

# FACILITY CONDITION ASSESSMENT

Davis ES | February 2022





## **Executive Summary**

Davis ES is located at 5214 Duval Rd in Austin, Texas. The oldest building is 27 years old (at time of 2020 assessment). It comprises 72,149 gross square feet.

The findings contained within this report are the result of an assessment of building systems and the conditions found on the site at the time of the visit. The assessment was performed by building professionals experienced in disciplines including architecture, mechanical, plumbing and electrical. The total current deficiencies for this site, in 2020 construction cost dollars, are estimated at \$3,369,835. A ten-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Davis ES the ten-year need is \$15,291,615.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined to calculate a Facility Condition Assessment (FCA) score. A 5-year FCA was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCA calculation. The Davis ES facility has a 5-year FCA score of 69.55%.

## **Summary of Findings**

The table below summarizes the condition findings at Davis ES

Table 1: Facility Condition by Building

Number	Building Name	Current Deficiencies	5-Year Life Cycle Cost	Yrs 6-10 Life Cycle Cost	Total 5 Yr Need (Yr 1-5 + Current Defs)	Total 10 Yr Need (Yr 1-10 + Current Defs)	Replacement Cost	5-Year FCA
Exterior Sit	te							
	Exterior Site	\$1,449,990	\$0	\$1,065,452	\$1,449,990	\$2,515,442	\$0	
Permanent	tBuilding(s)		-		-			
179A	Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.	\$1,919,844	\$3,249,252	\$6,255,022	\$5,169,096	\$11,424,118	\$20,415,350	74.68%
179B	Stand-Alone Classroom Building	\$0	\$596,318	\$755,736	\$596,318	\$1,352,054	\$3,277,661	81.81%
	Sub Total for Permanent Building(s):	\$1,919,844	\$3,845,570	\$7,010,758	\$5,765,414	\$12,776,172	\$23,693,011	
	Total for Site:	\$3,369,835	\$3,845,570	\$8,076,210	\$7,215,405	\$15,291,615	\$23,693,011	69.55%



## **Approach and Methodology**

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

**Current Deficiencies:** Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates the ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

All members of the survey team recorded existing conditions, identified problems and deficiencies, and documented corrective action and quantities. The team took digital photos at each site to better identify significant deficiencies.

## **Facility Deficiency Priority Levels**

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

**Priority 1** – **Mission Critical Concerns:** Deficiencies or conditions that may directly affect the site's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

**Priority 2 - Indirect Impact to Educational Mission:** Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

**Priority 3 - Short-Term Conditions:** Deficiencies that are necessary to the site's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

**Priority 4 - Long-Term Requirements:** Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

**Priority 5 - Enhancements:** Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.



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## The following table summarizes this site's current deficiencies by building system and priority.

Table 2: System by Priority (Site & Permanent Buildings)

			Priority				
System	1	2	3	4	5	Total	% of Total
Site	\$0	\$0	\$0	\$0	\$1,449,990	\$1,449,990	43.03 %
Roofing	\$1,919,844	\$0	\$0	\$0	\$0	\$1,919,844	56.97 %
Structural	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Exterior	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Interior	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Mechanical	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Electrical	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Fire and Life Safety	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Specialties	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Crawlspace	\$0	\$0	\$0	\$0	\$0	\$0	0.00 %
Total:	\$1,919,844	\$0	\$0	\$0	\$1,449,990	\$3,369,835	

The building systems at the site with the most need include:

Roofing	-	\$1,919,844
Site	-	\$1,449,990
Interior	-	\$0



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The chart below represents the building systems and associated deficiency costs.

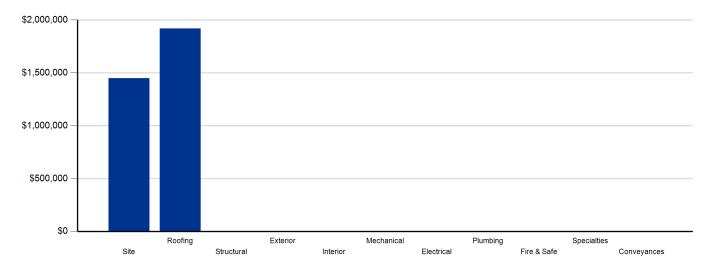


Figure 1: System Deficiencies



## Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If an assessor identified a need for immediate replacement, a deficiency was created with the item's repair costs. The identified deficiency contributes to the facility's total current repair costs.

However, capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a ten-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following tables show current deficiencies and the subsequent ten-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

		Life Cycl	e Capital Renewal Pro	ojections		
System	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Total 1-5
Site	\$0	\$0	\$0	\$0	\$0	\$0
Roofing	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$486,154	\$0	\$358,753	\$0	\$0	\$844,907
Interior	\$0	\$0	\$0	\$172,052	\$13,398	\$185,450
Mechanical	\$0	\$2,015,375	\$11,191	\$429,080	\$35,547	\$2,491,193
Electrical	\$0	\$0	\$0	\$0	\$0	\$0
Plumbing	\$0	\$0	\$0	\$48,250	\$20,516	\$68,766
Fire and Life Safety	\$0	\$0	\$0	\$0	\$0	\$0
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$0	\$0	\$0	\$255,254	\$0	\$255,254
Crawlspace	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$486,154	\$2,015,375	\$369,944	\$904,636	\$69,461	\$3,845,570

Table 3a: Capital Renewal Forecast (Yrs 1-5)



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Table 3b: Capital Renewal Forecast (Yrs 6-10)

		Life Cycle Capital Renewal Projections						
System	Total 1-5	Year 6 2028	Year 7 2029	Year 8 2030	Year 9 2031	Year 10 2032	Total 6-10	Total 1-10
Site	\$0	\$44,696	\$0	\$1,020,756	\$0	\$0	\$1,065,452	\$1,065,452
Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$844,907	\$0	\$0	\$0	\$0	\$0	\$0	\$844,907
Interior	\$185,450	\$444,056	\$503,606	\$841,839	\$73,460	\$9,403	\$1,872,364	\$2,057,814
Mechanical	\$2,491,193	\$0	\$0	\$401,856	\$0	\$104,218	\$506,074	\$2,997,267
Electrical	\$0	\$0	\$0	\$17,133	\$0	\$1,179,646	\$1,196,779	\$1,196,779
Plumbing	\$68,766	\$0	\$0	\$302,618	\$0	\$2,910,413	\$3,213,031	\$3,281,797
Fire and Life Safety	\$0	\$0	\$0	\$0	\$148,899	\$0	\$148,899	\$148,899
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$255,254	\$3,196	\$0	\$70,415	\$0	\$0	\$73,611	\$328,865
Crawlspace	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$3,845,570	\$491,948	\$503,606	\$2,654,617	\$222,359	\$4,203,680	\$8,076,210	\$11,921,780

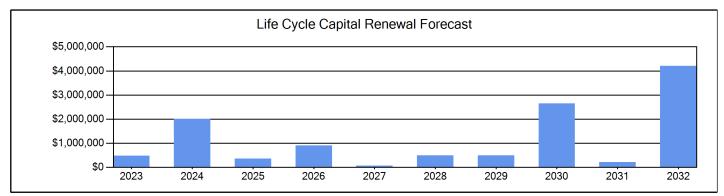


Figure 2: Ten Year Capital Renewal Forecast



The Facility Condition Assessment Score (FCAS) is used throughout the facility condition assessment industry as a general indicator of a building's health. The FCAS is used to benchmark the relative condition of a group of sites. The FCAS is derived by dividing the total repair cost, site-related repairs, by the total replacement cost and subtracting it from 100. A facility with a lower FCAS percentage has more need, or higher priority, than a facility with a lower FCAS. It should be noted that costs in the New Construction category are not included in the FCAS calculation.

