

# FACILITY CONDITION ASSESSMENT



**BUREAU  
VERITAS**

*prepared for*

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



Riverview Elementary and Middle School  
241 Majuba Avenue  
Memphis, Tennessee 38109

## **PREPARED BY:**

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## **BV PROJECT #:**

*163745.23R000-163.354*

## **DATE OF REPORT:**

*September 30, 2024*

## **ON SITE DATE:**

*August 27, 2024*

**Bureau Veritas**

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# 1. Executive Summary

## Property Overview and Assessment Details

General Information	
<b>Property Type</b>	K-8 School
<b>Main Address</b>	241 Majuba Avenue, Memphis, Tennessee 38109
<b>Site Developed</b>	1952 Renovated 2001
<b>Site Area</b>	4.7 acres (estimated)
<b>Parking Spaces</b>	121 total spaces all in open lots; 6 of which are accessible
<b>Building Area</b>	220,272 SF
<b>Number of Stories</b>	2 above grade with 1 below-grade basement level
<b>Outside Occupants/Leased Spaces</b>	None
<b>Date(s) of Visit</b>	August 27, 2024
<b>Management Point of Contact</b>	Ms. Mary Taylor, Shelby County Board of Education 901.416.5376 <a href="mailto:taylorm15@scsk12.org">taylorm15@scsk12.org</a>
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<b>AssetCalc Link</b>	Full dataset for this assessment can be found at: <a href="https://www.assetcalc.net/">https://www.assetcalc.net/</a>

## Significant/Systemic Findings and Deficiencies

### Historical Summary

This site was developed in 1952 as an Elementary School and is now a combined K-8 grade school with the Middle School occupying the third floor. There is no longer a pre-kindergarten program, which was previously located in the walk-out basement.

### Architectural

This is a typical 1950's building comprised of brick veneer over CMU with flat roofs with TPO coverings over multiple floors with a walk-out basement level. The interiors are painted throughout with mostly ACT ceilings and durable flooring goods.

### Mechanical, Electrical, Plumbing and Fire (MEPF)

Overall, the major mechanical systems for the building are quite aged and in some cases in a failed condition. The latest of the upgrades were found to be in the early 2000s and the HVAC systems are now served by temporary equipment. Electrical systems have been updated in some areas whereas the remaining portions are original to the building. Plumbing services are relative to the building's age with minor to typical issues with leaks throughout the facility. Fire suppression and prevention appear to be more modern than the other systems within the building.

### Site

The site is mostly grass with one small playground that surrounds the building with an asphalt parking lot to the south. There are typical and nominal landscaping features.

### Recommended Additional Studies

The ceilings within the building have had hard tile removed from the ceilings and remnants of the adhesive materials remain. There are areas throughout where this is exposed and not covered with paint. 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.

## 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	
<b>0 – 5%</b>	In new or well-maintained condition, with little or no visual evidence of wear or deficiencies.
<b>5 – 10%</b>	Subjected to wear but is still in a serviceable and functioning condition.
<b>10 – 30%</b>	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
<b>30% and above</b>	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   Riverview Elementary(1952)			
<i>Replacement Value</i>	<i>Total SF</i>	<i>Cost/SF</i>	
\$ 88,108,800	220,272	\$ 400	
	<b>Est Reserve Cost</b>		<b>FCI</b>
<b>Current</b>	\$ 695,100		<b>0.8 %</b>
3-Year	\$ 4,602,100		5.2 %
5-Year	\$ 9,481,800		10.8 %
10-Year	\$ 20,113,700		22.8 %



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.

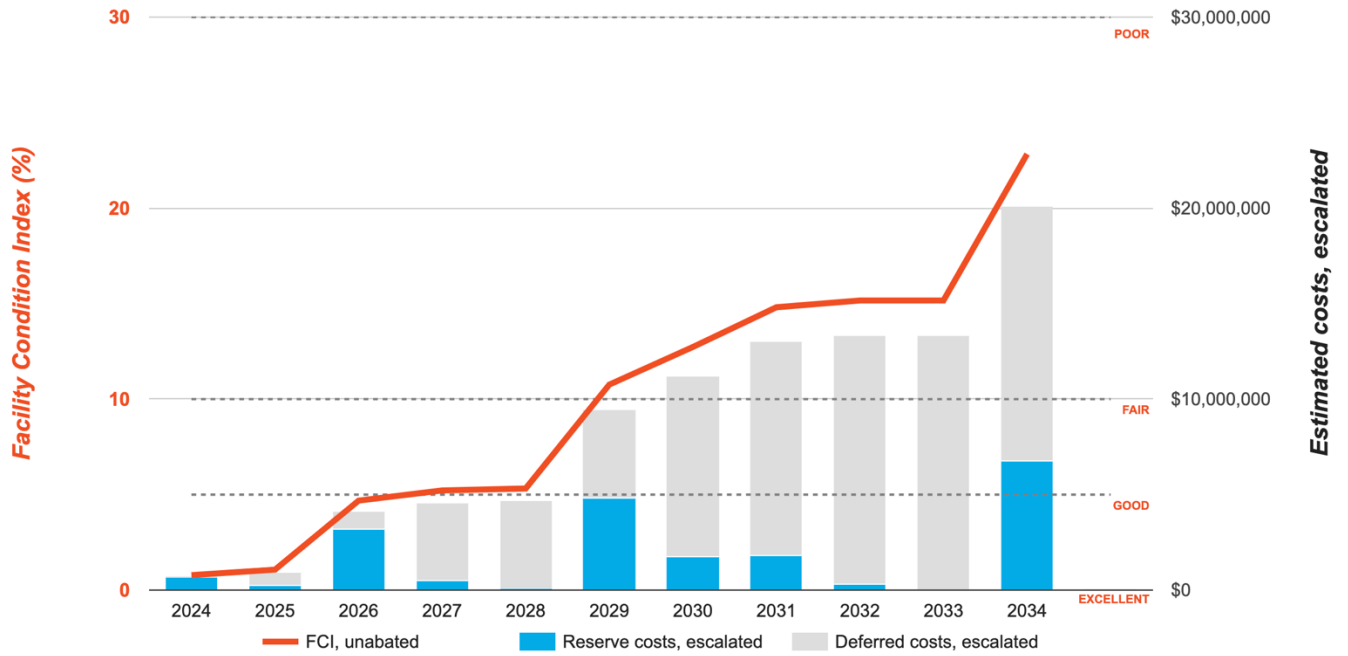
## Needs by Year with Unaddressed FCI Over Time

### FCI Analysis: Riverview Elementary

Replacement Value: \$88,108,800

Inflation Rate: 3.0%

Average Needs per Year: \$1,828,600



## Immediate Needs

Facility/Building	Total Items	Total Cost
Riverview Elementary	7	\$695,100
<b>Total</b>	<b>7</b>	<b>\$695,100</b>

### Riverview Elementary

ID	Location	Location Description	UF Code	Description	Condition	Plan Type	Cost
8121829	Riverview Elementary	Building Exterior	B2010	Exterior Walls, Brick, Repair/Repoint	Poor	Performance/Integrity	\$165,000
8121824	Riverview Elementary	Roof	B3060	Roof Hatch, Metal, Replace	Failed	Performance/Integrity	\$1,300
8121810	Riverview Elementary	Boiler Room	D3020	Boiler, Gas, HVAC, Replace	Failed	Performance/Integrity	\$135,000
8121815	Riverview Elementary	Mechanical Room	D3030	Chiller, Water-Cooled, Replace	Poor	Performance/Integrity	\$300,000
8121854	Riverview Elementary	Rear elevation	D3030	Cooling Tower, (Typical) Open Circuit, Replace	Failed	Performance/Integrity	\$67,300
8121817	Riverview Elementary	Kitchen	E1030	Foodservice Equipment, Dishwasher Commercial, Replace	Failed	Performance/Integrity	\$21,500
8088354	Riverview Elementary	PreK	P2030	Engineering Study, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	NA	Environmental	\$5,000
<b>Total (7 items)</b>							<b>\$695,100</b>



