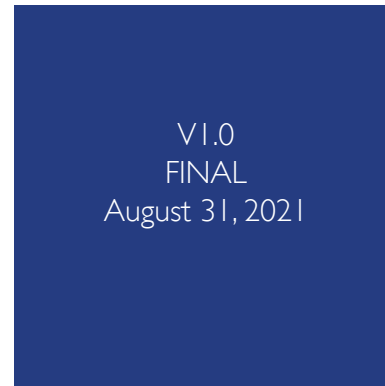




QUATTROCCHI KWOK
ARCHITECTS



V1.0
FINAL
August 31, 2021

FACILITIES ASSESSMENT

Gravenstein Union School District

Introduction

The Gravenstein Union School District (GUSD) has two public schools to serve the communities of Sebastopol and Sonoma County.

Gravenstein Elementary School

Hillcrest Middle School

The district enrollment is approximately 750 students.

Background

GUSD has worked diligently to maintain and improve the existing educational facilities, some of which were built in the mid 1960's. The district's long-term maintenance plan includes improvements such as painting, classroom finishes and technology, roofs, and site improvements.

In order to properly plan for future enrollment, this Facility Assessment is the first step in a comprehensive master planning process. It is intended to help the District set priorities for improvements at both sites by summarizing the work which has been done to date, categorizing the condition of the existing campuses, identifying maintenance or modernization issues that should be prioritized in the immediate future, and identifying future improvements.

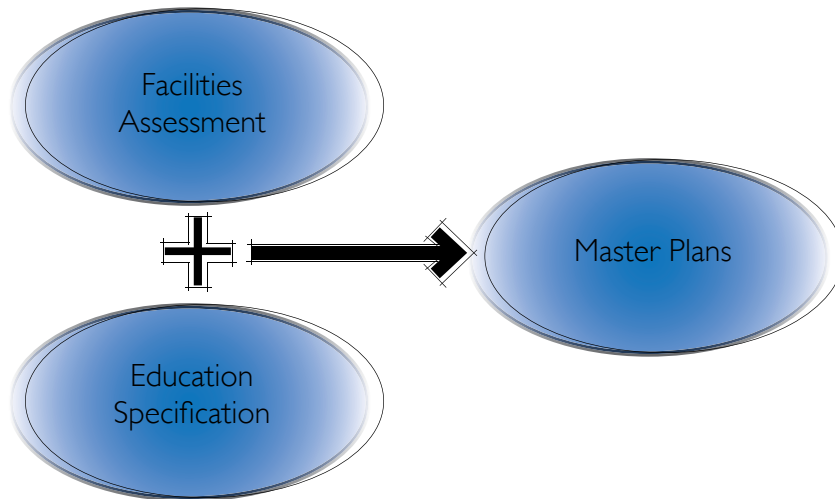


Facilities Assessment Goals

A Master Planning process is a 3-part process: Facilities Assessment, Educational Specifications, and Master Plans.

The goal of the Facilities Assessment is to evaluate the physical condition of the District's facilities to identify health, fire, life safety, and accessibility issues requiring remediation. A future master planning process for the Gravenstein Union School District will be developed to ensure that:

- Facilities provide spaces that support the educational programs and goals of the District.
- The school provides a healthy, comfortable learning environment.
- The school provides a safe and secure school environment.
- The school meets current codes and regulations, including requirements for accessibility, fire-life-safety and structural safety.
- Improvements will address sustainability issues, such as energy use, day lighting strategies and better building envelopes through appropriate systems upgrades (mechanical, electrical upgrades).
- The school site has the appropriate features to support community use.





Facility Assessment Process


The comprehensive facilities assessment of each of the school sites included site walks and review with District personnel to review the conditions of building infrastructure and mechanical systems, including plumbing, HVAC (heating, ventilation and air conditioning) and electrical systems. A civil engineer reviewed both sites for accessibility and storm drainage issues. Existing record drawings were reviewed.


This information was then collated to develop the Building Condition Rating.


Building Condition Rating Metrics

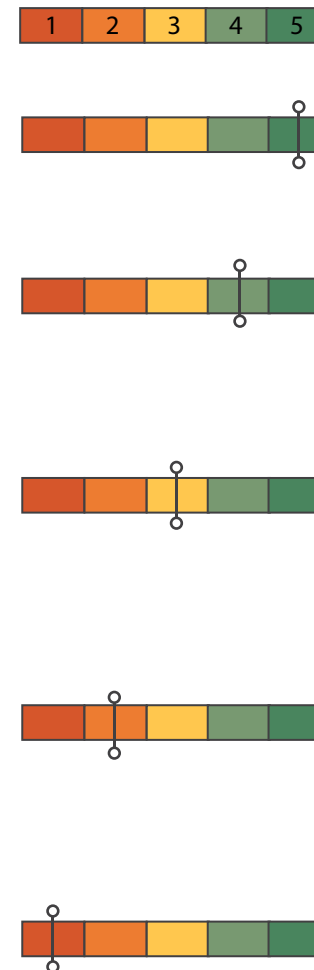
- 
Very Good (5): Building or component is in excellent condition.
 - Only campus wide improvements to occur as needed such as fire alarm system, technology upgrades, etc.

- 
Good (4): Building or component is in good condition, having certain building components in need of repair or replacement.
 - Minor Renovation / Minor reconfiguration of spaces and selective upgrades of systems or building components.

- 
Fair (3): Building or component is in fair condition, with several building systems in need of repair or replacement.
 - Moderate Renovation / This is similar to a major renovation but the work required would not be as extensive and will primarily include addressing code requirements.

- 
Poor (2): Building or component is in poor condition, with several major building systems requiring complete overhaul. Cost of renovations required to bring building back to full operating condition may justify complete replacement in lieu of major renovation.
 - Major Renovation / Extensive renovation, replacement and reconfiguration of spaces to meet code requirements as well as current and future educational program requirements.

- 
Very Poor (1): Building or component is in very poor condition, with compromised structural systems or complete degradation.
 - Replacement recommended.



Gravenstein Union School District

Facilities Needs

Each of the individual district sites are reviewed in detail.

The report recommendations contains two categories for improvements:

Critical Facility Needs (CFN)

Future Facility Needs (FFN)

Educational Program Needs are not addressed at this time. While the facility assessment forms the basis for the facilities portion of the educational specifications, a confirmation of the desired educational programs and goals at each site should be matched with corresponding facility requirements.

Critical Facilities Needs

Improvements to meet code requirements, student safety, building infrastructure systems and preservation of buildings from the deleterious impacts of the environment.

Examples include:

- ADA – Americans with Disabilities Act code compliance*
- FLS - Fire Life Safety code compliance, including building construction, exits, hardware, fire alarm
- SSS - Structural Safety code issues
- Improvements for student safety such as pedestrian paths or unsafe vehicular traffic crossing, fencing
- Building envelope improvements such as weather protection, re-roofing or energy efficiency improvements for windows, siding & exterior doors.
- Mechanical, plumbing, electrical, utility systems repair or replacement
- Notification systems (phones and intercoms)

Future Facilities Needs

Improvements that will address long-term requirements of the school site are categorized as FFN. This may include enrollment growth, energy efficiency upgrades, site improvements for storm drainage or pavement. It may also include aesthetic considerations, optional upgrades or other non-critical but desired work to each school. For example, the basic signage requirements of the building code may be met, but additional wayfinding directional and identity signage is recommended. Learning environments may be adequate, but could be enhanced.

*Understanding Accessibility:

The Division of the State Architect (DSA) adopts the California Building Code every three years incorporating state-specific amendments. The language of these amendments has frequently differed from that of the Americans with Disability Act enacted in 1991. It is only in the 2013 code that the elements constructed under the previous 2010 code were deemed as meeting mandated requirements. Additionally, for several years prior to 2010 DSA utilized a Universal Design document which differed from both the ADA and the CBC in detailed requirements and scoping.

Therefore, improvements made under previous codes and approved by DSA are required to be upgraded to current code if they serve an area that is being remodeled. Additionally, there may be new requirements that must be met as well. These required improvements may be implemented in conjunction with future projects.

Acknowledgments

Quattrocchi Kwok Architects would like to sincerely thank all of the participants for their time, effort, and expertise. Public schools are an integral part of local communities and we deeply value the opinions and insights offered by the people whose lives are lived daily in these facilities:

GUSD

Dave Rose, GUSD Superintendent

Katie Anderson, GUSD Chief Business Officer, CBO

Brian Sposato, GUSD Director of Maintenance

All site staff who graciously and patiently answered questions and gave us access.

Construction Manager

Scott Baer, Counterpoint Construction Services, Inc.

Tenaya Dale, Counterpoint Construction Services, Inc.

Design Team

Architect: Quattrocchi Kwok Architects, Santa Rosa, CA

Civil Engineer: Brelje & Race Consulting Engineers, Santa Rosa, CA

Plumbing and Mechanical: Costa Engineers, Inc, Napa, CA

Electrical Engineer: O'Mahony & Myer, San Rafael, CA

Gravenstein Union School District

Assessments

Introduction

Gravenstein Elementary School

Hillcrest Middle School

Appendices

A: Civil Site Assessment

B: Mechanical and Plumbing Assessment

C: Electrical Site Assessment



Gravenstein Elementary School

3844 Twig Avenue

Sebastopol CA 95472

School Data

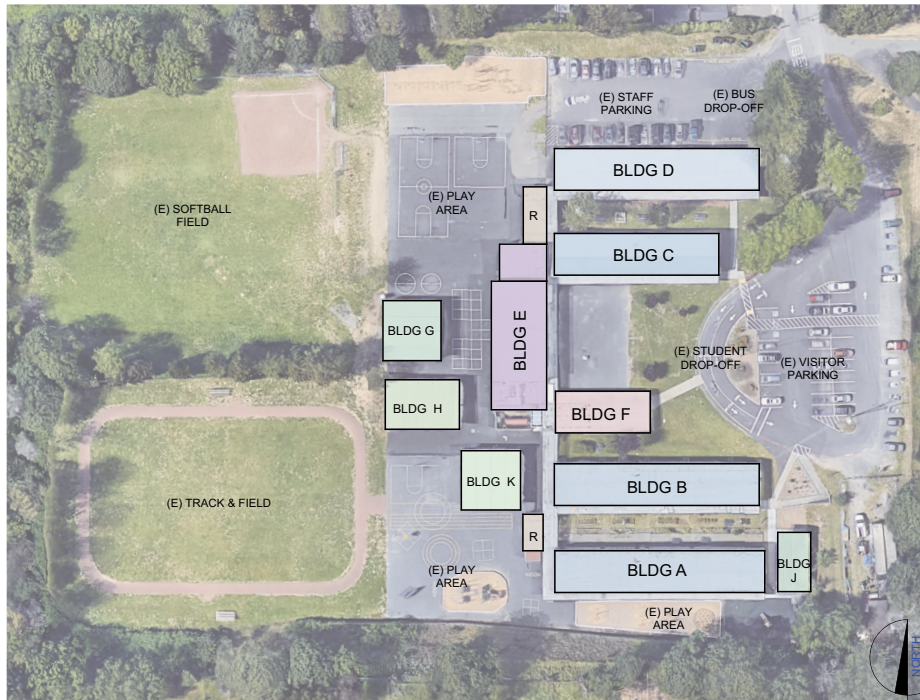
Date School Opened: 1956

Total Enrollment 2021: 453 students

Number of Classrooms: 27



Gravenstein Elementary School - Existing Site Plan



Site Summary

The campus is located off of Twig Avenue through a short driveway leading to the student drop-off and visitor parking at the main entry to the campus at the south-east end of the site. Signage at the street identifies the school. A secondary staff parking lot is also located off of twig avenue at the north end of the campus; this parking lot also includes a designated bus drop-off and pickup area. Gates secure both access points into the campus. Gates are closed at the end of the day.

The campus is fenced on all edges as they all abut to private owned land and residences. A tree line surrounds most of the site along its perimeter and provides an additional sight line barrier to both residents as well as the school. Sports fields are located at the west end of the site.

The site slopes gradually from the north end of the campus to the south. Unfortunately the visitor parking and parent drop off zone are at a higher elevation to the administration office, preventing full visual access to the site.

An exterior basketball courts are provided for student use to the north west and south west of the classrooms.

Arrival: There is a single crosswalk along Twig Avenue, but there is no safe pedestrian path into the school site. Pedestrian path and access design is recommended.

Parking: Visitor parking and ADA-compliant parking are readily available at the north-east parking lot. Parking appears to be non-compliant at the south parking lot. Revising parking lot to provide accessible parking and path of travel are recommended.

Way-finding: Additional directional signs to the Office as well as building signage are recommended.



Gravenstein Elementary School - Building F Administration

Assessment Summary

General Condition: Good



All campus buildings have been very well-maintained and are in good condition for their age. There is evidence of normal wear and tear at the interior cabinets, plumbing/sink fixtures, floors and walls.

