

BUILDING - 2 CASTALDI REPORT MID-SOUTH AREA SUPPORT FACILITY



PREPARED FOR:



BREVARD PUBLIC SCHOOLS

PREPARED BY:



MELBOURNE ♦ ORLANDO ♦ WEST PALM BEACH ♦ ATLANTA ♦ WASHINGTON

Board of Architecture License No. AA C000149
Board of Professional Engineers License No. 1439

BRPH ARCHITECTS•ENGINEERS, INC.
5700 NORTH HARBOR CITY BOULEVARD, SUITE 400
MELBOURNE, FL 32940

BRPH NO. C06853.001.00
FEBRUARY 10, 2014



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1. EXECUTIVE SUMMARY

On December 17, 2013, the School District of Brevard County contracted with BRPH Architects-Engineers, Inc. to provide a Castaldi Report for Building 2 of the Mid-South Area Support Facility. The attached documentation is required for the Castaldi Report to satisfy the Florida Department of Education requirements for the demolition of school buildings.

2. OEF FORM



Office of Educational Facilities Florida Department of Education

Room Condition Change Building Replacement/Raze

District/Community College _____ Contact Person Joseph Ranaldi, Dir. of Planning/Prj. Mgmt.

Brevard County School District Phone (321) 633-1000, Ext 446

Facility/Campus Name Mid-South Area Support Services Facility Number 47

Building Number(s) 2 Parcel/Site Number(s) 50

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 _____ Local Millage _____

Major Capital Outlay Funding Source(s) – Replacement Building _____ NA

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 Brevard County School Board hereby certifies that:

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

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: _____ Local Millage _____
 - b. If Replaced: _____ NA
3. Voters of the district have approved local bonding for the project: Yes/No

- a. Date of voter approval: NA
- 4. Imminent danger exists for the building(s) that will be razed and/or replaced.

III. CERTIFICATION SIGNATURES:

Director of Facilities Planning

Date

Superintendent/

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

Procedures and Processes Instructions:

B. CONDITION CHANGE (Not applicable to community colleges)

1. **RATIONALE** (provide the following information, as appropriate, to justify changing the condition of spaces):
 - i. In order to change the space condition from satisfactory to unsatisfactory the district must certify that the space is no longer physically safe or suitable for occupancy:
 1. Unsatisfactory space is typically designated as such due to compromising effects on the structural integrity, safety, or excessive physical deterioration of a building.
 2. Typically, space condition should be the same, either satisfactory or unsatisfactory, for all rooms in a permanent building.
 3. Space that has been determined to be unsatisfactory should not be occupied.
 4. Application of a facility replacement formula, such as the Castaldi generalized formula for modernization or other similar facilities study, does not necessarily mean that the condition of the identified spaces is unsatisfactory. The condition code cannot be changed simply due to the results of a planned replacement unless the integrity of the space meets the criteria identified to classify the space as unsatisfactory.
 - ii. In order to change the space condition from unsatisfactory to satisfactory the district must certify that the space has been successfully reconditioned to meet all applicable regulations regarding occupancy requirements.
2. **OEF Review:**
 - i. Site visit by OEF staff, when necessary.
 - ii. Concur with district rationale, data, and analyses:
 1. Building(s) approved as unsatisfactory; OEF will make the room condition code changes in FISH.
 2. Building(s) approved as satisfactory; OEF will make the room condition code changes in FISH.
 - iii. Disagree with district rationale, data, and analyses:
 1. Building(s) not approved as unsatisfactory.
 2. Building(s) not approved as satisfactory.
3. **OEF Notify District of Findings and Decision:**
 - i. OEF staff will analyze the district's data along with all supporting documentation, coordinate any further reviews with the district, make a final decision regarding the proposed room condition changes, and provide a timely response either approving or disapproving the proposed room condition changes.

C. ***RAZE/REPLACE PERMANENT BUILDING(S)***

1. **RATIONALE** (provide the following information, as appropriate, to justify razing/replacing permanent buildings):
 - i. ***Detailed explanation of need for the proposed project and the expected benefit to the district/community college.***

Mid South Support Services site is approximately 6 acres. Building 2, also known as Old Eau Gallie High School and was constructed in 1924. The windows have been boarded up and the building has been vacant since approximately 1984. It is classified as "unsatisfactory" in FISH. Other buildings on the site include a similar two-story building formerly known as Creel Elementary. This building is currently being by maintenance personnel, along with two other buildings that are used for transportation offices and maintenance.

ii. General scope of the proposed project.

