

FACILITY CONDITION ASSESSMENT



**BUREAU
VERITAS**

prepared for

Shelby County Board of Education
160 South Hollywood Street
Memphis, Tennessee 38112-4892
Michelle Stuart



Whitehaven Elementary
4783 Elvis Presley Boulevard
Memphis, Tennessee 38116

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BV PROJECT #:

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DATE OF REPORT:

October 1, 2024

ON SITE DATE:

July 25, 2024

Bureau Veritas

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1. Executive Summary

Property Overview and Assessment Details

General Information	
Property Type	Elementary School
Main Address	4783 Elvis Presley Boulevard, Memphis, Tennessee 38116
Site Developed	1949
Site Area	9.16 acres (estimated)
Parking Spaces	100 total spaces all in open lots; 2 of which are accessible
Building Area	49,885 SF
Number of Stories	2 above grade with 1 below-grade basement level
Outside Occupants/Leased Spaces	None
Date(s) of Visit	July 25, 2024
Management Point of Contact	Ms. Mary Taylor, Shelby County Board of Education (901) 416-5376 taylorm15@scsk12.org
On-site Point of Contact (POC)	Micheal Chambers, 901-268-6522
Assessment and Report Prepared By	Christopher Mosley
Reviewed By	Al Diefert Technical Report Reviewer For Andy Hupp Program Manager Andy.Hupp@bureauveritas.com 800.733.0660 x7296632
AssetCalc Link	Full dataset for this assessment can be found at: https://www.assetcalc.net/

Significant/Systemic Findings and Deficiencies

Historical Summary

The facility was originally constructed in 1949. The facility hasn't had any significant renovations since the time construction or acquisition.

Architectural

Due to good maintenance practices the facility has been well maintained. The building appears structurally sound, with no structural-related deficiencies reported or observed. The exterior finishes consist of brick with aluminum windows, while the roof is a single ply TPO membrane. The interior walls adjacent to the exterior walls have blistering paint. Which could be a possible moisture issue. Also, the acoustical ceiling tiles along the hallway are potentially asbestos. Additional studies as well as budgetary costs for repairs have been provided to address these issues. The interior finishes, exterior finishes, and roof membrane are budgeted and anticipated for lifecycle replacement based on useful life and normal wear.

Mechanical, Electrical, Plumbing and Fire (MEPF)

The MEPF systems and components appear to have been adequately maintained. The majority of HVAC equipment was replaced in 2024. HVAC equipment and components consist of boilers, a chiller, furnaces and split systems, and unit ventilators for heating and cooling.

In general, the plumbing system is reportedly adequate to serve the facilities, with equipment and fixtures updated as needed.

The electrical system and components were reported to provide generally adequate service, with no significant deficiencies reported or observed. The switchboard and other electrical components are located in the mechanical room. There is no emergency power provided in the facility. Installation is recommended

A facility wide alarm system adequately serves the facility. The fire suppression system is limited to fire extinguishers. The installation of a fire suppression system is highly recommended. Ongoing routine maintenance of the MEPF equipment is recommended.

Site

Site maintenance appears to be good, and landscaping are generally in good condition. The asphalt parking lot has significant alligator cracks and some potholes throughout its surface. The concrete driveway and sidewalks have some surface cracking in isolated areas.

Recommended Additional Studies

The interior wall paint is in poor condition. The interior walls in various classrooms have blistering paint. Which is a sign of potential moisture. An architect must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. Due to the ambiguity of the required repair scope at the time of this assessment, the cost for any possible subsequent repairs is not included.

The acoustical ceiling tiles is in poor condition. The acoustical ceiling tiles along the hallway potentially has asbestos. A professional consultant must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost of this study is included in the cost tables. A budgetary cost allowance to replace the asbestos ceiling tiles is also included

Facility Condition Index (FCI)

One of the major goals of the FCA is to calculate each building's Facility Condition Index (FCI), which provides a theoretical objective indication of a building's overall condition. By definition, the FCI is defined as the ratio of the cost of current needs divided by current replacement value (CRV) of the facility. The chart below presents the industry standard ranges and cut-off points.

FCI Ranges and Description

0 – 5%	In new or well-maintained condition, with little or no visual evidence of wear or deficiencies.
5 – 10%	Subjected to wear but is still in a serviceable and functioning condition.
10 – 30%	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
30% and above	Has reached the end of its useful or serviceable life. Renewal is now necessary.

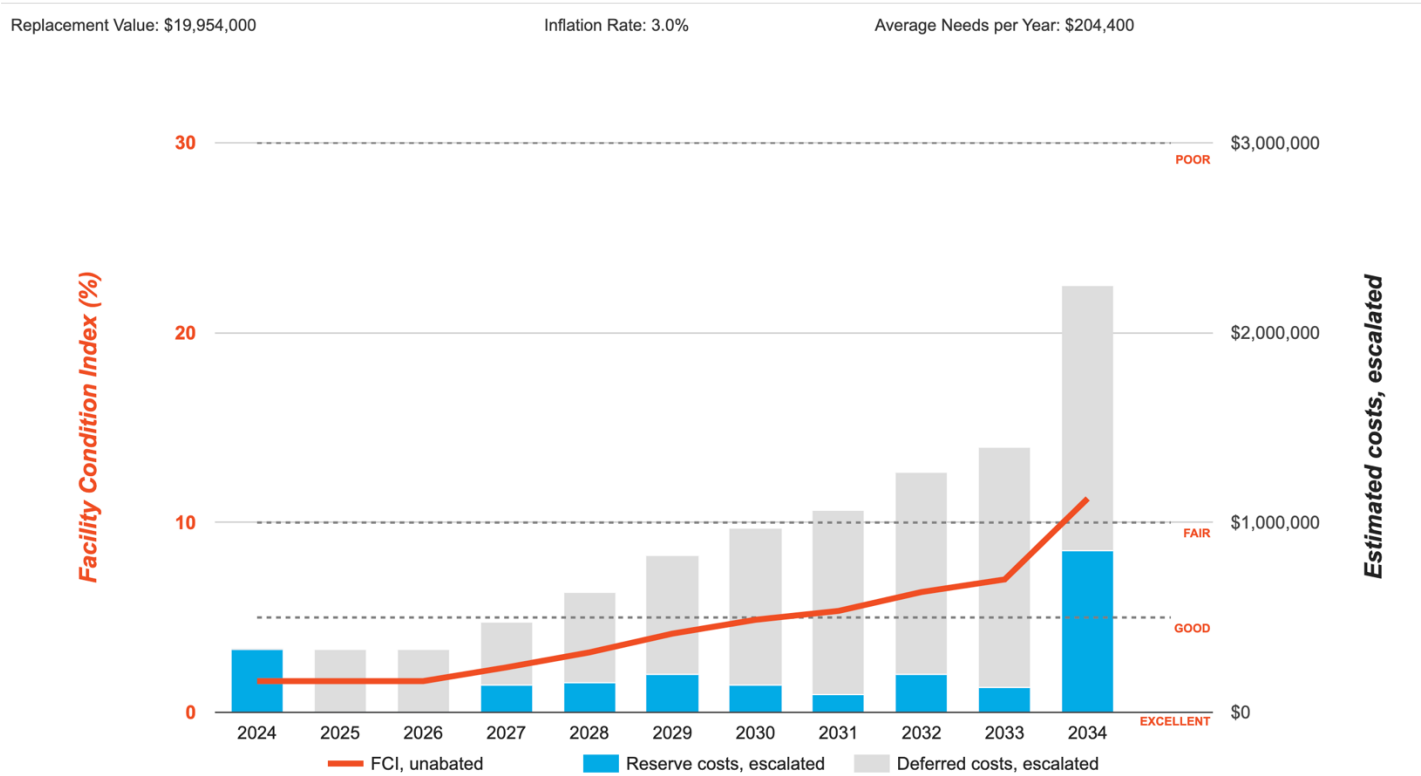
The deficiencies and lifecycle needs identified in this assessment provide the basis for a portfolio-wide capital improvement funding strategy. In addition to the current FCI, extended FCI's have been developed to provide owners the intelligence needed to plan and budget for the "keep-up costs" for their facilities. As such the 3-year, 5-year, and 10-year FCI's are calculated by dividing the anticipated needs of those respective time periods by current replacement value. As a final point, the FCI's ultimately provide more value when used to relatively compare facilities across a portfolio instead of being over-analyzed and scrutinized as stand-alone values. The table below summarizes the individual findings for this FCA:

FCI Analysis Whitehaven Elementary(1949)			
Replacement Value \$ 19,954,000	Total SF 49,885	Cost/SF \$ 400	
	Est Reserve Cost		FCI
Current	\$ 329,200		1.6 %
3-Year	\$ 472,900		2.4 %
5-Year	\$ 828,100		4.2 %
10-Year	\$ 2,248,100		11.3 %

The vertical bars below represent the year-by-year needs identified for the site. The orange line in the graph below forecasts what would happen to the FCI (left Y axis) over time, assuming zero capital expenditures over the next ten years. The dollar amounts allocated for each year (blue bars) are associated with the values along the right Y axis.

