REPORT OF FACILITY CONDITION ASSESSMENT



Pisgah Forest Elementary School

Property Address: 1160 Ecusta Road 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













Building GSF: Age:

Item No.	Condition	Recommendation	Priority Category	Deficiency Category Impact of	Failure	Probability of	Failure Frequency of Failure	Risk Score	Risk Category	Estimated Useful Life	Remaining Useful Life	Quantity	Unit of Measure	Year	ь 2024	2025	ω 2026	2027	2028	ه 2029	7	ω 2031	ი 2032	5033	Required
Accessibility Required																									
	ADA parking has been subsequently provided with accurate spaces. Future renovations will need to bring the school within compliance.	icipated capital expenditures.																							\$0
Site Systems Required																									
1	Concrete sidewalks are provided at various locations around the building. The sidewalks are in fair to poor condition and will likely require localized replacement.		III	DM .	1 3	. 4	4 5	16	Medium	30	1	375	SF	\$15.00	\$5,625										\$5,625
2	An asphalt paved roadway and parking lot is provided at the north end of the property. The asphalt pavement appeared to be in fair to poor condition with areas of distressed pavement noted. It is recommended to budget for milling and overlaying of the pavement. Due to the extent of the scope of work, the project has been split into three phases.	d overlay asphalt pavement - 1	III	DM ·	4 3	, 4	4 4	15	Medium	15	1	3,000	SY	\$15.00	\$45,000										\$45,000
3	An asphalt paved roadway and parking lot is provided at the north end of the property. The asphalt pavement appeared to be in fair to poor condition with areas of distressed pavement noted. It is recommended to budget for milling and overlaying of the pavement. Due to the extent of the scope of work, the project has been split into three phases.	d overlay asphalt pavement - 2	III	CR	4 3	4 4	4 4	15	Medium	15	2	3,000	SY	\$15.00		\$45,000									\$45,000
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5	20% of the surface area has alligator	ete full depth repair and ement of the dumpster and I loading areas.	III	DM .	1 2	. 2	4 4	14	Medium	25	1	800	SY	\$35.00	\$28,000										\$28,000











Building: GSF: Age: Address:

Item No.	Condition	Recommendation	Priority Category	Deficiency Category	Impact of Failure	Condition Probability of	Failure Frequency of	Fallure Risk Score	Risk Category		Estimated Useful Life	Remaining Useful Life	Quantity	Unit of Measure	Unit Cost	2024	2025	۳ 2026	72027	ى 2028	٥ 2029	5030	2031	ە 2032	7033	Required
6	This could potentially allow moisture infiltration as well as prevent moisture from	Re-grade elevations to slope away from building and to reduce ground level below cavity weep holes utilizing routine maintenance budgets.													Year	1	2	3	4	5	0	,		9	10	\$0
7	Once the asphalt pavement has been milled and overlayed, it is recommended to budget for periodic crack filling, seal coating and restriping of the asphalt pavement.	Crack fill, seal coat and restripe asphalt surfaces - Cycle 1	IV	SM	5	4	3 5	17	Lov	W	7	7	8,430	SY	\$2.00							\$16,860				\$16,860
8		should be maintained as part of routine maintenance to comply with playground																								\$0
9	The school is provided with two playground areas. Playground equipment typically has a service life of 15 years depending on maintenance and utilization. It is recommended to budget for the replacement of the playground equipment during the study period. Playground surfacing should also be evaluated before replacement of the equipment.	Replace playground equipment.	Ш	CR	5	4	4 5	18	Lov	N	15	5	2	EA	\$225,000					\$450,000						\$450,000
10	A physical security assessment was provided by Safe Havens International. As part of their assessment, they identified areas around the site where additional fencing should be provided. It is recommended to budget an allowance for the installation of additional perimeter fencing per the Physical Security Assessment. Cost is a placeholder and could fluctuate.	Install additional site fencing.	Ш	CI	3	3	4 4	14	Medi	um	15	2	400	LF	\$90.00		\$36,000									\$36,000
Structural Required																										
1	wall between Classroom 112 and Storage	Complete structural evaluation/monitoring of cracked masonry wall as part of routine maintenance.																								\$0











