Drop the Pronouns. Add the Units.

Executive summary. Clear, or unclear, communication is at the heart of most problems in any business. And, frankly, in your personal life as well. Period. When it comes to engineering and construction, two instant ways of improving communication are the *decreased* use of pronouns and the *increased* use of units of measure.

What are you talking about? If you're going to say something, it should be with the intention of saying it once and in an unambiguous way. Your choice of words is critical in delivering a message clearly and only one time.

Plenty of professionals are bad communicators – they cannot deliver an idea or request the completion of a task in a manner that is understood by the receiver of the information. The result is an outcome far from what was intended.

Why should I *not* use pronouns? Using pronouns is fine as long as you have clearly defined the party. Here's an example:

- Good: "I talked to James this morning. He said we were approved to use the #67 stone as pipe bedding for the sewer pipe."
- Bad: "Todd's having a baby – I heard about it today when he and I and Robert went to lunch. Oh, and he said to give Jen a call about having lunch brought in for tomorrow's meeting."

It's clear in the first example who approved the type of stone. But, in the second example, who said to call Jen? Todd or Robert?

Here's another example:

- Bad: "Don't forget to send him that email."

Who is "him" in the above email? The answer is to use names, not pronouns. Instead of him say "Don't forget to send John that email."

Why should I use units of measure (UOM)? Well, first of all, if you're in construction and/or engineering, you deal with units of measure on a daily basis. Units of measure are used in wall layout (feet and inches), purchase of concrete (cubic yards), flow in pipes (gallons per minute), time for delivery (hours and minutes), weights of building materials (pounds or tons), and many more.

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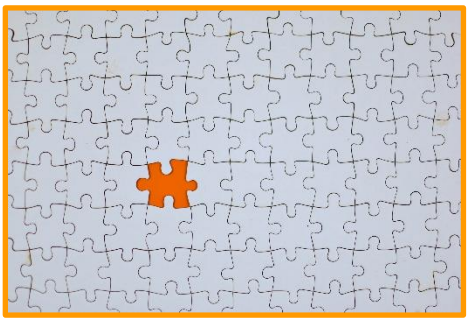
CONSTRUCTION CONSULTING, LLC

Communication

There are two types of trouble when it comes to units of measure: incorrect or incomplete use of a UOM, or the absence of using a UOM.

Incorrect or incomplete use of a unit of measure. There is no such thing as putting 35 pounds in your tire. It's 35 psi (pounds per square inch). Pounds in this case is a force, not a pressure. Same goes for torquing a bolt. It's not torqued to 135 pounds; it's torqued to 135 lb-ft. Again, pounds is a force, not a measurement of torque.

Next item is an incomplete unit of measure. My personal favorite is the "day." As in, this project is delayed 46 days. Is this calendar days which is about a month and a half, or is it work days which is about 9 weeks, or over two months? The solution: always complete the unit of measure with "calendar days" or "work days."



Absence of a UOM. "Run the pump at 2,400." "Slump is at three." Is the pump running at 2,400 rpm (revolutions per minute) or gpm (gallons per minute)? What is three? I know it's inches, but does everyone else on the video call? The purpose of providing a unit of measure is not always to define the unit of measure (although this is point of this article), sometimes it's to educate someone in the meeting that knows nothing about the subject.

My story. I chose pronouns and units of measure for this article because they are everyday miscommunications in my world. Every day. If you listen with a critical ear today, I'll bet you have the same problem. I'm not saying everyone shares pronouns and units of measure as their top two peeves of communication, but I'll bet they're on your list if you pay attention. And you shouldn't have to be guessing on what people mean, they should be clear (or maybe you should be clear!).

Although I'm on a large construction project and there is a good percentage of women, I'd say that the construction industry is still male dominated. This drives the need to define who the "he" or the "him" is because every meeting or every phone call probably has multiple males involved. Just use a name. Alan (instead of "he") dropped it off. Alison is coordinating with the electrician (instead of "she").

Units of measure can be tricky in the industry to those outside of the fold. I was recently in a meeting discussing treatment plant startup and two people who worked together all day long were leading a meeting discussing flow rates,

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pressures, total suspended solids, percent solids, pH, volume, BOD (biochemical oxygen demand), et cetera, et cetera. It was very cool, but in this particular meeting, there were numerous people on the phone who were smart enough to know the characteristics of treatment plant operations, but with all of these units of measure it just would have helped to throw some units on the end of the numbers.

My issues with units of measure also come up on every homework with my students. I teach concrete estimating. I cannot tell you how many times I get an answer in cubic feet. Well, no one goes to the concrete plant and orders concrete in cubic feet – our job as mentors to the younger generation of construction professionals is to teach the "right" units of measure.

Work safe!

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