Needs by Year with Unaddressed FCI Over Time

FCI Analysis: Whitehaven Elementary



Immediate Needs

Facility/Building	Total Items	Total Cost
Whitehaven Elementary	4	\$329,200
Total	4	\$329,200

Whitehaven Elementary

ID	Location	Location Description	UF Code	Description	Condition	Plan Type	Cost
8040316	Whitehaven Elementary	Throughout Building	C1010	Interior Construction, any type, Repairs per Man-Day, Repair	Poor	Performance/Integrity	\$2,200
8040372	Whitehaven Elementary	Throughout Building	C1070	Suspended Ceilings, Hard Tile, ACM Abatement & Replacement w/ ACT, Replace	Poor	Retrofit/Adaptation	\$315,000
8040344	Whitehaven Elementary	Throughout Building	P2030	Architectural Study, Building Envelope, Façade, Evaluate/Report	Poor	Performance/Integrity	\$7,000
8045857	Whitehaven Elementary		P2030	Engineering Study, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	NA	Environmental	\$5,000
Total (4 items)							\$329,200

Key Findings

**Interior Construction in Poor condition.**

any type, Repairs per Man-Day
Whitehaven Elementary Throughout Building

Uniformat Code: C1010
Recommendation: **Repair in 2024**

Priority Score: **84.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$2,200

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Cost allowance for tile repairs throughout the facility - AssetCALC ID: 8040316

**Recommended Follow-up Study: Building Envelope, Façade**

Building Envelope, Façade
Whitehaven Elementary Throughout Building

Uniformat Code: P2030
Recommendation: **Evaluate/Report in 2024**

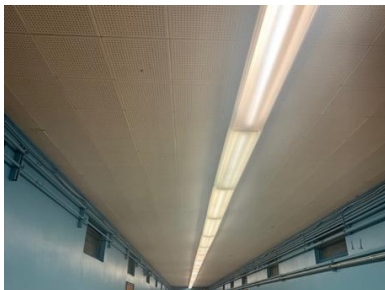
Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$7,000

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The paint peeling on the walls is signs of potential moisture issue - AssetCALC ID: 8040344

**Recommended Follow-up Study: Environmental, Asbestos (ACM) and Lead Base Paint (LBP)**

Environmental, Asbestos (ACM) and Lead
Base Paint (LBP)
Whitehaven Elementary

Uniformat Code: P2030
Recommendation: **Evaluate/Report in 2024**

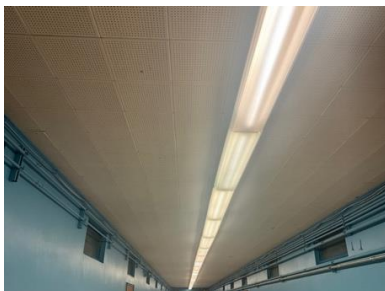
Priority Score: **72.9**

Plan Type: Environmental

Cost Estimate: \$5,000

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A study is recommend for potential asbestos ceiling tiles - AssetCALC ID: 8045857

**Suspended Ceilings in Poor condition.**

Hard Tile, ACM Abatement and Replacement
with ACT
Whitehaven Elementary Throughout Building

Uniformat Code: C1070
Recommendation: **Replace in 2024**

Priority Score: **54.9**

Plan Type:
Retrofit/Adaptation

Cost Estimate: \$315,000

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Potential ACM tiles - AssetCALC ID: 8040372

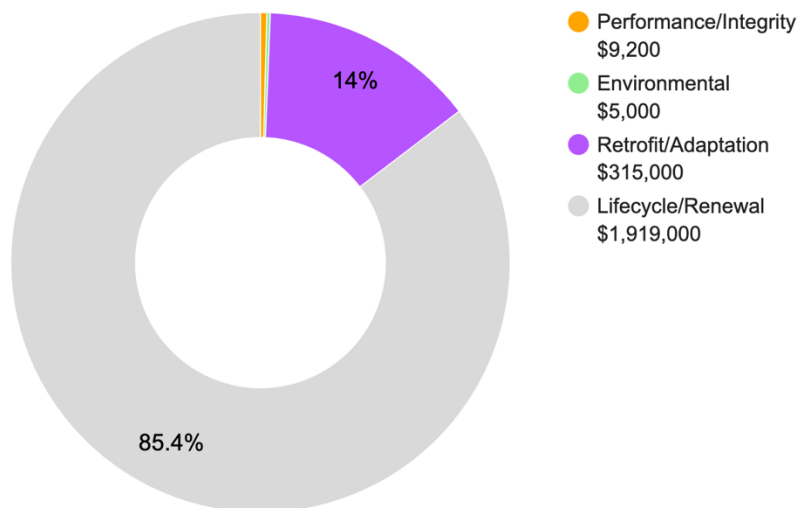
Plan Types

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the “why” part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the “best” fit, typically the one with the greatest significance.

Plan Type Descriptions

Safety	■	An observed or reported unsafe condition that if left unaddressed could result in injury; a system or component that presents potential liability risk.
Performance/Integrity	■	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses risk to overall system stability.
Accessibility	■	Does not meet ADA, UFAS, and/or other accessibility requirements.
Environmental	■	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Retrofit/Adaptation	■	Components, systems, or spaces recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	■	Any component or system that is not currently deficient or problematic but for which future replacement or repair is anticipated and budgeted.

Plan Type Distribution (by Cost)



10-YEAR TOTAL: \$2,248,200

2. Building and Site Information



Systems Summary

System	Description	Condition
Structure	Masonry bearing walls with metal roof deck supported by open-web steel joists and concrete strip/wall footing foundation system	Fair
Façade	Wall Finish: Brick Windows: Aluminum	Fair
Roof	Flat construction with single-ply TPO/PVC membrane	Fair
Interiors	Walls: Painted lath and plaster, glazed CMU, and ceramic tile Floors: Carpet, VCT, ceramic tile, quarry tile, wood strip, and terrazzo Ceilings: Painted lath and plaster and ACT	Fair
Elevators	None	--
Plumbing	Distribution: Copper supply and cast-iron waste and venting Hot Water: Gas and Electric water heaters with integral tanks Fixtures: Toilets, urinals, and sinks in all restrooms	Fair
HVAC	Central System: Boilers, chillers, and cabinet terminal units Non-Central System: Furnaces with split-system condensing unit's Supplemental components: Unit ventilators and Suspended unit heaters	Fair
Fire Suppression	Fire extinguishers and kitchen hood system	Fair
Electrical	Source & Distribution: Main switchboard with copper wiring Interior Lighting: LED, linear fluorescent, and CFL Emergency Power: None	Fair
Fire Alarm	Alarm panel with smoke detectors, heat detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair

Systems Summary

Equipment/Special	Commercial kitchen equipment	Fair
Site Pavement	Asphalt lots with limited areas of concrete aprons and pavement and adjacent concrete sidewalks, curbs, ramps, and stairs	Fair
Site Development	Property entrance signage; chain link fencing Playgrounds and sports fields Heavily furnished park benches, picnic tables, trash receptacles	Fair
Landscaping and Topography	Significant landscaping features including lawns, trees, bushes, and planters Irrigation not present Concrete retaining walls Low to moderate site slopes throughout	Fair
Utilities	Municipal water and sewer Local utility-provided electric and natural gas	Fair
Site Lighting	Pole-mounted: Metal halide Building-mounted: LED and metal halide	Fair
Ancillary Structures	None	--
Accessibility	Presently it does not appear an accessibility study is needed for this property. See Appendix D.	
Key Issues and Findings	Suspect interior moisture issues, building lacks fire suppression, asbestos ceiling tiles and severe alligator cracking and potholes,	

The table below shows the anticipated costs by trade or building system over the next 20 years.

