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Don't fret the finishing touches

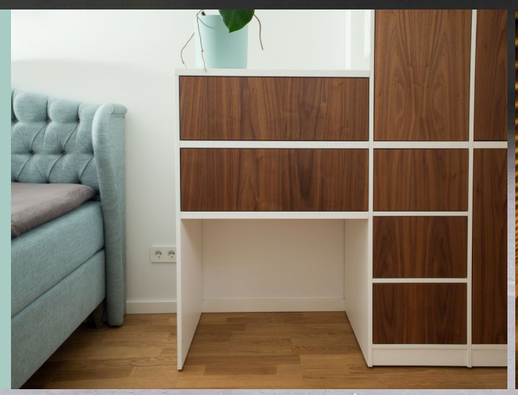
How Contractors can help their Millwork/Fabricators/Trade Partners across the finish line

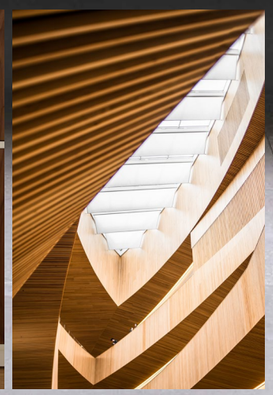
Don’t fret the finishing touches

By Doug Walters,
Construction Risk Engineering Consultant,
Subcontractor Default

Construction delays incur a myriad of extra cost – overhead, labor, loan interest, and loss of use are just some examples. Delays are very common in the final stages of a project, when only the finishing touches remain. Building finishes encompasses many different scopes, for this article we will be focusing on interior finishes but many of these concepts can be applied to a variety of fabricators and scopes.

Millwork type products, include everything from standing and running trim, wall paneling, ceiling systems, cabinets, doors and decorative high-end finishes both inside and outside the facility can be very complex to coordinate and install on time due to the number of components and suppliers involved.





Some fabricated pieces --a high-end cabinet, for example -- may require 10+ vendors to build between the core materials, hardware, the external finish, the decorative details on the door, and the glue, dowels etc to hold it all together. If we dive deeper we might find that this cabinet requires 3 fabricators due to special tooling requirements! In these cases, existing supply chain disruptions and labor shortage issues are exacerbated. The trickle-down effects can result in weeks- to months-long delays.

Economic uncertainty, inflation, and political turmoil around the globe all continue to impact the supply chain. A recent survey conducted by supply chain risk management software company Coupa found that 50% of supply chain professionals experienced at least three disruptive events within the past year. Disruption is now the rule, not the exception.

Cutting down wait time

For the construction industry, that can mean a lot of waiting around for materials to arrive.

According to a 2022 U.S Construction Costs Trends report by CBRE, the lead time for materials has increased exponentially over the last two years. The average lead time for wood frames and doors jumped by 233%, appliances by 400%, aluminum storefront glazing by 300%, and paint by 200%. If this lag is not properly accounted for, contractors will be hit with unpleasant surprises right when the finish line is in sight.

Issues also arise if there are defects in these materials or products when they do finally arrive. Correcting errors quickly in the field depends on primary contractors having transparent relationships with millwork contractors. Contractors need to conduct site visits at millwork shops, ask the right questions and learn more about their millwork fabricators' process in order to anticipate and circumvent problems in the final stages of a project. The idea is when the product ships from the manufacture it is correct and the limited remaining time in the project schedule is used effectively to install the product.

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Take action to lessen inaction

After years of experience in the field, AXA XL's risk engineers can make suggestions on areas to observe and questions to ask during site visits to gain clarity on product status during fabrication… and ultimately get millwork across that finish line and meet your opening day commitments.

The following checklists break this due diligence down into three categories: product quality, supply chain awareness, and field preparation.

