



Rhodes Elementary School

BUILDINGS 10
EXISTING CONDITIONS AND CASTALDI STUDY

JUNE 2021



Over 50 years of Architectural Service | SAM MARSHALL ARCHITECTS



RH Rhodes Elementary School

CAMPUS PLAN





Rhodes Elementary School

BUILDING 10

EXISTING CONDITIONS AND CASTALDI STUDY

JUNE 2021

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Building 10 FISH Document



HISTORY:

Master Plan

The site is on the north side of the Rhodes Elementary School. This classroom wing building is bordered on its north by Byron Street. There is some nose in parking along the street which is separated from the building by a planter bed. On its south side there is a courtyard with a sand covered playground. Along its western end is another ramp style classroom wing. On its eastern end is a parking lot.

Original Construction

The 1976 building is a rectangular shaped, flat roofed structure. The design of the classroom wing is a ramp style building with access to each of the classrooms from a covered walk on its south side. There are four classrooms that open onto this covered sidewalk each with storage and a restroom. At the east end of the wing is an electrical and janitorial storage building. This small building is also connected to the covered walk.

Modifications

None

Activities

This is a kindergarten classroom building.

PHYSICAL DESCRIPTION:

Site:

The site has some access from the open area on the south side. The side is served by a covered walk. The cover on this walk is built up roofing over wood decking with wooden beams and joists. The walk appears to be in decent shape but needs some painting and other maintenance.

Structure:

The roof appears to be a wood deck supported by wooden roof joists which rest on glue laminated wooden beams. Exterior walls are stucco over concrete masonry units. Interior walls appear to be gypsum board over studs. The floor is a concrete slab on grade. The square footage of the building is approximately **5,130 square feet.**

REPORT OF CONDITIONS:

Structural:

The existing structure on building 10 appears to be in decent shape. CMU walls were noted to be properly joined and no wall cracks were observed. No evidence of foundation settlement was observed. The roof bema looked to be in good condition. Secondary roof framing was not visible. However, we are of the opinion that the roof structure would require significant strengthening or restructuring to resist the current code calculation wind loads.

Estimated cost of structural repairs **\$40,000**

Exteriors:

The building has a built-up modified bitumen roof. The existing roof slope is most likely created from either lightweight insulating concrete or tapered roof insulation. The perimeter of the roof has aluminum gutters and downspouts. The downspouts are tied into an underground collection system.

The exterior is stucco over concrete masonry units. Metal wall panel clads the upper part of the walls in some areas. Hollow metal doors and frames with large side-lites are in place throughout Building 10. One operable aluminum window per classroom is located on the north side of the building.

Interiors:

Ceiling finishes are acoustical ceiling grid and tile. Interior walls are gypsum board, Floor are carpeted. Restrooms have ceramic tile floors.

The functional layout of the building fits its current use.

RECOMMENDATIONS:

Facilities Summary - The building needs to be brought up to current Santa Rosa School District standards.

The renovation and repair for Architectural and Structural elements of the building will include the following:

- | | |
|---|------------------|
| 1. Add windows to meet SREF fresh air and daylighting requirements. | \$15,000 |
| 2. Replace the existing doors. | \$12,000 |
| 3. Replace the existing roof to facilitate the upgrade to the roof structure. | \$75,000 |
| 4. Increase toilet size to meet ADA requirements | \$32,000 |
| 5. Total estimated Architectural repair and renovation cost: | \$134,000 |



South side entries



Typical Classroom



Covered walk



East Side



West Side

HVAC

The items below are the specifics that would define the scope that will need to be included if the building were to be renovated or remodeled.

- Upgrade the building so that it is in compliant with the Florida Building Code and Fire Prevention requirements
- Replace all HVAC equipment with high efficiency commercial grade units with an active dehumidification control sequence
- Replace existing ductwork system and grilles
- Provide and install an Energy Management System to would improve efficiency and increase cost savings for enclosed areas
- Remove and replace all plumbing fixtures
- Bring all required fixtures and restrooms into compliance with ADA requirements

Building 10 is served entirely by two packaged rooftop DX units and roof mounted exhaust fans. Each unit was designed to distribute the conditioned air via fully ducted supply air system and ceiling grilles.

