

Limited Commercial Building Inspection

Summary Report



Prepared for: Julie and Nancy Dhonau

Subject Property: Bealls Department Store # 70, Boca Raton, Florida

Inspector: Craig Milliken, PE
CPM Real Estate Inspections, Inc.

Date of Inspection: 02/26/04

Weather: 70°F, partly cloudy, heavy recent rain



Scope of Inspection

A visual inspection of the subject property was performed on Friday, February 26, 2004. This Limited Commercial Building Inspection was limited to the following items of interest to the client:

1. The condition of the roofing system and if it is being properly maintained
2. The condition of the HVAC systems and if they are being properly maintained
3. Identify the cause of water leaks throughout the ceiling areas of the building
4. Investigate the flooring adhesion problems in the building

Reasonable effort was made to view all safely accessible areas of the Subject Property. Concealed items cannot normally be inspected without using invasive procedures or special testing equipment that is beyond the scope of this type of general inspection. This Limited Commercial Building Inspection Report may not address every problem that may exist with this property at the time of this inspection. **CPM Real Estate Inspections, Inc. makes no warranty that there are no other defects with this property.**

The following attendees were present at the initial meeting at 8:00 AM:

Craig Milliken, PE	Inspector, CPM Real Estate Inspections, Inc.
Julie Dhonau	Owner of Subject Property
Nancy Dhonau	Owner of Subject Property
Brad Jenison	Bealls District Manager
Ken Castle	Store Manager
Ron Ricketts	Crowther Roof Asset Management
George Horn	Maintenance Technician for Bealls

The building was thought to be constructed in 1991. During this inspection water was dripping onto the ceilings in the following areas:

Young Men's Clothing
Family Footwear
Jewelry
Luggage

There had been heavy rain during the previous night and the following areas were investigated to address the cause of these active leaks.

Roof – The roof over the building is the original roof. It is a single sheet .060 mil Firestone (ethylene propylene diene monomer) EPDM membrane over mechanically fastened 1½ inch Isocyanurate insulation board roofing system. A structurally sloped steel deck supports this roof system.

Overall the roof appears to be water tight and in good condition. At the time of this inspection there were no noticeable defects in the roofing system where water might enter the building interior in any significant quantity through the roofing membrane;



Roof (continued)

however, the entire roof has recently been repaired by services provided by Crowther Roof Asset Management.

The roofing report from Crowther Roof Asset Management dated March 13, 2003 indicated that there were significant problems with the roofing system prior to that date. That report identified numerous defects in the roofing system that needed attention. The defects were described in that report with photos with narrative explanations and recommendations for remedial work. Some of the stains noted on the interior ceilings of the building were likely attributed to the defects that were noted in that report. Most of the types of defects noted in the report are typically caused by normal wear and ageing of the roof with the exception of where water ponds were noted around roof drains.

The ponds are a result of improper sloping of roofing materials, during the original installation of the roof, around the drains. These areas unfortunately cannot be reworked without removing a significant portion of the roof around each drain with this problem. The most cost effective solution to address this issue to monitor each area and to reseal any de-lamination or cracking of the roof membrane as they may appear.

After reviewing the report and walking the roof, it is apparent that a significant number of problems were addressed and repairs were evident. The repairs appear to have been professionally performed and have returned the roof to a serviceable water tight condition. There are now no significant defects noted anywhere on the roofing system except for a few minor issues that Ron Ricketts marked, noted and scheduled for repair during this inspection.

Crowther Roof Asset Management is now under contract with Bealls to maintain the roof. Their service contract started in July 2003. They are responsible to monitor the roof on a periodic basis and make repairs as necessary. From observations of the recent repairs that they have made, they seem to have the competency to perform this service in a professional manner.

HVAC Systems – There are six package type air conditioning units on the roof. Four of these units have been recently replaced. Two of the units are original installations dating to 1991. The HVAC industry generally recommends replacement of systems such as these, every 8 - 12 years. The reasoning for that recommendation is that as these units age, the sheet metal pans under the condensing coils, the frame and the exterior panels can corrode due to the constant moisture from weather and condensate. This corrosion can lead to leaks under the units that will allow moisture to drop onto the ceilings below the units.

Several leaks were noted in the ceiling areas around the two older package units. During this inspection these older units were opened and inspected. A significant amount of corrosion was noted in the bottom of these two units and in the sheet metal frames and interior panels of these units.

HVAC (continued)

These units could not be safely accessed from the sales floor below to positively identify the exact points where the water was originating from; however, it is likely that the current active moisture problems noted in the ceilings of this building are due to water from rain and condensate leaking through these two older units. It is recommended that these two original Package Type air conditioning units be replaced because of their age and because water was observed dripping from under areas where these units are located on the roof. These units are identified as unit # 3 and unit # 5, on the Crowther Roof Asset Management report.

It was noted above the Jewelry area that the dripping water seemed to be coming from a section of the roof just north of unit # 3. There is suspicion that water may be trapped under the roof membrane in this area. It is suggested that this area be opened and examined. If water is found in this area it should be removed and the roof membrane resealed. Ron Ricketts is estimating the cost to perform this invasive examination.

Summary of Roofing and HVAC Issues

The roofing system still has a significant amount of service life remaining and it is now water tight due to the recent repairs by Crowther Roof Asset Management. It may still have some trapped moisture under the cover membrane from previous leaks but no additional water should find its way into the building through it.

The roof is currently under a proper maintenance program that will effectively address future problems with the roof for several more years. Had this roof been under this type of comprehensive maintenance program earlier, many of the leaks may have been avoided.

