Realities of Laser Scanning

Introduction:

Laser Scanning is now becoming more and more ubiquitous throughout the construction industry. What was once isolated to the science industry can now be found on just about any job site in some form. Whether it's using the latest high tech scanner to capture every inch of your jobsite to flying a drone overhead to create a topo in real time to any one pulling out their smartphone and snapping a few pictures to create a solid based on the images. Laser scanning has evolved and has changed from the argument of how much it costs and what technology we are going to use to how are we going to apply it to this job.

Laser Scanning can be applied to just about any phase of the job and can take just about any form. We will be focused mostly on laser scanning with the Leica P20 scanner in the project pursuit, coordination, construction, and as-built phases of the project. While you won't be able to find a P20 scanner on every jobsite you can evaluate when would be the best time to implement the technology, When is the information needed, how accurate do you need the information, can the same information be gathered without the use of laser scanning (i.e. when is a tape measure just as good), How will the information be located and distributed and how long do you plan on keeping the information for? These are all valuable questions that need to be answered before you can run out and hit scan.

Once you answer these questions then you run into the next steps of challenges, How are you getting the scanner to the jobsite, who is scanning, what risk and liability are you taking on from scanning? It may seem that you are always trying to talk yourself out of scanning or that there are too many questions to answer but just like anything else in construction if it is accounted for and scheduled then it can add value to your project every time.

Key Topics:

- Documenting Existing Conditions
- Verifying as-Built Construction
- Quantifying Site Work
- Creating engaging visuals
- Distributing key information to project members

Who is Involved:

- BIM Associate
- Surveyor
- Superintendent
- Trade Contractor
- Owner
- Architect

Difficulties:

- Cost to entry
- Technological infrastructure
- Logistics
- Information Distribution
- Training

Software Examples:

- Leica Cyclone
- Autodesk Recap
- Revit, AutoCAD, Navisworks
- Autodesk Glue
- Truview