Building: GSF: Age: Address:

Item No.	Condition	Recommendation	Priority Category	Deficiency Category	Impact of Failure	Condition	Frequency of Failure	Risk Score	Risk Category	Estimated Useful Life	Remaining Useful Life	Quantity	Unit of Measure	Near Cost	2024	5707	2026	4 2027	2028	ه 2029	7	° 2031	o 2032	5033	Required
Roofing Sys																									
Required 1	The building is provided with an architectural asphalt shingled covered hipped roof and finished with a glazed supple over the entrance hallway installed.	Allowance for inspection and repair of asphalt shingle roof.	III	DM	4	2	4 4	14	Medium	25	1	1	ALLOW	\$10,000	\$10,000										\$10,000
2	Aluminum perimeter gutters connect to aluminum and steel downpipes which connect to a below grade rainwater disposal system. The gutters and downpipes are also in fair condition, with poor detailing and leaking joints in places.		Ш	DM	4	2	4 4	14	Medium	25	1	1	ALLOW	\$5,000	\$5,000										\$5,000
Exterior Ele Required	ments																								
1	Exteriors comprise wood fascia and soffits, with brick veneer walls, aluminum framed windows with insulated glazing units, and exterior metal framed doors. The front entrance has a porte-cochere supported on assumed steel posts covered by plaster feature column enclosures. Paintwork is in fair condition, as are the columns, which are deteriorating due to moisture ingress. Repaint all exterior painted elements including fascia, soffits, gutters, exposed lintels, vent grilles and columns, including repair to columns and finishing with a suitable waterproof coating.	Repaint exterior painted surfaces.	Ш	DM	4	3	4 4	15	Medium	10	1	15,250	SF	\$2.00	\$30,500										\$30,500
2	Exterior sealants are provided at the perimeters of window and door frames along with construction/movement joints. The exterior sealants appeared to be in poor to fair condition due to evidence of failure. It is recommended to replace the exterior sealants during the study period.	Replace exterior sealants.	Ш	DM	4	3	4 4	15	Medium	12	1	1,100	LF	\$10.00	\$11,000										\$11,000
3	As noted above window and door frames comprise of steel or aluminum systems. These are fitted with double pane insulated glazing units (IGU's). A number of IGU's were noted to be fogged, indicating the insulating seal has failed.	Replace failed IGU's where necessary.	111	DM	5	2	5 5	17	Low	30	1	15	EA	\$2,500.00	\$37,500										\$37,500
4	The exterior façade primary costs of brick veneer. The brick veneer appeared to be in fair condition with areas of spalling brick and deteriorated/missing mortar at window lintels. The screen wall also appeared to not be properly capped, allowing moisture to get into the cavity. It is recommended to budget an allowance for as needed masonry repairs in the near term.		Ш	DM	4	4	4 4	16	Medium	25	1	600	SF	\$90.00	\$54,000										\$54,000











Building GSF: Age:

Item No.	Condition	Recommendation	Priority Category	Deficiency Category	Impact of Failure	Condition	Failure Frequency of	Failure Risk Score	Risk Category	Estimated Useful Life	Remaining Useful Life	Quantity	Unit of Measure	Unit Cost	2024	2025	2026	2028	2029	2030	2031	2032	2033	Required
Interiors														Year	1	2	3 4	5	6	7	8	9	10	
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 protentially be fire rated and would need to be replaced with the space type of rated material.	Replace stained and/or damaged ceiling tiles.	Ш	DM	5	3	4 5	17	Low		1	1,000	SF	\$8.00	\$8,000									\$8,000
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	5	69,898	SF	\$65.00				\$4,543,370						\$4,543,370
Mechanica Required																								
1	The building has a McQuay 160 Ton air cooled chiller manufactured in 2011 which provides chilled water to air handling units (AHU's) and fan coil units throughout the building. The original construction provided a two-pipe system for heating or cooling.	Replace air-cooled chiller.	111	CR	3	3	4 4	14	Mediun	20	6	160	Ton	\$1,500					\$240,000					\$240,000
2	The building receives heating from two Weil-McLain 1358 MBH cast iron gas fired boiler manufactured in the 1990's. Boilers of this type typically have a service life of 30 years before becoming maintenance intensive and problematic. It is recommended to budget for the replacement of the heating hot water boiler during the term.	Replace heating hot water boilers.	111	CR	3	3	4 4	14	Mediun	25	4	2,716	МВН	\$110.00			\$298,7	60						\$298,760
3	Conditioned air is provided by individual air handling units. The units are typically manufactured by McQuay and were manufactured in circa the early 1990's The AHUs appeared to be in fair condition but will reach the end of their service life during the term. It is recommended to budget for the replacement of the McQuay air handling units.		Ш	CR	3	3	4 4	14	Mediun	25	2	16	EA	\$55,000		\$880,000								\$880,000