Restrooms are showing signs of aging and have minor dimensional discrepancies in regard to current ADA standards.

Building Data

Date of Original Construction: 1960, expansion and modernization of building in 2016.

Number of Classrooms: N/A

Number of Restrooms:

1 staff gender neutral toilet

1 gender neutral student toilet

Building Area: 1386 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding				4	
Windows				4	
Doors				4	
Soffits/Canopies				4	
Interior Finishes					
Flooring			3		
Walls				4	
Ceiling				4	
Doors				4	
Cabinetry/Furnishings			3		
Window Coverings				4	
Building Systems					
ADA Compliance				4	
Specialty Equipment			3		
Acoustics					
HVAC					
Plumbing					
Electrical/Lighting				4	
Elevator (if applicable)					

Gravenstein Elementary School - Building F Administration

Building Assessment

Building Envelope

- Roof: Built up roof per modernization in 2016 in good condition.
- Exterior Cladding: Building was modernized in 2016 building exterior is board and batten and appears to be well-maintained and is in good condition. At the time of evaluation, there was no evidence of moisture or insect intrusion.
- Windows: windows dual glazed aluminum frame with operable casement windows No signs of leaks at the time of evaluation.
- Doors: doors are hollow metal frames with hollow metal half-lite doors. Hardware is code compliant.

Interior

- Finishes: linoleum flooring is in good condition; areas with carpet are in good condition, but some rooms, like the staff room may require patching/replacement as it is an area with high traffic and use and is in poor condition. The wall and ceiling finishes appear to be in good condition.
- Interior doors: doors are hollow metal frame and a combination of hollow metal and wood doors at offices. All are in good condition for the age of the building.
- Cabinets and Furnishings: Cabinets and counter-tops are in good condition and appear to be well maintained
- Storage: offices and common spaces appeared cluttered at the time of evaluation. This could be due to insufficient amounts of storage areas or lack of organization. It appears that many spaces serve as secondary storage in addition to their intended use. Staff have noted there is a need for additional space for Wellness type programs (psychology, counseling, etc.)
- Window Coverings: manual operated roller shades appear to be in good working condition.

Accessibility

- Pedestrian Access: building entrances are located on the exterior facade with direct access to exterior walkways. Door thresholds are compliant.
- Signage: provided in accordance with CBC Chapter 11B requirements.
- Sinks appear to be accessible with the required toe clearance.
- Restrooms: appear to be accessible, these were part of a major building modernization in 2016 and should be in compliance with current code.



Exterior of Building



Lobby Entry

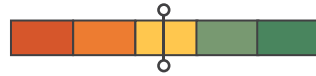


Staff Breakroom

Gravenstein Elementary School - Building A, J Classrooms - Kindergarten & Bldg R Student Toilets

Assessment Summary

General Condition: Fair



Overall classroom buildings have been very well-maintained and are in fair condition for their age. There is evidence of wear and tear at the interior cabinets, plumbing/sink fixtures, floors and walls. Casework is ADA compliant with newer plastic laminate counter-tops having been replaced, however most casework appears to be from original construction. There has been some replacement of carpet in select rooms, however not consistent across all buildings. Restrooms are in good condition and need some adjustments of fixtures and/or accessories to meet current ADA standards.

Building Data

Date of Original Construction: 1960

Number of Classrooms: 6

Number of Restrooms:

4 gender neutral student toilets (toilet at each Kinder classroom)

Girls: 3 standard toilet stalls; 1 accessible toilet stall

Boys: 3 urinals; 1 standard toilet; 1 accessible toilet stall

Building Areas:

Building A 5306 SF

Building J 1200 SF

Building R 471 SF (student toilets)

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding			3		
Windows			3		
Doors			3		
Soffits/Canopies		2			
Interior Finishes					
Flooring			3		
Walls				4	
Ceiling				4	
Doors				4	
Cabinetry/Furnishings			3		
Window Coverings			3		
Building Systems					
ADA Compliance		2			
Specialty Equipment					
Acoustics			3		
HVAC			3		
Plumbing				4	
Electrical/Lighting				4	
Elevator (if applicable)					

Gravenstein Elementary School - Building A, J Classrooms - Kindergarten & Bldg R Student Toilets

Building Assessment

Building Envelope

- Roof: original built up roof assembly with solar array at Building A per modernization work in 2016.
- Exterior Cladding: building exterior is board and batten and appears to be in fair condition for the age of building. Despite the age of the building, the exteriors have been well maintained. There are areas that show increased signs of wear. At the time of evaluation, there was no evidence of moisture or insect intrusion.
- Windows: windows are single glazed vertical sliding units and appear to be in fair condition. There were no signs of leaks at the time of evaluation.
- Doors: doors are in good condition for the age of construction. Hardware is code compliant. Kick plates are present at some doors and are in fair condition. A secondary exit door is not in compliance, there is a ~6" drop to a concrete pad which drops 6" further into landscaped space between wings.

Interior Finishes

- Finishes: flooring is a combination of VCT tiles, carpet and linoleum sheet flooring. Flooring is in good condition. Carpet is in most cases in poor condition and needs replacement; some rooms have carpet replaced as part of a maintenance effort. The wall and ceiling finishes appear to be in good condition.
- Interior doors: Wood doors to student toilets are in good condition. Hardware is code compliant.
- Cabinets and Furnishings: some cabinets show signs of normal wear and tear, but they are generally in fair condition for the age of the building. Counter-tops are in good condition and plastic laminate appears to have been replaced. Appear to be ADA compliant and at a Kinder height for student accessibility.
- Storage: classrooms had some clutter visible at the time of evaluation. Unsafe storage observed at several locations above tall storage cabinets.
- Window Coverings: manual operated rolling shades appear to be in good working condition.

Accessibility

- Pedestrian Access: building entrances are located on the exterior facade with direct access to exterior walkways. Thresholds meet accessibility requirements.
- Classroom Sinks: Cabinet doors in place preventing ADA clearance for toe space/approach, recommend removing doors for compliance. Exterior drinking fountains are in poor condition.
- Signage: code compliant signage installed.



Exterior of Building



Classroom Interior

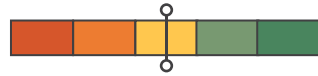


Kinder drinking fountain

Gravenstein Elementary School - Buildings B, C & D Classrooms, Building R1 Student Toilets

Assessment Summary

General Condition: Fair to Good



Overall classroom buildings have been very well-maintained and are in fair condition for their age. There is evidence of wear and tear at the interior cabinets, plumbing/sink fixtures, floors and walls. Casework is ADA compliant with newer plastic laminate counter-tops having been replaced, however most casework appears to be from original construction. There has been some replacement of carpet in select rooms, however not consistent across all buildings. Restrooms are in good condition and need some adjustments of fixtures and/or accessories to meet current ADA standards.

Building Data

Date of Original Construction: 1960

Number of Classrooms: 14

Number of Restrooms:

Girls: 3 standard toilet stalls; 1 accessible toilet stall

Boys: 3 urinals; 1 standard toilet; 1 accessible toilet stall

Building Areas:

Building B 4955 SF

Building C 3990 SF

Building D 4981 SF

Building R1 867 SF

Condition Ratings	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding			3		
Windows			3		
Doors			3		
Soffits/Canopies			3		
Interior Finishes					
Flooring			3		
Walls				4	
Ceiling				4	
Doors			3		
Cabinetry/Furnishings			3		
Window Coverings			3		
Building Systems					
ADA Compliance			3		
Specialty Equipment					
Acoustics					
HVAC					
Plumbing					
Electrical/Lighting				4	
Elevator (if applicable)					

Gravenstein Elementary School- Buildings B, C, & D Classrooms

Building Assessment

Building Envelope

- Roof: TPO over original built up roof assembly at Building D, new built up roof at Building C per modernization work in 2016.
- Exterior Cladding: building exterior is board and batten and appears to be in fair condition for the age of building; the exterior has been well maintained. There are areas that show increased signs of wear and weathering from sun exposure. At the time of evaluation, there was no evidence of moisture or insect intrusion.
- Windows: single glazed aluminum units with hopper windows and appear to be in fair condition. There were no signs of leaks at the time of evaluation.
- Doors: doors are in good condition for the age of construction. Hardware is code compliant. Kick plates are present at some doors and are in fair condition. A secondary exit door is not in compliance, there is a ~6" drop to a concrete pad which drops 6" further into landscaped space between wings.

Interior Finishes

- Finishes: floor is in fair condition with areas that may require replacement. Select rooms have upgraded carpet as part of a maintenance upgrade. The wall and ceiling finishes appear to be in good condition. Ceilings tiles and LED pendant lighting in place appear newer.
- Cabinets and Furnishings: some cabinets show signs of normal wear and tear, but they are generally in fair to good condition. Counter-tops are in good condition with plastic laminate replacement.
- Storage: some classrooms were cluttered at the time of evaluation. Unsafe storage on tall cabinets.
- Window Coverings: accordion manual shades are in fair condition considering the age of the building. Would recommend replacing with upgraded manual roller shades.

Accessibility

- Pedestrian Access: building entrances are located on the exterior facade with direct access to exterior walkways. Thresholds meet accessibility requirements at all buildings. Building D has temporary threshold ramps.
- Classroom Sinks: ADA required knee space is provided but currently blocked as storage in some classrooms. Lack of knee and toe clearance prevents access to the soap and paper towel dispenser mounted behind the sink.
- Signage: code compliant signage installed.



Exterior of Building



Classroom windows/window coverings

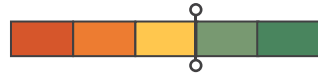


Classroom exterior non compliant doors/signage

Gravenstein Elementary School - Building E Multi-Purpose Building

Assessment Summary

General Condition: Fair to Good



Overall building has been very well-maintained and is in good condition for its age. There is evidence of normal wear and tear at plumbing/sink fixtures, floors and walls.

The Multi-Purpose Room is in very good condition and has been well maintained.

The Kitchen is in good condition, normal signs of wear and tear. Kitchen equipment appears to be in good working order and kitchen overall is very clean with minimal clutter.

The Restrooms are well maintained, bright, with good finishes but are not ADA compliant, however these are acceptable as there are two additional student toilets that are both ADA compliant on site.

Learning Lab was not accessible at the time of assessment.

Building Data

Date of Original Construction:

Number of Classrooms: N/A

Number of Restrooms: 2 Non accessible gender neutral toilets

Building Area: 4962 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding				4	
Windows				4	
Doors				4	
Soffits/Canopies				4	
Interior Finishes					
Flooring		2			
Walls				4	
Ceiling				4	
Doors				4	
Cabinetry/Furnishings			3		
Window Coverings			3		
Building Systems					
ADA Compliance			3		
Specialty Equipment			3		
Acoustics			3		
HVAC			3		
Plumbing				4	
Electrical/Lighting			3		
Elevator (if applicable)					

Gravenstein Elementary School - Building E Multi-Purpose Building

Building Assessment

Building Envelope

- Roof: requires further evaluation.
- Exterior Cladding: building exterior is board and batten at east elevation below covered walkway and cement plaster on upper east elevation as well as north, south and west elevations. At the time of evaluation, there was no evidence of moisture or insect intrusion.
- Windows: dual glazed hollow metal frame with fixed glazing at Multi Purpose area. Dual glazed aluminum storefront windows at kitchen.
- Doors: doors are in good condition for the age of construction. Main entries are hollow metal storefronts with fixed side-lites, full glazed doors. Hardware is code compliant.

Interior Finishes

- Finishes: floor is in good condition with minor signs of wear and tear and requires removal or scuff marks, unsure if these are permanent. The wall and ceiling finishes appear to be in good condition.
- Interior doors: doors and frames are hollow metal in good condition for the age of construction.
- Cafeteria tables are maintained in good condition.

Accessibility

- Pedestrian Access: building entrances are located on the exterior facade with direct access to exterior walkways. Thresholds are in conformance with exception of rear staff entry to kitchen.
- Stage lift and stairs are code compliant.
- Signage: code compliant signage installed
- Restrooms: toilets are not ADA compliant, however, compliant toilets are available for use nearby.
- Drinking fountains: existing drinking fountains have plastic updated ADA compliant water bottle fillers.
- Exterior maintenance area for school staff use only houses a large gas tank that services the kitchen.



Exterior of Building



Building entry/signage

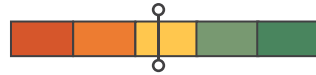


MPR Interior

Gravenstein Elementary School - Building G Modular Building

Assessment Summary

General Condition: Fair to Good



Modular building has been well-maintained and is in good condition for its age, placed on site in 2016. There is evidence of wear and tear at the interior cabinets, plumbing/sink fixtures, floors and walls, some of this may be due to building being used for programs in addition to classroom space. Modular serves child-care program prior to and after school instruction as well as library. Library also serves as teacher planning area, several teachers rotate through this space. Recommend housing this teacher work space in a separate location.

Gender neutral toilet room is located in a classroom and is in fair condition due to the increased use; need some adjustments of fixtures and/or accessories to meet current ADA standards.

