

Shore Acres Elementary School

Items	Description	
Project Name	Shore Acres Elementary School	
Property Type	Academic	
Full Address	351 Marina Road Bay Point, CA 94565	
Year Built	1954	
Gross Building Area (GSF)	44,400	
Current Replacement Value (CRV)	\$33,300,000	
CRV/GSF (\$/Sq Ft)	\$750	
Number of Classrooms	X	
Number of Portables	0	
Student population (2018/2019)	446	
Site Acreage	10.0	
Building Name	Gross Square Footage	Built/Renovated
Building 1 - Office	4,800	1954
Building 2 - Classroom 1-7	7,900	1954
Building 3 - Classroom 8-12	7,400	1954
Building 4 - Classroom 13-17	7,400	1954
Building 5 - Classroom 23-30	5,000	2003
Building 6 - Classroom 18-22	5,000	2003
Building 7 - M-U Building	5,800	1954
Building 8 - CR24	1,100	2001

All 44,400 square feet of the property are occupied by Mount Diablo Unified School District. The spaces are mostly a combination of offices, classrooms, and multi-purpose room with supporting restrooms and mechanical and other utility spaces.

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OVERVIEW

Property Executive Summary

Shore Acres Elementary School is a fully-occupied academic campus. It is a single-story structure that has multiple classroom wings and additional classroom buildings constructed around 2003. There were no major issues noted during the on-site visit or in conversation with the POC. The roof has been replaced within the last several months. There were isolated areas of debris build-up due to recent high winds. The gutters and drains should be checked regularly, and debris cleared as needed as part of routine maintenance. One broken conduit was observed on the roof.

Site Executive Summary

The building and adjacent finished surfaces covers approximately half of the site. Landscaping consists of trees, shrubs, a student garden, and lawn areas. Landscaped areas are irrigated by an in-ground sprinkler system near the main office and common areas between buildings. Fencing is located at the perimeter of the site with lockable gates at multiple locations. Parking is provided for 70 vehicles in asphalt paved lots. There are five ADA accessible parking spaces with one of these spaces designated as van accessible. Service vehicle access is provided adjacent to Classrooms 23-30. The pedestrian pavement throughout the property is constructed of cast-in-place concrete and asphalt. Building perimeter lighting is provided by wall-mounted sodium vapor HID fixtures and metal halide flood lights. Pedestrian areas and walkways along the buildings are lit by recessed LED or CFL bulb fixtures.

Architectural Structural Executive Summary

The foundation system was not able to be directly observed. However, based on similar structures and drawings of the original school, it consists of concrete piers supporting reinforced concrete slab-on-grade. The newer classroom additions are constructed of slab-on-grade concrete. The building structural systems consist of wood framing with wood truss roofs. The original building roofs are flat and were replaced in 2018. The classroom additions generally have gabled roofs with metal finish. Classroom 24 has a flat roof finished with modified bitumen. The exterior walls are painted stucco. Windows are single-glazed, metal-framed units in punched openings. The original buildings have steel-framed windows, and additions have aluminum-framed windows. The building interiors generally include painted plaster with some areas of tack board and acoustical panels. The floor finishes consist primarily of vinyl composition tile (VCT) with small areas of carpet. The interior ceilings are finished primarily with adhered ceiling tiles with small areas of finished gypsum board.

Mechanical/Electrical/Plumbing Executive Summary

Domestic hot water is provided to the M-U Building kitchen and restrooms by a commercial-grade, gas-fired water heater located in a small mechanical room. A small electric unit in a custodial closet is used for custodial purposes. Heating and cooling is provided by rooftop package units and split systems. Cooling is provided to the office building by a multi-zone ductless split system. Supplemental cooling for IT-related loads is provided by ductless mini-splits. A gas-fired boiler in the M-U Building provides heating to cabinet unit heaters. Fire protection systems include a fire alarm system, smoke detectors, alarms with strobes, pull stations, extinguishers, and appropriate egress signage. General interior lighting is provided by T-8 fluorescent fixtures. Electrical service is provided by a single 1,600-amp panel served from a pad-mounted transformer.

Shore Acres Elementary School **SCHOOL SITE ENGAGEMENT**

Principal Priorities:

1. Facilities - playgrounds, resurfacing blacktop for safety
2. Facilities - landscaping, fix dead weeds on side of school, greenery in front of school
3. Cafeteria/MU AC

ASSESSMENT OF SITE

Historical Summary

Shores Acres Elementary School was built in 1954 with similar classroom additions and the M-U Building within a couple years. The Multi-Use (M-U) Building lies to the west of the office and includes the cafeteria, kitchen, and stage. In 2001 and 2003, additional classroom buildings were built on to accommodate growing enrollments. These units were added to the south side adjacent to the existing original classrooms.

