

HELPING TRANSFORM SUB-TRADES INTO BUILDING SCIENCE EXPERTS AND CHAMPIONS FOR SUSTAINABILITY

Have you ever looked at a set of building plan details where it indicates “by others?” I have been trying to figure out who this elusive group “by others” is, where they work out of, or what they really do.

I wonder what the name of their company would be or what their business cards would say? If I started a sub-trade company that undertook the work of the “by others,” I think my slogan would be “the stuff that nobody wants to do, even though it is sometimes the most important or critical.” I guess I am just not that creative and there is probably some catchy name or slogan that would even be better. I’m just a building scientist, or at least pretend to be.

So, you are probably wondering why I am rambling on about this. The point I am trying to make is that the sub-contractor, or individual that actually has to install materials and systems, is sometimes forgotten. We don’t even know what to call them! We spend years teaching architects, engineers and consultants, and we have credentials and certifications for those groups. They are overseen many times by provincial bodies and have legislation in regards to qualifications, on-going professional development and other related requirements.

Each province has an architects’ association or engineers’ association or some other professional body. For those involved in the building envelope and building sciences, one of the only places for continued education, for the most part, is carried out by the Building Envelope Councils (BECs). Some

trade associations do a bit, but not nearly enough. The BECs serve such an important purpose and a lot of times are really the only place a sub-trade can go to get training on building science.

The sub-trade is really where the rubber hits the road. We cannot rely on making sure our buildings are durable, energy-efficient, comfortable and manage moisture by only performing quality control (inspections, site observations) on the sub-trades. We need to work to build quality into our projects by providing the education, recognition and support systems in place to allow our sub-trades to succeed. We need to provide quality assurance.

We all complain about defects, poor workmanship, issues with moisture damage, poor performance, etc. The problem is, we actually never tell, help, educate or support the trades to at least let them know how to do a good job. It is kind of like telling someone to design a building, who has never taken training and hoping it goes well.

To me, you start with a foundation in building science knowledge. It does not tell you how to install an air barrier, or insulation or do air leakage control, but it does give them the answer to why they are doing something. From there, you can teach the “how to.”

The more we can arm our builders and sub-trades with knowledge and processes, the better off we will be. Better installed systems provide more sustainable buildings. I think we all can agree that when we think of a “green” building or “sustainable” building, we

think it is a well-built building. History, along with actual data, proves otherwise. What we think versus the reality are two different things. We can have a really well-built building that performs great, but does not have a label or rating.

As we move further down the path of Net Zero or Zero Carbon, or whatever other name we start to give our buildings, we can’t just rely on a good product or a good design. The best product does not perform if it is not installed right.

So, how do we go about fixing this? Let’s start with some education and provide opportunities for learning that is ongoing and not just a one-off. In Manitoba, I can go to school to be a journeyman carpenter. After I receive my credentials, that’s it. I have no further requirements to actually prove that I continue to have the knowledge and skills to perform my work effectively, even as building processes, materials and designs evolve.

I think the other thing that really helps is a forum for trades to come together as a group. I am a big believer in associations, but there are a lot of gaps that exist where trades do not have an opportunity to come together.

The definition of insanity is doing the same thing over and over and expecting a different result. When it comes to construction, I always hear the same issue—poor workmanship. Maybe one day we can address this issue because as my wife says, I am insane enough. There is a reason I lost my hair! ●



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