

The Engineer's Role in Material Price Escalation on Construction Projects

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As the Omicron variant of COVID-19 spreads rapidly throughout the United States and the world, the construction industry continues to be affected by supply chain and shipping disruptions, labor shortages, and tariffs on raw material imports, resulting in delivery delays and long lead times. These factors, combined with rising labor costs and high inflation, have led to significant increases and volatility in raw material prices over the past two years, which should be accounted for. Engineers can play a crucial role in the success of a project by accounting for and allocating the risks of material price volatility in today's uncertain economic times.

The engineer's role in protecting owners from material price escalation begins early in a traditional design-bid-build project. At inception, the engineer should understand the owner's requirements for the project. Next, the engineer, in coordination with the architect, should prepare detailed plans and specifications for contractors to accurately estimate materials for the project. At this time, the engineer may want to consider whether the project should be broken into phases and whether the owner will accept substituted products of equal quality to

minimize price volatility and help address unforeseen material shortages.

Preparing a request for proposals (RFP) that addresses material cost escalation is time well spent. The engineer may want to: (1) require that bids be submitted pursuant to a cost index such as the *ENR* Materials Cost Index or AIQS Building Cost Index; (2) specify a date for the expiration of the bid prices; and, (3) include a line item for contingencies. Engineers can further minimize risks during procurement by requiring that contractors purchase materials subject to volatile price swings soon after the contract is signed, and store them on-site or off-site at an insured, bonded, and secure location, provided design modifications are not anticipated.

Engineers may also want to define the form of contract and method of payment and include a well-drafted mutual or bilateral escalation clause in RFPs to mitigate the risks of material price volatility. In standard cost-plus and time-and-materials contracts, owners bear the risk of material price escalations because the contractor is paid for the actual costs of the materials. However, when such contracts include a guaranteed maximum price, the risks of price escalation shift from the owner to the contractor when the GMP is met, unless modified by an escalation clause. In typical lump sum or fixed price contracts, material price escalation is a bargained-for risk negotiated by the parties prior to entering into such contracts.

Price escalation clauses may be cost-based if they compare actual incurred costs to bid costs or index-based if they track and provide a mechanism to adjust prices based on an agreed-upon material price index such as the PPI or the *ENR* Materials Cost Index. One way to allocate the risk of escalation is to require the upstream party to pay for price increases above a certain threshold occurring between the dates of the bid or contract price and the purchase of the materials. The risk lies with the downstream party to a certain threshold before shifting to the upstream party, effectively

capping the downstream party's exposure at an agreed-upon price. Another way to allocate risk is to require the downstream party to hold to its price for an agreed-upon period of time or until a specific milestone before shifting it to the upstream party by requiring that party to provide an equitable adjustment for price increases pursuant to the terms of the escalation clause after that period of time or milestone. Engineers also may wish to consider mutual or bilateral escalation clauses to allow upstream and downstream parties to share in the risks and rewards of both material price increases and decreases.

The ConsensusDocs 200.1 Amendment No. 1 Potentially Time and Price-Impacted Materials and Schedule A is a good resource for drafting effective price escalation clauses. It identifies potentially time- and price-impacted materials and establishes a baseline price based upon market prices, actual material costs, material cost indices, or some other mutually agreed-upon method. It also provides for an agreed-upon percentage adjustment to the contract price for increases or decreases in the baseline price, provided the contractor provides written notice and appropriate supporting documentation, and equitable time adjustments for delays in the delivery of, or unavailability of, a potentially time- and price-impacted material beyond the control of, and without the fault of, the contractor or downstream party.

In the end, open dialogue with owners and contractors to account for and allocate the risk of material price escalation are critical to the success of projects. Preparing comprehensive plans and specifications, bid forms, and contracts that share and transfer the risks of material price volatility fairly and equitably are keys to avoiding costs overruns and claims.

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