System Expenditure Forecast						
System	Immediate	Short Term (1-2 yr)	Near Term (3-5 yr)	Med Term (6-10 yr)	Long Term (11-20 yr)	TOTAL
Facade	-	-	-	-	\$1,272,500	\$1,272,500
Roofing	-	-	\$1,400	-	\$662,600	\$664,100
Interiors	\$317,200	-	\$98,100	\$360,400	\$338,600	\$1,114,300
Plumbing	-	-	\$110,300	\$56,200	\$1,048,100	\$1,214,600
HVAC	-	-	\$2,600	\$242,200	\$421,500	\$666,300
Fire Protection	-	-	-	\$5,400	-	\$5,400
Electrical	-	-	\$94,700	\$50,000	\$659,900	\$804,600
Fire Alarm & Electronic Systems	-	-	\$400	\$447,100	-	\$447,500
Equipment & Furnishings	-	-	\$14,200	\$155,000	\$102,100	\$271,300
Special Construction & Demo	-	-	-	-	\$108,400	\$108,400
Site Development	-	-	-	\$58,900	\$108,100	\$167,000
Site Pavement	-	-	\$177,200	\$44,900	\$75,100	\$297,300
Follow-up Studies	\$12,000	-	-	-	-	\$12,000
TOTALS (3% inflation)	\$329,200	-	\$498,900	\$1,420,000	\$4,796,900	\$7,045,000

3. Property Space Use and Observed Areas

Areas Observed

Most of the interior spaces were observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, the exterior of the property, and the roof.

Key Spaces Not Observed

All key areas of the property were accessible and observed

4. ADA Accessibility

Generally, Title II of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “public facilities” on the basis of disability. Regardless of their age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

A public entity (i.e. city governments) shall operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities.

However, this does not:

1. Necessarily require a public entity to make each of its existing facilities accessible to and usable by individuals with disabilities;
2. Require a public entity to take any action that would threaten or destroy the historic significance of an historic property; or
3. Require a public entity to take any action that it can demonstrate would result in a fundamental alteration in the nature of a service, program, or activity or in undue financial and administrative burdens. In those circumstances where personnel of the public entity believe that the proposed action would fundamentally alter the service, program, or activity or would result in undue financial and administrative burdens, a public entity has the burden of proving that compliance with 35.150(a) of this part would result in such alteration or burdens. The decision that compliance would result in such alteration or burdens must be made by the head of a public entity or his or her designee after considering all resources available for use in the funding and operation of the service, program, or activity, and must be accompanied by a written statement of the reasons for reaching that conclusion. If an action would result in such an alteration or such burdens, a public entity shall take any other action that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the public entity.

Removal of barriers to accessibility should be addressed from a liability standpoint in order to comply with federal law, but the barriers may or may not be building code violations. The Americans with Disabilities Act Accessibility Guidelines are part of the ADA federal civil rights law pertaining to the disabled and are not a construction code. State and local jurisdictions have adopted the ADA Guidelines or have adopted other standards for accessibility as part of their construction codes.

During the FCA, Bureau Veritas performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to the same areas observed while performing the FCA and the categories set forth in the tables that are included in the appendix. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of this particular assessment. A full measured ADA survey would be required to identify any and all specific potential accessibility issues. Additional clarifications of this limited survey:

- This survey was visual in nature and actual measurements were not taken to verify compliance
- Only a representative sample of areas was observed
- Two overview photos were taken for each subsection regardless of perceived compliance or non-compliance
- Itemized costs for individual non-compliant items are not included in the dataset
- For any “none” boxes checked or reference to “no issues” identified, that alone does not guarantee full compliance

The facility was originally constructed in 1949. The facility has not since been substantially renovated.

No information about complaints or pending litigation associated with potential accessibility issues was provided during the interview process.

No detailed follow-up accessibility study is currently recommended since no major or moderate issues were identified at the subject site. Reference the appendix for specific data, photos, and tables or checklists associated with this limited accessibility survey.

5. Purpose and Scope

Purpose

Bureau Veritas was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

The physical condition of building systems and related components are typically defined as being in one of five condition ratings. For the purposes of this report, the following definitions are used:

Condition Ratings	
Excellent	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source. The preferred methodology is to have the client representative or building occupant complete a Pre-Survey Questionnaire (PSQ) in advance of the site visit. Common alternatives include a verbal interview just prior to or during the walk-through portion of the assessment.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report, which highlights key findings and includes a Facility Condition Index as a basis for comparing the relative conditions of the buildings within the portfolio.

6. Opinions of Probable Costs

Cost estimates are attached throughout this report, with the Replacement Reserves in the appendix.

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means*, *CBRE Whitestone*, and *Marshall & Swift*, Bureau Veritas's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing or bundling of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, use of subcontractors, and whether competitive pricing is solicited, etc. Certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, Bureau Veritas opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its *effective age*, whether explicitly or implicitly stated. Projections of Remaining Useful Life (RUL) are based primarily on age and condition with the presumption of continued use and maintenance of the Property similar to the observed and reported past use and maintenance practices, in conjunction with the professional judgment of Bureau Veritas's assessors. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be or were not derived from an actual construction document take-off or facility walk-through, and/or where systemic costs are more applicable or provide more intrinsic value, budgetary square foot and gross square foot costs are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Definitions

Immediate Needs

Immediate Needs are line items that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

For database and reporting purposes the line items with RUL=0, and commonly associated with *Safety* or *Performance/Integrity* Plan Types, are considered Immediate Needs.

Replacement Reserves

Cost line items traditionally called Replacement Reserves (equivalently referred to as Lifecycle/Renewals) are for recurring probable renewals or expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves generally exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, Bureau Veritas's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

Bureau Veritas's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined as Immediate Needs.

For the purposes of 'bucketizing' the System Expenditure Forecasts in this report, the Replacement Reserves have been subdivided and grouped as follows: Short Term (years 1-3), Near Term (years 4-5), Medium Term (years 6-10), and Long Term (years 11-20).

Key Findings

In an effort to highlight the most significant cost items and not be overwhelmed by the Replacement Reserves report in its totality, a subsection of Key Findings is included within the Executive Summary section of this report. Key Findings typically include repairs or replacements of deficient items within the first five-year window, as well as the most significant high-dollar line items that fall anywhere within the ten-year term. Note that while there is some subjectivity associated with identifying the Key Findings, the Immediate Needs are always included as a subset.

Exceedingly Aged

A fairly common scenario encountered during the assessment process, and a frequent source of debate, occurs when classifying and describing "very old" systems or components that are still functioning adequately and do not appear nor were reported to be in any way deficient. To help provide some additional intelligence on these items, such components will be tagged in the database as Exceedingly Aged. This designation will be reserved for mechanical or electrical systems or components that have aged well beyond their industry standard lifecycles, typically at least 15 years beyond and/or twice their Estimated Useful Life (EUL). In tandem with this designation, these items will be assigned a Remaining Useful Life (RUL) not less than two years but not greater than 1/3 of their standard EUL. As such the recommended replacement time for these components will reside outside the typical Short Term window but will not be pushed 'irresponsibly' (too far) into the future.

7. Certification

Shelby County Board of Education (the Client) retained Bureau Veritas to perform this Facility Condition Assessment in connection with its continued operation of Whitehaven Elementary, 4783 Elvis Presley Boulevard, Memphis, Tennessee 38116, the "Property". It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

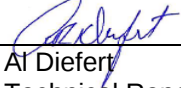
The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in-depth studies were performed unless specifically required under the *Purpose and Scope* section of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas may have been observed (see Section 1 for specific details). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared for and is exclusively for the use and benefit of the Client identified on the cover page of this report. The purpose for which this report shall be used shall be limited to the use as stated in the contract between the client and Bureau Veritas.

This report, or any of the information contained therein, is not for the use or benefit of, nor may it be relied upon by any other person or entity, for any purpose without the advance written consent of Bureau Veritas. Any reuse or distribution without such consent shall be at the client's or recipient's sole risk, without liability to Bureau Veritas.