The intent of the proposed project is to demolish the existing building which has been deemed to be unsound for utilization and beyond the economic means of the district to renovate or repair. The land will then be utilized for expanding parking for transportation. The potential liability of the existing unsound building will be removed as an identified hazard for the school district.

iii. Building age and year of construction.

Building was constructed in 1924, making it 90 years old this year.

iv. Existing capacity of building(s), include the number of student stations, classrooms, and other instructional spaces.

This building is UNSATISFACTORY in FISH and carries no student stations.

v. Current number of students housed and the projected number of students to be housed in the affected building(s).

NA

vi. Current educational plant survey recommendations and capacity.

NA. This building is UNSATISFACTORY

vii. What alternatives have been considered besides razing/replacement and why are the alternatives not feasible?

The findings of the facility condition assessment determined that the buildings has fulfilled its useful life. Issues such as building envelope deficiencies and accessibility limitations make a strong argument to raze rather than renovate and remodel. The condition of the facility makes it a liability for the future.

viii. School board/community college board approval of the concept of razing/replacing permanent buildings.

School Board Agenda February 25, 2014

ix. Building condition/engineer study (optional). Attached

x. Impact if the proposed project is not approved.

The investment required to maintain this facility is a poor investment of capital dollars. The district would be better served by owning a cleared site to utilize for expanded bus parking. Bus parking would have to be located elsewhere

- xi. Other relevant data; identify any major systems (include date, if applicable) that have been replaced or upgraded, e.g., electrical, HVAC, fire alarm, roof, plumbing, drainage, etc. Provide a general scope of work for any previous remodeling, renovation, and addition, and year completed.**

4. COST ANALYSIS (Building by Building):

- i. Castaldi Analysis (or other cost analysis formula to support the proposed project).**

See enclosed Castaldi analysis.

Photos of buildings included in engineering report

ii. The following five questions must be addressed:

- 1. How many years will modernization extend the useful life of the modernized building(s)?**

NA

- 2. Does the existing building(s) lend itself to improvement, alteration, remodeling, and expansion? If no, explain why not.**

No. Enrollment and costs do not justify improvement, alteration, remodel, or expansion. This building is UNSATISFACTORY.

- 3. Explain how a modernized and a replacement building(s) fits into a well-conceived long-range plan of the district/community college?**

Consolidation of the facilities in this area has been determined to best serve the district's long-range plan based on existing and projected enrollment. This building will not be modernized.

- 4. What is the percentage derived by dividing the cost for modernization by the cost for a replacement building? See attached Castaldi**

- 5. A committee of district officials and independent citizens from outside the school attendance zone has determined that the replacement of the building(s) is financially justified and no other alternative is feasible? (Not applicable to community colleges)**

This building will not be replaced. The land will be utilized to expand bus parking.

iii. Detailed scope of work for modernization of the existing building(s).

NA

- iv. FISH building plan and/or schematic drawings of the existing building with FISH room numbers.**

See attached report of the existing building.

3. CASTALDI FORMULA

Building #	2	12,704 sf (FISH)	Cost/GSF (New):	\$226
Classrooms			Remodeling (1/2 new):	\$113
			Renovation (1/3 new):	\$75

Age of building 90 years
 Lr = Expected useful life of school: 100 years Note: 100 years utilized to avoid negative numbers.
 Lm = remaining useful life- (Expected useful life minus age of building) 10

SURVEY RECOMMENDATIONS:

Ce= Cost of educational improvements	GSF	Cost/SF	Total Cost
Renovate	12,704	\$75.33	\$957,035
			\$0
			\$957,035

Ch= Cost for improvements in healthfulness

Cs= Cost for improvements in safety

		\$0
Subtotal		\$0

Ia= Index of adequacy of a modernized building compared to a new building (State of Florida allows .75)

R= replacement of existing + expansion

Cost of Replacement:	12704 X \$226	\$2,871,104
	R=	\$2,871,104

Oc= other estimated hidden costs or project costs associated with remodeling/renovation projects 20% of project