### Key Findings



#### Exterior Walls in Poor condition.

Brick  
Riverview Elementary and Middle School  
Building Exterior

Uniformat Code: B2010  
Recommendation: **Repair/Repoint in 2024**

Priority Score: **89.9**

Plan Type:  
Performance/Integrity

Cost Estimate: \$165,000

**\$\$\$\$**

Needs to be cleaned, repoint, and sealed - AssetCALC ID: 8121829



#### Glazing in Poor condition.

Any Type, by SF  
Riverview Elementary and Middle School  
Building Exterior

Uniformat Code: B2020  
Recommendation: **Replace in 2026**

Priority Score: **87.7**

Plan Type:  
Performance/Integrity

Cost Estimate: \$1,020,000

**\$\$\$\$**

Beyond useful life with failed seals and broken panes - AssetCALC ID: 8121822



#### Boiler in Failed condition.

Gas, HVAC  
Riverview Elementary and Middle School Boiler  
Room

Uniformat Code: D3020  
Recommendation: **Replace in 2024**

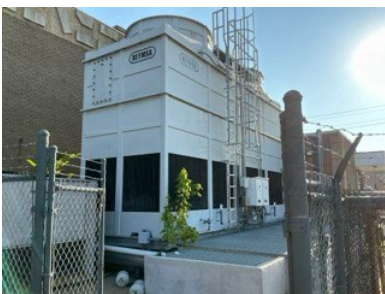
Priority Score: **86.9**

Plan Type:  
Performance/Integrity

Cost Estimate: \$135,000

**\$\$\$\$**

Unit is not functional and currently out of commission - AssetCALC ID: 8121810



#### Cooling Tower in Failed condition.

(Typical) Open Circuit  
Riverview Elementary Middle School Rear  
elevation

Uniformat Code: D3030  
Recommendation: **Replace in 2024**

Priority Score: **85.9**

Plan Type:  
Performance/Integrity

Cost Estimate: \$67,300

**\$\$\$\$**

Has not been functional in some years per POC - AssetCALC ID: 8121854





**Chiller in Poor condition.**

Water-Cooled  
Riverview Elementary and Middle School  
Mechanical Room

Uniformat Code: D3030  
Recommendation: **Replace in 2024**

Priority Score: **85.9**

Plan Type:  
Performance/Integrity

Cost Estimate: \$300,000

**\$\$\$\$**

This unit is one of two and reported to not be functioning, and appears dismantled. - AssetCALC ID: 8121815



**Chiller in Poor condition.**

Water-Cooled  
Riverview Elementary and Middle School Boiler  
Room

Uniformat Code: D3030  
Recommendation: **Replace in 2026**

Priority Score: **85.7**

Plan Type:  
Performance/Integrity

Cost Estimate: \$300,000

**\$\$\$\$**

This unit is one of two and reported to not be functioning, and appears dismantled. - AssetCALC ID: 8121838



**HVAC System in Poor condition.**

Hydronic Piping, 2-Pipe  
Riverview Elementary and Middle School Boiler  
Room

Uniformat Code: D3050  
Recommendation: **Replace in 2026**

Priority Score: **85.7**

Plan Type:  
Performance/Integrity

Cost Estimate: \$1,101,400

**\$\$\$\$**

Numerous leaks reported on extremely corroded and uninsulated pipe - AssetCALC ID: 8121847



**Parking Lots in Poor condition.**

Pavement, Asphalt  
Riverview Elementary and Middle School Site

Uniformat Code: G2020  
Recommendation: **Seal and Stripe in 2025**

Priority Score: **84.8**

Plan Type:  
Performance/Integrity

Cost Estimate: \$21,000

**\$\$\$\$**

Faded beyond usefulness - AssetCALC ID: 8121816



**Parking Lots in Poor condition.**

Pavement, Asphalt  
Riverview Elementary and Middle School Site

Uniformat Code: G2020  
Recommendation: **Mill and Overlay in 2025**

Priority Score: **84.8**

Plan Type:  
Performance/Integrity

Cost Estimate: \$163,200

\$\$\$\$

Cracking throughout, failed patchwork - AssetCALC ID: 8121820



**Boiler in Poor condition.**

Gas, Domestic  
Riverview Elementary and Middle School Boiler Room

Uniformat Code: D2010  
Recommendation: **Replace in 2026**

Priority Score: **83.7**

Plan Type:  
Performance/Integrity

Cost Estimate: \$37,800

\$\$\$\$

Rusted components and not warm to the touch suggests it isn't functional - AssetCALC ID: 8121832



**Foodservice Equipment in Failed condition.**

Dishwasher Commercial  
Riverview Elementary and Middle School Kitchen

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

Priority Score: **81.9**

Plan Type:  
Performance/Integrity

Cost Estimate: \$21,500

\$\$\$\$

.. - AssetCALC ID: 8121817



**Roof Hatch in Failed condition.**

Metal  
Riverview Elementary and Middle School Roof

Uniformat Code: B3060  
Recommendation: **Replace in 2024**

Priority Score: **81.9**

Plan Type:  
Performance/Integrity

Cost Estimate: \$1,300

\$\$\$\$

Will not close properly and mechanism is missing - AssetCALC ID: 8121824





**Split System in Poor condition.**

Condensing Unit/Heat Pump  
Riverview Elementary and Middle School Rear  
Elevation

Uniformat Code: D3030  
Recommendation: **Replace in 2025**

Priority Score: **81.8**

Plan Type:  
Performance/Integrity

Cost Estimate: \$60,000

**\$\$\$\$**

May not be functional and conjunction with the cooling tower that is also not functioning - AssetCALC ID: 8121845



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

Environmental, Asbestos (ACM) and Lead  
Base Paint (LBP)  
Riverview Elementary and Middle School PreK

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

Priority Score: **72.9**

Plan Type: Environmental

Cost Estimate: \$5,000

**\$\$\$\$**

Possible ACM - AssetCALC ID: 8088354



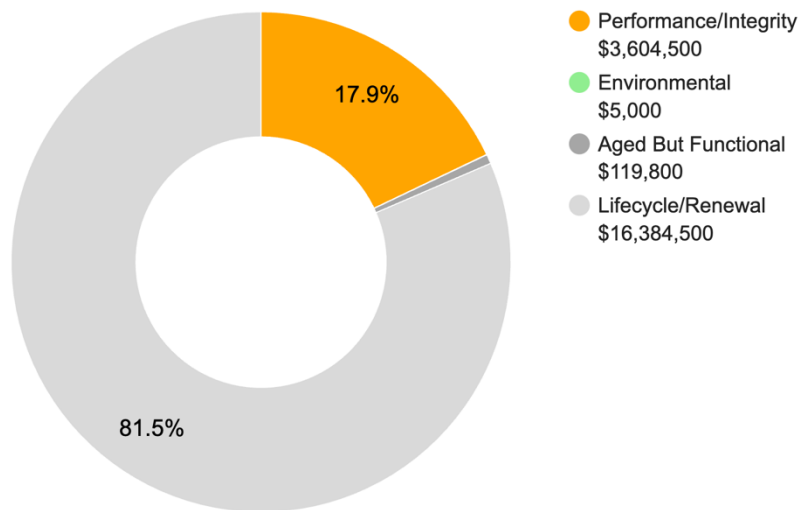
## Plan Types

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

<b>Safety</b>	■ An observed or reported unsafe condition that if left unaddressed could result in injury; a system or component that presents potential liability risk.
<b>Performance/Integrity</b>	■ Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses risk to overall system stability.
<b>Accessibility</b>	■ Does not meet ADA, UFAS, and/or other accessibility requirements.
<b>Environmental</b>	■ Improvements to air or water quality, including removal of hazardous materials from the building or site.
<b>Retrofit/Adaptation</b>	■ Components, systems, or spaces recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
<b>Lifecycle/Renewal</b>	■ 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: \$20,113,800