Building Data

Date of Original Construction: 2016

Number of Classrooms: 3

Number of Restrooms:

1 Gender Neutral student toilet

Building Area: 2,880 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding		2			
Windows				4	
Doors			3		
Soffits/Canopies		2			
Interior Finishes					
Flooring			3		
Walls				4	
Ceiling			3		
Doors			3		
Cabinetry/Furnishings			3		
Window Coverings			3		
Building Systems					
ADA Compliance			3		
Specialty Equipment					
Acoustics			3		
HVAC			3		
Plumbing				4	
Electrical/Lighting				4	
Elevator (if applicable)					

Gravenstein Elementary School - Building G Modular Building

Building Assessment

Building Envelope

- Roof: original modular roof in good condition for the age of the building, requires further exploration some evidence of moisture intrusion at entry soffit and interior ACT ceiling tiles.
- Exterior Cladding: building exterior is wood siding and is in poor condition. Building is exposed to play area and gets significant damage as a result of play equipment hitting the exterior north-east facade. At the time of evaluation, there was some evidence of moisture intrusion; there was no evidence of insect intrusion.
- Windows: windows are single glazed horizontal sliding units and appear to be in fair condition. Windows appeared operable with no signs of leaks at the time of evaluation.
- Doors: doors are hollow metal and in fair condition. Hardware is code compliant.

Interior Finishes

- Finishes: carpet is in fair condition, may require replacement as a result of wear and tear from additional programs housed in the two classrooms. The third classrooms is currently housing the library, carpet appears to be in good condition. The wall finishes appear to be in good condition. ACT Suspended ceiling tiles are in good condition; some tiles demonstrate evidence of moisture intrusion, recommend further exploration above ceiling to determine if this is a roof leak and replacement of ceiling tiles as required. Lighting is never LED.
- Window Coverings: Manual roller shades appear to be in good working condition.
- Casework and Furnishings: cabinets show signs of normal wear and tear, but they are generally in fair to good condition. Counter-tops are in good condition.
- Storage: At time of assessment, top of tall cabinets used for storage, this is a safety hazard. Additional items are stored at the foot of accessible sinks, these items should be removed as they prevent proper and compliant use.

Accessibility

- Pedestrian Access: building entrances have direct access to exterior compliant hardscape that leads to compliant covered entry and covered lunch structures. Thresholds are in conformance. The north most access to the buildings is not ADA compliant, there is about a 6" drop; this could be a fall hazard, recommend railing. Library space appears to have some trip hazards(cables) and may have areas where accessible path is obstructed.
- Signage: code compliant signage installed.



Exterior of Building



Classroom Interior

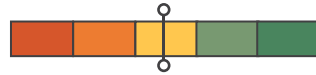


Classroom Casework/ Storage

Gravenstein Elementary School - Building H Portable Building

Assessment Summary

General Condition: Fair to Good



Portable building has been well-maintained and is in good condition for its age, placed on site in 2011. There is evidence of normal wear and tear at the interior cabinets, plumbing/sink fixtures, floors and walls. Classroom spaces have a shared opening as shown in images, recommend closing this wall as it poses acoustical issues and may limit certain activities in the classrooms.

Building Data

Date of Original Construction: 2013

Number of Classrooms: 2

Number of Restrooms: 1 Gender Neutral student toilet

Building Area: 2,880 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding				4	
Windows				4	
Doors				4	
Soffits/Canopies				4	
Interior Finishes					
Flooring			3		
Walls			3		
Ceiling				4	
Doors			3		
Cabinetry/Furnishings			3		
Window Coverings			3		
Building Systems					
ADA Compliance			3		
Specialty Equipment					
Acoustics		2			
HVAC			3		
Plumbing				4	
Electrical/Lighting			3		
Elevator (if applicable)					

Gravenstein Elementary School - Building H Portable Building

Building Assessment

Building Envelope

- Roof: original portable built up roof is in good condition.
- Exterior Cladding: building exterior is wood siding and appears to be well-maintained and is in good condition. At the time of evaluation, there was no evidence of moisture or insect intrusion.
- Windows: windows are single glazed horizontal sliding units and appear to be in fair condition. Windows appeared operable with no signs of leaks at the time of evaluation.
- Doors: doors are hollow metal and in good condition for the age of construction. Hardware is code compliant.

Interior Finishes

- Finishes: carpet is in fair condition, maintained very clean. VCT flooring is in fair condition. The wall and ceiling finishes appear to be in good condition. ACT Suspended ceiling tiles are in good condition, selective replacement recommended. Lighting is newer LED.
- Window Coverings: Manual roller shades appear to be in good working condition.
- Casework and Furnishings: some cabinets show signs of normal wear and tear, but they are generally in fair to good condition. Countertops are in good condition.
- Storage: At time of assessment, top of tall cabinets used for storage, this is a safety hazard. Additional storage is recommended.

Accessibility

- Pedestrian Access: building entrances have direct access to exterior compliant hardscape that leads to compliant covered walkways. Thresholds are in conformance. Monitors at classrooms are mounted at a non-compliant height, protruding in excess of 4" from the wall.
- Signage: code compliant signage installed.



Exterior of Building



Classroom Interior

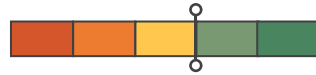


Classroom Interior

Gravenstein Elementary School Building K Portable Building

Assessment Summary

General Condition: Fair to Good



Portable building has been very well-maintained and is in good condition for its age, placed on site in 2011. There is evidence of normal wear and tear at the interior cabinets, plumbing/sink fixtures, floors and walls.

Building Data

Date of Original Construction: 2011

Number of Classrooms: 2

Number of Restrooms: N/A

Building Area: C: 1,920 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding			3		
Windows			3		
Doors			3		
Soffits/Canopies			3		
Interior Finishes					
Flooring			3		
Walls				4	
Ceiling				4	
Doors				4	
Cabinetry/Furnishings			3		
Window Coverings			3		
Building Systems					
ADA Compliance				4	
Specialty Equipment			3		
Acoustics			3		
HVAC			3		
Plumbing				4	
Electrical/Lighting				4	
Elevator (if applicable)					

Gravenstein Elementary School- Building K Portable Building

Building Assessment

Building Envelope

- Roof: original portable roof in good condition.
- Exterior Cladding: building exterior is wood siding and appears to be well-maintained and is in good condition. At the time of evaluation, there was no evidence of moisture or insect intrusion.
- Windows: windows are single glazed horizontal sliding units and appear to be in fair condition. Windows appeared operable with no signs of leaks at the time of evaluation.
- Doors: doors are hollow metal and in good condition for the age of construction. Hardware is code compliant.

Interior Finishes

- Finishes: carpet is in fair condition, maintained very clean. The wall and ceiling finishes appear to be in good condition. ACT Suspended ceiling tiles are in good condition, selective replacement recommended. Lighting is newer LED.
- Window Coverings: Manual roller shades appear to be in good working condition.
- Casework and Furnishings: some cabinets show signs of normal wear and tear, but they are generally in fair to good condition. Countertops are in good condition.
- Storage: At time of assessment, top of tall cabinets used for storage, this is a safety hazard.

Accessibility

- Pedestrian Access: building entrances have direct access to exterior compliant hardscape that leads to compliant covered walkways. Thresholds are in conformance.
- Signage: code compliant signage installed.



Exterior of Building



Classroom Interior



Classroom Casework/ Storage

Gravenstein Elementary School - Campus Summary

Critical Facilities Needs (CFN)

- New Roof at Building D
- Building D, repair grading issues along classroom entries.
- Pedestrian site accessibility
- reconfigured drop-off zone
- traffic mitigation ideas
- updated classroom finishes; possibly additional storage/casework for storage
- New PA system (currently use CB on Fire Alarm)

Future Facility Needs (FFN)

- Additional space for growing Wellness programs/ staff.
- Additional space for a Pre-K program

Site Improvements: (new ideas)

- Playground improvements to incorporate a poured in place solution in lieu of bark wood chips as it is difficult to maintain accessibility standards with bark.
- Upgrade playground equipment
- Improvements to student sports fields and track



Student Drop-off



AC paving at playground



Staff parking behind Building D

Gravenstein Elementary School - Campus Summary

Outstanding conditions (from previous Masterplan)

Architectural Assessment:

- Windows: Existing windows are still single pane glazing with some siding having been replaced as needed. Selective replacement or rebuilding of sills to replace rotted wood, ongoing maintenance project. Multi Purpose Building, Administration/District Office, learning lab classrooms and modulares are only buildings that have recieved upgrades.
- Floor Sills: Building A,B, Admin floor sills are below grade level or sidewalk

Structural Assessment:

- Rotting/deterioration of framing beam ends at Building D; all other buildings have been addressed.
- Window sills and wood trim rotting and deterioration. Some areas have been repaired, ongoing issue as a result of exposure to weather and sill design.

Mechanical/Plumbing Assessment:

- 50 year old sewer, water and vent pipes, underground gas pipes. Some lines have been updated, however, much remains form original construction. main gas line feed from parking lot to old gas main was replaced in 2016. PG&E has inspected lines for leaks. Lines feeding MPR, Modulares and Admin have all been updated.

Water Supply and Sanitation:

- Water quality, taste, odor, turbidity, iron content issues. Water system complies with state standards and is monitored weekly. Numerous tests on the water are performed each year to ensure water is safe for public consumption. District would like to look into a newer holding tank and backup power should power fail.

Electrical Assessment:

- Main switchboard age and capacity is insufficient for HVAC upgrade
- Classroom recpetacles are currently insufficinet, any future design should consider the growing need for both student and staff use of technology tools; Chromebook use in the classrom, AV monitors, Chromebook charging carts.
- More user friendly and upgraded communication system. District currently uses Nortel but parts are becoming increasingly difficult to source.



Minor accessibility issues (window protrusion exceeds 4")



Basketball court/playground



Landscaped area between Building A/B

Gravenstein Elementary School - Campus Summary

Outstanding conditions (continued)

Electrical Assessment:

- District would like to explore wireless clocks, for cost efficiency but are worried about lack of signal reception.
- Increased quantity and location of data outlets in addition to an upgrade to wiring to increase bandwidth capability.
- General low voltage rewiring and cleanup is desired as demands for technology increase.
- District would like to possibly switch to VOIP in future; currently older telephone wiring is used, which works but would require an upgrade if VOIP is approved.



Kinder Playground

Gravenstein Elementary School



Non-accessible path at Building G to playground



Fire Lane



Corrosion at mechanical vents (exterior)



Softball Field



Sports Field and Track



Exterior Building J - moisture intrusion at soffit



Exterior non accessible outdoor learning spaces



Arrival to site - missing safe pedestrian path

Hillcrest Middle School

725 Bloomfield Road
Sebastopol, CA 95472

School Data

Approximate Date School Opened: 1966

Total Enrollment 2020-2021: 284 students

Number of Classrooms: 17



Hillcrest Middle School - Existing Site Plan



Site Summary

The campus is located off Bloomfield Road and has a dedicated parking lot with a solar carport. Signage at the street identifies the school, and there is also an additional marquee sign in the parking area.

The campus has minimal perimeter fencing. To the West and East, fencing partially separates the school from Bloomfield Road and the adjacent fields, respectively, but neither create a secure perimeter. A gate secures the driveway access at the front main parking lot. The Administration Office is adjacent to the parking lot and has a "School Office" sign on the door.

There is an exterior basketball court and blacktop playground at the front of the campus. No accessible access to this area.

Arrival: No accessible route to public right of way.

Parking: Non-compliant ADA parking with carport solar array.

Wayfinding: Additional directional signs to the Office is recommended.

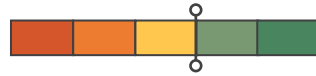
The PA system does not function properly.



Hillcrest Middle School - Buildings A, B & C Administration & Classrooms

Assessment Summary

General Condition: Fair to Good



All campus buildings have been well-maintained and are in good condition for their age. There is evidence of normal wear and tear at the interior cabinets, plumbing/sink fixtures, floors and walls.

Classrooms 5 and 6 are used as a “Maker Lab” and share an operable wall.

Restrooms are in good condition and need some adjustments of fixtures and/or accessories to meet current ADA standards.

