

FACILITY CONDITION ASSESSMENT



**BUREAU
VERITAS**

prepared for

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



Norris Achievement Academy (Old Norris ES)
1490 Norris Road
Memphis, Tennessee 38106

PREPARED BY:

Bureau Veritas
6021 University Boulevard, Suite 200
Ellicott City, Maryland 21043
800.733.0660
www.us.bureauveritas.com

BV CONTACT:

Andrew Hupp
Program Manager
800.733.0660 x7296632
Andy.Hupp@bureauveritas.com

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Bureau Veritas

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1. Executive Summary

Property Overview and Assessment Details

General Information	
Property Type	School
Main Address	1490 Norris Road, Memphis, Tennessee 38106
Site Developed	1961 Phase I/2022 Phase II
Site Area	2.48 acres (estimated)
Parking Spaces	36 total spaces all in open lots; two of which are accessible
Building Area	139,338 SF
Number of Stories	Two above grade with one below-grade partial basement level
Outside Occupants / Leased Spaces	None
Date(s) of Visit	February 26, 2024
Management Point of Contact	Ms. Mary Taylor, Shelby County Board of Education Phone: (901) 416-5376 Email: taylorm15@scsk12.org
On-site Point of Contact (POC)	Terry Ried, Facilities Supervisor
Assessment and Report Prepared By	Matthew Van Camp
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 subject facility was constructed in 1961 as Norris Elementary School. After a new facility was built, the elementary school moved out in 2014, and the structure was used as an adult community center for a period of time. The community center closed at the onset of Covid-19 in 2020 and remained vacant until 2022 when the building underwent refurbishment to reopen as a junior high school.

Architectural

The concrete and CMU framed structure sits upon a typical concrete slab foundation with a partial basement level under the west half of the building. Brick veneer surrounds the exterior with sections of concrete columns and steel window framing. The building is capped with a TPO membrane roofing system and metal flashing with no roof leaks reported. Interior finishes consisted of vinyl or ceramic floor tiles, carpet, and sealed concrete for flooring. Walls consisted of CMU block or standard gypsum construction with ACT or exposed ceiling finishes. Typical lifecycle-based interior and exterior finish replacements are budgeted and anticipated.

The metal roof flashing was observed to be unattached in some areas along the leading edge which should be repaired soon. The window systems throughout appeared to be in fair to poor condition with plexi-glass inserts, cracking or holes noted in the single-paned windows. Replacement of the windows is recommended to occur soon to assist with ongoing issues such as climate and pest control in the building. Multiple wasps were observed flying in all the classrooms on the 2nd floor/west half area. It was reported by the site escort that wasps and beetles are entering the building from the window frames and plenum areas and have become a nuisance.

Mechanical, Electrical, Plumbing and Fire (MEPF)

Conditioned air for the building is provided by a boiler and chiller hydronic system which is fed to fan-coil units (FCU). Supplemental climate control is through a split-system unit, cabinet style radiators and unit heaters throughout the building. It was reported to the Bureau Veritas assessor that the chiller partially works and is constantly being repaired. Heated water to the plumbing fixtures is possible by a boiler with an attached water storage tank. Electrical service to the property is via overhead utility lines to a main 1600-amp switchboard located in the mechanical room. Electricity is then fed to smaller subpanels across the building. During the 2022 revamp of the property, some kitchen appliances and HVAC pumps were replaced. Fire suppression is available through fire extinguishers and a kitchen hood system and is supplemented by a fire alarm system which is connected to all areas of the building.

Site

The property contains an asphalt lot on the east side for faculty parking. Sections of concrete pavement are present near the dock and trash enclosure. Landscaping is non irrigated native grasses in most areas. The planters at the front elevation were observed to be in poor condition with exposed and torn fabric. Two small asphalt play areas are located on the west portion of the property.

Recommended Additional Studies

No additional studies recommended at this time.

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.

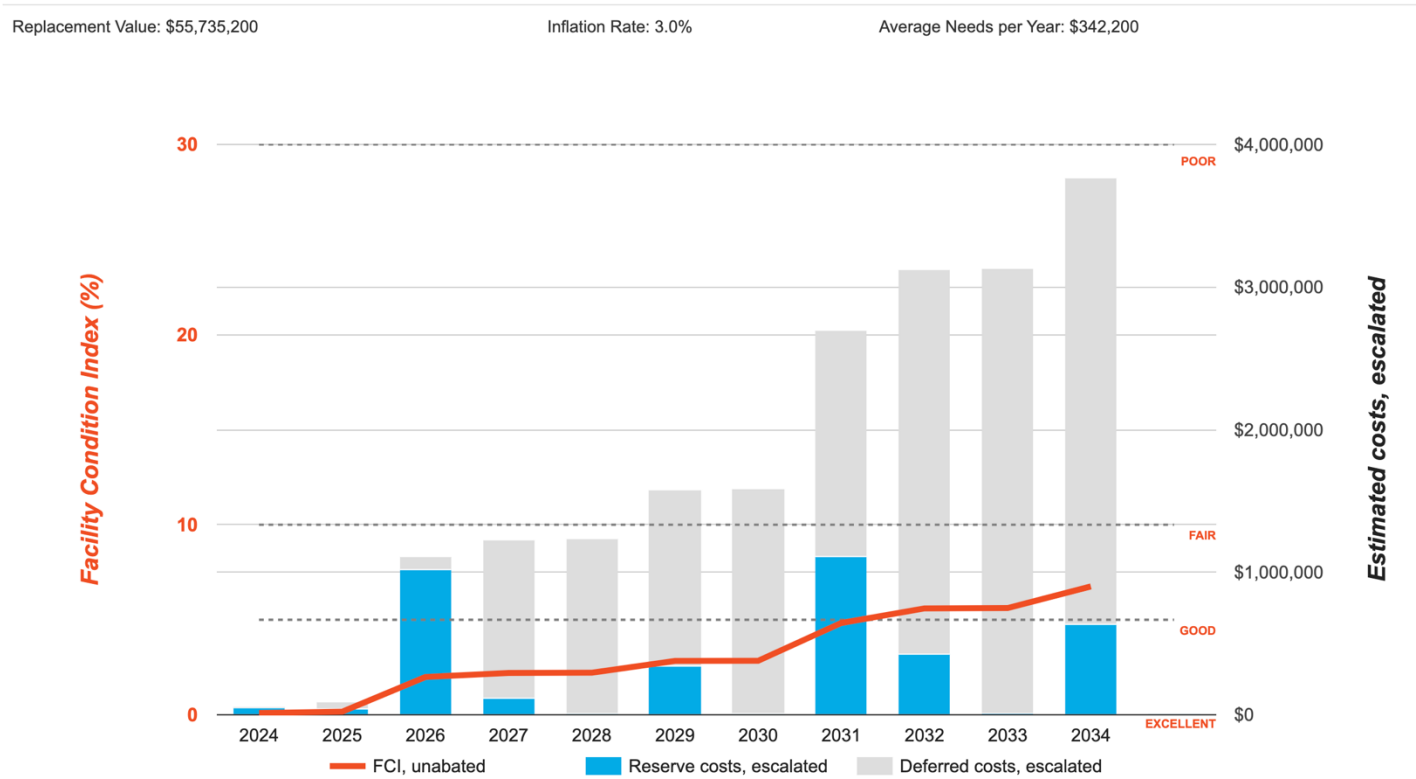
The deficiencies and lifecycle needs identified in this assessment provide the basis for a portfolio-wide capital improvement funding strategy. In addition to the current FCI, extended FCI's have been developed to provide owners the intelligence needed to plan and budget for the "keep-up costs" for their 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 Norris Achievement Academy(1961)			
Replacement Value	Total SF	Cost/SF	
\$ 55,735,200	139,338	\$ 400	
	Est Reserve Cost		FCI
Current	\$ 53,300		0.1 %
3-Year	\$ 1,228,600		2.2 %
5-Year	\$ 1,579,700		2.8 %
10-Year	\$ 3,764,000		6.8 %