## 2. Building and Site Information



### Systems Summary

<i>System</i>	<i>Description</i>	<i>Condition</i>
<b>Structure</b>	Masonry bearing walls with metal roof deck supported by open-web steel joists and concrete slab foundation system	Fair
<b>Façade</b>	Wall Finish: Brick Windows: Aluminum	Fair
<b>Roof</b>	Flat construction with single-ply TPO/PVC membrane	Fair
<b>Interiors</b>	Walls: Painted CMU Floors: VCT Ceilings: ACT	Fair
<b>Elevators</b>	Passenger: Two hydraulic cars serving all floors	Fair
<b>Plumbing</b>	Distribution: Copper and Galvanized iron supply and cast-iron waste and venting Hot Water: Gas domestic boilers and water heaters Fixtures: Toilets, urinals, and sinks in all restrooms	Fair
<b>HVAC</b>	Central System: Boilers, chillers, air handlers, and cooling tower feeding, fan coils, hydronic baseboard radiators and cabinet terminal units Supplemental components: Suspended unit heaters	Poor
<b>Fire Suppression</b>	Fire extinguishers and kitchen hood system	Good
<b>Electrical</b>	Source & Distribution: Main switchboard with copper wiring. Interior Lighting: Linear fluorescent Emergency Power: None	Fair

<b>Systems Summary</b>		
<b>Fire Alarm</b>	Alarm panel with smoke detectors, heat detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
<b>Equipment/Special</b>	Commercial kitchen equipment	Fair
<b>Site Pavement</b>	Asphalt lots with limited areas of concrete aprons and pavement and adjacent concrete sidewalks, curbs, ramps, and stairs	Poor
<b>Site Development</b>	Building-mounted signage; chain-link fencing Playgrounds	Fair
<b>Landscaping and Topography</b>	Limited landscaping features including lawns, trees, bushes, and planters Irrigation present Low to moderate site slopes throughout	Fair
<b>Utilities</b>	Municipal water and sewer Local utility-provided electric and natural gas	Good
<b>Site Lighting</b>	Building-mounted: LED, HPS	Fair
<b>Ancillary Structures</b>	None	--
<b>Accessibility</b>	Presently it does not appear an accessibility study is needed for this property. See Appendix D.	
<b>Key Issues and Findings</b>	Antiquated and failed HVAC components and infrastructure, exterior windows are single pane with failed seals, broken roof hatch, possible issue with old adhesive for hard ceiling tiles	

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

<b>System Expenditure Forecast</b>						
<b>System</b>	<b>Immediate</b>	<b>Short Term (1-2 yr)</b>	<b>Near Term (3-5 yr)</b>	<b>Med Term (6-10 yr)</b>	<b>Long Term (11-20 yr)</b>	<b>TOTAL</b>
Facade	\$165,000	\$1,082,100	\$26,400	-	-	\$1,273,600
Roofing	\$1,300	-	\$1,597,700	-	-	\$1,599,000
Interiors	-	\$35,000	\$1,283,900	\$2,786,900	\$1,360,900	\$5,466,700
Conveying	-	\$18,000	-	\$106,000	\$112,300	\$236,400
Plumbing	-	\$40,100	\$110,900	\$4,216,300	\$27,400	\$4,394,600
HVAC	\$502,300	\$1,591,800	\$231,900	\$1,853,500	\$270,800	\$4,450,300
Fire Protection	-	\$10,200	-	\$3,000	\$4,100	\$17,300
Electrical	-	-	\$1,156,400	\$1,191,300	\$103,800	\$2,451,500
Fire Alarm & Electronic Systems	-	\$467,400	\$17,400	-	\$755,200	\$1,240,000
Equipment & Furnishings	\$21,500	-	\$927,800	\$424,600	\$55,100	\$1,429,000
Site Pavement	-	\$189,700	-	\$25,000	\$62,700	\$277,400
Site Development	-	-	-	\$25,300	\$3,900	\$29,200
Follow-up Studies	\$5,000	-	-	-	-	\$5,000
<b>TOTALS (3% inflation)</b>	<b>\$695,100</b>	<b>\$3,434,300</b>	<b>\$5,352,400</b>	<b>\$10,631,900</b>	<b>\$2,756,200</b>	<b>\$22,869,900</b>

### 3. Property Space Use and Observed Areas

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#### Areas Observed

The interior spaces were observed 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

The main roof section was inaccessible due to access issues.

## 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 1952. 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	
<b>Excellent</b>	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.
<b>Good</b>	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.
<b>Fair</b>	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.
<b>Poor</b>	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.
<b>Failed</b>	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
<b>Not Applicable</b>	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

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Shelby County Board of Education (the Client) retained Bureau Veritas to perform this Facility Condition Assessment in connection with its continued operation of Riverview Elementary and Middle School, 241 Majuba Avenue, Memphis, Tennessee 38109, 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:** Dalton W Bryan,  
Project Assessor

**Reviewed by:**



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## 8. Appendices

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- 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

