CS11241

In it to Win It – General and Trade Contractors Working Together

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Holder Construction Company

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McKenney's

Learning Objectives

- Discover the various ways Holder and McKenney's have approached coordination
- Discover the pros and cons of various tools used for coordination, including BIM 360 Glue, Navisworks, and so on
- Learn how new tools, like laser scanning and model-based layout, are changing the coordination process
- Learn how these workflows and tools impact the way general contractors and trade contractors build buildings

Description

During the construction process, general contractors and trade contractors work together every day in many ways to get the job done. One way these groups commonly work together to plan projects is through the use of Building Information Modeling (BIM) and 3D coordination. Holder Construction Company, a general contractor, and McKenney's, Inc., a mechanical contractor, have had a working relationship for many years and have built many projects together. In this time we've watched BIM become an integral part of the construction process. In this presentation we would like to explore the different ways we approach coordination, the tools we use, how this relationship has changed over the years, and how we expect it to change in the future. Please also consider joining us for a related roundtable discussion to share your views and experiences.

Your AU Experts

Alex Edgar

Alex has been using Autodesk software and working in the construction industry for over ten years. As a member of Holder's BIM group Alex is responsible for managing and executing BIM at all stages of a project. Alex has experience in various project types including data centers, corporate office, higher education, hospitality, and aviation.

Scott LeMay

Scott has been using Autodesk software since the early 1990s. In his role of BIM Technology Administrator for McKenney's, Scott is responsible for hardware & software alike, including deployments of both hardware and Autodesk software in addition to fulfilling the role of BIM coordinator / manager for construction projects. He had lead MEPFP BIM coordination on several projects since 2009.

Course Summary

We would like this class to be as interactive as possible. Please review the outline below. This will be the basis of our discussion in the class. During the class you will hear how Holder and McKenny's approach coordination and answer the following questions, but we want to hear your answers as well. Please come prepared to share your experiences and disagree with how we approach coordination.

Course Outline

Introduction

- What is the real point of this class?
    - Have a conversation
        - We want to share how we approach project coordination
        - We want to hear from the audience on their opinions
        - Feel free to disagree
    - Ask questions, share opinions and engage freely during the talk
- Alex/Holder Intro
    - Personal introduction
    - Holder introduction
    - Holder's BIM and Coordination History
- Scott/McKenneys Intro
    - Personal introduction
    - McKenney's introduction
    - McKenney's BIM and Coordination History
- Who's is everyone else
    - Demographics of who is in the room
        - What does your company do?
            - Architect/engineer/general contractor/trade contractor/other
        - Where do you do business?
            - Global/US/Part of the US/etc
        - What do you build?
            - Commercial/industrial/residential/other
        - What do you do in your company
            - Company leadership, project manager, field supervision, BIM/VDC, Specialists, Drafter, Consultant, Other
        - How much experience does your organization have with 3D coordination/clash detection
            - More than 10 years, 5-10 years, 2-5 years, 1-2 years, none-thinking about getting started, none-not interested, none-tried it but it isn't for us, what is clash detection?

Clash Detection Discussion

- How has clash detection evolved over time for Holder and McKenney's
- How do we do it now (and how does everyone else in the room do it)
    - Who
        - Who's running Clashes?
            - General contractor, consultant, trade contractor, everyone runs their own clashes, nobody
        - Who do you want to run clashes?
            - Perfect world, how should things happen?
    - What
        - What are we clashing?
            - Just MEP-FP models?
            - Structure and architecture?
            - Clearances for code, maintenance, installation, etc?
            - LOD – Wall as one object, studs inside walls, tiles one walls
        - What aren't we clashing?
        - What is driving these decisions?
            - Contractual obligations?
            - Install efficiency?
            - Prefabrication?
            - Reduce rework?
            - Reduce RFI?
            - Improve quality?
            - Other?
    - When
        - What drives your coordination schedule?
            - Just in time for shop drawings, after shop drawings or truly preconstruction
        - Who controls the schedule for coordination?
        - Does the schedule usually change?
        - How do you finish?
            - Ahead of time, behind schedule, just in time
    - Where
        - Onsite modeling and clash versus offsite modeling and clash
            - What do you do? Why?
            - What would you like to do? Why?
            - How is this decision made?
    - Why
        - Owner requirements?

        - General contractor requirements?
        - Part of your process?
        - Part of your quality program?
        - Other drivers?
    - How
        - What tool do you use for clash?
            - Navisworks, Glue, Tekla, Bentley, Solibri, Synchro, Other
            - Box, Dropbox, ftp, Glue, Projectwise, Buzzsaw, A360, Other
        - Why do you use that tool?
        - Who determines what tool you use for clash?
        - Are you clash and file sharing tools good enough?
            - What more do you want?

More than Clash Detection

- Does clash detection equal coordination or is it simply a part of coordination?
- What does everyone do to go beyond simple clashes
    - Modeling clearances, quality walks, owner maintenance staff involvement, etc
- Are these processes manual or controlled by computers?

Motivations

- Why?
- Why do more?
- Why be better?
- Should we be expecting owners to drive this conversation?