Check Product Quality During Fabrication

- **Establish a shop visit schedule and keep to it.** This will set expectations and provide some visibility into fabrication. The initial visit is also a great time to review what the release for fabrication will look like, discuss the project and get into the details of the sequence of delivery. Often times fabricators know little about the project they are providing product for, when we give them some detail for the project and perhaps what it means to the community the project can become more than just a number in the shop.
- **Take a tape measure to the fabrication site.** Ensure the product meets your specifications. Compare it to the shop drawings. Don't assume anything is accurate unless you've checked it yourself.
- **Highlight the shop drawings with the finished product you see at the factory. I**f items are not completed, take action early. This is another good time to look and discuss sequence of material deliveries.
- **Touch surfaces.** Feel and look for delamination of edge banding and surfaces. What you feel may be inherent to a product naturally and not abnormal but its worth a conversation.
- **Ensure the tone and finish match against approved samples** in the correct light, and that different components match against each other, especially if they were finished separately. Products finished together are more likely to match with tone and finish.
- **Determine standards.** Do products meet the project standards or a specified 3rd party requirement if contracted? Architectural Woodwork Institute (AWI) standards? Do they require third party certifications? Ask for documentation showing that regulatory standards have been met.
- **Determine moisture content of wood**, where applicable, and discuss with the fabricators ways to manage downstream effects of high moisture content.
- **Pay attention to the type and quality of a fabricator's machinery and ask about maintenance.** Tools that are near the end of their life can cause defects or delays if they break down. Has any machinery changed in the process? New equipment can affect speed, efficiency, quality and uniformity of a finished product. Has a fabricator recently started outsources a certain activity in the process?
- **Confirm that a product is acceptable before it ships.** Repairing/refinishing at the factory with skilled craftsman, in a controlled environment is much easier, faster and yields cleaner results than repairs made in the field.
- **Confirm project specs on hardware and materials both on the finished product and anything in storage.** Even in the smallest details, ensure no non-approved deviations were made from the original plan.
- **Confirm that different pieces are labeled correctly** both in the shop drawing and in your tracking system to ensure nothing gets missed.
- **Engage in discussions around the shipping plan.** How will products be packaged and transported? How will the fabricator ensure that the product makes it to the job site undamaged?

Take action to lessen inaction, continued

Dig Into the Supply Chain

- **Peel back the layers of your fabricator's supply chain.** Understanding where all the components are coming from provides an opportunity to identify delays earlier and plan accordingly. The more the team is armed, the better decisions can be made to protect the project schedule and opening day. There have be recent times where the glue used to laminate materials has been harder to obtain. Having all the materials in piles does us no good when we are waiting on something as simple as glue. Understand all the variables so you can ask the right questions.

- **Given substantial lead times on raw materials – especially solid wood – ensure at the outset that an adequate amount of these materials are sourced.** Account for waste and ensure there is enough in the pipeline to finish the project.

- **Be ready to address little issues before they become big issues-** once a supply chain issue is identified, take quick action to resolve. The goal is to keep the shop machinery running. When machinery stops because of a question on material it can be catastrophic to your project. Often what is not realized is if a shop is scheduled to produce product for your job in a specific window and they are waiting on answers they will run the next project through that does not have open questions. This creates a loss of product window for your project. A common example can be a shortage of a specified core material, waiting weeks on a decision for an available product can be detrimental to the project schedule. If you can create transparency, trust and gather facts, the decisions should be made quickly to keep the project moving through the shop and to your project.

- **For work done in-house or outsourced to a local shop, take the time to understand their capabilities.** Many small millwork shops are family-owned and likely don't have the resources to bring in reinforcements if one of their craftsmen suddenly leaves. Ask about turnover and the credentials of the people completing the work where you can.

