5 Steps to Avoiding Contractor Change Orders and Minimizing Cost Overruns

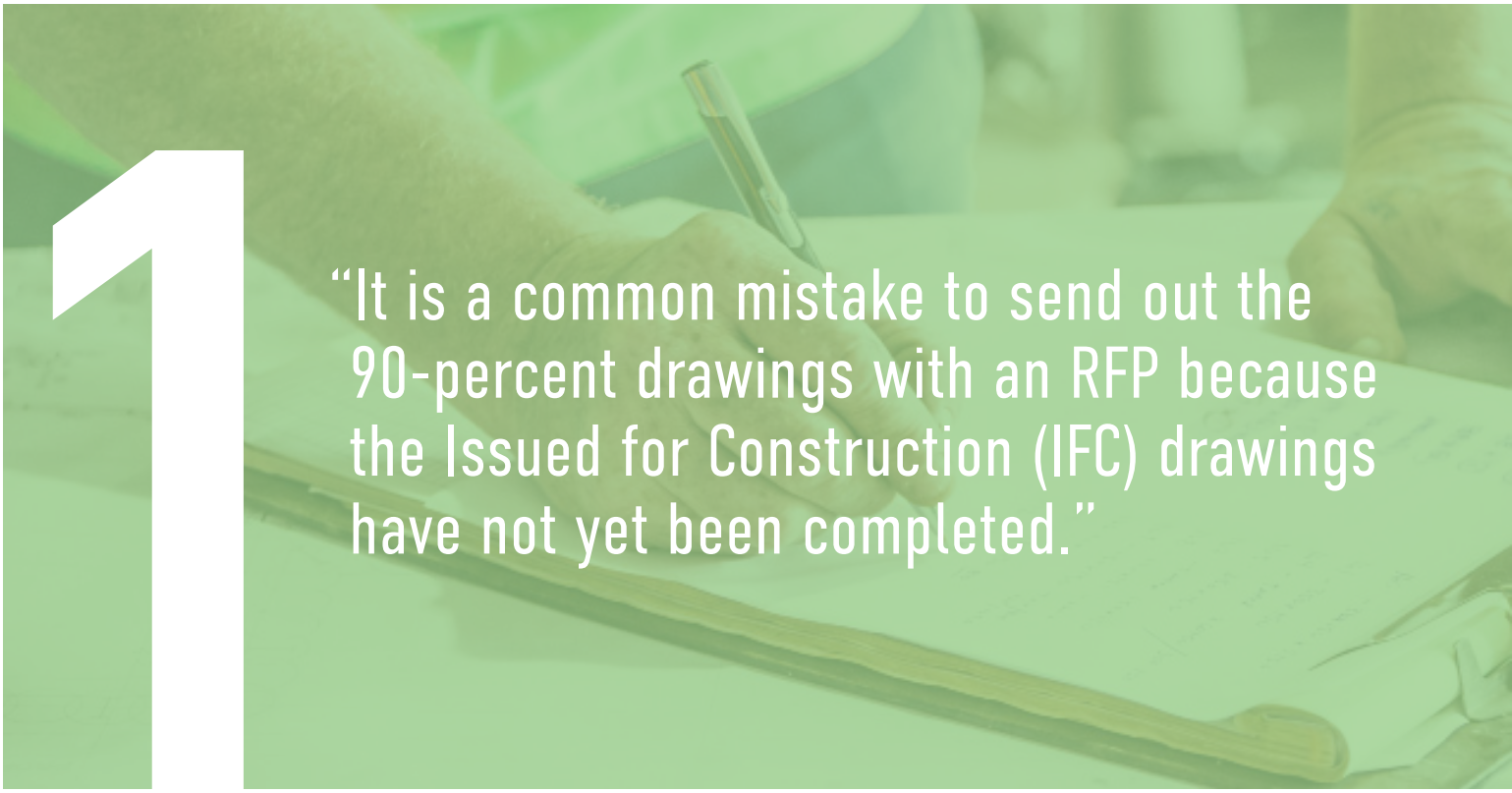
For a general contractor or owner's representative, change orders can eat into the overall profitability of a project and often times are an indication that someone fell asleep behind the wheel. Therefore, it can be concluded that change orders are bad and should be avoided at all costs.