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### Photographic Overview



1 - FRONT ELEVATION



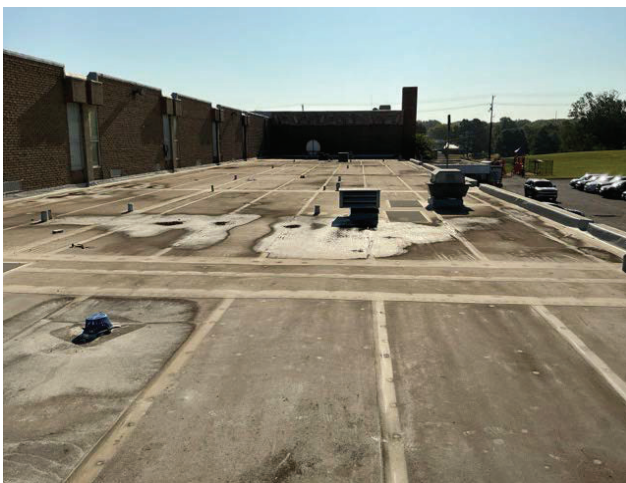
2 - LEFT ELEVATION



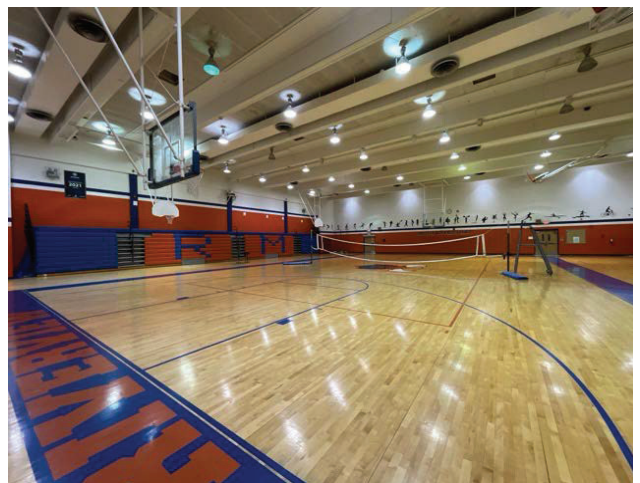
3 - REAR ELEVATION



4 - RIGHT ELEVATION



5 - ROOFING



6 - GYMNASIUM



### Photographic Overview



7 - CLASSROOM



8 - AUDITORIUM



9 - VCT FLOORING



10 - HALLWAY



11 - TERRAZZO FLOORING



12 - ELEVATOR CONTROLS



### Photographic Overview



13 - PASSENGER ELEVATOR



14 - VERTICAL LIFT



15 - BOILER, DOMESTIC WATER



16 - STORAGE TANK



17 - PLUMBING SYSTEM



18 - BOILER

### Photographic Overview



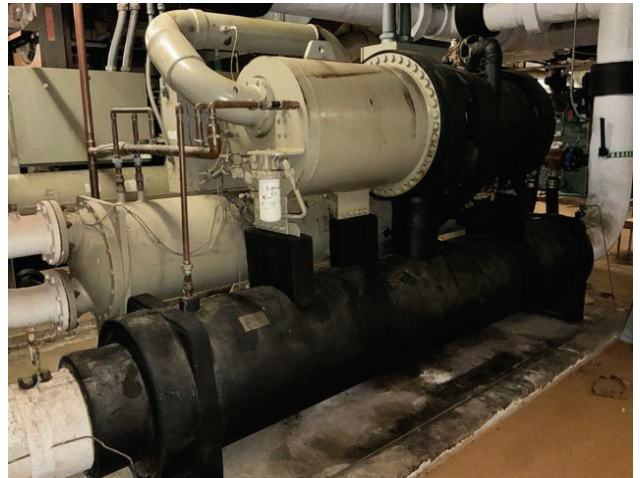
19 - RADIATOR



20 - COOLING TOWER



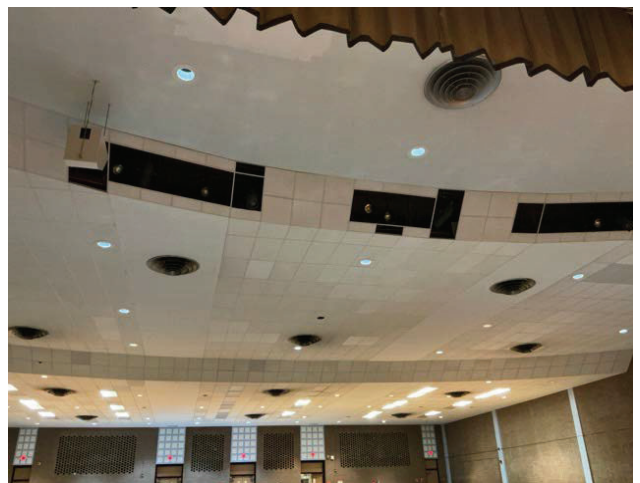
21 - CHILLER



22 - CHILLER



23 - HVAC SYSTEM



24 - HVAC SYSTEM



### Photographic Overview



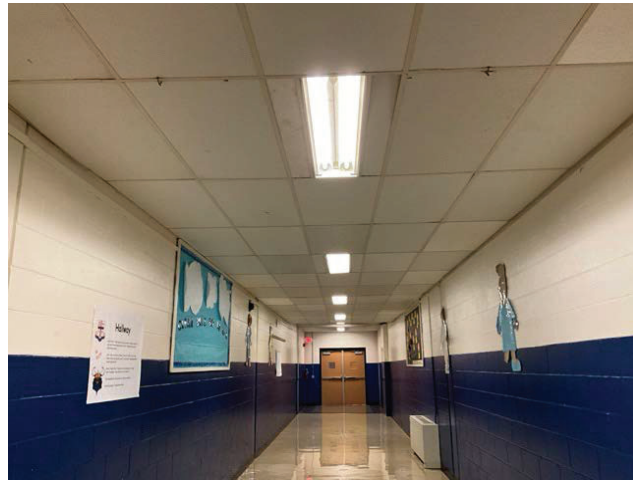
25 - AIR HANDLER



26 - ELECTRICAL SYSTEM



27 - PARKING LOT



28 - INTERIOR LIGHTING



29 - PARKING LOT



30 - PLAY STRUCTURE





# Appendix B:

## Site Plan

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# Site Plan



 <b>BUREAU VERITAS</b>	<b>Project Number</b>	<b>Project Name</b>	 <b>N</b>
	163745.23R000-163.354	Riverview Elementary and Middle School	
<b>Source</b>	<b>On-Site Date</b>		
Google	August 27, 2024		

## Appendix C:

### Pre-Survey Questionnaire

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# BV FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

**Building / Facility Name:** Riverview Elementary and Middle School

**Name of person completing form:** Quincy Handy

**Title / Association w/ property:** \_\_\_\_\_

**Length of time associated w/ property:** 2 years

**Date Completed:** August 27, 2024

**Phone Number:** 901-848-8295

**Method of Completion:** DURING - verbally completed during assessment

**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 1952	Renovated 2001	Plumbing, electrical
2	Building size in SF	69,422 <b>SF</b>		
3	Major Renovation/Rehabilitation		Year	Additional Detail
		Facade		
		Roof		
		Interiors		
		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?			X		
8	Are there any wall, window, basement or roof leaks?			X		
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality complaints?			X		
10	Are your elevators unreliable, with frequent service calls?			X		
11	Are there any plumbing leaks, water pressure, or clogging/backup issues?			X		
12	Have there been any leaks or pressure problems with natural gas, HVAC piping, or steam service?			X		
13	Are any areas of the facility inadequately heated, cooled or ventilated? Poorly insulated areas?			X		
14	Is the electrical service outdated, undersized, or problematic?			X		
15	Are there any problems or inadequacies with exterior lighting?			X		
16	Is site/parking drainage inadequate, with excessive ponding or other problems?			X		
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?			X		
18	ADA: Has an accessibility study been previously performed? If so, when?			X		
19	ADA: Have any ADA improvements been made to the property since original construction? Describe.			X		
20	ADA: Has building management reported any accessibility-based complaints or litigation?			X		
21	Are any areas of the property leased to outside occupants?			X		



Signature of Assessor



Signature of POC

## **Appendix D:** Accessibility Review and Photos

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## Visual Checklist - 2010 ADA Standards for Accessible Design

Property Name: Riverview Elementary and Middle School

BV Project Number: 163745.23R000-163.354

### Abbreviated Accessibility Checklist

#### Facility History and 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	

# Abbreviated Accessibility Checklist

## Parking



OVERVIEW OF ACCESSIBLE PARKING AREA



CLOSE-UP OF STALL

Question		Yes	No	NA	Comments
1	Does the required number of standard ADA designated spaces appear to be provided ?	✗			
2	Does the required number of van-accessible designated spaces appear to be provided ?	✗			
3	Are accessible spaces on the shortest accessible route to an accessible building entrance ?	✗			
4	Does parking signage include the International Symbol of Accessibility ?	✗			
5	Does each accessible space have an adjacent access aisle ?	✗			
6	Do parking spaces and access aisles appear to be relatively level and without obstruction ?	✗			

# Abbreviated Accessibility Checklist

## Exterior Accessible Route



ACCESSIBLE PATH



CURB CUT

Question		Yes	No	NA	Comments
1	Is an accessible route present from public transportation stops and municipal sidewalks on or immediately adjacent to the property ?			X	
2	Does a minimum of one accessible route appear to connect all public areas on the exterior, such as parking and other outdoor amenities, to accessible building entrances ?	X			
3	Are curb ramps present at transitions through raised curbs on all accessible routes?	X			
4	Do curb ramps appear to have compliant slopes for all components ?	X			
5	Do ramp runs on an accessible route appear to have compliant slopes ?			X	
6	Do ramp runs on an accessible route appear to have a compliant rise and width ?			X	

