

Holbrook Elementary School

EXISTING SITE INFORMATION

Items		Description
Project Name		Holbrook Elementary School
Property Type		Academic
Full Address		3333 Ronald Way Concord, CA 94519
Year Built		1955
Gross Building Area (GSF)		40,907
Current Replacement Value (CRV)		\$30,680,250
CRV/GSF (\$/Sq Ft)		\$750
Number of Classrooms		X
Number of Portables		0
Student population (2018/2019)		241
Site Acreage		8.24
Building Name	Gross Square Footage	Built/Renovated
A Wing (A)	2,264	1955/2002/2017
B Wing (B)	4,157	1955/2002/2017
C Wing 1 (C1)	2,367	2005/2017
C Wing 2 (C2)	2,892	1955/2002/2017
D Wing 1 (D1)	1,981	2005/2017
D Wing 2 (D2)	2,958	2005/2017
E Wing (E)	5,236	1955/2002/2017
F Wing (F)	5,258	1955/2002/2017
G Wing (G)	5,276	1955/2002/2017
H Wing 1 (H1) – Music Room	2,018	1993/2017
H Wing 2 (H2)	1,100	2005/2017
M-U Wing (M-U)	5,400	1955/1988/2002/2017
Total SF	40,907	

All 40,907 square feet the property are occupied by Mount Diablo United School District. An additional building on the site, not covered by this assessment, is occupied by Kidango Preschool. The spaces are

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mostly classrooms with supporting restrooms, administrative offices, staff rooms, multi-use facility, and mechanical and other utility spaces.

OVERVIEW

Property Executive Summary

Holbrook Elementary School, also known as Holbrook Language Academy (HOLA), is a fully-occupied academic campus with twelve single-story buildings. A boiler and older HVAC equipment is abandoned in place in several buildings. Minor cracks in concrete slabs were observed. The HVAC, plumbing, and electrical systems have all recently been overhauled. The majority of the original buildings' exterior windows are older, single-pane units that are thermally inefficient and beyond their useful life.

Architectural Structural Executive Summary

Observation of the foundation system was limited. It is assumed to be concrete slabs-on-grade with integrated perimeter footings. Eight roofs are flat with PVC membranes, and four are pitched and finished with painted metal. The original buildings have cast-in-place concrete exterior walls. The more recent buildings are clad with stucco. Windows in the original buildings are primarily single-glazed, wood-framed units in ribbons and punched openings. Newer buildings have double-glazed, aluminum-framed units. The original buildings are beginning to have their less-efficient single-glazed windows replaced with windows similar to the newer buildings as replacements are needed. Doors are glazed fiberglass with reinforced hinges and steel utility units. The building interiors generally include painted and wallpapered gypsum board walls, exposed concrete walls in utility areas, and ceramic tile in restrooms. The floor finishes consist of vinyl composition tile (VCT), carpet, and ceramic tile with sealed concrete in utility spaces. The interior ceilings are finished with acoustic ceiling tile with gypsum board in the restrooms and finished utility spaces. There is a covered walkway system connecting the original buildings.

Mechanical/Electrical/Plumbing Executive Summary

A wheel chair lift serves the stage. Domestic hot water is provided to the kitchen by a gas-fired water heater located in the M-U boiler room. Heating is provided to the M-U Building by a hydronic boiler. So-called "Emily Buildings" have heating and cooling provided by gas-fired furnaces with remote condensing units. The A Wing and Music Room are conditioned by rooftop package units. The remaining original construction buildings have heating, and cooling provided by variable refrigerant flow (VRF) systems. Fire protection systems include a fire alarm system, smoke detectors, alarms with strobes, pull stations, extinguishers, a fire hydrant, and appropriate egress signage. General interior lighting is provided by T-8 fluorescent fixtures with LED fixtures in accent locations. Soffit lighting is provided throughout the covered walkways, and wall-mounted lights provide additional perimeter lighting. Electrical service is provided by a single 1600-amp switchboard served from a pad mounted transformer. A solar array provides up to 122 kW of power.

Site Executive Summary

The buildings cover approximately a tenth of the site, with an additional 5% leased to Kidango Preschool, a private facility not included as part of the scope of work for this report. Landscaping consists of trees, shrubs, and lawn areas. Landscaped areas are irrigated by an in-ground sprinkler system. Parking is provided in two asphalt

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paved lots. There is no service vehicle access. The pedestrian pavement throughout the property is constructed of cast-in-place concrete and asphalt. Building perimeter lighting is provided by wall-mounted metal halide fixtures. Pedestrian areas and walkways are lit by soffit-recessed LED fixtures where the covered walkways extend.

SCHOOL SITE ENGAGEMENT

Principal Priorities:

1. Landscaping - Maintenance of inside outside/inside campus plants (weeding, maintenance of plants, front of school plants) Parking lot/safety improvement
2. Roofing - Every time that rains, tiles fall down, tiles get moldy, there are leaks in several classrooms.
3. Slats by fences and adding fencing by one building for student safety

Holbrook Elementary School ASSESSMENT OF SITE

Historical Summary

Original development of the property took place in 1955. A new building was added around 1993, and four more were added in 2005. The electrical distribution system was overhauled in 2002, and solar arrays were added in 2014. Several renovations including interiors, HVAC, and roofs were conducted between 2016 and 2017; and after being decommissioned for a reported five years, the school reopened as Holbrook Language Academy in 2018.

