is in poor condition. Some interior cameras are not working and camera coverage should be increased overall

Site Improvements

- Weatherstripping is missing on a number of exterior doors and should be restriped to minimize building air leakage
- Parking lots and pedestrian paving is in poor condition. Parking lots have damaged areas with cracking and alligatoring. Pedestrian paving has cracking, sunken portions, and multiple trip hazards.
- Exterior walls have minor cracking and areas where re-caulking is needed

Stoller Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Stoller Middle School*

Age: 1999

Size (SF): 143,788

Area: 16.89 acres

Assessment Date: 12/10/19

Student Population: 1,560

School Ratings

Facility Conditions Index: 0.201

Avg Condition Score: 3.40 out of 5

Asset Count: 244

Energy Use Intensity: 46.21

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $30,734,511

Year 1 Asset Replacement Cost: $640,430

Current Replacement Value: $76,782,792

Energy Spend*

Electricity: $125,313

Natural Gas: $18,159

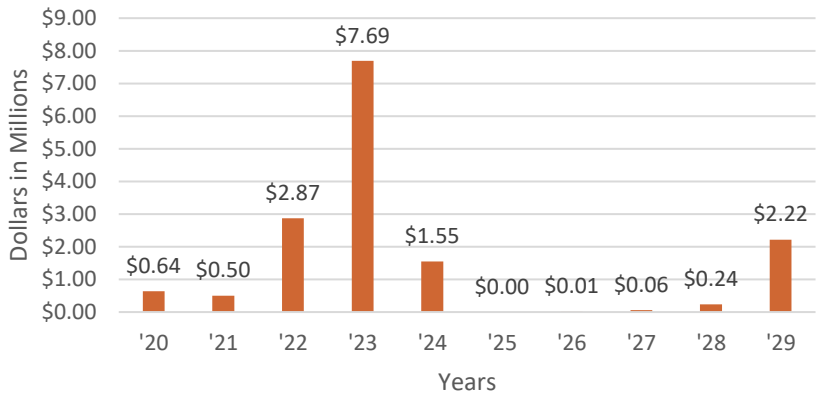
Water Spend*: $18,842

**3/19 – 2/20*

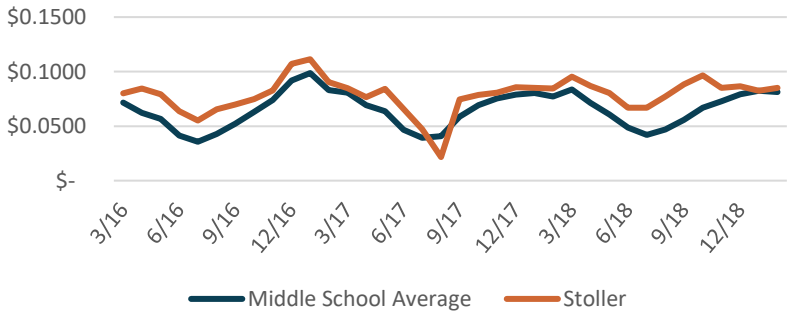
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$6,880,256	S4	NA
Interior Finishes	Carpet	$489,598	5	1
Mechanical	HVAC – Air Conditioner	$125,000	5	1
Mechanical	HVAC General	$1,529,098	4	3
Commercial Equipment	Food Service	$92,900	4	3
Mechanical	Boiler/AC/Exh Fans	$1,224,988	3	3

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



moss build up on roof

damaged AHU filters

damaged ceiling finish

cracking and worn parking lot

General Building Condition

Roof

- Cumulative moss build-up on roof needs cleaning
- Significant evidence of students getting on rooftop which is a safety hazard. Roof should be secured to limit unwanted access
- Access to lower roof area is unsafe for mechanics

Mechanical/HVAC

- Mechanical equipment was found to be in very poor condition overall. There is significant damage to fits of cooling units. There are also damaged filters and missing panels on air handler
- Several hot and cold areas were identified throughout the building
- Building controls are an older system that is in poor condition

Electrical

- Improper storage was noted in front of electrical panels. These items should be relocated to ensure safe access to panels
- Lighting controls were noted to be aged and faulty

Plumbing

- In cafeteria, water heaters have corrosion at the base and are leaking (notified maintenance already); causing damage to wallboard
- Mixing station for domestic hot water of the east side of campus is heavily corroded and leaking (district has been notified)

Fire, Life, Safety

- Fire extinguisher visual testing was noted to be inconsistent
- Some leaks in VIC fitting at fire standpipes
- All storm drain should be cleaned

Interior Finishes

- Ceiling tiles in are stained and damaged in many areas; recommend spot replacement
- In general, tile floors are at or near poor condition; recommend repair and maintenance program if they aren't going to be replaced
- Metal mesh was noted on many interior windows. These are a potential safety hazard

Utilities

- Cafeteria was assessed to be too small for the school. Kids end up sitting on the floor at lunchtime
- Science classroom is in poor condition. Floors are worn and fixtures are dated
- Noise penetrates frequently from drama room into art studio

Site Improvements

- Parking lots are in poor condition with accumulated moss growth, alligatoring, cracking, and worn painting
- Rear door to play field not closing properly. This should be fixed to properly secure school perimeter

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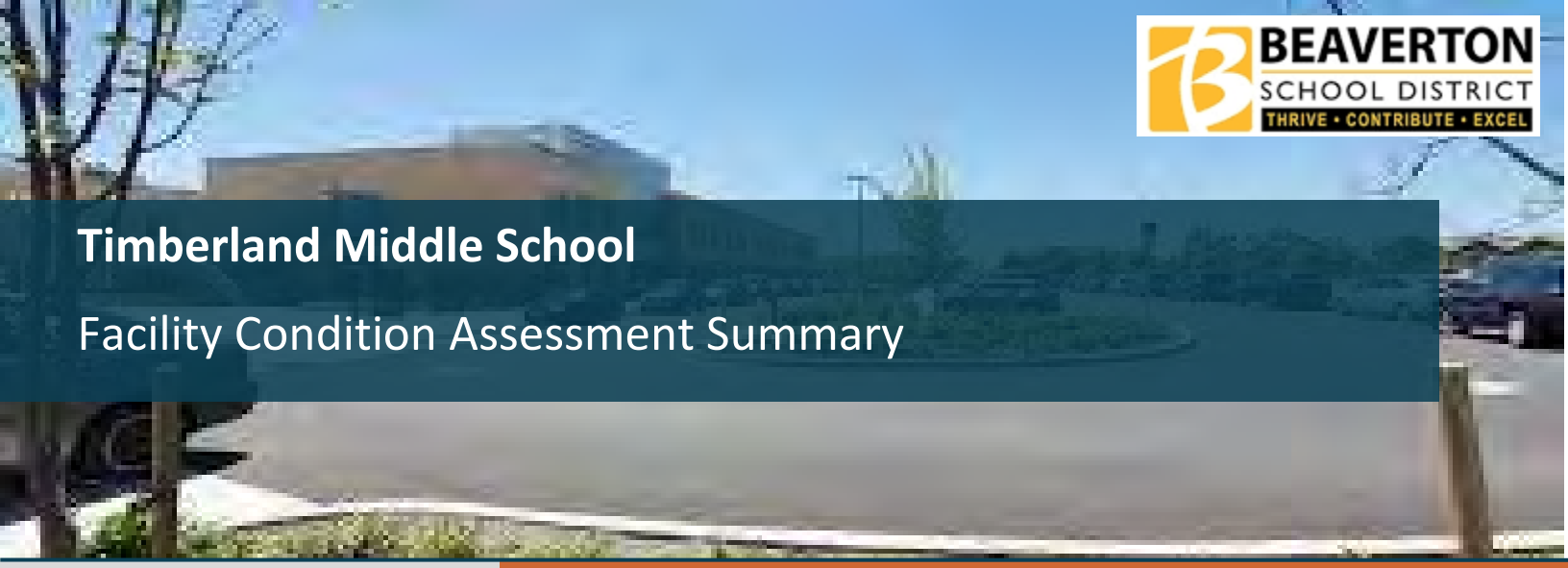


Timberland Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Timberland Middle School*

Age: 2016

Size (SF): 160,600

Area: 16.28 acres

Assessment Date: 12/16/19

Student Population: 1,100

School Ratings

Facility Conditions Index: 0.032

Avg Condition Score: 1.03 out of 5

Asset Count: 287

Energy Use Intensity: 36.18

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $17,697,555

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $88,644,000

Energy Spend*

Electricity: $62,243

Natural Gas: $34,053

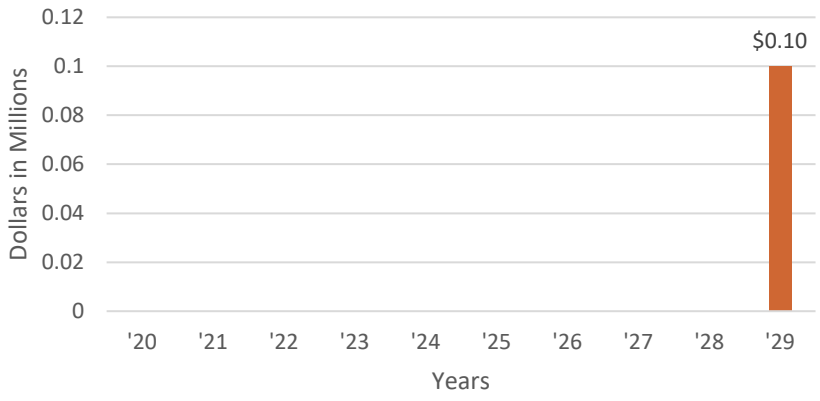
Water Spend*: $35,314

**3/19 – 2/20*

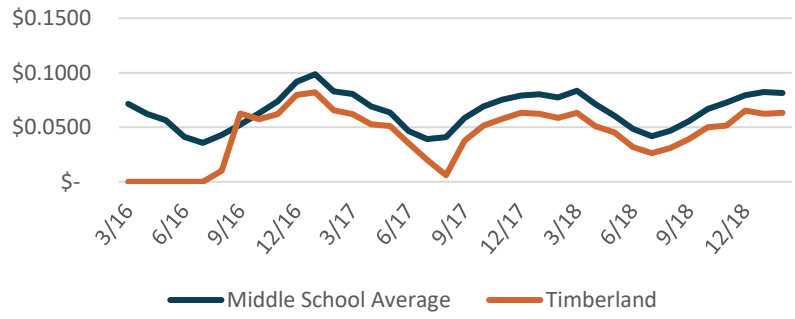
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Interior Finishes	Floor Finish buckling	$103,335	2	26
Mechanical	Radon Exhaust Fan Cloth Transition	10,988	2	20
Interior Finishes	Kitchen dry storage wall	$25,481	2	26

NPV Chart
Asset Replacement Schedule

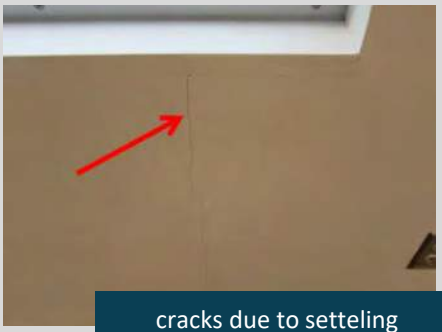


Monthly Energy Cost
($/SF)



cloth transition failing

solar on roof



cracks due to setteling

window gaps

General Building Condition

Roof

- Roofing is new and in great shape

Mechanical/HVAC

- The cloth transitions failing on Radon exhaust fans under slab
- All HVAC system is new and in good operations.
- Building could benefit from a retro-commissioning program.

Electrical

- All electrical is in good shape
- Lighting controls have motion sensing and day-light harvesting
- Facility has solar on the roof that is operating well

Plumbing

- All plumbing equipment is new and in good shape
- All plumbing fixtures are manually operated

Interior Finishes

- Settling in the walls near room C122 has caused a crack
- settling has affected polished concrete floors and wall in C123
- Water damage in ceiling tiles in C119B storage room

Utilities

- Should plan for cleaning of storm sewers every 10 years

Site Improvements

- Some restriping needed in parking lots
- Some minor cracking in pedestrian paving
- Minor settling of foundation causing gap to form in window area

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Whitford Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Whitford Middle School*

Age: 1963

Size (SF): 116,962

Area: 23.41 acres

Assessment Date: 9/16/19

Student Population: 706

School Ratings

Facility Conditions Index: 0.316

Avg Condition Score: 3.97 out of 5

Asset Count: 215

Energy Use Intensity: 34.42

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $28,457,635

Year 1 Asset Replacement Cost: $13,353,973

Current Replacement Value: $62,457,708

Energy Spend*

Electricity: $47,366

Natural Gas: $20,744

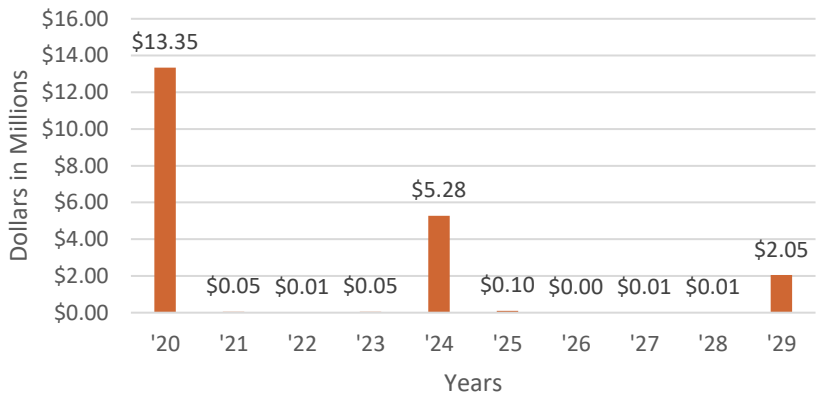
Water Spend*: $8,981

**3/19 – 2/20*

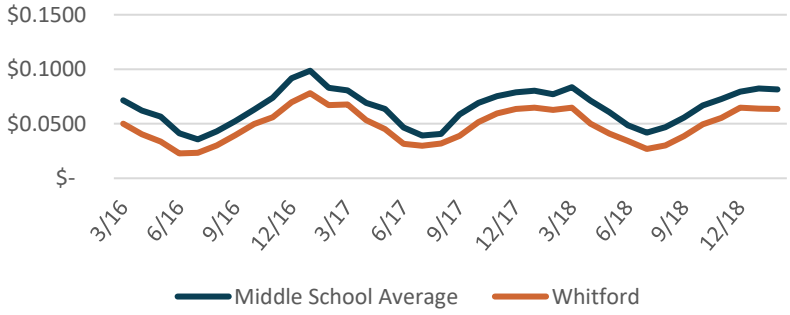
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$10,073,937	S6	NA
Mechanical	Unit Ventilators	$1,754,683	5	1
Exterior Enclosures	Aluminum Windows	$445,625	5	1
Mechanical	HVAC – Air Handling Units	$400,000	5	1
Electrical	Switchboards, Panels	$180,170	5	1
Mechanical	HVAC- Chillers	$111,139	5	1
Plumbing	Water Heater/Pump	$51,906	5	1

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



significant moss growth on roof

cracking along window

eroded insulation on mini-split

worn and cracked paving

General Building Condition

Roof

- Roof is in poor condition with significant moss growth, many soft spots, exposed seams, and areas of standing water

Mechanical/HVAC

- Mechanical equipment was noted to be in fair condition overall, but ductwork was noted to be in poor condition and could use some work
- JCI and pneumatic controls were present on site. Pneumatic controls are in poor condition and should be considered for upgrade
- Insulation was missing or eroded on mini-split condensers outside
- A potential leak was noted at boiler #2.
- Air compressor was noted to note be working.