If the two remaining 1991 package units are replaced, the potential of water leaking through these units will be eliminated. When they are removed, the curbing under these units can be inspected and any problems addressed. Attempting to repair or seal any leaks in these two older units will probably not be effective or provide a lasting remedy.

Flooring Problems – It was noted during this inspection that the sheet vinyl floor covering in the rear of the building and some ceramic floor tiles near the front entrance of the store are losing the bond to the concrete floor. There exists a memo by Frank DePalma that describes two areas in the store with flooring problems. It is assumed that these are the same areas observed during this inspection.

Wood, vinyl and ceramic flooring adhesives require dry surfaces to make bonds adequate to hold them in place. Any moisture between the flooring materials and the surface that they are bonded to, will adversely affect the performance of the

Flooring Problems (continued)

adhesives. The flooring in these two areas appears to have a bonding problem due to moisture getting into in the adhesives.

South Florida has a high water table that can rise and fall due to seasonal changes and other factors. Moisture can find openings through vapor barriers and microscopic voids in the slab under a building and work its way up to the adhesive under the flooring materials. While this problem is not typical, it is not unusual for any building to have this problem in certain areas or sometimes throughout the slab.

Reputable flooring contractors know about this potential problem and perform moisture content tests on concrete floor slabs before they apply certain types of floor coverings that are sensitive to moisture content in a concrete slab. This test is called a Calcium Chloride Moisture Test. The test is not expensive, but for reliable results, it may take three days to complete. If the measured moisture content is above a certain threshold, the manufacturers of the adhesives will not warrant their products and recommend against using them without first sealing the floor slab.

There are several good floor sealing products available that can be applied to concrete slabs to get the necessary bonding strength. They are not cheap and range from \$ 1.50 to \$ 6.00 per square foot of flooring. Some flooring contractors ignore the possibility of moisture problems in a slab and do not disclose that the final cost may have to include the use of these sealants.


The original wood flooring problems noted in the memo should have alerted the flooring contractor(s) that moisture was a likely cause of the failure of the Prego flooring and that it likely would be a problem for vinyl flooring and ceramic tile flooring that was laid afterwards.

Summary of Flooring Problems

It is recommended that a reputable flooring contractor be consulted and Calcium Chloride Moisture Tests be performed before any new flooring is installed. Jordan Cohen of United Flooring Systems provided much of the opinion of the cause of this flooring problem and can be reached at 954 790 0366.

If there are any questions concerning this report please contact Craig Milliken, at (561) 866 9956 in Boca Raton, Florida.

Thank you for choosing CPM Real Estate Inspections.



Craig Milliken, PE
CPM Real Estate Inspections, Inc.



Overall the roof appears to be in good condition and professionally installed.

Large sheets of the EPDM membrane are welded together at the seams. All of the seams appear to be well bonded and it is unlikely that any current leaks are attributed to holes in the membrane.



Patches by the roofing company have been placed over joints in the parapet cap. These joints need this type of maintenance to keep them water tight.

This is a typical repair that was professionally performed by Crowther Roofing personnel.



These are also typical repairs made by the roofing company.

This area around this support brace could have had leaks but is now water tight



Water stains such as this one near the front entrance are probably attributed to roof leaks from the kinds of problems noted above



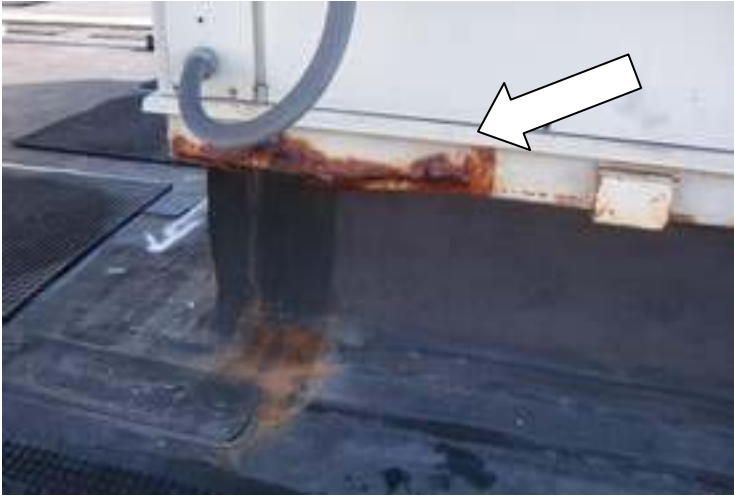
The area around this roof drain is not sloped properly to allow for proper draining. This standing water can cause an acceleration of the deterioration of the roof membrane.

The white square is a patch that has been applied by Crowther roofing personnel to prevent this deterioration.



This is one of six air conditioning units mounted near the center of the roof.

Four of them are only a year old but two are original equipment from 1991. All of the units on the roof were professionally installed.



This is the corner of one of the older units. The frame is rusted and could be a source of the current leaks. Water can get through this rusted area and fall down inside the curbing on which this unit rests.



This is the ductwork that runs under the older unit that is located above the Young Men's Clothing area in the store. Water was running down from this area in significant quantities.

The ceiling is too high to safely inspect closely without a lift and removing a significant portion of the ceiling



The interiors of the two older air conditioning units are heavily corroded.

It is likely that water is leaking from under them down into the building



This area just north of the jewelry department has an active leak.

This is the area where trapped water may be under the roof membrane.

Crowther roofing personnel need to cut open the roof and determine if this is what has happened.