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INSPECTOR'S CORNER

Moisture Related Flooring Failures

By Bob Lucas, Certified Inspector

Here we are again, and summer is racing by. If you have already "recycled" your late spring issue of the WSFCA Newsletter, we were talking commercial flooring, "Green" practices and how to differentiate yourself in a tough market. As we came to a close on the earlier column, you were just realizing that the "cake" job you had finally won through bid was more like upside-down cake, and you were stepping outside to count to ten, remember? Hopefully my writing is totally fictional, and this example does not in any way resemble the work that any of you have formerly or are currently trying to get your arms around this summer.

So what's the point of this a little-too-true-to-be-funny jobsite scenario revisited? Just as many disasters are started with the best of intentions, rarely does everything that once was written on paper as plans and specifications for a beautiful building end up being exactly the way it happens in the end. In plain English, the part of this scene that has not yet been revealed (just when you thought there couldn't be more) is the detail that somewhere during the construction process someone mentioned to the Project Manager for the general contractor that they had a quick way to reduce cost and shrink construction schedule all at the same time: This is better known as "Value Engineering", a term very familiar to us all these days, commercial or retail. Of course the PM is all ears since he was already behind schedule on this disaster, I mean project, before he got started, and what project have any of us been on in recent times where the owner wasn't looking for money behind every rock, tree and roll of carpet? So, when the concrete contractor suggests omitting the plastic vapor-retarder beneath the concrete slab-on-ground due to the fact that the geo-technical report has confirmed the building site has a naturally "free draining sub-grade" (i.e. "glacial-till" here in the Northwest, sand and small rock aggregate elsewhere in the world), the PM is all too quick to take him up on this great cost-saving suggestion. Now you, the flooring contractor, are about to inherit four-or-so inches of mediocre concrete, which was placed on the 18th of December just after one of our record rainstorms, which now sits atop "native soil" and a little who-knows what back-fill, and the superintendent is asking you when you are going to place your moisture-tests per the specification?

Voila! "AS-BUILT", not "AS-PLANNED"! Can anyone say "Major Moisture Related Flooring Failure"? That is exactly what might be waiting for the uniformed flooring contractor who ends up covering this disaster waiting to happen without a second thought. It can happen to you if you do not take the time to "evaluate", which in this case means that you verify what was specified is what was built; and then of course "document" any changes, which will now mean several phone calls and emails being sent which include all of the appropriate ***written*** support information showing that this "Value-Engineering" decision has resulted in an unwarrantable substrate condition. Do you know what the manufacturer requires? Do you know what the industry recommendations are and where to find them? Would you know where to look for help if this entire scenario turns hostile and everyone including the architect is threatening to lynch you from the Space Needle if you don't quit your belly-aching and get their flooring installed pronto?! Your choices have been boiled down to the proverbial darned if you do, darned if you don't. And if you are hoping for the flooring-material Manufacturers Representative to intervene on your behalf or somehow bail you out of all of this, I have got some additional bad news for you.

Many "2% of lifespan" flooring failures have begun not too differently from what was just described above, and all of the "Greenest" flooring in the world isn't worth much in a land-fill at six months after installation. No, there won't be much excitement about the "Bio-Continuity" or the "True-Recyclability" of that high-tech piece of plastic and/or fuzz that is now headed out the door to the next part of its lifecycle. And of course, the blame will all rest on you, the flooring contractor. After all, if only…

As for our second term, "Existing Conditions", just imagine with me if you will: The same building, same location, same lack of vapor-retarder, but the scene is twenty years after the original construction. Additionally, the building was originally a warehouse/shipping and receiving dock with only a very small office space. You have been awarded the contract for all new flooring throughout the building as part of a remodel to convert the entire facility to Class-A office space. During the walk-though, you notice the $4.99 per yard level loop in the few existing offices looks awful but is still stuck to the floor. You will not be installing $4.99 level-loop carpet however; your company will be installing all top-shelf, "LEED" certified flooring such as carpet-tile, linoleum and cork. The exposed concrete throughout the warehouse that is soon to be your subfloor is smooth, dark grey and shiny; so shiny in fact you can almost see yourself in it! With the low light of early morning coming in through the side windows at a glance you might think you were looking out over an ice-skating rink. Hmmm…

For those of you that have "been there, done that" do you see where this is going? How would you find out what does or does not exist beneath the concrete, and is that even your responsibility? How do you know what has ever been applied to the exposed concrete surface (i.e. sealers) for use as a warehouse? Does that shiny, looks-like blue granite surface mean anything to you? What type(s) of testing (i.e. evaluation) would you conduct to determine the suitability of this concrete for its now intended use? Would you be able to intelligently and knowledgably defend actions to the GC that such evaluations are necessary prior to install when he starts pushing back with "but there's nothing wrong with the existing carpet"? And what, if anything, are you going to recommend if you achieve full discovery of the "existing condition" with your testing? These are all questions whose final answers will have to wait for another day; in fact, I believe elsewhere in this issue (on page 11) there are opportunities for you to attend just such a day where we can talk about some or all of these scenarios in depth.

I think we have arrived at our destination for now of showing just how installation/construction related problems might end up effecting our "Green" initiatives and intentions. There is nothing "Greener" in the end than a well planned, well documented and expertly executed flooring installation **THAT STAYS INSTALLED A LONG, LONG TIME**. And if you think it can't be done in this too-tight, too-little-work-to-be-had economy, just remember this: There is never enough money or time to do it right the first time, but there is always enough money and time (YOURS!) to do it again; the attorneys will make certain of that.