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Technical Report Reviewer for
Andy Hupp,
Program Manager
Andy.hupp@bureauveritas.com
800.733.0660 x7296632 p

8. Appendices

- Appendix A: Photographic Record
- Appendix B: Site Plan
- Appendix C: Pre-Survey Questionnaire
- Appendix D: Accessibility Review and Photos
- Appendix E: Component Condition Report
- Appendix F: Replacement Reserves
- Appendix G: Equipment Inventory List

Appendix A:

Photographic Record

Photographic Overview



1 - FRONT ELEVATION



2 - LEFT ELEVATION



3 - REAR ELEVATION



4 - RIGHT ELEVATION



5 - PRIMARY ROOF OVERVIEW



6 - SECONDARY ROOF OVERVIEW

Photographic Overview



7 - MAIN LOBBY



8 - STAIRWELLS



9 - HALLWAY



10 - HALLWAY



11 - CLASSROOM



12 - CLASSROOM

Photographic Overview



13 - CLASSROOM



14 - OFFICE



15 - KITCHEN



16 - CAFETERIA



17 - WATER HEATERS



18 - ELECTRICAL ROOM

Photographic Overview



19 - MECHANICAL ROOM



20 - FIRE ALARM PANEL



21 - PARKING OVERVIEW



22 - PROPERTY SIGNAGE



23 - WALKWAY



24 - SITE FURNISHING

Appendix B:

Site Plan

Site Plan



 BUREAU VERITAS	Project Number	Project Name	
	163745.23R000-195.354	Whitehaven Elementary	
	Source	On-Site Date	
	Google	July 25, 2024	

Appendix C:

Pre-Survey Questionnaire

BV FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name: Whitehaven Elementary

Name of person completing form: Micheal Chambers

Title / Association w/ property: Plant Manager

Length of time associated w/ property: 1 year

Date Completed: July 25, 2024

Phone Number: 901-351-4127

Method of Completion: INTERVIEW - verbally completed during interview

Directions: Please answer all questions to the best of your knowledge and in good faith. Please provide additional details in the Comments column, or backup documentation for any **Yes** responses.

Data Overview		Response		
1	Year(s) constructed	Constructed 1949	Renovated	
2	Building size in SF	49,885	SF	
3	Major Renovation/Rehabilitation		Year	Additional Detail
		Facade		
		Roof		
		Interiors		
		HVAC	2024	New HVAC
		Electrical		
		Site Pavement		
		Accessibility		
4	List other significant capital improvements (focus on recent years; provide approximate date).			
5	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?			
6	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.			

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any **Yes** responses. (**NA** indicates "Not Applicable", **Unk** indicates "Unknown")

Question		Response				Comments
		Yes	No	Unk	NA	
7	Are there any problems with foundations or structures, like excessive settlement?		✗			
8	Are there any wall, window, basement or roof leaks?		✗			
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality complaints?		✗			
10	Are your elevators unreliable, with frequent service calls?				✗	
11	Are there any plumbing leaks, water pressure, or clogging/backup issues?		✗			
12	Have there been any leaks or pressure problems with natural gas, HVAC piping, or steam service?		✗			
13	Are any areas of the facility inadequately heated, cooled or ventilated? Poorly insulated areas?		✗			
14	Is the electrical service outdated, undersized, or problematic?		✗			Breaker box in kitchen keeps tripping causing food in the freezer to spoil
15	Are there any problems or inadequacies with exterior lighting?		✗			
16	Is site/parking drainage inadequate, with excessive ponding or other problems?		✗			
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?		✗			
18	ADA: Has an accessibility study been previously performed? If so, when?				✗	
19	ADA: Have any ADA improvements been made to the property since original construction? Describe.				✗	
20	ADA: Has building management reported any accessibility-based complaints or litigation?				✗	
21	Are any areas of the property leased to outside occupants?		✗			

Signature of Assessor

Signature of POC

Appendix D:

Accessibility Review and Photos

Visual Survey - 2010 ADA Standards for Accessible Design

Property Name: Whitehaven Elementary

BV Project Number: 163745.23R000-195.354

Facility History & Interview					
Question		Yes	No	Unk	Comments
1	Has an accessibility study been previously performed? If so, when?			X	
2	Have any ADA improvements been made to the property since original construction? Describe.			X	
3	Has building management reported any accessibility-based complaints or litigation?			X	

Whitehaven Elementary: Accessibility Issues				
Category	Major Issues (ADA study recommended)	Moderate Issues (ADA study recommended)	Minor Issues	None*
Parking			Only wheel chair entrance is through cafeteria	
Exterior Accessible Route				X
Building Entrances				X
Interior Accessible Route				X
Elevators	NA			
Public Restrooms				X
Kitchens/Kitchenettes				X
Playgrounds & Swimming Pools			No entrance to playground	
Other				

**be cognizant that if the "None" box is checked that does not guarantee full compliance; this study is limited in nature*

Whitehaven Elementary: Photographic Overview



2ND AREA OF ACCESSIBLE PARKING



NO SECONDARY PARKING



ACCESSIBLE PATH



2ND PATHWAY



MAIN ENTRANCE



ACCESSIBLE ENTRANCE

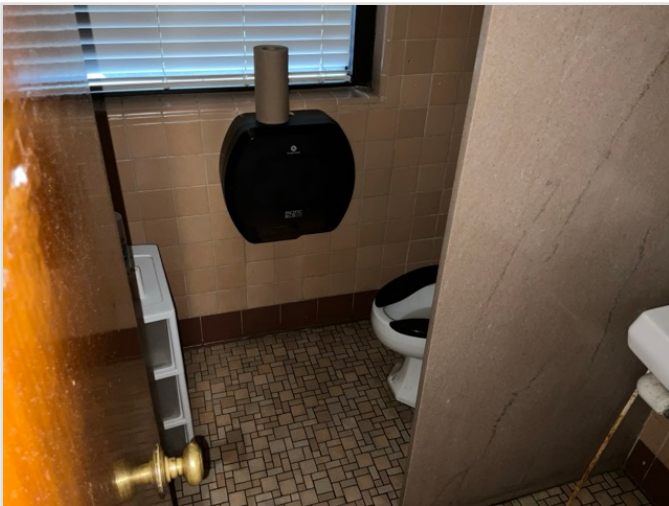
Whitehaven Elementary: Photographic Overview



DOOR HARDWARE



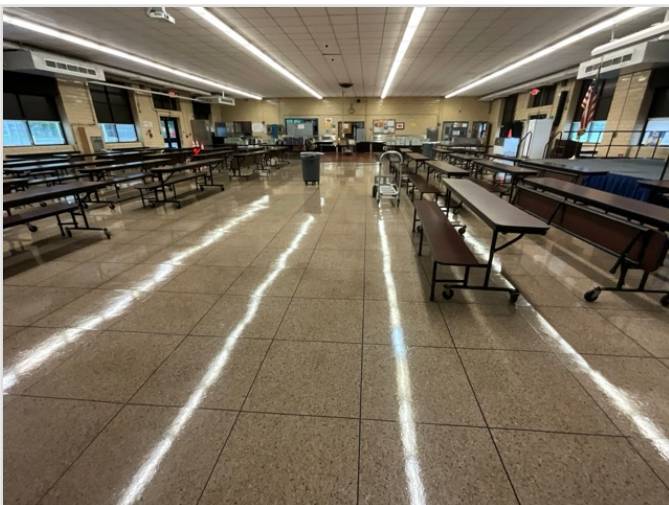
ACCESSIBLE INTERIOR PATH



TOILET STALL OVERVIEW



SINK, FAUCET HANDLES AND ACCESSORIES



CAFETERIA OVERVIEW



KITCHEN OVERVIEW

Whitehaven Elementary: Photographic Overview



PLAYGROUND SURFACE



PLAYGROUND SURFACE

Appendix E:

Component Condition Report

Component Condition Report | Whitehaven Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Facade						
B2010	Building Exterior	Fair	Exterior Walls, Brick	34,000 SF	30	8040321
B2020	Building Exterior	Fair	Glazing, any type, by SF	14,700 SF	15	8040319
B2050	Building Exterior	Fair	Exterior Door, Aluminum-Framed & Glazed, Standard Swing	2	16	8040356
B2050	Building Exterior	Good	Exterior Door, Steel, Standard	8	20	7907301
B2080	Roof	Fair	Awning, Metal, per SF of awning	700 SF	21	8040298
Roofing						
B3010	Roof	Fair	Roofing, Single-Ply Membrane, TPO/PVC	28,000 SF	11	8040303
B3020	Roof	Fair	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings	300 LF	11	8040318
B3060		Fair	Roof Hatch, Metal	1	3	8040373
Interiors						
C1010	Throughout Building	Poor	Interior Construction, any type, Repairs per Man-Day, Repair	2	0	8040316
C1010	Throughout Building	Fair	Interior Wall Construction, Glazed CMU	37,400 SF	25	8040354
C1020	Throughout Building	Fair	Interior Glazing, any type by SF	1,000 SF	20	8040348
C1030	Throughout Building	Fair	Interior Door, Wood, Solid-Core	58	5	7907297
C1070	Throughout Building	Fair	Suspended Ceilings, Acoustical Tile (ACT)	22,500 SF	16	8040324
C1070	Throughout Building	Poor	Suspended Ceilings, Hard Tile, ACM Abatement & Replacement w/ ACT	22,500 SF	0	8040372
C1090	Throughout Building	Fair	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H	200 LF	10	8040320
C1090	Restrooms	Fair	Toilet Partitions, Wood	17	3	7907299
C2010	Throughout Building	Fair	Wall Finishes, any surface, Prep & Paint	37,400 SF	6	8040296
C2030	Throughout Building	Good	Flooring, Vinyl Tile (VCT)	20,000 SF	10	8040338
C2030	Throughout Building	Fair	Flooring, Quarry Tile	10,000 SF	31	8040302
C2030	Throughout Building	Good	Flooring, Wood, Strip, Refinish	5,000 SF	7	8040312
C2030		Fair	Flooring, Ceramic Tile	1,500 SF	5	7907327

Component Condition Report | Whitehaven Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
C2030	Classrooms Science	Fair	Flooring, Carpet, Commercial Standard	1,200 SF	5	7907294
C2030	Throughout Building	Fair	Flooring, Terrazzo	15,000 SF	21	8040340
Plumbing						
D2010	Utility Rooms/Areas	Fair	Sink/Lavatory, Service Sink, Wall-Hung	3	11	8040323
D2010	Mechanical Room	Good	Water Heater, Electric, Commercial (12 kW), 30 to 80 GAL	1	19	7907324
D2010	Restrooms	Fair	Toilet, Child-Sized	42	5	7907325
D2010	Commercial Kitchen	Fair	Water Heater, Gas, Commercial (200 MBH)	1	10	8040315
D2010	Throughout Building	Good	Drinking Fountain, Wall-Mounted, Single-Level	6	10	7907319
D2010	Restrooms	Fair	Urinal, Standard	12	10	7907308
D2010	Mechanical Room	Good	Storage Tank, Domestic Water	1	29	7907341
D2010	Restrooms	Fair	Sink/Lavatory, Wall-Hung, Vitreous China	32	3	7907317
D2010	Restrooms	Fair	Toilet, Commercial Water Closet	6	5	7907305
D2010	Throughout Building	Fair	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures)	49,885 SF	20	8040352
D2010	Mechanical Room	Good	Water Heater, Electric, Commercial (12 kW), 30 to 80 GAL	1	19	7907296
D2030	Mechanical Room	Fair	Pump, Sump	1	5	7907331
D2060	Mechanical Room	Fair	Air Compressor, Tank-Style	1	8	7907292
HVAC						
D3020	Throughout Building	Fair	Radiator, Hydronic, Column/Cabinet Style (per EA)	8	15	8040364
D3020	Commercial Kitchen	Fair	Unit Heater, Electric	2	10	8040363
D3020	Mechanical Room	Fair	Boiler, Gas, HVAC	1	10	7907313
D3020	Mechanical Room	Fair	Boiler, Gas, HVAC	1	9	7907281
D3020	Mechanical Room	Fair	Boiler, Gas, HVAC	1	9	7907298
D3030	Building Exterior	Good	Chiller, Air-Cooled	1	23	8040350
D3030	Building Exterior	Fair	Split System, Condensing Unit/Heat Pump, 2 TON	1	7	7907293
D3030	Building Exterior	Good	Split System, Condensing Unit/Heat Pump, 2 TON	1	13	7907326

Component Condition Report | Whitehaven Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D3030	Cafeteria	Good	Unit Ventilator, approx/nominal 2 Ton	4	18	8040339
D3030	Throughout Building	Good	Unit Ventilator, approx/nominal 2 Ton	25	18	8040314
D3050	Mechanical Room	Good	Pump, Distribution, HVAC Heating Water	1	20	7907303
D3050	Mechanical Room	Good	Pump, Distribution, HVAC Heating Water	1	20	7907334
D3050	Mechanical Room	Good	Pump, Distribution, HVAC Heating Water	1	20	7907337
D3050	Cafeteria	Fair	HVAC Steam Components, Condensate Return Station	1	7	8040295
D3060	Kitchen roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 24" Damper	1	10	8040328
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1	10	8040374
D3060	Throughout Building	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1	10	8040300
D3060	Mechanical Room	Fair	Exhaust Fan, Centrifugal, 16" Damper	1	3	7907309
D3060	Commercial Kitchen	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	2	10	8040301
Fire Protection						
D4010	Throughout Building	Fair	Fire Suppression System, Commercial Kitchen, per LF of Hood	10 LF	10	8040294
Electrical						
D5020	Mechanical Room	Fair	Supplemental Components, Circuit Breaker/Disconnect	5	10	7907339
D5020	Mechanical Room	Fair	Secondary Transformer, Dry, Stepdown	1	5	7907335
D5020	Mechanical Room	Fair	Switchboard, 277/480 V	1	16	7907318
D5020	Mechanical Room	Fair	Distribution Panel, 277/480 V	1	15	7907307
D5020	Mechanical Room	Fair	Secondary Transformer, Dry, Stepdown	1	5	7907302
D5020	Mechanical Room	Fair	Switchboard, 120/208 V	1	3	7907312
D5030	Throughout Building	Fair	Electrical System, Wiring & Switches, Average or Low Density/Complexity	49,885 SF	18	8040337
D5030	Mechanical Room	Good	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	1	14	7907328
D5030	Mechanical Room	Good	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	1	14	7907314
D5030	Mechanical Room	Good	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	1	14	7907295
D5040	Building Exterior	Fair	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	8	10	8040326

Component Condition Report | Whitehaven Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D5040	Throughout Building	Fair	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures	49,885 SF	11	8040309
D5040	Building Exterior	Fair	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	5	3	7907310
D5040	Throughout Building	Fair	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	4	10	8040351
Fire Alarm & Electronic Systems						
D6060	Throughout Building	Fair	Clock System, Time Control Clock	1	3	7907306
D6060	Throughout Building	Fair	Intercom/PA System, Intercom System Upgrade, Facility-Wide	49,885 SF	10	8040308
D7030	Throughout Building	Fair	Security/Surveillance System, Full System Upgrade, Average Density	49,885 SF	8	8040370
D7050	Throughout Building	Fair	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade/Install	49,885 SF	10	8040347
D7050	Office Areas	Fair	Fire Alarm Panel, Fully Addressable	1	8	7907284
Equipment & Furnishings						
E1030	Kitchen	Fair	Foodservice Equipment, Icemaker, Freestanding	1	6	8040358
E1030	Kitchen	Fair	Foodservice Equipment, Steamer, Freestanding	1	6	8040293
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 1-Door Reach-In	1	8	8040304
E1030	Kitchen	Fair	Foodservice Equipment, Food Puree	1	6	8040345
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, 2-Door Reach-In	1	7	8040336
E1030	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 2-Bowl	2	15	8040299
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	7	8040305
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 3-Door Reach-In	1	7	8040366
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 1-Door Reach-In	1	8	8040311
E1030	Kitchen	Good	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	10	8040369
E1030	Kitchen	Fair	Foodservice Equipment, Food Puree	1	5	8040359
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, 3-Door Reach-In	1	8	8040342
E1030	Kitchen	Good	Foodservice Equipment, Freezer, 2-Door Reach-In	1	11	8040360
E1030	Kitchen	Fair	Foodservice Equipment, Exhaust Hood, 8 to 10 LF	1	6	8040330
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	7	8040353

