Bringing Virtual Reality to the Labor Force - CS118909

Why do we use VR?

I believe it is to gain a further understanding about the built environment, to not only see the end product but to feel it. To this mindset we have started running our clients through their building and to use it as marketing material. So my follow up question is, Why stop there? Why not go beyond the standard VR walk through? Why not bring the means and methods, the sticks and bricks of the building to VR? The visual value of letting a superintendent, foreman or estimators see the work that they are going to put in or price can be just as valuable to a project as letting a client see their end product before we pick up a shovel.

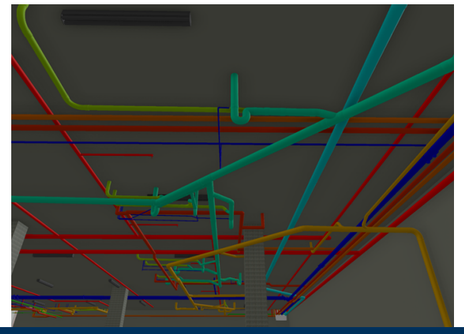
This extra effort may seem over the top and unnecessary, I am sure the thought "These people already know how to build, why do they need this?" or something close to that just crossed your mind.

Dan (pictured right) is an estimator for Swinerton special projects. He is pictured reviewing the 50% DD interiors model from a designer that solely works in Sketchup. From this review Dan was able to understand the finish and material changes from from one design package to another.





Bob (pictured left) is a superintendent walking through the building he is slated to build, the special feature of this building is a complicated glazing system and pattern. After his walk through he has gained a better understanding for what lifts, braces, and scaffolding he needed to order to make this vision for the building come to reality.

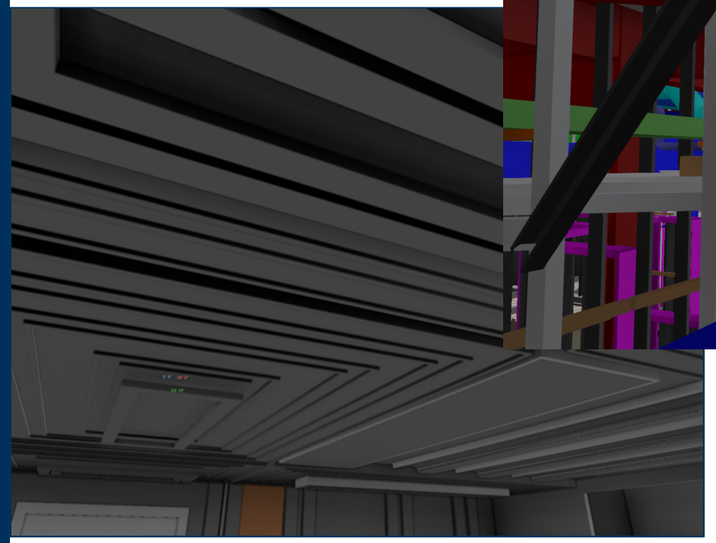


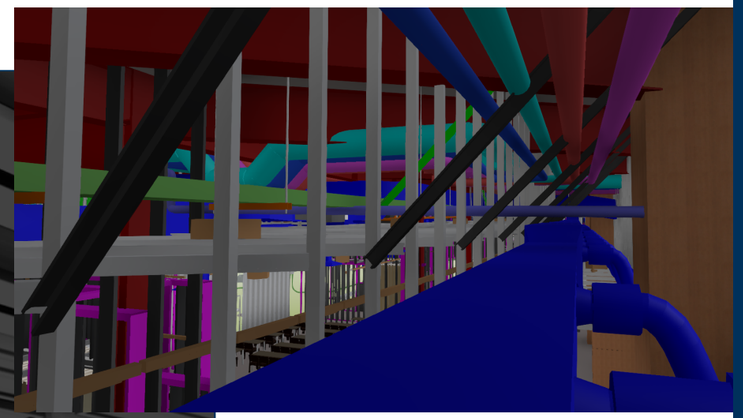
While Bob was in the VR review we took him to the basement parking level where there was a tangled mess of MEPF for him to visualize some install sequencing.

Closing the Gap from Office to Field.

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Over the past year Swinerton has been pushing VR reviews to our self perform crews to better understand their input when it comes to modeling our self perform work. Not only do we model in the framing and bracing for our drywall group we also simulate the scissor lifts and material stacking. This simulation if done early enough can inform the schedule, lay down space planning, and even man loading and budget adjustments.





Rene (pictured right) is a foreman for Swinerton Drywall. He is seen reviewing the complicated ceiling pattern(pictured above). As we all know there are a lot of systems in convention centers (pictured top right). Rene was tasked with Designing a support system that would not only maintain the aesthetics but also allow for all of the MEPF systems to fit and function properly. During this review Rene gained an understanding of not only the design but of the space he is meant to install in, from this meeting we changed our lifting equipment and the amount of manpower needed for the task.



Visualization and understanding is key in AEC, why should a select few gain the visual understanding, why do most of us use this tool merely as marketing? As we move forward in the AEC Industry we need to push our minds past the low hanging fruit and see what might be just one step further.