Casfaldi Generalized Formula for School Modernization

$$IF: \frac{(Ce + Ch + Cs) X (1 + Oc)}{(Lm) X (Ia)} < \frac{R}{Lr}$$

Then building should be modernized; else building should be replaced

$$\frac{(\$957034.66666667 + \$0) X 1.2}{(100-90) X .75} < \frac{\text{Replacement } \$2,871,104}{100}$$

$$612,502 > \$28,711$$

Therefore: Building #2 should be replaced

Minimum Cost for Calstaldi to Work

\$276,068

Actual Estimated Cost for Required Improvements

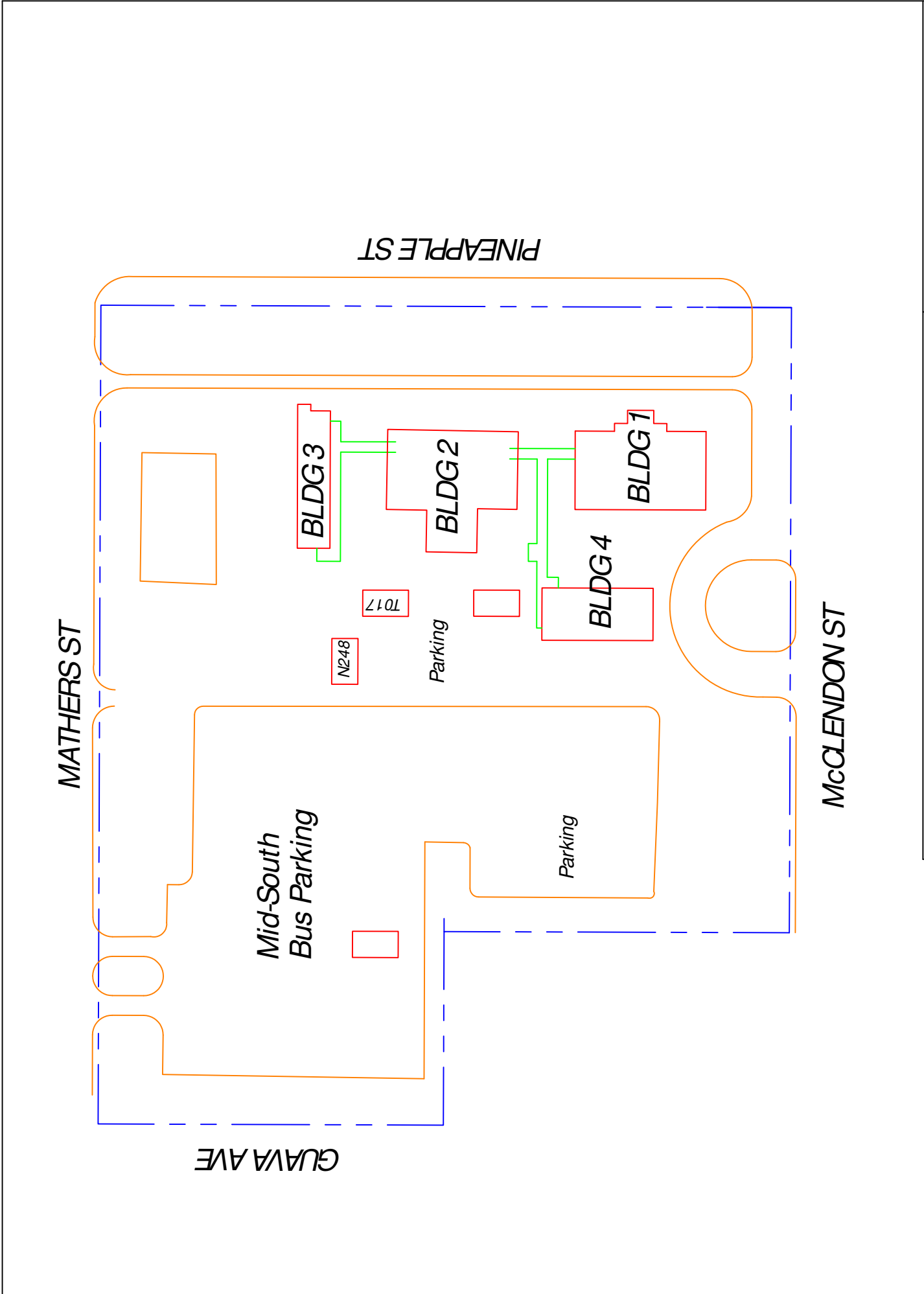
\$ 957,035

4. CASTLADI AGE OF BUILDINGS

Castaldi Calculations

BUILDING AGE CALCULATIONS			
Present year:		2014	
Bldg No.	Area	Yr. Built	Age
B x C			
2	12,704	1924	90
			1143360
Total			
			12704

