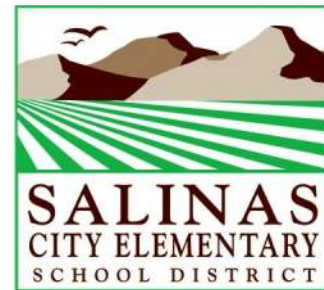


# FACILITIES NEEDS ASSESSMENT

BORONDA DIAS



PREPARED BY BELLI ARCHITECTURAL GROUP

2022

## 1. CAMPUS INFORMATION: Boronda DIAS

Address: 1114 Fontes Lane, Salinas, CA 93907  
 Year Built: 1980  
 Current Principal: Mary Pritchard  
 Special characteristics: Dual Immersion Program  
 Current Enrollment: 256 students

## 2. ON-SITE OBSERVATIONS

### 2.1 SITE

The school site contains significant areas in need of improvement, such as:

- Uneven hardscape surfaces.
- Large cracks present in existing pavement.
- Ingrown vegetation in pavement.
- Walkway cross-slopes steeper than ADA allowance.
- Campus lacks complete accessible path of travel.
- Campus lacks security fencing and gates.



Images 2.1.2 Damaged walkways. Taken on 04/26/2022 by Belli Architectural Group.

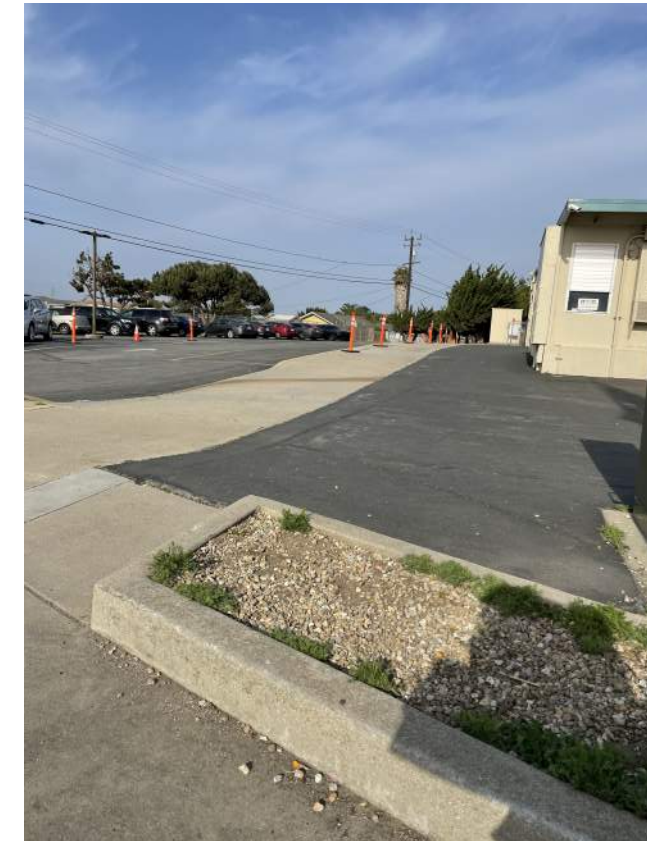


Image 2.1.4 Campus open to vehicular traffic. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.1 Damaged walkways. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.3 Non-compliant cross-slope. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.5 Damaged fence. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.6 Conex storage containers on site. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.7 Conex storage containers on site. Taken on 04/26/2022 by Belli Architectural Group.

## 2.2 EXTERIOR SHELL

The campus contains only three permanent buildings which are primarily used as administration and classroom facilities. More than half of the existing campus is second-hand relocatable classrooms.

The existing permanent buildings present:

- Aging roofs in need of replacement.
- Damaged paint.
- Non-compliant or missing hardware such as: door stops and thresholds.
- Doors and windows in need of replacement.
- Dry rot damaged beams.
- Dry rot present at doors and raised landings.

All portable classrooms were found to be deteriorated and in poor condition. Items noted include:

- Heavy rust and holes present in walking surfaces and access ramps.
- Exposed nails.
- Dry rot.
- Dry rot present in wood.
- Sagging conditions at existing roofs.
- Cracked wood framing at covered walkway.
- Non-accessible entries at multiple classrooms and restrooms.



Image 2.2.1 Exterior paint conditions. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.2 Failing conditions at existing roof. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.3 Non-ADA compliant threshold. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.5 Rust and holes present at portable access ramps. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.7 Damaged gutter at portable classroom. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.4 Existing conditions at portable classrooms. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.6 Exposed nails present at portable classrooms. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.8 Collapsing soffit at portable classroom. Taken on 04/26/2022 by Belli Architectural Group.