Electrical

- Most electrical equipment is in fair condition. The older electrical panels from the 1960's should be replaced soon. Exposed wiring was noted at Panel 2BH
- Lighting controls are in poor conditions and timers need to be adjusted

Plumbing

- Plumbing equipment was overall found to be in fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Inefficient single pane windows should be replaced
- Some interior doors and windows have metal mesh in glass which is a potential safety hazard
- Resilient floor tiles show significant signs of wear. These tiles are also suspected to potentially contain asbestos material
- Ceiling finishes are fair condition with limited signs of leaks and repairs
- Stairs are very worn in high traffic areas

Utilities

- Site communication and security was found to be in fair to food condition.

Site Improvements

- Parking lots and pedestrian paving both in poor condition with cracking and worm paint in several spots. Pedestrian paving has some protruding cement and metal which pose a trip hazard
- Cracking present along masonry of window frames. Additionally, window seals should be replaced
- Exterior walls could benefit from new paint

Aloha High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Aloha High School*

Age: 1968

Size (SF): 260,677

Area: acres 31.21

Assessment Date: 10/3/19

Student Population: 1,751

School Ratings

Facility Conditions Index: 0.187

Avg Condition Score: 4.1 out of 5

Asset Count: 505

Energy Use Intensity: 44.5

EUI Target (<50 hrs/wk): <37

EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $54,179,012

Year 1 Asset Replacement Cost: $4,735,225

Current Replacement Value: $153,786,396

Energy Spend*

Electricity: $175,565

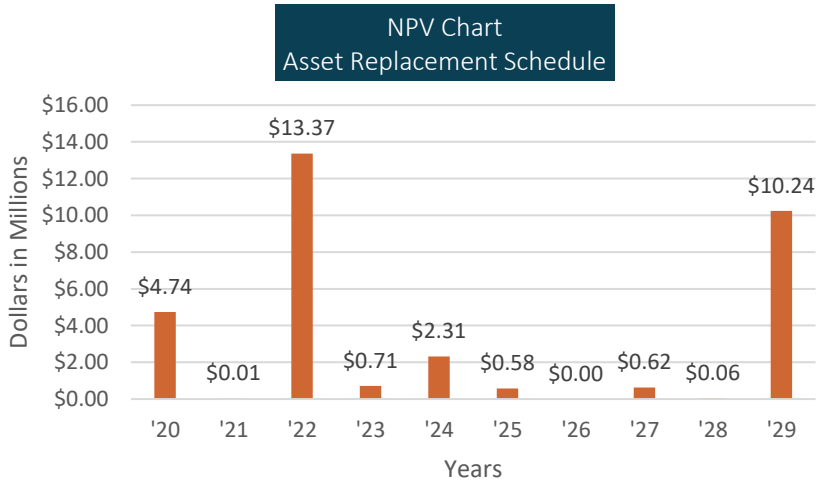
Natural Gas: $41,832

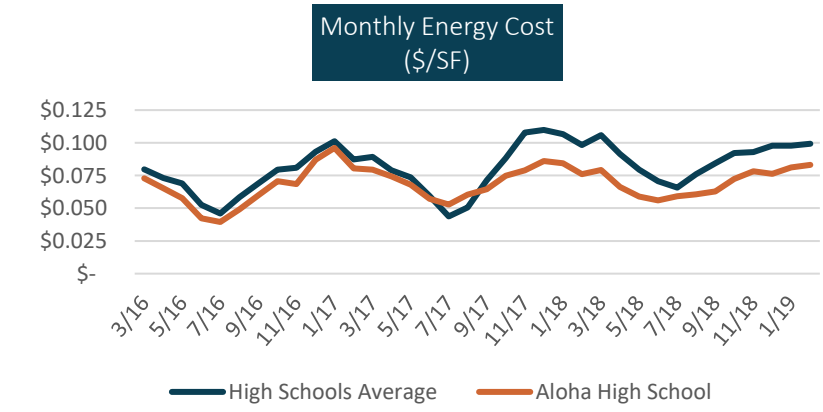
Water Spend*: $43,153

**3/19 – 2/20, includes spec ed spaces*

Critical Asset Infrastructure – Replacement Priority

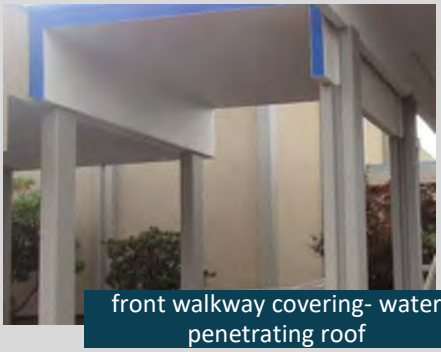
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$12,473,394	S4	NA
Mechanical	HVAC – Air Handling Units	$1,558,482	5	1
Plumbing	Pumps, storage tanks	$592,954	5	1
Mechanical	Other	$1,222,341	5	1
Electrical	Switchboards, Panels	$581,210	5	1
Mechanical	HVAC- Boiler	$82,110	5	2





General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information



front walkway covering- water penetrating roof

corroded, rusty pumps

masonite panel cover

cracks in sidwalks

Roof

- Front covered walkway has water penetrating roof concrete causing deterioration. As a result, concrete debris is falling to sidewalk below
- Moss build-up and exposed seams in areas above shop. Large seam in caulking near auditorium has failed and allowing water to enter building

Mechanical/HVAC

- Numerous corroded and rusty pumps at end of life
- Pneumatic controls in older sections of the building have multiple air leaks
- Multiple exhaust fans on the roof not operating. Many have exceeded expected life
- Poor ventilation in science rooms
- Many air handlers have met and exceeded expected useful life
- Multiple hot cold issues observed. Building needs a complete rebalancing (Existing Building Commissioning) project

Electrical

- Multiple panels have exposed busway (notified maintenance of hazard)
- Panel 2GC near gymnasium has wood Masonite being used as front panel (notified maintenance of hazard)

Plumbing

- Many heating water pumps have met or exceeded life expectancy
- Many old inefficient plumbing fixtures in the building

Fire, Life, Safety

- Main Simplex panel in trouble for two days while on site performing inspection

Interior Finishes

- Multiple ceiling tiles are stained and damaged. Recommend spot replacement
- Many resilient tiles have cracks, stains, or are missing in older sections of the building; recommend repair and maintenance program if they aren't going to be replaced

Conveyance

- Grandstand elevator is significantly damaged and appears non-functional. It is chain locked to keep people out

Utilities

- Recommend restricting access at main entrance. There are no barriers to keeping strangers from entering building

Site Improvements

- Many cracks in parking lots. Re-striping needed in some areas
- Multiple cracks in sidewalks

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Beaverton High School
Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Beaverton High School

Age: 1915/1938

Size (SF): 264,016

Area: 26.23 acres

Assessment Date: 6/19/19

Student Population: 1,469

School Ratings

Facility Conditions Index: 0.337

Avg Condition Score: 3.04 out of 5

Asset Count: 508

Energy Use Intensity: 61.4
EUI Target (<50 hrs/wk): <37
EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $155,756,239

Year 1 Asset Replacement Cost: $31,657,738

Current Replacement Value: $103,302,624

Energy Spend*

Electricity: $199,374

Natural Gas: $58,616

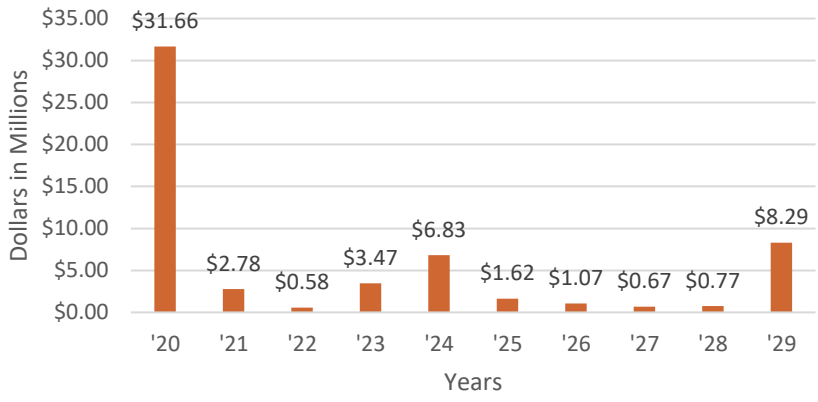
Water Spend*: $35,006

**3/19 – 2/20*

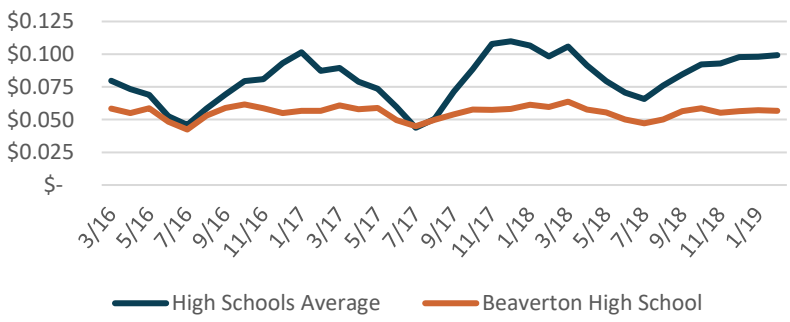
Critical Asset Infrastructure – Replacement Priority

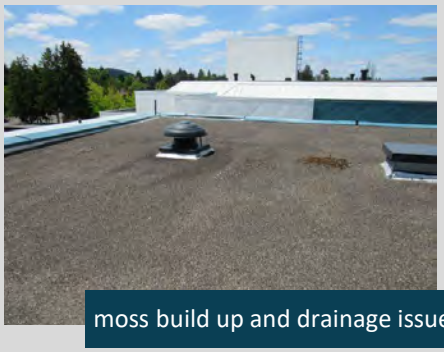
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$29,092,532	S6	NA
Structural - Cafeteria	Seismic	$878,662	S3	NA
Electrical	Switchboards, Panels	$618,361	5	1
Mechanical	HVAC – Air Handling Units	$903,046	5	1
Mechanical	Other	$414,101	5	1
Mechanical	HVAC- Chillers	$365,932	4	2
Roof	Built-Up	$4,118,650	4	5

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)

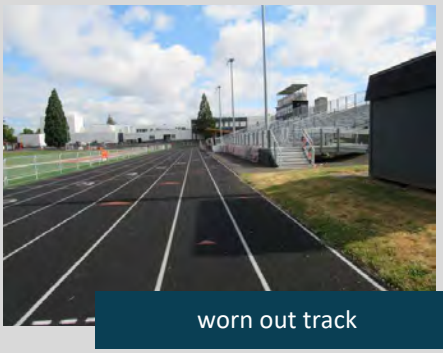




moss build up and drainage issues

pneumatic controls

corroded water heater



worn out track

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Moss build-up, exposed seams, and partially clogged drains on rooftop Recommend moss removal, seal, and drain cleaning

Mechanical/HVAC

- Restrooms reported to be ventilated poorly; recommend study to determine adequate additional exhaust
- Exhaust fans for locker rooms do not operate
- West side of the building's control system is pneumatic and obsolete
- Science rooms should be considered for increased ventilation
- Recommend additional ventilation for Annex Building due to change in space use
- Boilers have maintenance issues with tripping breakers and chemical balance
- Building needs a complete rebalancing (Existing Building Commissioning) project

Electrical

- Panel 2H near concessions has exposed busway (notified maintenance of hazard)
- T-12 lighting should be upgrading (Mostly Annex Building)

Plumbing

- In cafeteria, water heaters have corrosion at the base and are leaking (notified maintenance already); causing damage to wallboard
- Mixing station for domestic hot water of the east side of campus is heavily corroded and leaking (district has been notified)

Fire, Life, Safety

- All storm drains should be cleaned

Interior Finishes

- Ceiling tiles are stained and damaged in many areas; recommend spot replacement
- In general, tile floors are at or near poor condition; recommend repair and maintenance program if they aren't going to be replaced

Conveyance

- Grandstand elevator has corrosion due to driving rain and no shielding

Utilities

- Recommend increasing surveillance coverage
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Synthetic track has many patches and rubber is showing a lot of deterioration
- Tennis court surface is warped, and fence needs repair

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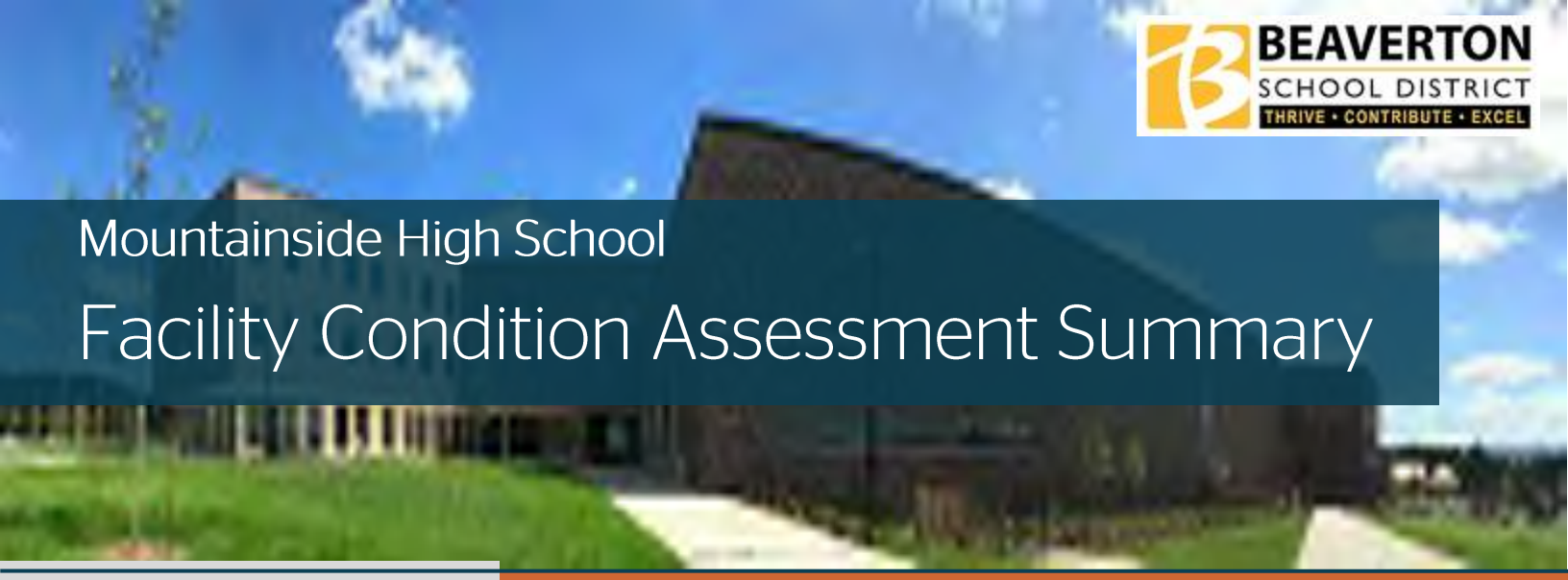