Of course, there will always be design changes which can lead to change orders, but in general, many change orders submitted by contractors aren't associated with design changes and possibly could have been avoided if proper steps were followed earlier on in a project. The average profit margin for general contractors is between 1 and 3 percent and between 2 and 5 percent for subcontractors for any given project. However, the profit margin for change orders can be anywhere between 5 and 30 percent for both general contractors and subcontractors. Due to these relatively low profit margins on awarded projects, it's understandable that contractors will take the opportunity to increase profitability by turning scope gaps into paydays. That doesn't need to be the case, though. Below are five steps that should be taken to mitigate or eliminate change orders on your projects.

Step 1: Issue a Complete Scope

An incomplete or vague scope in a Request for Proposal (RFP) is a contractor's best friend because it affords the opportunity to interpret project requirements in their favor. It is a conservative, but practical, approach to assume contractors will leverage the chance to get paid the most for providing less. Even the best-intentioned businesses are profit-minded. That's the nature of our businesses. To eliminate ambiguity with contractors over interpretation of project requirements, it is best to clearly define all deliverables in as much detail as possible. A scope is only complete if both a detailed list of deliverables AND expectations are clearly communicated. Issuing a complete scope will help the contractor price out the job accurately and ensure all project requirements are reviewed and addressed in their forthcoming proposal.

