

Course: Exterior Design Institute – Exterior Wall cladding: 3rd Party & Moisture Analyst
Inspector Certification Course- Level I
Lesson: Inspection Documents & Process
Topic: 12.02 Inspection Process
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The Inspection Process

Step by Step Inspection of Existing Building

Webster states: *Inspection; verb, to examine carefully, especially for flaws to review officially.*

All information that follows is provided to prepare for the inspection of a home or building. Many of our inspectors begin by inspecting homes either for owner piece of mind, or for a relocating client.

To begin:

The forms - discuss with your attorney the contract document you will use when contracting to perform an inspection. (A sample is enclosed.) Laws vary from state to state so it bears repeating to check with your attorney for assistance. Discuss with your attorney the legality of a contract and disclosure statement. Discuss this long before you contract to do your first inspection.

Check with your commercial insurance agent for an Errors and Omissions Policy. Again, because laws vary, information has not been included in this package. A good investment to protect your business and yourself. Some clients require proof of insurance.

Checklists

If you are a checklist person, develop a checklist of items to look for when inspecting a home.

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Tools

This is a basic list and can be expanded as your business expands:

- 25' measuring tape
- 100' measuring tape
- ruler
- 6" level / larger if needed
- ziploc bags for samples taken
- markers, Sharpies pencils and pens
- pliers
- screw drivers of various sizes (Phillips and flat head)
- small rubber mallet
- scissors
- razor knife
- inspection mirrors on extending arms
- small hammer
- downloadable camera w/zoom lens and voice recording feature
- removable memory card
- batteries
- notepads or fill-in blank forms
- safety gear - hard hat if necessary, safety harness, mask, gloves, etc.
- tote of your liking
- Matching color caulk and caulk gun (in case of probing)
- 16 ft ladder (at times larger)
- Portable hammer drill with 3/16" standard and 3/16" masonry bits for HCS and ASV.

Depending of depth of inspection these tools are optional:

- Delmhorst moisture meter w/probes
- Tramex non-intrusive moisture meters
- Interior moisture scan meter
- Digital camera
- Recommend digital camera with voice capturing field notes.
- Voice recorder
- Consider videos
- Infra-Red Thermometer
- Structural Resistance Tester

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Project Information

Date:		
Report Prepared for:		
Address:		
General Contractor:		
Installation Contractor:		
Type of System and Manufacturer:		
Weather Condition of the Day	Temp:	RH:
Last Rain		
Persons Present at Inspection		
Age of Property		
Type of Property (ie. ranch, split, colonial, office, warehouse, etc.)		
Type of Construction		
Number of Stories		
Framing Type		
Basement/Crawl Space		
Foundation Type		
Any known history of problems?		
Type of Windows and Doors (ie. aluminum, wood) and Manufacturer		
Have any modifications been made to home since original building?		

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Elements of a Phase 1 (visual) inspection

- Identify types of exterior cladding.
- Identify and confirm type of substrate.
- Check for presence of an air/moisture barrier.
- Check for proper terminations and presence of drainage weeps.
- Identify type of attachment: fasteners or adhesion.
- Type and thickness of rigid insulation if present.
- Have light receptacles, vents, penetrations been wrapped properly either with mesh and base or backer-rod and sealant where applicable?
- Check installation of basecoat and mesh., if EIFS is all EPS wrapped in mesh and is all mesh covered with basecoat?
- Check installation of finish., Have all base coated areas been finished? Finish missing in any of these areas?
- Does installation meet manufacturers specifications?
- Are bands, quoins, keys properly installed?
- Are there any horizontal surfaces that should be positively sloped or pitched to drain?
- Are windows installed properly?
- Are there proper sealant joints around windows, doors, and system terminations?
- Are penetrations such as utility and cable penetrations, downspout penetrations, lighting receptacles, vents, hose bibs, sealed properly?
- Are expansion joints and aesthetic grooves properly installed?
- Is system terminated above ground level per system requirements?
- Have any areas been damaged, i.e. from kids playing ball, stones thrown from lawnmower, etc. (Impact Damage)?
- Has the system been flashed properly with respect to: Kickouts (also known as Divertors), Valley Flashings, Roof Flashings and Crickets around Chimneys, Head Flashings (top of windows), Window Pan Flashing (bottom of window)?
Roof Terminations
 1. System terminated 2" above roof line (shingles)
 2. Proper flashing in place?
- Attachments such as gutters, shutters, downspout hanger brackets, utility boxes, planters, decorative hangings, decks properly sealed?
- Is wall cladding system delaminated, bulged, or cracked?
- Any notable repairs attempted?