Mountainside High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Mountainside High School*

Age: 2017

Size (SF): 342,000

Area: acres 46.15

Assessment Date: 11/12/19

Student Population: 1,787

School Ratings

Facility Conditions Index: 0.021

Avg Condition Score: 1.02 out of 5

Asset Count: 546

Energy Use Intensity: 33.78

EUI Target (<50 hrs/wk): <37

EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $34,076,158

Year 1 Asset Replacement Cost: $3,750

Current Replacement Value: $201,762,900

Energy Spend*

Electricity: $172,281

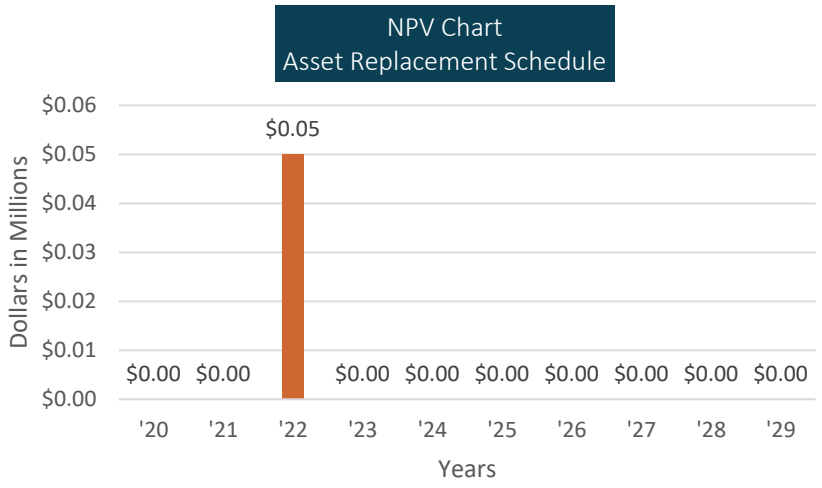
Natural Gas: $44,305

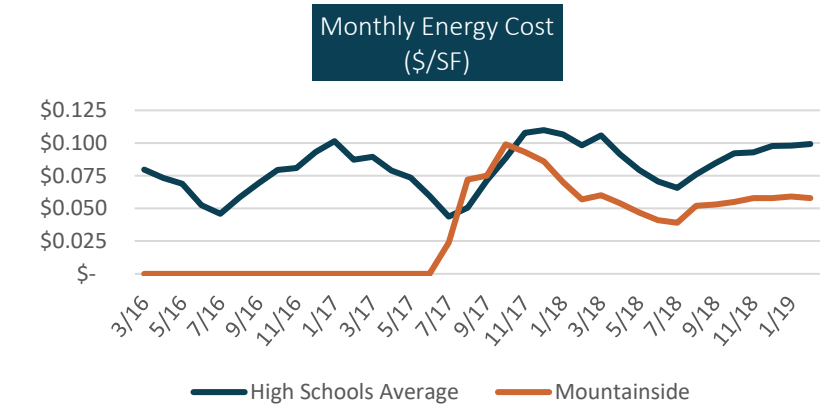
Water Spend*: $43,117

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Mechanical	HVAC- AC	$3,750	5	1
Utilities	Storm Sewer Site Work	$50,000	3	3





water not properly draining

package HVAC equipment

new water heater

crack on womens locker room wall

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Multiple low points on roof where water will not drain

Mechanical/HVAC

- Boys locker room has poor ventilation. Need to increase supply and exhaust for better air exchanges
- HVAC equipment is in like new, excellent condition
- JCI Controls

Electrical

- Proper storage procedures in place in electrical rooms
- All electrical equipment is in like new condition

Plumbing

- All plumbing devices and fixtures in like new-excellent condition

Fire, Life, Safety

- Sprinklers and fire alarm system brand new

Interior Finishes

- Wall in girls locker room is cracked showing evidence of building settling
- In general, all interior finishes are in like new condition

Conveyance

- Elevators are in like new condition

Utilities

- Site LED lighting in like new condition

Site Improvements

- Parking lots in excellent condition
- Excellent perimeter fencing and security

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Southridge High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Southridge High School*

Age: 1999

Size (SF): 342,000

Area: 32.39 acres

Assessment Date: 6/3/19

Student Population: 1,380

School Ratings

Facility Conditions Index: 0.187

Avg Condition Score: 3.05 out of 5

Asset Count: 341

Energy Use Intensity: 48.15

EUI Target (<50 hrs/wk): <37

EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $64,456,872

Year 1 Asset Replacement Cost: $273,848

Current Replacement Value: $151,068,496

Energy Spend*

Electricity: $219,040

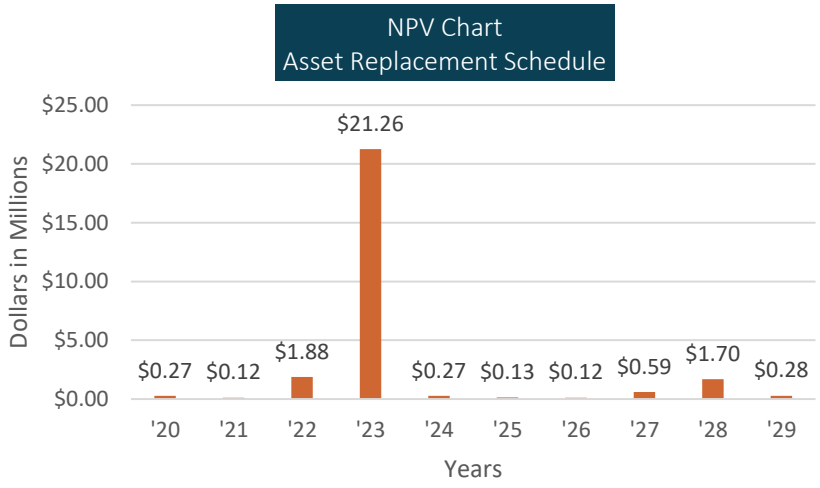
Natural Gas: $33,536

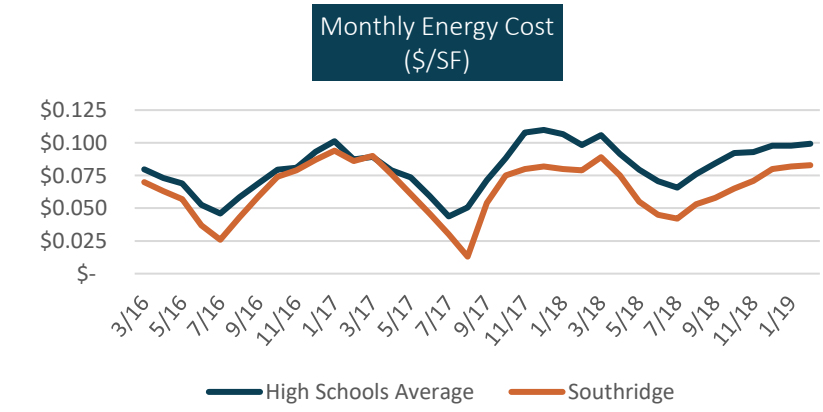
Water Spend*: $33,278

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

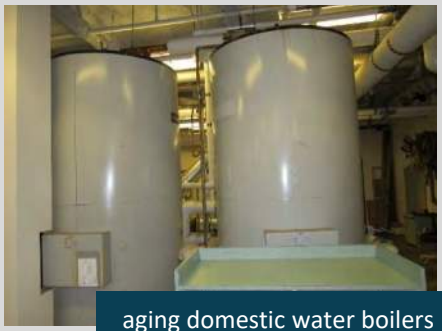
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$7,351,770	S4	NA
Mechanical	HVAC	$116,148	5	1
Exterior Enclosures	Aluminum Windows	$64,018	4	2
Mechanical	Boiler/Pump	$564,964	4	3
Commercial Equipment	Food Service	$52,800	4	3
Interior Finishes	Floor Finishes	$599,204	4	3



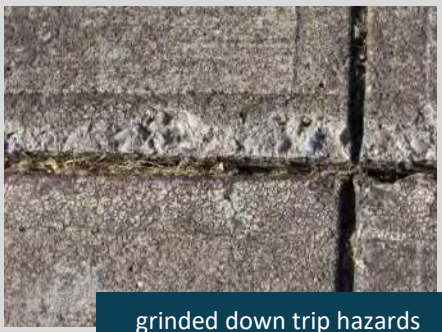


roof condition due to standing water

rooftop mechanical equipment



aging domestic water boilers



grinded down trip hazards

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Standing water noted near drains. A twice a month drain cleaning schedule is recommended during the rainy seasons to extend the life of the roof.
- The metal roof over the gym and some areas around “fishbowl” type skylights were noted to leak occasionally.

Mechanical/HVAC

- Science rooms exhaust should be investigated to ensure that enough capacity is available.
- Filter checks and replacements should be conducted on a regular basis. Filters inspected during site visits needed changing.
- Existing micro tech controllers are obsolete and due for needs replacement as parts are no longer availabe.
- Considerable balancing issues noted. A balancing project is recommended in the near future to ensure appropriate adjustments are made.

Electrical

- General electrical housekeeping should be completed to take care of exposed terminals, test 100A ground faults, and remediate electrical room floods.
- T-8 and T-5 lighting used throughout the school.

Plumbing

- Domestic water boilers are near the end of their useful life and exhibit cross over issues with hot and cold water leading to distribution issues at times.
- The site’s sanitary system and sewage ejection system has several known issues as a result of some initial design flaws.. The site potentially needs a separate grey water system and a redundant system for pumping.

Fire, Life, Safety

- All storm drains should be cleaned
- Fire sprinkler room sensor was broken and needs to be replaced.

Interior Finishes

- Ceiling tiles in are stained and damaged in many areas; recommend spot replacement. Sound dampening “magic carpets” are failing in main hallway and should be replaced with alternative options.
- Some minor damage to wall finishes particularly in the athletic wing.
- Several floor finishes in need of replacement in the near future.

Conveyance

- Elevator car condition is poor and in need of refurbishment.

Utilities

- Card readers are in the process of being standardized on site.

Site Improvements

- Some cracks notes along paved areas though potential trip hazards were mitigated and grinded down.
- Landscaping is in excellent condition at the front of the school, but condition decreases further back from the roadway.

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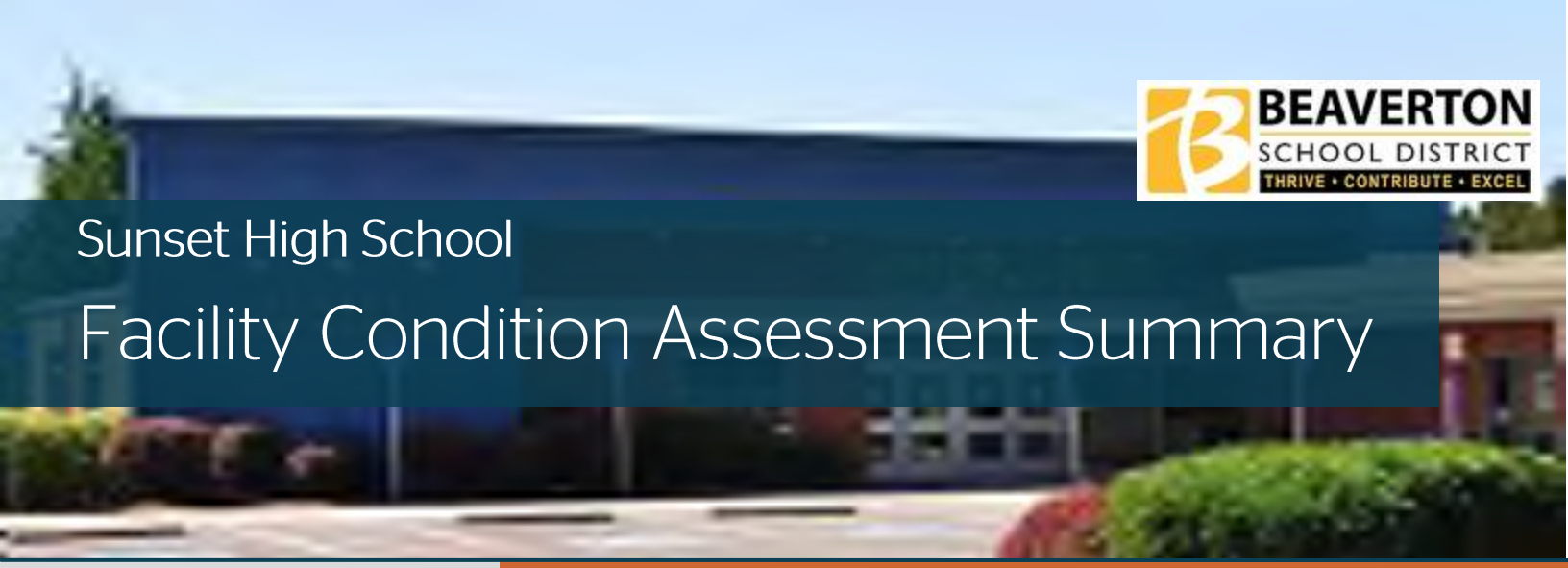


Sunset High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Sunset High School*