Building Data

Date of Original Construction: Buildings A & B - 1966; Building C - 1971

Number of Classrooms: 4 per building

Number of Restrooms:

- Building A/B: 2 Staff Restrooms - 1 Water Closet, 1 Lav each;
 - 1 Boys - 2 Water Closets, 4 Urinals, 1 Lav with 3 faucets;
 - 1 Girls - 5 Water Closets, 1 Lav with 3 faucets

- Building C: 2 Staff Restrooms - 1 Water Closet, 1 Lav each;
 - 1 Boys - 2 Water Closets, 4 Urinals, 1 Lav with 3 faucets;
 - 1 Girls - 5 Water Closets, 1 Lav with 3 faucets;

Janitor Room accessed from Building C Boys Restroom

Building A/B Area: 10,329 SF

Building C Area: 5,783 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing		2			
Exterior Cladding			3		
Windows				4	
Doors				4	
Soffits/Canopies			3		
Interior Finishes					
Flooring		2			
Walls			3		
Ceiling					5
Doors			3		
Cabinetry/Furnishings			3		
Window Coverings					5
Building Systems					
ADA Compliance		2			
Specialty Equipment			3		
Acoustics			3		
HVAC					5
Plumbing			3		
Electrical/Lighting					5
Elevator (if applicable)					



Hillcrest Middle School - Buildings A, B & C Administration & Classrooms

Building Assessment

Building Envelope

- Roof: gravel surface BUR roofing is in poor condition and replacement is recommended. Perimeter ponding is a major issue, flashings at penetrations have failed, not insulated, and does not meet Title 24. Future roofing replacement scheduled for Summer 2022.
- Exterior Cladding: building exterior is marblecrete and appears to be in fair condition for the age of building. Exterior plaster on outside corners, moldings, caulking rot.
- Soffits: Cement plaster soffits appear to be in fair condition with old recessed lighting in poor condition.
- Windows: interior hollow metal windows with wire mesh appear to be in fair condition. Exterior windows appear to be new aluminum operable windows and have manual window shades.
- Doors: doors are in fair condition for the age of construction. Hardware is code compliant (verify).

Interior

- Finishes: flooring is in poor to good condition; possibly being replaced in stages. The walls are in fair condition and ceiling finishes appear to be in good condition with ceiling tiles recently replaced.
- Interior doors: classroom doors are wood in fair condition for the age of construction.
- Cabinets and Furnishings: cabinets show signs of normal wear and tear, but they are generally in fair to good condition.
- Window Coverings: window shades appear to be new and in very good condition.

Accessibility

- Pedestrian Access: classroom entrances are located at both the exterior facade and interior "hall" spaces. Ramps at classrooms are non-compliant, and missing handrails. Landings and some thresholds are non-compliant.
- Signage: Restroom signage provided and appears in accordance with CBC Chapter 11B requirements. Classroom signage not provided per CBC Chapter 11B requirements.
- Sinks at most classrooms are not accessible due to lower cabinets and lack of knee and toe clearance.
- Restrooms: finishes are in good condition, showing some wear, and need some adjustments of fixtures and/or accessories to meet current ADA standards.



Exterior of Building



Maker Lab Interior (Classrooms similar)



Typical "Hall" Interior



Hillcrest Middle School - Building D Music & Science Classrooms

Assessment Summary

General Condition: Good



Overall building has been very well-maintained and is in good condition for its age.

The Music Classroom is in good condition.

The Science Classroom and Prep Room are in good condition. There is some evidence of wear and tear at interior cabinets.

Building Data

Date of Original Construction: 2014 or 2015

Number of Classrooms: 2

Number of Restrooms: N/A - see Building C

Building Area: 3,621 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding				4	
Windows				4	
Doors				4	
Soffits/Canopies				4	
Interior Finishes					
Flooring				4	
Walls				4	
Ceiling				4	
Doors				4	
Cabinetry/Furnishings			3		
Window Coverings			3		
Building Systems					
ADA Compliance			3		
Specialty Equipment					
Acoustics					
HVAC				4	
Plumbing				4	
Electrical/Lighting				4	
Elevator (if applicable)					



Hillcrest Middle School - Building D Music & Science Classrooms

Building Assessment

Building Envelope

- Roof: TPO roofing installed over original roof is in fair condition for its age.
- Exterior Cladding: building exterior is cement plaster and appears to be well-maintained and is in good condition for the age of building. At the time of evaluation, there was no evidence of moisture or insect intrusion.
- Windows: windows are aluminum awning units and appear to be in good condition. Windows appeared operable with no signs of leaks at the time of evaluation.
- Doors: doors are in good condition for the age of construction. Hardware is code compliant.

Interior Finishes

- Finishes: floor is in good condition. The wall and ceiling finishes appear to be in good condition.
- Interior doors: doors are wood in good condition for the age of construction.
- Casework and Furnishings: some cabinets show signs of normal wear and tear; but they are generally in good condition. Countertops are in good condition with some wear at Science Classroom. Limited replacement of cabinets may be required for ADA compliance; there is only an ADA compliant staff sink, not one for students.
- Prep Room: Casework storage doesn't appear to be sufficient; mixture of old furniture/casework and newer casework in good condition.

Accessibility

- Pedestrian Access: building entrances are located on the exterior facade with direct access to exterior walkways. Path of travel to building is non-compliant. Thresholds appear to be in conformance.
- Sinks at casework: Most are not compliant due to lower cabinets with doors; do not have accessible knee clearance.
- Signage: provided in accordance with CBC Chapter 11B requirements.



Exterior of Building



Music Classroom



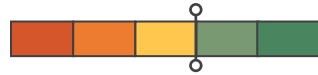
Science Classroom



Hillcrest Middle School - Building E Multi-Purpose Building

Assessment Summary

General Condition: Fair to Good



Overall building has been well-maintained and is in good condition for its age. There is evidence of normal wear and tear at flooring and ceiling finishes. The walls are in poor to fair condition.

The main Multi-Purpose Room space is worn, with some stains and damaged finishes. Bleaches appear in good condition.

The Kitchen has been well-maintained and is in good condition.

The stage is in fair condition with outdated lighting. The wall and storage area beneath the stage is in poor condition and in need of repairs.

The Restrooms are in good condition and need some adjustments of fixtures and/or accessories to meet current ADA standards.

Building Data

Date of Original Construction: 2000

Minor Modernization: 2007

Number of Classrooms: N/A

Number of Restrooms: 2 Single-use

Building Area: 7,937 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding				4	
Windows				4	
Doors				4	
Soffits/Canopies				4	
Interior Finishes					
Flooring			3		
Walls		2			
Ceiling			3		
Doors				4	
Cabinetry/Furnishings				4	
Window Coverings					
Building Systems					
ADA Compliance				4	
Specialty Equipment			3		
Acoustics			3		
HVAC			3		
Plumbing				4	
Electrical/Lighting			3		
Elevator (if applicable)					



Hillcrest Middle School - Building E Multi-Purpose Building

Building Assessment

Building Envelope

- Roof: shingle roof is in fair condition for its age. Perimeter sheet metal flashing is in good condition. Shingles are at about 85% life expectancy; consider planning to replace roof.
- Exterior Cladding: building exterior is CMU and appears to be well-maintained and is in good condition for the age of building. There is some cement plaster finish located between the low and high roofs.
- Windows: windows are painted hollow metal units with tempered glazing and appear to be in good condition. Windows do not appear operable.
- Doors: doors are in good condition for the age of construction.

Interior Finishes

- Finishes: floor is in fair condition with some areas and faded striping that may require patching or replacement. The walls are in poor condition, specifically at the yellow padded areas and the wall beneath the stage. There is some efflorescence at the interior CMU walls. The ceiling finishes appear to be in fair condition with some discoloration at the edges of the ceiling in the main space.
- Interior doors: doors are hollow metal in good condition for the age of construction.
- Casework and Furnishings: Cabinets in the kitchen space are generally in good condition. Countertops are in good condition. Limited replacement of cabinets may be required for ADA compliance.
- Kitchen: Overall appears in good condition.
- Restroom finishes are showing some signs of aging but are in good condition.

Accessibility

- Pedestrian Access: building entrances are located on the exterior facade with direct access to exterior walkways. Thresholds are in conformance.
- Stage has accessible chair lift with storage behind.
- Signage: provided, verify in accordance with CBC Chapter 11B requirements.
- Restrooms: Restrooms need some adjustments of fixtures and/or accessories to meet current ADA standards.
- Drinking fountains: hi-low drinking fountains with added water bottle fillers.



Exterior of Building



Area beneath stage in need of repair.



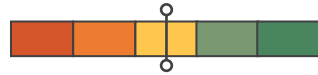
MPR Interior - Efflorescence at CMU



Hillcrest Middle School - Building F Portable Building / Room 18

Assessment Summary

General Condition: Fair



The portable building has been well-maintained on the interior and is in fair condition for its age. There is evidence of normal wear and tear at the interior cabinets, floors and walls. The exterior siding is worn, and the doors show significant wear.

Building Data

Date of Original Construction: 1997

Number of Classrooms: 1 (used as Computer/Maker Lab space)

Number of Restrooms: 0

Building Area: 1,420 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding		2			
Windows			3		
Doors		2			
Soffits/Canopies		2			
Interior Finishes					
Flooring				4	
Walls			3		
Ceiling			3		
Doors					
Cabinetry/Furnishings			3		
Window Coverings			3		
Building Systems					
ADA Compliance		2			
Specialty Equipment					
Acoustics			3		
HVAC			3		
Plumbing					
Electrical/Lighting				4	
Elevator (if applicable)					



Hillcrest Middle School - Building F Portable Building / Room 18

Building Assessment

Building Envelope

- Roof: metal standing seam roof is in fair condition for its age. TPO roof coating installed summer 2019.
- Exterior Cladding: building exterior is vertical wood siding and appears to be in poor to fair condition. The building sits on wood blocking on top of ac. Requires maintenance to paint and caulk building, and good drainage to extend the life of the building.
- Exterior Soffit: the exterior soffit is in poor to fair condition, showing some discoloration and wear.
- Windows: windows are dual glazed, horizontal sliding anodized aluminum units and appear to be in fair condition. Windows appeared operable with no signs of leaks at the time of evaluation.
- Doors: doors are in poor to fair condition for the age of construction.

Interior Finishes

- Finishes: floor is in fair to good condition. The walls are in fair condition, and ceiling tiles appear to be in fair condition, with some wear/dark spots and some missing/removed tiles that need to be replaced.
- Casework and Furnishings: Tall cabinets are outdated and in poor condition. Furniture appears to be in fair condition.
- Electrical - not enough outlets.

Accessibility

- Pedestrian Access: building entrances are located on the exterior facade with ramps to exterior walkways. Door and ramp landings are noncompliant, and the path of travel to Building F does not conform due to excessive cross slope.
- Signage: appears to be provided at West entry in accordance with CBC Chapter 11B requirements. Signage missing from North entry door.



Exterior of Portable Building



Exterior Soffit



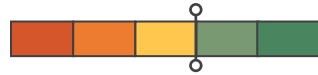
Portable Interior



Hillcrest Middle School - Building G Portable Building

Assessment Summary

General Condition: Fair to Good



Overall portable building has been well-maintained and is in fair to good condition for its age. The classrooms share one ramp, and there are backpack hooks on the exterior. There is evidence of some normal wear and tear at the exterior.

P1 Classroom is in good condition. There is evidence of normal wear and tear at the interior cabinets, plumbing/sink fixtures, linoleum flooring and walls. Most of the ceiling tiles appear in fair to good condition, but some have dark/worn areas adjacent to mechanical vents.

P2 Learning Lab is in good condition, and condition is similar to the P1 Classroom.

Building Data

Date of Original Construction: 2012

Number of Classrooms: 2

Number of Restrooms: 0

Building Area: 1,600 SF

Condition Ratings

	Very Poor	Poor	Fair	Good	Very Good
	1	2	3	4	5

Building Envelope					
Roofing			3		
Exterior Cladding				4	
Windows				4	
Doors				4	
Soffits/Canopies				4	
Interior Finishes					
Flooring				4	
Walls				4	
Ceiling				4	
Doors					
Cabinetry/Furnishings			3		
Window Coverings					
Building Systems					
ADA Compliance		2			
Specialty Equipment				4	
Acoustics			3		
HVAC			3		
Plumbing				4	
Electrical/Lighting				4	
Elevator (if applicable)					



Hillcrest Middle School - Building G Portable Building

Building Assessment

Building Envelope

- Roof: metal standing seam roof is in fair condition for its age. Roofing report recommends restoring the roof with a fluid-applied waterproofing system.
- Exterior Cladding: building exterior is vertical wood siding and appears to be well-maintained and is in good condition for the age of building. At the time of evaluation, there was no evidence of moisture or insect intrusion.
- Windows: windows are dual glazed aluminum horizontal sliding units and appear to be in fair to good condition. Windows appeared operable with no signs of leaks at the time of evaluation.
- Doors: painted hollow metal doors are in fair to good condition for the age of construction. Lockset hardware at P2 appears to be missing lock / possibly damaged.

Interior Finishes

- Finishes: flooring is in fair to very good condition. The carpet is new and the linoleum flooring was installed in 2012. The wall finishes appear to be in good condition. Most of the ceiling tiles appear in fair to good condition, but some have dark/worn areas adjacent to mechanical vents.
- Casework and Furnishings: some cabinets show signs of normal wear and tear, but they are generally in fair to good condition. Countertops are in good condition. Limited replacement or alteration of cabinets may be required for ADA compliance; the lower cabinets at the sinks are not ADA compliant.

