

REPORT OF FACILITY CONDITION ASSESSMENT



Brevard Elementary

Property Address:
399 Greenville Hwy
Brevard, NC 28712

Prepared For:
Transylvania County
Board of Commissioners
101 South Broad Street
Brevard, NC 28712

Prepared By:
Axias
Project No. GA23-017
February 26, 2024



Item No.	Condition	Recommendation	Priority Category	Deficiency Category	Impact of Failure	Condition	Probability of Failure	Frequency of Failure	Risk Score	Risk Category	Estimated Useful Life	Remaining Useful Life	Quantity	Unit of Measure	Unit Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Required
																Year	1	2	3	4	5	6	7	8	9	
Interiors Required																										
1	Ceiling tiles were noted to be in general good condition. We did note numerous stained ceiling tiles throughout. It is recommended to budget for the replacement of the stained ceiling tiles in the near-term. Some ceiling tiles could potentially be fire rated and would need to be replaced with the space type of rated material.	Replace stained and/or damaged ceiling tiles.	III	DM	5	3	4	5	17	Low	1	2,000	SF	\$8.00	\$16,000											\$16,000
2	Interiors appeared to be typical finishes and fair condition for an educational establishment. Allowance for interior finishes renewal. Timing and scope will vary based on future program needs. Allowance only includes renewal of interior finishes and minor renovations of restrooms. Does not include reconfiguration of space or address items related to educational adequacy.	Allowance for renewal of interior finishes.	V	CR	5	3	5	5	18	Low	15	6	87,200	SF	\$75.00						\$6,540,000					\$6,540,000
3	A physical security assessment was provided by Safe Havens International. As part of their assessment, they identified areas within the school which should be provided with a vestibule to limit continued access throughout the school. Based on this recommendation, it is recommended to budget for the installation of vestibules to limit access throughout the school.	Construct vestibules per Physical Security Assessment.	II	CI	3	3	3	3	12	High	2	87,200	SF	\$2.00	\$174,400											\$174,400
Mechanical Required																										
1	Heating hot water for the building is provided via a boiler manufactured by Lochinvar with a capacity of 985 MBH . The boiler appears to be original and is due for replacement due to age.	Replace natural gas fired boiler along with the pumps, valves, and accessories..	II	CR	3	3	4	4	14	Medium	20	1	985	MBH	\$110	\$108,350										\$108,350
2	Cooling is provided by way of five Trane 50 ton chillers dating from 2012, 2013, 2017, 2017 and 2017. Air-cooled chillers typically have a service life of 15-20 years depending on maintenance levels. Based on the age of the 2012 and 2013 ton chillers, it is recommended to budget for their replacement during the study period.	Replace 2012 and 2013 Trane chillers.	IV	CR	4	3	4	4	15	Medium	20	9	100	Ton	\$2,400									\$240,000		\$240,000
3	Burman boiler is from approximately 2001 and it is at the end of its useful life based on age.	Replace 2001 Burnham Boiler along with the pumps, valves, and accessories..	III	CR	3	3	4	4	14	Medium	25	3	3,584	MBH	\$85			\$304,640								\$304,640
4	Air handling units provided conditioned air to the various areas of the building. The units were manufactured by McQuay, Trane and Environmental Technologies. The units appeared to be in fair condition but should be budgeted for replacement during the study period.	Replace air handling units throughout the building.	III	CR	3	3	4	4	14	Medium	25	5	9	EA	\$35,000					\$315,000						\$315,000



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Fire & Life Safety																										
Required																										
1	An addressable fire detection and alarm system is provided within the building. The system was AFP-400 manufactured by Notifier and has been discontinued. Due to the age of the system, we recommend replacement of the fire alarm panel.	Upgrade fire alarm control panel and as needed devices.	III	CR	2	4	4	5	15	Medium	15	1	1	EA	\$20,000	\$20,000										\$20,000
2	Egress lighting exit signage devices were not compliant and need to be updated in each classroom. Replace temporary signage above exit doors with code compliant exit and emergency egress lighting.	Provide additional exit signage and egress lighting.	VI	DM	3	3	4	4	14	Medium	20	1	22	EA	\$750	\$16,500										\$16,500
3	Existing drawings detailing to which codes the school was designed in accordance were not available for review. The school is not provided with a fire-sprinkler system. Buildings of this size typically are required to either have a sprinkler system or an approved rated assembly to protect structural elements. It is recommended to complete a more detailed fire and life safety assessment to review the code enforced at construction and the last renovation along with any details on how these ratings were achieved.	Complete life safety and code evaluation.	III	CI	3	3	4	4	14	Medium		1	1	EA	\$10,000	\$10,000										\$10,000
Conveyance Systems																										
Required																										
1	The building has no conveyance systems.																									\$0

