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New Home Inspection (Construction | Phase)

A new home inspection, also known as a construction or phase inspection, is an invaluable service for anyone who is looking to have a reliable and non-biased professional opinion regarding the quality and installation practices being utilized on their new home during the building process. The new home construction process can be an unexpectedly overwhelming process for anyone. Having a professional home inspector on call to help guide you through the home building process and will absolutely bring value to your future purchase.

Phase Inspection Process

There are three opportunities available during the building cycle that are recommended to have your third-party inspector evaluate and report on the workmanship and construction of your new home. The standard 3 phase inspection process is utilized to ensure that major construction defects within your home are not covered up.

There is a market for these types of inspections for a reason. Additionally, most high-quality home builders fully welcome a third-party inspection. The new construction phase inspection is conducted at three separate times;

1. The first inspection should be conducted prior to your concrete being poured (Pre-pour Inspection)
2. The second inspection takes place prior to the interior walls and insulation being installed (Framing Inspection)
3. The final inspection takes place after the home is complete, yet prior to your final walk-through (Final Inspection)

Pre-pour Foundation Inspection





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Concrete foundation (Pre-pour) Inspections

There is significant value in having your foundation inspected prior to pour day. If you are considering having your foundation inspected there are a few things you should plan for. First, understand that pinpointing the specific date of the pour day is crucial.

Failure to install your home's foundation in accordance with the engineered plans can have a devastating impact on the integrity of your home's foundation. Furthermore, there are numerous workmanship defects that are present on nearly every foundation that can impact the visible appearance as well as the bearing capacity of the foundation.

When to Schedule the Pre-Pour Inspection

Once the concrete is poured, the opportunity to have your foundation inspected is gone. It takes time to coordinate with concrete companies for the required concrete for your foundation. That means, **your builder knows a few days in advance when they plan of pouring**. The best time for the pre-pour inspection is typically two days prior to the actual pour day. This will help ensure that the foundation is ready to inspect, as well as give the builder sufficient time to make any and all needed corrections, or postpone the pour day. Additionally, this will allow you some time to re-inspect the repairs prior to pour day.

Upon completion of the on-site inspection, Pro-Tech Inspections will return to the office and begin working on your report. The report will be comprised of photographs and locations of each defect, as well as the relevant references for issues discovered during the inspection. This helps ensure that once your builder has the report, the required corrections can be implemented.

3 Common Foundation Installation Problems

There is always a chance that your home's foundation will have a major issue. Though not the norm, there have been occasions where a home's foundation was poured using the wrong design plans. Below is a list of the most commonly found problems that are present on most of our pre-pour foundation inspections.

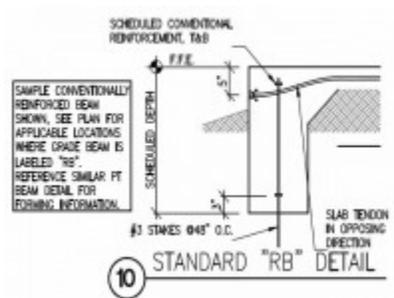


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1. This photo shows the installation of a Post-tensioned cable that is over-spanned and under supported. The plans for this foundation called for #3 rebar at 48 inches on center. This tendon was characteristic of every tendon installed within the foundation. When tendons are not properly supported, the weight of the concrete, as well as the concrete workers, will drive the tendon into the ground, severely limiting the amount of concrete coverage and potential bearing integrity of the exterior footers.



If your inspector is familiar with reading the foundation plans while on site, documenting and addressing these issues become much more efficient.

2. Another common problem is an undersized reinforcing bar. It is important for the integrity of the foundation, and compliance with the designed plans, that all corners, re-entrant walls, and other designed areas have the appropriate amount and size of rebar. Another important component is the support and fastening of the rebar within your homes foundation. The picture to the right shows rebar that was not properly sized. When located at the corners of a post-tensioned foundation, this can increase the probability of corner-pops.



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3. Another common issue with the installation of your home's foundation is standing water and poor grading and drainage. Grading is typically done by builders after the foundation has been poured, and sometimes later. This directs any recent rainfall into the foundation beams. This will significantly reduce the strength of the concrete when it mixes with the water, and should be avoided.