Accessibility

- Pedestrian Access: classroom entrances are located on the exterior facade with a shared ramp to exterior walkways. The ramp railings are non-complaint, and there is not an accessible path of travel to this portable. Thresholds appear to be in conformance.
- Signage: appears to be provided in accordance with CBC Chapter 11B requirements.



Exterior of Portable Building



P1 Classroom Interior



P2 Learning Lab Interior



Hillcrest Middle School - Campus Summary

Outstanding Conditions (from previous Masterplan)

Structural Assessment

- Redwood fascia boards on buildings A & B need painting and periodic caulking - fascia boards scheduled for future replacement with roof (Summer 2022).
- Wood sill plates - possibly replace.
- Detailed seismic assessment has not occurred. Modifications or renovations to these buildings may require upgrades.

Mechanical/Plumbing Assessment

- Portable Building F / Room 18 - Sits on wood blocking on top of ac. Requires maintenance to paint and caulk building, and good drainage to extend the life of the building.
- Classroom Buildings A, B & C- units replaced during 2021 heat mitigation project.
- Classroom Buildings - Sewer is functional and appears to be working. Septic has been partially pumped in Summer 2018. Most gas pipes are original, and gas valves were replaced in 2007 modernization. Water lines are original with replacement of shutoff valves in 2007 modernization. Vent pipes originally appear intact.
- Multi-Purpose Building - Furnace unit is working; just received new bearings. Unit is 20 years old; consider future replacement. Toilet fixtures function but are 20 years old. Kitchen furnace and exhaust work; newer thermostat. Triple scullery sink works. FRP paneling needed throughout kitchen for updated building code. Kitchen island hand wash sink roughed in for plumbing - needed? Water heater works but is 20 years old; consider a tankless water heater. Gas supply is adequate but lines are about 50 years old.

Electrical Assessment

- Power distribution system capacity limitations - main panel has been upgraded but subpanels are largely at capacity. Wiring would be needed to add large loads such as AC. Panels are newer; feeders are largely original.
- Classroom receptacles - more would be useful with the advent of more technology tools being introduced.
- Lighting and controls - most classrooms do not have occupancy sensors.
- Telephone System - looking into upgrading Nortel system, as part availability is becoming obsolete.
- Clock System - Master clock non-operational, failing system clocks and wiring. Wireless clocks have lack of signal reception in all rooms. Bell system from Gym does not work; has wiring but not figured out.
- General - aerial cabling on South portion of campus is unsightly and exposed to weather and vandalism. Cable TV and optic wiring still overhead - adhere to recommendations.



Fascia Boards



Kitchen



Classroom lighting and AV



Hillcrest Middle School - Campus Summary

Critical Facilities Needs (CFN)

- Roof replacement at Buildings A, B and C is scheduled for Summer 2022. Possibly replace with a cool roof system.
- No insulation occurs in ceilings of Buildings A, B and C - possibly add insulation.
- Replace single pane windows with thermally broken, Low-E dual glazing.
- Add shade structures as walkways and at lunch area to help combat heat and weather.
- PA system to be fixed - currently does not function properly.
- Proceed with Electrical assessment to determine if existing infrastructure would make adding AC cost prohibitive. Look into alternative ways to cool buildings.
- Shade structure in Duck Pond.

Future Facility Needs (FFN)

- Running track - no track currently exists.
- Playground improvements - update to reflect Middle School level and accessibility upgrades. Possibly include climber and natural play areas.
- New landscaping to improve curb appeal.
- ADA accessibility for classrooms - modernize current ramps to meet code.
- Provide additional storage for drama, PE. equipment and other facilities equipment.
- Future modernization work will require DSA review and approval of restroom dimensions as built.
- Replace exterior lighting fixtures.
- Seek funding to modernize the Multi-Purpose Building and Kitchen.



Existing field without track



Existing blacktop playground at front of campus



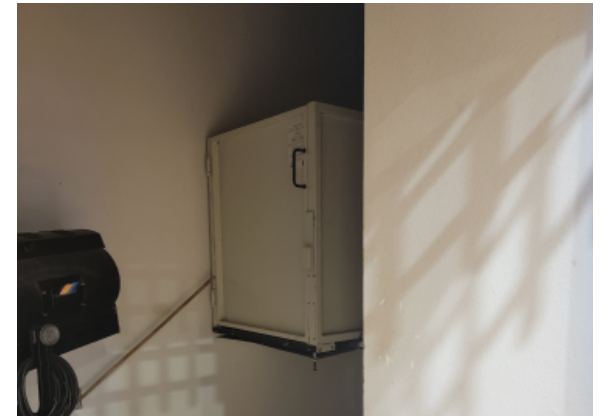
Existing Quad



Hillcrest Middle School



MPR Interior



Wheelchair lift to Stage



Classroom Interior - Operable Wall & Mechanical



Classroom Sink - Not Accessible



Boys Restroom



Water bottle filler and drinking fountain



Girls Restroom



Staff Restroom



GENERAL UTILITY NOTES

WATER

1. IRRIGATION – PROVIDED BY WELL. NO KNOWN PROBLEMS.
2. DOMESTIC – PROVIDED BY WELL, INCLUDING A PRESSURE TANK. BASED ON CONVERSATIONS WITH THE SCHOOL FACILITY STAFF, THE EXISTING WATER CONTAINS AIR (BUBBLES) AND SEDIMENT. WATER SAMPLES CONTINUE TO PASS ALL HEALTH DEPARTMENT REQUIREMENTS AND STANDARDS. IT IS RECOMMENDED TO PERFORM A MORE THOROUGH DOMESTIC WATER SYSTEM INVESTIGATION TO DETERMINE IF PORTIONS OF THE SYSTEM SHALL BE REPLACED, INCLUDING, BUT NOT LIMITED TO THE WELL, PRESSURE TANK, WATER DISTRIBUTION LINES, ETC..
3. FIRE – PROVIDED BY WELL. THE ONSITE FIRE PROTECTION SYSTEM INCLUDES A 32,000+/- GALLON STORAGE TANK, PUMP, DISTRIBUTION LINES AND TWO FIRE HYDRANTS THAT WERE BUILT AROUND 2016. ADDITIONAL FIRE HYDRANTS SHALL BE INSTALLED, INCLUDING EXTENSION OF DISTRIBUTION LINES, FOR COMPLETE COVERAGE OF THE CAMPUS.
4. BUILDING SPRINKLERS – THE EXISTING BUILDINGS ARE NOT EQUIPPED WITH SPRINKLERS. DEPENDING ON FIRE FLOW DEMAND REQUIRED, FUTURE MODERNIZATION AND NEW BUILDING CONSTRUCTION MAY REQUIRE BUILDING SPRINKLERS.

SANITARY SEWER

1. PROVIDED BY SEPTIC TANK AND LEACH FIELD. NO KNOWN PROBLEMS.

STORM DRAINAGE

1. THERE ARE A COUPLE OF AREAS THAT EXPERIENCE PONDING IN THE NORTHERN COURTYARD AREA. BASED ON CONVERSATIONS WITH THE SCHOOL FACILITY STAFF, THIS IS PROBABLE ATTRIBUTED TO SOME STORM DRAINS BEING CLOGGED OR COMPROMISED BY THE EXISTING TREE ROOTS. TO MITIGATE THE PONDING, REPLACEMENT OF PORTIONS OF THE EXISTING STORM DRAINAGE SYSTEM IS RECOMMENDED, INCLUDING INSTALLATION OF ADDITIONAL DRAINAGE INLETS.

KEY NOTES

- ① DOOR/RAMP LANDING EXCEEDS 2% SLOPE.
- ② DOOR THRESHOLD IS NON COMPLIANT – EXCEEDS 1/4” VERTICAL OR BEVELED 1/2” MAX.
- ③ 18” CLEAR WALL SPACE ON PULL SIDE OF DOOR NOT PROVIDED.
- ④ TRAVEL WAY CROSS SLOPES EXCEEDS 2%.
- ⑤ TRAVEL WAY SLOPE EXCEEDS 5% WITHOUT HANDRAILS.
- ⑥ RAMP SLOPE EXCEEDS 8.33%.
- ⑦ NON COMPLIANT/MISSING RAILINGS FOR RAMPS.
- ⑧ RAMPS NOT "NON SLIP".
- ⑨ NO DETECTABLE WARNING SURFACE.
- ⑩ BROKEN OR RAISED CONCRETE JOINTS.
- ⑪ NON COMPLIANT ACCESSIBLE PARKING STALL SIGNAGE.
- ⑫ NON COMPLIANT/MISSING ADA SIGNAGE AT ENTRY TO PARKING LOT.
- ⑬ SLOPES EXCEED 2% ON ADA PARKING STALLS.
- ⑭ NON COMPLIANT PEDESTRIAN CURB RAMP AT ACCESSIBLE PARKING.
- ⑮ PAVEMENT MARKING FADED/NON COMPLIANT.
- ⑯ VAN ACCESSIBLE PARKING NOT PROVIDED.
- ⑰ NO ACCESSIBLE ROUTE FROM ACCESSIBLE PARKING.
- ⑱ NO ACCESSIBLE STUDENT DROP OFF ZONE.
- ⑲ NO ACCESSIBLE ROUTE TO PUBLIC RIGHT OF WAY.
- ⑳ PAVE ADA STALL.
- ㉑ ACCESSIBLE DRINKING FOUNTAIN – 36” FROM GROUND REQUIRED.
- ㉒ PAVE PARKING LOT.
- ㉓ INADEQUATE FIRE PROTECTION/ACCESS.
- ㉔ PAVEMENT BROKEN/FAILING. PAVE PARKING LOT.
- ㉕ PAVEMENT CRACKED/WORN – REQUIRING CRACK FILLING & SEALING.
- ㉖ NON COMPLIANT STORM DRAIN GRATE.
- ㉗ INADEQUATE DRAINAGE. GRADE DRAINAGE SWALE TO PROMOTE OVERLAND FLOW TO THE WEST.
- ㉘ CULVERT BLOCKED WITH DEBRIS. PROVIDE GRATED INLET.
- ㉙ SEWER SYSTEM BLOCKAGE.
- ㉚ NO ADA PARKING STALLS PROVIDED IN NORTH PARKING LOT, INCLUDING ACCESSIBLE PATH OF TRAVEL TO CAMPUS.
- ㉛ FIRE SPRINKLER SYSTEM.

GRAVENSTEIN UNION SCHOOL DISTRICT GRAVENSTEIN ELEMENTARY SCHOOL

SITE ASSESSMENTS

AUGUST 2021

08-18-21 robertson \\4123\dwg\4123 01\EXHIBIT\4123.01 EXHIBIT-gravenstein elementary school.dwg TAB. 2-SITE

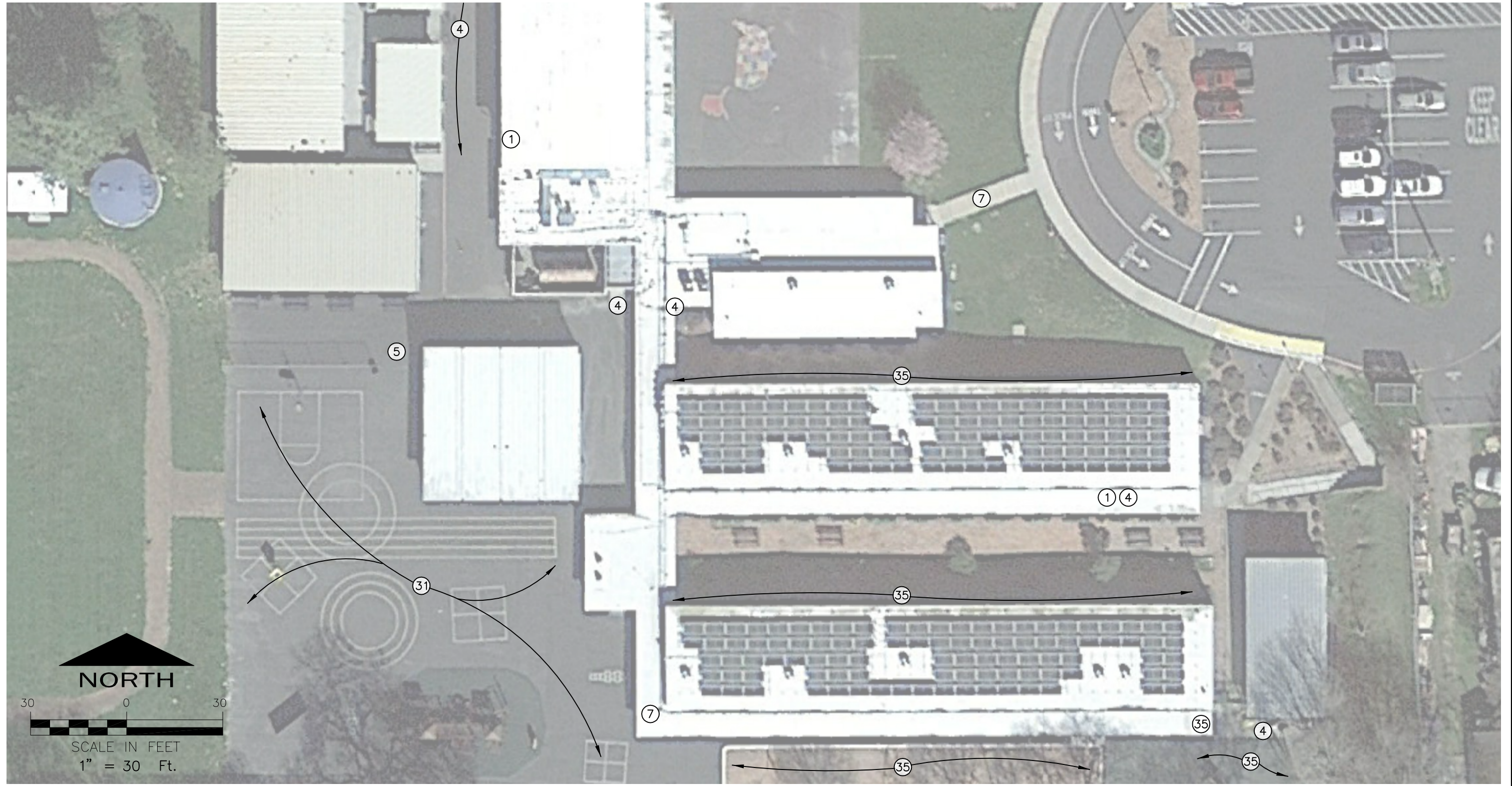


**GRAVENSTEIN UNION SCHOOL DISTRICT
GRAVENSTEIN ELEMENTARY SCHOOL**

SITE ASSESSMENTS

AUGUST 2021

SEE SHEET 2



08-18-21 robertson \\4123.dwg\4123 01\EXHIBIT\4123.01 EXHIBIT-gravenstein elementary school.dwg TAB. 3-SITE

