

**BUILDING CONDITION REPORT
FOSS CREEK SCHOOL COMMUNITY CENTER
1557 HEALDSBURG AVENUE
HEALDSBURG, CA**

FOR

**CITY OF HEALDSBURG
401 GROVE STREET
CITY OF HEALDSBURG, CA 95448**



**INTERACTIVE RESOURCES
117 PARK PLACE
RICHMOND, CA 954801**

March 31, 2011

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Executive Summary

Interactive Resources was retained by the City of Healdsburg to provide a Building Condition Report for the Foss Creek School Community Center to include the following issues and components:

1. Roofs and Walls
2. Mechanical Systems
3. Potential mold

Access to the site and answers to questions about building performance were provided by Manuel Macias.

Site inspections occurred March 11, 2011 by Tom Butt, FAIA, LEED AP, Interactive Resources, Mike Bocklund, PE, 15000, Inc. and Michael Reed, Industrial Hygienist, RGA Environmental.

The roofs are of two types, built up roofs (BUR) and standing seam metal roofs. The BURs are reaching the end of their useful lives but are generally in good condition considering their age and could be serviceable for a few more years with substantial maintenance. The standing seam roofs on permanent buildings are serviceable but require recoating and repair, primarily of gutters. The standing seam roofs on the portables are serviceable and require maintenance.

The walls of the permanent buildings are clad in cement plaster and have aluminum windows. They have no significant obvious maintenance requirements but sometime in the future the cement plaster will require painting. However, additional investigation is recommended. The wood fascia all require painting at this time.

Mold samples were taken in two classrooms that have been used only for storage and two classrooms that are actively being used. An exterior ambient sample was taken for comparison. The sample results are not indicative of airborne microbial amplification in any of the interior sampling locations. Neither is there any visible evidence of fungal growth on the exposed wall finishes or behind the wall covering in the areas where it was peeled back.

The roof mounted HVAC units on all the permanent buildings have exceeded their useful lives and should be scheduled for replacement. Several recommendations have been made to replace inefficient or damaged plumbing fixtures and to make accessibility modifications.

Introduction

Interactive Resources was retained by the City of Healdsburg to provide a Building Condition Report for this project to include the following issues and components:

4. Roofs and Walls
5. Mechanical Systems
6. Potential mold

Access to the site and answers to questions about building performance were provided by Manuel Macias.

General Project Information

Project:

Healdsburg Community Center (former Foss Creek School)

Address:

1557 Healdsburg Avenue, Healdsburg, CA

Building Type:

Type V, non-rated, except for Building A, which is Type V, 1-hour

Gross Area:

9,225, excluding 10 portable classrooms

Year Constructed:

Approximately 1990.

Inspection Team:

- Tom Butt, FAIA, LEED AP, Interactive Resources
- Mike Bocklund, PE, 15000, Inc.
- Michael Reed, Industrial Hygienist, RGA Environmental

Date of Inspection:

March 11, 2011

Purpose of Assignment:

Potential purchase of property



Foss Creek School Community Center Building Identification

Project Description

Site

The subject property is located along the west side of Healdsburg Avenue and east of Foss Creek in Healdsburg, CA.

Construction

The complex was originally constructed as an elementary school with seven permanent buildings (A through G), connected by a walkway covered by a linear canopy. All permanent buildings have cement plaster exteriors and aluminum windows. The connecting canopy and the Multi-Purpose Building A have metal roofs, and the remainder have built up roofs (BUR) with mineral surface cap sheets.

There are 10 portable structures on the west and south sides of the project. Typically, they have wood panel walls and metal roofs.

The architect was Witter, Jeffries Architects of Santa Rosa. The drawings we were provided are dated October 24, 1988.

Roofs

No records were available regarding the age or maintenance history of the roofs, but the roofs on the permanent buildings all appear to date from the original construction, making them approximately 20 years old.