Age: 1958

Size (SF): 253,727

Area: 38.06 acres

Assessment Date: 8/26/19

Student Population: 1,971

School Ratings

Facility Conditions Index: 0.280

Avg Condition Score: 3.72 out of 5

Asset Count: 381

Energy Use Intensity: 50.68

EUI Target (<50 hrs/wk): <37

EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $63,574,767

Year 1 Asset Replacement Cost: $5,120,186

Current Replacement Value: $149,686,244

Energy Spend*

Electricity: $152,542

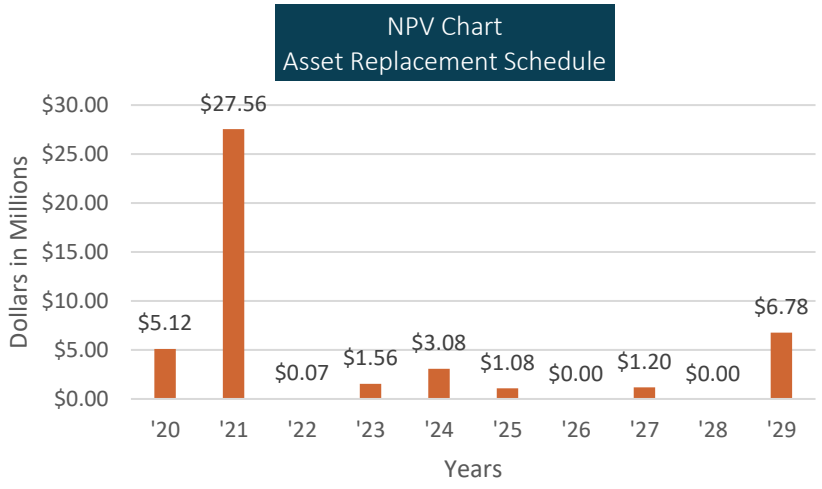
Natural Gas: $50,112

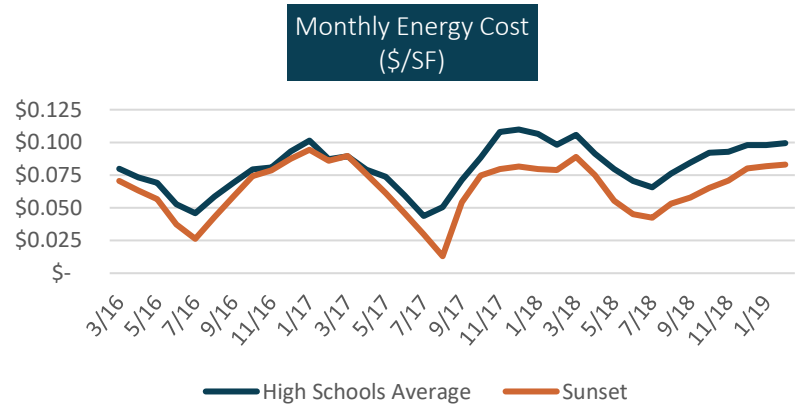
Water Spend*: $58,995

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$26,709,841	S5	NA
Mechanical	HVAC – Air Handling Units	$420,000	5	1
Mechanical	Other	$1,362,609	5	1
Plumbing	Domestic Water Dist.	$1,847,133	5	1
Exterior Enclosures	Aluminum Windows	$870,030	4	1





cracks in exterior brick

air handler missing belt guard

improper storage in front of electrical equipment

hazardous track condition

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Exterior Enclosure

- Cracks in brick near boiler room
- Many roof drains in need of cleaning

Mechanical/HVAC

- Most insulation in mechanical room in need of replacement
- Bad water feed valve causing condensate to overflow onto concrete floor in mechanical room
- Condensate pumps throughout steam tunnels periodically failing
- Science rooms should be considered for increased ventilation
- Significant air leak above air compressor (notified maintenance personnel of finding)
- Air handler over stage belt guard not attached-Hazardous condition

Electrical

- Panel 2BB in I Hall near women's restroom has exposed busway (notified maintenance personnel of hazard)
- Many electrical rooms used for storage. Recommend maintaining a 4' clearance in front of panels and transformers
- Many exterior lights on during the day due to failed photocells or failed timers

Plumbing

- Old galvanized domestic water pipe is failing intermittently
- Hot water boiler #2 leaking condensate at flue exhaust joint

Fire, Life, Safety

- No sprinkler coverage in T-Hall building

Interior Finishes

- Ceiling tiles are stained throughout building. Many loose lay-in ceiling tiles
- In general, floors are in good to excellent condition

Conveyance

- Wheelchair lift near gym in good working condition

Utilities

- Storm drains need cleaning
- Parking lot lighting has poor coverage and portions of light fixtures in need of LED upgrade

Site Improvements

- Significant cracks in sidewalks at street side of building
- Minor cracks in asphalt parking lots. New striping needed
- Practice track is in poor shape. Significant hazard as edge of track where there is a deep drop off. Rubber is showing a lot of deterioration

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BEAVERTON SCHOOL DISTRICT THRIVE • CONTRIBUTE • EXCEL

Westview High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Westview High School*

Age: 1994

Size (SF): 281,183

Area: 44.65 acres

Assessment Date: 12/3/19

Student Population: 2,382

School Ratings

Facility Conditions Index: 0.176

Avg Condition Score: 3.57 out of 5

Asset Count: 391

Energy Use Intensity: 47.38

EUI Target (<50 hrs/wk): <37

EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $60,249,037

Year 1 Asset Replacement Cost: $608,393

Current Replacement Value: $165,883,911

Energy Spend*

Electricity: $207,386

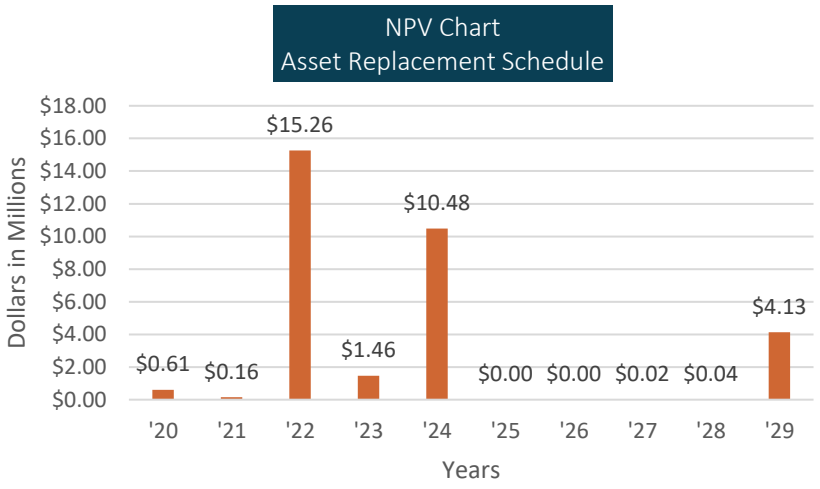
Natural Gas: $41,042

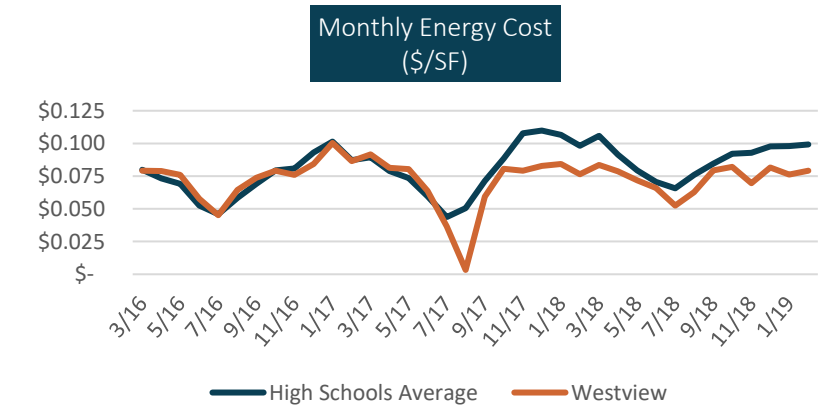
Water Spend*: $65,767

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$13,454,607	S4	NA
Mechanical	HVAC	$37,300	5	1
Plumbing	Water Heater	$95,066	5	1
Electrical	Closed Circuit Surveillance	$154,651	5	2
Mechanical	System Test & Balance	$410,527	4	1
Mechanical	Boiler	$230,411	4	2
Electrical	Generator	42,000	4	3





bird damage on exterior parapets

improper storage

water heater burner tube

worn our tennis court

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Existing roof covering appears to be in good condition.
- Bird guards should be installed on roof exterior parapets.

Mechanical/HVAC

- Existing mechanical equipment are primarily in fair condition.

Electrical

- Existing electrical equipment is in fair condition.
- Improper storage should be removed from electrical rooms.
- Closed circuit surveillance system is worn out with several cameras no longer working.
- Lighting control system is manual with motion.

Plumbing

- The water heater serving the kitchen has a burner tube that has eroded significantly due to highly acidic condensate collecting in the boiler vessel. The unit should be replaced.
- Some poor rainwater drainage spots were identified.

Fire, Life, Safety

- Fire protection equipment appear to be in good condition.
- All storm drain should be cleaned

Interior Finishes

- All woods doors have wire glass which is a potential safety concern.
- Most interior finishes are in fair to good condition. Carpet and resilient sheet flooring areas show the most amount of wear.

Utilities

- Site lighting includes metal halide.
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Parking lots and pedestrian paving have many cracks and broken curbs.
- Synthetic grass surface on football field has degraded. Rubber base fill is noticeably visible through worn areas.
- Tracks and tennis courts show significant signs of wear with multiple cracks.

BEAVERTON SCHOOL DISTRICT
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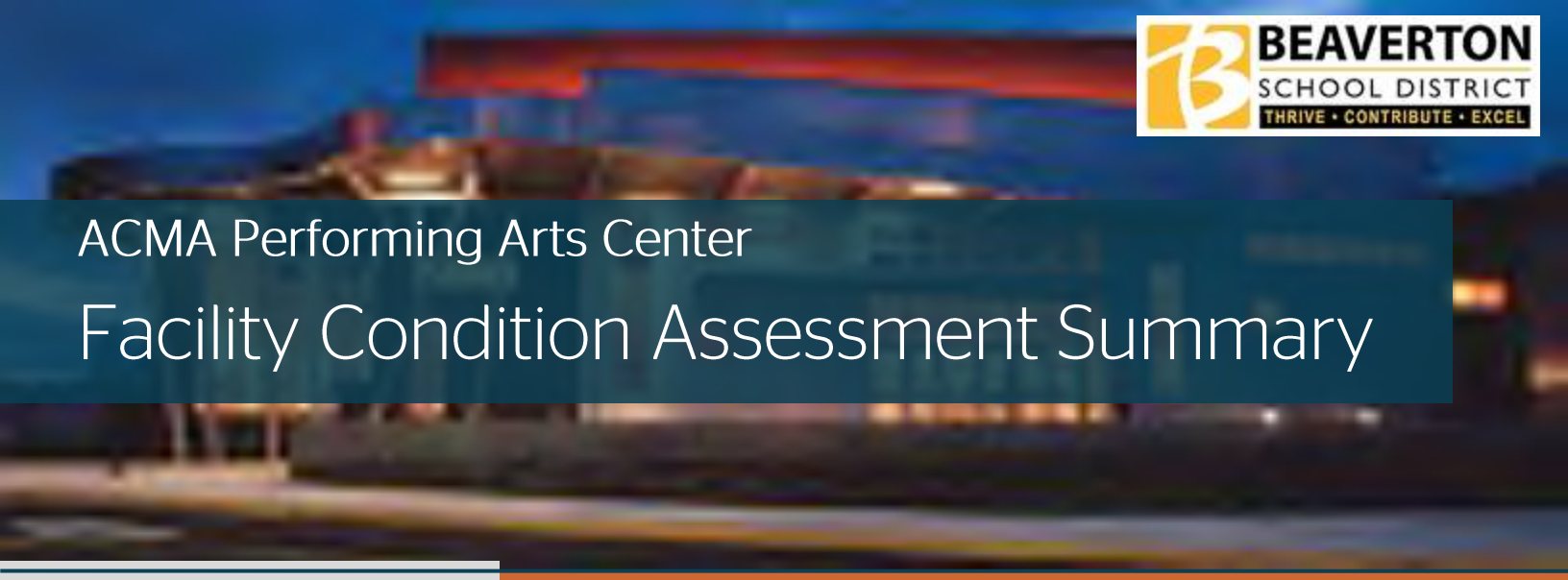


ACMA Performing Arts Center

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: ACMA Performing Arts

Age: 2010

Size (SF): 44,570

Area: 8.94 acres

Assessment Date: 11/6/19

Student Population: 338

School Ratings

Facility Conditions Index: 0.079

Avg Condition Score: 2.67 out of 5

Asset Count: 84

Energy Use Intensity: 82.46

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $3,263,575

Year 1 Asset Replacement Cost: $10,000

Current Replacement Value: $13,803,000

Energy Spend*

Electricity: $64,349

Natural Gas: $15,879

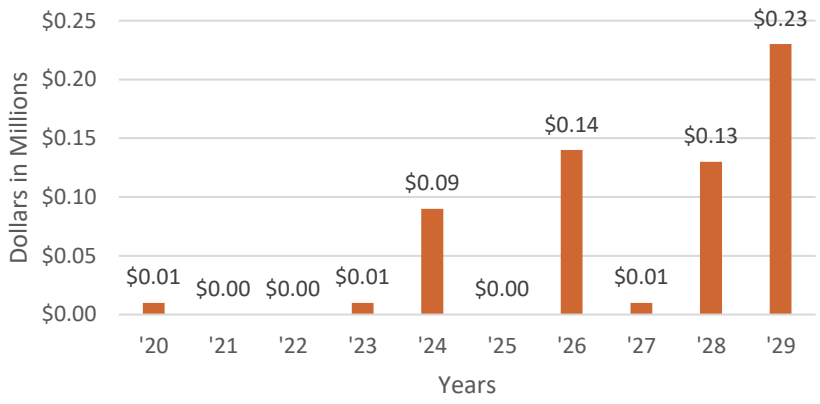
Water Spend*: $2,239

**3/19 – 2/20*

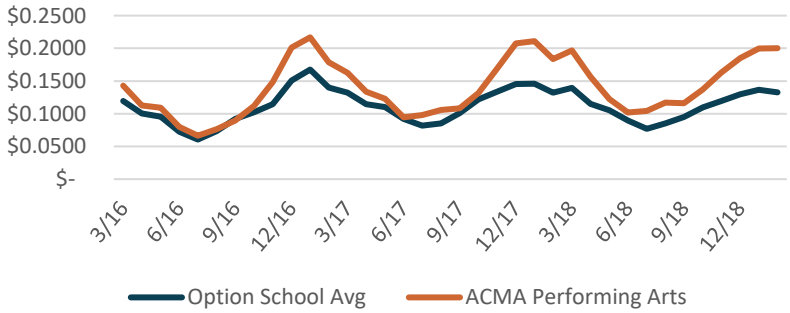
Critical Asset Infrastructure – Replacement Priority

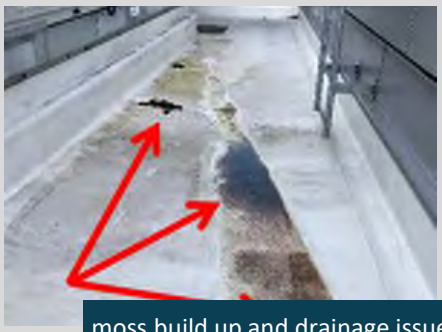
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Utilities	Storm Sewer Site Work	$10,000	4	1
Mechanical	HVAC-AHU, Test & Balance	$45,770	4	4

NPV Chart
Asset Replacement Schedule

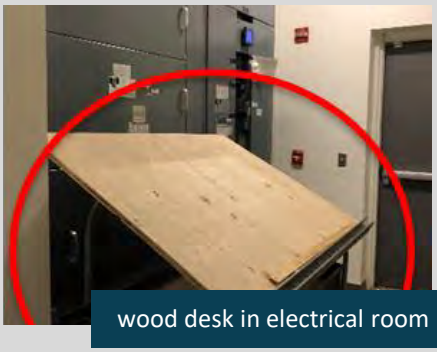


Monthly Energy Cost
($/SF)

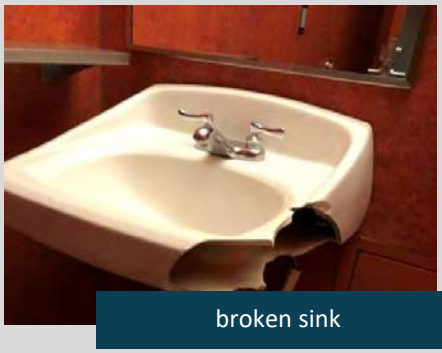




moss build up and drainage issues



wood desk in electrical room



broken sink

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Slight moss growth and clogged roof drains
- Repairs around Air Handling units needed

Mechanical/HVAC

- Roof top units are in good condition
- Insulation around refrigerant lines are all in good shape
- Building needs a complete rebalancing (Existing Building Commissioning) project

Electrical

- Lots of burned out lamps throughout facility
- Flammable wood desk in front of main electrical distribution panel. Electrical rooms should not be used as storage.