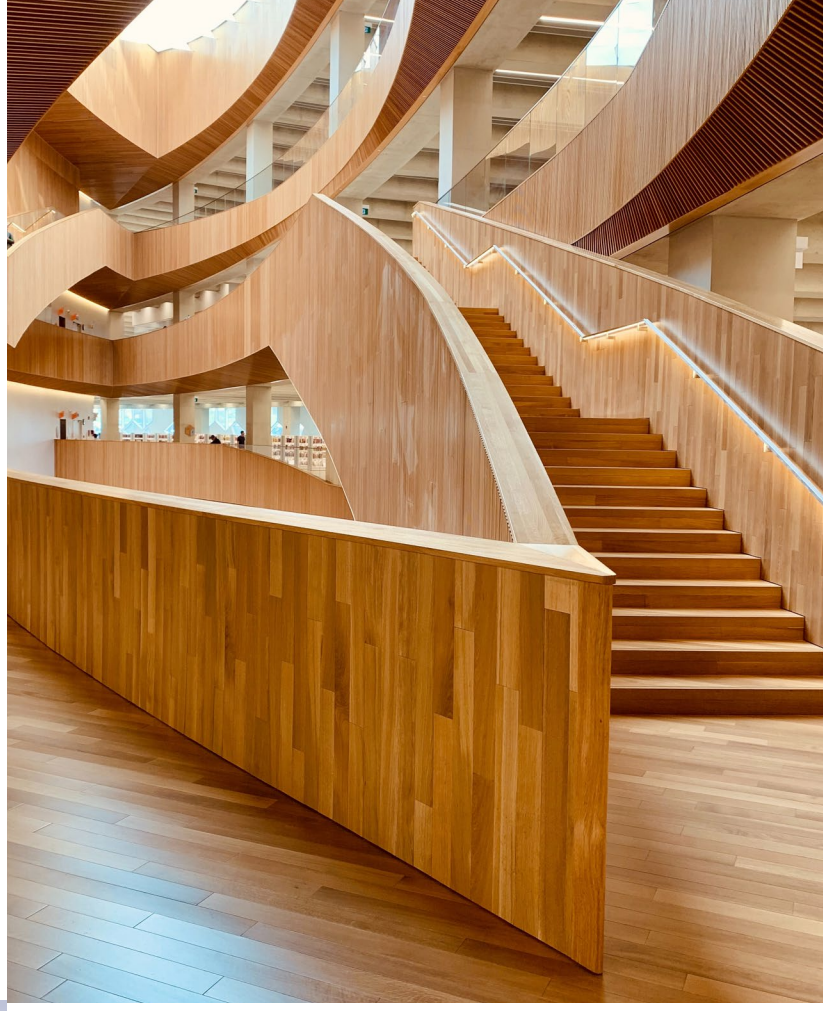
Prep the Field to Minimize Delays

- **Don't wait for the product to arrive to start the installation process.** This is a great time to revisit the installation plan and get into the sequence. The mindset at this stage of recovery should be, what can be done before product is delivered to get manhours completed. As much as possible, lay out your clipping system and brackets so wall panels, cabinets and other pieces can go up right away. This step often accounts for as much as 70% of installation time. Being proactive gets those man-hours completed and helps to ensure proper fit when the product does arrive. Take safety into account when pre-installing clips, they will be exposed until the final product is mounted.

- S**imilarly, start layout of casework elevations.** This will identify MEP conflicts, confirm all the casework fits before it is delivered, and confirm all backing is correct.

- **If possible, get the HVAC system stable so the product can climatize prior to installation.** Wood in particular is a hydroscopic material and will be affected by the environment. Understanding and monitoring the climate both at the shop and at the job is important for millwork stability once installed. Climate stability at the job will help fight against warping, opening seams, scribing, caulking, etc. due to movement of the materials.

Conclusion



By doing this due diligence and engaging closely with millwork contractors, primary contractors will ideally build strong working relationships. The goal is for your millwork partner to come to you and alert you of a problem or delay before the project comes down to the wire. These checklists are a solid starting point to not only build better quality control and avoid complicated claims, but also build trust and transparency throughout the fabrication process.

AXA XL's construction risk engineering team is available to guide insureds through this process, and identify other strategies to enhance project quality, efficiency, and profitability along the way.

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