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: Norris Achievement Academy



Immediate Needs

Facility/Building	Total Items	Total Cost
Norris Achievement Academy	8	\$53,300
Total	8	\$53,300

Norris Achievement Academy

ID	Location	Location Description	UF Code	Description	Condition	Plan Type	Cost
7414279	Norris Achievement Academy	Building Exterior	B1010	Structural Flooring/Decking, Concrete, Repair	Poor	Performance/Integrity	\$900
7414037	Norris Achievement Academy	Throughout building	B3010	Roofing, any type, Repairs per Man-Day, Repair	Poor	Safety	\$3,300
7414060	Norris Achievement Academy	Building exterior	D3050	HVAC System, any type, Repairs per Man-Day, Repair	Poor	Performance/Integrity	\$5,000
7414005	Norris Achievement Academy	Kitchen	E1030	Foodservice Equipment, Dishwasher Commercial, Replace	Failed	Performance/Integrity	\$21,500
7414003	Norris Achievement Academy	Site	G2020	Parking Lots, Pavement, Asphalt, Cut & Patch	Poor	Performance/Integrity	\$2,200
7414022	Norris Achievement Academy	Site	G2060	Picnic Table, Wood/Composite/Fiberglass, Replace	Failed	Performance/Integrity	\$2,400
7414051	Norris Achievement Academy	Site	G2060	Fences & Gates, Fence, Wood Board 6', Replace	Failed	Performance/Integrity	\$8,400
7414033	Norris Achievement Academy	Site	G2080	Landscaping, Ground Cover, Repair	Failed	Performance/Integrity	\$9,600
Total (8 items)							\$53,300

Key Findings



Roofing in Poor condition.

any type, Repairs per Man-Day
Norris Achievement Academy Throughout
building

Uniformat Code: B3010
Recommendation: **Repair in 2024**

Priority Score: **97.9**

Plan Type: Safety

Cost Estimate: \$3,300

\$\$\$\$

Wasps and beetles entering facility from loose roof flashing entering rooms through plenum. - AssetCALC ID: 7414037



Structural Flooring/Decking in Poor condition.

Concrete
Norris Achievement Academy Building
Exterior

Uniformat Code: B1010
Recommendation: **Repair in 2024**

Priority Score: **89.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$900

\$\$\$\$

Deteriorated concrete at railing posts - AssetCALC ID: 7414279



Glazing in Poor condition.

any type by SF
Norris Achievement Academy Building
Exterior

Uniformat Code: B2020
Recommendation: **Replace in 2025**

Priority Score: **87.8**

Plan Type:
Performance/Integrity

Cost Estimate: \$38,500

\$\$\$\$

Insects and air are getting into the building through the windows. Glazing has failed and some windows are plexiglass - AssetCALC ID: 7414287



Parking Lots in Poor condition.

Pavement, Asphalt
Norris Achievement Academy Site

Uniformat Code: G2020
Recommendation: **Cut & Patch in 2024**

Priority Score: **84.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$2,200

\$\$\$\$

Extreme raveling and alligator cracking - AssetCALC ID: 7414003



Foodservice Equipment in Failed condition.

Dishwasher Commercial
Norris Achievement Academy Kitchen

Uniformat Code: E1030
Recommendation: **Replace in 2024**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$21,500

\$\$\$\$

Not working, parts missing - AssetCALC ID: 7414005



Landscaping in Failed condition.

Ground Cover
Norris Achievement Academy Site

Uniformat Code: G2080
Recommendation: **Repair in 2024**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$9,600

\$\$\$\$

Bare dirt with torn fabric - AssetCALC ID: 7414033



Fences & Gates in Failed condition.

Fence, Wood Board 6'
Norris Achievement Academy Site

Uniformat Code: G2060
Recommendation: **Replace in 2024**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$8,400

\$\$\$\$

Broken/missing - AssetCALC ID: 7414051



Picnic Table in Failed condition.

Wood/Composite/Fiberglass
Norris Achievement Academy Site

Uniformat Code: G2060
Recommendation: **Replace in 2024**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$2,400

\$\$\$\$

Broken - AssetCALC ID: 7414022



HVAC System in Poor condition.

any type, Repairs per Man-Day
Norris Achievement Academy Building exterior

Uniformat Code: D3050
Recommendation: **Repair in 2024**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$5,000

\$\$\$\$

Partially works, repair needed. - AssetCALC ID: 7414060

No photo

Modernization recommendation
Item does not currently exist at site

Fire Suppression System

Full System Install/Retrofit, Medium
Density/Complexity
Norris Achievement Academy Throughout
Building

