





# **Repairs Made - Follow-Up Stucco Inspection Report**

#### For the Property Located At:

495 Hickory Ridge Road Martinsville, VA 24112

Report Prepared For: lan Hamre



Website:stucco-inspector.net

Address, Based in Murrells Inlet, SC Ph:843-283-0557 Email:stuccoinspector@gmail.com stucco-inspector@earthlink.net



#### I. INTRODUCTION

**1.1 PURPOSE:** Enclosed is your Stucco Moisture Inspection. The purpose of this moisture inspection is to help assess the condition of the stucco system by looking for visible installation flaws, inadequate water diversion and sealant failures and conduct random moisture readings using electronic moisture probe and or scan devices. Please note that the provision of a scope of work for remedial repairs is not the purpose of this inspection. *Further investigation may be needed to determine the extent of water damage, if any, and how best to modify your home to address any moisture problems that may be indicated by this inspection.* 

**1.2 SCOPE OF INSPECTION:** This is a basic, stucco inspection limited to the following:

- 1. A visual examination of the condition of the stucco, exterior sealants, flashing, windows, doors, roof-to-stucco transitions, parapets, gutters, deck-to-building connections, stucco terminations and any penetrations through the stucco. Improper installation can not be determined unless stucco is removed, which we do not do.
- 2. Conducting of *random* electronic moisture scanning and or probing of the building envelope.
- 3. Preparing a report of our observations of potential problem areas and recording any high readings found.
- 4. Providing detailed information on typical moisture-related problems in stucco homes to assist you in maintaining the value of your home.

**1.3 LIMITATIONS OF LIABILITY:** Because this is a limited inspection, we can make no guarantee, express or implied, that our observations and random moisture readings offer conclusive evidence that no installation or moisture problems exist, or that problems found are all-inclusive. This inspection company, its employees and any divisions shall not be liable for non-visual defects, unseen defects, unspecified defects or hidden damage and conditions existing on the subject property and hereby disclaims any liability or responsibility thereof. All parties concerned agree to hold harmless and indemnify this inspection company involving any liabilities that may result.

**1.4 FURTHER TESTING / INVESTIGATION:** Our policy is to rely on moisture meter readings as an indicator of relative moisture values between different test spots, not as an absolute value of water content in the substrate. It is difficult to determine if the structural wood of your home has been damaged in areas of high readings without 'probing' and/or removing a core sample of the stucco to allow for visual inspection. Should we feel that further investigation is needed this will be indicated in the summary section of the report.

**1.5 ANNUAL INSPECTIONS:** This is extremely important. Annual inspections should also be scheduled to ensure that your stucco system remains dry. This way any sealant failures, stucco cracks, etc. can be caught and repaired promptly. Testing and maintaining your home on a regular basis is the best way to prevent costly repairs associated with moisture damage. Also, should you decide to sell your home, annual inspections and maintenance documentation will be a valuable selling tool, providing evidence to show that your home has been inspected and maintained on a regular basis by a reputable and qualified firm.



# **Project Information**

OWN	IER INFORMATION		-			
Owners	lan Hamre					
Property Address	495 Hickory Ridge Rd					
City, State, ZIP	Martinsville, VA 24112					
Phone	540-488-8567					
Owner's Email	ihamre@vt.edu					
PROPERTY INFORMATION		INSPEC	INSPECTION INFORMATION			
Type of Exterior	EIFS	Date of Inspection	11-17-2020			
Substrate (if known)	Plywood Sheathing	Inspector	David Blackburn SC #39			
Age of Property	1992	Present at Inspection	Owner			
Square Footage	7899 + or -					
		Weather Conditions	Sunny			
		Last Rain	Within last couple weeks			

Inspection Test Equipment								
	Test Equipment Description	Test Range Setting		Setting				
		Low	Medium	High				
X	Delmorst Moisture Probe Meter	10-14	15-19	> 19	1			

NOTE: The test equipment is used to help locate problem areas. It must be understood that the test equipment is not an exact science but rather good tools used as indicators of possible problems. At times, because of hidden construction within the wall cavity, the meters get false readings or no readings at all. Some meters will pick up on metals, wiring, unique wall finishes, etc. Positive readings do not always mean there is a problem, nor do negative readings necessarily mean there is not a problem. We do not use the equipment to obtain exact moisture content, but rather to obtain relative readings between suspected problem areas and non problem areas. This information is then used to help determine potential problem areas which may warrant more investigation.