Built Up Roofs (BUR)

Although nearing what is generally regarded as the end of their useful life based on age, the BURs appear to be in serviceable condition for perhaps a few more years, although there are numerous items of deferred maintenance that should be addressed before another winter. Only one leak related to a BUR has been reported.

The BURs generally have good slope to drain with the exception of the Mechanical Well on Building B, which has excessive ponding.

The BURs are drained by both internal roof drains and scuppers that lead to conductor heads and external downspouts.

Maintenance and repair items include:

1. There are large collections of leaves on most of the roofs, typically concentrated in corners and at drains and scuppers. There are a lot of trees with canopies above the roof, and leaf removal will be an annual maintenance requirement.
2. Parapet copings are painted galvanized sheet steel. The paint has worn off in many areas and requires repainting to protect the galvanized finish. Soldered joints at corners are typically rusted and could fail if not prepared and painted using a rust-resistant epoxy primer. Some areas are heavily coated with residue from trees and should be cleaned before painting. Screws attaching copings are typically rusting and may fail in the future if not replaced by corrosion-resistant fasteners.
3. Some skylights with acrylic domes are coated with dirt and residue from trees and should be cleaned.
4. What appear to be ventilators to spaces below the roof sheathing are typically badly rusted, and the seal to the roof membrane is at risk.
5. On Building A, a plumbing vent is too close to the parapet, making the integrity of the seal to the roof membrane risky and difficult to maintain.
6. One overflow drain on Building A is higher than the code required 2-inchs above the roof surface.
7. Wood fascia, where they occur, typically need painting.
8. Where expansion joints occur, the seal and attachment to the roof membrane has deteriorated, and sheet metal flanges are rusting.
9. The asphalt cement seal at the base of plumbing vent, conduit and refrigerant line penetrations has typically failed.
10. Although the mineral granules on the cap sheet and flashing sheets are typically intact, there are some areas of erosion, and there are also some areas of moss growth under trees.
11. Where the roof is drained by scuppers, the lip of the conductor head typically above the flow line of the scupper. Industry recommended practice is to provide at least a 1-inch separation to allow for overflow to the outside in case of blockage rather than allowing water to build up back onto the roof.
12. Asphalt cement seals at joints of base flashings for equipment platforms are deteriorating. The galvanized sheet metal platform covers are unpainted and are beginning to rust.
13. The insulation for refrigerant lines has typically eroded away.
14. There are a few places where seams in vertical base flashings are open.

Metal Roofs – Building A and Walkway Canopy

These are standing seam commercial metal roof systems that appear to be galvanized steel with a color coating of unknown composition. The roofs appear to be in serviceable condition but require maintenance.

1. The color coating of both roof panels and associated sheet metal copings and trim typically has passed the end of its useful life and has eroded away in many areas. Although this is only an aesthetic issue for the short term, the roofs should be recoated with a high performance coating system to protect the galvanized finish from wearing away and the underlying steel from rusting.
2. Seams in the gutters of Building A appear to have largely failed and are leaking, as is on conductor head on the east side of Building A.
3. Gutters are typically filled with leaves.
4. There is ceiling damage from a roof leak in Classroom 2. Manuel Macias said it was from this winter. It appears to be related to a roof drain.

Metal Roofs at Portable Modules

Portable modules typically have low-slope standing seam metal roofs that slope to a gutter at the low end. These are uncoated but are rusting in only a few locations. If they are to be retained for long term use, painting or coating the roofs is recommended at some point before rusting starts to spread.

1. The joint between the two northernmost west portables has black plastic bags over what Manuel Macias identified as leaks.
2. There is some ponding on the lower side of the roof over the west portables.
3. The seals at various joints and penetrations require maintenance.

Walls

Manuel Macias reported that there are no known leaks or water penetration problems at wall, including windows and doors. Many of the windows and doors are well-protected by overhangs.