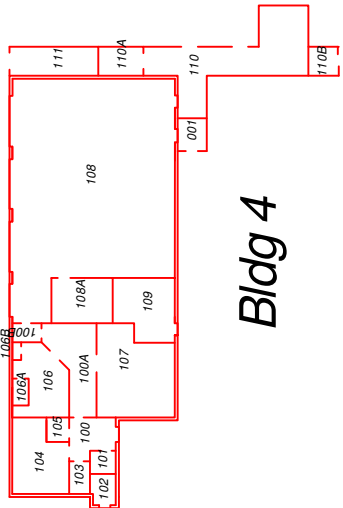
5. FISH PLANS



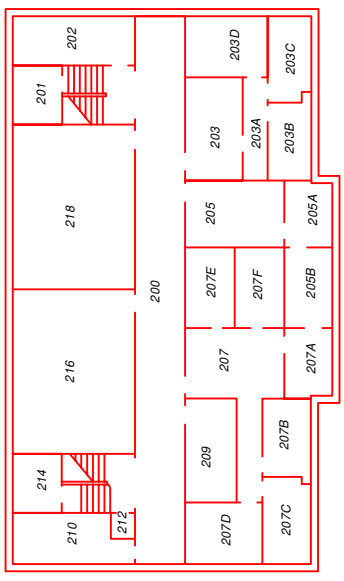
DRAWN BY: BELLANGER, RICK
 DATE: 16 Sept 2009

SITE PLAN
 MID-SOUTH AREA

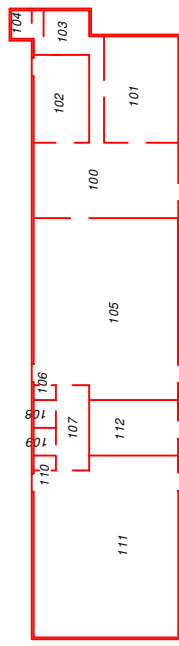
MATHERS ST
 GUAVA AVE
 PINEAPPLE ST
 McCLEENDON ST



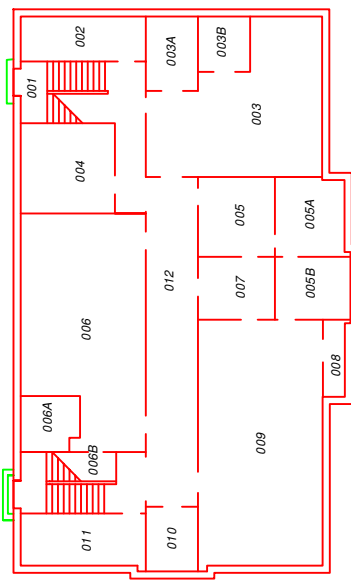
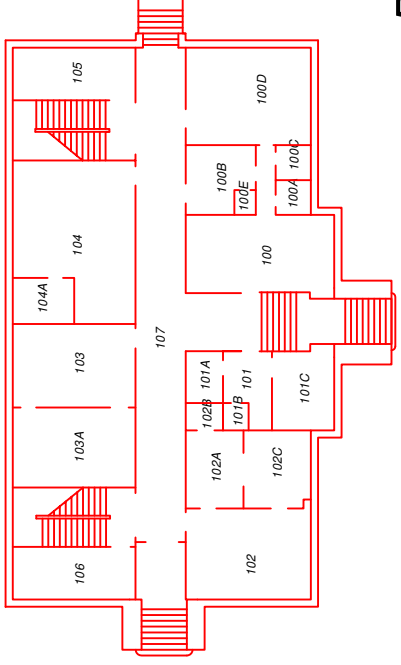
Bldg 4



Bldg 1



Bldg 3



6. LIFE SAFETY REPORTS



Daily Inspection File _____
 Project File _____

INSPECTION REPORT
 OFFICE (321) 633-3580 Ext. 13073

Date of Inspection: 01/25/12 Permit Number: TBD
 Project Name: Mid-South Maintenance Yard
 Contractors: Brevard Public Schools
 Contact on Site: Area Two Supervisor Ira Fox, Gary Dean
 Inspection Request Time: T/A 11:00am