Site

Site parking appears adequate, but the POC expressed concern with sufficient parking during school events that garner high attendance from parents. The major play equipment has been recently replaced along with corresponding play surfaces, but the sandbox beside C1 appears to have lost its seal and contains significant vegetative growth. This breached barrier could present a safety hazard, and immediate replacement or removal is recommended. Site lighting appears adequate.

Architectural

The original building facades have been repainted as needed. The interior finishes were largely replaced in 2016. Flat roofs were recently replaced. The foundations are exhibiting minor, isolated cracks.

Mechanical, Electrical, Plumbing & Fire (MEPF)

The 2004 buildings' HVAC systems are aging but still functional, and the remainder of the property's HVAC systems were recently renovated. The M-U Building uses a boiler dating to 1988 with some ancillary components dating to the 1955 construction. The site lacks a fire sprinkler system, and a full retrofit is recommended. Electrical systems were renovated in 2002, and the new systems appear to be well maintained. Many classroom lavatories have exposed, uninsulated piping, and it is recommended that these pipes be wrapped for accessibility.

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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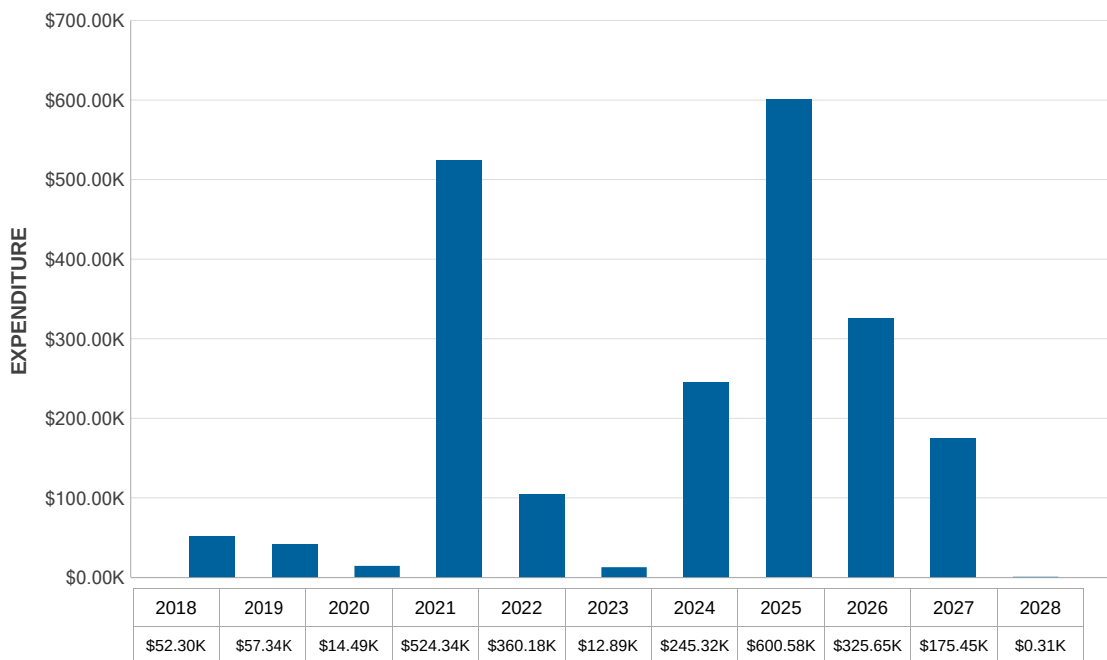
Summary of Findings

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)	0.17 %
Current Replacement Value (CRV)	\$30,680,250
Immediate Capital Needs (Current Year or Year 0)	\$52,301
Short Term Capital Needs (Year 1 to 5)	\$969,240
Long Term Capital Needs (Year 6 to 10)	\$1,347,308
TOTAL Capital Needs (Year 0 to Year 10)	\$2,368,849
Average Capital Needs Per Year	\$236,885

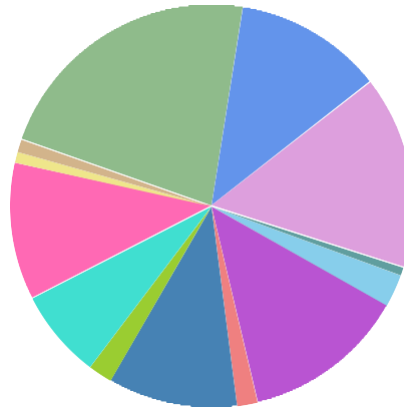
The building expenditure summary section provides an executive overview of the findings from the assessment. The chart below provides a summary of yearly anticipated expenditures over the study period for the Holbrook Elementary School building. In addition, we have scheduled key findings highlighting 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 \$2,368,849.