GRAVENSTEIN UNION SCHOOL DISTRICT GRAVENSTEIN ELEMENTARY SCHOOL

SITE ASSESSMENTS

AUGUST 2021

GENERAL UTILITY NOTES

WATER

1. IRRIGATION – PROVIDED BY WELL. NO KNOWN PROBLEMS.
2. DOMESTIC – PROVIDED BY WELL. NO KNOWN PROBLEMS.
3. FIRE – THERE IS NO FIRE PROTECTION SYSTEM ONSITE. A FIRE PROTECTION SYSTEM, INCLUDING FIRE DISTRIBUTION LINES, WATER TANKS, FIRE HYDRANTS, ETC., SHALL BE INSTALLED.
4. BUILDING SPRINKLERS – THE EXISTING BUILDINGS ARE NOT EQUIPPED WITH SPRINKLERS. DEPENDING ON FIRE FLOW DEMAND REQUIRED, FUTURE MODERNIZATION AND NEW BUILDING CONSTRUCTION MAY REQUIRE BUILDING SPRINKLERS.

SANITARY SEWER

1. PROVIDED BY SEPTIC TANK AND LEACH FIELD. NO KNOWN PROBLEMS.
2. AN EXISTING EFFLUENT PUMP WAS INSTALLED TO SERVE THE PORTABLE CLASSROOM SINKS ALONG THE WESTERN SIDE OF THE SITE. THIS PUMP SHALL BE UPGRADED TO A GRINDER IF IT SERVES ANY RESTROOMS IN THE FUTURE.

STORM DRAINAGE

1. THERE ARE A COUPLE OF AREAS THAT EXPERIENCE PONDING IN THE CENTRAL COURTYARD AREA. BASED ON CONVERSATIONS WITH THE SCHOOL FACILITY STAFF, THIS IS PROBABLE ATTRIBUTED TO SOME ROOF DRAINS BEING CLOGGED OR COMPROMISED BY THE EXISTING REDWOOD TREE ROOTS. TO MITIGATE THE PONDING, REPLACEMENT OF PORTIONS OF THE EXISTING ROOF DRAINAGE SYSTEM IS RECOMMENDED.

KEY NOTES

- ① DOOR/RAMP LANDING EXCEEDS 2% SLOPE.
- ② DOOR THRESHOLD IS NON COMPLIANT – EXCEEDS 1/4” VERTICAL OR BEVELED 1/2” MAX.
- ③ 18” CLEAR WALL SPACE ON PULL SIDE OF DOOR NOT PROVIDED.
- ④ TRAVEL WAY CROSS SLOPES EXCEEDS 2%.
- ⑤ TRAVEL WAY SLOPE EXCEEDS 5% WITHOUT HANDRAILS.
- ⑥ RAMP SLOPE EXCEEDS 8.33%.
- ⑦ NON COMPLIANT/MISSING RAILINGS FOR RAMPS/STAIRS.
- ⑧ NO INTERMEDIATE LANDING AT RAMP
- ⑨ NO 4 FOOT CLEARANCE AT TOP OF RAMP.
- ⑩ BROKEN OR RAISED CONCRETE JOINTS.
- ⑪ NON COMPLIANT ACCESSIBLE PARKING STALL SIGNAGE.
- ⑫ NON COMPLIANT/MISSING ADA SIGNAGE AT ENTRY TO PARKING LOT.
- ⑬ SLOPES EXCEED 2% ON ADA PARKING STALLS.
- ⑭ NON COMPLIANT PEDESTRIAN CURB RAMP AT ACCESSIBLE PARKING.
- ⑮ PAVEMENT MARKING FADED/NON COMPLIANT.
- ⑯ NON COMPLIANT ADA PARKING FOR ANGULAR STALLS.
- ⑰ NO ACCESSIBLE ROUTE FROM ACCESSIBLE PARKING.
- ⑱ NO ACCESSIBLE STUDENT DROP OFF ZONE.
- ⑲ NO ACCESSIBLE ROUTE TO PUBLIC RIGHT OF WAY.
- ⑳ INSUFFICIENT ADA DROP-OFF RAMP LENGTH.
- ㉑ ACCESSIBLE DRINKING FOUNTAIN – 36” FROM GROUND REQUIRED.
- ㉒ NO DETECTABLE WARNING SURFACE PROVIDED.
- ㉓ INADEQUATE FIRE PROTECTION/ACCESS.
- ㉔ PAVEMENT BROKEN/FAILING. PAVE PARKING LOT.
- ㉕ PAVEMENT CRACKED/WORN – REQUIRING CRACK FILLING & SEALING.
- ㉖ NON COMPLIANT STORM DRAIN GRATE.
- ㉗ INADEQUATE DRAINAGE.
- ㉘ DRAINAGE BLOCKED WITH DEBRIS.
- ㉙ SLOPED WALKWAY LESS THAN 4’ WIDE.
- ㉚ SIDEWALK HAS REVERSE SLOPE AND IS DRAINING TOWARDS BUILDING.
- ㉛ NO ACCESSIBLE ACCESS TO THIS AREA.

GRAVENSTEIN UNION SCHOOL DISTRICT HILLCREST MIDDLE SCHOOL

SITE ASSESSMENTS

AUGUST 2021

08-18-21 robertson \\4123\dwg\4123 01\EXHIBIT\4123.01 EXHIBIT-hillcrest-middle school.dwg TAB. 2-SITE



**GRAVENSTEIN UNION SCHOOL DISTRICT
HILLCREST MIDDLE SCHOOL**

SITE ASSESSMENTS

AUGUST 2021

SEE SHEET 2

08-18-21 robertson \\4123\dwg\4123 01\EXHIBIT\4123.01 EXHIBIT-hillcrest-middle school.dwg TAB. 3-SITE



**GRAVENSTEIN UNION SCHOOL DISTRICT
HILLCREST MIDDLE SCHOOL**

SITE ASSESSMENTS

AUGUST 2021



COSTA ENGINEERS INC.

Memorandum

3274 Villa Lane, Napa, CA 94558-3085 ph: 707-252-9177 fax: 707-252-6473

From: **Chris Del Core**
Date: **August 31, 2021**
Regarding: **GUSD Mechanical Site Assessments**

Comments:

Hillcrest Middle School:



August 31, 2021

The existing HVAC systems in the Classroom Pods are currently being modernized with new furnaces and dx cooling coils with grade mounted condensing units. The new equipment is outfitted with new economizer's and MERV 13 filters. No additional HVAC work is required in these spaces.

Typical classroom sinks are Stainless steel with cold water only faucets. Both are in good condition.

Admin Area

This area is fed from an adjacent unit and does not have a dedicated system. I recommend providing a dedicated system for this area for independent temperature control.

Multi Purpose Room;

A standard efficiency gas fired horizontal Reznor Heating and Ventilating unit of original vintage feeds the MPR. While the equipment is functional, it is nearing its design life and should be replaced. Existing ductwork is in good condition, but will need to be internally cleaned for re-use. The duct feeds both the stage and MPR room and additional balancing dampers are recommended to balance air distribution.

The IDF closet has exhaust only. There are several racks in this space which may require cooling as future needs grow.

Since Building Classrooms have been partially upgraded with new high efficiency furnaces. One of these units has a dx cooling coil and condensing unit, the other is 'ready' for this equipment, but it is currently not installed. I recommend adding the dx cooling coil and condensing unit.

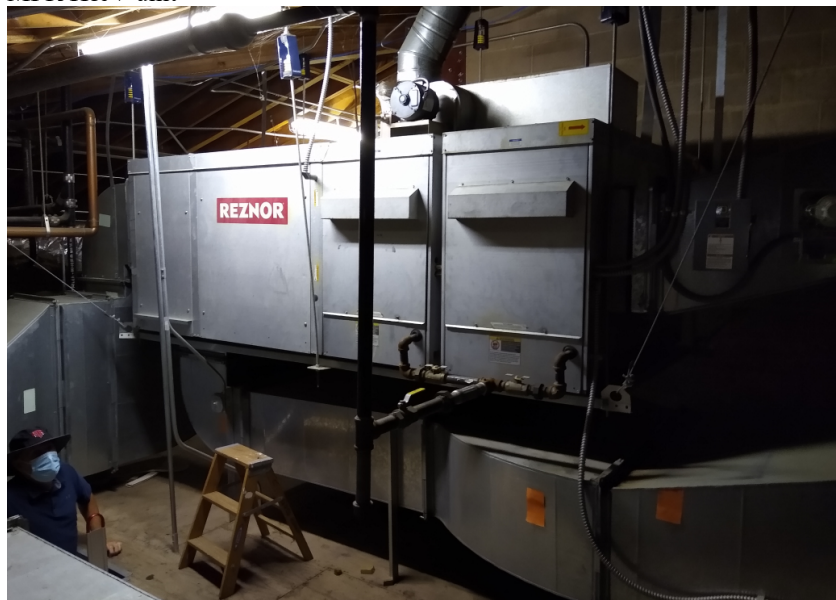
Kitchen:

The kitchen is fed from a Bryant standard efficiency gas fired horizontal furnace. It has reached the end of its design life and needs replacing.

The water heater for the kitchen appears newer and can likely remain, depending on future kitchen needs. The same is true for the Hood and grease interceptor.