7	Do ramps on an accessible route appear to have compliant end and intermediate landings ?			X	
8	Do ramps and stairs on an accessible route appear to have compliant handrails?			X	
9	For stairways that are open underneath, are permanent barriers present that prevent or discourage access?			X	

# Abbreviated Accessibility Checklist

## Building Entrances



MAIN ENTRANCE



ACCESSIBLE ENTRANCE

Question		Yes	No	NA	Comments
1	Do a sufficient number of accessible entrances appear to be provided ?	X			
2	If the main entrance is not accessible, is an alternate accessible entrance provided?	X			
3	Is signage provided indicating the location of alternate accessible entrances ?	X			
4	Do doors at accessible entrances appear to have compliant maneuvering clearance area on each side ?	X			
5	Do doors at accessible entrances appear to have compliant hardware ?	X			
6	Do doors at accessible entrances appear to have a compliant clear opening width ?	X			

7	Do pairs of accessible entrance doors in series appear to have the minimum clear space between them ?	X			
8	Do thresholds at accessible entrances appear to have a compliant height ?	X			

## Abbreviated Accessibility Checklist

### Interior Accessible Route



ACCESSIBLE INTERIOR RAMP



DOOR HARDWARE

Question		Yes	No	NA	Comments
1	Does an accessible route appear to connect all public areas inside the building ?	✗			
2	Do accessible routes appear free of obstructions and/or protruding objects ?	✗			
3	Do ramps on accessible routes appear to have compliant slopes ?	✗			
4	Do ramp runs on an accessible route appear to have a compliant rise and width ?	✗			
5	Do ramps on accessible routes appear to have compliant end and intermediate landings ?	✗			
6	Do ramps on accessible routes appear to have compliant handrails ?	✗			

7	Are accessible areas of refuge and the accessible means of egress to those areas identified with accessible signage ?	X			
8	Do public transaction areas have an accessible, lowered service counter section ?	X			
9	Do public telephones appear mounted with an accessible height and location ?			X	
10	Do doors at interior accessible routes appear to have compliant maneuvering clearance area on each side ?	X			
11	Do doors at interior accessible routes appear to have compliant hardware ?	X			
12	Do non-fire hinged, sliding, or folding doors on interior accessible routes appear to have compliant opening force ?	X			
13	Do doors on interior accessible routes appear to have a compliant clear opening width ?	X			

# Abbreviated Accessibility Checklist

## Elevators



ELEVATOR



IN-CAB CONTROLS

Question		Yes	No	NA	Comments
1	Are hallway call buttons configured with the "UP" button above the "DOWN" button?	✗			
2	Is accessible floor identification signage present on the hoistway sidewalls on each level ?	✗			
3	Do the elevators have audible and visual arrival indicators at the lobby and hallway entrances?	✗			
4	Do the elevator hoistway and car interior appear to have a minimum compliant clear floor area ?	✗			
5	Do the elevator car doors have automatic re-opening devices to prevent closure on obstructions?	✗			
6	Do elevator car control buttons appear to be mounted at a compliant height ?	✗			

7	Are tactile and Braille characters mounted to the left of each elevator car control button ?	X			
8	Are audible and visual floor position indicators provided in the elevator car?	X			
9	Is the emergency call system on or adjacent to the control panel and does it not require voice communication ?	X			

## Abbreviated Accessibility Checklist

### Public Restrooms



TOILET STALL OVERVIEW



SINK, FAUCET HANDLES AND ACCESSORIES

Question		Yes	No	NA	Comments
1	Do publicly accessible toilet rooms appear to have a minimum compliant floor area ?	✗			
2	Does the lavatory appear to be mounted at a compliant height and with compliant knee area ?	✗			
3	Does the lavatory faucet have compliant handles ?	✗			
4	Is the plumbing piping under lavatories configured to protect against contact ?		✗		
5	Are grab bars provided at compliant locations around the toilet ?	✗			
6	Do toilet stall doors appear to provide the minimum compliant clear width ?	✗			

7	Do toilet stalls appear to provide the minimum compliant clear floor area ?	X			
8	Where more than one urinal is present in a multi-user restroom, does minimum one urinal appear to be mounted at a compliant height and with compliant approach width ?	X			
9	Do accessories and mirrors appear to be mounted at a compliant height ?	X			

# Abbreviated Accessibility Checklist

## Playgrounds and Swimming Pools



ACCESSIBLE ROUTE TO PLAYGROUND



OVERVIEW OF PLAYGROUND

Question		Yes	No	NA	Comments
1	Is there an accessible route to the play area / s?	✘			
2	Has the play area been reviewed for accessibility ?	✘			
3	Are publicly accessible swimming pools equipped with an entrance lift ?			✘	

## Appendix E:

### Component Condition Report

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## Component Condition Report | Riverview Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
<b>Facade</b>						
B2010	Building Exterior	Poor	Exterior Walls, Brick, Repair/Repoint	5,000 SF	0	8121829
B2020	Building Exterior	Poor	Glazing, any type, by SF	18,546 SF	2	8121822
B2050	Building Exterior	Fair	Exterior Door, Steel, Standard	38	5	8088364
<b>Roofing</b>						
B3010	Roof	Fair	Roofing, Single-Ply Membrane, TPO/PVC	81,069 SF	5	8121857
B3060	Roof	Failed	Roof Hatch, Metal	1	0	8121824
<b>Interiors</b>						
C1030	Throughout Building	Fair	Door Hardware, School, per Door	240	7	8088349
C1030	Throughout Building	Fair	Interior Door, Wood, Solid-Core	240	6	8088360
C1070	Cafeteria	Fair	Suspended Ceilings, Acoustical Tile Fiberglass	6,000 SF	2	8088369
C1070	Gymnasium	Fair	Suspended Ceilings, Fiberglass Paneling	10,000 SF	5	8088359
C1070	Throughout Building	Fair	Suspended Ceilings, Acoustical Tile (ACT)	220,272 SF	10	8088341
C2010	Throughout Building	Fair	Wall Finishes, any surface, Prep & Paint	550,680 SF	5	8088365
C2030	Throughout Building	Fair	Flooring, Terrazzo	7,000 SF	6	8088362
C2030	Locker Rooms	Fair	Flooring, any surface, w/ Paint or Sealant, Prep & Paint	5,000 SF	5	8088363
C2030	Throughout Building	Fair	Flooring, Vinyl Tile (VCT)	220,272 SF	6	8088366
C2030	Auditorium	Fair	Flooring, Wood, Strip	2,000 SF	5	8088355
C2030	Gymnasium	Fair	Flooring, Wood, Strip, Refinish	10,000 SF	5	8088350
C2030	Restrooms	Fair	Flooring, Ceramic Tile	3,000 SF	5	8088356
<b>Conveying</b>						
D1010	South End	Fair	Passenger Elevator, Hydraulic, 3 Floors, Renovate	1	10	8121821
D1010	Electrical Room	Fair	Elevator Controls, Automatic, 1 Car	1	6	8121833
D1010	Lobby	Fair	Passenger Elevator, Hydraulic, 3 Floors, Renovate	1	16	8121844