HVAC Recommendation:

The existing systems are functioning but are well beyond their useful service life. Typical median life of DX packaged equipment is about 15 years. It appears that these existing units are not up to current codes for ventilation, service, and safety standards. In order to bring the HVAC system up to current codes and standards, the following needs to be performed:

1. Replace HVAC system serving this building with highly efficient units with hot gas reheats for active dehumidification sequence.
2. Provide building DDC (Direct Digital Controls) system with new code compliant system(s). System would need to be provided with modern BACNet architecture as part of any upgrade. Web based energy management software permits oversight of component status but provides limited to no ability to change set point or schedule operation.
3. The new system(s) will supply all spaces with the proper dehumidified outside air. Provide outside air per ASHRAE 62.1 standard. Provide UV lights to reduce odor and airborne transmission virus.
4. Clean air distribution system. Replace original ductwork system.
5. A comprehensive review of the new systems would be performed in order to verify compliance with the 2020 FBC Energy Conservation Code.
6. Estimated repair cost = **\$85,000**

Plumbing General:

Plumbing fixtures are old and need to be replaced. Most of the remaining fixtures should be replaced based on their useful life. There is plumbing infrastructure within the building that appears original to the construction of the building.

Plumbing Recommendation:

In order to bring the plumbing system up to current codes and standards, the following needs to be performed:

1. Replace all the plumbing fixtures and portion of the piping. Provide new accessories, toilets, sinks, and faucets.
2. Coordinate and review the Florida Building Code for the addition of more fixtures to meet the occupant count.
3. Provide ADA fixtures. This to be coordinated with structural or architectural modification.
4. Estimated repair cost = **\$6,000**

Fire Protection:

The building is currently sprinklered. There is no major improvement needed apart from cosmetic modification.

1. Estimated repair cost = **\$2,000**



Building 10 – Rooftop unit and exhaust fan



Building 10 – Rooftop unit



Building 10 – Exposed sprinkler piping from sprinkler room



Building 10 – Exposed sprinkler piping from Building 10 to another building



Plumbing fixture



Non-ADA Compliant Restroom

Electrical

Building 10 has a 225-amp, 120/208-volt, 3 phase, 4 wire utility service. The entire building is served from the service panel. The service panel is considered at the end of usable life and should be replaced with any future renovation.

The existing light fixtures appear to have been retrofit with LED light sources. Light fixture housings show signs of deterioration with visible rust and moisture damage. It is recommended that all light fixtures be replaced with any future renovation. There is no life safety egress lighting in building 10. Life safety egress lighting must be added. Lighting controls are not code compliant. Lighting controls will be required to be upgraded with any future renovation.

The electrical systems throughout the facility utilize surface raceways. It is recommended that all raceways be concealed during any future renovations. Many exterior exposed raceways are constructed from electric metallic tubing (EMT) type conduit, which is not permitted in this application. All exposed raceways should be replaced with a conduit suitable for this application with any future renovation.

Estimated Electrical Repair costs:

Electric Gear Replacement	\$51,000
Lighting and Controls	\$36,000
Raceway Repairs	\$15,000
Total electrical	\$102,000



Main Panel



General Lighting Fixtures



Exterior Exposed EMT Raceways



Interior Surface Raceways

Building 10

Cost Estimate Synopsis

(Ce) Educational Improvements	Remodeling, educational technology		\$32,000
(Ch) Healthfulness Improvements	HVAC	\$85,000	
	Plumbing	\$6,000	
	Fire sprinkler	\$2,000	
	Lighting	\$36,000	
	Windows	\$15,000	
	Doors	<u>\$12,000</u>	
			\$156,000
(Cs) Safety Improvements	Structural	\$ 40,000	
	Re roofing	\$ 75,000	
	Electrical	<u>\$ 66,000</u>	
			\$181,000
Total			\$369,000

