2023

CONSTRUCTION RISK MANAGEMENT Journal

CLRM

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Welcome

The Construction Lender Risk Management Roundtable is celebrating its 10th year, and this will be the 5th year for our CLRM Journal. The Roundtable provides a forum for construction investors, lenders, and other stakeholders to share ideas and solutions to help mitigate the unique risks associated with construction projects. The opportunity to share concerns and ideas has helped the CLRM community work through many of the challenges of the past few years.

Our 10th anniversary conference will be held in New Orleans from March 27-29, and there are lots of things to talk about. The historic spike in construction costs, supply chain disruptions, and continued labor shortages have heightened the risks normally associated with development and construction projects. Nonetheless, the industry has managed to work through those issues so far. Recent record changes in interest rates, however, threaten to tip the balance for already precarious development projects. As increased interest threatens to squeeze the value of finished developments, the ability to mitigate any new surprises declines.

In 2023, most economists participating in AIA's consensus forecast expect construction to increase for hotel, commercial, and retail construction, with the biggest gains in the hotel sector. That said, estimates by this group are primarily based on dollar volume, which may indicate an overall decline in the square footage of construction after adjusting for inflation.

This year's journal includes information on things to watch for 2023, reasons some GCs failed and others didn't despite project delays and the sharp increases in the cost of many construction materials, the role of C-PACE financing, how to gain leverage with borrowers while lowering construction risk, what to look for in Builders Risk policies, how the Inflation Reduction Act impacts commercial real estate, and strategies to reduce supply chain risks, among others.

I'm confident that the spirit of collaboration and resourcefulness our members have shown will help us all to excel in the coming year.

Thank you for your support over the past 10 years, and we look forward to continuing to work with you in the years ahead.

Sincerely,

Bill Tryon

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CLRM: 10 Years of Collaboration

Joe Derhake, PE
Chief Executive Officer | **Partner Engineering and Science, Inc.**

The past 10 years have seen a lot of changes for construction professionals – from increased regulatory oversight coming out of the great recession, to COVID, and now a looming recession. The CLRM community has been there every step of the way, helping construction risk professionals navigate an already complicated job through unprecedented times.

In our formative years, the CLRM community gave valuable input to the OCC that was incorporated into its revised guidance for examiners. We also created a framework on scopes of work for Document and Cost Reviews to help improve consistency in underwriting.

Through the depths of COVID, CLRM members relied on each other to navigate contracts, force majeure, and an uncertain marketplace.

And now, the community is at work as we wrestle with soaring construction costs, the supply chain, labor shortages, and interest rates. I see members collaborating on monthly calls and posting CLRM Journal articles on LinkedIn as "must reads" for dealing with a potential onslaught of construction defaults and for how to navigate risks in this new normal.

I'm proud to have seen this group grow and step up to meet each moment – what started as an idea of just a few people is now a thriving network of over 1,000 members. The original idea behind CLRM is still what fuels it today: that construction risk management professionals are better off when they share ideas and learn from each other.

As construction becomes more complex than ever, construction professionals need this sounding board more than ever. If you've been wrestling with these challenges in a silo, join us! Get involved! Put the CLRM community to work for you.▪

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Construction Outlook 2023: Walking the Tightrope

Bill Tryon
Chief Strategy Officer, Principal | Partner Engineering and Science, Inc.

Construction and development can be extremely rewarding, but they are tricky at the best of times, and surprises over the last few years have been especially challenging. We've put together notes from industry leaders regarding some of the most challenging issues to help prepare for whatever 2023 sends our way.

Construction Costs

According to the Federal Reserve,[1] the cost of construction materials increased at a faster pace in 2021 and 2022 than at any time since 1947. A recent poll conducted by AGC[2] revealed that more than 70% of contractors have experienced delayed or cancelled projects as a result of these increased costs. These increases are widely attributed to the cumulative effect of pent-up demand, disruption of the supply of raw materials, production capacity, transportation, increased tariffs, geopolitical conflict, along with project delays and related overhead expenses. Materials and equipment represent a significant element of cost increases, though project volume, labor costs, project delays, increased management, and regulatory costs have also had a significant impact.

