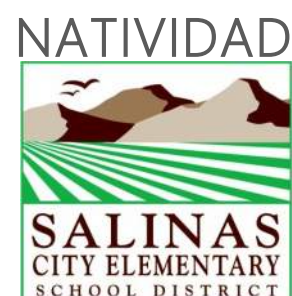


FACILITIES NEEDS ASSESSMENT



PREPARED BY BELLI ARCHITECTURAL GROUP

2022

1. CAMPUS INFORMATION: Natividad

Address: 1465 Modoc Ave., Salinas, CA 93906
 Year Built: 1958
 Current Principal: Jose Fausto
 Current Enrollment: 659 students

2. ON-SITE OBSERVATIONS

2.1 SITE

The site presents the following conditions:

- No off-street Bus Loading Zone.
- Cracked concrete conditions.
- Old, non-accessible playgrounds.
- Old ramps to relocatable restrooms.
- Sagging conditions at covered walkway.
- Rusted site gates.



Image 2.1.2 Kindergarten playground. Taken on 05/02/2022 by Belli Architectural Group.

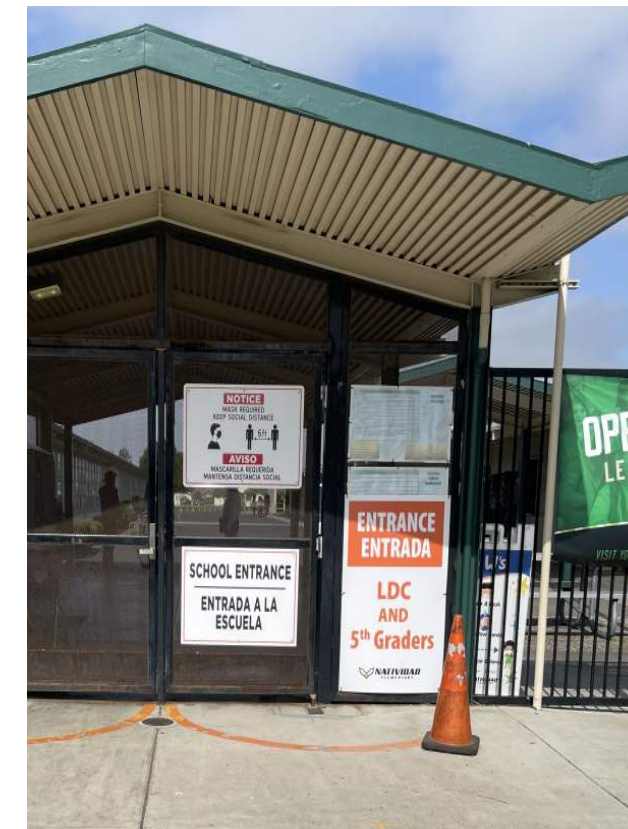


Image 2.1.4 Rust present at entrance gate. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.1.1 Damaged walkways. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.1.3 Corridor roofing. Taken on 05/02/2022 by Belli Architectural Group.

2.2 EXTERIOR SHELL

The campus is equally composed of permanent and relocatable buildings.

The existing permanent buildings present:

- Aging roofs in need of replacement.
- Original windows in need of replacement.
- Non-ADA compliant threshold in select locations.

All portable classrooms present the following conditions:

- Access ramps and steel elements present rust and rot.



Image 2.2.1 Permanent building roof. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.2.3 Relocatable restrooms ramps. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.3.1 Administrative office. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.2.2 Dry rot at eave condition. Taken on 05/02/2022 by Belli Architectural Group.

2.3 INTERIORS

The existing interior conditions present the following issues:

- Ceiling heights in the main office are very low.
- Non-ADA compliant doors at office.
- Old sheet vinyl floor at permanent and relocatable buildings.
- Old flooring and tile in restrooms.
- Leaks in restrooms.
- Broken ceiling panels.
- Non-accessible sinks and aging casework.
- Non-accessible student and staff restrooms. Modernization needed.
- Rusted plumbing pipes.
- Poorly installed water closets.
- Non-ADA compliant drinking fountains.
- Aged, deteriorated Janitorial spaces. Storage capacity limited.



Image 2.3.2 Administrative office. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.3.3 Ceiling panels. Taken on 05/02/2022 by Belli Architectural Group.