Cement Plaster (Stucco) Cladding

Generally, the cement plaster cladding, which appears to be painted rather than integrally colored, appears to be in serviceable condition. Although cracking is normal in cement plaster, excessive cracking or excessively large cracks are a concern. Cement plaster shrinks when it cures, making cracks inevitable. Control joints are typically placed in cement plaster walls not to

prevent cracking but to force the cracking to occur along predetermined straight lines and avoid the aesthetically undesirable appearance of random cracking.

Cement plaster is intended to function as a “drainage wall,” whereby the cement plaster surface is intended to shed most of the water from precipitation. While un-cracked cement plaster is essentially waterproof, water will pass through cement plaster on walls at cracks and joints at doors, windows and other penetrations. What the Building Code calls a “water resistive barrier,” typically consisting of asphalt saturated kraft paper (“building paper” in California), is intended to block the passage of water from reaching the sheathing, framing, wall cavity and interior finishes. The water eventually escapes either by evaporating or falling by gravity to the base of the wall and exiting at a “weep screed.”

As long as the amount and duration of penetrating water is limited, cracks pose minimal threat. However, water resistive barriers consisting of building paper can be damaged or rendered ineffective with excessive exposure to water. Building paper is cellulose based and can rot or dissolve with excessive water exposure. Excessive cracking or excessively large cracks are a concern.

Most of the cement plaster surfaces have cracking that is within normally expected limits, but there are some areas of concern, but there is no way to determine if any amount of cracking has resulted in damage or is a result of wet wood without intrusive investigation methods.

1. Building A has some large cracks, usually near or associated with “feature strips,” which are sheet metal channels installed for aesthetic effects. What appear to be open and unsealed joints in the feature strips are also a concern. An unusual amount of cracking can also result from expansion of underlying wet wood. Opening at least a couple locations to confirm whether or not damage has occurred is recommended.
2. The soffits under parapet walls at overhangs and the walkway do not have a weep/drip screed. This can result in trapped water that can affect the underlying sheathing or framing. Opening at least a couple of locations to confirm whether or not damage has occurred is recommended.
3. The weep screeds at the base of walls are typically just a fraction of an inch above the adjacent pavement. Current California Building Code requires a 2-inch separation.

On March 29, 2011, Andrew Butt, AIA, of Interactive Resources observed three areas where cement plaster was removed at locations described in 1 and 2, above. There was no visible evidence that water had penetrated the WRB, and there was no excessive moisture in the underlying wood framing and sheathing.

Windows

Windows are typically aluminum framed with a color coated finish of unknown composition. The finish is intact on most windows with a few showing wear. The finish will show increasing wear at some point and will become an aesthetic issue. No other concerns were noted.

Portables

The portable buildings typically have exterior wall cladding of painted manufactured wood panels.

- Wood skirts covering the crawl space typically rest on pavement and are subject to water damage. In one location, the skirt is covered by soil.
- The condition of the wood panel cladding varies, with the worst conditions on the south portables, including missing trim, missing crawl space ventilators, decay, delaminated and nail pops.
- The soffits at overhangs on the gutter end of the roof on the south portables are badly damaged, apparently from leaks.

Mechanical

Administration Building

HVAC

This building is heated and cooled by three roof mounted packaged gas heating/electric cooling units. The three units are original to the building and are in need of replacement, as they have exceeded their useful service life.

Plumbing

Three Toilet Rooms:

1. The tank type toilets flush with, by today's current standards, excessive amounts of water. It is recommended the toilets be pulled and replaced with 1.0 gallon per flush toilets. To prevent hang-ups in the lines pressure assist (proven technology) tank-types should be used. This change is highly recommended as it's one of the easiest, inexpensive, Green measures to achieve.
2. The faucets on the lavatories represent water savings that can realized by switching to new low flow equivalents. We recommend auto-closing types for the public toilets and a paddle handle type unit at the Staff Toilet Room.
3. For the three HVAC units at the roof well:

- a. Provide new condensate piping to drain to existing roof well drain.
- b. Provide new natural gas piping, properly supported per Code, with plug valves and flex connectors, per unit.