Site

The parking lot is in fair condition with minimal surface cracking in several areas. Parking spaces are well marked. Sidewalk concrete and asphalt are in fair condition with no major deficiencies. There are a couple areas of asphalt buckling and cracking within the kindergarten play area. During the on-site visit, an irrigation control system issue created an issue of water flooding down onto the sidewalk and street. Trees, shrubs and grass are all well maintained with no deficiencies noted. Site lighting is limited to the building exteriors with no dedicated yard or other pole-mounted lighting. All pedestrian paths are well lit by recessed or wall-mounted lighting fixtures. *Originally constructed in 1954, Maintenance indicates deteriorating site utility infrastructure in need of replacement.*

Architectural

All the roofs on the original buildings are finished with liquified rubber over modified bitumen, installed in 2018. The floors in the original buildings have been upgraded to vinyl tile over time and have been well maintained. The newer classrooms have a combination of vinyl tile and carpet, both of which are in fair condition. Interior wall finishes include concrete and plaster that has been repainted periodically over the years. Other wall finishes include acoustic tiles and tack board in some spaces as well as painted gypsum board in the newer classroom buildings. Interior finishes have been repainted periodically as needed over the years. Lifecycle interior finish, exterior finish, and roof replacements are budgeted and anticipated.

Mechanical, Electrical, Plumbing & Fire (MEPF)

A major mechanical upgrade to the original classroom buildings was completed around 2009. In the classroom buildings, the hydronic boiler heating systems have been replaced with packaged rooftop units, forced air units, and heat pumps in classroom spaces in conjunction with split condensers and some mini-split systems for complimentary cooling. The M-U Building has a boiler that provides hot water to four cabinet unit heaters. The MEPF infrastructure is generally in good working condition with no major expenditures anticipated in the short term.

Recommended Additional Studies

No additional studies are recommended.

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Facility Condition Index

In this report we have calculated the Facility Condition Index (FCI) which is used in Facilities Management to provide a benchmark to compare the relative condition of a group of facilities. The FCI is primarily used to support asset management initiatives of federal, state, and local government facilities organizations.

The FCI is the ratio of accumulated Total Cost (TC) (Deferred Maintenance, Capital Renewal and Plant Adaptation) to the Current Replacement Value (CRV) for a constructed asset calculated by dividing the TC by the CRV. The range is from zero for a newly constructed asset, to one for a constructed asset with a TC value equal to its CRV. Acceptable ranges vary by "Asset Type", but as a general guideline the FCI scoring system is as follows:

Condition	Definition	Percentage Value
GOOD	In a new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0% to 5%
FAIR	Subject to wear and soiling but is still in a serviceable and functioning condition.	5% to 10%
POOR	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	Greater than 10%
V-POOR	Subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal now necessary.	Greater than 60%

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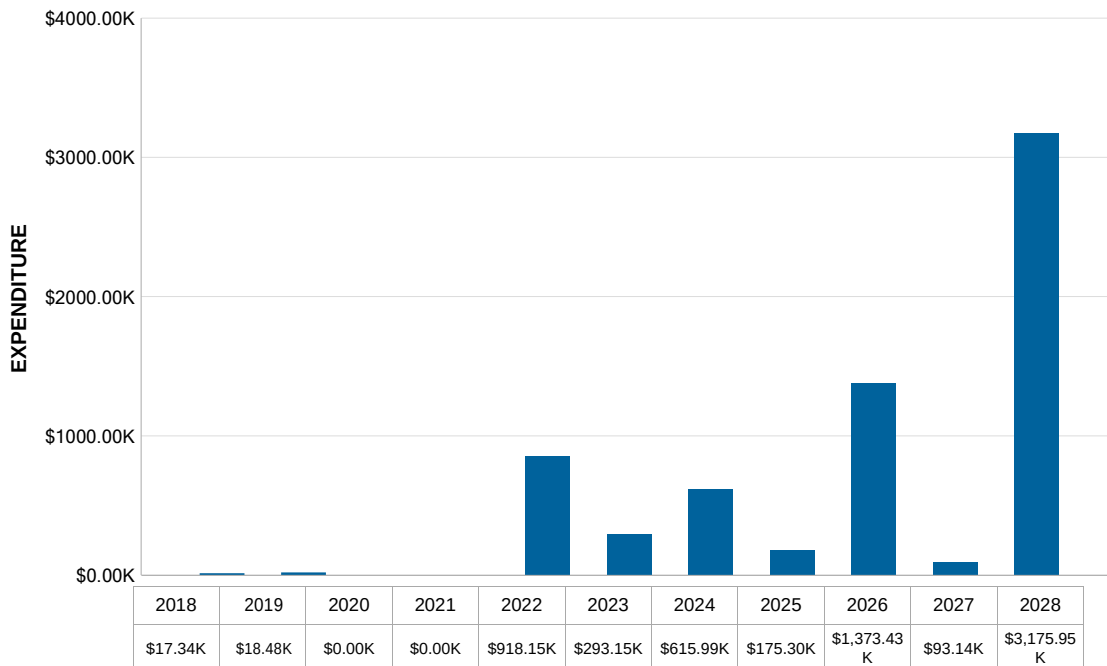
Summary of Findings