Uniformat Code: D4010
Recommendation: **Install in 2026**

Priority Score: **60.7**

Plan Type:
Retrofit/Adaptation

Cost Estimate: \$696,700

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- AssetCALC ID: 7414396



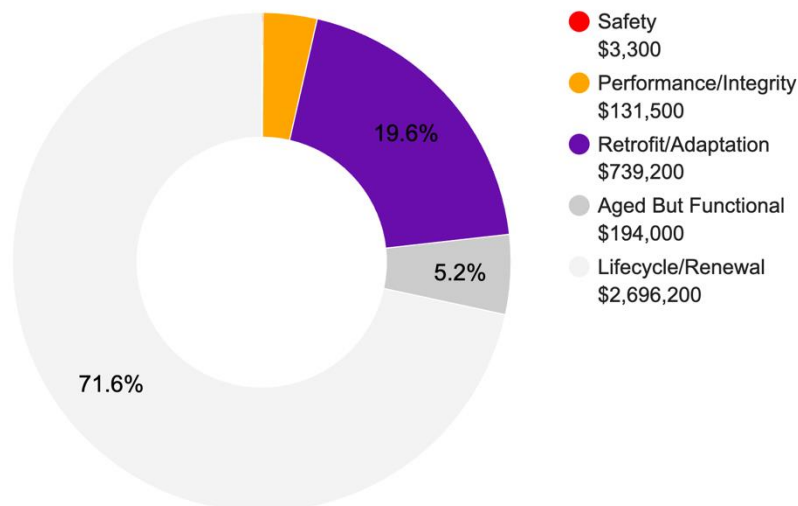
Plan Types

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: \$3,764,200

2. Building and Site Information



Systems Summary

<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Concrete beams & columns with cast-in-place floors and concrete pad column footing foundation system	Fair
Façade	Wall Finish: Brick veneer Windows: Steel	Fair
Roof	Flat construction with single-ply TPO/PVC membrane	Fair
Interiors	Walls: Painted gypsum board, painted and glazed CMU, ceramic tile Floors: Carpet, VCT, wood plank, ceramic tile, sealed concrete Ceilings: Painted gypsum board, ACT, and unfinished/exposed	Fair
Elevators	None	--
Plumbing	Distribution: Copper supply and cast iron waste & venting Hot Water: Gas domestic boilers with storage tanks Fixtures: Toilets, urinals, and sinks in all restrooms	Fair
HVAC	Central System: Boilers and chiller feeding fan coil, and cabinet terminal units Supplemental components: Split-system heat pumps, suspended unit heaters	Fair
Fire Suppression	Fire extinguishers only	Fair

Systems Summary		
Electrical	Source & Distribution: Main switchboard with copper wiring Interior Lighting: linear fluorescent Emergency Power: None	Fair
Fire Alarm	Alarm panel with smoke detectors, heat detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Good
Equipment/Special	Commercial kitchen equipment	Fair
Site Pavement	Asphalt lots with limited areas of concrete pavement and adjacent concrete sidewalks and curbs	Fair
Site Development	Property entrance signage; wood board and chain link fencing Sports courts Limited picnic tables	Fair
Landscaping and Topography	Limited landscaping features including lawns, trees, 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: HPS Building-mounted: 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	Broken windows, loose roof flashing, non-operational HVAC, building lacks fire suppression	

Systems 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
Structure	\$900	\$800	-	-	\$994,400	\$996,100
Facade	-	\$39,700	-	-	\$26,000	\$65,700
Roofing	\$3,300	-	-	\$717,900	\$6,200	\$727,500
Interiors	-	\$254,600	\$78,800	\$786,200	\$1,001,300	\$2,121,000
Plumbing	-	\$5,300	\$22,900	\$84,800	\$179,800	\$292,800
HVAC	\$5,000	\$3,200	\$93,300	\$366,900	\$1,275,100	\$1,743,600
Fire Protection	-	\$739,100	-	-	\$11,400	\$750,500
Electrical	-	\$10,600	-	\$3,600	\$1,579,100	\$1,593,300
Fire Alarm & Electronic Systems	-	-	\$266,500	-	\$867,700	\$1,134,300
Equipment & Furnishings	\$21,500	-	-	\$104,800	\$82,600	\$208,900
Site Development	\$20,400	\$4,800	-	\$67,600	\$206,500	\$299,300
Site Pavement	\$2,200	-	\$6,600	\$50,000	\$113,000	\$171,900
Site Utilities	-	-	-	\$2,300	-	\$2,300
TOTALS (3% inflation)	\$53,300	\$1,058,100	\$468,300	\$2,184,300	\$6,343,400	\$10,107,400

*Totals have been rounded to the nearest \$100.

3. Property Space Use and Observed Areas

Areas Observed

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 roofs.

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 checklists 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 1961. The facility was substantially renovated in 2022 but limited accessibility improvements appear to have been implemented at that time.

During the interview process with the client representatives, no complaints or pending litigation associated with potential accessibility issues was reported.

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 Board of Education (the Client) retained Bureau Veritas to perform this Facility Condition Assessment in connection with its continued operation of Norris Achievement Academy (old Norris ES) at 1490 Norris Road in Memphis, Tennessee 38106, 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.

Prepared by: Matthew Van Camp,
Project Manager

Reviewed by:



Al Diefert,
Technical Report Reviewer for
Andy Hupp,
Program Manager
Andy.Hupp@bureauveritas.com
800.733.0660 x-7296632 p

8. Appendices

- Appendix A: Photographic Record
- Appendix B: Site Plan
- Appendix C: Pre-Survey Questionnaire
- Appendix D: Accessibility Review & 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 - EXTERIOR WALLS



6 - ROOF

Photographic Overview



7 - TYPICAL CLASSROOM



8 - HALLWAY FINISHES



9 - CAFETERIA



10 - BOILER ROOM



11 - BOILER



12 - DOMESTIC WATER TANK

Photographic Overview



13 - CHILLER



14 - FAN COIL UNIT



15 - SWITCHBOARD



16 - FIRE ALARM PANEL



17 - FOODSERVICE EQUIPMENT



18 - PARKING LOTS

Appendix B:

Site Plan

Site Plan



**BUREAU
VERITAS**

Project Number

163745.23R000-059.354

Source

Google

Project Name

Norris Achievement Academy

On-Site Date

February 26, 2024



Appendix C:

Pre-Survey Questionnaire

BV FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name: Norris Elementary

Name of person completing form: Terry Reid

Title / Association w/ property: Facilities Supervisor

Length of time associated w/ property: 1 year

Date Completed: 2/26/2024

Phone Number: 901-603-6765

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.

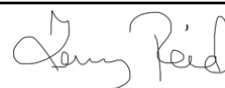
Data Overview		Response		
1	Year(s) constructed	Constructed 1961	Renovated 2022	
2	Building size in SF	139,338	SF	
3	Major Renovation/Rehabilitation		Year	Additional Detail
		Facade		
		Roof		
		Interiors	2022	Refurbishment
		HVAC		
		Electrical		
		Site Pavement		
		Accessibility		
4	List other significant capital improvements (focus on recent years; provide approximate date).	Kitchen equipment (2022)		
5	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?	HVAC & Windows (requested, not budgeted)		
6	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.	Chiller sporadically operational		

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?	✗				Windows need help
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?	✗				Floor mop sinks
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?	✗				Areas where allot of windows are present
14	Is the electrical service outdated, undersized, or problematic?		✗			
15	Are there any problems or inadequacies with exterior lighting?	✗				2 non working fixtures
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?	✗				Hazards- wasp/bug intrusion issue in classrooms and offices, coming from windows and plenum areas.
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 & Photos

