TABLE OF CONTENTS

CHAPTER 10: ELECTRICAL INSPECTIONS
Electrical inspections that won't freak out your client. How to do your inspection by the book without the book

CHAPTER 11: THE HANDY-MAN CHALLENGE
Looking at common mistakes of renovations or additions that were not done professionally and understanding how they can impact your client

CHAPTER 12: BACK TO THE COUNTRY
The unique challenges of inspecting rural properties including discussions on well, water treatment and septic and sump systems

CHAPTER 13: THE OLDER THE BETTER
Developing a better understanding of period and century homes and how the approach to this inspection differs from the norm

CHAPTER 14: COMMUNICATE TO EDUCATE
Discussing communication skills vital to the success of your business and the success of the inspection

CHAPTER 3: EXTERIOR INSPECTIONS

The place to start an exterior inspection is actually nowhere near the house that you are inspecting. It actually starts when you arrive in the neighbourhood. You should begin by assessing the homes surrounding your property to form an idea of their makeup. Are they wood frame or solid brick? Are they brick clad or do they have siding? Do some have newer roofs? Have obvious significant renovations been done to some of the homes? Are there large mature trees on the properties? Are there utility covers for sewer access in the street? These observations serve to set you up for the inspection you are about to do. They help you understand the possible age, affluence, style, and complexities of the home that you will be inspecting.

For example, if you note that there is a mix of new and old roofing in the neighbourhood, it can give you clues as to the age of the roof you are about to inspect. Solid brick homes can be an indication of the type of underground drainage or interior structure components you can expect to see. An abundance of new visible renovations or additions can tell you that the renovations were more likely than not to have been done legally and based on the size, scope of work or design, you may get a better understanding of the infrastructure available in the area (i.e: hydro and sewer capacity). For example, if your property turns out to be the only two storey, 2500 ft^2 home complete with a two car garage, EIFS and stone cladding, and parking for six cars amongst a sea of 70 year old wartime bungalows you need to ask questions. You immediately need to key in on asking about permits: for hydro service upgrades, for plumbing and on-site sewage upgrades, for driveway entrance alterations, permission for easements of encroachments on property lines, and most importantly, for additions and alterations to the structure.

You need to know as much information about the exterior of the property you are inspecting to be able to begin to form opinions about the interior, and you need time to do this before your client arrives. It is imperative that you begin your inspection no less than 30 minutes prior to the arrival of your clients. The inspection of the exterior of the building is the most crucial part of your job. This extra time allows you to do your inspection and formulate your approach to your client prior to their arrival. Depending on the circumstances, this can have a dramatic effect on the outcome of an inspection. You may, for example, discover that the one storey addition on the rear of the house had no eaves trough drainage system, showed signs of separating from the main building, and had what you considered to be structural stress cracking in the brick cladding and foundation. It is important that you take this information in and process the possible negative repercussions to your client and the possible solutions. This way when you relay the information to your client, you are approaching this difficult discussion from a position of confidence. Starting your inspection as early as possible, especially at the beginning of your career, will relieve the pressure you inevitably feel under tight time constraints. As you progress, and your confidence builds, your lead time will decrease, but should never be less than 20 minutes.

Case Study #1

For the purposes of this scenario the house we are inspecting is a 19 year old, brick clad, single family, two storey, detached home with an attached two car garage built in a subdivision with municipal sewer and water services. The home owners have replaced some of the windows, finished the basement, and added a deck, interlocking walkways at the front entrance, and an in-ground pool with a cabana/change room. All HVAC and plumbing components are original. The assumption in this and all future case studies is that you use an interactive inspection approach with your clients, that you use a narrative digital style report including digital video or still photography, and that you deliver the report either on CD-ROM, DVD or in printed format directly after the inspection. I will also provide sample observation statements to help you understand elements of effective report writing skills.

The exterior inspection process starts from a distance. We begin by looking at the building from a vantage point that provides a good view of the building's profile, usually from across the street and the rear of the property. We are trying to establish from the start if there are any concerns about the structure as it stands on the property. Are there any significant dips in the roof structure's surface or main roof ridge? Are the exterior walls plumb and level? Does the building appear to be level in relation to other building adjacent to it or any other reference point? These observations will help you establish if further investigation for structural issues needs to happen as you progress through the inspection. I generally use my own sense of level when I do this, keeping in mind that all roof structures have some sort of deflection usually related to wear and not to major defect. Allowances have to be made for the age of the home and assumed changes that may have happen over the years. When doing this first glance observation, I don't use instruments to measure how much something is out of plumb or level. You need to trust your instinct and know that, for the most part, if you can see it with your eyes that is likely a concern that needs to be looked into further. This is a good time to check out the street sewer covers or fire hydrants close by. They usually have date stamps on them that can give you a good indication of the age of the road surface and the corresponding age of the house.

At this distance, you can now begin the inspection of exterior elements. I tell my clients that the five most important things we key in on as home inspectors are:

- the roof surface - shingles, vents, chimneys and soffits,
- the building envelope - foundation, wall cladding, windows and doors,
- drainage systems and surface grade gutters, downspouts, landscaping, patios and walkways,
- weather sealing and leak proofing the exterior building envelope - all entry points, and
- components and safety - garage, driveway, decks, stairs, railings, services, and perimeter fencing.

It should be stated to your client that the entire focus of the exterior inspection of these main items is to ensure that water can't get into the building and that conditioned air can't escape the building envelope. Our intent is to identify anything that we believe may impact the building negatively in the future and to make recommendations for repair.