Deficiency	Definition
SM	Scheduled Maintenance
DM	Deferred Maintenance
CR	Capital Renewal
EN	Energy & Sustainability
CI	Capital Improvement

Priority	Definition
I	Currently Critical
II	Potentially Critical
III	Necessary / Not yet Critical
IV	Recommended
V	Appearance
VI	Does Not Meet Codes / Standards

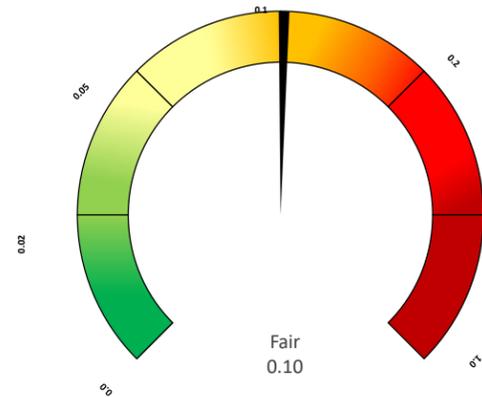
Risk	Definition
Critical	Critical (4-8)
High	High (9-13)
Medium	Medium (14-16)
Low	Low (17-20)

Required Cost (2023 US-Dollars)	\$2,428,728	\$493,800	\$479,640	\$0	\$838,200	\$6,540,000	\$390,000	\$57,420	\$240,000	\$19,422	\$11,487,210
Required Cost (Inflated @ 8% for 1st 3 years then 3% Per Yr.)	\$2,623,026	\$575,968	\$604,208	\$0	\$971,704	\$7,809,102	\$479,651	\$72,738	\$313,146	\$26,102	\$13,475,644
Total Cost (2023 \$/ SF/ Yr.)	\$27.85	\$5.66	\$5.50	\$0.00	\$9.61	\$75.00	\$4.47	\$0.66	\$2.75	\$0.22	\$131.73

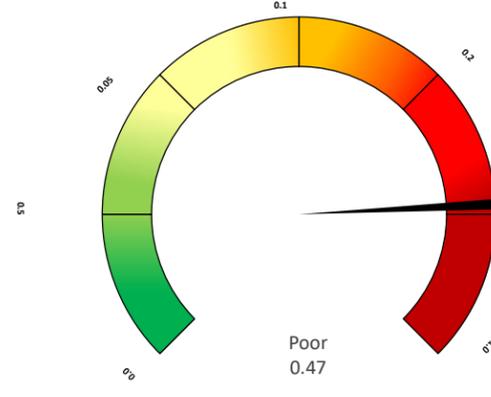


Financial Summary

Facility Condition Index



10 Year Facility Condition Index

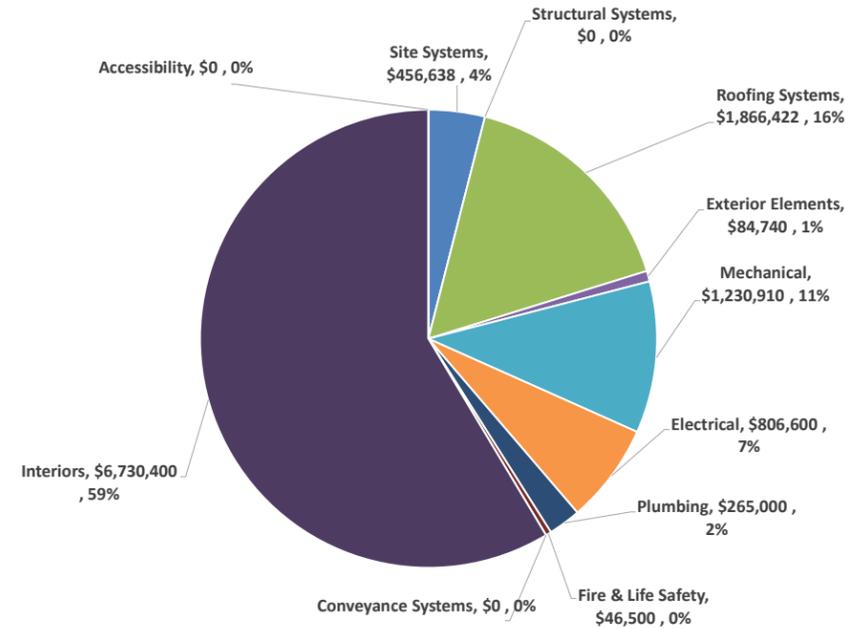


FCI Range	Condition Description
0.00 – 0.02	Excellent condition, typically new construction
0.02 – 0.05	Good Condition, renovations occur on schedule
0.05 – 0.1	Fair Condition, in need of normal renovation
0.1 – 0.2	Below average condition, major renovation required
0.2 – 0.5	Poor condition, total renovation needed
0.5 – 1	Complete facility replacement indicated