This report represents summary-level findings for the Property Condition Assessment. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall Long Term Capital Needs Plan that can be the basis for a facility wide capital improvement funding strategy. Key findings from the Assessment include:

Key Findings	Metric
Facility Condition Index (FCI)	0.04 %
Current Replacement Value (CRV)	\$33,300,000
Immediate Capital Needs (Current Year or Year 0)	\$17,336
Short Term Capital Needs (Year 1 to 5)	\$1,229,777
Long Term Capital Needs (Year 6 to 10)	\$5,433,813
TOTAL Capital Needs (Year 0 to Year 10)	\$6,680,925
Average Capital Needs Per Year	\$668,093

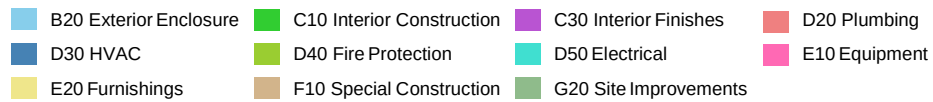
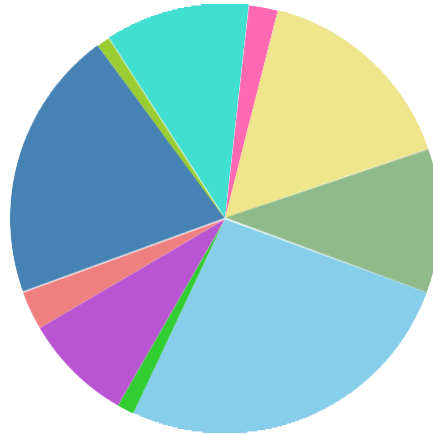
The building expenditure summary section provides an executive overview of the findings from the assessment. The chart below provides a summary of yearly anticipated expenditures over the study period for the Shore Acres Elementary School building. In addition, we have scheduled key findings highlighting key items of greater than \$5,000 and their anticipated failure year. Further details of these expenditures are included within each respective report section and within the expenditure forecast, in Appendix A of this report. The results illustrate a total anticipated expenditure over the study period of approximately \$6,680,925.

Expenditure Forecast Over Study Period



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Distribution of Future (Year 1-Year 10) Needs by Building System



Building System	Estimated Cost	Percentage of Total Cost
B20 Exterior Enclosure	\$1,764,284	26.48 %
C10 Interior Construction	\$84,861	1.27 %
C30 Interior Finishes	\$549,179	8.24 %
D20 Plumbing	\$193,403	2.90 %
D30 HVAC	\$1,364,959	20.48 %
D40 Fire Protection	\$64,372	0.97 %
D50 Electrical	\$724,797	10.88 %
E10 Equipment	\$145,796	2.19 %
E20 Furnishings	\$1,047,250	15.72 %
F10 Special Construction	\$5,000	0.08 %
G20 Site Improvements	\$719,689	10.80 %
Total	\$6,663,589	100 %

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Building Type 1 Information



Building Type 1 Information		
Building Locations	Office, Library, Classrooms 1- 13, Restrooms	
Constructed/ Renovated	1954	
Total Area	27,500 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Conventional wood-framed structure on concrete slab Wood framed walls and wood-framed roofs	Good
Façade	Stucco with steel-framed operable and fixed windows	Fair
Roof	Primary: Flat construction with liquified rubber over modified bituminous finish	Fair
Interiors	Walls: Painted gypsum board & plaster Floors: Carpet, VCT Ceilings: Painted gypsum board, glued-on ACT	Fair
Elevators	None	--
Plumbing	Galvanized supply, cast iron waste and vent No hot water	Fair
HVAC	Individual packaged rooftop units, multi-zone heat pumps, split systems Supplemental components: ductless mini split-systems	Fair
Fire Suppression	Fire extinguishers	Good
Electrical	Source & Distribution: Exterior switchboard with copper wiring fed from exterior main distribution panel with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	None	--
Key Issues & Findings	Broken roof drain creates water pooling on the ground near Classroom 8	