Reference Photos:

MPR H&V unit



Kitchen furnace



Classroom Sink



Kitchen Water Heater

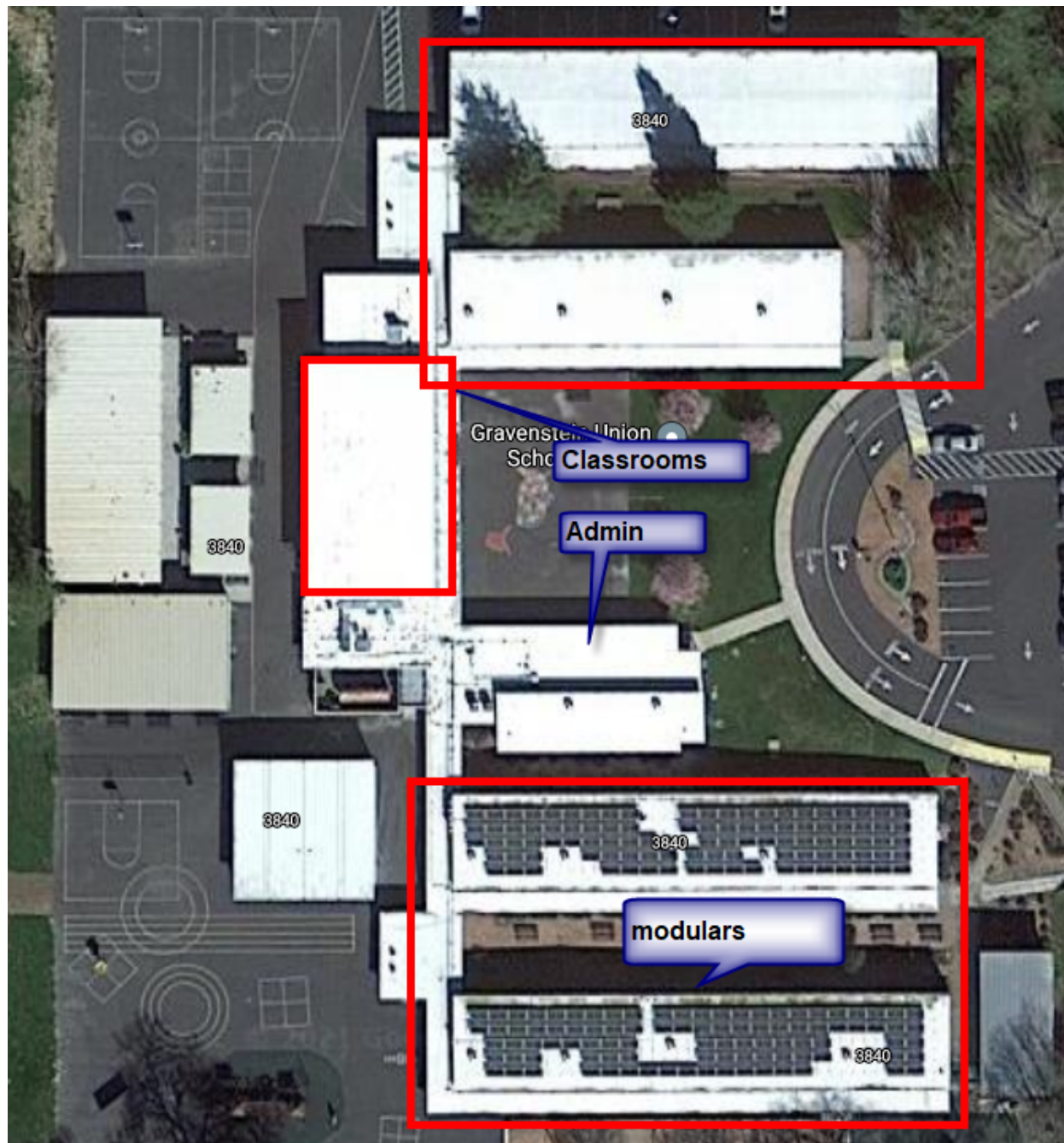


Science and Music units



End for Hillcrest

Gravenstein Elementary School



The Admin and MPR wing has newer rooftop equipment that is in good condition and has many years of useful remaining life.

I would recommend an air balance be performed to ensure proper ventilation rates are being met.

August 31, 2021

The classroom wings mostly have original gas fired furnaces without cooling or economizers with exception of the Northern most classroom wing. Here the furnaces were replaced and connected to existing ductwork, but the installation is very poor quality and will need to be addressed. While the furnaces are in good condition, the remainder of the infrastructure needs to be replaced. The systems are similar to what was found at Hillcrest and can be replaced. New Economizers, MERV 13 filters and DX cooling coils with air cooled condensing units can be installed. Alternatively, an all electric VRV heat pump system could be used. In either case, the outside air intake louvers appear to be undersized and will need to be made larger.

The IT closet currently only has an exhaust fan, but may need cooling as future growth dictates.

The Modulars were not assessed, but appear to have in-room heat pump units. They are likely at the end of their design life and will need replacing.

Classroom sinks are stainless steel, cold water only with bubblers. They appear to be original vintage and could stand to be replaced. The faucet handles are non-wrist blade type and the clearance below is questionable for ADA. These should be replaced.

Toilet rooms appear to be in good condition with newer fixtures, although ADA clearances will need to be verified by the Architect.

Reference Photos:

Typical newly replaced furnace, (very poor installation)



Typical Exterior louver



IT closet



Typical classroom sink



Typical





End of Report



O'MAHONY & MYER

ELECTRICAL ENGINEERING & LIGHTING DESIGN

San Rafael, California
Pacific Harbour, Fiji

August 20, 2021

Brian O'Mahony
Jan P. Myer
Paul Carey
Pieter Colenbrander
David Orgish

Quattrocchi Kwok Architects

636 Fifth Street
Santa Rosa, CA 95404

Attn: Diana Mendez
Re: Gravenstein Elementary School
Electrical / Lighting / Signal Systems Assessment Report

Dear Diana,

O'Mahony & Myer visited the Gravenstein Elementary School site on August 3rd, 2021, to review the existing conditions of the electrical, lighting, and signal systems at the facility. The purpose of our review was to evaluate the condition of the various systems and to comment on any specific items that may need attention to provide safe, low maintenance, and efficient campus electrical, lighting, and signal systems.

Based on the observed conditions, all required systems are present and in usable condition.

Below is a summary of the existing conditions of each system, with recommendations, where noted. No specific upgrades or changes are required at this time.

If additional loads are to be added to the School in the future, a service upgrade may be in order.

If any budget exists for upgrades, additional Classroom receptacles could provide better access to power for students and staff. The Classroom AV systems may also be modernized with built-in speakers/amplifiers and in-building cabling, to increase classroom AV utilization.

The other systems are operating and in adequate condition.

Existing PG&E Electric Service:

The electric service is rated 600A, 120/208V, 3-Phase, 4-Wire, and was installed in 2016, as manufactured by General Electric Corporation. The equipment includes a photovoltaic system interconnection and is in good condition. No remedial action is required for the electric service, although the amperage size may be small for this size campus. Current PG&E billing history can be utilized to review the available spare capacity, if needed.

The service includes PG&E SmartMeter #1010117574 and is in an indoor Nema 1 enclosure at the South end of the Multi-Use building, fed from a pad mounted PG&E utility transformers #T-0091.

The service transformer is fed with a PG&E underground primary line from a nearby pole at the front parking lot.

The electric service includes (15) active sub-feed breakers. These include:

- | | |
|-----------------------|-----------------------------|
| a. Exit Lights | i. Panel 4LA (Staff) |
| b. Night Lights | j. Well Panel |
| c. Panel 1L (Admin) | k. Panel A (Room 22) |
| d. Panel 2L (Kitchen) | l. Panel 5L (A&B Wings) |
| e. Panel 6L (C Wing) | m. Panel LG (Portables) |
| f. Panel B (Room 21) | n. Panel 9L (Electric Room) |
| g. Panel 1LB (Admin) | o. Panel 7L (D Wing) |
| h. Panel 3L (Stage) | |

There is very little space (if any) for additional sub-feed breakers and the 600A electrical rating of the board would seem to indicate that there is not much available capacity for future additional loads.

The campus also includes a solar photovoltaic (PV) system of roof mounted PV panels interconnected to the PG&E service for net-metering. The system is in working order and does not appear to require any immediate action.

Power Distribution System:

The campus distribution consists of the 208V, 3-Phase sub-feeders to each building and the various panels, as listed above.

The condition of the existing sub-feeders could not be evaluated for this study, but are reportedly in working order and should be able to be reused. If deemed necessary for maintenance purposes, the feeders could be megger tested to evaluate the insulation integrity. This is not required for re-use or code, but could be done as a maintenance evaluation item.

The buildings panels are of a recent vintage and are in good condition. Panel directories include both typed and hand-written entries made over time, which could be updated for easier maintenance in the future, if desired by the District.

It was noted that most Classrooms could probably make use of additional power receptacles throughout, to avoid extension cord usage and receptacle overloads.

No code violations or DSA action items were noted for the various panel boards.



Main Electric Service Panel



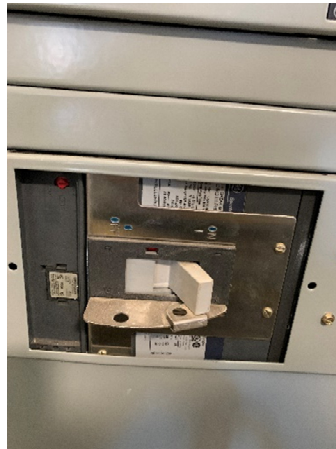
PG&E Electric Meter



Utility Transformer Room



Distribution Section



Main Breaker



PV Interconnection



Branch Panels



Branch Panels



Branch Panels

Lighting Systems:

The existing lighting systems at the School have been recently upgraded to LED type as part of a Prop 39 program grant. The fixtures are a mix of recessed and surface mounted lensed fixtures.

Building area exterior lighting consists of wall mounted and under canopy mounted LED fixtures that appear to cover the required areas. A night review of the School was not part of the assessment, so actual light levels and uniformity could not be verified.

Lighting Controls:

Lighting controls currently consist of modern technologies with motion sensing, and dimming in each Classroom. All Classrooms include a digital wall dimmer and a digital occupancy motion sensor, however there are no automatic daylight photo sensors in the classrooms.

There are no lighting control panels for general lighting, but there are various timeclocks for exterior lighting. These all appear to be separate units and have no common control or time signals. They can remain in-use.

Emergency Lighting and Exit Signs:

Emergency lighting appears to be minimal throughout most original areas of the School, since the occupancy values are less than 50 in most cases. Exit signs and emergency lighting are only required for occupancy values greater than 49.

Larger spaces like the MPR have Exit signs and wall mounted battery back-up lamp heads for emergency lighting and egress identification. The signs and emergency lighting may remain as-is.



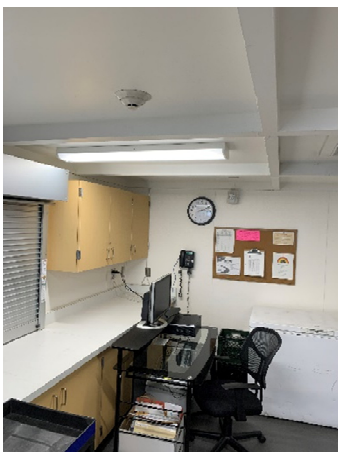
Exterior LED Lighting



Pendant Mtd Lighting



Surface Mtd Lighting



Surface Mtd Lensed Ltg



Pendant Lensed Lighting



Modern Dimmer Switches



Classroom Motion Sensors



Exterior Lighting Timeclock

Telecommunications System:

The campus includes telecom infrastructure throughout, with fiber optic cabling from the Main Distribution Frame (MDF) to Intermediate Distribution Frames (IDF's) at each building. The fiber is reportedly in good condition and provides adequate bandwidth and network connectivity to support student and staff requirements. There are both hard-wired connections and wireless access points in each classroom.

The copper station cabling in each space appears to be either older Category 5e cabling and/or Category 6 and can remain in place.

Wireless access points exist in almost all areas to provide what appear to be adequate covers.

The phone system is still an older conventional phone system that may be upgraded to Voice over IP (VoIP) in the future. When this occurs, the existing data cabling can be used for the phone connectivity, when properly cross-connected at the MDF and/or IDF's.

The system is reportedly in good conditions and no specific upgrades are required or recommended.

Security System:

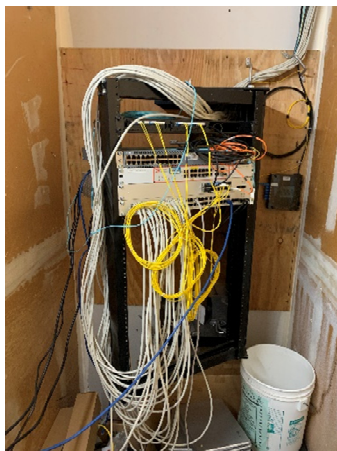
Each Classroom is covered with a security intrusion alarm, consisting of security motion sensors and local keypads for access entry override.

We did not observe any interior or exterior surveillance cameras.

The existing intrusion alarm systems can be maintained.



IT Service at MDF



Main Distribution Frame MDF



Analog Phone System



Analog Phones



Security Keypads



Interior Wi-Fi

Clock / Bell / PA Systems:

The school has a conventional public address speaker system running over what appears to be original speakers in most spaces.

Clocks are all wall mounted, battery operated, atomic style. There is no central clock system.

While the system is reportedly working properly, upgrades could be considered to an IP based network system for both clocks and speakers, if the District wants more flexible control from a central location like an Admin PC. Systems are available where the clock/speakers run on a Power over Ethernet (PoE) cable on the data network, and are controlled by an Admin PC and server, vs hard wired speakers and battery clocks. There is no need to upgrade at this time, however.



Master Clock + Wall Clocks



Master PA Amp



Classroom Speakers

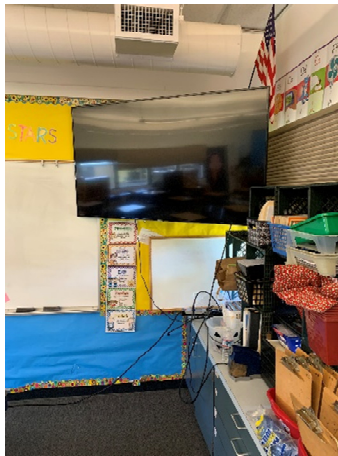
Classroom AV Systems:

The Classrooms AV systems currently consist of recently installed large format, wall mounted, flat panel displays.

Media delivery to each display is a mix of Chromecast or AppleTV streaming boxes connected to the Wi-Fi system, or direct wired HDMI cabling from the back of the display to a laptop. There are no building integrated AV wiring systems, speakers, or controls.

