



PILLAR TO POST -
THE PUTNAM TEAM

HOME SERIES: FOUNDATIONS

When buying a house with a basement, it's essential to pay close attention to the foundation section of the home inspector's report. The foundation, being the structural base that supports the entire house, plays a pivotal role in ensuring the longevity and safety of your investment. A well-maintained foundation can prevent a multitude of structural issues, while a neglected one can lead to costly repairs and decreased home value. This brochure aims to equip you with a foundational understanding of the various elements of house foundations. By the end, you'll be better prepared to interpret your home inspection report and make informed decisions about your potential new home.

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Key Elements of Foundations

Types of Foundations

- **Full Basement:** This type is prevalent in cold climates where the foundation needs to be below the frost line. It provides extra living or storage space and is accessible from the inside of the house.
- **Crawl Space:** A crawl space foundation raises the house off the ground to protect it from moisture. It's less expensive than a full basement but can have issues with humidity and pests.
- **Slab-on-Grade:** A single layer of concrete is poured directly on the ground. This type is more common in warmer climates, where freezing ground temperatures are not a concern.

Materials Used in Foundations

- **Concrete:** The most common material, known for its strength and durability.
- **Concrete Blocks:** Often used in crawl space and basement walls; easier to install than poured concrete but can be less resilient to pressure.
- **Stone or Brick:** Historically used but less common now due to their lack of uniformity and strength compared to modern materials.

Signs of Foundation Issues

- **Cracks:** While small cracks might be normal as a house settles, large cracks (wider than ¼ inch) or horizontal cracks can indicate serious issues.
- **Water Intrusion:** Signs of water in the basement or crawl space can indicate poor drainage around the foundation.
- **Uneven Floors:** Sloping or uneven floors inside the house can signal foundation settling or shifting.

Understanding Your Home Inspection Report

The foundation section of your home inspection report will highlight the type of foundation your house has, the materials used, and any potential issues found during the inspection. Key terms you might encounter include:

- **Settling:** A natural process where the foundation slightly moves or sinks after construction. Minor settling is normal, but significant shifts can be problematic.
- **Efflorescence:** A white powdery substance on concrete surfaces indicating water presence.
- **Parging:** A protective or decorative coating applied to visible portions of the foundation.

Understanding these terms and their implications can help you grasp the overall condition of the foundation and what steps, if any, need to be taken to address issues.

Understanding the foundation elements of a house you're considering buying is crucial for making an informed decision. While the home inspection report provides a snapshot of the foundation's condition, recognizing the significance of each element ensures that you're aware of potential issues and their implications. Always consult with a structural engineer or foundation repair specialist if your home inspector identifies significant foundation concerns. With the knowledge from this brochure, you're better prepared to navigate your home inspection report and take the necessary steps to safeguard your investment.

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Water Issues and Detection Methods

Many homes with basements face challenges with water intrusion, especially during rainy or wet periods. While significant leaks or ongoing water issues are easier to identify, occasional leaks and those hidden behind finished walls, floors, and ceilings can be more elusive. Detecting these hidden problems requires specialized tools and techniques.

Infrared Thermography (IR)

Infrared thermography uses IR cameras to detect temperature variations on surfaces, helping to identify areas of moisture that may not be visible to the naked eye. Cooler temperatures typically indicate moisture presence, allowing inspectors to pinpoint potential problem areas.

Moisture Meters

Moisture meters are direct-contact tools that measure the moisture content in materials. By placing the meter on various surfaces, inspectors can detect elevated moisture levels, suggesting potential leaks or dampness.

During the inspection, special attention is paid to the basement, as it's prone to water issues. Buyers are advised to remain vigilant, especially during wet periods, to identify any problem areas.

Understanding the usual signs of moisture and knowing what to expect in your inspection report can prepare you to address these concerns effectively.

The Interconnectedness of Home Systems

The foundation of a house doesn't work in isolation; it's part of a broader system that includes guttering, drainage, siding, roofing, and plumbing. Each of these components plays a critical role in directing water away from the foundation, preserving its integrity and preventing water intrusion.

- Guttering helps channel rainwater from the roof and away from the foundation.
- Drainage systems, including French drains and sump pumps, manage water around and under the foundation.
- Siding and roofing ensure water flows off the house and doesn't seep through walls or windows.
- Plumbing must be leak-free to prevent water accumulation within the house's structure.

Understanding how these systems interact emphasizes the importance of holistic maintenance. Any issues with these elements can indirectly affect the foundation's health, leading to potential water problems in the basement. Being aware of the potential for water issues in a home's basement is a crucial part of the buying process. By understanding the tools and methods used to detect moisture, along with the interconnectedness of home systems, you're better equipped to evaluate the health of a potential home's foundation. Remember, addressing water intrusion early can save significant expenses and effort in the long term. Always consider consulting with professionals for comprehensive assessments and solutions to foundation and water-related issues.