## Component Condition Report | Riverview Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D1010	Elevator Shafts/Utility	Fair	Elevator Controls, Automatic, 1 Car	1	6	8121849
D1010	Auditorium	Fair	Vertical Lift, Wheelchair, 5' Rise, Renovate	1	2	8088343
<b>Plumbing</b>						
D2010	Restrooms	Fair	Urinal, Standard	10	5	8088351
D2010	Boiler Room	Fair	Storage Tank, Domestic Water	1	8	8121827
D2010	Boiler Room	Poor	Boiler, Gas, Domestic	1	2	8121832
D2010	Restrooms	Fair	Toilet, Commercial Water Closet	40	5	8088361
D2010	Utility Rooms/Areas	Fair	Sink/Lavatory, Service Sink, Wall-Hung	10	3	8088346
D2010	Throughout Building	Fair	Plumbing System, Supply & Sanitary, High Density (excludes fixtures)	220,272 SF	10	8121863
D2010	Restrooms	Fair	Sink/Lavatory, Wall-Hung, Vitreous China	33	7	8088358
D2010	Restrooms	Fair	Toilet, Commercial Water Closet	1	5	8088334
D2010	Boiler Room	Fair	Backflow Preventer, Domestic Water	1	7	8121837
D2010	Cafeteria	Fair	Sink/Lavatory, Wall-Hung, Vitreous China	2	5	8088348
D2010	Boiler Room	Fair	Storage Tank, Domestic Water	1	8	8121818
D2010	Throughout Building	Fair	Drinking Fountain, Wall-Mounted, Single-Level	13	4	8088353
D2010	Locker room	Fair	Shower, Valve & Showerhead	1	7	8121859
<b>HVAC</b>						
D3020	Throughout Building	Fair	Radiator, Hydronic, Baseboard (per LF)	300 LF	8	8121841
D3020	Boiler Room	Failed	Boiler, Gas, HVAC	1	0	8121810
D3020	Boiler Room	Fair	Boiler, Gas, HVAC	1	8	8121869
D3020	Mechanical Room	Fair	Boiler, Gas, HVAC	1	5	8121861
D3020	Boiler Room	Fair	Unit Heater, Hydronic	2	3	8121831
D3030	Rear elevation	Poor	Split System, Condensing Unit/Heat Pump	1	1	8121845
D3030	Rear elevation	Failed	Cooling Tower, (Typical) Open Circuit	1	0	8121854
D3030	Mechanical Room	Poor	Chiller, Water-Cooled	1	0	8121815

## Component Condition Report | Riverview Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D3030	Boiler Room	Poor	Chiller, Water-Cooled	1	2	8121838
D3050	Boiler Room	Fair	Pump, Distribution, HVAC Chilled or Condenser Water	1	5	8121858
D3050	Mechanical Room	Fair	Pump, Distribution, HVAC Chilled or Condenser Water	1	2	8121842
D3050	Boiler Room	Fair	Pump, Distribution, HVAC Chilled or Condenser Water	1	5	8121866
D3050	Mechanical Room	Fair	Pump, Distribution, HVAC Heating Water	1	2	8121848
D3050	Elevator Room	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1	5	8121836
D3050	Mechanical Room	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1	3	8121839
D3050	Mechanical Room	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1	4	8121851
D3050	Mechanical Room	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1	4	8121846
D3050	Boiler Room	Poor	HVAC System, Hydronic Piping, 2-Pipe	220,272 SF	2	8121847
D3050	Mechanical Room	Fair	Pump, Distribution, HVAC Heating Water	1	2	8121862
D3050	Mechanical Room	Fair	Air Handler, Interior AHU, Easy/Moderate Access, 4001 to 6000 CFM	1	15	8121823
D3050	Boiler Room	Fair	Air Handler, Interior AHU, Easy/Moderate Access, 15001 to 20000 CFM	1	15	8121814
D3050	Throughout Building	Fair	HVAC System, Ductwork, High Density	220,272 SF	7	8121864
D3050	Mechanical Room	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1	3	8121835
D3050	Boiler Room	Fair	Pump, Distribution, HVAC Chilled or Condenser Water	1	5	8121853
<b>Fire Protection</b>						
D4010	Kitchen	Fair	Fire Suppression System, Commercial Kitchen, per LF of Hood	24 LF	2	8121843
D4030	Throughout Building	Good	Fire Extinguisher, Type ABC, up to 20 LB	16	8	8088352
<b>Electrical</b>						
D5020	Boiler Room	Fair	Switchboard, 277/480 V	1	11	8121828
D5020	Electrical Room	Fair	Secondary Transformer, Dry, Stepdown	1	6	8121856
D5020	Electrical Room	Fair	Secondary Transformer, Dry, Stepdown	1	3	8121812
D5030	Throughout Building	Fair	Electrical System, Wiring & Switches, High Density/Complexity	220,272 SF	10	8121813
D5040	Throughout Building	Fair	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures	220,272 SF	5	8088335

## Component Condition Report | Riverview Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
<b>Fire Alarm &amp; Electronic Systems</b>						
D7030	Throughout Building	Fair	Security/Surveillance System, Full System Upgrade, Average Density	220,272 SF	2	8121860
D7050	Main Office	Fair	Fire Alarm Panel, Fully Addressable	1	5	8121811
<b>Equipment &amp; Furnishings</b>						
E1030	Kitchen	Fair	Foodservice Equipment, Exhaust Hood, 8 to 10 LF	2	5	8121865
E1030	Kitchen	Fair	Commercial Kitchen Line, Preparation Tables/Areas	40 LF	7	8121855
E1030	Kitchen	Fair	Commercial Kitchen Line, Cooking Equipment	24 LF	6	8121840
E1030	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 3-Bowl	1	7	8121819
E1030	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 2-Bowl	2	7	8121825
E1030	Kitchen	Failed	Foodservice Equipment, Dishwasher Commercial	1	0	8121817
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Freezer	1	8	8121826
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Refrigerator	1	8	8121830
E1070	Gymnasium	Fair	Basketball Backboard, Ceiling-Mounted, Operable	6	10	8121868
E1070	Gymnasium	Fair	Basketball Backboard, Ceiling-Mounted, Operable	6	5	8088336
E2010	Gymnasium	Fair	Bleachers, Telescoping Power-Operated, up to 15 Tier (per Seat)	810	3	8088345
E2010	Gymnasium	Fair	Bleachers, Telescoping Manual, up to 15 Tier (per Seat)	500	10	8121867
E2010	Auditorium	Fair	Fixed Seating, Auditorium/Theater, Metal Cushioned Standard	1,145	5	8088367
<b>Pedestrian Plazas &amp; Walkways</b>						
G2020	Site	Poor	Parking Lots, Pavement, Asphalt, Mill & Overlay	46,615 SF	1	8121820
G2020	Site	Poor	Parking Lots, Pavement, Asphalt, Seal & Stripe	46,615 SF	1	8121816
<b>Athletic, Recreational &amp; Playfield Areas</b>						
G2050	Site	Fair	Play Structure, Multipurpose, Medium	1	8	8121809
<b>Sitework</b>						
G2060	Site	Fair	Flagpole, Metal	1	15	8121852
<b>Follow-up Studies</b>						

## Component Condition Report | Riverview Elementary

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
P2030	PreK	NA	Engineering Study, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	1	0	8088354