If more modern HDMI connections are required, the District could consider providing new AV system configurations at each Classroom. This could include active AV equipment, including an amplifier, speakers, in-wall HDMI, and possibly in-wall USB cabling for each Classroom.

If a Classroom AV system with media speakers is added to each Classroom, the media speakers can also be integrated with the PA system to deliver PA signals over the AV system. This would negate the requirement for the existing PA speakers.



Typical Classroom Smart Board

Fire Alarm System:

The campus currently has a recently upgraded Silent Knight 5820XL addressable main fire alarm control panel with audio voice evac capability. The panel also has off-site monitoring through two phone lines.

The campus system includes area smoke detection in each Classroom and other spaces, as well as alarm speaker/strobe notification devices in each Classroom and common space.

The system is operational and does not need any changes at this time, unless modernization or renovation work is undertaken in an area.



Main FACP



Typical Horn/Strobe



Typical Smoke Detector



Off-Site Monitoring Lines



Remote FA Power Supply

If you have any questions or comments on any of the above report, please do not hesitate to call.

Sincerely,

Handwritten signature of Pieter Colenbrander in blue ink.

Pieter Colenbrander, P.E.
O'MAHONY & MYER



O'MAHONY & MYER

ELECTRICAL ENGINEERING & LIGHTING DESIGN

San Rafael, California
Pacific Harbour, Fiji

August 20, 2021

Brian O'Mahony
Jan P. Myer
Paul Carey
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David Orgish

Quattrocchi Kwok Architects

636 Fifth Street
Santa Rosa, CA 95404

Attn: Diana Mendez
Re: Hillcrest Middle School
Electrical / Lighting / Signal Systems Assessment Report

Dear Diana,

O'Mahony & Myer visited the Hillcrest Middle School site on August 3rd, 2021, to review the existing conditions of the electrical, lighting, and signal systems at the facility. The purpose of our review was to evaluate the condition of the various systems and to comment on any specific items that may need attention to provide safe, low maintenance, and efficient campus electrical, lighting, and signal systems.

Based on the observed conditions, all required systems are present and in usable condition.

Below is a summary of the existing conditions of each system, with recommendations, where noted. No specific upgrades or changes are required at this time.

If any budget exists for upgrades, Classroom lighting controls (for dimming, occupancy sensing, and daylight sensing) would provide better lighting control and additional energy savings. Additional Classroom receptacles would also provide better access to power for students and staff. The Classroom AV systems may also be modernized with built-in speakers/amplifiers and in-building cabling, to increase classroom AV utilization.

The other systems are operating and in adequate condition.

Existing PG&E Electric Service:

The electric service is rated 1,200A, 120/208V, 3-Phase, 4-Wire, and was installed in 2017, as manufactured by Eaton Corporation. The equipment includes a photovoltaic system interconnection and is in good condition. No remedial action is required for the electric service.

The service includes PG&E SmartMeter #1010117621 and is in a Nema 3R exterior enclosure at the South/West corner of the site, fed from a pad mounted PG&E utility transformers #T-73450.

The service transformer is fed with a PG&E underground primary line from a nearby pole at the Street (Bloomfield Road).

The electric service includes (5) active sub-feed breakers and (5) spare breakers. These include:

Active Sub-Feeds:

- a. Well Panel – 100A.
- b. Panel A – 225A.
- c. Panel C – 100A.
- d. Panel P – 150A.
- e. Panel MPR Bldg – 225A.

Spare Breakers (Off):

- a. (2) 225A/3P
- b. (1) 100A/3P
- c. (1) 150A/3P
- d. (1) 30A/1P

The campus also includes a solar photovoltaic (PV) system of carport mounted PV panels interconnected to the PG&E service for net-metering. The system is in working order and does not appear to require any immediate action.

Power Distribution System:

The campus distribution consists of the (5) 208V, 3-Phase sub-feeders to each building and the various panels, as listed above.

The condition of the existing sub-feeders could not be evaluated for this study, but are reportedly in working order and should be able to be reused. If deemed necessary for maintenance purposes, the feeders could be megger tested to evaluate the insulation integrity. This is not required for re-use or code, but could be done as a maintenance evaluation item.

The buildings panels are of a recent vintage and are in good condition. Panel directories include both typed and hand-written entries made over time, which could be updated for easier maintenance in the future, if desired by the District.

It was noted that most Classrooms could probably make use of additional power receptacles throughout, to avoid extension cord usage and receptacle overloads.

No code violations or DSA action items were noted for the various panel boards or other electrical conditions.



Main Electric Service Panel



PG&E Electric Meter



Utility Transformer



Distribution Section



Main Breaker



PV Interconnection



Branch Panels



Branch Panels



Branch Panels

Lighting Systems:

The existing lighting systems at the School have been recently upgraded to LED type as part of a Prop 39 program grant. The fixtures are a mix of recessed and surface mounted lensed fixtures. Only a few older fixtures remain in mechanical or storage closets, as fluorescent style.

Building area exterior lighting consists of wall mounted and roof edge mounted LED fixtures that appear to cover the required areas. A night review of the School was not part of the assessment, so actual light levels and uniformity could not be verified.

The parking lot areas are primarily lit with under PV canopy lighting and pole mounted LED fixtures that can all remain.

Lighting Controls:

Lighting controls currently consist of a mix of manual and automatic technologies. All Classrooms include only standard wall switches for dual level control of the front and the back of the room. There are no automatic motion sensors or daylight photo sensors in the classrooms.

Newer areas, such as the common spaced between classrooms, have been provided with Title 24 compliant controls, to include motion sensing and dimming control instead of multi-level switches. There were no automatic daylight dimming photosensors observed.

There are no lighting control panels for general lighting, but there are various timeclocks for exterior lighting. These all appear to be separate units and have no common control or time signals. They can remain in-use.

Current code mandates better automatic occupancy sensing, daylight dimming, and manual dimming capability. These functions do not exist in full at the campus and are not required to be added or upgraded at this time. This type of control upgrade could add significant cost, complexity, and many surface mounted raceways to each classroom, but would provide additional energy savings beyond what the LED replacements have already provided.

Emergency Lighting and Exit Signs:

Emergency lighting appears to be minimal throughout most original areas of the School, since the occupancy values are less than 50 in most cases. Exit signs and emergency lighting are only required for occupancy values greater than 49.

Larger spaces like the MPR have Exit signs and wall mounted battery back-up lamp heads for emergency lighting and egress identification. The signs and emergency lighting may remain as-is.



Exterior Roof Edge LED Lighting



Surface Mtd Lensed Ltg



Recessed Classroom Ltg



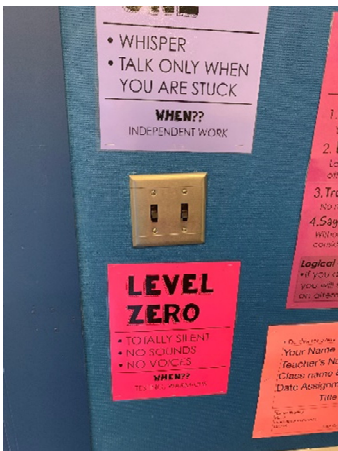
Newer Recessed Lensed Ltg



Exterior Wall Packs



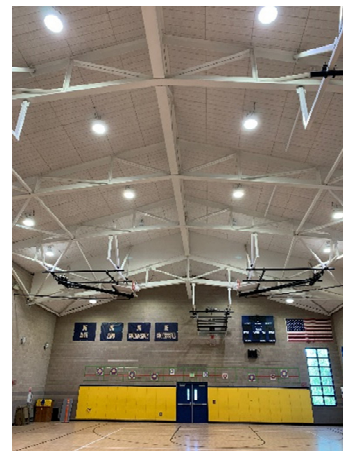
Modern Dimmer Switches



Standard Wall Switches



Exterior Lighting Timeclock



Gym Lighting

Telecommunications System:

The campus includes telecom infrastructure throughout, with fiber optic cabling from the Main Distribution Frame (MDF) to Intermediate Distribution Frames (IDF's) at each building. The fiber is reportedly in good condition and provides adequate bandwidth and network connectivity to support student and staff requirements. There are both hard-wired connections and wireless access points in each classroom.

The copper station cabling in each space appears to be either older Category 5e cabling and/or Category 6 and can remain in place.

Wireless access points exist in almost all areas to provide what appear to be adequate covers.

The phone system is still an older conventional phone system that may be upgraded to Voice over IP (VoIP) in the future. When this occurs, the existing data cabling can be used for the phone connectivity, when properly cross-connected at the MDF and/or IDF's.

The system is reportedly in good conditions and no specific upgrades are required or recommended.

Security System:

Each Classroom is covered with a security intrusion alarm, consisting of security motion sensors and local keypads for access entry override.

We did not observe any interior or exterior surveillance cameras.

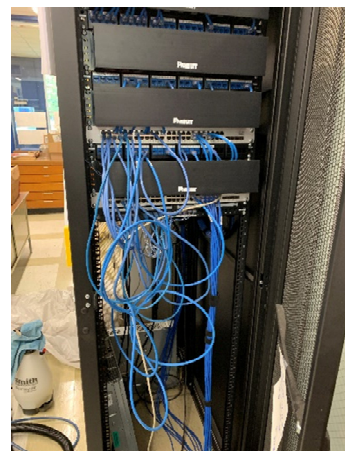
The existing intrusion alarm systems can be maintained.



Phone Service MPOE



Main Distribution Frame MDF



Intermediate Dist. Frame (IDF)



Hard Wired Data Jacks



Security Keypads



Interior Wi-Fi

Clock / Bell / PA Systems:

The school has a conventional public address speaker system running over what appears to be original speakers in most spaces.

Clocks are all wall mounted, battery operated, atomic style. There is no central clock system.

While the system is reportedly working properly, upgrades could be considered to an IP based network system for both clocks and speakers, if the District wants more flexible control from a central location like an Admin PC. Systems are available where the clock/speakers run on a Power over Ethernet (PoE) cable on the data network, and are controlled by an Admin PC and server, vs hard wired speakers and battery clocks. There is no need to upgrade at this time, however.



Typical Clock/Speaker



Older Clock/Speaker

Classroom AV Systems:

The Classrooms AV systems currently consist of recently installed large format, wall mounted, flat panel displays.

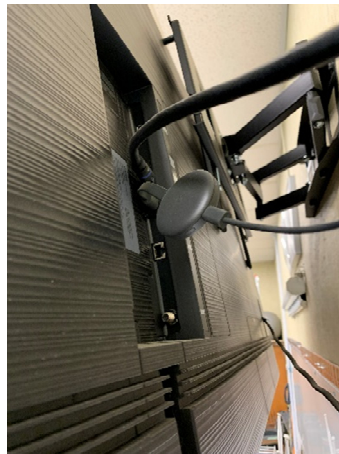
Media delivery to each display is a mix of Chromecast or AppleTV streaming boxes connected to the Wi-Fi system, or direct wired HDMI cabling from the back of the display to a laptop. There are no building integrated AV wiring systems, speakers, or controls.

If more modern HDMI connections are required, the District could consider providing new AV system configurations at each Classroom. This could include active AV equipment, including an amplifier, speakers, in-wall HDMI, and possibly in-wall USB cabling for each Classroom.

If a Classroom AV system with media speakers is added to each Classroom, the media speakers can also be integrated with the PA system to deliver PA signals over the AV system. This would negate the requirement for the existing PA speakers.



Typical Smart Board



Chromecast Dongle



Typical Loose AV Cables

Fire Alarm System:

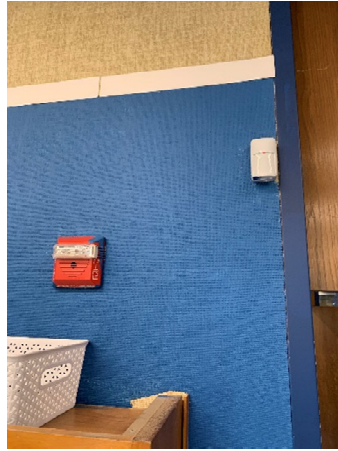
The campus currently has a Notifier NFS-320 addressable main fire alarm control panel, but the initiation and notification zones are reportedly still grouped in zones from the original system. The panel does have off-site monitoring through two phone lines.

The campus system includes area smoke detection in each Classrooms and other spaces, as well as alarm horn/strobe notification devices in each Classroom and common space. Above ceiling heat detectors were also observed in several areas.

The system is operational and does not need any changes at this time, unless modernization or renovation work is undertaken in an area.



Main FACP



Typical Horn/Strobe



Typical Smoke and Heats



Off-Site Monitoring Lines



Remote FA Power Supply

If you have any questions or comments on any of the above report, please do not hesitate to call.

Sincerely,

A handwritten signature in blue ink that reads 'P. Colenbrander'.

Pieter Colenbrander, P.E.
O'MAHONY & MYER