According to IHS Global Insight,[3] the cost of materials like lumber, rebar, and piping have declined substantially since their peak in 2021, while pricing for structural steel aggregates and sheet metal have experienced a less significant decline. In most cases, their projections show increases in the range of a few percent per year, consistent with historical averages. Barring some new black swan

[1] https://fred.stlouisfed.org/series/WPUSI012011

[2] https://www.agc.org/sites/default/files/users/user21902/2023_Outlook_National_V3.pdf

[3] https://www.enr.com/ext/resources/Issues/National_Issues/2022/26-Dec/ENR12262022_4QCR_compressed.pdf

event, Mortenson Construction[4] has projected overall 2023 increases in the range of 6%, as compared to overall increases of up to 12% in 2022.

Contractor margins have also played a role in the perceived impact of cost increases, masking the effects when project volume is low, and exacerbating the impact as project volumes increase. Moderate volume projections for 2023 should help keep margins within historical ranges, acting as a partial buffer against price fluctuations.

Supply Chain

Over the past few decades, the construction industry has largely relied on a "just-in-time" process to bring in construction materials and supplies, but this resulted in significant project delays when supplies became less readily available during and after the pandemic. In a recent survey completed by AGC,[5] over 90% of contractors reported significant impacts from delayed delivery of materials and equipment, and a survey[6] of equipment manufacturers revealed 98% were impacted by ongoing supply chain problems. Though supply chain issues persist, contractors have adapted to hurdles by ordering or pre-purchasing materials earlier than historical norms, broadening their network of suppliers, pre-purchasing materials, and finding alternative materials. A market analysis prepared by Swinerton,[7] a leading contractor in the U.S., reported that lead times for generators, switchgear, transformers, air handling units, and appliances may still be subject to delivery horizons of up to a year! Aggressive management can help to mitigate supply chain disruptions, but 2023 will not be the year to let down our defenses.

Labor

The availability of skilled labor has been a leading concern in the U.S. market for many years. In December of 2022, AGC[8] reported that 80% of contractors were experiencing difficulties in filling open positions. In addition, a model recently developed by Associated Builders and Contractors[9] found that the industry will need to attract an estimated 546,000 additional workers to meet labor demands in 2023. Even unskilled roles have been difficult to staff. To attract workers, over 70% of contractors awarded higher-than-normal pay increases in 2022, and 30% introduced or increased incentive bonus systems. Continued shortages are expected to continue to influence construction costs as a result of both increased compensation and decreased quality resulting from substituting less-skillful staff.

Volume

Construction volume indicators can rely on different underlying metrics, which can lead to confusion about the direction of the market, especially when relying on indicators that do not account for inflation. Backward-looking reports of total construction spending, such as the Construction Spending Index published by the U.S. Census Bureau, can remain elevated after the construction market has begun to decline since most commercial construction projects incur about 50% of their costs in the second year of construction. Those resources are good for evaluating past spending, but can be less than helpful in understanding future spending and inflation-adjusted volume. Forward-looking indexes like the Architectural Billing Index (ABI) and Dodge Momentum Index (DMI) provide indications of future construction spending by providing a measure of projects that are in the design and permitting stages. The Architectural Billing Index measures the relative total billing of design firms as compared to the prior month, on the premise that increased billings indicate a future increase in construction. The Dodge Momentum Index compares the expected construction cost of projects first submitted to planning as compared to the expected construction cost of projects submitted in the prior month. Both the ABI and DMI can act as leading indicators of the trend in construction volume 8 to 12 months in the future, however, neither quite captures the leading edge of the curve of changes in construction volume since they can't account for decisions not to move forward with projects.

