CONSTRUCTION CONSULTING, LLC

Engineering

Don't Be Afraid of a Little Manual Work: It's Ok

Executive Summary

In a world now so heavily reliant upon computers, many construction professionals try to automate the entire process, of whatever they may be working on. Some things will still have to be manual, and that's ok.

The Problem

The problem here is that I watch many people in the construction management world, the project engineering world, and the estimating world write something in a spreadsheet that is designed to catch every possibility known to man. Or on the flipside, I watch people abandon any attempt at automation and controls consistency because "every job we do here in our company is different". Let's talk about relaxation in automation here.

My Target

I'm writing this today to target those that feel they can write a spreadsheet that captures it all. On some things, you just cannot. And that's ok.

The end goal is the data, not the process.

Drop the A-D-D (attention deficit disorder) and accept 97% automation. Your spreadsheet is not going to catch every possibility. And that's ok. The end goal is to get the valuable data via a more efficient method, not to develop something that requires zero human interaction.

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Return on Investment

I watch people take a 1-hour exercise and turn it into a 6-hour exercise in a pursuit of full automation. The theory being if "I develop this tool over the next 6 hours, I'll never have to touch this process ever again – it'll be so easy."

Here's some news construction folks, sometimes 97% accomplished in an hour is better than 99.9999% accomplished in 6 hours. Because you may never run into a job like this in the future, or just as likely, this new whiz bang spreadsheet will not address *everything* in the next job.

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Why is close enough sometimes good enough?

Well, because if you're reading this, you're likely not the lead engineer on the design of the Mars Rover which must survive in every possible site condition 230 million miles from Chicago. And your employer didn't hire a NASA engineer, (s)he hired a construction professional to build a road or a manhole. Your employer wants it pretty much spot on in an hour because there's about 100 other things due by noon which will bring revenue in the door more so than this cool spreadsheet.

Talk me off the ledge – where can I stop at 97%?

Build databases and spreadsheets to knock down 97% of the work, but still expect to do some manual work. I teach a lot of estimating and my introductory talk always ends with "you still have to be an estimator". Just because your super-duper spreadsheet says your pavement costs $1,000/sf doesn't mean it's right especially in light of the fact that Stanley down the hall has been building this pavement for $7 to $15/sf over the past 34 years.

Use the spreadsheet to get to the answer quicker than Stanley can do it with highlighters and a scale but expect to have to tweak it to make it correct.

My Story

I see it a lot in my A-D-D coworkers and employees. They just can't let go. It's like they're afraid to fill in gaps with manual work. I'm cool with the automation of the spreadsheet, but if 12 minutes of filling in column G will get it done, rather than 3 hours of @VLOOKUP and pivot tables – I'd rather you get this done in 12 minutes. Because also, remember that you have to think downstream of this current task – that means that whoever takes your data must know how to read it, present it, and likely modify it.

Work Safe!

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