The "Perfect Project" Preconstruction Resource Guide

3CD·LLC

A Practitioner's Handbook for Preventing & Mitigating Avoidable Change Orders and Delays in Commercial Construction Projects

Presented by

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Presented to

Confidential Client

Forward

Welcome to the 3cd, LLC Perfect Project Resource Guide! These materials showcase my professional philosophy and lessons-learned from years of planning, estimating and building commercial construction projects in the Pacific Northwest. The goal of this program is to empower users to administer projects through each phase in a way that minimizes change orders and delays. The Guide includes a narrative identifying the root causes of errors and omissions that lead to additional costs and delays along with strategies, procedures and tips to avoid them. The guide also includes a list of available resources to help you administer best practices at each phase.

So how do you prevent costly and stressful changes and delays? By avoiding their root causes; errors and omissions. The strategies, tips and techniques championed in this guide empower the entire team to systematically improve the quality of communication, instruction and documentation at each phase. When implemented fully and correct these tools will produce:

- Design documents that clearly communicate the project requirements

- Achievable estimates and schedules

- Contracts that plainly allocate the scope of work and responsibilities to each party

- Procedures that ensure timely planning and proper sequencing of the work.

- Reports that enable stakeholders to easily understand the status of the project and plan.

These methods offer important co-benefits as well - Attracting buy-in to the goals and team members, conserving bandwidth by tackling risks at the appropriate time and improving the entire team's morale. Together, these strategies have a strong potential to improve the quality of your work and help expedite project and company revenue.

Introduction

A "perfect" anything is aspirational. Most things worth doing are difficult to do, more difficult to do well, and full of opportunities to improve next time. Commercial construction may be amongst the most challenging endeavors with technical, logistical, environmental and human challenges to overcome, every day and sometimes, all at once.

Today's market conditions are as challenging as ever. Project designs are increasingly complex. Supply chain shortages and labor constraints make it difficult to lock in prices. These underlying conditions make it difficult for subcontractors or GCs to guarantee schedules. And then there is (still) the weather, and don't get me started on pandemics...

Introduction Continued...

A "perfect" project manifests from accurate information, communicated clearly and executed reliably. These keys to success are not only individually important, but there is also a sequential and cumulative component. Inaccurate information is a problem even if it is clearly communicated and especially if it is reliably executed. To succeed, we have to get it right and keep getting it right. Which means we need systems that cause prior work to be validated and future work to be analyzed for missing or conflicting information and corrected timely. Additionally, we need to foster a culture that values finding and correcting all mistakes quickly, regardless of whose "job" that is.

Requirements for quality assurance / quality control systems are already included in most contract, specifications and project management protocols. Still, large projects notoriously rack up hundreds of RFIs, countless resubmittals and lots and lots of change orders.

Technology is helping teams maintain and triage the overwhelming amount of information and participants in today's projects, but project complexity has kept pace, and many participants struggle to keep up. Design-build, IPD and 3p delivery methods seek to avoid delays and reduce costs through integration of the design and construction responsibilities. Assigning and streamlining responsibility is a good first step but, no matter the contracting method, actually avoiding costs and delay relies on accurate requirements achieved through effective coordination and execution.

Delays are especially problematic because all construction-related businesses make money based on how quickly they can correctly perform and bill the work. When projects are delayed, so are billings but we still have many of the same fixed costs. Plus, there is an opportunity cost since your staff are prevented from starting the new project (and generating new billings). Even if you are able to recover costs through change orders, it is often a partial reimbursement with no provision at all for the lost opportunity costs. And since this is inherently unfair, there is lots of blame and shame that goes with tracking down the guilty parties and negotiating the cost and delay. Are we having fun yet?

Having been called in on multiple occasions to rescue projects that have gone astray, I have become intimately familiar with the root causes of many of these avoidable costs and delays. This experience has informed my pursuit of the "perfect project", and hopefully you will join me as I share the best practices I have come to champion. So here is the plan...

Let's make sure we begin with the end in mind. First, I will outline a procedure to help the design team and stakeholders avoid miscommunication that can lead to costly design errors and omissions while providing "guard rails" to avoid unnecessary design, permitting and construction costs. Second, I will share my go-to strategies to prepare achievable estimates. Third, we will walk through a coordination and quality control framework called "RFI Proofing" to ensure that requirements are not only included in the design documents but also include the information necessary to make the requirements constructable without need for so many RFIs (and change orders).

Introduction Continued...

Next, we will review five keys to expedite project delivery. Lastly, I will share the Project Master Mindset - those "soft" tools that professionals need to navigate troubled waters and deliver the precious cargo...

One thing is for sure, construction projects are not getting easier or less expensive. Building materials, assemblies, supply chains and technologies are getting more complex - not less. To succeed, we have to get better at what we do and how we do it. That means better plans and procedures, concise communication, effective quality control and team members that are prepared and empowered to execute their work according to the plan, schedule and requirements.

But buzz words and aspirational targets won't get this done. Today's teams need proven strategies that target the root causes of changes and delays. We need to detect problems early so we can solve them with the least possible cost and delay. We need to ensure that plans are informed, communicated and achievable. This is what the "Perfect Project" resource guide aspires towards.

For those that count on others to execute their projects, this guide includes insight you can use to monitor the quality control efforts of your project. If you are an experienced project leader, I hope this resource will offer another perspective and perhaps some ideas to sharpen your own set of project tools. For those early in their career path, perhaps some of these techniques will help you avoid pitfalls that make a difficult job even harder and allow you to enjoy what can be a very fulfilling career choice.

Sound good? Awesome! Please enjoy this Guide and reach out to me if you need access to resources to get the most out of these project delivery strategies and tips.

Sincerely,

Chris Humphries

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