Plumbing

- Plumbing is in good shape
- One sink needs to be replaced
- All fixtures are manual, low flow. Should be upgraded to touchless

Fire, Life, Safety

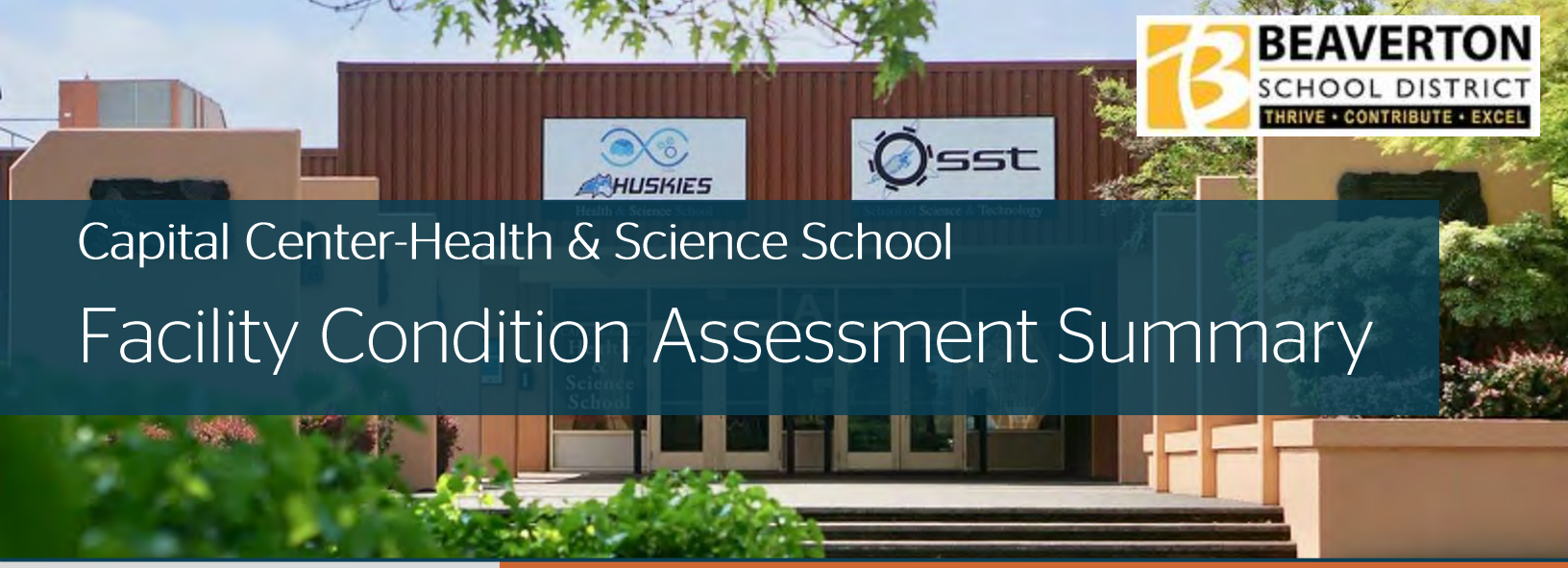
- All storm drain should be cleaned

Interior Finishes

- Carpet worn and aged
- In general, tile floors are heavily worn; recommend repair and maintenance program if they aren't going to be replaced
- Stage is worn and scratched from heavy use. Needs resurfaced and stained

Site Improvements

- Storm sewers need cleaned out



BEAVERTON SCHOOL DISTRICT
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Capital Center-Health & Science School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Capital Center Health & Science School

Age: 1970

Size (SF): 105,883

Area: 18.55 acres

Assessment Date: 9/24/19

Student Population: 881

School Ratings

Facility Conditions Index: 0.227

Avg Condition Score: 2.60 out of 5

Asset Count: 248

Energy Use Intensity: 70.25
EUI Target (<50 hrs/wk): <29
EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $25,393,374

Year 1 Asset Replacement Cost: $2,664,750

Current Replacement Value: $53,303,620

Energy Spend*

Electricity: $135,550

Natural Gas: $17,569

Water Spend*: $39,736

**3/19 – 2/20*

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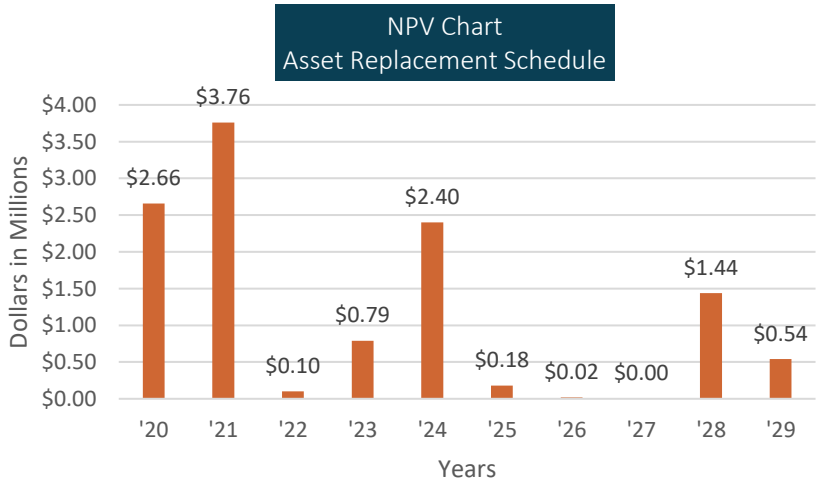
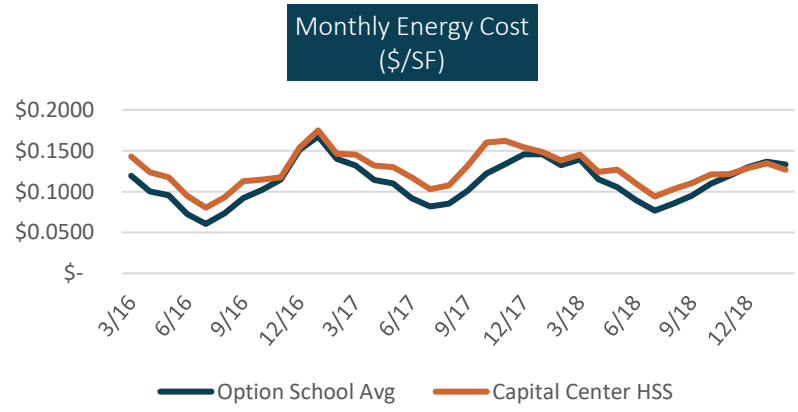
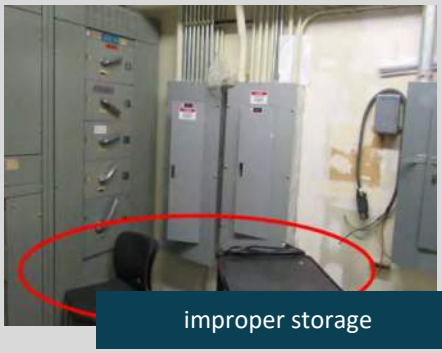
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,039,901	S5	NA
Roof	Built-Up	$275,293	5	1
Electrical	Switchboard	$219,184	5	1
Commercial Equipment	Food Service Freezer	$3,000	5	1
Mechanical	HVAC-AHU & Evap	$4,157,210	4	1
Mechanical	Other	$298,360	4	1





moss build up and drainage issues



improper storage

fire door in center of library

parking lot painting

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Significant moss growth above cafeteria in built-up section
- Older skylights have damage to casing
- Single Ply roofing is in good shape

Mechanical/HVAC

- Extensive rusting on Exhaust Fan #2
- Walk in cooler and freezer has ice buildup on connections
- Boiler pump is at end of life, has rust and corrosion present
- Kitchen single door warmer and single door freezer not working

Electrical

- Many electrical rooms have improper storage)
- T-8 lighting should be upgrading
- Panel 4F missing access handle

Plumbing

- Water heater in Area 4 has no earthquake strapping
- No drip pan catch basin on water heater or expansion tank in kitchen area
- Water Heaters are nearing the end of their life

Fire, Life, Safety

- Exposed exterior sprinkler pipe very rusty near cafeteria
- Fire door in the center of the library poses a safety hazard
- Air compressor servicing dry fire system has rust and corrosion

Conveyance

- Multiple issues with stair lift since installation

Interior Finishes

- Many interior and exterior doors with windows have glass mesh and are unsafe
- Many Lay-in ceiling tiles are broken and stained

Utilities

- Storm sewer drains need cleaning
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Asphalt near cafeteria is in poor condition
- Minor cracking evident in multiple locations around parking lot and pedestrian paving
- Parking lot at rear of building needs updated stripping

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BEAVERTON SCHOOL DISTRICT
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International School of Beaverton

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *International School of Beaverton*

Age: 1944

Size (SF): 75,585

Area: 15.45 acres

Assessment Date: 7/16/19

Student Population: 847

School Ratings

Facility Conditions Index: 0.237

Avg Condition Score: 3.46 out of 5

Asset Count: 398

Energy Use Intensity: 46.52

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $23,322,293

Year 1 Asset Replacement Cost: $9,573,178

Current Replacement Value: $40,362,390

Energy Spend*

Electricity: $62,891

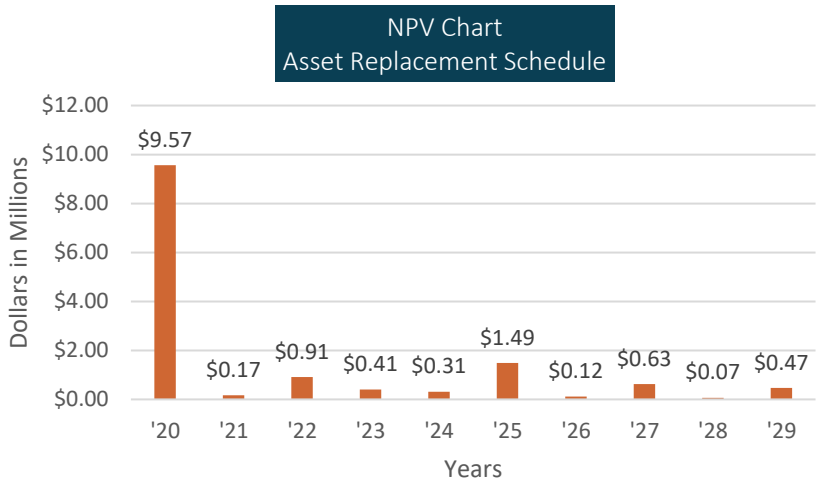
Natural Gas: $15,219

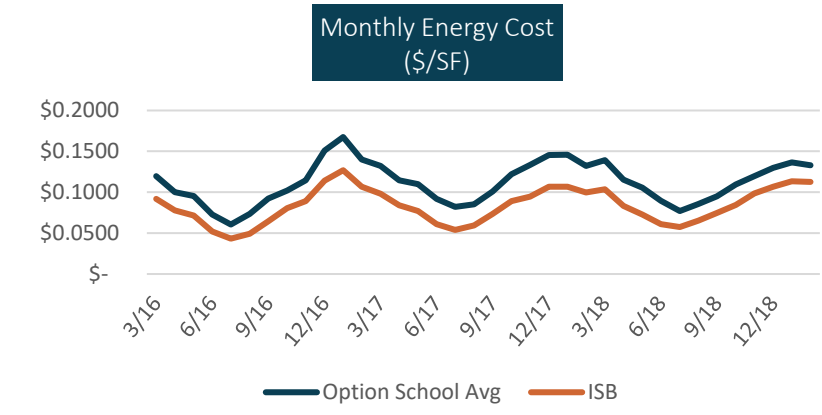
Water Spend*: $14,753

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$5,063,439	S6	NA
Roof	Built-Up	$1,105,000	5	1
Electrical	Switchboards, Panels	$727,800	5	1
Mechanical	HVAC – Condensing Unit	$614,336	5	1
Mechanical	HVAC- Heat Pump	$252,539	5	1
Mechanical	Other	$583,943	4	2
Exterior Enclosures	Walls, Windows	$318,818	4	1





moss build up and bubbling

Leaking Valves

leaking hot water heater

Clogged Storm Drains

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Moss build-up and bubbling on Built-Up portion. Recommend replacement.