Visual Survey - 2010 ADA Standards for Accessible Design

Property Name: Norris Achievement Academy

BV Project Number: 163745.23R000-059.354

Facility History & Interview

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

Norris Elementary: Accessibility Issues

Category	Major Issues (ADA study recommended)	Moderate Issues (ADA study recommended)	Minor Issues	None*
Parking			Signage needed on pavement	
Exterior Accessible Route			Barrier needed under stairwell	
Building Entrances				✗
Interior Accessible Route			Sign needed for area of refuge	
Elevators	NA			
Public Restrooms			Pipe protection	
Kitchens/Kitchenettes			Pipe protection	
Playgrounds & Swimming Pools	NA			
Other	NA			

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

Norris Elementary: Photographic Overview



OVERVIEW OF ACCESSIBLE PARKING AREA



CLOSE-UP OF STALL



ACCESSIBLE RAMP



2ND PATHWAY



MAIN ENTRANCE



ADDITIONAL ENTRANCE

Norris Elementary: Photographic Overview



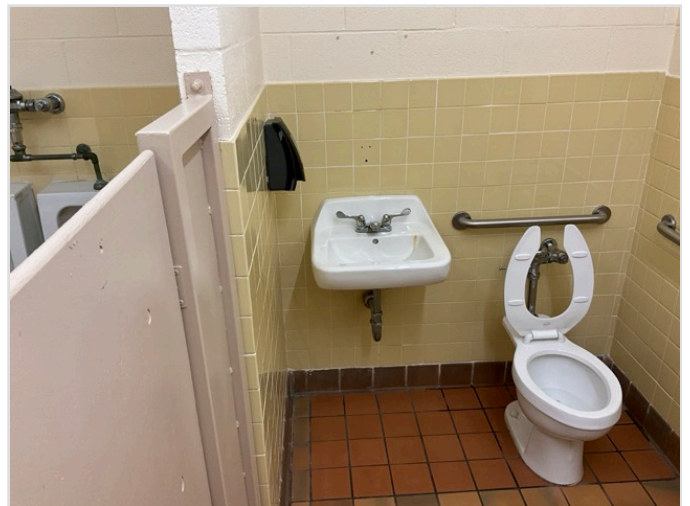
ACCESSIBLE INTERIOR PATH



DOOR HARDWARE



TOILET STALL OVERVIEW



SINK, FAUCET HANDLES AND ACCESSORIES



KITCHEN PATH OF TRAVEL



OVEN WITH CONTROLS

Appendix E:

Component Condition Report

Component Condition Report | Norris Achievement Acadamy

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Structure						
B1010	Building Exterior	Poor	Structural Flooring/Decking, Concrete, Repair	30 SF	0	7414279
B1080	Site	Fair	Stair/Ramp Rails, Metal, Refinish	500 LF	2	7414260
B1080	Site	Fair	Stairs, Concrete, Exterior	10,000 SF	20	7414294
Facade						
B2010	Building Exterior	Fair	Exterior Walls, Brick Veneer	40,000 SF	25	7414271
B2020	Building Exterior	Poor	Glazing, any type by SF	700 SF	1	7414287
B2020	Kitchen	Good	Screens & Shutters, Rolling Security Shutter, 10 to 50 SF	2	13	7414291
B2050	Building Exterior	Fair	Exterior Door, Steel, Standard	22	18	7414293
Roofing						
B3010	Roof	Fair	Roofing, Single-Ply Membrane, TPO/PVC	34,296 SF	7	7414289
B3010	Throughout building	Poor	Roofing, any type, Repairs per Man-Day, Repair	3	0	7414037
B3020	Roof	Fair	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings	80 LF	7	7414286
B3080	Roof	Fair	Soffit, Gypsum Board	527 SF	12	7414290
Interiors						
C1030	Hallways	Fair	Interior Door, Steel, Standard	35	18	7414272
C1030	Hallways	Fair	Interior Door, Steel, w/ Extensive Glazing	5	18	7414280
C1070	Hallways and Classrooms	Fair	Suspended Ceilings, Acoustical Tile (ACT)	70,000 SF	15	7414265
C1090	Restrooms	Fair	Toilet Partitions, Metal	30	10	7414047
C2010	Cafeteria	Fair	Wall Finishes, Wood Paneling, Refinish	2,000 SF	5	7414278
C2010	Hallways and Classrooms	Good	Wall Finishes, any surface, Prep & Paint	50,000 SF	8	7414283
C2010	Restrooms and Kitchen	Fair	Wall Finishes, Ceramic Tile	30,000 SF	22	7414276
C2030	Mechanical room	Fair	Flooring, any surface, w/ Epoxy Coating, Prep & Paint	20,000 SF	2	7414295
C2030	Cafeteria	Good	Flooring, Wood, Strip	2,000 SF	30	7414269

Component Condition Report | Norris Achievement Academy

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
C2030	Cafeteria & Hallways	Fair	Flooring, Vinyl Tile (VCT)	50,000 SF	7	7414261
C2030	Kitchen	Fair	Flooring, Quarry Tile	10,000 SF	10	7414288
C2050	Mechanical room	Fair	Ceiling Finishes, any flat surface, Prep & Paint	30,000 SF	5	7414262
Plumbing						
D2010	Mechanical room	Fair	Pump, Circulation/Booster, Domestic Water	1	10	7414015
D2010	Mechanical room	Good	Pump, Circulation/Booster, Domestic Water	1	23	7414013
D2010	Mechanical room	Good	Pump, Circulation/Booster, Domestic Water	1	17	7414057
D2010	Mechanical room	Good	Pump, Circulation/Booster, Domestic Water	1	22	7414031
D2010	Mechanical room	Good	Pump, Circulation/Booster, Domestic Water	1	17	7414006
D2010	Mechanical room	Fair	Storage Tank, Domestic Water	1	2	7414041
D2010	Restrooms & Kitchen	Fair	Sink/Lavatory, Wall-Hung, Vitreous China	23	15	7414054
D2010	Mechanical room	Fair	Boiler, Gas, Domestic	1	10	7414024
D2010	Hallways	Good	Drinking Fountain, Wall-Mounted, Single-Level	6	10	7414050
D2010	Utility closet	Fair	Sink/Lavatory, Wall-Hung, Enameled Steel	5	3	7414007
D2010	Kitchen	Good	Sink/Lavatory, Commercial Kitchen, 3-Bowl	2	20	7414025
D2010	Classrooms	Fair	Sink/Lavatory, Vanity Top, Solid Surface or Vitreous China	18	10	7414056
D2010	Restrooms	Fair	Urinal, Standard	16	16	7414065
D2010	Mechanical room	Good	Pump, Circulation/Booster, Domestic Water	1	20	7414014
D2010	Mechanical room	Good	Pump, Circulation/Booster, Domestic Water	1	23	7414038
D2010	Hallways	Fair	Sink/Lavatory, Trough Style, Solid Surface	5	3	7414027
D2010	Restrooms	Fair	Toilet, Residential Water Closet	37	16	7414028
HVAC						
D3020	Mechanical room	Fair	Boiler, Gas, HVAC	1	10	7414016
D3020	Kitchen	Fair	Unit Heater, Hydronic	3	4	7414052
D3020	Mechanical room	Fair	Boiler Supplemental Components, Shot Feed Tank	2	2	7414046