# **General Observations**

Item Description	Yes	No	Improper	Comments
Sealants at window perimeters	X			Completed- Correct
Mitre joints (bottom corners) of windows	X			Good
Sealants around door perimeter	X			Good
Penetrations through stucco sealed	X			Utility breaches have been sealed
General appearance	Χ			Good general appearance
Termination below grade (ground level)		X		Bottom of the stucco has been cleared and is above grade and sealed.
Stucco at deck area repaired	X			The walls below deck areas have been re-skimmed correctly.
Deck flashing	X			
Kick-out flashing	X			Proper kickout flashing has been installed.
Cracks sealed	X			



#### **Inspectors Summary**

This inspection was performed to observed repairs made to the stucco, windows and flashing areas from the previous inspection. It appears that all areas that was suggested to be repaired has been made. Proper kickout flashings have been installed. Windows have had touch-up caulking at the frames. The bottom of the stucco system that were at or below grade have been have been cleared at the bottom termination. The back elevation deck area has been re-skimmed with a new stucco finish. Some minor areas of damage has repaired. This should take care of all the suggestions made from the original inspection report.

#### PLEASE SEE REPORT FOR ALL OBSERVATIONS.

This report only reports on the condition of the structure at the specific locations indicated. Locations were determined by the inspector according to probable areas of possible moisture intrusion and in accordance with accepted industry standards. No judgment is intended or given for any areas not reported on.

David Blackburn SC #39



## **Repairs Made**



Stucco termination is above grade and sealed. This was repaired after the initial first inspection as suggested.



Stucco termination is above grade and sealed. This was repaired after the initial first inspection as suggested.



Proper kickout flashing has been installed.



## **Repairs Made**



Stucco termination is above grade and sealed. This was repaired after the initial first inspection as suggested.







Proper kickout flashing has been installed.



## **Repairs Made**



Utility breaches have been caulked correctly.

Stucco termination is above grade and sealed. This was repaired after the initial first inspection as suggested.





All window caulk has been touched -up correctly.



## **Repairs Made**



Stucco termination is above grade and sealed. This was repaired after the initial first inspection as suggested.



Back elevation deck area has been reskimmed with the proper stucco finish.



Back elevation deck area has been reskimmed with the proper stucco finish.

495 Hickory Ridge Rd. Martinsville, VA 24112



Photo9.1

# MoistureFree Warranty

## **Repairs Made**

Damaged stucco has been repaired correctly.

<image>

Stucco termination is above grade and sealed. This was repaired after the initial first inspection as suggested.



Proper kickout flashing has been installed.



## **Repairs Made**



Photo10.2



Proper kickout flashing has been installed.

Door frames have been caulked correctly.

Window frames have re-caulked.



## **Repairs Made**



Stucco termination is above grade and sealed. This was repaired after the initial first inspection as suggested.



## **Stucco Inspection Report**

## The Following Pages Have Been Added To Show Stucco Maintenance And Other Types Of Stucco Systems. This Is General Information And Is Not Associated With This Inspection But May Be Used As A Guide To Solve Any Issues Detected In This Inspection.





#### **4. Stucco Information, Care and Maintenance**

#### 4.1 TYPES OF STUCCO

#### A. Exterior Insulation and Finish Systems

Sometimes referred to as synthetic stucco, the materials used to form EIFS vary from manufacturer to manufacturer. EIFS is broken down into two classes, Class PB (polymer based) and Class PM (polymer modified). Class PB is the most commonly used of the two, especially on residential. Figure 1 shows the typical makeup of an EIFS system, although this can vary. The EIFS can be adhered directly to the substrate or mechanically fastened.