INSPECTION TYPE(S) REQUESTED	Building	Fire	Electrical	Mechanical	Plumbing	Other	FINAL
	X	X					

INSPECTION OBSERVATIONS

- Building 2 is a two story Type VB structure built around 1930. The school has not been used for over 30 years. Due to severe roof leaks and neglect the structure has been boarded up. Access to inside requires removal of plywood panels with about 30 wood screws. All utilities disconnected.
- Exterior walls are nominal 12' x 12" x 12" red terra cotta brick with 5/8" mortar joints, stucco exterior, and a 4' parapet at roof. Building was painted 6-8 years ago and since that time there has been significant cracking on north and south walls. East and west walls have minimal cracks.
 - Inspected interior of spaces with Gary Dean. First floor, second floor, and the roof structure are all wood frame. Interior walls are wood frame, wood lath, and plaster. A few spaces have a lot of stored items, elsewhere not much. Second floor empty.
 - Water intrusion has lifted plaster from all surfaces. At the NW corner about 30' x 30' section of roof has caved in causing floors to fail taking an interior wall and adjacent group toilet with it. There are other locations where the roof has leaked causing second story floors to be unstable.
 - Appears the interior wood framing from foundation piers to roof self supporting with minimal effect as to being shear walls or diaphragm member. There are connections to north and south exterior walls, did not observe any connections to exterior walls on east and west sides. Roof frames rest on interior frame walls, not supported by exterior wall.

INSPECTION RESULTS	Passed	Failed	Partial	Conditional	Not Ready	
		X				

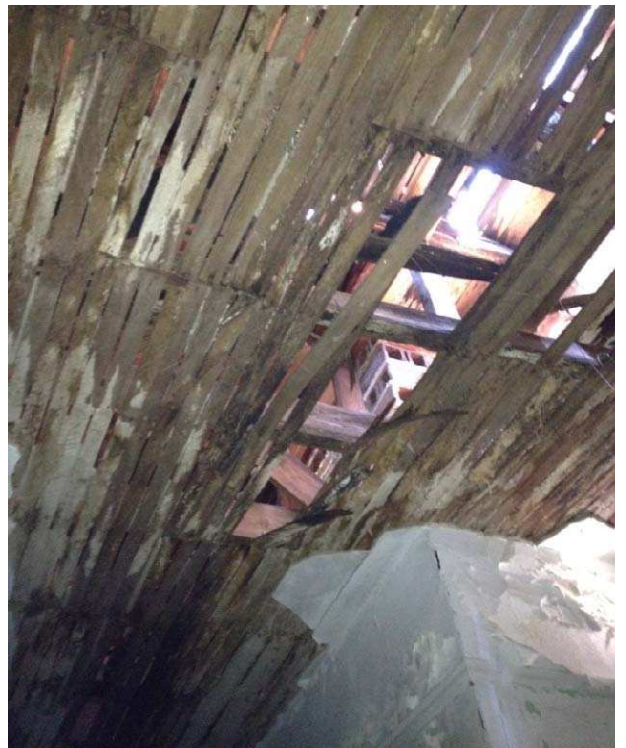
CONDITIONS/COMMENTS

- At this time exterior masonry walls stable. The built up roof is in total failure leaking everywhere. The roof and floor framing failures will continue to bring down interior walls. This may eventually create a wedge effect against the exterior walls making them unstable. There are large cracks at the north exterior wall, particularly at the corners and openings. Appears related to the roof, floor, and wall failures at NW corner.
- Picture file next three pages.