Component Condition Report | Norris Achievement Academy

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D3020	Restrooms & Hallways	Fair	Radiator, Hydronic, Column/Cabinet Style (per EA)	20	10	7414030
D3030	Building exterior	Fair	Chiller, Air-Cooled	1	8	7414300
D3030		Fair	Packaged Terminal Air Conditioner, PTAC, 12001 to 18000 BTUH	1	6	7443204
D3030	Building exterior	Good	Split System, Condensing Unit/Heat Pump, 2 TON	1	13	7414035
D3050	Classrooms & Cafeteria	Fair	Fan Coil Unit, Hydronic Terminal	48	3	7414066
D3050	Throughout building	Fair	HVAC System, Hydronic Piping, 2-Pipe	139,338 SF	20	7414064
D3050	Building exterior	Poor	HVAC System, any type, Repairs per Man-Day, Repair	4	0	7414060
D3050	Mechanical room	Good	Supplemental Components, Air Separator, HVAC	2	10	7414032
D3060	Roof	Fair	Exhaust Fan, Centrifugal, 12" Damper	2	15	7414062
D3060	Roof	Fair	Exhaust Fan, Centrifugal, 16" Damper	2	15	7414009
Fire Protection						
D4010	Throughout Building	NA	Fire Suppression System, Full System Install/Retrofit, Medium Density/Complexity, Install	139,338 SF	2	7414396
D4010	Kitchen	Fair	Fire Suppression System, Commercial Kitchen, per LF of Hood	20 LF	12	7414010
Electrical						
D5020	Mechanical room	Fair	Distribution Panel, 120/208 V	1	2	7414043
D5020	Electrical room	Fair	Switchboard, 120/208 V	1	11	7414045
D5030	Throughout building	Fair	Electrical System, Wiring & Switches, Average or Low Density/Complexity	139,338 SF	15	7414055
D5040	Hallways	Good	Emergency & Exit Lighting, Exit Sign, LED	13	8	7414026
D5040	Throughout building	Good	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures	139,338 SF	13	7414019
Fire Alarm & Electronic Systems						
D6060	Throughout building	Fair	Intercom/PA System, Public Address Upgrade, Facility-Wide	139,338 SF	5	7414017
D7030	Throughout building	Good	Security/Surveillance System, Full System Upgrade, Average Density	139,338 SF	11	7414040
D7050	Office	Good	Fire Alarm Panel, Fully Addressable	1	12	7414023
D7050	Throughout building	Good	Fire Alarm System, Full System Upgrade, Simple Addressable, Upgrade/Install	139,338 SF	17	7414029
Equipment & Furnishings						

Component Condition Report | Norris Achievement Academy


UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
E1030	Kitchen	Good	Foodservice Equipment, Range/Oven, 4-Burner	1	13	7414036
E1030	Kitchen	Good	Foodservice Equipment, Exhaust Hood, 8 to 10 LF	2	10	7414008
E1030	Kitchen	Good	Foodservice Equipment, Refrigerator, 1-Door Reach-In	1	10	7414034
E1030	Kitchen	Good	Commercial Kitchen, Service Line	1 LS	12	7414004
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, 3-Door Reach-In	1	8	7414048
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, 3-Door Reach-In	1	8	7414058
E1030	Kitchen	Failed	Foodservice Equipment, Dishwasher Commercial	1	0	7414005
E1030	Kitchen	Fair	Foodservice Equipment, Icemaker, Freestanding	1	9	7414063
E2010	Classroom	Fair	Casework, Cabinetry, Hardwood Standard	80 LF	7	7414266
E2010	Office	Fair	Casework, Cabinetry Economy	20 LF	10	7414277
E2010	Office	Good	Casework, Countertop, Plastic Laminate	20 LF	15	7414285
Pedestrian Plazas & Walkways						
G2020	Site	Poor	Parking Lots, Pavement, Asphalt, Cut & Patch	400 SF	0	7414003
G2020	Site	Fair	Parking Lots, Pavement, Asphalt, Seal & Stripe	13,500 SF	3	7414053
G2020	Site	Fair	Parking Lots, Pavement, Concrete	3,500 SF	10	7414020
G2020	Site	Fair	Parking Lots, Pavement, Asphalt, Mill & Overlay	13,500 SF	13	7414011
G2030	Site	Fair	Sidewalk, Concrete, Large Areas	1,500 SF	20	7414039
Athletic, Recreational & Playfield Areas						
G2050	Site	Fair	Athletic Surfaces & Courts, Skate Park, Concrete Pavement, Maintain	4,500 SF	2	7414059
Sitework						
G2060	Site	Fair	Retaining Wall, Concrete Cast-in-Place	500 SF	20	7414395
G2060	Site	Fair	Fences & Gates, Fence, Chain Link 8'	825 LF	15	7414049
G2060	Site	Failed	Picnic Table, Wood/Composite/Fiberglass	4	0	7414022
G2060	Site	Failed	Fences & Gates, Fence, Wood Board 6'	300 LF	0	7414051
G2060	Site	Fair	Fences & Gates, Vehicle Gate, Chain Link Manual	1	12	7414018


Component Condition Report | Norris Achievement Academy

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
G2060	Site	Fair	Flagpole, Metal	1	15	7414042
G2080	Site	Fair	Planter Boxes, Basic or Wood Built-In Place	400 LF	7	7414021
G2080	Site	Failed	Landscaping, Ground Cover, Repair	3,000 SF	0	7414033
G4050	Building exterior	Fair	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	1	6	7414282
G4050	Building Exterior	Fair	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	2	10	7414264

Appendix F:

