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Why sensible cost control can help alleviate resource issues

Sean Cole, senior director at Currie & Brown, examines the importance of unit cost pricing to relieve resource issues in the construction industry.

The US construction industry is currently booming, particularly in data centre construction, with the major players projecting year-on-year increased investment. This boom is driving a shortage of available resources across the board as owners compete for skills, often driving up salaries, expectations and incentives. Throwing money at a problem will only go so far and will not solve the root cause of not having enough skilled workers and an already stretched supply chain.

Beating competitors to the market often results in compressed schedules. The first response is to try overtime. If that doesn't work, a swing shift is employed. Rarely is a programmatic analysis undertaken to review the entire lifecycle of the portfolio rather than just impacting the people executing the mechanical and electrical trades. Working extended overtime in the field is good for the pay cheque but often detrimental to health and safety, quality and, of course, productivity.

We have all been a part of schedule-driven projects where, when the dust settles, someone will often exclaim *"how much?"* with a sense of disbelief, quickly followed by a collaborative blame-storming session, particularly when the schedule isn't met.

On schedule-driven projects cost is often an afterthought. This is perhaps understandable given the potential business upside to owners when projects are completed early. However, not focusing on the entire programme will miss the larger strategies that can impact the overall success of the programme in a much greater way than throwing money at the construction phase.

Contracting strategies can vastly improve the ability to compress the overall lifecycle of the project. In many cases, a cost reimbursable contracting strategy is used as it provides flexibility and the ability to start early. It's a relatively simple model, but offers no real incentive to contractors to be efficient.

The only way a supplier, contractor or consultant can make money on a cost reimbursable project is to place more people and have the owner reimburse. There are no incentives for efficiency or innovation. Herein lies the inherent problem. With resources unavailable or already stretched, this approach cannot work. Often, more underqualified people are employed which exacerbates an already difficult problem.

To put it in context, a reimbursable form of payment rewards inefficiency. Logically, therefore, it is better to incentivise the teams to be productive and efficient, rather than potentially rewarding inefficient lethargic performance. This is a project team effort and not just the responsibility of the contractor or sub-contractor.

The goal, therefore, must be to develop strategies that generate the ability to provide equitable contracts that reward efficiency and have strong controls in place.

Enter unit rate pricing.

In countries such as the USA, the pricing process is made easier by the fact that industry base standards have been established for MEP (mechanical, electrical and plumbing) trades.

MEP is often the bulk of the work, especially in the growing data centre and mission-critical sectors.

Owners and project managers can use these standards as a baseline and then apply adjustment factors for productivity barriers, such as site logistics, working at height, etc to understand the barriers to productivity on the project and develop strategies to mitigate the risks to the programme. For example, prefabrication can reduce excessive working at height impacts and site-based personnel requirements. By focusing on the impacts to productivity the project team can develop strategies to meet the project time and cost goals.

There can be huge advantages to delivering a project in this way. Bidding on industry standards means that time to market can be quicker, with work starting before design is fully complete. With contractors incentivised to be efficient, savings can be substantial: a reasonable estimate of the cost reduction compared with time-and-materials pricing would be a 30 per cent reduction. Perhaps more importantly, this is 30% fewer people, a critical issue when resources are constrained.

Using this approach across portfolios of work helps to establish consistent benchmarking data to compare projects and regions. I have seen large improvements on labour productivity and reduced costs by understanding star performers and using their methods to influence other projects. Capturing data in a consistent methodology helps owners to make informed decisions based on fact, not on opinion, emotion or politics.

It also means that costs fed into the contracting process can be interrogated and, if necessary, challenged at an early stage by comparing them to known industry norms and the risk perception. Transparency is key to forming a target which all parties can agree to.

There are a number of reasons that unit rate pricing isn't currently used as much as it might be. One is that many project managers have procurement techniques with which they are already familiar and may lack knowledge of other methods or are simply not able to challenge the status quo.

Owners, too, may be disinclined to do things differently, choosing instead to stick with what they know and trust.

Another reason for reticence is that there remains a perception that unit rate pricing is a long and complex process requiring bidding on thousands of line items. Of course, this isn't the case if there are already base standards in place which can be drawn upon.

Finally, any construction project is a team effort involving different stakeholders, all of whom have their own interests. To achieve success, everyone has to buy into the concept of a robust programme approach that challenges the procurement chain from concept to close-out and not to place the burden on an already constrained element – the construction workforce and supply chain. This is extremely important as it means that decisions can be made on the basis of real facts as opposed to feelings or emotions.

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