## Appendix F: Replacement Reserves

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Replacement Reserves Report



9/30/2024

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
D3050	Boiler Room	8121866	Pump, Distribution, HVAC Chilled or Condenser Water, Replace		25	20	5	1	EA	\$13,600.00	\$13,600						\$13,600																\$13,600
D3050	Mechanical Room	8121839	Air Handler, Interior AHU, Easy/Moderate Access, Replace		25	22	3	1	EA	\$22,000.00	\$22,000				\$22,000																		\$22,000
D3050	Mechanical Room	8121835	Air Handler, Interior AHU, Easy/Moderate Access, Replace		25	22	3	1	EA	\$22,000.00	\$22,000				\$22,000																		\$22,000
D3050	Mechanical Room	8121851	Air Handler, Interior AHU, Easy/Moderate Access, Replace		30	26	4	1	EA	\$31,000.00	\$31,000					\$31,000																	\$31,000
D3050	Mechanical Room	8121846	Air Handler, Interior AHU, Easy/Moderate Access, Replace		30	26	4	1	EA	\$31,000.00	\$31,000					\$31,000																	\$31,000
D3050	Elevator Room	8121836	Air Handler, Interior AHU, Easy/Moderate Access, Replace		25	20	5	1	EA	\$3,600.00	\$3,600						\$3,600																\$3,600
D3050	Throughout Building	8121864	HVAC System, Ductwork, High Density, Replace		30	23	7	220272	SF	\$6.00	\$1,321,632							\$1,321,632															\$1,321,632
D3050	Mechanical Room	8121823	Air Handler, Interior AHU, Easy/Moderate Access, 4001 to 6000 CFM, Replace		30	15	15	1	EA	\$31,000.00	\$31,000																\$31,000						\$31,000
D3050	Boiler Room	8121814	Air Handler, Interior AHU, Easy/Moderate Access, 15001 to 20000 CFM, Replace		30	15	15	1	EA	\$81,000.00	\$81,000																\$81,000						\$81,000
D4010	Kitchen	8121843	Fire Suppression System, Commercial Kitchen, per LF of Hood, Replace		20	18	2	24	LF	\$400.00	\$9,600			\$9,600																			\$9,600
D4030	Throughout Building	8088352	Fire Extinguisher, Type ABC, up to 20 LB, Replace		10	2	8	16	EA	\$150.00	\$2,400									\$2,400									\$2,400				\$4,800
D5020	Electrical Room	8121812	Secondary Transformer, Dry, Stepdown, Replace		30	27	3	1	EA	\$6,700.00	\$6,700				\$6,700																		\$6,700
D5020	Electrical Room	8121856	Secondary Transformer, Dry, Stepdown, Replace		30	24	6	1	EA	\$6,000.00	\$6,000						\$6,000																\$6,000
D5020	Boiler Room	8121828	Switchboard, 277/480 V, Replace		40	29	11	1	EA	\$75,000.00	\$75,000												\$75,000										\$75,000
D5030	Throughout Building	8121813	Electrical System, Wiring & Switches, High Density/Complexity, Replace		40	30	10	220272	SF	\$4.00	\$881,088										\$881,088												\$881,088
D5040	Throughout Building	8088335	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures, Replace		20	15	5	220272	SF	\$4.50	\$991,224						\$991,224																\$991,224
D7030	Throughout Building	8121860	Security/Surveillance System, Full System Upgrade, Average Density, Replace		15	13	2	220272	SF	\$2.00	\$440,544			\$440,544															\$440,544				\$881,088
D7050	Main Office	8121811	Fire Alarm Panel, Fully Addressable, Replace		15	10	5	1	EA	\$15,000.00	\$15,000						\$15,000														\$15,000		\$30,000
E1030	Kitchen	8121817	Foodservice Equipment, Dishwasher Commercial, Replace		10	10	0	1	EA	\$21,500.00	\$21,500	\$21,500										\$21,500											\$64,500
E1030	Kitchen	8121865	Foodservice Equipment, Exhaust Hood, 8 to 10 LF, Replace		15	10	5	2	EA	\$4,500.00	\$9,000						\$9,000															\$9,000	\$18,000
E1030	Kitchen	8121840	Commercial Kitchen Line, Cooking Equipment, Replace		20	14	6	24	LF	\$2,000.00	\$48,000						\$48,000																\$48,000
E1030	Kitchen	8121855	Commercial Kitchen Line, Preparation Tables/Areas, Replace		20	13	7	40	LF	\$300.00	\$12,000							\$12,000															\$12,000
E1030	Kitchen	8121825	Sink/Lavatory, Commercial Kitchen, 2-Bowl, Replace		30	23	7	2	EA	\$2,100.00	\$4,200										\$4,200												\$4,200
E1030	Kitchen	8121819	Sink/Lavatory, Commercial Kitchen, 3-Bowl, Replace		30	23	7	1	EA	\$2,500.00	\$2,500										\$2,500												\$2,500
E1030	Kitchen	8121826	Foodservice Equipment, Walk-In, Freezer, Replace		20	12	8	1	EA	\$25,000.00	\$25,000										\$25,000												\$25,000
E1030	Kitchen	8121830	Foodservice Equipment, Walk-In, Refrigerator, Replace		20	12	8	1	EA	\$15,000.00	\$15,000										\$15,000												\$15,000
E1070	Gymnasium	8088336	Basketball Backboard, Ceiling-Mounted, Operable		30	25	5	6	EA	\$7,830.00	\$46,980						\$46,980																\$46,980
E1070	Gymnasium	8121868	Basketball Backboard, Ceiling-Mounted, Operable		30	20	10	6	EA	\$7,830.00	\$46,980										\$46,980												\$46,980
E2010	Gymnasium	8088345	Bleachers, Telescoping Power-Operated, up to 15 Tier (per Seat), Replace		20	17	3	810	EA	\$450.00	\$364,500				\$364,500																		\$364,500
E2010	Auditorium	8088367	Fixed Seating, Auditorium/Theater, Metal Cushioned Standard, Replace		20	15	5	1145	EA	\$350.00	\$400,750					\$400,750																	\$400,750
E2010	Gymnasium	8121867	Bleachers, Telescoping Manual, up to 15 Tier (per Seat), Replace		20	10	10	500	EA	\$300.00	\$150,000										\$150,000												\$150,000
G2020	Site	8121820	Parking Lots, Pavement, Asphalt, Mill & Overlay		25	24	1	46615	SF	\$3.50	\$163,153		\$163,153																				\$163,153
G2020	Site	8121816	Parking Lots, Pavement, Asphalt, Seal & Stripe		5	4	1	46615	SF	\$0.45	\$20,977		\$20,977					\$20,977				\$20,977						\$20,977					\$83,907
G2050	Site	8121809	Play Structure, Multipurpose, Medium, Replace		20	12	8	1	EA	\$20,000.00	\$20,000										\$20,000												\$20,000
G2060	Site	8121852	Flagpole, Metal, Replace		30	15	15	1	EA	\$2,500.00	\$2,500																\$2,500						\$2,500
P2030	PreK	8088354	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
<b>Totals, Unescalated</b>												\$695,100	\$244,129	\$3,000,134	\$432,600	\$77,600	\$4,133,947	\$1,452,337	\$1,489,832	\$247,200	\$0	\$5,024,328	\$95,977	\$0	\$0	\$0	\$988,020	\$150,977	\$440,544	\$2,400	\$15,600	\$45,500	\$18,536,225
<b>Totals, Escalated (3.0% inflation, compounded annually)</b>												\$695,100	\$251,453	\$3,182,842	\$472,714	\$87,339	\$4,792,378	\$1,734,166	\$1,832,305	\$313,146	\$0	\$6,752,277	\$132,854	\$0	\$0	\$0	\$1,539,303	\$242,273	\$728,152	\$4,086	\$27,355	\$82,178	\$22,869,921