Replacement Reserves

Replacement Reserves Report																															
Norris Achievement Academy																															
4/6/2024																															
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								
Norris Achievement Academy		\$53,300	\$39,655	\$1,018,443	\$117,179	\$5,740	\$345,357	\$4,776	\$1,109,656	\$427,579	\$8,742	\$633,522	\$496,491	\$426,765	\$1,014,237	\$0	\$1,133,530	\$69,805	\$490,691	\$209,203	\$0	\$2,502,710	\$10,107,382								
Grand Total		\$53,300	\$39,655	\$1,018,443	\$117,179	\$5,740	\$345,357	\$4,776	\$1,109,656	\$427,579	\$8,742	\$633,522	\$496,491	\$426,765	\$1,014,237	\$0	\$1,133,530	\$69,805	\$490,691	\$209,203	\$0	\$2,502,710	\$10,107,382								
Uniformat Code	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
B1010	7414279	Structural Flooring/Decking, Concrete, Repair	0	0	0	30	SF	\$30.00	\$900	\$900																				\$900	
B1080	7414294	Stairs, Concrete, Exterior, Replace	50	30	20	10000	SF	\$55.00	\$550,000																				\$550,000	\$550,000	
B1080	7414260	Stair/Ramp Rails, Metal, Refinish	10	8	2	500	LF	\$1.50	\$750			\$750										\$750								\$1,500	
B2020	7414287	Glazing, any type by SF, Replace	30	29	1	700	SF	\$55.00	\$38,500		\$38,500																			\$38,500	
B2020	7414291	Screens & Shutters, Rolling Security Shutter, 10 to 50 SF, Replace	20	7	13	2	EA	\$1,200.00	\$2,400													\$2,400								\$2,400	
B2050	7414293	Exterior Door, Steel, Standard, Replace	40	22	18	22	EA	\$600.00	\$13,200																		\$13,200			\$13,200	
B3010	7414037	Roofing, any type, Repairs per Man-Day, Repair	0	0	0	3	EA	\$1,100.00	\$3,300	\$3,300																				\$3,300	
B3010	7414289	Roofing, Single-Ply Membrane, TPO/PVC, Replace	20	13	7	34296	SF	\$17.00	\$583,032								\$583,032													\$583,032	
B3020	7414286	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings, Replace	20	13	7	80	LF	\$9.00	\$720								\$720													\$720	
B3080	7414290	Soffit, Gypsum Board, Replace	20	8	12	527	SF	\$8.30	\$4,374													\$4,374								\$4,374	
C1030	7414280	Interior Door, Steel, w/ Extensive Glazing, Replace	40	22	18	5	EA	\$950.00	\$4,750																		\$4,750			\$4,750	
C1030	7414272	Interior Door, Steel, Standard, Replace	40	22	18	35	EA	\$600.00	\$21,000																		\$21,000			\$21,000	
C1070	7414265	Suspended Ceilings, Acoustical Tile (ACT), Replace	25	10	15	70000	SF	\$3.50	\$245,000															\$245,000						\$245,000	
C1090	7414047	Toilet Partitions, Metal, Replace	20	10	10	30	EA	\$850.00	\$25,500											\$25,500										\$25,500	
C2010	7414278	Wall Finishes, Wood Paneling, Refinish	10	5	5	2000	SF	\$4.00	\$8,000						\$8,000											\$8,000				\$16,000	
C2010	7414283	Wall Finishes, any surface, Prep & Paint	10	2	8	50000	SF	\$1.50	\$75,000								\$75,000										\$75,000			\$150,000	
C2030	7414295	Flooring, any surface, w/ Epoxy Coating, Prep & Paint	10	8	2	20000	SF	\$12.00	\$240,000			\$240,000										\$240,000								\$480,000	
C2030	7414288	Flooring, Quarry Tile, Replace	50	40	10	10000	SF	\$26.00	\$260,000										\$260,000											\$260,000	
C2030	7414261	Flooring, Vinyl Tile (VCT), Replace	15	8	7	50000	SF	\$5.00	\$250,000								\$250,000													\$250,000	
C2050	7414262	Ceiling Finishes, any flat surface, Prep & Paint	10	5	5	30000	SF	\$2.00	\$60,000						\$60,000										\$60,000					\$120,000	
D2010	7414041	Storage Tank, Domestic Water, Replace	30	28	2	1	EA	\$5,000.00	\$5,000			\$5,000																		\$5,000	
D2010	7414024	Boiler, Gas, Domestic, Replace	25	15	10	1	EA	\$22,500.00	\$22,500											\$22,500										\$22,500	
D2010	7414015	Pump, Circulation/Booster, Domestic Water, Replace	25	15	10	1	EA	\$13,600.00	\$13,600											\$13,600										\$13,600	
D2010	7414057	Pump, Circulation/Booster, Domestic Water, Replace	25	8	17	1	EA	\$6,100.00	\$6,100																		\$6,100			\$6,100	
D2010	7414006	Pump, Circulation/Booster, Domestic Water, Replace	25	8	17	1	EA	\$7,600.00	\$7,600																		\$7,600			\$7,600	
D2010	7414014	Pump, Circulation/Booster, Domestic Water, Replace	25	5	20	1	EA	\$13,600.00	\$13,600																			\$13,600		\$13,600	
D2010	7414007	Sink/Lavatory, Wall-Hung, Enameled Steel, Replace	30	27	3	5	EA	\$1,700.00	\$8,500				\$8,500																	\$8,500	
D2010	7414027	Sink/Lavatory, Trough Style, Solid Surface, Replace	30	27	3	5	EA	\$2,500.00	\$12,500				\$12,500																	\$12,500	
D2010	7414056	Sink/Lavatory, Vanity Top, Solid Surface or Vitreous China, Replace	30	20	10	18	EA	\$1,100.00	\$19,800											\$19,800										\$19,800	
D2010	7414050	Drinking Fountain, Wall-Mounted, Single-Level, Replace	15	5	10	6	EA	\$1,200.00	\$7,200											\$7,200										\$7,200	
D2010	7414054	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	15	15	23	EA	\$1,500.00	\$34,500																\$34,500					\$34,500	
D2010	7414065	Urinal, Standard, Replace	30	14	16	16	EA	\$1,100.00	\$17,600																\$17,600					\$17,600	
D2010	7414028	Toilet, Residential Water Closet, Replace	30	14	16	37	EA	\$700.00	\$25,900																\$25,900					\$25,900	
D2010	7414025	Sink/Lavatory, Commercial Kitchen, 3-Bowl, Replace	30	10	20	2	EA	\$2,500.00	\$5,000																			\$5,000		\$5,000	
D3020	7414016	Boiler, Gas, HVAC, Replace	30	20	10	1	EA	\$20,000.00	\$20,000											\$20,000										\$20,000	
D3020	7414052	Unit Heater, Hydronic, Replace	20	16	4	3	EA	\$1,700.00	\$5,100				\$5,100																	\$5,100	
D3020	7414030	Radiator, Hydronic, Column/Cabinet Style (per EA), Replace	30	20	10	20	EA	\$800.00	\$16,000											\$16,000										\$16,000	
D3020	7414046	Boiler Supplemental Components, Shot Feed Tank, Replace	30	28	2	2	EA	\$1,520.00	\$3,040			\$3,040																		\$3,040	
D3030	7414300	Chiller, Air-Cooled, Replace	25	17	8	1	EA	\$240,000.00	\$240,000										\$240,												