Mechanical/HVAC

- Un-insulated refrigerant lines on old section of the split unit
- Modular building HVAC units very old and have failed caulking
- AHU 1 & 2 cycle on and off.
- Leaking, corrosion and rust around boilers
- Rust on Condensing units, deteriorating pipe wrap and organic growth on back of AHU 1, 2 & 3
- Rust and signs of corrosion on heat pumps on roof
- Exhaust fan broken on main office restroom

Electrical

- Upgrade remaining T8 to LED both interior and exterior

Plumbing

- Need shower station/eye wash in science labs – been on order for 3 years
- Water heaters leaking, corroded and LCD malfunctioning
- Missing earthquake valve at exterior gas piping

Fire, Life, Safety

- Sprinkler systems appear to have had issues with leaks

Interior Finishes

- Wall finishes show some cosmetic damage but generally in good condition
- Lay-in ceiling tile in Kitchen does not have moisture resistant ceiling tiles
- Carpet in modulars and in office are in poor condition

Conveyance

- Elevators are in great condition

Utilities

- Recommend increasing surveillance coverage
- Storm drain by portables clogged causing a lake. Need to be cleaned

Site Improvements

- Parking lot surfaces are cracking and paint is fading

BEAVERTON SCHOOL DISTRICT
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BEAVERTON SCHOOL DISTRICT
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Merlo Station Community High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Merlo Station Community High School*

Age: 1993

Size (SF): 51,125

Area: 4.2 acres

Assessment Date: 9/25/19

Student Population: 128

School Ratings

Facility Conditions Index: 0.173

Avg Condition Score: 2.03 out of 5

Asset Count: 150

Energy Use Intensity: 59.5
EUI Target (<50 hrs/wk): <29
EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $9,344,042

Year 1 Asset Replacement Cost: $172,036

Current Replacement Value: $26,137,656

Energy Spend*

Electricity: $45,806

Natural Gas: $8,393

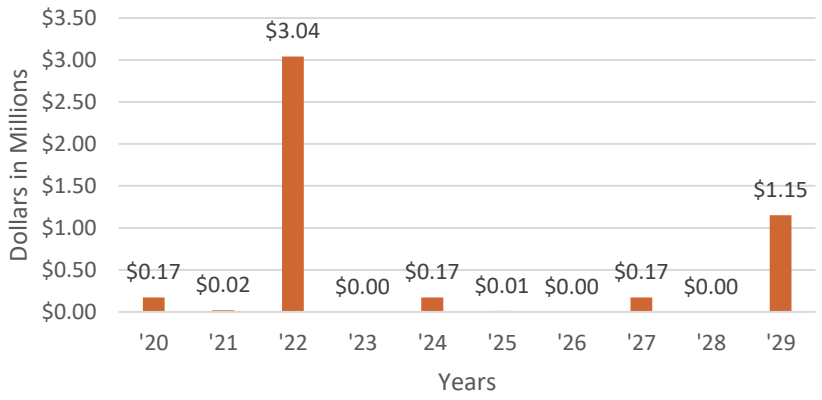
Water Spend*: $5,654

**3/19 – 2/20*

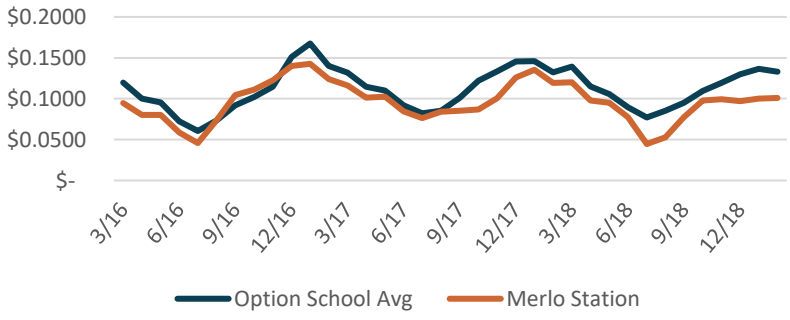
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,446,331	S4	NA
Exterior Enclosure	Aluminum Windows	$97,393	4	1
Mechanical	HVAC Test & Balance	$74,643	4	1

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost ($/SF)



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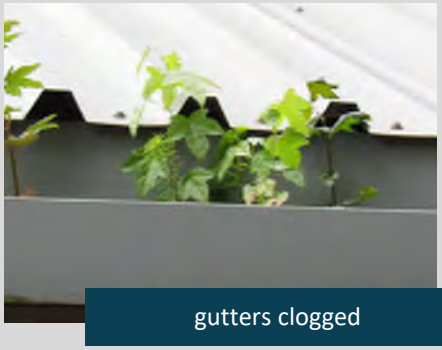


gutters clogged

improper storage

multiple water leak stains

parking lot striping

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Gutters and drains clogged with saplings and debris near trees

Mechanical/HVAC

- Most units are new and in great condition
- Exhaust fans in science room are in poor condition
- Building could use a test and rebalance (Existing Building Commissioning) project

Electrical

- Improper storage in electrical room near transformer
- T-8 lighting – some rooms are over lit and only half the lights are on

Plumbing

- In kitchen, garbage disposal missing safety guard
- Water Heater in custodial office has no drainage pan
- Sewer “burps” sewer gas in science area

Fire, Life, Safety

- Remove vegetation from storm drains and clean all

Interior Finishes

- Ceiling tiles are stained and damaged in many areas; recommend spot replacement
- Windows in some doors have wire mesh in them
- Some wear in carpet in high traffic offices

Utilities

- Storm drains need cleaning and vegetation removed

Site Improvements

- Parking lot needs re-striping
- Grass and moss growth on pedestrian paving
- Landscape needs trimming

Terra Nova School of Science & Sustainability

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Terra Nova School of Science & Sustainability*

Age: 1938

Size (SF): 11,800

Area: 3.83 acres

Assessment Date: 6/25/19

Student Population: 84

School Ratings

Facility Conditions Index: 0.349

Avg Condition Score: 4.12 out of 5

Asset Count: 67

Energy Use Intensity: 56.37

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $3,113,299

Year 1 Asset Replacement Cost: $468,181

Current Replacement Value: $6,032,750

Energy Spend*

Electricity: $20,533

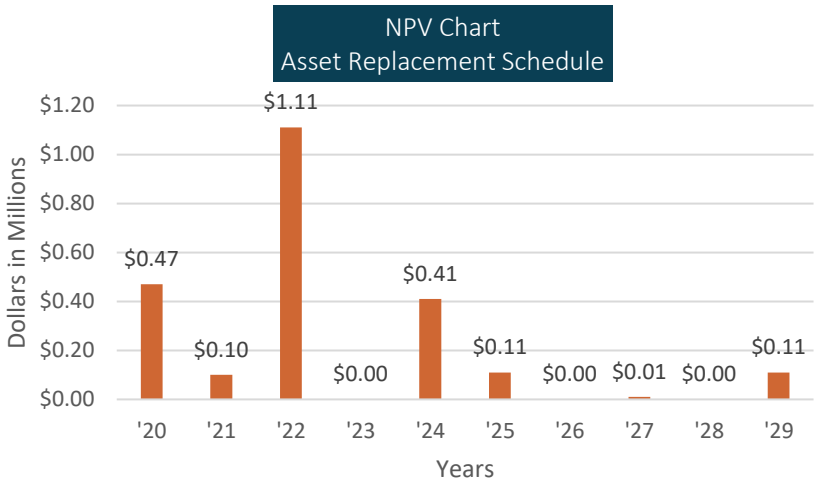
Natural Gas: $1,594

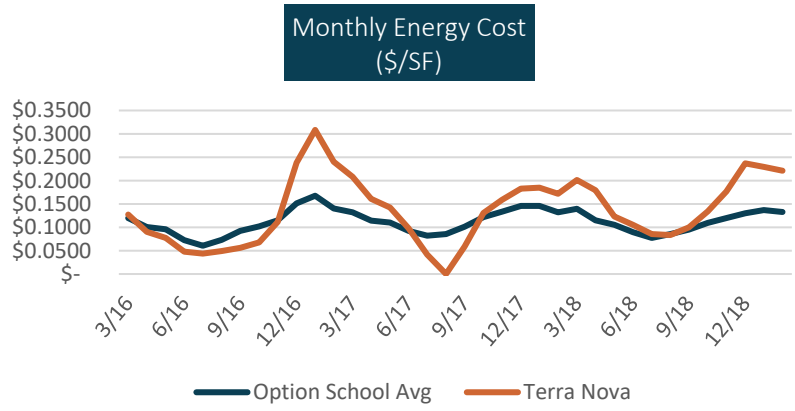
Water Spend*: $4,796

**3/19 – 2/20*

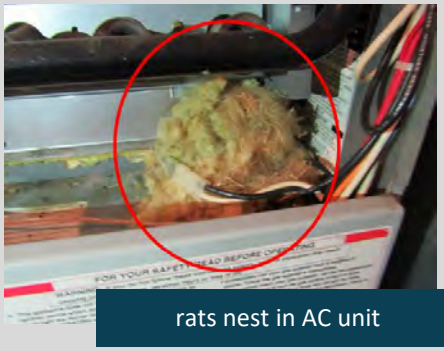
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$1,016,334	S4	NA
Electrical	Switchboards, Panels	$166,690	5	1
Mechanical	HVAC – Unit Ventilator	$136,090	5	1
Mechanical	Other	$129,061	5	1
Plumbing	Water Heater	$16,612	5	1
Site Work	Parking lots, Ped Paving	$53,960	4	2
Roof	Asphalt	$31,860	4	3





moss build up



rats nest in AC unit

corroded hot water heater

Parking lot in poor repair

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Moss build-up, water puddling on rooftop. Recommend moss removal, seal, and drain cleaning

Mechanical/HVAC

- Gas line on roof has fallen off the support blocks
- Rats nest in Trane unit serving gym
- Building's control system is pneumatic and obsolete
- AC unit on roof missing economizer motor cover
- Building needs a complete rebalancing (Existing Building Commissioning)
- No chemical fume hoods or proper ventilation in science rooms

Electrical

- Shop area needs electrical system upgrade. Insufficient service
- T-8 & T-12 lighting should be upgrading
- Emergency Exit signage should be upgraded
- Improper storage of supplies in gym mechanical room near electric panels
- Site and parking lot lighting is very poor and uses old, inefficient technology

Plumbing

- Health room is lacking an eye wash station
- No pan at base of water heater in water heater closet
- No earthquake strapping or pan and rusted out water heater in Corridor B custodian closet
- Water Heater near room 102 is rusted out and leaking, need replaced
- Kitchen sinks in room 106 and 104 have frequent leaks, need repaired

Fire, Life, Safety

- Fire extinguishers are behind in their monthly inspections

Interior Finishes

- Restroom stalls are very dated and inefficient
- Walls have cosmetic damage and showing signs of aging
- Asbestos tile in south classrooms, aged and worn
- Ceiling tile damage throughout building
- Fixed furnishings are old and very worn

Exterior Enclosures

- Exterior windows are mostly single pane
- Some exterior windows have metal mesh that is a safety hazard

Utilities

- Storm sewer is clogged and in need or cleaning
- Storm sewer basins in front of S side of building blocked and cause localized flooding

Site Improvements

- Parking lots need to be resealed and restriped
- Area leading to picnic table incline is too steep causing a safety hazard

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Administration Center

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Administration Center*

Age: 1972

Size (SF): 35,995

Area: 3.27 acres

Audit Date: 10/23/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.233

Avg Condition Score: 3.49 out of 5

Asset Count: 101

Energy Use Intensity: 110.74
EUI Target: NA

Cost Information

NPV of Assets: $7,610,362

Year 1 Asset Replacement Cost: $628,631

Current Replacement Value: $18,120,603

Energy Spend*

Electricity: $74,586

Natural Gas: $11,516

Water Spend*: $12,312

**3/19 – 2/20*

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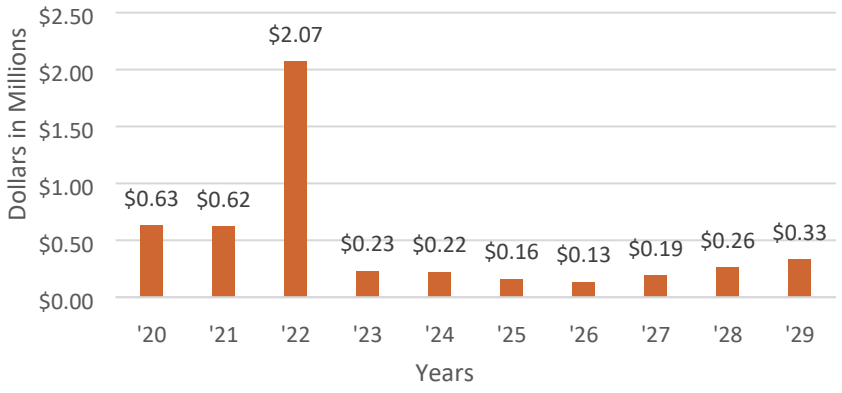
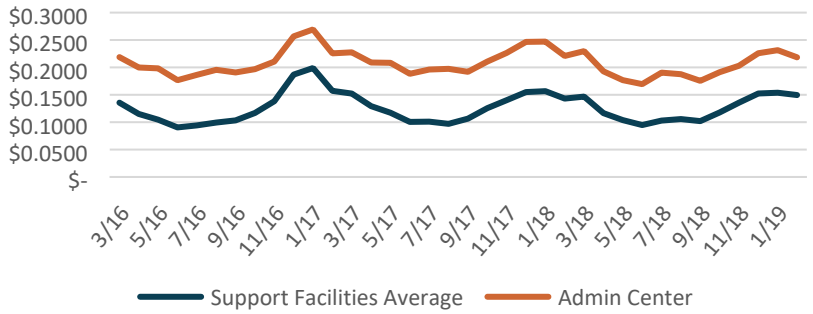
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$1,722,361	S4	NA
Mechanical	HVAC – AHU, Controls	$154,327	5	1, 2
Site Work	Parking Lots	$153,232	5	1
Plumbing	Domestic Water Dist. & Sanitary Waste	$191,493	4	5
Mechanical	RTU, A/C, Heat Pump	$470,737	4	2-4
Electrical	Alarms, Lighting	$142,180	4	1, 2
Furnishings	Fixed Furnishings	$215,970	4	1
Interior Finishes	Carpet and Tile	$213,396	4	2, 3

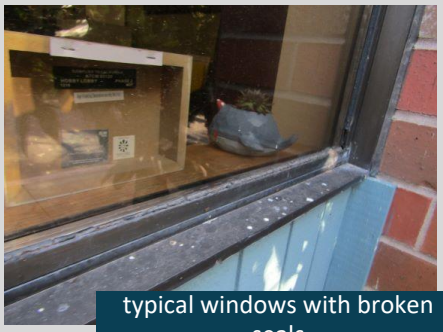
NPV Chart
Asset Replacement Schedule



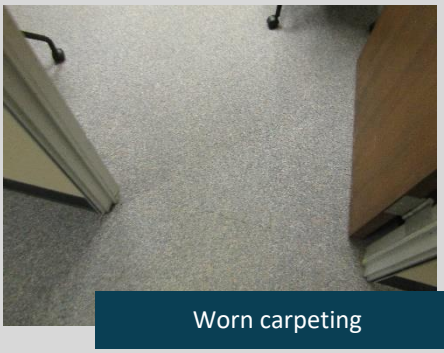
Monthly Energy Cost
($/SF)



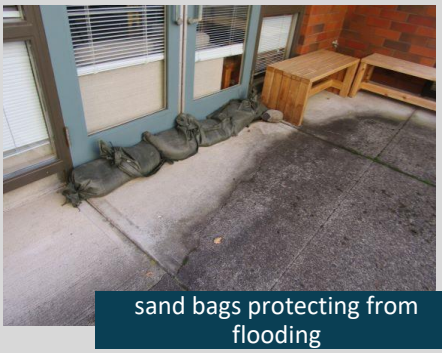
many RTU's over 20 years old



typical windows with broken seals



Worn carpeting



sand bags protecting from flooding

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- New roof installed in 2018, good condition

Mechanical/HVAC

- Majority of the rooftop equipment is approximately 20 years old. Replacements will be needed in the near future
- Server room equipment is 10 years old and well maintained

Electrical

- Most panels are 1970's and 1980's era, fair condition, no immediate needs
- T-8 lighting from 1998 throughout. Should be considered for LED upgrade project
- Lighting controls should be upgraded

Plumbing

- Original distribution piping for domestic water and waste from 1972. No reported or detected deficiencies. The system is 50 years old and should be considered for upgrade
- Water heating systems typically have 4-8 years of remaining life

Fire, Life, Safety

- Inergen chemical suppression system serving the data center is in good to fair condition and regularly serviced
- Fire and intrusion alarm systems are from 1998 and some parts are obsolete. Upgrade recommended

Interior Finishes

- High wear and staining on carpet in high traffic areas
- Ceramic tiles in restrooms is original

Exterior Enclosures

- Exterior double pane windows have failing seals
- South facing windows for IT should be replaced or provide heat guard
- Exterior wall panel siding has new paint

Utilities

- Storm sewer cannot keep up during heavy rains. Sandbags are often used to prevent flooding in the building at the north entrance.
- LED Parking Lighting

Site Improvements

- Aligatoring throughout the parking lot. Parking lot resurface project should be performed in conjunction with storm sewer renovation.