Component Condition Report | Whitehaven Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
E1030	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 2-Bowl	1	16	8040325
E1030	Kitchen	Fair	Foodservice Equipment, Dishwasher Commercial	1	6	8040371
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	7	8040332
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	7	8040306
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Single [Oven 1]	1	6	8040346
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	7	8040349
E1030	Kitchen	Fair	Foodservice Equipment, Range/Oven, 4-Burner	1	6	8040297
E1030	Kitchen	Fair	Foodservice Equipment, Mixer, Freestanding	1	10	8040329
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, 3-Door Reach-In	1	8	8040365
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Double	1	5	8040341
E1030	Kitchen	Fair	Foodservice Equipment, Food Puree	1	5	8040322
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 3-Door Reach-In	1	6	8040317
E1030	Kitchen	Fair	Foodservice Equipment, Garbage Disposal, 1 to 3 HP	1	6	8040361
E1030	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 1-Bowl	1	15	8040362
Special Construction & Demo						
F1020	Site	Good	Shed/Gazebo/Shade Structure, Wood or Metal-Framed, Standard	1,200 SF	20	7907289
Pedestrian Plazas & Walkways						
G2020	Site	Fair	Parking Lots, Pavement, Asphalt, Seal & Stripe	40,000 SF	3	8040307
G2020	Site	Fair	Parking Lots, Pavement, Asphalt, Mill & Overlay	40,000 SF	4	8040355
G2020	Site	Fair	Parking Lots, Pavement, Concrete	2,000 SF	7	8040368
G2030	Site	Fair	Sidewalk, Concrete, Small Areas/Sections	500 SF	20	8040375
Athletic, Recreational & Playfield Areas						
G2050	Site	Good	Play Structure, Multipurpose, Large	1	15	7907283
G2050	Site	Good	Playfield Surfaces, Artificial Play Turf	800 SF	10	7907290
G2050	Site	Fair	Play Structure, Multipurpose, Medium	1	10	7907336

Component Condition Report | Whitehaven Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
G2050	Site	Good	Play Structure, Multipurpose, Small	2	15	7907300
Sitework						
G2060	Site	Fair	Picnic Table, Wood/Composite/Fiberglass	13	10	7907286
G2060	Site	Fair	Fences & Gates, Fence, Chain Link 4'	800 LF	15	8040367
G2060	Site	Fair	Retaining Wall, Concrete Cast-in-Place	200 SF	21	8040331
Follow-up Studies						
P2030		NA	Engineering Study, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	1	0	8045857
P2030	Throughout Building	Poor	Architectural Study, Building Envelope, Façade, Evaluate/Report	1	0	8040344

Appendix F:

Replacement Reserves

Replacement Reserves Report																																	
Whitehaven Elementary																																	
10/1/2024																																	
Location	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Total Escalated Estimate											
Whitehaven Elementary	\$329,200	\$0	\$0	\$143,748	\$157,571	\$197,598	\$145,197	\$93,101	\$198,782	\$132,565	\$850,407	\$986,242	\$0	\$31,427	\$39,932	\$1,425,042	\$379,272	\$33,057	\$608,301	\$43,487	\$1,250,199	\$7,045,128											
Grand Total	\$329,200	\$0	\$0	\$143,748	\$157,571	\$197,598	\$145,197	\$93,101	\$198,782	\$132,565	\$850,407	\$986,242	\$0	\$31,427	\$39,932	\$1,425,042	\$379,272	\$33,057	\$608,301	\$43,487	\$1,250,199	\$7,045,128											
Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	* Subtotal	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Deficiency Repair Estimate	
B2020	Building Exterior	8040319	Glazing, any type, by SF, Replace	30	15	15	14700	SF	\$55.00	\$808,500																	\$808,500					\$808,500	
B2050	Building Exterior	8040356	Exterior Door, Aluminum-Framed & Glazed, Standard Swing, Replace	30	14	16	2	EA	\$1,300.00	\$2,600																			\$2,600			\$2,600	
B2050	Building Exterior	7907301	Exterior Door, Steel, Standard, Replace	30	10	20	8	EA	\$600.00	\$4,800																				\$4,800		\$4,800	
B3010	Roof	8040303	Roofing, Single-Ply Membrane, TPO/PVC, Replace	20	9	11	28000	SF	\$17.00	\$476,000											\$476,000											\$476,000	
B3020	Roof	8040318	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings, Replace	20	9	11	300	LF	\$9.00	\$2,700											\$2,700											\$2,700	
B3060	Whitehaven Elementary	8040373	Roof Hatch, Metal, Replace	30	27	3	1	EA	\$1,300.00	\$1,300				\$1,300																			\$1,300
C1010	Throughout Building	8040316	Interior Construction, any type, Repairs per Man-Day, Repair	0	0	0	2	EA	\$1,100.00	\$2,200	\$2,200																						\$2,200
C1020	Throughout Building	8040348	Interior Glazing, any type by SF, Replace	40	20	20	1000	SF	\$41.60	\$41,600																				\$41,600			\$41,600
C1030	Throughout Building	7907297	Interior Door, Wood, Solid-Core, Replace	40	35	5	58	EA	\$700.00	\$40,600						\$40,600																	\$40,600
C1070	Throughout Building	8040372	Suspended Ceilings, Hard Tile, ACM Abatement & Replacement w/ ACT, Replace	25	25	0	22500	SF	\$14.00	\$315,000	\$315,000																						\$315,000
C1070	Throughout Building	8040324	Suspended Ceilings, Acoustical Tile (ACT), Replace	25	9	16	22500	SF	\$3.50	\$78,750																		\$78,750					\$78,750
C1090	Restrooms	7907299	Toilet Partitions, Wood, Replace	20	17	3	17	EA	\$500.00	\$8,500				\$8,500																			\$8,500
C1090	Throughout Building	8040320	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H, Replace	20	10	10	200	LF	\$500.00	\$100,000										\$100,000													\$100,000
C2010	Throughout Building	8040296	Wall Finishes, any surface, Prep & Paint	10	4	6	37400	SF	\$1.50	\$56,100																		\$56,100					\$112,200
C2030	Whitehaven Elementary	7907327	Flooring, Ceramic Tile, Replace	40	35	5	1500	SF	\$18.00	\$27,000						\$27,000																	\$27,000
C2030	Throughout Building	8040312	Flooring, Wood, Strip, Refinish	10	3	7	5000	SF	\$4.00	\$20,000									\$20,000										\$20,000				\$40,000
C2030	Throughout Building	8040338	Flooring, Vinyl Tile (VCT), Replace	15	5	10	20000	SF	\$5.00	\$100,000											\$100,000												\$100,000
C2030	Classrooms Science	7907294	Flooring, Carpet, Commercial Standard, Replace	10	5	5	1200	SF	\$7.50	\$9,000						\$9,000											\$9,000						\$18,000
D2010	Commercial Kitchen	8040315	Water Heater, Gas, Commercial (200 MBH), Replace	20	10	10	1	EA	\$16,600.00	\$16,600											\$16,600												\$16,600
D2010	Mechanical Room	7907296	Water Heater, Electric, Commercial (12 kW), 30 to 80 GAL, Replace	20	1	19	1	EA	\$12,400.00	\$12,400																				\$12,400			\$12,400
D2010	Mechanical Room	7907324	Water Heater, Electric, Commercial (12 kW), 30 to 80 GAL, Replace	20	1	19	1	EA	\$12,400.00	\$12,400																				\$12,400			\$12,400
D2010	Throughout Building	8040352	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures), Replace	40	20	20	49885	SF	\$11.00	\$548,735																					\$548,735		\$548,735
D2010	Restrooms	7907317	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	27	3	32	EA	\$1,500.00	\$48,000				\$48,000																			\$48,000
D2010	Restrooms	7907305	Toilet, Commercial Water Closet, Replace	30	25	5	6	EA	\$1,300.00	\$7,800						\$7,800																	\$7,800
D2010	Restrooms	7907325	Toilet, Child-Sized, Replace	30	25	5	42	EA	\$900.00	\$37,800						\$37,800																	\$37,800
D2010	Restrooms	7907308	Urinal, Standard, Replace	30	20	10	12	EA	\$1,100.00	\$13,200											\$13,200												\$13,200
D2010	Throughout Building	7907319	Drinking Fountain, Wall-Mounted, Single-Level, Replace	15	5	10	6	EA	\$1,200.00	\$7,200											\$7,200												\$7,200
D2010	Utility Rooms/Areas	8040323	Sink/Lavatory, Service Sink, Wall-Hung, Replace	35	24	11	3	EA	\$1,400.00	\$4,200												\$4,200											\$4,200
D2030	Mechanical Room	7907331	Pump, Sump, Replace	15	10	5	1	EA	\$4,270.00	\$4,270						\$4,270															\$4,270		\$8,540
D2060	Mechanical Room	7907292	Air Compressor, Tank-Style, Replace	20	12	8	1	EA	\$5,150.00	\$5,150										\$5,150													\$5,150
D3020	Mechanical Room	7907281	Boiler, Gas, HVAC, Replace	30	21	9	1	EA	\$50,800.00	\$50,800											\$50,800												\$50,800
D3020	Mechanical Room	7907298	Boiler, Gas, HVAC, Replace	30	21	9	1	EA	\$50,800.00	\$50,800											\$50,800												\$50,800
D3020	Mechanical Room	7907313	Boiler, Gas, HVAC, Replace	30	20	10	1	EA	\$50,800.00	\$50,800											\$50,800												\$50,800
D3020	Commercial Kitchen	8040363	Unit Heater, Electric, Replace	20	10	10	2	EA	\$3,600.00	\$7,200											\$7,200												\$7,200
D3020	Throughout Building	8040364	Radiator, Hydronic, Column/Cabinet Style (per EA), Replace	30	15	15	8	EA	\$800.00	\$6,400																	\$6,400						\$6,400
D3030	Building Exterior	7907293	Split System, Condensing Unit/Heat Pump, 2 TON, Replace	15	8	7	1	EA	\$3,400.00	\$3,400									\$3,400														\$3,400
D3030	Building Exterior	7907326	Split System, Condensing Unit/Heat Pump, 2 TON, Replace	15	2	13	1	EA	\$3,400.00	\$3,400																\$3,400							\$3,400
D3030	Cafeteria	8040339	Unit Ventilator, approx/nominal 2 Ton, Replace	20	2	18	4	EA	\$7,400.00	\$29,600																				\$29,600			\$29,600
D3030	Throughout Building	8040314	Unit Ventilator, approx/nominal 2 Ton, Replace	20	2	18	25	EA	\$7,400.00	\$185,000																							