7 Picture of south exterior wall cracks



8 Second floor northwest classroom where roof and wall collapsed.



9 Second floor northwest classroom where roof and wall collapsed.



10 Second floor northwest classroom where roof and wall collapsed.

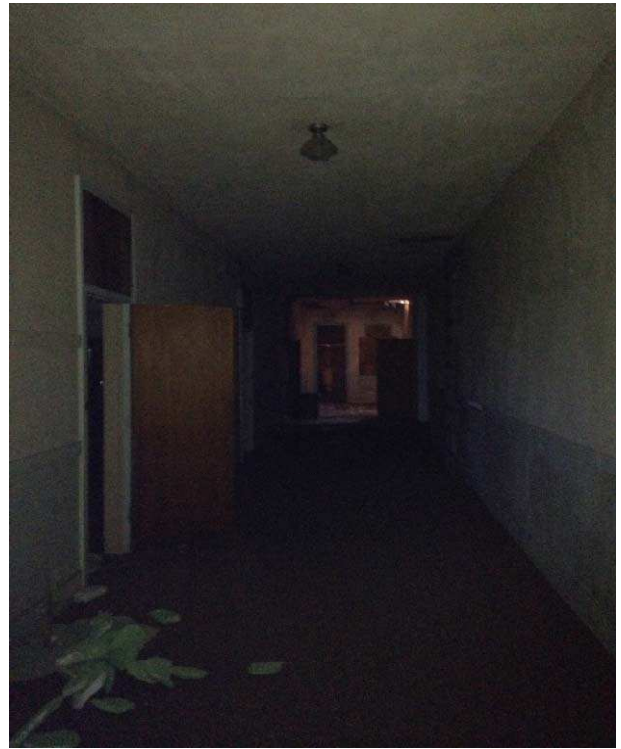


11

First floor corridor



Second floor corridor

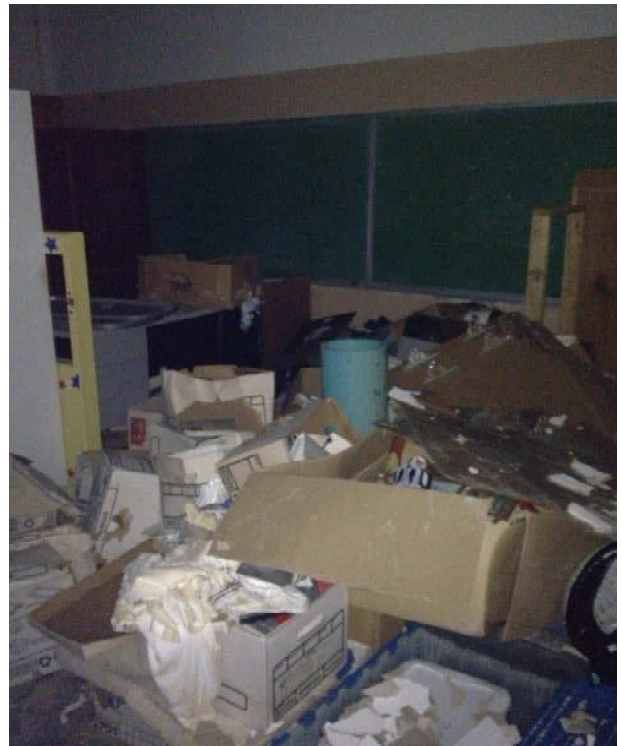


12

Stair to second floor



First floor storage



Inspector: Gary Geiser License # BU1704 Exp. Date: 11/30/11



Daily Inspection File _____
 Project File _____

INSPECTION REPORT
 OFFICE (321) 633-3580 Ext. 13073

Date of Inspection: 2/9/2012

Permit Number: TBD

Project Name: Old Creel Elementary School and Old Eau Gallie High School.

1948 Pineapple Avenue, Melbourne, Florida 32935

Contact on Site : Dave Martin, George Rich, Noel Droor PE

Inspection Request Time: 8:30am T/A 8:30am

INSPECTION TYPE(S) REQUESTED	Building	Fire	Electrical	Mechanical	Plumbing	Other	FINAL
	X	X					

INSPECTION OBSERVATIONS

Buildings 1 and 2 were both built around 1920. Building 1 is a two story masonry Type IIB structure with basement and currently used for south area administrative offices. Building 2 is a two story Type VB structure and due to severe roof leaks and neglect the structure has been boarded up. Building 1 previously named Creel Elementary. Building 2 named Eau Gallie High School

1 Building 2 in a failure condition. Noel Droor P.E. conducted structural inspection. Observed exterior wall cracks and interior frame failures particularly due to excessive water intrusion. Roof membrane has several large holes. Exterior walls unreinforced red terra cotta brick with ledges to support joists. It is assumed first floor 4X8 joists support interior floors, walls, and roof framing. Typically wood 2X4's, 2X8's, and 1X8 bracings. Noel to prepare report of findings.

2

Building 1



Building 2



3 Building 2 interior second floor

4 Building 2 interior second floor

5 Building 2 roof

INSPECTION RESULTS	Passed	Failed	Partial	Conditional	Not Ready	
		X				

CONDITIONS/COMMENTS	
6	

Inspector: Gary Geiser License # BU1704 Exp. Date: 11/30/11