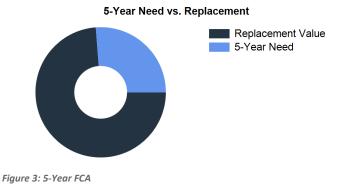
FCAS = 100 - (Total Repair Cost/ Replacement Cost)

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCAS was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCAS calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair sites with a FCAS of 35 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCAS at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCAS is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making campus facility decisions.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Austin area. The estimated replacement cost for this facility is \$23,693,011. For planning purposes, the total 5-year need at the Davis ES is \$7,215,405 (Life Cycle Years 1-5 plus the FCA deficiency cost). The Davis ES facility has a 5-year FCA of 69.55%.





\$1,449,990

3 items

## **Davis ES - Deficiency Summary**

## **Site Level Deficiencies**

#### Site Deficiency Qty UoM Priority Repair Cost Category ID PROGRAM DEFICIENCIES ADA Compliance 477,602 EACH \$820,033 4762 5 PUBLIC DEFICIENCIES ADA Compliance 221,970 EACH 5 \$381,118 4761 TAS ACCESSIBILITY DEFICIENCIES 144,928 EACH 5 ADA Compliance \$248,839 4763 Sub Total for System 3 items \$1,449,990

Sub Total for School and Site Level

# Building: 179A - Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.

## Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
AISD ROOFING P1	Capital Renewal	589,184	EACH	1	\$619,645	4764
AISD ROOFING P2	Capital Renewal	554,058	EACH	1	\$582,703	4765
AISD ROOFING P3	Capital Renewal	498,424	EACH	1	\$524,193	4766
AISD ROOFING P4	Capital Renewal	108,746	EACH	1	\$114,368	4767
AISD ROOFING P5	Capital Renewal	75,054	EACH	1	\$78,934	4768
	Sub Total for System	5	items		\$1,919,844	
Sub Total for Building 179A - Main building includes Administration Offi	ices, Classrooms, Cafeteria, & Gym.	5	items		\$1,919,844	
	Total for Campus	8	items		\$3,369,835	

### Buildings with no reported deficiencies

179B - Stand-Alone Classroom Building



## Davis ES - Life Cycle Summary Yrs 1-10

## Site Level Life Cycle Items

### Site

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Playfield Areas	ES Playgrounds		2	Ea.	\$44,696	6
Fences and Gates	Fencing - Chain Link (8-10 Ft)		3,900	LF	\$305,545	8
Parking Lot Pavement	Asphalt		116	CAR	\$168,293	8
Roadway Pavement	Asphalt Driveways		81,000	SF	\$520,865	8
Pedestrian Pavement	Sidewalks - Concrete		2,300	SF	\$26,053	8
		Sub Total for System	5	items	\$1,065,451	
		Sub Total for Building -	5	items	\$1,065,451	