Replacement Reserves Report

Whitehaven Elementary

10/1/2024



Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	* Subtotal	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Deficiency Repair Estimate
G2020	Site	8040368	Parking Lots, Pavement, Concrete, Replace	50	43	7	2000	SF	\$9.00	\$18,000								\$18,000														\$18,000
G2030	Site	8040375	Sidewalk, Concrete, Small Areas/Sections, Replace	50	30	20	500	SF	\$20.00	\$10,000																				\$10,000		\$10,000
G2050	Site	7907336	Play Structure, Multipurpose, Medium, Replace	20	10	10	1	EA	\$20,000.00	\$20,000											\$20,000											\$20,000
G2050	Site	7907290	Playfield Surfaces, Artificial Play Turf, Replace	15	5	10	800	SF	\$20.00	\$16,000											\$16,000											\$16,000
G2050	Site	7907300	Play Structure, Multipurpose, Small, Replace	20	5	15	2	EA	\$10,000.00	\$20,000																	\$20,000					\$20,000
G2050	Site	7907283	Play Structure, Multipurpose, Large, Replace	20	5	15	1	EA	\$35,000.00	\$35,000																	\$35,000					\$35,000
G2060	Site	7907286	Picnic Table, Wood/Composite/Fiberglass, Replace	20	10	10	13	EA	\$600.00	\$7,800											\$7,800											\$7,800
G2060	Site	8040367	Fences & Gates, Fence, Chain Link 4', Replace	40	25	15	800	LF	\$18.00	\$14,400																	\$14,400					\$14,400
P2030	Throughout Building	8040344	Architectural Study, Building Envelope, Façade, Evaluate/Report	0	0	0	1	EA	\$7,000.00	\$7,000	\$7,000																					\$7,000
P2030	Whitehaven Elementary	8045857	Engineering Study, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	0	0	0	1	EA	\$5,000.00	\$5,000	\$5,000																					\$5,000
Totals, Unescalated											\$329,200	\$0	\$0	\$131,550	\$140,000	\$170,450	\$121,600	\$75,700	\$156,920	\$101,600	\$632,783	\$712,483	\$0	\$21,400	\$26,400	\$914,680	\$236,350	\$20,000	\$357,313	\$24,800	\$692,205	\$4,865,433
Totals, Escalated (3.0% inflation, compounded annually)											\$329,200	\$0	\$0	\$143,748	\$157,571	\$197,598	\$145,197	\$93,101	\$198,782	\$132,565	\$850,407	\$986,242	\$0	\$31,427	\$39,932	\$1,425,042	\$379,272	\$33,057	\$608,301	\$43,487	\$1,250,199	\$7,045,128

Appendix G:

Equipment Inventory List

D20 Plumbing													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7907341	D2010	Storage Tank	Domestic Water	500 GAL	Whitehaven Elementary	Mechanical Room	Wessels	No dataplate	No dataplate	2023		
2	7907324	D2010	Water Heater	Electric, Commercial (12 kW), 30 to 80 GAL	80 GAL	Whitehaven Elementary	Mechanical Room	A. O. Smith	TJ-80S 000	2107123196368	2023		
3	7907296	D2010	Water Heater	Electric, Commercial (12 kW), 30 to 80 GAL	80 GAL	Whitehaven Elementary	Mechanical Room	A. O. Smith	TJ-80S 000	2107123196369	2023		
4	8040315	D2010	Water Heater	Gas, Commercial (200 MBH)	192 GAL	Whitehaven Elementary	Commercial Kitchen	A. O. Smith	BTR 199 118	1444M000128	2014		
5	7907331	D2030	Pump	Sump	3 HP	Whitehaven Elementary	Mechanical Room	Inaccessible	Inaccessible	Inaccessible			
6	7907292	D2060	Air Compressor	Tank-Style	.75 HP	Whitehaven Elementary	Mechanical Room	SpeedAire	5Z696A	L3/2/0028			
D30 HVAC													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7907313	D3020	Boiler	Gas, HVAC	1800 MBH	Whitehaven Elementary	Mechanical Room	Cleaver-Brooks	CFG-7001800-60HW	MB 1349			
2	7907281	D3020	Boiler	Gas, HVAC	1800 MBH	Whitehaven Elementary	Mechanical Room	Cleaver-Brooks	CFG-7001800-60HW	MB 1348	2003		
3	7907298	D3020	Boiler	Gas, HVAC	1800 MBH	Whitehaven Elementary	Mechanical Room	Cleaver-Brooks	CFG-7001800-60HW	MB 1347	2003		
4	8040364	D3020	Radiator	Hydronic, Column/Cabinet Style (per EA)		Whitehaven Elementary	Throughout Building	Inaccessible	Inaccessible	Inaccessible	1995		8
5	8040363	D3020	Unit Heater	Electric	12 KW	Whitehaven Elementary	Commercial Kitchen	Modine Manufacturing	Inaccessible	Inaccessible	2005		2
6	8040350	D3030	Chiller	Air-Cooled	211 TON	Whitehaven Elementary	Building Exterior	Daikin Industries	AGZ211ETSEMNN0A	STNU220300254	2022		
7	7907293	D3030	Split System	Condensing Unit/Heat Pump, 2 TON	2 TON	Whitehaven Elementary	Building Exterior	Lennox	ML14XC1S024-230A03	5822A11773			
8	7907326	D3030	Split System	Condensing Unit/Heat Pump, 2 TON	2 TON	Whitehaven Elementary	Building Exterior	Lennox	ML14XC1S024-230A03	1922E03158			
9	8040339	D3030	Unit Ventilator	approx/nominal 2 Ton	500 CFM	Whitehaven Elementary	Cafeteria	Inaccessible	Inaccessible	Inaccessible	2022		4