Expenditure Forecast Over Study Period



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Distribution of Immediate Needs by Building System



Building System	Estimated Cost	Percentage of Total Cost
A10 Foundations	\$61,800	2.67 %
B10 Super Structure	\$1,031	0.04 %
B20 Exterior Enclosure	\$302,169	13.04 %
C10 Interior Construction	\$38,424	1.66 %
C30 Interior Finishes	\$240,490	10.38 %
D20 Plumbing	\$45,078	1.95 %
D30 HVAC	\$165,862	7.16 %
D40 Fire Protection	\$255,669	11.04 %
D50 Electrical	\$20,101	0.87 %
E10 Equipment	\$23,630	1.02 %
E20 Furnishings	\$512,055	22.10 %
G20 Site Improvements	\$276,412	11.93 %
G30 Site Mechanical Utilities	\$358,827	15.49 %
P99 Follow-up Studies - OTHER	\$15,000	0.65 %
Total	\$2,316,548	100 %

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Original Wings Information



Original Wings Information		
Building Locations	M-U, A Wing, B Wing, C2, E Wing, F Wing, G Wing	
Constructed/ Renovated	1955/1988/2002/2016	
Building Size	2,456 – 6,340 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Conventional wood-framed structure on concrete slab	Good
Façade	Painted concrete with wood-framed windows	Fair
Roof	Primary: Flat construction with single-ply TPO/PVC membrane	Good
Interiors	Walls: Painted and wallpapered gypsum board, ceramic tile Floors: Carpet, VCT, ceramic tile Ceilings: Painted gypsum board, ACT	Good
Elevators	One wheelchair lift	Fair
Plumbing	Copper supply, cast iron waste and vent Gas and electric water heaters	Fair
HVAC	Central system with boiler, air handlers (M-U) Individual package unit (A Wing) VRF ductless split-systems	Good
Fire Suppression	Hydrant, fire extinguishers	Good
Electrical	Source & Distribution: Main switchboard with copper wiring Interior Lighting: T-8, LED Emergency: N/A	Good
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Good
Equipment/Special	Commercial kitchen equipment	Good
Key Issues & Findings	Minor cracking in slabs, antiquated HVAC components and infrastructure (used in M-U, decommissioned elsewhere), buildings lack fire suppression, missing ADA pipe wraps in some classrooms	

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H Wing 1 Information



H Wing 1 Information		
Building Locations	Music Room (H1)	
Constructed/ Renovated	1993	
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	Good
Façade	Stucco with aluminum-framed windows	Good
Roof	Primary: Flat construction with single-ply TPO/PVC membrane	Good
Interiors	Walls: Wallpapered gypsum board Floors: VCT Ceilings: ACT	Good
Elevators	None	--
Plumbing	Copper supply, cast iron waste and vent No hot water	Fair
HVAC	Individual package unit	Good
Fire Suppression	None observed	--
Electrical	Source & Distribution: Fed from M-U with copper wiring Interior Lighting: T-8 Emergency: N/A	Good
Fire Alarm	Smoke detectors, alarms, strobes, alarm panel	Good
Equipment/Special	None	--
Key Issues & Findings	None	

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Emily Building Information



Emily Building Information		
Building Locations	C1, D1, D2, H2	
Constructed/ Renovated	2004	
Building Size	2,553 – 3,805 SF	
Number of Stories	1	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Conventional wood-framed structure on concrete slab	Good
Façade	Stucco with aluminum-framed windows	Good
Roof	Primary: Gable construction with metal finish	Good
Interiors	Walls: Painted and wallpapered gypsum board, ceramic tile Floors: Carpet, VCT, ceramic tile Ceilings: Painted gypsum board, ACT	Good
Elevators	None	--
Plumbing	Copper supply, cast iron waste and vent No hot water	Fair
HVAC	Individual split systems	Fair
Fire Suppression	Fire extinguishers	Good
Electrical	Source & Distribution: Fed from nearest electrical cage with copper wiring Interior Lighting: T-8, LED Emergency: N/A	Good
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations	Good
Equipment/Special	None	--
Key Issues & Findings	Aged HVAC components	

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Site Summary Information



Site Information		
Lot Size	8.24 acres (estimated)	
Parking Spaces	52 total spaces all in open lots; 3 of which are accessible 3 accessible (included in total above), 2 van-accessible	
<i>System</i>	<i>Description</i>	<i>Condition</i>
Pavement/Flatwork	Asphalt lots with areas of asphalt, rubber play surfaces, and concrete sidewalks, equipment pads, and curbs	Good
Site Development	Building-mounted and property entrance signage, chain link fencing, chain link dumpster enclosures Playgrounds and sports courts Limited picnic tables	Fair
Landscaping & Topography	Limited landscaping features Irrigation present No retaining walls Low to moderate site slopes throughout	Fair
Draining Systems and Erosion Control	Surface flow, underground piping, municipal system Soil erosion not substantially observed Ponding not observed	Fair
Utilities	Municipal water and sewer Local utility-provided electric and natural gas with local solar arrays	Fair
Site Lighting	Building-mounted: metal halide Pedestrian walkway lighting	Fair
Ancillary Structures	Solar shade array, Pre-fabricated storage shed	Fair
Key Issues & Findings	Minor alligator cracking, suboptimal but adequate site lighting	