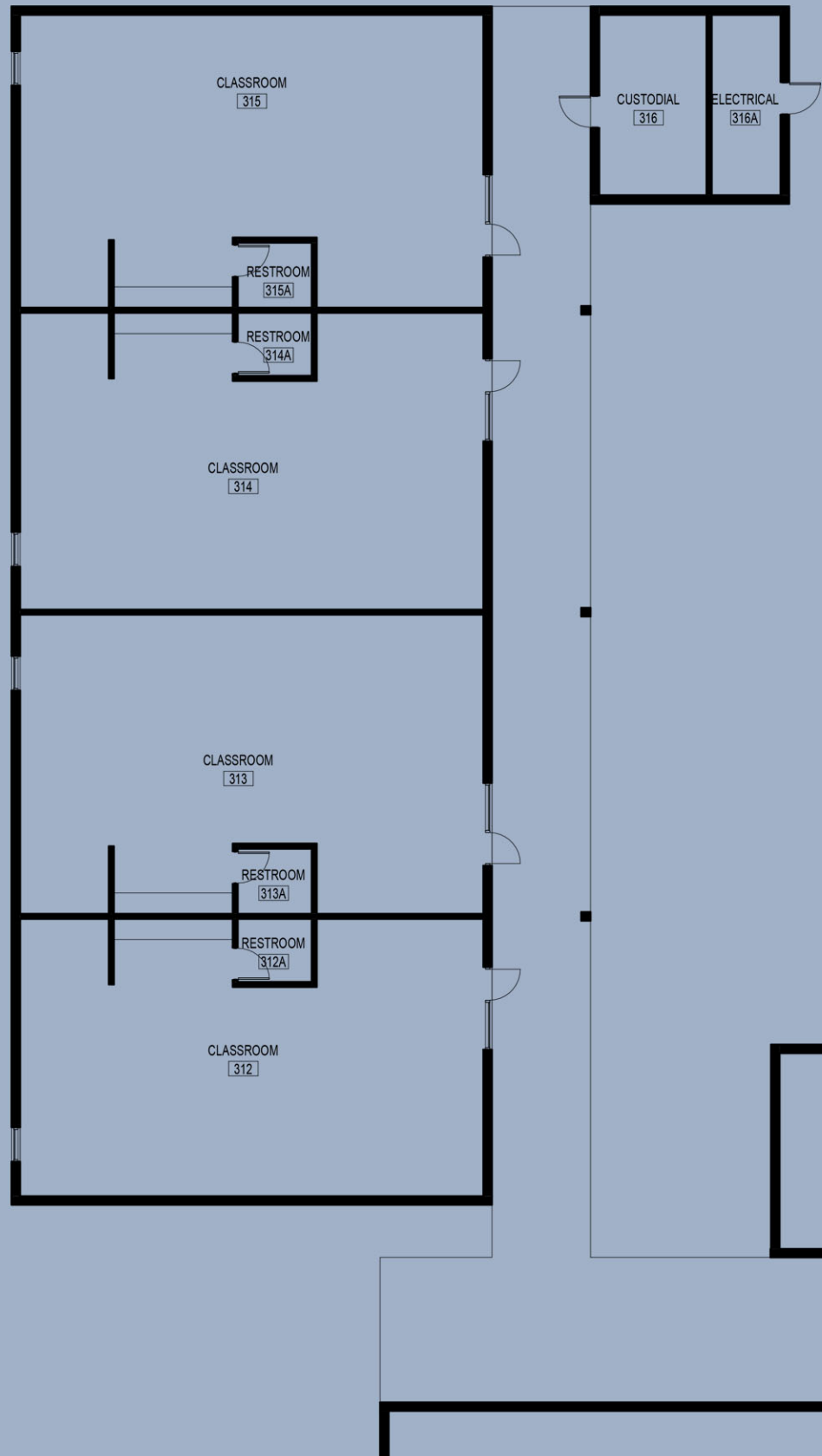
RHODES ELEMENTARY SCHOOL BUILDING 10 - CASTALDI ANALYSIS

Year Built 1966	Abbrev.	Cost/SF	Total	Gross SF - 5,136
Age of Building - 45yrs				
Replacement Cost	(R)	\$280	\$1,438,080	Castaldi Analysis If... $\frac{(Ce + Ch +Cs)}{(Lm)(la)} < \frac{(R)}{(Lr)}$ Then modernization is not justified However... $\frac{\$369,000}{(15)(0.75)} > \frac{\$1,438,080}{65}$ Which equals $\$32,800 > \$22,124$ Therefore a new building is justified
Educational Improvements	(Ce)	\$6.23	\$32,000	
Healthfulness Improvements	(Ch)	\$30.40	\$156,000	
Safety Improvements	(Cs)	\$35.26	\$181,000	
Life of New Building	(Lr)	65		
Life of Modernized Building	(Lm)	15		
Index of Educational Adequacy	(la)	0.75		
Educational Improvements	May include improvements such as remodeling, updating and accommodating new teaching practices.			
Healthfulness Improvements	May involve improved HVAC systems, improved lighting, re-fenestration, re-surfacing floors or ceilings.			
Safety Improvements	May include structural repairs, fireproofing, fire alarm, fire rating corridors, meeting ADA compliance.			



Rhodes Elementary School

BUILDING 10 PLAN





Office of Educational Facilities Florida Department of Education

Room Condition Change Building Replacement/Raze

District/Community College _____ Contact Person Mr. Joey Harrell
Santa Rosa County School District Phone 850-983-5123
Facility/Campus Name RH Rhodes Elementary Facility Number (school districts only) _____
Building Number(s) 10 Parcel/Site Number(s) _____

This Proposed Project will:

- ☐ Change the condition of permanent rooms from satisfactory to unsatisfactory (if yes, go to Section I and complete certification in Section III). (Not applicable to community colleges)
 - ☐ Change the condition of permanent rooms from unsatisfactory to satisfactory (if yes, go to Section I and complete certification in Section III). (Not applicable to community colleges)
 - ☒ Raze permanent building(s) (if yes, go to Section II and complete certification in Section III).