## Building: 179A - Main building includes Administration Offices, Classrooms, Cafeteria, & Gym.

## Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Operating Windows	Aluminum - Windows per SF		3,360	SF	\$335,082	1
Exterior Entrance Doors	Steel - Insulated and Painted		33	Door	\$122,331	1
Exterior Operating Windows	Steel - Windows per SF		1,320	SF	\$190,795	3
Exterior Operating Windows	Steel - Windows per SF		784	SF	\$113,321	3
Exterior Operating Windows	Steel - Windows per SF		378	SF	\$54,637	3
		Sub Total for System	5	items	\$816,166	
Interior						
Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Suspended Plaster and	Painted ceilings		1,865	SF	\$3,884	4
Wall Painting and Coating	Painting/Staining (Bldg SF)		27,976	SF	\$125,358	4
Wood Flooring	Wood Flooring - All Types		622	SF	\$13,398	5
Acoustical Suspended Ceilings	Ceilings - Acoustical Grid System		57,816	SF	\$240,760	6
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles		57,816	SF	\$195,230	6
Compartments and Cubicles	Toilet Partitions		4	Stall	\$8,066	6
Carpeting	Carpet		13,677	SF	\$173,153	7
Resilient Flooring	Vinyl Composition Tile Flooring		40,409	SF	\$330,453	7
Wall Coverings	FRP Wall Finish		24,867	SF Wall	\$189,191	8
Interior Swinging Doors	Wooden Door		156	Door	\$292,594	8
Interior Door Supplementary Components	Door Hardware		156	Door	\$231,599	8
Resilient Flooring	Rubber Tile Flooring		622	SF	\$9,403	10
		Sub Total for System	12	items	\$1,813,089	
Mechanical						
Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Hydronic Distribution Systems	Ground Source Loop Field Pipe		155	Ton	\$2,015,375	2
Note	e: 38 Fan Coils, no chiller and no Boiler has been co	onfirmed				
Exhaust Air	Kitchen Exhaust Hoods		1	Ea.	\$11,191	3
Facility Hydronic Distribution	Pump - 1HP or Less (Ea.)		2	Ea.	\$8,626	5
Heating System Supplementary Components	Controls - DDC (Bldg.SF)		62,168	SF	\$167,681	8
Decentralized Cooling	Fan Coil - Water Cool/Water Heat (5 Ton)		38	Ea.	\$217,124	8
HVAC Air Distribution	AHU 2,000 CFM Interior		1	Ea.	\$29,014	10
HVAC Air Distribution	AHU 2,000 CFM Interior		1	Ea.	\$29,014	10
			•			
		Sub Total for System		items	\$2,478,027	
Electrical		Sub Total for System		items	\$2,478,027	
Electrical Uniformat Description	LC Type Description	Sub Total for System	7	<b>items</b> UoM		Remaining Life
	LC Type Description Building Mounted Fixtures (Ea.)	Sub Total for System	7 Qty			Remaining Life 8
Uniformat Description		Sub Total for System	7 Qty 19	UoM	Repair Cost	-
Uniformat Description Lighting Fixtures	Building Mounted Fixtures (Ea.)	Sub Total for System	7 Qty 19	UoM Ea. Ea.	Repair Cost \$17,133	8
Uniformat Description Lighting Fixtures Lighting Fixtures	Building Mounted Fixtures (Ea.) Canopy Mounted Fixtures (Ea.)	Sub Total for System	7 Qty 19 19 62,168	UoM Ea. Ea.	Repair Cost \$17,133 \$39,576	8 10
Uniformat Description Lighting Fixtures Lighting Fixtures Lighting Fixtures	Building Mounted Fixtures (Ea.) Canopy Mounted Fixtures (Ea.)		7 Qty 19 19 62,168	UoM Ea. Ea. SF	Repair Cost \$17,133 \$39,576 \$1,140,070	8 10
Uniformat Description Lighting Fixtures Lighting Fixtures Lighting Fixtures Plumbing	Building Mounted Fixtures (Ea.) Canopy Mounted Fixtures (Ea.) Light Fixtures (Bldg SF)		7 Qty 19 19 62,168 <b>3</b>	UoM Ea. Ea. SF items	Repair Cost \$17,133 \$39,576 \$1,140,070 <b>\$1,196,780</b>	8 10 10
Uniformat Description Lighting Fixtures Lighting Fixtures Lighting Fixtures	Building Mounted Fixtures (Ea.) Canopy Mounted Fixtures (Ea.)		7 Qty 19 62,168 <b>3</b> Qty	UoM Ea. Ea. SF	Repair Cost \$17,133 \$39,576 \$1,140,070	8 10

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## Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Sink - Service / Mop Sink		3	Ea.	\$2,388	8
Plumbing Fixtures	Showers		1	Ea.	\$1,306	8
Plumbing Fixtures	Toilets		42	Ea.	\$212,494	8
Plumbing Fixtures	Urinals		1	Ea.	\$1,354	8
Plumbing Fixtures	Refrigerated Drinking Fountain		2	Ea.	\$4,405	8
Domestic Water Equipment	Gas Piping System (BldgSF)		62,168	SF	\$2,155,692	10
Domestic Water Piping	Domestic Water Piping System (Bldg.SF)		62,168	SF	\$223,415	10
Sanitary Sewerage Piping	Sanitary Sewer Piping		62,168	SF	\$69,021	10
Plumbing Fixtures	Classroom Lavatory		27	Ea.	\$69,241	10
		Sub Total for System	11	items	\$2,815,582	