Replacement Reserves Report																															
Norris Achievement Academy																															
4/6/2024																															
Unifomat Code	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
D3060	7414062	Exhaust Fan, Centrifugal, 12" Damper, Replace	25	10	15	2	EA	\$1,400.00	\$2,800																\$2,800						\$2,800
D4010	7414396	Fire Suppression System, Full System Install/Retrofit, Medium Density/Complexity, Install	40	38	2	139338	SF	\$5.00	\$696,690			\$696,690																			\$696,690
D4010	7414010	Fire Suppression System, Commercial Kitchen, per LF of Hood, Replace	20	8	12	20	LF	\$400.00	\$8,000												\$8,000										\$8,000
D5020	7414045	Switchboard, 120/208 V, Replace	40	29	11	1	EA	\$80,000.00	\$80,000												\$80,000										\$80,000
D5020	7414043	Distribution Panel, 120/208 V, Replace	30	28	2	1	EA	\$10,000.00	\$10,000			\$10,000																			\$10,000
D5030	7414055	Electrical System, Wiring & Switches, Average or Low Density/Complexity, Replace	40	25	15	139338	SF	\$2.50	\$348,345																\$348,345						\$348,345
D5040	7414026	Emergency & Exit Lighting, Exit Sign, LED, Replace	10	2	8	13	EA	\$220.00	\$2,860									\$2,860										\$2,860			\$5,720
D5040	7414019	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures, Replace	20	7	13	139338	SF	\$4.50	\$627,021														\$627,021								\$627,021
D6060	7414017	Intercom/PA System, Public Address Upgrade, Facility-Wide, Replace	20	15	5	139338	SF	\$1.65	\$229,908						\$229,908																\$229,908
D7030	7414040	Security/Surveillance System, Full System Upgrade, Average Density, Replace	15	4	11	139338	SF	\$2.00	\$278,676												\$278,676										\$278,676
D7050	7414023	Fire Alarm Panel, Fully Addressable, Replace	15	3	12	1	EA	\$15,000.00	\$15,000													\$15,000									\$15,000
D7050	7414029	Fire Alarm System, Full System Upgrade, Simple Addressable, Upgrade/Install	20	3	17	139338	SF	\$2.00	\$278,676																		\$278,676				\$278,676
E1030	7414005	Foodservice Equipment, Dishwasher Commercial, Replace	10	10	0	1	EA	\$21,500.00	\$21,500	\$21,500										\$21,500									\$21,500		\$64,500
E1030	7414048	Foodservice Equipment, Freezer, 3-Door Reach-In, Replace	15	7	8	1	EA	\$6,800.00	\$6,800									\$6,800													\$6,800
E1030	7414058	Foodservice Equipment, Freezer, 3-Door Reach-In, Replace	15	7	8	1	EA	\$6,800.00	\$6,800									\$6,800													\$6,800
E1030	7414063	Foodservice Equipment, Icemaker, Freestanding, Replace	15	6	9	1	EA	\$6,700.00	\$6,700										\$6,700												\$6,700
E1030	7414008	Foodservice Equipment, Exhaust Hood, 8 to 10 LF, Replace	15	5	10	2	EA	\$4,500.00	\$9,000											\$9,000											\$9,000
E1030	7414034	Foodservice Equipment, Refrigerator, 1-Door Reach-In, Replace	15	5	10	1	EA	\$2,700.00	\$2,700											\$2,700											\$2,700
E1030	7414004	Commercial Kitchen, Service Line, Replace	15	3	12	1	LS	\$25,000.00	\$25,000												\$25,000										\$25,000
E1030	7414036	Foodservice Equipment, Range/Oven, 4-Burner, Replace	15	2	13	1	EA	\$4,500.00	\$4,500													\$4,500									\$4,500
E2010	7414266	Casework, Cabinetry, Hardwood Standard, Replace	20	13	7	80	LF	\$300.00	\$24,000								\$24,000														\$24,000
E2010	7414277	Casework, Cabinetry Economy, Replace	20	10	10	20	LF	\$175.00	\$3,500											\$3,500											\$3,500
E2010	7414285	Casework, Countertop, Plastic Laminate, Replace	15	0	15	20	LF	\$50.00	\$1,000																\$1,000						\$1,000
G2020	7414003	Parking Lots, Pavement, Asphalt, Cut & Patch	0	0	0	400	SF	\$5.50	\$2,200	\$2,200																					\$2,200
G2020	7414053	Parking Lots, Pavement, Asphalt, Seal & Stripe	5	2	3	13500	SF	\$0.45	\$6,075				\$6,075					\$6,075					\$6,075				\$6,075				\$24,300
G2020	7414020	Parking Lots, Pavement, Concrete, Replace	50	40	10	3500	SF	\$9.00	\$31,500											\$31,500											\$31,500
G2020	7414011	Parking Lots, Pavement, Asphalt, Mill & Overlay	25	12	13	13500	SF	\$3.50	\$47,250													\$47,250									\$47,250
G2030	7414039	Sidewalk, Concrete, Large Areas, Replace	50	30	20	1500	SF	\$9.00	\$13,500																				\$13,500		\$13,500
G2050	7414059	Athletic Surfaces & Courts, Skate Park, Concrete Pavement, Maintain	5	3	2	4500	SF	\$1.00	\$4,500			\$4,500					\$4,500				\$4,500						\$4,500				\$18,000
G2060	7414051	Fences & Gates, Fence, Wood Board 6', Replace	20	20	0	300	LF	\$28.00	\$8,400	\$8,400																			\$8,400		\$16,800
G2060	7414022	Picnic Table, Wood/Composite/Fiberglass, Replace	20	20	0	4	EA	\$600.00	\$2,400	\$2,400																			\$2,400		\$4,800
G2060	7414018	Fences & Gates, Vehicle Gate, Chain Link Manual, Replace	25	13	12	1	EA	\$1,700.00	\$1,700												\$1,700										\$1,700
G2060	7414049	Fences & Gates, Fence, Chain Link 8', Replace	40	25	15	825	LF	\$25.00	\$20,625																\$20,625						\$20,625
G2060	7414042	Flagpole, Metal, Replace	30	15	15	1	EA	\$2,500.00	\$2,500																\$2,500						\$2,500
G2060	7414395	Retaining Wall, Concrete Cast-in-Place, Replace	50	30	20	500	SF	\$130.00	\$65,000																				\$65,000		\$65,000
G2080	7414033	Landscaping, Ground Cover, Repair	10	10	0	3000	SF	\$3.20	\$9,600	\$9,600										\$9,600									\$9,600		\$28,800
G2080	7414021	Planter Boxes, Basic or Wood Built-In Place, Replace	25	18	7	400	LF	\$100.00	\$40,000								\$40,000														\$40,000
G4050	7414282	Exterior Fixture w/ Lamp, any type, w/ LED Replacement, Replace	20	14	6	1	EA	\$600.00	\$600							\$600															\$600
G4050	7414264	Exterior Fixture w/ Lamp, any type, w/ LED Replacement, Replace	20	10	10	2	EA	\$600.00	\$1,200											\$1,200											\$1,200
Totals, Unescalated										\$53,300	\$38,500	\$959,980	\$107,235	\$5,100	\$297,908	\$4,000	\$902,252	\$337,535	\$6,700	\$471,400	\$358,676	\$299,324	\$690,646	\$0	\$727,570	\$43,500	\$296,876	\$122,885	\$0	\$1,385,690	\$7,109,077
Totals, Escalated (3.0% inflation, compounded annually)										\$53,300	\$39,655	\$1,018,443	\$117,179	\$5,740	\$345,357	\$4,776	\$1,109,656	\$427,579	\$8,742	\$633,522	\$496,491	\$426,765	\$1,014,237	\$0	\$1,133,530	\$69,805	\$490,691	\$209,203	\$0	\$2,502,710	\$10,107,382