 - ☐ Replace permanent building(s) (if yes, go to Section II and complete certification in Section III).
- Major Capital Outlay Funding Source(s) – Original Building _____
Major Capital Outlay Funding Source(s) – Replacement Building _____

This form is not required for razing a single, freestanding structure that is less than 750 NSF and is debt free, or multiple small structures on a single campus whose total area is less than 750 NSF and are debt free. This form must be completed for any structure 750 NSF or greater and any structure, regardless of size, that is not debt free.

A. DISTRICT/COMMUNITY COLLEGE CERTIFICATION

The district/community college must submit this certification document, completed and signed by the appropriate school officials, along with all required or necessary supporting documentation pertaining to the proposed project.

The Santa Rosa County District School Board/Community College Board hereby certifies that:

I. CONDITION CHANGE: (Not applicable to community colleges)

1. All room condition changes are consistent with State Requirements for Educational Facilities (SREF) standards and the Florida Fire Prevention Code (FFPC) requirements for the condition of space.

II. RAZE/REPLACE PERMANENT BUILDING(S):

1. All fund sources have been researched and no current indebtedness or outstanding debt exists for the building(s) that will be razed and/or replaced.
2. Funding Source(s):
 - a. Original Building: _____

- b. If Replaced: _____
3. Voters of the district have approved local bonding for the project: Yes/No
a. Date of voter approval: _____
4. Imminent danger exists for the building(s) that will be razed and/or replaced.

III. CERTIFICATION SIGNATURES:

Director of Facilities Planning

Date

Superintendent/President

Date

Board Chair

Date

NOTE: Certification is required by the Superintendent and Director of Facilities Planning for room condition changes. Certification is required by the Superintendent/President and Board Chair to raze or replace permanent buildings.