Framing Inspection



The next phase of the inspection process is typically called the framing inspection, or pre-drywall inspection. Once your home's roofing material, exterior cladding, and windows have been installed, your home will be ready for the interior sheetrock and insulation to begin.

Because the sheetrock and insulation cover some of the critical materials, like window flashing, electrical wiring, and your home's framing components, having your third-party inspector evaluate and report on the quality of work is paramount. Once the sheetrock goes up it is too late. Many defects can lay dormant until well after the home warranty has expired, leaving the home owner responsible for any needed repairs.

When to Schedule the Framing Inspection

The best time to schedule the framing inspection will typically coincide with your builder's framing walk-through. This is the portion of the building cycle where builders

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try and ensure that each of the agreed upon design criteria has been properly built into the home, and that your questions and concerns have been met.

This also happens to be in-line with the building officials required inspection, and when your builder, if applicable, will have their own inspector review the home.

Once the builder's inspector has finished their inspection, and the defects that were identified have been corrected, the best window of opportunity for the framing inspection presents itself. When we are the last to inspect the property it ensures that all of the typical defects have been previously identified and corrected. This makes it much easier for you to perform your re-inspection, as there will be, in theory, fewer items to keep track of. It also allows the inspection of the recently repaired defects.

3 Common Framing Installation Problems

1. The most common issue found during the framing inspection by every builder is improper notching and boring of the interior load bearing stud walls. After the framers have completed their installation, the electrical and plumbing is installed through the home's interior walls. During this process, over-zealous cutting of load bearing studs is conducted in order to make way for the utilities. There are requirements that must be met in order to maintain the integrity of load-bearing walls after they have been damaged. This goes unseen very often.



2. Another common problem is with the installation and flashing of the home's windows and exterior penetrations. Poor flashing installation will in most cases lead to water damage to the home. Unfortunately, this can take quite some time to finally manifest itself within the home once it has been covered in the building process. This is one of the primary reasons for an inspection at this stage.

3. Installation defects in regards to the home's water-resistive barrier and air barrier is also quite common. The water-resistive barrier and air barrier are installed in order to prevent the infiltration of water and moisture laden air into the home. When not installed



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properly, which is often the case, an unnecessary amount of unconditioned air can enter the home's thermal envelope.

Final Inspection

The final inspection should be scheduled a few days before your scheduled walk-through with your builder. This will ensure that the building process is near completion so systems can be inspected. This inspection incorporates all the major systems in the home and is the most time consuming of the 3 phases.

We truly appreciate you taking the time to consider Pro-Tech Inspections as your Upstate South Carolina home inspector, and we look forward to assisting you with your new home inspection needs.

3 Critical Things You Can Do

When Hiring Your Personal Inspector

New construction phase inspections can be tricky to schedule. If your project manager is off by a few days on his timeline, or last minute paperwork needs to be submitted, your scheduled inspection could be missed. That is why it is important to let your home building representatives know in advance that you wish to hire an independent building inspector to perform phase inspections throughout the building process. Below is a list of actions that you can take to ensure that your construction inspection goes off without any difficulties.

- 1.** Try and let your builder or project manager know well in advance that you will have a third-party inspector conducting independent phase inspections on your behalf. This has the advantage of putting them on notice, which will improve their attention to detail from the start. Also, it will require your project manager to be more accurate with their projected timelines. One of the most common complaints when dealing with your project manager is their inability to deliver an accurate timeline.
- 2.** Your home builder may also have some requirements that may need to be met by your inspector. Try and obtain this well in advance and get it to your inspector to avoid any last minute difficulties. The requirements are usually minimal, and any quality home inspection company should have no issues supplying the needed documentation.
- 3.** Finally, it is very beneficial to acquire the engineered plans that your home is being constructed with. More and more, home builders are limiting the access to their building



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plans. However, if a copy is available for review by your inspector this can add extra clarity to the home inspector and provide a more thorough evaluation of compliance with the design Engineer's requirements, variations, and required structural components.