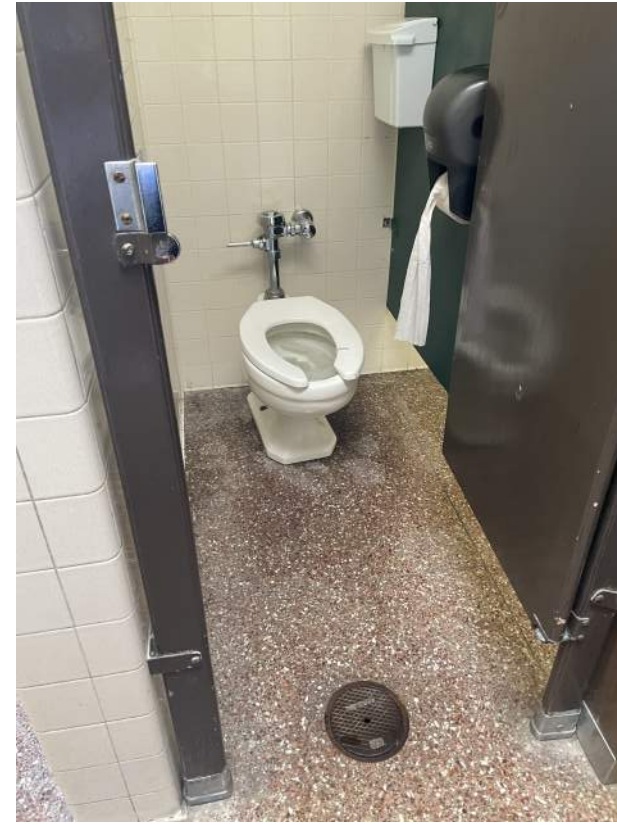


Image 2.3.5 Student restroom. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.3.7 Preschool restrooms. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.3.4 VCT flooring and existing casework. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.3.6 Preschool. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.3.8 Janitorial room. Taken on 05/02/2022 by Belli Architectural Group.

2.4 ACCESSIBILITY

The campus presents the following Accessibility issues:

- Non-accessible sinks in classrooms.
- Non-accessible drinking fountains.
- Non-accessible staff restrooms.
- Plumbing fixtures at Kindergarten restrooms are too large for user age group.
- Non-accessible stage in MPR.



Image 2.4.1 Non-accessible classroom sink. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.4.2 Non-accessible staff restrooms. Taken on 05/02/2022 by Belli Architectural Group.



Image 2.4.3 Drinking fountain missing cane detection rails. Taken on 05/02/2022 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

- Roofs need to be replaced.
- Plumbing requires updates.
- Staff lounge in need of modernization.

3. MECHANICAL SITE VISIT REPORT

AXIOM ENGINEERSSM
 CONSULTING MECHANICAL ENGINEERS
 22 Lower Ragsdale Dr., Suite A Monterey, CA 93940
 Phone 831.649.8000 Fax 831.649.8038



School Name: NATIVIDAD ELEMENTARY SCHOOL

Address: 1465 Modoc, Salinas

Findings from a site visit conducted on May 2, 2022. It appears that the last significant HVAC/ Plumbing modernization to the school was in 2003. 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 Building:

The heating system for this building consisted of an Armstrong down-flow gas-fired furnace utilizing an under-slab supply air duct system with floor registers. The underfloor duct system appears to be original. The furnace was installed during the 2003 modernization. The heating system appeared to be in fair condition and operating. This furnace is 20 years old and should be replaced. The thermostat is non-programmable and operate from a 0 to 6 hour no-hold timer. Ceiling mounted exhaust fans throughout require replacing.



Library:

This is a portable building with an exterior wall mounted “BARD” type heat pump unit and overhead ductwork with ceiling diffusers. All portables utilize this type of equipment. This unit appears to be original and is operating.

Multi-Purpose Building:

The heating system for this building consist of two gas-fired unit heaters with air handling units located on a mezzanine adjacent to the stage. One unit is original and one unit has had its heater section replaced. This equipment needs to be replaced. A motorized damper air relief vent located near the ceiling is frozen in the open position. These four (4) dampers and actuators need replacing.



Classroom 1 thru 18 and 26:

The heating system for these classrooms consist of Armstrong up-flow furnaces located inside a TEAM Mfg. metal enclosure. These were installed during the 2003 modernization. The heating system appeared to be in fair condition and operating. These furnaces inside the enclosures are 20 years old and should be replaced. Thermostats are non-programmable and operate from a 0 to 6 hour no-hold timer.



Classroom 19 and 20:

The heating system for these classrooms consist of Armstrong up-flow furnaces (similar to the Admin Building) located in an equipment room. Supply ductwork is exposed spiral ductwork. These were installed during the 2003 modernization. The heating system appeared to be in fair condition and operating. These furnaces are 20 years old and should be replaced. Thermostats are non-programmable and operate from a 0 to 6 hour no-hold timer. These classrooms also have ceiling mounted paddle fans.

Classroom 21 thru 25:

The heating system for these classrooms consist of Armstrong up-flow furnaces located inside a TEAM Mfg. metal enclosure. These were installed during the 2003 modernization. The heating system appeared to be in fair condition and operating. These furnaces are 20 years old and should be replaced. Thermostats are non-programmable and operate from a 0 to 6 hour no-hold timer.



Classroom 27 thru 42:

These are portable classroom consisting of the exterior wall mounted “Bard” type heat pump units. The photo below is Classroom 37 and 38. All portables utilize this type of equipment. These units throughout the campus appear to be original and are operating. Units more than 20 years old should be replaced.



3.2 PLUMBING

With the exception of the Portable Restroom Buildings, all of the restrooms need modernization and do not meet ADA. The lavatories do not have hot water. Many of the drinking fountains on campus also do not meet ADA and should be replaced.