## Appendix G: Equipment Inventory List

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D10 Conveying													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8121833	D1010	<b>Elevator Controls</b>	Automatic, 1 Car		Riverview Elementary	Electrical Room	ThyssenKrupp	EP08020	EZ0052	2010		
2	8121849	D1010	<b>Elevator Controls</b>	Automatic, 1 Car		Riverview Elementary	Elevator Shafts/Utility	ThyssenKrupp	EP7020A	EY9297	2010		
3	8121821	D1010	<b>Passenger Elevator</b>	Hydraulic, 3 Floors	2500 LB	Riverview Elementary	South End	ThyssenKrupp	No dataplate	No dataplate			
4	8121844	D1010	<b>Passenger Elevator</b>	Hydraulic, 3 Floors	2500 LB	Riverview Elementary	Lobby	ThyssenKrupp	No dataplate	No dataplate	2010		
5	8088343	D1010	<b>Vertical Lift</b>	Wheelchair, 5' Rise	750 LB	Riverview Elementary	Auditorium	Garaventa	LS-US-ST-44	47962	2001		
D20 Plumbing													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8121827	D2010	<b>Storage Tank</b>	Domestic Water	150 GAL	Riverview Elementary	Boiler Room	Ruud	ST200A	0402N00122	2002	2002	
2	8121818	D2010	<b>Storage Tank</b>	Domestic Water	150 GAL	Riverview Elementary	Boiler Room	Ruud	ST200A	0402N00127	2002	2002	
3	8121832	D2010	<b>Boiler</b>	Gas, Domestic	735 MBH	Riverview Elementary	Boiler Room	RBI	33HW0735NE0ACPS	070228677	2002		
4	8121837	D2010	<b>Backflow Preventer</b>	Domestic Water	2 IN	Riverview Elementary	Boiler Room	Watts	909MI	240155	2001		
D30 HVAC													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8121810	D3020	<b>Boiler</b>	Gas, HVAC	3500 MBH	Riverview Elementary	Boiler Room	Cleaver-Brooks	Illegible	Illegible			
2	8121869	D3020	<b>Boiler</b>	Gas, HVAC	3500 MBH	Riverview Elementary	Boiler Room	Cleaver-Brooks	FLX 700	BT-9543	1995		
3	8121861	D3020	<b>Boiler</b>	Gas, HVAC	2000 MBH	Riverview Elementary	Mechanical Room	Thermal Soutions	MT-61-H	5546-13			
4	8121841	D3020	<b>Radiator</b>	Hydronic, Baseboard (per LF)		Riverview Elementary	Throughout Building	Inaccessible	Inaccessible	Inaccessible			300
5	8121831	D3020	<b>Unit Heater</b>	Hydronic	36 MBH	Riverview Elementary	Boiler Room	Young Touchstone	Illegible	Illegible			2
6	8121815	D3030	<b>Chiller</b>	Water-Cooled	255 TON	Riverview Elementary	Mechanical Room	Trane	RTHE255FID00L WP000UNNSLE2100000	196A02335	1996		

7	8121838	D3030	<b>Chiller</b>	Water-Cooled	255 TON	Riverview Elementary	Boiler Room	Trane	RTHB255FT D00L WP000UNNILF2LF00000	U96A02336	1996
8	8121854	D3030	<b>Cooling Tower</b>	(Typical) Open Circuit	300 TON	Riverview Elementary	Rear elevation	Reymosa	Illegible	Illegible	
9	8121845	D3030	<b>Split System</b>	Condensing Unit/Heat Pump	50 TON	Riverview Elementary	Rear elevation	Carrier	38AH-054---600	1895F46188	1995
10	8121858	D3050	<b>Pump</b>	Distribution, HVAC Chilled or Condenser Water	25 HP	Riverview Elementary	Boiler Room	U.S. Electric	A12428	J09-A12428-N	
11	8121842	D3050	<b>Pump</b>	Distribution, HVAC Chilled or Condenser Water	25 HP	Riverview Elementary	Mechanical Room	Patterson	E6V9A-F4M	HV-C000203969-01-01	2001
12	8121866	D3050	<b>Pump</b>	Distribution, HVAC Chilled or Condenser Water	25 HP	Riverview Elementary	Boiler Room	Marathon Electric	CVE 284TTDC4026BB S	No dataplate	
13	8121853	D3050	<b>Pump</b>	Distribution, HVAC Chilled or Condenser Water	25 HP	Riverview Elementary	Boiler Room	U.S. Electric	A124 28	J11-A12428-M	
14	8121848	D3050	<b>Pump</b>	Distribution, HVAC Heating Water	25 HP	Riverview Elementary	Mechanical Room	Marathon Electric	CVE 286TTDC4026BB S	No dataplate	2001
15	8121862	D3050	<b>Pump</b>	Distribution, HVAC Heating Water	25 HP	Riverview Elementary	Mechanical Room	Marathon Electric	CVE 286TTDC4026BB S	No dataplate	2001
16	8121836	D3050	<b>Air Handler</b>	Interior AHU, Easy/Moderate Access	400 CFM	Riverview Elementary	Elevator Room	No dataplate	No dataplate	No dataplate	
17	8121839	D3050	<b>Air Handler</b>	Interior AHU, Easy/Moderate Access	4000 CFM	Riverview Elementary	Mechanical Room	Börger Systems	VD 21 ALF	BMA 7002	2002
18	8121851	D3050	<b>Air Handler</b>	Interior AHU, Easy/Moderate Access	4000 CFM	Riverview Elementary	Mechanical Room	Inaccessible	Inaccessible	Inaccessible	1998
19	8121846	D3050	<b>Air Handler</b>	Interior AHU, Easy/Moderate Access	4001 CFM	Riverview Elementary	Mechanical Room	No dataplate	No dataplate	No dataplate	1998
20	8121835	D3050	<b>Air Handler</b>	Interior AHU, Easy/Moderate Access	4000 CFM	Riverview Elementary	Mechanical Room	No dataplate	No dataplate	No dataplate	
21	8121814	D3050	<b>Air Handler</b>	Interior AHU, Easy/Moderate Access, 15001 to 20000 CFM	20000 CFM	Riverview Elementary	Boiler Room	Illegible	Illegible	Illegible	
22	8121823	D3050	<b>Air Handler</b>	Interior AHU, Easy/Moderate Access, 4001 to 6000 CFM	6000 CFM	Riverview Elementary	Mechanical Room	Inaccessible	Inaccessible	Inaccessible	

D40 Fire Protection													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8121843	D4010	<b>Fire Suppression System</b>	Commercial Kitchen, per LF of Hood		Riverview Elementary	Kitchen				2001		24
2	8088352	D4030	<b>Fire Extinguisher</b>	Type ABC, up to 20 LB		Riverview Elementary	Throughout Building				2024		16
D50 Electrical													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8121856	D5020	<b>Secondary Transformer</b>	Dry, Stepdown	15 KVA	Riverview Elementary	Electrical Room	Square D	15T3HFISNLP	N/A	2000		
2	8121812	D5020	<b>Secondary Transformer</b>	Dry, Stepdown	30 KVA	Riverview Elementary	Electrical Room	Federal Pacific Electric	57342-ES	N/A			
3	8121828	D5020	<b>Switchboard</b>	277/480 V	1600 AMP	Riverview Elementary	Boiler Room	General Electric	No dataplate	No dataplate	1995		
D70 Electronic Safety & Security													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8121811	D7050	<b>Fire Alarm Panel</b>	Fully Addressable		Riverview Elementary	Main Office	No dataplate	No dataplate	No dataplate	2001		
E10 Equipment													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8121817	E1030	<b>Foodservice Equipment</b>	Dishwasher Commercial		Riverview Elementary	Kitchen	No dataplate	No dataplate	No dataplate			
2	8121865	E1030	<b>Foodservice Equipment</b>	Exhaust Hood, 8 to 10 LF		Riverview Elementary	Kitchen	No dataplate	No dataplate	No dataplate			2
3	8121826	E1030	<b>Foodservice Equipment</b>	Walk-In, Freezer		Riverview Elementary	Kitchen	No dataplate	No dataplate	No dataplate			
4	8121830	E1030	<b>Foodservice Equipment</b>	Walk-In, Refrigerator		Riverview Elementary	Kitchen	No dataplate	No dataplate	No dataplate			
5	8121825	E1030	<b>Sink/Lavatory</b>	Commercial Kitchen, 2-Bowl		Riverview Elementary	Kitchen				2001		2
6	8121819	E1030	<b>Sink/Lavatory</b>	Commercial Kitchen, 3-Bowl		Riverview Elementary	Kitchen				2001		