## 2.3 INTERIORS

Existing interior finishes are in poor condition. Items noted include:

- Broken light fixtures.
- Aging ceiling panels.
- Uneven and old flooring surfaces.
- Paint in need of refreshment.
- Discolored and damaged tile in restrooms.
- Cracking, lifting sheet vinyl flooring.
- Old, stained carpet in select rooms.
- Evidence of leaks.
- Old and non-accessible casework at sink locations.
- Surface damage at existing casework.
- Toilets at Kindergarten are sized too large for user age group.
- Aging sinks and toilets.
- Missing door stops.
- Rust present on steel surfaces.
- Old, vandalized toilet partitions.



Image 2.3.1 Damaged light fixture. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.5 Older finish materials and non-accessible sink. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.3 Non-accessible sink at Staff Lounge. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.6 Rust and deterioration at Janitorial Room. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.7 Non-compliant restroom at Admin. Office. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.9 Non-compliant Staff Restroom adjacent to Girls Restroom. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.11 Outdated, worn restroom conditions. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.8 Existing non-compliant Kindergarten restrooms. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.10 Outdated, worn restroom conditions. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.12 Preschool. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.13 Preschool. Non-compliant sink. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.4.1 Non-accessible entrance to classrooms. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.4.3 Non-ADA compliant staff restrooms. Taken on 04/26/2022 by Belli Architectural Group.

## 2.4 ACCESSIBILITY

The campus presents significant accessibility issues. Items noted include:

- Non-accessible door thresholds.
- Lack of accessible ramps to relocatable classroom entrances.
- Non-compliant stairs.
- Cross-slopes too steep on walking surfaces.
- Missing cane detection rails at drinking fountains.
- Non-compliant dimensions in single occupancy and accessible restrooms.
- Non-accessible sinks in classrooms.
- Non-compliant door clearances.



Image 2.4.2 Drinking fountains missing cane rails detection. Taken on 04/26/2022 by Belli Architectural Group.

## 2.5 SERVICES

For MEP findings, please refer to subsequent reports provided by Aurum Consulting and Axiom Engineers.

## 2.6 STAKEHOLDER REMARKS

- Water leaks.
- Old relocatable classrooms in need of replacement.
- Permanent MPR needed.
- Old plumbing fixtures malfunctioning.
- Water at drinking fountains is not drinkable.
- Lack of fencing and security systems.

### 3. MECHANICAL REPORT

**AXIOM ENGINEERS<sup>SM</sup>**  
 CONSULTING MECHANICAL ENGINEERS  
 22 Lower Ragsdale Dr., Suite A Monterey, CA 93940  
 Phone 831.649.8000 Fax 831.649.8038



School: **DIAS-Boronda ES**

Address: 1114 Fontes Lane

Findings from a site visit conducted on April 26, 2022. It appears the last significant modernization was in 2003. It appears as if this school site is 1960's era. This site is in desperate need of a new modernization. It is desired to install a Pelican Wireless Control System to allow the district maintenance staff to control all HVAC equipment.

#### 3.1 HVAC

Administration area:

An Armstrong up-flow gas-fired furnace from the 2003 modernization is installed in a closet off of the main lobby. This appears to be in fair condition and is operating. This furnace is 20 years old and should be replaced.



Classrooms 1 thru 6, 10 thru 16 and the Kinder Classroom:

These classrooms are heated with Armstrong up-flow furnaces located inside a TEAM Mfg. metal enclosure. These were installed during the 2003 modernization and appear to be in fair condition and operating. The furnaces inside the enclosures are 20 years old and should be replaced.



Classroom 7 thru 9, 23 thru 27, 30 thru 34, Library and Multi-Purpose Building:

These are portable classroom consisting of the exterior wall mounted "Bard" type heat pump units. All portables utilize this type of equipment. These units throughout the campus appear to be from the 2003 modernization and should be replaced with new units. A new unit was recently installed in Classroom 8. The photo below is off the Library.



#### 3.2 PLUMBING

It is safe to assume that all of the water, sewer and gas piping serving this site would be in need of replacing to accommodate a new modernization. On the day of the visit an underground water main was leaking.

Administration area:

The photo bellow is an original 1960's era metal one piece sink/oven and is located in the Teacher's Lounge. This does not meet ADA.





Multi-Purpose/Cafeteria Portable:

A modernization to this portable in 2016 provided new food service fixtures, electric water heaters and an outdoor grease interceptor. A new bi-level bottle filler was also provided.



The photo below is of a bi-level bottle filler/dinking fountain located adjacent to Classroom 4.



### 3.3 FIRE SPRINKLERS

Fire sprinklers were not present except in a few small storage rooms. These fire sprinklers are connected to the domestic water system, which was an accepted practice at the time.

This concludes this assessment.