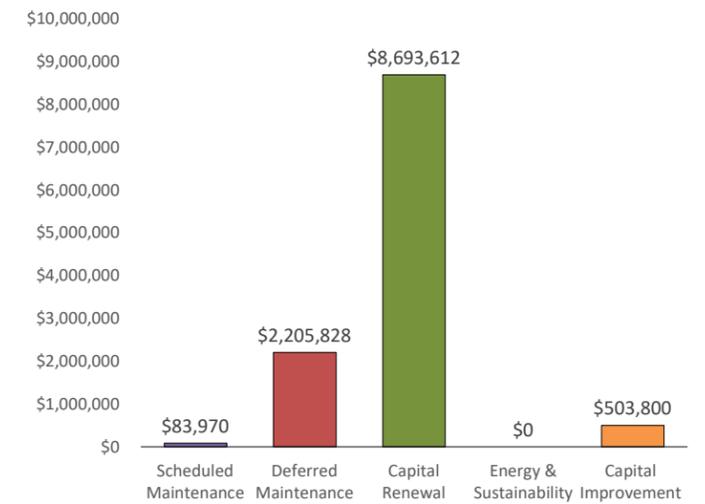
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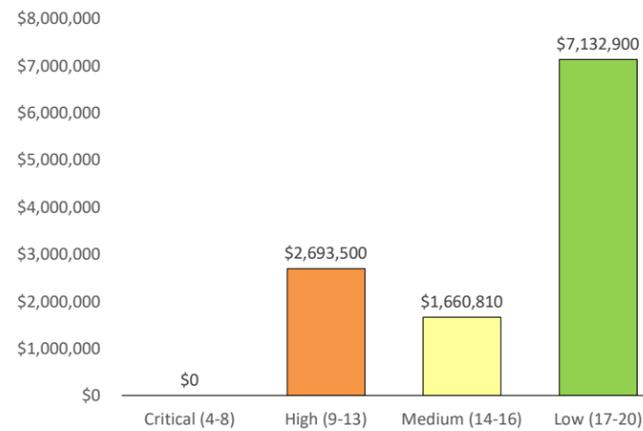
Summary by System



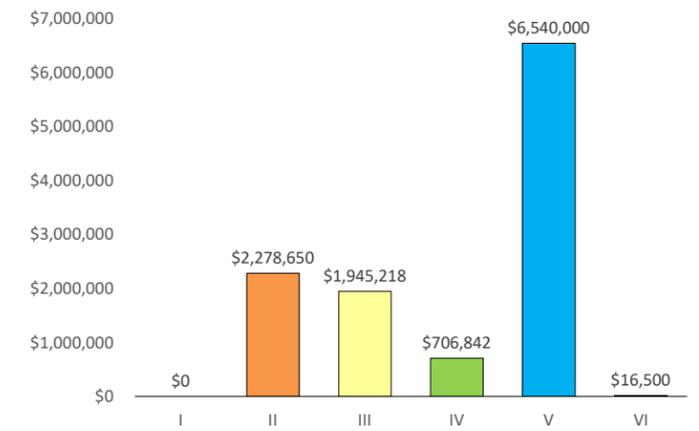
Expenditures by Deficiency Category



Expenditures by Risk



Expenditures by Priority Category



Representative Photos



Main heating hot water boiler.



Asphalt with alligator cracking



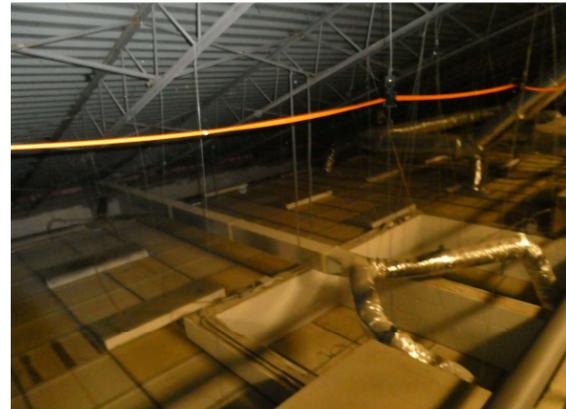
Drop off area with profilled metal awning structure and damaged poles.



Overview of site



Entrance side of standing seam metal sloped roof and brick masonry exterior



Steel frame and metal roof structure



Asphalt shingle and modified bitumen low-slope roof



Standing seam metal roof canopy



Brick masonry exterior wall and aluminum framed windows



Exterior brick masonry and staining to brickwork



Reznor MUA unit



Notifier fire alarm control panel (FACP) that is obsolete.