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## **Responsibilities of the Designer, the Builder, and the Client when Undertaking a Construction Project**

When a client engages a Designer and a builder to...well, design and build a structure for him or her, it is extremely important that everyone understand what each person's responsibilities are. Each bears some responsibility to see that the work is done correctly.

**The Designer** (Engineer, Architect, Home *Designer*, etc) is responsible for the design (seems logical enough). The building *Designer* will interpret your requirements and create a building that suits your needs. The structural engineer must perform all the correct calculations so that the expected applied loads on the building will be adequately resisted by the structural elements (foundation, walls, columns, beams, and so forth). The *Designer* specifies these elements and makes drawings that convey enough information to allow the builder to build it as designed. In a similar way, the mechanical engineer will provide sufficient information so that the heating and ventilating contractor(s) can do their work correctly, and the building is warm in winter and cool in summer (and does not cost an arm and a leg to heat or cool). And so forth for all other *Designers* as required. Because of his or her training, the *Designer* has a higher standard of care than other people, and must live up to that responsibility.



**The Contractor and Tradespeople** are responsible to build to the National Building Code (in the case of Houses and Small Buildings as defined in Part 9 of the NBCC<sup>1</sup>) or, when "outside" Part 9, the builder must build to the specifications and drawings of the *Designer*. It is the contractor's responsibility to follow all aspects of the design. If the builder does not adhere to Code or the design, he or she is in breach of responsibility. The builder also has a higher standard of care, for he or she has agreed to build the structure as drawn. Trying to change things without conferring with the *Designer* and client is simply wrong. One of the methods a contractor has to make sure the designs are being followed is **Quality Control** – whereby the requisite tests are done, records kept, pictures taken, and so forth, to prove that the design and code are being followed.

**Quality Assurance:** This is otherwise often known as "inspections". Somehow the client must be given assurance that the builder has built according to the design. This can be accomplished in part

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<sup>1</sup> NBCC – National Building Code of Canada

by engaging the *Designer* or other design professionals to visit the site at certain key times to check.<sup>2</sup> One of the most important times is at the foundation and/or footing stage. Often the services of a geotechnical engineer will be needed for this QA work (structural engineers are often not qualified by training to deal with soil or permafrost conditions). This does cost money, but it is often worth it in peace of mind. Ultimately, if the builder does not follow the design, the *Designer* cannot logically be held responsible. However, for some jobs at times the *Designer* will ask the builder to provide a written confirmation that certain components were actually done as designed. In that way, the responsibility is clearly understood: if the builder has not told the truth or has misrepresented the facts, this will quickly come out in any legal proceedings once a building has failed in any way. Photographs help in this regard, and provide a permanent record of something “as built” before it is covered up.



**The Client** may also be asked to provide confirmation to the *Designer* that things are done as designed. This is particularly true if the client is acting as his or her own General Contractor (is hiring all sub-trades and is in over-all charge of material ordering, scheduling, and so forth).

**Changes or Clarifications:** Rarely is a construction project completed without some changes along the way. These changes can be due to several things: sometimes site conditions will be discovered that were not known before. For example, what may have appeared as competent bedrock may be found to be severely fractured and not capable of supporting the loads originally expected. Sometimes the client will have a change of mind about a particular aspect of the design. Sometimes a cost-saving measure will be implemented by the designer. And sometimes a contractor will have a suggestion that will save time or money. At any of these instances, the client will want to discuss the pros and cons via a *Contemplated Change Notice*, and once an agreement on time and price is reached, the *Designer* will write up a *Change Order* that clearly outlines the proposed change and the cost implication. This CO will be signed by client and Contractor and the work will proceed. There may occasionally be some confusion about the interpretation of the design, or the contractor may require some clarification of some aspect or another of the design. In these cases, the *Designer* will draw up a *Site Instruction* which will, through a combination of text and sketch, clearly show how to proceed.

**Record Drawings:** Often (especially on large projects) it is very beneficial to have a final set of *As-Built* drawings done by the *Designer*, who will follow the changes recorded in all *Change Orders* or *Site Instructions*. These *Record Drawings* will clearly indicate their date and state that they are the final drawings of the structure as it has been built.

When all those who are involved in a building project know their jobs and are aware of and live up to their responsibilities (and collaborate to build it right!), a building will be well built and will not fail in any way.

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<sup>2</sup> It is important to understand that just because a building is inspected by a Building Inspector, specialist engineer, or by the Designer, this does not remove the main responsibility from the contractor or builder from building to Code and to the Design! A quick walk-through at inspection is not enough time to see everything.