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	7414041	D2010	Storage Tank	Domestic Water	370 GAL	Norris Achievement Academy	Mechanical room	Amtrol	47816	95-2700	1995		
2	7414024	D2010	Boiler	Gas, Domestic	270 MBH	Norris Achievement Academy	Mechanical room	Cleaver-Brooks	FLX	BT-5068			
3	7414015	D2010	Pump	Circulation/Booster, Domestic Water	25 HP	Norris Achievement Academy	Mechanical room	Marathon	284TTFC8026	No dataplate			
4	7414013	D2010	Pump	Circulation/Booster, Domestic Water	15 HP	Norris Achievement Academy	Mechanical room	Baldor Reliance	EM2153T-8	Z2305310826			
5	7414057	D2010	Pump	Circulation/Booster, Domestic Water	5 HP	Norris Achievement Academy	Mechanical room	Marathon	2VE184TTDR7026DJ	No dataplate			
6	7414031	D2010	Pump	Circulation/Booster, Domestic Water	5 HP	Norris Achievement Academy	Mechanical room	NEMA Premium	HD98	No dataplate			
7	7414006	D2010	Pump	Circulation/Booster, Domestic Water	15 HP	Norris Achievement Academy	Mechanical room	Dayton	3KW46G	No dataplate			
8	7414014	D2010	Pump	Circulation/Booster, Domestic Water	25 HP	Norris Achievement Academy	Mechanical room	Emerson	ES28	No dataplate			
9	7414038	D2010	Pump	Circulation/Booster, Domestic Water	3 HP	Norris Achievement Academy	Mechanical room	NEMA Premium	005180T3E184T-S	1050529097	2022		
D30 HVAC													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7414016	D3020	Boiler	Gas, HVAC	270 MBH	Norris Achievement Academy	Mechanical room	Cleaver-Brooks	FLX	BT-5067			
2	7414030	D3020	Radiator	Hydronic, Column/Cabinet Style (per EA)		Norris Achievement Academy	Restrooms & Hallways						20
3	7414052	D3020	Unit Heater	Hydronic	35 MBH	Norris Achievement Academy	Kitchen	Illegible	Illegible	Illegible			3

4	7414300	D3030	Chiller	Air-Cooled	170 TON	Norris Achievement Academy	Building exterior	Carrier	30RBA17050G78C	0607Q83046	2007		
5	7443204	D3030	Packaged Terminal Air Conditioner	PTAC, 12001 to 18000 BTUH		Norris Achievement Academy		No dataplate	No dataplate	No dataplate			
6	7414035	D3030	Split System	Condensing Unit/Heat Pump, 2 TON	2 TON	Norris Achievement Academy	Building exterior	Lennox	EL16XC1-024-230A01	5822B09725	2022		
7	7414066	D3050	Fan Coil Unit	Hydronic Terminal	800 CFM	Norris Achievement Academy	Classrooms & Cafeteria	McQuay	AV004B11	NA	1995	48	
8	7414062	D3060	Exhaust Fan	Centrifugal, 12" Damper	400 CFM	Norris Achievement Academy	Roof	No dataplate	No dataplate	No dataplate		2	
9	7414009	D3060	Exhaust Fan	Centrifugal, 16" Damper	1200 CFM	Norris Achievement Academy	Roof	Loren Cook	195C5B	Illegible		2	
D40 Fire Protection													
Index	ID	UFCODE	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7414010	D4010	Fire Suppression System	Commercial Kitchen, per LF of Hood		Norris Achievement Academy	Kitchen						20
D50 Electrical													
Index	ID	UFCODE	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7414045	D5020	Switchboard	120/208 V	1600 AMP	Norris Achievement Academy	Electrical room	Siemens	SB3	No dataplate	1995		
2	7414043	D5020	Distribution Panel	120/208 V	800 AMP	Norris Achievement Academy	Mechanical room	General Electric	DRS SWBD 56477	No dataplate			
3	7414026	D5040	Emergency & Exit Lighting	Exit Sign, LED		Norris Achievement Academy	Hallways						13
D70 Electronic Safety & Security													
Index	ID	UFCODE	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7414023	D7050	Fire Alarm Panel	Fully Addressable		Norris Achievement Academy	Office	Siemens	No dataplate	No dataplate			
E10 Equipment													
Index	ID	UFCODE	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty

1	7414005	E1030	Foodservice Equipment	Dishwasher Commercial	Norris Achievement Academy	Kitchen	No dataplate	No dataplate	
2	7414008	E1030	Foodservice Equipment	Exhaust Hood, 8 to 10 LF	Norris Achievement Academy	Kitchen			2
3	7414048	E1030	Foodservice Equipment	Freezer, 3-Door Reach-In	Norris Achievement Academy	Kitchen	C3-F	C-3F00317062900920009	2017
4	7414058	E1030	Foodservice Equipment	Freezer, 3-Door Reach-In	Norris Achievement Academy	Kitchen	F72S	F72S - 11110011	2017
5	7414063	E1030	Foodservice Equipment	Icemaker, Freestanding	Norris Achievement Academy	Kitchen	ICE0320HA5	1509280010766	
6	7414036	E1030	Foodservice Equipment	Range/Oven, 4-Burner	Norris Achievement Academy	Kitchen	No dataplate	No dataplate	2022
7	7414034	E1030	Foodservice Equipment	Refrigerator, 1-Door Reach-In	Norris Achievement Academy	Kitchen	Inaccessible	Inaccessible	