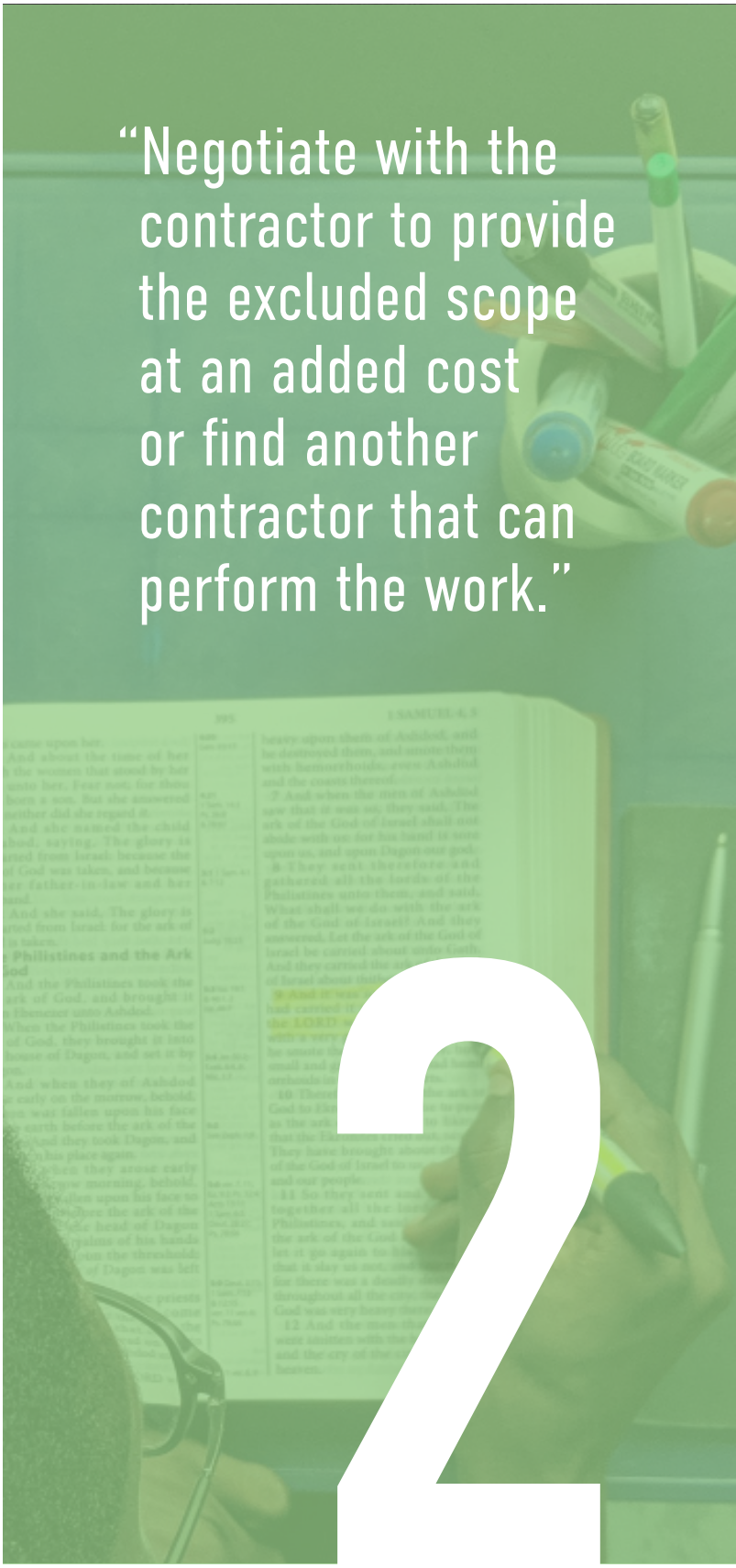
To develop a complete scope, all project documents must be carefully reviewed and reviewed again. It is a very tedious task to review multiple drawing sets and hundreds of pages of specifications, but this front-end effort will pay off in the long run. Knowing the project documents and requirements well will help identify scope and provide clear direction for your contractor to follow. In addition to a list of deliverables, a list of expectations should also be included in the scope. Rather than inviting the contractor to create the narrative, one should be provided to them. It is not enough to tell the contractor what is to be provided, but also how it needs to be provided. Create a list of milestones and attach deadlines to them. Write out all key assumptions, list methods or procedures, and spell out what the contractor will and will not be responsible for. Lastly, include the latest drawings and specifications with the scope. It is a common mistake to send out the 90-percent drawings with an RFP because the Issued for Construction (IFC) drawings have not yet been completed. Do not be afraid to put pressure on designers to issue the IFC drawings before distributing any project documents to contractors. In theory, there should be little or no change between the 90-percent and IFC drawings, but occasionally there are significant changes that will carry a high price tag when discovered in the field during construction. The completeness and quality of the scope issued to a contractor will be reflected in the proposal. The contractor will use the complete scope as a road map to keep them on track to provide exactly what is required and avoid costly detours.