This list is not all-inclusive. Again, it depends on the type of exterior wall cladding and the type of inspection you are performing and your agreement with your client as to the amount of detail that you will be looking for.

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When inspecting a property, do so methodically. Do a visual walk around examining each elevation for points of concern; we recommend walking both ways around the building to get both perspectives. Then, do the detailed close-up inspection of each elevation. Work systematically around the building.

Keep in mind that your inspection report is your final product.

Photographs

Photographs document what you have seen and are essential to the content of your inspection report. As each photo is taken, either record a voice memo or written notes in your project photo log. We recommend digital cameras that have the voice captioning feature. DO NOT rely on your memory.

1. Docuphoto each elevation of the house/building as a general photo. This shows where the various wall claddings are located on each elevation of the home/building.
2. Docuphoto each discrepancy that you find.
3. Windows, doors, penetrations, sills, damaged areas, roof lines, etc.

The more pictures you take, the more documentation you have when writing your report, and, if necessary, as proof, should a project go into litigation.

Placing objects in your photos such as a ruler, levels, etc. is a good way to show scale.

Digital cameras images are admissible in litigation proceedings.

Specific cameras are not recommended in this section, as they are a personal preference tool. However, our experience shows that a digital camera that uses common SD cards, AA batteries, has telephoto capability and voice captioning capability are the most effective cameras for our purposes.

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Advice is free and can be used however one chooses.

**Never RECOMMEND anything to a client. You may write or express an OPINION but not a recommendation. This is a legal technicality.

**If you don't see it in the specs, call a tech rep from the manufacturer and have the rep send you their opinion IN WRITING.

**Keep your inspection information PROPRIETARY. If a client wants you to share the information or has additional parties at a meeting, obtain his/her signature on a RELEASE OF INFORMATION FORM

(name) _____ has my permission to report the information obtained from his/her EIFS inspection to the following person(s) _____, regarding the following address:

Authorizing Signature

Print Name of Above

Title

Date

Witness

Make sure your contract spells out even the most minute detail of what the client expects of you and you expect of the client. This will eliminate miscommunication at a future date, like pay day!

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STEP BY STEP PROCESS - Existing Building

1. Receive the order via phone, fax, email, mail, personal contact.
2. Organize your project:
 1. insurance
 2. contract
 3. checklists
 4. project blank forms
 5. tools, ladders
 6. camera(s)
 7. meters
 8. directions to project
3. Once on site, wear name badge. Greet the project representative, if one will be present, with a business card. Ask the following:
 1. age of property and when the wall claddings were installed
 2. system installed (manufacturer)
 3. installation contractor's name
 4. caulking contractor's name
 5. builder's name
 6. is a warranty in effect
 7. any remarkable problems and where
4. Begin organizing your equipment to best suit your movements.
5. **First walk around the building and visually observe each wall of the project photo documenting the elevations. While doing this initial walk form a hypothesis as to the type of wall cladding on the building. Next inspect the detailing on each wall and confirm or deny your wall cladding system hypothesis.** Notice the environment around each wall and how it contributes to the system (ie.: trees, plantation, storage bins, fences, decks, etc.). Voice recorder is handy for this task.
6. Begin to photograph all that you have seen, especially discrepancies with installation and environment.
7. Walk around one more time and make written notes of things you may not have seen before - refer to the detail list to make sure you have looked for everything that can assist you in your report writing.
8. Speak with the building representative again, close your inspection by telling them you are leaving and you will have your report ready in the next 48-72 hours.
9. As soon as possible, prepare your written report and invoice. Send it out ASAP. Good service means future business!

Follow up with the client. If the client has questions, you can answer them. This helps you build a rapport with the client!

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Inspection example

1. 1" EPS was used on this home
2. Caulk joints around windows and doors are 3/4"
3. Aesthetic Grooves are 1/4"
4. Downspout illogical placement-laundry room wall
5. Window sills are at a 90 degree angle
6. Trim around windows and doors are not beveled or sloped to drain
7. Roof line terminated / flashed correctly
8. Termination at ground level approximately 9"
9. 38.5% moisture reading on laundry room wall
10. Divertor missing on laundry room wall gutter

Owner:
Kim Bedford
1234 Any Street, Anywhere, USA 00000

Home is 6 months old and does have a builder's warranty.