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Building Type 2 Information



Building Type 2 Information		
Building Locations	Classroom Buildings 18-23 and 25-30	
Constructed/ Renovated	2003	
Total Area	10,000 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Conventional wood-framed structure on concrete slab Wood-frame bearing walls and wood-framed roofs	Good
Façade	Stucco with aluminum-framed operable windows	Fair
Roof	Primary: Gable construction with metal finish	Fair
Interiors	Walls: Painted gypsum board & tack board Floors: Carpet, VCT Ceilings: ACT	Fair
Elevators	None	--
Plumbing	Copper supply, PVC waste and vent No hot water	Fair
HVAC	Gas-fired furnaces with remote condensing units	Fair
Fire Suppression	Fire extinguishers	Good
Electrical	Source & Distribution: Exterior switchboard with copper wiring fed from exterior main distribution panel with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	None	--
Key Issues & Findings	Buildings lack fire suppression	

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Building Type 3 Information



Building Type 2 Information		
Building Locations	Classroom Building 24	
Constructed/ Renovated	2001	
Building Size	1,100 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Conventional wood-framed structure on concrete slab Wood-frame bearing walls and wood-framed roofs	Good
Façade	Stucco with aluminum-framed operable windows	Fair
Roof	Primary: Flat construction with modified bituminous finish	Fair
Interiors	Walls: Painted gypsum board & Tack-board Floors: Carpet, VCT Ceilings: Suspended ACT	Fair
Elevators	None	--
Plumbing	Copper supply, PVC waste and vent No hot water	Fair
HVAC	Packaged rooftop unit	Fair
Fire Suppression	Fire extinguishers	Good
Electrical	Source & Distribution: Exterior switchboard with copper wiring fed from exterior main distribution panel with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	None	--
Key Issues & Findings	Building lacks fire suppression	

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Building Type 4 Information



Building Type 4 Information		
Building Locations	Multi-Use (M-U) Building, cafeteria, kitchen, stage	
Constructed/ Renovated	1954	
Building Size	5,800 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Conventional wood-framed structure on concrete slab Wood-framed bearing walls and wood-framed roofs	Good
Façade	Stucco with steel-framed fixed and operable windows	Fair
Roof	Primary: Flat construction with liquified rubber over modified bituminous finish	Excellent
Interiors	Walls: Painted plaster and CMU, ACT Floors: VCT, wood stage flooring, quarry tile Ceilings: Painted gypsum board or plaster, ACT	Fair
Elevators	Wheelchair lift	Fair
Plumbing	Copper supply, cast iron waste and vent Gas-fired domestic hot water heater	Fair
HVAC	Central system with boilers, hydronic cabinets	Fair
Fire Suppression	Fire extinguishers	Fair
Electrical	Source & Distribution: Exterior switchboard with copper wiring fed from exterior main distribution panel with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	Commercial kitchen equipment, wheelchair lift	Fair
Key Issues & Findings	Building lacks fire suppression, kitchen hood lacks fire suppression	

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Site Summary Information



Site Information		
Lot Size	10 acres (estimated)	
Parking Spaces	70 total spaces all in open lots 5 accessible (included in total above), 1 van-accessible	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Pavement/Flatwork	Asphalt lots with areas of concrete and concrete sidewalks, curbs, ramps, and stairs	Fair
Site Development	Ground-mounted signage, chain-link fencing Playgrounds and sports courts Moderately furnished park benches, picnic tables, trash receptacles	Fair
Landscaping & Topography	Moderate landscaping features Irrigation present Slight but steady slope from south to north	Fair
Draining Systems and Erosion Control	Surface flow, pits	Fair
Utilities	Municipal water and sewer Local utility-provided electric and natural gas	Fair
Site Lighting	Building-mounted: HPS, metal halide, recessed LED and CFL bulb fixtures	Fair
Ancillary Structures	Steel-framed PV Array structure	Good
Key Issues & Findings	Broken gutter drain pipe near Classroom 8, some asphalt buckling and cracking in kindergarten play area	