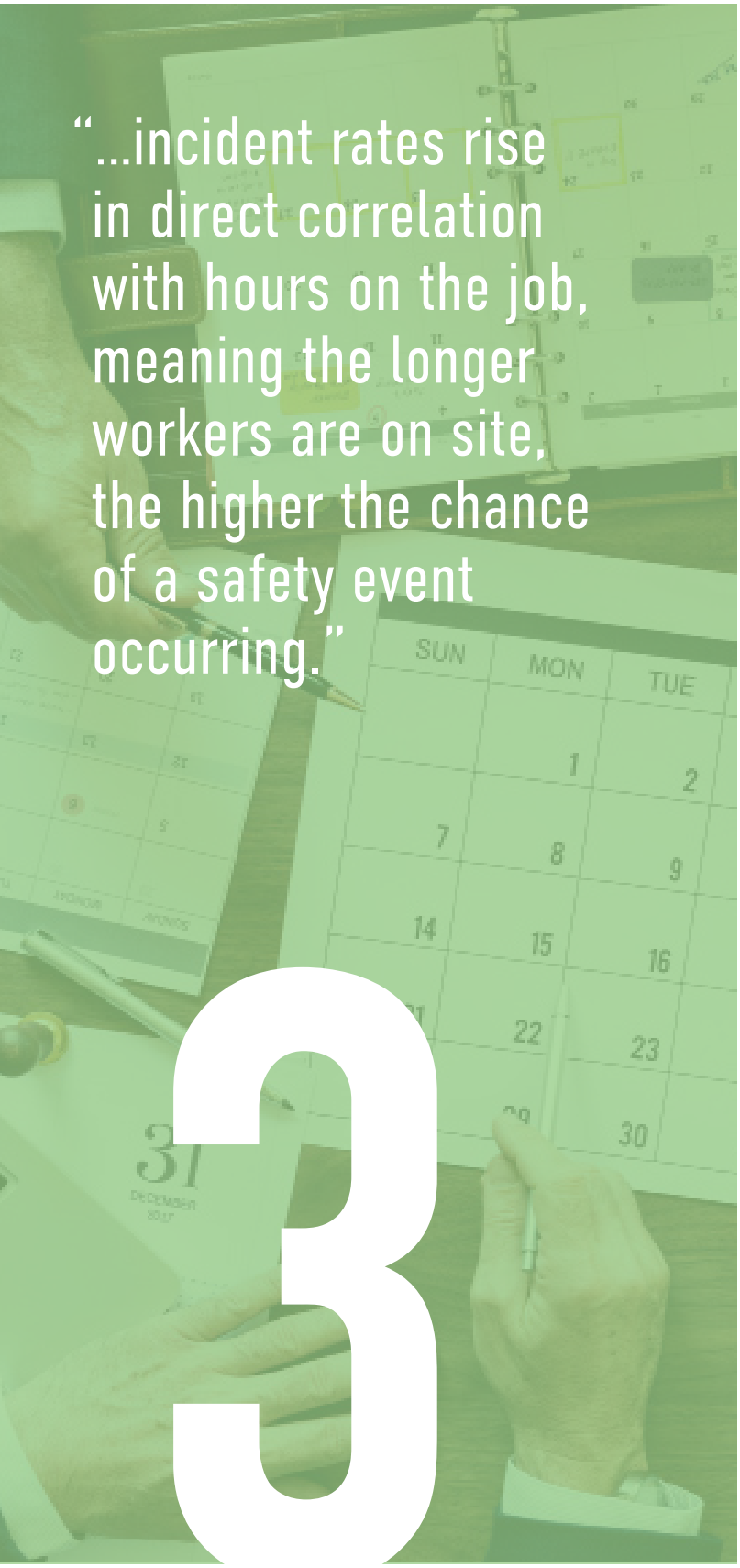
Step 2: Read All the Fine Print

So a complete scope was developed, issued to the contractor, and a proposal was received - NOW WHAT? The contractor's proposal must now be scrutinized to the same degree of the initial review of the project documents. Ensure all the deliverables and expectations that were laid out in the complete scope are addressed in the proposal. If there are aspects of the scope that were not addressed, follow up with the contractor and have them amend the proposal to include this information. This will eliminate any gaps between the two documents and any potential groundwork for a change order. Reading the "fine print" is another area where attention up front can save big dollars down the road. Not all contractors are created equally, and each has their own strengths and weaknesses as a company.

In a scenario where a contractor's weaknesses may expose a shortfall to project deliverables, the contractor will typically include a list of exclusions at the end of their proposal stating what products or services will not be provided. It is imperative these exclusions are read and documented because many times they will directly contradict project deliverables that were stated in the RFP scope. Negotiate with the contractor to provide the excluded scope at an added cost or find another contractor that can perform the work. Either way, the cost of this work will be cheaper if this scope is part of a contractor's base contract compared to being submitted as a change order when the contractor is asked to perform a task that was explicitly rejected in their proposal. Lastly, make sure the Terms and Conditions are reviewed and are feasible with the business operations of the project. Many get so fixated on the scope in a proposal, they do not spend enough time reviewing (or having an attorney review) the Terms and Conditions, which if breached, can potentially result in significant cost. Understanding how a contractor approaches the work is just as important as the work itself.



Step 3: Understand the Schedule & Resources



The most important piece of information on the project schedule is the critical path. The critical path will identify the sequence of tasks that must be followed in order to complete a project in the minimum amount of time. Analyzing the critical path by understanding task durations and relationships will help keep the overall project on schedule by providing early indicators of slippage and should allow enough time to adjust the schedule before delays are actualized. In addition, understanding what resources will be utilized and how they will be applied to tasks on the critical path is vital. On most projects, the substantial completion date is non-negotiable and missing this deadline can result in large liquidated damage fees. When deadlines are in danger of being missed, general contractors will either extend daily working hours, work on weekends, or add manpower - all of which result in change orders.