GSF: Age:

Item No.	Condition	Recommendation	Priority Category	Deficiency Category	Impact of Failure	Condition	Probability of Failure	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	10	
4		Replace HVAC control system, including BMS upgrades.	Ш	CR	3	3	4	4	14	Medium	25	2	69,898	SF	\$3.25		\$227,169									\$227,169
Electrical Required																										
1	Emergency power for miscellaneous loads is provided by one emergency power generator rated at 10-Kwmanufactured in circa 1990. It is recommended to budget for the life cycle replacement of the generator during the study period.	Replace emergency generator and associated ATS be replaced in the midterm.	Ш	CR	4	3	4	4	15	Medium	20	3	10	kW	\$1,500.00			\$15,000								\$15,000
2	A security and access control system is typically not installed throughout the school. It is recommended to upgrade/expand the security and access control system throughout the school. Final system design could impact the cost recommendation.	Allowance to improve school security systems and school safety.	Ш	CI	3	4	4	4	15	Medium	20	3	98,898	SF	\$3.25			\$321,419								\$321,419
Plumbing																										
Required 1	The domestic water heater was manufactured by Ventura and installed in 2009. The plumbing system appeared to be	Replace domestic water heater (125 gallon, 399,000 BTU/Hr.).	Ш	CR	3	4	5	5	17	Low	15	2	1	EA	\$40,000		\$40,000									\$40,000
2	The school has one 20,000-gallon underground storage tank which stores No. 2 fuel oil. The tank was reportedly installed in 1992 and reported to be a single wall FRP type tank. Based on the age of the tank it is recommended to remove the tank and provide a new above ground storage tank which complies with current codes and regulations should No. 2 fuel oil still be needed.	Remove underground storage tank and install new above ground code/regulation compliant storage tank.	IV	CR	2	4	4	4	14	Medium	30	7	1	ALLOW	\$175,000							\$175,000				\$175,000











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Item No.	Condition	Recommendation	Priority Category	Deficiency Category	Impact of Failure	Condition Probability of	Frequency of	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
Fire & Life	Safety													Year	1	2	3	4	5	6	7	8	9	10	
Required																									
1	A fire detection and alarm system is provided within the building. The system was manufactured by Notifier. The model installed is no longer supported by Notifier which will eventually lead to limited availability of replacement components. It is recommended to upgrade the main fire alarm control panel, annunciator panel, and as needed devices.	Upgrade the fire alarm control panel, annunciator panel, and as needed devices.	П	CR	3	3 4	1 5	15	Medium	25	1	1	EA	\$25,000	\$25,000										\$25,000
2	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	1 4	14	Medium		1	1	EA	\$10,000	\$10,000										\$10,000
Conveyanc																									
Required 1	A wheelchair platform lift provides access to the double fronted stage between the gymnasium / dining hall area. It was	Replace platform lift.	III	CR	4	4 5	5 5	18	Low	20	4	1	EA	\$20,000				\$20,000							\$20,000
Deficie SM		Definition I Currently Critical	Risk Critical		nition cal (4-8)									lequired Cost parts!P47US-Dollars)	\$269,625	\$1,228,169	\$381,419	\$318,760	\$4,993,370	\$240,000	\$191,860	\$0	\$0	\$0	\$7,623,202
DM		,	High		(9-13)								R	equired Cost											
CR	Capital Renewal	****	Medium	Med	ium (14-	16)								for 1st 3 years then 3% Per Yr.)	\$291,195	\$1,432,536	\$480,477	\$358,767	\$5,788,684	\$286,573	\$235,964	\$0	\$0	\$0	\$8,874,196
EN		V Recommended V Appearance	Low	Low	(17-20)																				
CI		/I Does Not Meet Codes / Standards		•										Total Cost 023 \$/ SF/ Yr.)	\$3.86	\$17.57	\$5.46	\$4.56	\$71.44	\$3.43	\$2.74	\$0.00	\$0.00	\$0.00	\$109.06