An adhered EIFS is typically considered a "barrier" type cladding system. These systems do not have any built-in drainage capabilities for incidental moisture. Rather, the design intent was that no moisture should ever get behind the stucco. If water does leak behind the stucco, it can become trapped. The only way out many times is through evaporation-a slow process for an enclosed wall cavity with EPS foam. In a wet climate, it may never have a chance to dry out between rains as long as the leaks continue. Mold, mildew, wallboard damage, rotten sheathing and studs, carpenter ants, and termites can all result-depending upon how long it has been leaking. When these systems utilize oriented strand board (OSB) as the substrate for the stucco, which is common in the residential market, the potential for more serious water damage increases. EIFS that are mechanically fastened can have some 'drainage' capability if a properly installed moisture barrier system is present and adequately tied into critical details such as windows, doors, flashings, penetrations, etc. (this is difficult to verify after EIFS installation is complete). However structures with improperly installed barrier systems tend to experience the same damages of a structure without any barrier system. Some EIFS have been found to leak from construction onward due to improper installation stucco, flashings and sealants and/or leaky windows and doors. Not all EIFS buildings leak, but they do all require that critical details be properly maintained for continued protection from water intrusion. Even small amounts of leakage over time can cause significant damage to the structure, many times hidden until the damage is severe. Each manufacturer publishes details to guide the stucco applicator, sealant contractor, builder and architect. These details may vary slightly from manufacturer to manufacturer. EIMA, the EIFS Industry Manufacturers Association, publishes a detail guide for the entire EIFS industry.

#### B. Traditional Hard Coat Systems:

Although these systems have been in use for many decades, in recent years it has become popular to place these systems over wood sheathing and studs. The systems makeup is generally studs, sheathing, felt paper or other moisture barrier, reinforcing lath, scratch, brown and finish coat. The scratch, brown and finish coat are usually cementitious (many use acrylic finishes), mixed in the field, and applied to a thickness of about one inch.



Hardcoat systems are also susceptible to moisture damage if not properly applied, caulked and flashed. In this respect, it is no different than EIFS. Again systems with OSB (oriented strand board) sheathing tend to experience more severe damage when leakage occurs. One disadvantage of traditional hard coat stucco is that it is more susceptible to cracking than synthetic stucco due to expansion and contraction. For this reason, ASTM calls for expansion joints every 144 square feet, as well as between floor lines and at the corners of windows.

#### C. <u>Water Management or Drainable EIF Systems:</u>

Water management systems typically use a drainage plane behind the stucco coupled with perforated starter

strips at the bottom of the walls and under windows to allow any incidental moisture to weep to the outside of the wall. Once the moisture drainage system is properly installed the installation of the EIFS is less critical. Problems can still occur however, if the drainage system is not properly installed (difficult to verify after completion of EIFS application).

**4.2 IS STUCCO A GOOD CLADDING SYSTEM?** Yes, as long as any construction defects, if any, are properly repaired and the system is well maintained, it should provide good long-term performance. There is no such thing as a permanently maintenance free cladding system. Leak problems occur in all types of cladding systems, including brick and vinyl siding. The only difference is that with stucco, the maintenance is more critical. The sealant joints are your first line of defense against water intrusion, and sometimes it's the only line of defense. Water intrusion must be prevented at all costs due to its destructive nature.

**4.3 CARE AND MAINTENANCE:** The beautiful architectural designs made possible by synthetic stucco systems make these homes very desirable and marketable. It is critical, however, to carefully maintain these systems to prevent water intrusion and deterioration. With the proper care and maintenance, your stucco system should give you many years of beauty and function. It is very important that the five following steps be followed to protect your investment.

(1) Semi-annually (at least annually) inspect all sealant around windows, doors, penetrations through the stucco, stucco transitions (such as stucco to brick, stucco to stone), and stucco terminations (at roof, at grade, at patios or walkways). Arrange for prompt repair of any areas of caulk that is split, cracking, crazing or is losing adhesion. Also, promptly repair any cracks in the stucco.

(2) Any leaks, cracks, areas of discoloration, mold or mildew should be promptly investigated by a certified EIFS inspector. Repairs should be proper and prompt.

(3) Anytime you make a penetration though the stucco such as to mount a satellite dish, add shutters, new wiring, cables, plumbing, security systems, etc., the perimeters must be sealed with a quality sealant approved for EIFS.

(4) Modifications, additions or renovations (including roof replacement) to the structure of any kind should be inspected by a qualified EIFS inspector to ensure waterproofing of critical details is properly performed.

(5) Periodic cleaning of the stucco is necessary to maintain its appearance and prevent permanent staining. Pressure cleaning equipment must be calibrated to the stucco manufacturer's recommended pressure level (low) to prevent damage to your stucco. Select a firm with experience in cleaning these EIFS systems.