Understanding how the contractor will staff the project and knowing their rate of production will indicate if deadlines can be met prior to any work being started and avoid the expensive practice of resource crashing late in the project. When possible and if space allows, it is generally better to add manpower rather than extend working hours or days if resource crashing is the only option. This is because premium rates for overtime can be 50-to-100 percent more per hour than the regular rate. Furthermore, incident rates rise in direct correlation with hours on the job, meaning the longer workers are on site, the higher the chance of a safety event occurring. Every firm's goal needs to be zero incidents. Events do not just impact the safety and well-being of the workers directly involved, but they can also negatively impact the overall progress of a project if the job site needs to be shut down for an investigation. This can cause major delays to the schedule and will in turn increase change orders for added resources to get back on track.

Step 4: Document Everything

When contractors are mobilized and construction is in full swing, there will be field issues and subcontractors will approach the general contractor for direction. This can happen in different forms, anywhere from casual conversations to Request for Information (RFI) submissions. Any direction given to a contractor should be well documented to memorialize what was asked and what was directed. The RFI process is the formal procedure for asking the general contractor or designers for solutions to field issues and exists solely for the purpose of documenting this exchange. The downside to the RFI process is that it can take days or even weeks for a question to be answered, and that delay in getting an answer can severely impact the production of the contractor and cause a bottleneck with the trades to follow. As a result, contractors typically reserve the RFI process for when they seek direction for issues that carry significant financial implications. For questions contractors believe have little or no cost associated, they will pose their questions in conversation or through email. It is important to follow-up any verbal direction with a confirming email to the contractor and ask for their acknowledgement.

A contractor's acknowledgement of direction attaches accountability and concludes they understand the direction they were given. In the event a contractor has misunderstood their direction or deviated from it, the email chain between both parties can be referenced and the confusion can be cleared up immediately without any cost involved. Failure to document this type of conversation can result in a finger-pointing contest and potential for a change order if the contractor feels the direction they were given carries cost. It is difficult to reject a change order for work performed in the field if there is no documentation of what was said or what was agreed upon. Even if a contractor does not think cost is involved and feels an RFI is unnecessary, it is a best practice to submit an RFI to eliminate all doubt and avoid being financially responsible for direction given. Any perceived change to project documents will move a contractor to submit a change order, so it is best to use the established RFI process as protection against unfounded claims.