Meeting Room:

1. The tank type under counter water heater is corroded and has exceeded its useful life. It is recommended the unit be pulled and replaced with one of the new insta-hot electric types commonly used. This represents an energy savings as it eliminates the standby losses associated with keeping the tank up to temperature.

Multi-Use Building

HVAC

1. The condensing unit at the exterior of the building has exceeded its useful life and is recommended for replacement with one of the new high efficiency units utilizing non-ozone depleting refrigerant.
2. At the Mechanical Room over the kitchen the heat and vent unit is improperly vented with incorrect vent pipe. The flue should be removed and replaced with a pressure sealed double wall pipe.
3. At the Mechanical Room over the kitchen the heat and vent unit has exceeded its useful life span. It is recommended to replace the unit in kind at the earliest convenience. At a minimum, the flue problem mentioned above should be addressed.
4. The exhaust fan for the Women's toilet room has been removed and a hole left in the ceiling. It is recommended the fan be replaced.

Plumbing

1. The Men's toilet room has had the toilet removed. Pipe stubs stick out from the wall and represent a safety hazard. The stubs should be removed and the walls patched.
2. The urinal in the Men's toilet room is not ADA compliant and if this room is used then the urinal should be changed out for an ADA type fixture.
3. The Women's toilet room lacks a divider between the toilets. This is not an issue for our plumbing survey but is noted as being unusual for lack of privacy.

Classroom Buildings

Three buildings total – the kindergarten building, the main six classroom cluster building and the three classroom building. These are grouped here as they have identical HVAC and Plumbing systems and facilities.

HVAC

1. The gas fired furnaces (one per classroom) have exceeded their design life spans. Worse, the furnaces are 80% efficient types. It is recommended the City replace the units with the new condensing types with +95% thermal efficiency. This represents no small energy savings to be harvested.
2. The condensing units on the roof are in poor condition and are recommended to be replaced. New high (SEER) efficiency units can be easily installed to save energy.

At a minimum the suction pipes on the roof should have the current insulation (mostly disintegrated) removed and replaced to save energy.

Plumbing

1. Each classroom is equipped with a sink, faucet and bubbler. The aerators are recommended to be changed to the flow restricting types to save water.
2. At the Kindergarten building the primary toilets in the toilets rooms are recommended to be changed to adult height equivalents if older children are to occupy the space.

Toilet Room Buildings

Two buildings house the main Men's and Women's toilet facilities for the campus.

HVAC

1. The ceiling exhaust fans are dirty with dust and accumulated gunk of the past 20+ years. They should be cleaned or (preferred) replaced.

Plumbing

1. The toilets are recommended to all be replaced with modern, ultra low water consuming fixtures.
2. The lavatories are recommended to be fitted with flow restricting aerators.
3. The gang type wash basins are recommended to have their flows and run times reduced to promote water conservation.

4. Each Men's room (two total, one per building) lacks an ADA accessible urinal. It is recommended an accessible fixture be installed.

Mold

Mold samples were taken in two classrooms that have been used only for storage and two classrooms that are actively being used. An exterior ambient sample was taken for comparison. The sample results are not indicative of airborne microbial amplification in any of the interior sampling locations. Neither is there any visible evidence of fungal growth on the exposed wall finishes or behind the wall covering in the areas where it was peeled back. See Appendix C.

Preparation and limitations

Limitations

The services of Interactive Resources are provided in a manner we believe to be consistent with the prevailing standard of care. This report is neither comprehensive nor exhaustive and is based on limited observations of the project, limited exploratory demolition, review of documents cited and discussions with individuals listed. The information is for the exclusive use of the client to whom this is addressed.

Interactive Resources does not warrant or guarantee the performance of any in-place or future construction on this project, whether or not it incorporates any of the recommendations contained herein.

Preparation

This report was prepared by Thomas K. Butt, FAIA, LEED AP



Licensed Architect California C7389

Licensed General Contractor California 290922

Appendix A – Roof and Wall Photos

Appendix B – RGA Reports

Appendix C - 15000, Inc. Report