Submit signed form and supporting documents to:
Office of Educational Facilities, Room 1054
Florida Department of Education
325 West Gaines Street
Tallahassee, Florida 32399-0400



FLORIDA INVENTORY OF SCHOOL HOUSES (FISH)

FACILITY INVENTORY REPORT

DISTRICT: 57 SANTA ROSA COUNTY SCHOOL DISTRICT

FACILITY: 18-A W H RHODES ELEMENTARY

BUILDING: 10 - Building Number 00010

ROOM	NET SQ FT	DESIGN CODE	DESCRIPTION	STU STA	FLR LOC	FLOOR COVER	YEAR CONST	CONDITION	BLDG	PAR	FAC
315	755	1	PRIMARY CLASSROOM (K-3)	18	01	CARPET	1976	SATISFACTORY	10	20	18
315A	25	814	STUDENT RESTROOM (BOTH SEXES)	0	01	CERAMIC TILE	1976	SATISFACTORY	10	20	18
316	128	334	CUSTODIAL EQUIPMENT STORAGE	0	01	CONCRETE	1976	SATISFACTORY	10	20	18
316A	32	703	ELECTRICAL ROOM	0	01	CONCRETE	1976	SATISFACTORY	10	20	18

	Satisfactory		Unsatisfactory		Failed Standards		Scheduled For Replacement	
	Square Feet	Student Stations	Square Feet	Student Stations	Square Feet	Student Stations	Square Feet	Student Stations
Permanent	5,136	72	0	0				
TOTAL	5,136	72	0	0	0	0	0	0



FLORIDA INVENTORY OF SCHOOL HOUSES (FISH)

FACILITY INVENTORY REPORT

DISTRICT: 57 SANTA ROSA COUNTY SCHOOL DISTRICT

FACILITY: 18-A W H RHODES ELEMENTARY

BUILDING: 10 - Building Number 00010

Owner: SCHOOL BOARD	Light: ADEQUATE	Cooling: LOCAL ZONE
Use: ELEMENTARY	Mech Vent: ADEQUATE	Heat Source: ELECTRIC
Year Constructed: 1976	Artificial Lighting: SHIELDED FLORESCENT	Heat Distribution: ZONE HOT AIR
Year Modified:	Educational TV: CLOSED CIRCUIT	Heat Capacity: ADEQUATE
Average Age NSF: 1976	Intercom: TWO WAY COMPLETE	Walls: STUCCO
Relocatable Units: 0	Telephone: NONE	Struct Comp: CONCRETE
Stories: 1		Corridor: SINGLE OUTSIDE

ROOM	NET SQ FT	DESIGN CODE	DESCRIPTION	STU STA	FLR LOC	FLOOR COVER	YEAR CONST	CONDITION	BLDG	PAR	FAC
130	928	701	COVERED WALKWAY	0	01	CONCRETE	1976	SATISFACTORY	10	20	18
300	928	701	COVERED WALKWAY	0	01	CONCRETE	1976	SATISFACTORY	10	20	18
312	755	1	PRIMARY CLASSROOM (K-3)	18	01	CARPET	1976	SATISFACTORY	10	20	18
312A	25	814	STUDENT RESTROOM (BOTH SEXES)	0	01	CERAMIC TILE	1976	SATISFACTORY	10	20	18
313	755	1	PRIMARY CLASSROOM (K-3)	18	01	CARPET	1976	SATISFACTORY	10	20	18
313A	25	814	STUDENT RESTROOM (BOTH SEXES)	0	01	CERAMIC TILE	1976	SATISFACTORY	10	20	18
314	755	1	PRIMARY CLASSROOM (K-3)	18	01	CARPET	1976	SATISFACTORY	10	20	18
314A	25	814	STUDENT RESTROOM (BOTH SEXES)	0	01	CERAMIC TILE	1976	SATISFACTORY	10	20	18