Administration Building:

A recessed type drinking fountain located in a corridor was not ADA accessible. A sink in the principal’s office had an under counter electric water heater that did not have a legal termination point for the PRV or pan drain. Staff restrooms appear to have the original plumbing fixtures and did not meet ADA.

Multi-Purpose Building:

A recent kitchen improvement project replaced the kitchen sinks and added a new tank-less gas-fired water heater to serve the kitchen. A new bottle filling/drinking fountain was also installed. The Boys and Girls restroom were remodeled to meet ADA.



3.3 FIRE SPRINKLERS

Fire sprinklers are not present. A few small storage rooms have fire sprinklers that are connected to the domestic water system. These fire sprinklers are connected to the domestic water system, which was an accepted practice at the time.

This concludes this assessment.

AXIOM ENGINEERSSM CONSULTING MECHANICAL ENGINEERS
 22 Lower Ragsdale Dr., Suite A • Monterey, CA 93940 • Phone 831.649.8000 • Fax 831.649.8038

4. ELECTRICAL SITE VISIT REPORT



ELECTRICAL ENGINEERING · LIGHTING DESIGN · SYSTEMS DESIGN

ELECTRICAL DUE DILIGENCE REPORT

For
Natividad 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 (3) existing main “metered” electrical service switchboards (MSB1, MSSB2 and MSB3). MSB1 is a 350 amp, 120/208 volt, 3 phase, NEMA 1 service located in the central wing between Classrooms #9 and #10 in a storage room. MSB1 has a connection for the existing Solar PV system on site and this Solar PV System is connected to MSB1 through a step-down voltage transformer (steps down 480V Solar PV system to 208V electrical distribution system) just outside the storage room where MSB1 is located. The Solar PV is then connected ahead of the main breaker at MSB1. MSB1 serves in large part, the center of campus: Wing #5, Wing #6, Wing #8, Wing #1 & Wing #2. MSB2 is a 600 amp, 120/208V, 3-phase, NEMA 3R service located on the south side of the campus adjacent to modular buildings Wing #4. MSB2 serves all of wing #4 and Wing #9 on the west side of the campus. MSB3 is a 600 amp, 120/240V, 1-phase, NEMA 3R service located on the north side of campus adjacent to Wing #3 near the parking lot. MSB3 serves the string of (4) portables at Wing #3. The electrical switchboards and campus wide electrical distribution system appears to be the original equipment installed when the school was built and the additional electrical services were added as buildings/modulars were added to the site. MSB1 expected life; minimal and should be replaced as upgrades/remodels to classroom buildings occur. MSB2 expected life; 5 yrs. MSB3 expected life; 5-10 yrs. The electrical services are used primarily for lighting and heating equipment, with minimal plug loads. Some of the electrical distribution system panels that are located around the site and are original to the buildings when the school was built, are old and manufactured by a company that no longer exists. The reliability of the system’s breakers to function correctly when necessary cannot be relied upon. It is recommended to retrofit the electrical switchboards and campus wide electrical service in the future. Where the District plans to add HVAC to the site, the switchboards that are serving those locations will require an upgrade. The service upgrade should be larger if the district has plans for additional buildings or renovations of the existing buildings with added loads for HVAC upgrades and added computer loads. See attached photos MSB1, MSB2 & MSB3.

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 photo LTG1.

Exterior Lighting around the site seems to be LED in large part where wall packs and parking lot lighting have been added. The north parking lot of the site has LED pole light fixtures and they are about 13 feet high with residences adjacent to school site. The southern parking lot at the school site is lacking pole lights and there were no apparent lighting fixtures observed at south parking lot. Between buildings where breezeways occur, there is some recessed lighting which seemed to be fluorescent. Exterior lighting is controlled by both time clock and photocell for auto shut-off. District staff mentioned that there are complaints of dark areas/areas lacking night time illumination and those cases will require that new lighting be added and controlled via an astronomic time clock or photocell. Expected life of existing exterior lighting; 5-10 yrs. minimum for newer LED fixtures and unknown for older fluorescent/HID 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.

Telephone System:

The existing telephone system appears to be in fair condition and functional. It is a Voice over IP (VoIP) system for majority of the campus. There was no input provided for major problems except that the desire is to bring the entire site to standard VoIP system. Expected life; 5 to 10 more years.

PA Speaker System:

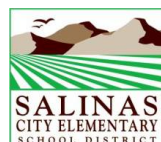
The existing PA System is a Dukane model and is connected to speakers around the campus, some exterior speakers with separate amplifiers are located strategically to cover large open field areas. Expected life; 1-2 yrs., the system is old and requires regular maintenance, per district staff.

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 Emergency Voice Evacuation System addition. The raceways associated with low voltage systems around the center of campus are surface metal raceways (Panduit) mounted just below the eave of the buildings and are used to route fire alarm cables as well as other low voltage systems from one section of the building to the next. 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 Administration building. 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 needs to be upgraded in the near future.

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 from the main service switchboard to the classroom building in order 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.



MSB3.



LTG1.



MSB3.



MSB3.

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