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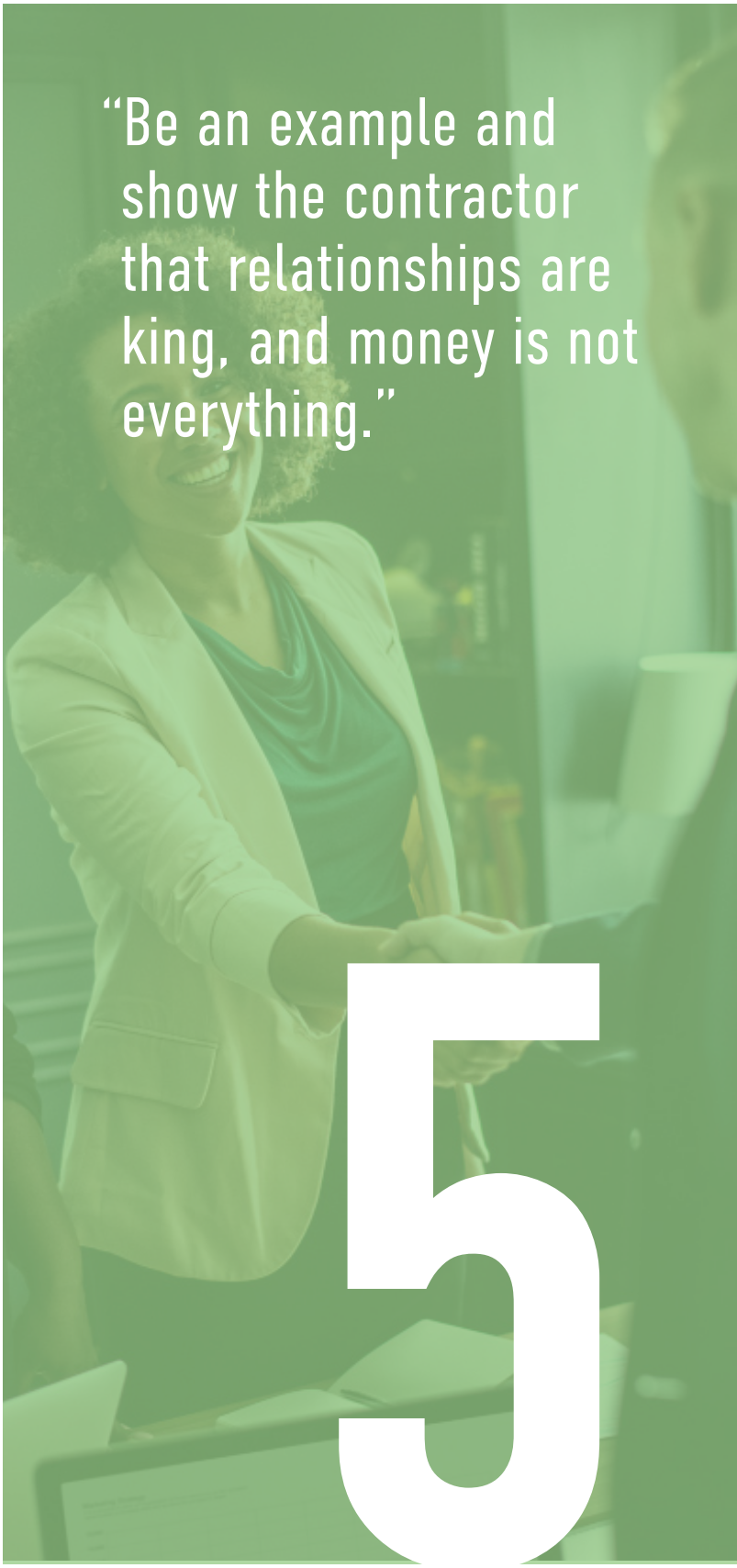
Step 5: Build Lasting Relationships

The last and easiest way to avoid or mitigate change orders is to build good working relationships with the contractors. Introduce yourself, be personable, and build rapport with all the field leads, which can include the project manager, superintendent, crew chief or foreman. Everyone on the job site exists for the same two reasons, to perform work and to get paid. Both are more enjoyable when positive relationships exist. By getting to know your contractor on a personal level, they are more apt to provide professional courtesies when troublesome situations arise and help each other escape out of the situation unscathed. For example, asking a contractor for notification prior to submitting a change order would be a privilege the contractor can grant, but not at all required. Knowing about a change order prior to its submission provides opportunity for negotiations to occur. Whether its trading favors or bartering, these strategies can help prevent a change order from being submitted by compensating the contractor in alternative means.

This is important. Be sure the relationship is genuine and not just a ploy to take advantage of the contractor. Building a genuine relationship means respecting and standing up for your contractor. If a change order is received and the backup is valid, support the contractor and make sure they are paid for their work. Contractors appreciate the support and know they will not need to go to battle for every nickel and dime. This comfort will also make the contractor more amenable and sympathetic to your cause and sometimes provide extra effort on their own without the need for compensation or change order. Be an example and show the contractor that relationships are king, and money is not everything. More often than not, the contractor will reciprocate this value because, at the end of the day, we are all human and want to enjoy going to work every day. Cultivating a relationship will prove to be more valuable than the summation of all the change orders on one project because it will help get the next contract, and the contract after that. At the end of the day, contractors just want to be fairly paid for services rendered. If they see they are being treated fairly, they sometimes will hold on to even valid change orders to protect that relationship.



There are many different strategies and approaches one could use to avoid change orders, but these five steps are a great start to strengthening cost management skills and keeping projects profitable. Put them to practice and reap the benefits today.

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Weymouth is one of Primera's resident program and project management experts. His expertise is the result of 10 years of industry experience in a variety of program and project management environments. He is experienced in the utility, power generation, and construction industries. Weymouth applies project management principles to meet the client's needs and expectations. In addition, his devotion to customer service and attention to detail allows him to adapt and tailor his services to address client concerns and develop solutions to complex problems.