10	8040314	D3030	Unit Ventilator	approx/nominal 2 Ton	750 CFM	Whitehaven Elementary	Throughout Building	Daikin Industries	Inaccessible	Inaccessible	2022	25	
11	7907303	D3050	Pump	Distribution, HVAC Heating Water	15 HP	Whitehaven Elementary	Mechanical Room	Bell & Gossett	BMP	C344646-02B32	2019		
12	7907334	D3050	Pump	Distribution, HVAC Heating Water	15 HP	Whitehaven Elementary	Mechanical Room	Bell & Gossett	BMP	C344647-01B32	2019		
13	7907337	D3050	Pump	Distribution, HVAC Heating Water	15 HP	Whitehaven Elementary	Mechanical Room	Bell & Gossett	BMP	C344646-01B32	2019		
14	8040295	D3050	HVAC Steam Components	Condensate Return Station	15 GAL	Whitehaven Elementary	Cafeteria	No dataplate	No dataplate	No dataplate	2000		
15	7907309	D3060	Exhaust Fan	Centrifugal, 16" Damper	1000 CFM	Whitehaven Elementary	Mechanical Room	Dayton	8M210	No dataplate			
16	8040374	D3060	Exhaust Fan	Roof or Wall-Mounted, 16" Damper	2000 CFM	Whitehaven Elementary	Roof	No dataplate	No dataplate	No dataplate	2005		
17	8040300	D3060	Exhaust Fan	Roof or Wall-Mounted, 16" Damper	2000 CFM	Whitehaven Elementary	Throughout Building	No dataplate	No dataplate	No dataplate	2005		
18	8040301	D3060	Exhaust Fan	Roof or Wall-Mounted, 16" Damper	2000 CFM	Whitehaven Elementary	Commercial Kitchen	PennBarry	Inaccessible	Inaccessible	2010	2	
19	8040328	D3060	Exhaust Fan	Roof or Wall-Mounted, 24" Damper	5000 CFM	Whitehaven Elementary	Kitchen roof	Inaccessible	Inaccessible	Inaccessible	2010		
D40 Fire Protection													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8040294	D4010	Fire Suppression System	Commercial Kitchen, per LF of Hood		Whitehaven Elementary	Throughout Building				2015		10
D50 Electrical													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7907335	D5020	Secondary Transformer	Dry, Stepdown	25 KVA	Whitehaven Elementary	Mechanical Room	Federal Pacific	S2T25E	No dataplate			
2	7907302	D5020	Secondary Transformer	Dry, Stepdown	225 KVA	Whitehaven Elementary	Mechanical Room	Cutler-Hammer	048M28F 22P	195 E8483			
3	7907312	D5020	Switchboard	120/208 V	800 AMP	Whitehaven Elementary	Mechanical Room	GE	2-50	6125738-GF			
4	7907318	D5020	Switchboard	277/480 V	1200 AMP	Whitehaven Elementary	Mechanical Room	Cutler-Hammer	PRL4B	HUMH18001 003	2000		
5	7907307	D5020	Distribution Panel	277/480 V	225 AMP	Whitehaven Elementary	Mechanical Room	Cutler-Hammer	PRL-2	No dataplate			
6	7907328	D5030	Variable Frequency Drive	VFD, by HP of Motor	15 HP	Whitehaven Elementary	Mechanical Room	AAB	ACH580-01- 023A -4 +P922	Y2236A2533	2018		

7	7907314	D5030	Variable Frequency Drive	VFD, by HP of Motor 15 HP		Whitehaven Elementary	Mechanical Room	AAB	ACH580-01- 023A -4 +P922	YS/N:2222806462	2018		
8	7907295	D5030	Variable Frequency Drive	VFD, by HP of Motor 15 HP		Whitehaven Elementary	Mechanical Room	AAB	ACH580-01- 023A -4 +P922	Y2236A2540	2018		
D70 Electronic Safety & Security													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7907284	D7050	Fire Alarm Panel	Fully Addressable		Whitehaven Elementary	Office Areas	EST	Inaccessible	Inaccessible			
E10 Equipment													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8040341	E1030	Foodservice Equipment	Convection Oven, Double		Whitehaven Elementary	Kitchen	Duke	Illegible	Illegible	2010		
2	8040305	E1030	Foodservice Equipment	Dairy Cooler/Wells		Whitehaven Elementary	Kitchen	Nor-Lake	7090141	AR164WVS/0-A	2010		
3	8040332	E1030	Foodservice Equipment	Dairy Cooler/Wells		Whitehaven Elementary	Kitchen	MasterBuilt	Inaccessible	Inaccessible	2010		
4	8040349	E1030	Foodservice Equipment	Dairy Cooler/Wells		Whitehaven Elementary	Kitchen	Beverage-Air Corporation	No dataplate	No dataplate	2010		
5	8040371	E1030	Foodservice Equipment	Dishwasher Commercial		Whitehaven Elementary	Kitchen	Dishmachines	No dataplate	No dataplate	2006		
6	8040330	E1030	Foodservice Equipment	Exhaust Hood, 8 to 10 LF		Whitehaven Elementary	Kitchen	ECON-AIR	5424 EX-2	No dataplate	2015		
7	8040345	E1030	Foodservice Equipment	Food Puree		Whitehaven Elementary	Kitchen	FWE	No dataplate	No dataplate	2010		
8	8040359	E1030	Foodservice Equipment	Food Puree		Whitehaven Elementary	Kitchen	Delfield	SCFT-60-NUP	1907150000541	2010		
9	8040322	E1030	Foodservice Equipment	Food Puree		Whitehaven Elementary	Kitchen	Duke	305P M	06193158	2006		
10	8040369	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels		Whitehaven Elementary	Kitchen	FWE	SCFT-60-NUP	1907150000546	2019		
11	8040353	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels		Whitehaven Elementary	Kitchen	FWE	UHS-12	123465908	2010		
12	8040306	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels		Whitehaven Elementary	Kitchen	Cozoc	305P M	06193164	2006		
13	8040336	E1030	Foodservice Equipment	Freezer, 2-Door Reach-In		Whitehaven Elementary	Kitchen	Supera	F2R-1	2.09301510952	2015		
14	8040360	E1030	Foodservice Equipment	Freezer, 2-Door Reach-In		Whitehaven Elementary	Kitchen	Atosa	MBF8002GR	MBF8002GRAUS1 T0320082200C40009	2020		

15	8040342	E1030	Foodservice Equipment	Freezer, 3-Door Reach-In	Whitehaven Elementary	Kitchen	MasterBuilt	FB72HC-5S	14310817	2015
16	8040365	E1030	Foodservice Equipment	Freezer, 3-Door Reach-In	Whitehaven Elementary	Kitchen	Migali	C-3F	3F00317122600920014	2017
17	8040361	E1030	Foodservice Equipment	Garbage Disposal, 1 to 3 HP	Whitehaven Elementary	Kitchen	Inaccessible	Inaccessible	Inaccessible	2010
18	8040358	E1030	Foodservice Equipment	Icemaker, Freestanding	Whitehaven Elementary	Kitchen	Ice-O-Matic	ICE0320HA5	15091280011097	2015
19	8040329	E1030	Foodservice Equipment	Mixer, Freestanding	Whitehaven Elementary	Kitchen	Hobart	A-200	1049625	2005
20	8040297	E1030	Foodservice Equipment	Range/Oven, 4-Burner	Whitehaven Elementary	Kitchen	SunFIRE	No dataplate	No dataplate	2010
21	8040304	E1030	Foodservice Equipment	Refrigerator, 1-Door Reach-In	Whitehaven Elementary	Kitchen	Arctic Air	AR23E	435219	2015
22	8040311	E1030	Foodservice Equipment	Refrigerator, 1-Door Reach-In	Whitehaven Elementary	Kitchen	Arctic Air	AR23E	435235	2015
23	8040366	E1030	Foodservice Equipment	Refrigerator, 3-Door Reach-In	Whitehaven Elementary	Kitchen	MasterBuilt	R72-S	R72S-11120033	2015
24	8040317	E1030	Foodservice Equipment	Refrigerator, 3-Door Reach-In	Whitehaven Elementary	Kitchen	MasterBuilt	R72-S	11050015	2015
25	8040293	E1030	Foodservice Equipment	Steamer, Freestanding	Whitehaven Elementary	Kitchen	ACCUTEMP	N61201D06000200	56850	2018
26	8040346	E1030	Foodservice Equipment [Oven 1]	Convection Oven, Single	Whitehaven Elementary	Kitchen	Garland	MEA 21-93-E	No dataplate	2010
27	8040362	E1030	Sink/Lavatory	Commercial Kitchen, 1-Bowl	Whitehaven Elementary	Kitchen				2005
28	8040299	E1030	Sink/Lavatory	Commercial Kitchen, 2-Bowl	Whitehaven Elementary	Kitchen				20052
29	8040325	E1030	Sink/Lavatory	Commercial Kitchen, 2-Bowl	Whitehaven Elementary	Kitchen				2010