**AXIOM ENGINEERS<sup>SM</sup>** CONSULTING MECHANICAL ENGINEERS  
 22 Lower Ragsdale Dr., Suite A • Monterey, CA 93940 • Phone 831.649.8000 • Fax 831.649.8038

## 4. ELECTRICAL REPORT



ELECTRICAL ENGINEERING · LIGHTING DESIGN · SYSTEMS DESIGN

### ELECTRICAL DUE DILIGENCE REPORT

For  
**Boronda DIAS Elementary School**

**Salinas, CA**

For

**Belli Architectural Group**  
235 Monterey Street, Suite B  
Salinas, California 93901  
May 6, 2022

Prepared by: Najib Anwary, P.E.

Aurum Consulting Engineers Monterey Bay  
404 W. Franklin Street, Suite 100  
Monterey, California 93940  
Telephone : ( 831) 646-3330  
Fax: (831) 646-3336  
ACEMB Project #: 21-393.00

### 4.1 INTRODUCTION

The following is based on a walk-through visual inspection of the school. No electrical equipment was opened for inspection, no load studies done, no testing was performed. The intent was to evaluate the electrical systems and identify any obvious problems that may be present.

### 4.2 FIELD FINDINGS

Electrical System:

There are (2) Main “metered” electrical service switchboards (MSB1 and MSB2) at the site. MSB1 is a 1200 amp, 120/208 volt, 3 phase, NEMA 3R service located on the south/west side of the campus adjacent to front parking lot by building “A”. MSB1 serves in large part, the west side of the campus. MSB2 is a 400 amp, 120/208V, 3-phase, NEMA 1 service located in a custodial closet near the restrooms on the east side of campus. MSB2 serves the east side of the campus. The electrical service switchboard MSB1 seems to be relatively newer and the electrical service MSB2 seems to be original to the site and in deteriorating condition. MSB1 expected life; approximately 15 yrs. MSB2 expected life; recommended to be replaced. The electrical services are used primarily for lighting and heating equipment, with minimal plug loads. On the eastern side of the campus (where most of the buildings seem original to the campus) the electrical distribution system panels are very old and manufactured by a company that no longer exists. The reliability of the older electrical panel system’s breakers to function correctly when necessary cannot be relied upon. It is recommended to replace the oldest panels within the eastern side of the campus buildings that have panels “original” to the school construction “Federal Pacific” (manufacturer) panels as soon as possible. Where the District plans to add HVAC to the site, the MSB2 may not be adequate and MSB1 will need further evaluation to confirm capacity for proposed new HVAC system. See attached photos MSB1 & MSB2.

Interior Lighting is primarily fluorescent with T8 or T12 lamps at interior spaces. Most if not all the lighting throughout the school campus is old and although there was no mention of complete failure, some light fixtures seemed original to the spaces, so they are likely near their “end of life”, especially with regards to efficiency. Emergency lighting was not apparent at any classrooms, restrooms, exterior landings. However, in multi-use spaces, bug-eye type stand-alone emergency light fixtures were installed. Occupant sensors and multilevel switching necessary for energy conservation is almost non-existent. Expected life; Unknown. It is recommended to retrofit campus wide lighting system in the near future. This would be a good opportunity for reduction in energy use from more efficient lighting fixtures, improved classroom lighting, smart lighting controls and reduced maintenance. See attached LTG1 photo.

Exterior Lighting at parking lots consists of newer LED and pole retrofit LED fixtures heads in the parking lot, new Building Mounted LED fixtures around the perimeter of all permanent buildings. LED pole mounted light fixtures at the front parking lot are very few and provide minimal coverage (likely due to residential community that additional LED fixtures have not been added to the site in many years). There are residences in front of the school and where newer or additional pole lights may be added, impact on residences should be considered by providing lower pole heights, newer energy saving controls that dim lights down when no pedestrian or vehicles are detected by pole mounted occupancy sensors, etc. Exterior building wall packs have been replaced with LED in the last couple of years around the campus. Exterior lighting is controlled by both time clock and photocell for auto shut-off. The campus does not seem to have adequate coverage/illumination of building perimeters due to quantity of pole and wall/canopy mounted light fixtures. However, it is best to get District staff input for any night time observation of the site and whether there are dark areas that require fixture upgrades or additional lighting. Illumination of any dark/under lit locations that require new light fixtures will require that new lighting be controlled via an astronomic time clock or photocell as well as dark sky compliant/full cut-off light fixtures.

Classrooms have typically one outlet per wall with modifications in some areas to accommodate current computer loads (where surface raceways were added). Expected life; Unknown. It is recommended to retrofit classrooms, in the near future, with additional circuits and outlets to accommodate a minimum district standard quantity of devices in general classroom/space for equipment connections including multi-media equipment. This will in turn require an upgrade to existing electrical panel boards which will need to be connected to the existing main electrical switchboard or nearby distribution panels. There are some classrooms where either the sink was added or the receptacle installation was original to the site and thus the receptacle(s) are not GFCI (Ground-Fault Circuit Interrupt) type. This is a safety hazard and should be replaced.