Contractor:
Skeeter's EIFS Company
123 Anywhere's Good
Your Town, USA
PH# (468) 242-4663

Builder:
Wanna Do Well Company
456 Little Worry Avenue
Just Do It, USA
PH# (782) 732-8580

Weather – Sunny, 70F with 55% RH
Date- 11/8/98
Type- Townhouse, 3 story
System- PB System
Manufacturer- Unknown
Basement - Dry

Windows-Pella
Vinyl- on rear of home
Doors- Pella, Metal
Known Problems - Mildew smell in laundry room-source unknown

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Cover Letter

November 10, 1998

Ms. Kim Bedford
1234 Any Street
Anywhere, USA 00000

RE: EIFS Inspection Report

Dear Ms. Bedford,

Enclosed you will find a copy of our completed Exterior Insulation Finish System, Inspection Report, including photograph log and photographs.

If we can be of service to you with regards to this or future projects, please do not hesitate to contact us.

We were privileged to serve you and look forward to building a lasting relationship, extending well into the future.

Sincerely,

Zachary Card
EDI Inspector FL#-XXX

ZB/lb

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The Report Writing

- Organize your notes, photographs, and thoughts.
- Compose the report using proper terminology, grammar, and spelling.
- Prepare the footprint of the home if needed for the type of inspection.
- Organize your photo log.
- Compose the cover letter.
- Compose your invoice.
- If inclined, place materials in a report cover.
- Email, Mail or Deliver by method agreed upon.

Sample Inspection Report

Key Information to be in your Inspection Report

Property: Street address
 City, State, Zip Code and County

Inspection Personnel:

Inspector: Your Name
 Inspector: Co-inspector (Optional)
 Company: Your Company Address
 Website: [Company Website](#)
 Phone: [Company Phone](#)
 EMAIL: [Company Email](#)

Available Instrumentation: (Examples)

1. Tramex Wet Wall Detector
2. DelmHorst BD-2100 Moisture Meter
3. Tramex Interior Moisture Scanner
4. Barometer – thermometer (digital)
5. Portable Infrared System, IR FlexCam “T”
6. Structural Resistance Tester (SRT)
7. Bore-scope with camera adaptor

Credentials: (Examples)

Certified Third Party Cladding Inspector
 Certified Moisture Analyst
 AWCI Certified EIFS Mechanic

MoistureFree Warranty Corp. Certified
 Mold Loss Prevention Certified
 Toxic Drywall Inspector
 Level I Thermography

Evaluation Information

Date: Date of Inspection Time: 12:50 pm – 2:10 pm

Outside Conditions: Cloudy

Average 84 °F and 95% - Humidity

Last precipitation 17 hours prior

Inside Conditions: 72 F controlled

People Present: Names of those present other than inspectors

Age of Structure: 2001

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Description: 2200 sq. ft. multi-story residence

EXAMPLE REPORT SUMMARY:

This is a multi-story wood frame construction residence with a Class DA direct-applied Exterior Finish System (DEFS) on all elevations.

YOUR COMPANY has determined there is significant deterioration of the wood sheathing along much of the lower wall termination, above where the wall system meets the foundation. The cause of the wood sheathing deterioration is moisture intrusion into the wall system. It is likely that the moisture intrusion has also caused varying degrees of deterioration to areas of some of the wall framing members. Active fungal and mold activity in the wall cavity is also likely, especially in the high moisture areas. Additional testing using probes connected to moisture meters and structural resistance testers would provide more detailed information as to the range and extent of the damage. Core sample inspection would also provide useful information. The detailed inspection information would be helpful in creating a scope of work for a repair contractor. At a minimum, the repairs would involve removing areas of the wall cladding and replacing the damaged wall components. In addition to the moisture damage noted above, there are also some issues with cracks in the exterior wall cladding, and water erosion of the finish and base coat in some areas. Caulk sealant is missing at penetrations.

Your Signature,

EDI ID# ST-XXX

YOUR COMPANY NAME

YOUR COMPANY ADDRESS

YOUR PHONE NUMBER(S)

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BODY OF INSPECTION REPORT

There are many different report inspection formats. Have the body of your report tell the story of what you observed on the house. The body of your inspection report should include all information and opinions in the executive summary plus supporting information for your opinions. Your report should include:

1. date and time of the site visit,
2. description of the property and property age,
3. Builder of property
4. the system and components observed,
5. owner information,
6. identify the manufacturer if known, and system name
7. weather conditions (Sunny, Temperature and Relative Humidity),
8. last precipitation,
9. testing equipment used
10. Photos of elevations of all walls of the property with the following:
 - a. Proper identification of elevation.
 - b. Identification of concerns on each elevation.
 - c. Location of all moisture testing and results.
 - d. Locations of deteriorated substrate or framing.
11. Photos of representative points of concern with description of concerns.
12. The critical observations and opinions should be included in the executive summary.