BEAVERTON SCHOOL DISTRICT
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Aloha Admin Branch

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Special Education – Aloha Office*

Age: 1950/1975

Size (SF): 6,179

Area: 2.86 acres

Audit Date: 11/13/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.129

Avg Condition Score: 3.26 out of 5

Asset Count: 43

Energy Use Intensity: 19.42
EUI Target: NA

Cost Information

NPV of Assets: $1,506,274

Year 1 Asset Replacement Cost: $10,000

Current Replacement Value: $5,034,200

Energy Spend*

Electricity: $8,379

Natural Gas: $0

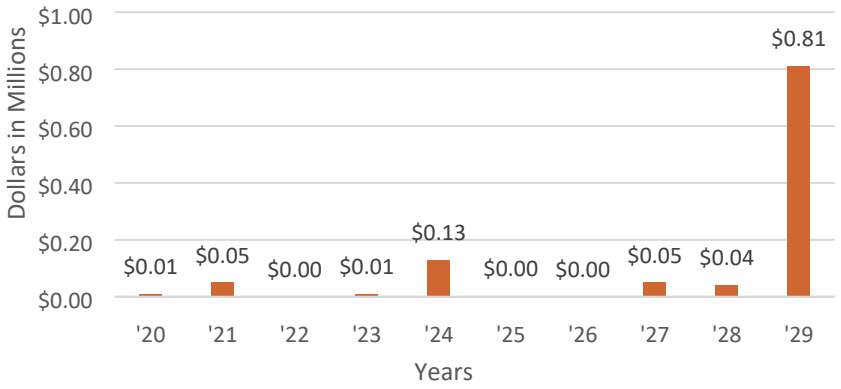
Water Spend*: $410

**3/19 – 2/20*

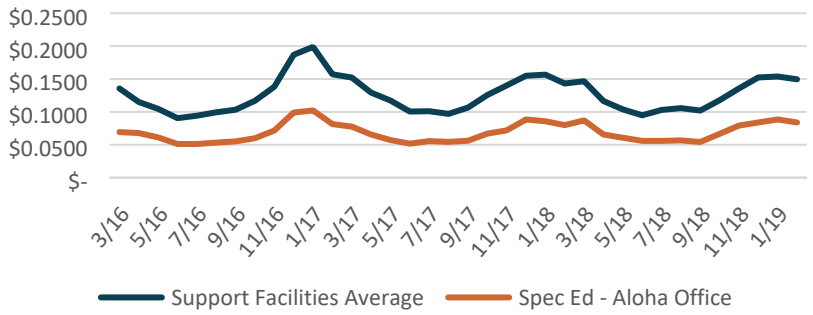
Critical Asset Infrastructure – Replacement Priority

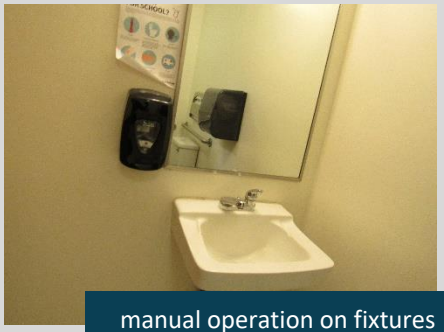
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Exterior Enclosures	Aluminum Windows	$38,100	5	2
Mechanical Utilities	Storm Sewer	$10,000	4	1
Mechanical	Exhaust Fan	$24,200	4	2, 4
Interior Finishes	Carpet	$61,290	4	5

NPV Chart
Asset Replacement Schedule



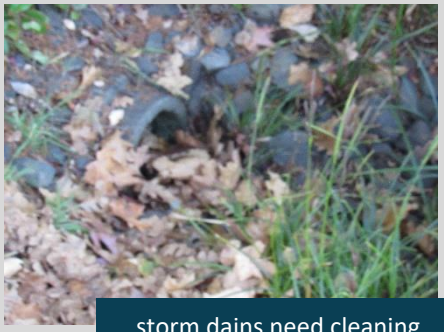
Monthly Energy Cost
($/SF)





manual operation on fixtures

single pane windows



storm dains need cleaning

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Single ply membrane roof in fair condition. No active leaks detected or reported

Mechanical/HVAC

- Majority of HVAC was installed ten years ago. In relatively good condition
- Exhaust systems are old and should be considered for replacement

Electrical

- T-8 lighting throughout. Potential for upgrade to LED
- Panels are original to building, but in working order
- Lighting control should be upgraded if system is changed to LED

Plumbing

- Plumbing fixtures are in fair condition, no automatic fixtures
- Water heater is only four years old

Fire, Life, Safety

- No sprinkler system
- Fire extinguishers are up to date on inspections

Interior Finishes

- Interior paint is in fair condition, no major needs at this time
- Carpets make up a majority of the flooring surface. Typical condition is poor and will most likely require replacement with next bond cycle

Exterior Enclosures

- Single pane windows, some with BB gun damage. Opportunity for upgrade for energy savings

Utilities

- Storm drains require cleaning

Site Improvements

- Trip hazards from settling should be grinded

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BEAVERTON SCHOOL DISTRICT
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Maintenance Center

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Maintenance Center*

Age: 1971

Size (SF): 34,428

Area: 6.54 acres

Audit Date: 10/23/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.240

Avg Condition Score: 3.00 out of 5

Asset Count: 52

Energy Use Intensity: 71.63
EUI Target: NA

Cost Information

NPV of Assets: $3,787,384

Year 1 Asset Replacement Cost: $279,460

Current Replacement Value: $10,768,153

Energy Spend*

Electricity: $14,487

Natural Gas: $8,532

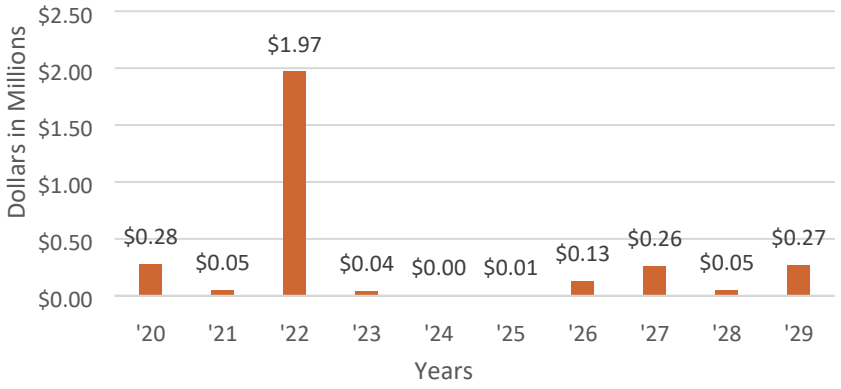
Water Spend*: $5,289

**3/19 – 2/20*

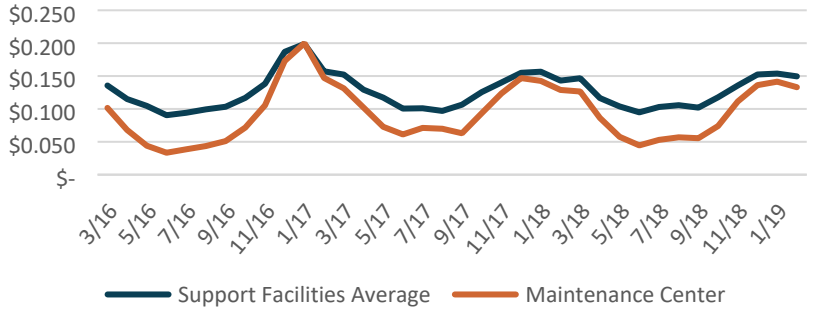
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,023,512	4	NA
Mechanical	HVAC – AC, Controls, Condensing Unit	$121,289	5, 4	1
Electrical	Alarms and Lighting	$117,217	4	1
Roof	Metal	$812,820	4	3

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



metal roof is worn

upgrade to low-flow fixtures

moisture buildup in panes

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Metal roof is original from 1971, occasional leaks with sheet metal screws popping in place. Consider for replacement or refurb

Mechanical/HVAC

- Majority of air conditioning systems are at the end of their useful life and in poor condition
- Control system should be upgraded with new air conditioning

Electrical

- Many panels have been upgraded with internal tenant improvements
- T-8 lighting in fair condition. Potential for LED upgrade

Plumbing

- Distribution systems are original, 1971, but no leaks detected or reported
- Plumbing fixture are in poor condition. Opportunity for upgrade to water saving fixtures

Fire, Life, Safety

- No sprinkler system, fire alarm is in fair condition
- Fire extinguishers are all up to date on inspections

Interior Finishes

- Interior finishes are in fair to poor condition, however, suitable for the building use

Exterior Enclosures

- Moisture build up between double panes on many windows

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Transportation 5th St North

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Transportation Center 5th St N*

Age: 1977

Size (SF): 5,139

Area: 3.43 acres

Audit Date: 12/9/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.231

Avg Condition Score: 3.14 out of 5

Asset Count: 44

Energy Use Intensity: 46.97
EUI Target: NA

Cost Information

NPV of Assets: $1,253,052

Year 1 Asset Replacement Cost: $10,000

Current Replacement Value: $2,465,846

Energy Spend*

Electricity: $2,580

Natural Gas: $1,210

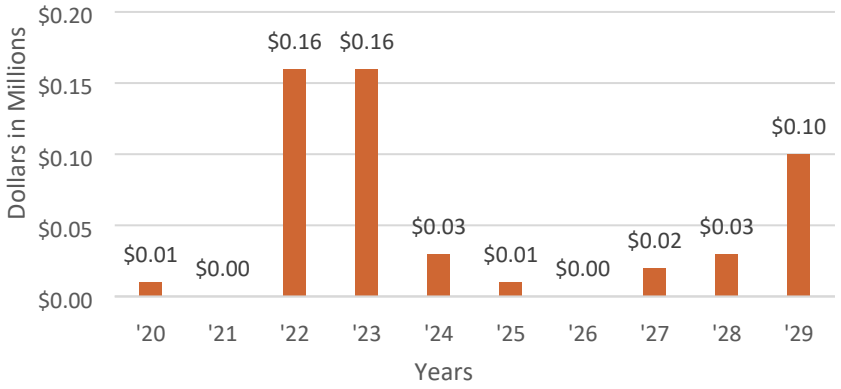
Water Spend*: $485

**3/19 – 2/20*

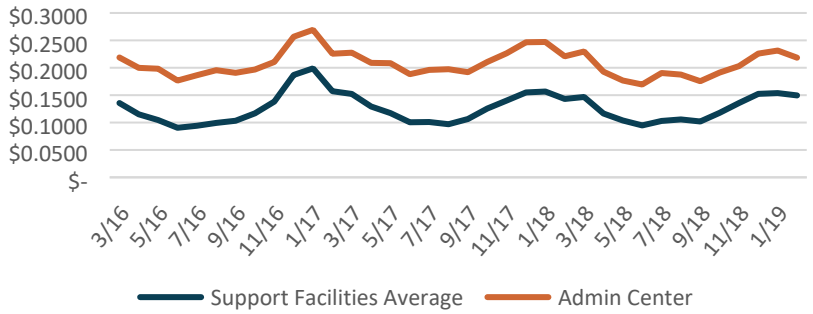
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$143,541	S4	NA
Roof	Built-Up	$3,041,012	4	4
Site Work	Storm Sewer	$10,000	4	1
Interior Finishes	Carpet	$358,430	4	5

NPV Chart
Asset Replacement Schedule



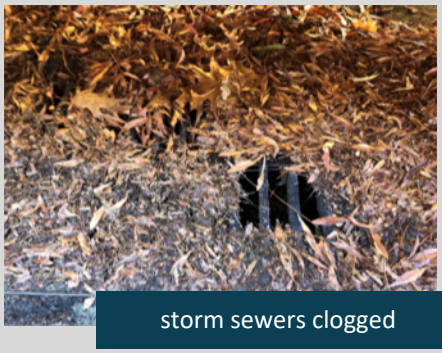
Monthly Energy Cost
($/SF)



old roof and broken roof hatch

rooftop unit from 1987

lighting system upgrade



storm sewers clogged

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Leaks periodically. Nearing end of useful life
- Roof hatch has no lock. Only held in place by small non-metallic rod. Need ladder and a screwdriver to access attic, DHW heater, and roof hatch.