Telephone System:

The existing telephone system appears to be a combination of analog and Voice Over IP (VoIP), it is in fair condition, but will likely need to be upgraded complete, to new district standard of VoIP system. There was no input provided for major problems except that the desire is to bring the entire site to standard VoIP system. Expected life; unknown, District IT input is required.

PA Speaker System:

The existing PA System is a Dukane model and is connected to speakers around the campus, some exterior speakers with separate amplifiers are located strategically to cover large open field areas. Expected life; 1-2 yrs., the system is old and requires regular maintenance, per district staff.

Clock System:

The existing Program Clock system is a wireless battery-operated system, PRIMEX is manufacturer. It seems to be in good condition and functional. The school staff reported no ongoing problems with the existing system. Expected life; approximately 5 yrs. Where PA Speaker system is upgraded, it is recommended to upgrade the clock system if desired to have both under one “umbrella”/manufacturer.

Data System:

There are IDF's (Intermediate Distribution Frame) throughout the school campus with wireless routers in most of the buildings/classroom spaces. Since most classrooms have only a couple computers at most (except for computer labs), the existing campus wide data system seems to be working fine. Expected life; unknown. It is recommended to retrofit classrooms, in the near future, with additional outlets to accommodate a district standard quantity of devices in general classroom/space for computers, printers and multi-media equipment. This will require District IT input on available bandwidth and patch panels at existing distribution frames to accommodate an increase in connections.

Fire Alarm System:

1. The existing Fire Alarm System (Notifier) is an AFP-200 model that is discontinued. The site does not have current code compliant coverage as required by California Fire Code. The school site has pull stations and horns/horn-strobes for majority of the spaces which met code standards at the time of install, however, where spaces are remodeled and required to conform to current code requirements, the existing Notifier AFP-200 panel will not accommodate such upgrades and increase in quantity of devices (smoke detectors and heat detectors). The existing system is old and will need to be replaced and or modified to accommodate any future remodel work or the required Emergency Voice Evacuation System addition. The raceways associated with low voltage systems around the center of campus are surface conduit/raceways mounted just below the eave of the buildings (wrap around the buildings where buildings are modular type or portables) and are used to route fire alarm cables as well as other low voltage systems from one section of the building to the next. Above the walkway canopies the raceways seem in fair condition where routed as such. However, the canopy system "may" not be in great condition in which case these conduits will need to be underground in the near future (See attached photo EXTERIOR CONDUIT). Expected life of existing system; 1-3 years if no new major building renovations occur.

Security:

1. The existing campus security system is comprised of a stand-alone security panel in storage room/Telecom room. The system seems to be in good condition and the school staff reported no ongoing problems. The system is interconnected to remote building booster panels and the campus has motion detectors throughout the site connected to the security panel. Expected life; 4 to 5 more years. There is also a CCTV Security Camera system which Power over Ethernet (POE) cameras located strategically by the district throughout the site. Each camera is connected to a local IDF/MDF via data cable. Expected life; unknown, seems to be in working condition with no reported problems.

4.3 SUMMARY

The school electrical infrastructure is in fair condition, however, the older "FEDERAL PACIFIC" manufacturer panelboards (see attached photo "FEDERAL PACIFIC PANEL") need to be replaced with new branch circuit panels to alleviate failing breakers and any possible overload conditions that may be present due to over extending existing circuits. The school interior lighting system and controls need to be upgraded in the near future where energy may be conserved with lower maintenance cost and higher lamp life LED technology. An increase in the classroom receptacle quantity and associated electrical loads will require electrical distribution upgrades to support future additional computer/technology loads as well as possible mechanical HVAC connections.

The raceways associated with low voltage systems around the campus may need to be verified/inspected for re-use where additional fiber optic cables/network cabling for any low voltage system upgrades is deemed necessary in order to verify cost impact of new trench vs. existing underground conduit re-use. Where a new building may be proposed at this site, an electrical survey will need to be completed and it is likely that the new building will require an Electrical (PG&E) service upgrade to accommodate any new proposed building (should an equivalent number of buildings/rooms not be slated to be removed due to new building added). In addition, Site Telecom, Fire Alarm, and Low Voltage Systems will need upgrades to accommodate new connections with newer technology and EM Voice Evacuation Fire Alarm System.



MSB1.



MSB1.



MSB1.



MSB2.



MSB2.



FEDERAL PACIFIC PANEL.



EXTERIOR CONDUIT.



LTG1.

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MSB2.



LTG1.