## Fire and Life Safety

Uniformat Description	LC Type Description		Qty U	JoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		62,168 S	SF	\$98,711	9
Fire Detection and Alarm	Fire Alarm Panel		4 E	a.	\$27,472	9
		Sub Total for System	2 it	tems	\$126,183	
Specialties						
Uniformat Description	LC Type Description		Qty U	JoM	Repair Cost	Remaining Life
Casework	Fixed Cabinetry		29 R	Room	\$255,254	4
Casework	Lockers		6 E	a.	\$3,196	6
		Sub Total for System	2 it	tems	\$258,451	
Sub Total for Building	179A - Main building includes Administration Offices, C	lassrooms, Cafeteria, & Gym.	42 it	tems	\$9,504,277	

## Building: 179B - Stand-Alone Classroom Building

## Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Operating Windows	Aluminum - Windows per SF		28	SF	\$2,792	1
Exterior Entrance Doors	Steel - Insulated and Painted		7	Door	\$25,949	1
		Sub Total for System	2	items	\$28,741	
Interior						
Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Suspended Plaster and	Painted ceilings		798	SF	\$1,662	4
Wall Painting and Coating	Painting/Staining (Bldg SF)		9,183	SF	\$41,148	4
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles		9,183	SF	\$31,009	8
Interior Swinging Doors	Wooden Door		29	Door	\$54,392	8
Interior Door Supplementary Components	Door Hardware		29	Door	\$43,054	8
Resilient Flooring	Vinyl Composition Tile Flooring		8,983	SF	\$73,460	9
		Sub Total for System	6	items	\$244,725	
Mechanical						
Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Hydronic Distribution Systems	Ground Source Loop Field Pipe		33	Ton	\$429,080	4
Note	Building B has 8 Fan Coil Units					
Heating System Supplementary Components	Controls - DDC (Bldg.SF)		9,981	SF	\$26,921	5
Decentralized Cooling	Fan Coil - Water Cool/Water Heat ( 2 Ton)		8	Ea.	\$17,051	8
Air Distribution	Energy Recovery Unit (4,000 CFM)		1	Ea.	\$17,176	10
HVAC Air Distribution	AHU 2,000 CFM Interior		1	Ea.	\$29,014	10
		Sub Total for System	5	items	\$519,242	
Plumbing						

## Plumbing

Uniformat Description	LC Type Description		Qty UoM	Repair Cost Remaining Life
Plumbing Fixtures	Restroom Lavatory		1 Ea.	\$2,716 4
Plumbing Fixtures	Toilets		9 Ea.	\$45,534 4
Plumbing Fixtures	Classroom Lavatory		8 Ea.	\$20,516 5
Plumbing Fixtures	Refrigerated Drinking Fountain		2 Ea.	\$4,405 8
Domestic Water Equipment	Gas Piping System (BldgSF)		9,981 SF	\$346,094 10
Domestic Water Piping	Domestic Water Piping System (Bldg.SF)		9,981 SF	\$35,869 10
Sanitary Sewerage Piping	Sanitary Sewer Piping		9,981 SF	\$11,081 10
		Sub Total for System	7 items	\$466,216



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## Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	9,981	SF	\$15,848	9
Fire Detection and Alarm	Fire Alarm Panel	1	Ea.	\$6,868	9
	Sub Total for System	2	items	\$22,716	
Specialties					
Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Casework	Fixed Cabinetry	8	Room	\$70,415	8
	Sub Total for System	1	items	\$70,415	
	Sub Total for Building 179B - Stand-Alone Classroom Building	23	items	\$1,352,056	
	Total for: Davis ES	70	items	\$11,921,784	



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## **Supporting Photos**

## **General Site Photos**



Main entrance of central facility



Mechanical name plate



Mechanical name plate



Ceiling tiles



Library of the buliding



Toilet partitions



Austin ISD - Davis ES



Gymnasium



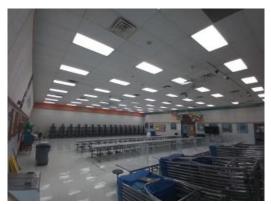
Theater stage



Main building hallway



Cafeteria kitchen



Cafeteria of main building