Mechanical/HVAC

- Very old RTU is past its useful like and should be replaced
- Ductwork is well insulated

Electrical

- T-8 and CFL lighting could benefit from upgrading to LED within building
- Outside lighting is HID with Digital timeclocks

Plumbing

- Plumbing fixtures are manual and could benefit from updating
- One toilet frequently backs up and overflows

Fire, Life, Safety

- Fire protection system is good and up to date
- During operating hours parking lot and gates are open to public but building doors are locked. Suggest adding card locks to gates and parking lot access

Interior Finishes

- Some furnishings need to be re-finished/repainted or replaced.
- In general, carpet is worn and at or near end of life

Utilities

- Storm sewer drains need to be cleaned out

Site Improvements

- Parking lot needs repainted and there are some cracks throughout the lots

BEAVERTON SCHOOL DISTRICT
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Transportation 5th St South

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Transportation Center 5th St S*

Age: 1965

Size (SF): 25,800

Area: 2.94 acres

Audit Date: 10/23/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.349

Avg Condition Score: 4.02 out of 5

Asset Count: 89

Energy Use Intensity: 59.76
EUI Target: NA

Cost Information

NPV of Assets: $7,358,079

Year 1 Asset Replacement Cost: $2,356,640

Current Replacement Value: $12,379,614

Energy Spend*

Electricity: $21,604

Natural Gas: $7,933

Water Spend*: $3,025

**3/19 – 2/20*

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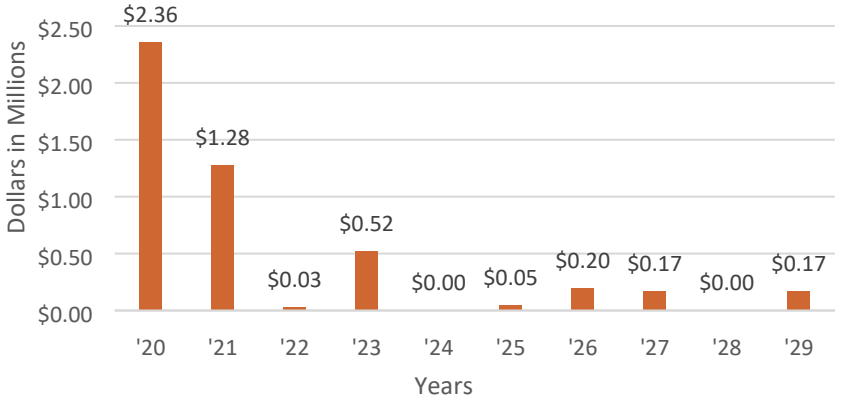
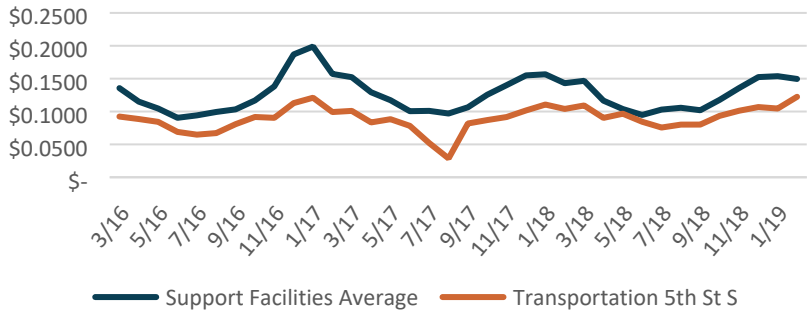
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,234,530	S5	NA
Mechanical	HVAC-AHU, Chiller, Controls, etc	$889,708	5, 4	1
Plumbing	Fixtures, Pump, Water Heater	$315,962	5, 4	1-3
Interior Finishes	Ceiling Tile, Carpet	$186,520	5	1
Mechanical	HVAC-AHU	$250,000	4	4
Fire Protection	Sprinklers	$96,750	4	1
Roof	Built-Up	$722,400	4	1
Electrical	Swtchbrd, Panels, Lighting	$205,354	5, 4	1

NPV Chart
Asset Replacement Schedule



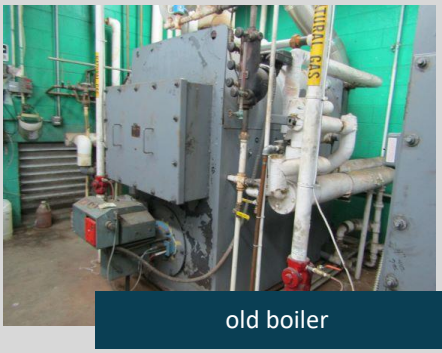
Monthly Energy Cost
($/SF)



blistering roof

corroded cooling tower fins

bad exhaust fan belts



old boiler

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Blistering and many areas of patching

Mechanical/HVAC

- Severe corrosion on fins of cooling tower
- Multiple supply fans with new motors but with poor is missing belts or powered down
- Boilers are beyond life expectancy and should be upgraded
- Storage tank for boiler is beyond life and should be upgraded
- The Boiler room through the wall exhaust fan does not operate
- Chiller #2 is not operational

Electrical

- T-8 lighting should be upgraded

Plumbing

- Water heater in storage room is blocked in by storage items. Minimum clearance requirements not met

Exterior Enclosures

- Single pane windows seals are failing, and caulking is bad
- Double pane windows seals are bad

Interior Finishes

- Carpet is in poor shape and needs replacement
- Fixed furnishings are worn and aged

Utilities

- Exterior site lighting should be upgraded from CFL, Halogen and Incandescent

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BEAVERTON SCHOOL DISTRICT
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Transportation and Support Center

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Transportation and Support Center*

Age: 1973

Size (SF): 53,390

Area: 13.84 acres

Audit Date: 11/4/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.168

Avg Condition Score: 2.52 out of 5

Asset Count: 115

Energy Use Intensity: 76.81
EUI Target: NA

Cost Information

NPV of Assets: $7,458,776

Year 1 Asset Replacement Cost: $106,044

Current Replacement Value: $20,794,267

Energy Spend*

Electricity: $57,634

Natural Gas: $11,876

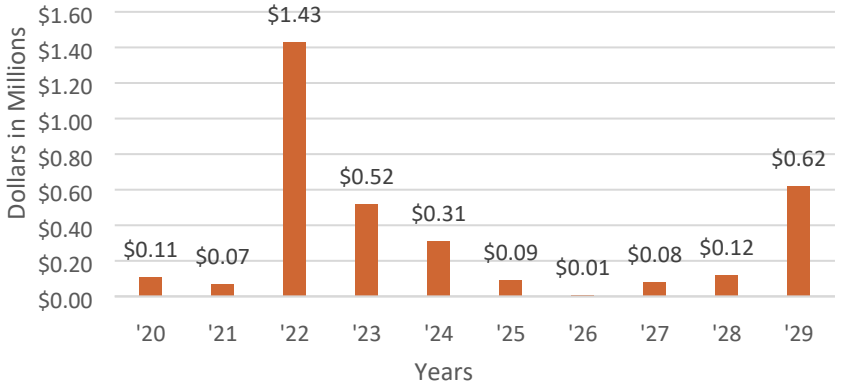
Water Spend*: $25,211

**3/19 – 2/20*

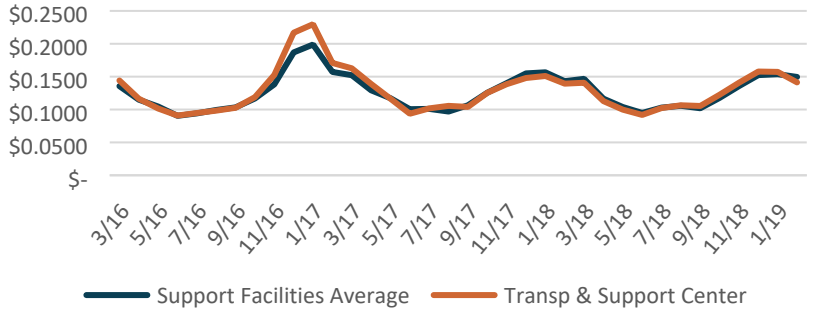
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,349,370	S4	NA
Roof	Single Ply	$322,187	4	3
Exterior Enclosures	Wood Single Pane Windows	$15,738	5	1
Mechanical	RTU, Balance	$127,391	4	1, 2
Mechanical Utilities	Storm Sewer	$15,000	4	1

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)

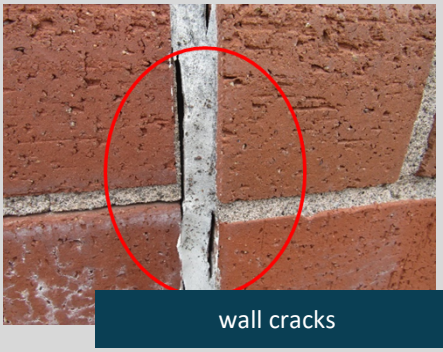


General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

cracks in single ply roof

locker room in good condition



wall cracks

cracks in walkway

Roof

- Single ply torch down roof area has multiple cracks
- TPO roof in good coverage

Mechanical/HVAC

- Restrooms reported to be ventilated poorly; recommend study to determine adequate additional exhaust
- Exhaust fans are rusty and in poor condition
- Rusted pipe connections on rooftop units service offices and lobby area

Electrical

- Electric panels and ATS in good condition
- T-8 interior lighting should be upgrading to LED

Plumbing

- Plumbing is in decent shape

Fire, Life, Safety

- Storm drains should be cleaned

Interior Finishes

- Minor damage to some ceiling tiles
- In general, interior condition is good

Exterior Finishes

- Some cracks at rear and in seam at front of building
- Some exterior windows are single pane and in poor condition

Site Improvements

- Minor cracks in curb and pedestrian paving

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Transportation Center - Allen

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Transportation Center - Allen*

Age: 1969/1975

Size (SF): 9,779

Area: 5.36 acres

Audit Date: 10/23/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.331

Avg Condition Score: 3.92 out of 5

Asset Count: 54

Energy Use Intensity: 56.87
EUI Target: NA

Cost Information

NPV of Assets: $2,330,061

Year 1 Asset Replacement Cost: $477,920

Current Replacement Value: $4,692,258

Energy Spend*

Electricity: $5,738

Natural Gas: $3,647

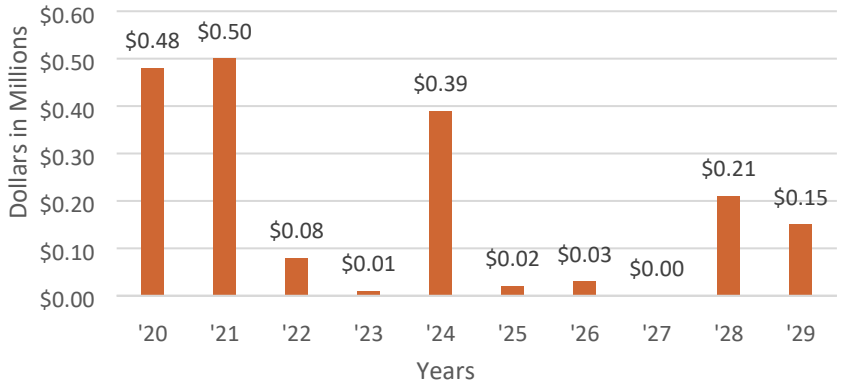
Water Spend*: $810

**3/19 – 2/20*

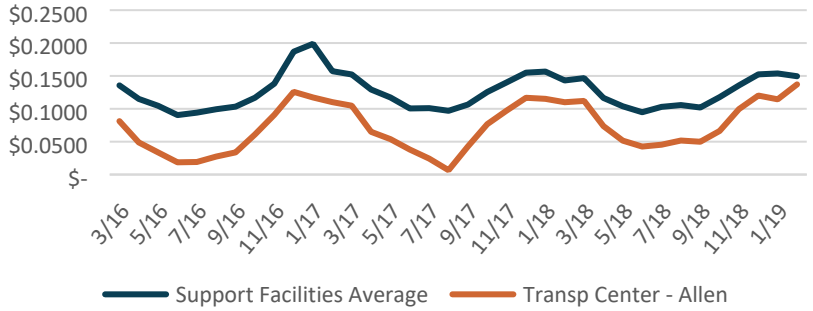
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$467,925	S5	NA
Site Work	Parking Lots	$235,500	5	1
Electrical	Switchboard, Panel, Lighting	$117,560	5, 4	1
Plumbing	Water Heater, Fixtures, Dom Water Dist.	$95,873	5,4	1-3
Mechanical	HVAC	$85,477	5, 4	1-3
Roof	Built-Up, Metal	$346,760	4	5
Interior Finishes	Carpet, Tile	$20,932	4	1

NPV Chart
Asset Replacement Schedule

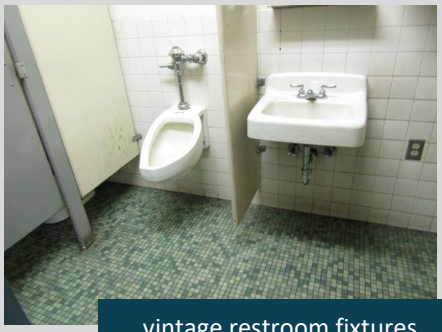


Monthly Energy Cost
($/SF)

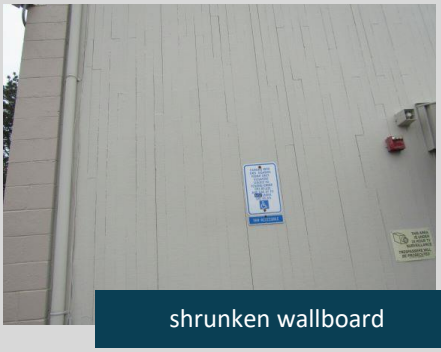


metal roof

refrigeration lines insulation



vintage restroom fixtures



shrunken wallboard

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Metal roof in decent shape with a remaining life of 5 years
- Some moss on built up part of roof
- Minimum insulation in ½ of the ceiling

Mechanical/HVAC

- Refrigeration line insulation is failing on roof top heat pumps
- No safe access to lower roof mounted exhaust fans
- Unit heater is at end of life
- Many heating and cooling issues throughout facility

Electrical

- Electric panel is old and at end of life
- Inside and outside lighting is old and should be upgraded to LED

Plumbing

- Hot water heater at end of life
- All plumbing fixtures and water distribution system are vintage, and need replaced

Fire, Life, Safety

- Intrusion alarm system is at end of life and should be replaced
- During operating hours parking lot and gates are open to public but building doors are locked. Suggest adding card locks to gates and parking lot access

Interior Finishes

- Wall in office areas need painted
- In general, carpet and tile flooring are worn and at or near end of life

Exterior Enclosures

- Single pane exterior windows need replaced
- Exterior wall panel siding has shrunk and warped over time. Are freshly painted
- Severe cracking in SE corner of exterior masonry walls

Site Improvements

- Parking lot has aligatoring throughout
- Fresh stripping throughout parking lot
- Numerous areas of sinkage, broken and cracked asphalt

Maintenance Facilities

- Structure and in-ground hydraulic lifts are deteriorating and at end of life
- Repair bays are cramped and lack sufficient space for proper maintenance
- 1/3rd of hydraulic floor lifts are unusable due to leaks, failed parts and age
- 2/3rd of vehicle lifts lack safety stops to prevent unplanned retraction
- Technicians must use jack stands to prevent unwanted lowering of buses
- Portable bus lifts have limited use due to constricted layout and size of bays

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BEAVERTON SCHOOL DISTRICT
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