Roof Surface

Because the roof provides protection for every element of the house we check very carefully to try to establish the current condition of the surfaces (shingles, shakes, built-up, or rolled bitumen layers). We look at roof elements such as flashings, vents, stacks, chimneys, soffits and facia. It should be explained that examining the roof is a three part investigation that includes the outside elements, the interior attic spaces and finally the ceiling surfaces under the attic/roof spaces. Final determination of the roof's current condition happens only after the three part investigation is complete. At times it is very obvious based on exterior observations that a roof surface is at the end or near the end of its useful life. In this case the only thing that the other parts of the investigation helps determine is the sense of urgency in changing the roof. It is at this time you remind your client that your focus is on problems that in your opinion are active and are negatively impacting the building now. Look for clues that the roof surface may not be performing as intended. Premature wear in certain parts of the roof could point to ventilation issues. Localised discolouration of roof surfaces could mean drainage or moisture retention problems. Look closely at the soffits and trim pieces adjoining the roof for openings, or clues that animals might be nesting in these areas. It's important to know this before you do your attic inspection. If animals are still nesting and are in the attic, it could prove to be dangerous or a health hazard to you.

At 19 years, this roof surface is at or very near the end of its useful life. Inform your client that asphalt roof surfaces typically last between 15 and 20 years and that this roof shows no signs of having been changed.
Observation Statement:

It is suspected that the roof surface will reach the end of its useful life within five years and that this item will subsequently fail to protect the building from water damage. Monitor this item for continuing changes in condition which may indicate the need for further evaluation or repair by a specialist. Budgeting for a roof surface replacement is recommended.

This particular roof surface shows signs of deterioration on the south facing side of the main roof, significant wear at poor drainage areas on the front porch and lower garage roof, holes in most valley flashings, lifting of flashing around the chimney, and significant unevenness in the roof surface on the rear side.

Observation Statements:

Lifting of shingles. Curling of shingles noted in one or more areas of the roof surface. Water penetration is possible at this area. Continuation of this condition could lead to water damage. Monitor this item for continuing changes in condition which may indicate the need for further evaluation or repair by a specialist.

One or more areas of the roof surface is experiencing accelerated deterioration due to the direction of drainage pieces or design directed toward those particular areas. If this condition continues, shingle replacement or patching in that area will be required much sooner than the time required to replace the entire roof surface. Water penetration is also possible at this area. Monitor this item for continuing changes in condition which may indicate the need for further evaluation or repair by a specialist.

Valley flashing is showing evidence of accelerated deterioration. Asphalt roof valley will deteriorate faster than the remaining roof surface due to continuous wear from rain water redirected to this area. Metal valleys should be considered during the next roof resurfacing project. Water penetration is possible at this area. Strongly recommend immediate action. Repair or replace as required.

Missing shingles water penetration is possible at this area. Continuation of this condition could lead to water damage. Continuation of this condition could lead to structural damage. Strongly recommend immediate action. Consult a specialist for further evaluation and recommended action. Recommend repair.

Chimney flashing is lifting and/or is not properly secured into place. Water penetration is possible at this area. Continuation of this condition could lead to water damage. Recommend repair. Seal accordingly to prevent future water penetration.

Roof plane shows significant signs of unevenness. These lower points may experience wear faster than other areas due to longer water retention. This may also be an indication of deterioration in the underlying roof structure. Monitor this item for continuing changes in condition which may indicate the need for further evaluation or repair by a specialist.

The driveway has sections of unevenness. The driveway has sections of cracking. The driveway slopes up towards the building possibly suggesting active or previous frost heaving at the foundation wall. Driveway appears to have aged beyond its effectiveness. Continuation of this condition could lead to water damage to the item and to the building structure. Repair or replace as required within 5 years.

Communication Comments

When communicating exterior inspection observations or for that matter any observation on a home you must always inject a little reality. The reality is that the age, location, and at times, the style of home can dictate whether a defect is an urgent and active problem or is likely something that happened in the distant past. For example, the home you are inspecting has a newer roof surface but when looking at the underside structure of the garage roof you see stains from a roof flashing area. As the home inspector, the correct observation is that through visual inspection of the top side roof and flashings you conclude that the leak happened in the past and is not likely active due to the newer roof surface. As the home buyer you assume the roof is leaking now or continues to leak despite the fact that it has a newer roof surface installed. There is no definitively correct answer here but there is one that is more correct. Your client has hired you for your expert opinion. You need to be confident in your conclusions and be able to effectively communicate and support those conclusions.

All observations must be communicated in a way so that your client understands the sense of urgency. Did that poor drainage area at the foundation result in a leak or could it result in a leak? Your job is not to raise alarm bells but rather to disseminate the facts and the realities of the defects you observe. You need to help your client distinguish between actual problems versus potential problems. Further you need to develop a priority schedule for

remedying problems. Reinforce to your client that "there is no perfect house". This will help them manage their expectations throughout the inspection process resulting in a better outcome for them, the referring agent, and for you.

Methodology

I always approach every exterior inspection in the same way. This helps when I try to recall location markers while completing my observation statement for the report. I create my report in stages so it's easy to forget where on the building a defect was observed. My methodology relates to how I navigate around a property. Of course this changes as restrictions such as locked access crop up during the process.

Once I've done my distance view inspection looking for significant structure shifting I will inspect all exterior components beginning from the roof to the foundation. This will include:

- roof, flashings, chimneys, roof vents, windows, window sills, cladding, caulking, mechanical vents, doors, door sills, grade, walkways, decks, stairs, railings, driveway, landscape, and electrical service supply (if overhead or in front)

I travel from the front of the building clockwise until the entire exterior structure observations have been inspected and digitally recorded. Once finished I inspect garages and outbuildings that have electrical power in use looking for:

- Gas sealing, garage door condition and function, underside of garage roof structure if visible, house entry door condition and function.