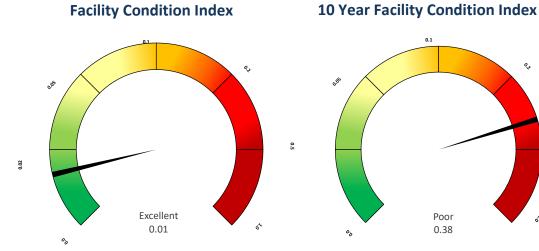


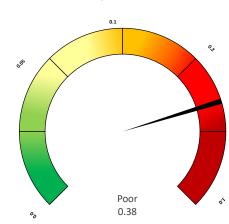
GSF:

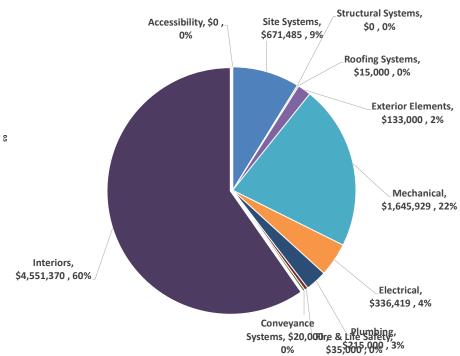
Pisgah Forest Elementary

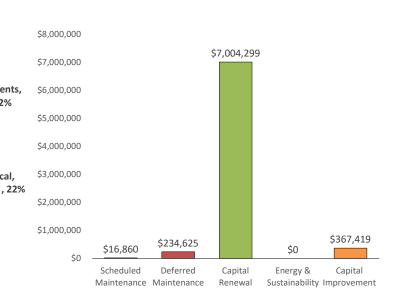
1991 (32 years) Extension 2000 (23 years) 1160 Ecusta Rd Brevard, NC 28712

Financial Summary









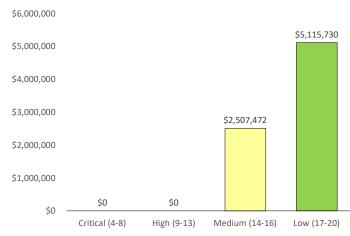
Expenditures by Deficiency Category

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

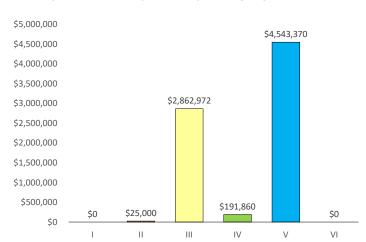
Risk	Definition
Critical	Critical (4-8)
High	High (9-13)
Medium	Medium (14-16)
Low	Low (17-20)

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





Expenditures by Priority Category





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69898

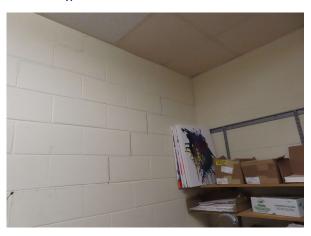
1991 (32 years) Extension 2000 (23 years)

dress: 1160 Ecusta Rd Brevard, NC 28712

Representative Photos



Typcial concrete sidewalk deterioration



Stairstep cracking on interior painted CMU



Staining from moisture in ceiling in front of the media center



Asphalt parking lot with surface deterioration



Exterior window view with one of the classrooms' moisture



Air-cooled chiller by McQuay



Damaged column at entrance



Asphalt shingle roof and aluminum gutters



Fire detection and alarm system by Notifier



Typical concrete panel sidewalk damage extending around column



Exterior brick masonry with deteriorated sealants and spalled brick



Platform elevator lift in gymnasium/ theatre