Incorporating information from both forward and backward-looking indicators can provide a more accurate picture of good construction volume over the coming 12 to 18 months. Based on the total volume of projects known to be underway, construction spending is expected to remain strong through at least the first half of 2023 while these projects complete construction. Recent downturns in the ABI and DMI, however, indicate a decline in construction volume – leading to an expected decline

[4] https://www.mortenson.com/newsroom/2023-supply-chain-trends-and-forecasting

[5] Ibidem, Footnote 2

[6] https://newsroom.aem.org/equipment-manufacturers-feel-supply-chain-crunch-worker-shortages/

[7] https://swinerton.com/blog/2023-q1-construction-industry-economic-outlook-trends/

[8] https://www.agc.org/sites/default/files/users/user21902/2022_Workforce_Survey_Building_M.pdf

[9] https://www.abc.org/News-Media/News-Releases/entryid/19777/construction-workforce-shortage-tops-half-a-million-in-2023-says-abc

in overall construction volume in the second half of 2023 and first half of 2024. Many economists project reduced construction volume throughout 2024 with a recovery in 2025, though conclusions beyond the first half of 2024 are increasingly speculative. It's important to note that the DMI has not adjusted for inflation. Given the sharp increase in construction costs over the last year, the recent decline in the index indicates a more significant downturn in overall construction square footage than might have been associated with prior declines in the index.

Interest Rates

In an effort to control inflation the Federal Reserve has increased interest rates eight times in the past year. Leading into 2023, economists had predicted a slowing in the increase of interest rates. More recently, though, Federal Reserve Chairman Jerome Powell[10] noted concerns over accelerated inflation, indicating likely additional interest rate increases. To evaluate potential changes to interest rates, the Fed attempts to balance inflation with economic growth in order to avoid skyrocketing costs without triggering recession. Additional rate increases are likely to provide mixed results for construction volume since projects would benefit from decreased inflation of construction material costs but would also experience new challenges in creating desired returns. At the same time, a failure to change rates is likely to result in a renewed spiral in construction costs.

Takeaways

The main takeaways are probably that the uncertainties of the past few years have faded but have not disappeared. Additionally, the industry has become hypersensitive to new challenges such as increasing interest rates, geopolitical disputes, and natural disasters. Flexibility, careful planning, and rigorous due diligence can reduce these uncertainties to help manage continued risks.▪

"Flexibility, careful planning, and rigorous due diligence can reduce uncertainties to help manage continued risks."

[10] https://www.cnbc.com/2023/03/07/fed-chair-powell-says-interest-rates-are-likely-to-be-higher-than-previously-anticipated.html

The New Normal: Improving Flexibility in Global Supply Chains So They Are Less Likely to Break

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To maintain operations during the pandemic, many companies have been operating in crisis management mode, particularly with respect to unpredictable and unprecedented disruptions to their supply chains. Supply chain bottlenecks have rippled through and impacted all levels of industry, from raw materials up to the consumer.

Due to the increasingly global nature of supply chains, volatile fluctuations in demand, along with environmental and socio-political influences, companies must adapt and take proactive steps to thrive in this "new normal."

How, then, can your company shift from crisis management mode to an adapt-to-survive-and-then-flourish operational approach in the new environment? This article presents six key strategies that companies should consider from the contracting stage through daily operations.

1. Engage in Supply Chain Mapping

Understand who, what, when, where, and how products move across supply chain inputs and outputs. Many companies have a full view of their direct suppliers and customers, but much less understanding beyond such direct links.

More transparency of their supply chain will increase a company's ability to plan and pivot when there is an interruption or some event that impacts supply—whether due to price increases, delivery issues, or raw material shortages.

Examine past occurrences and lessons learned from those incidents to inform strategies to improve the supply chain going forward.

2. Reexamine Your Contracts

Your contracts matter. They are the framework that will determine the duties and responsibilities of the parties, and define how any supply chain dispute will be resolved.

One key area where we see changes is a renewed focus on price adjustments and indexing mechanisms for triggering pricing relief. Before the pandemic, many contracts were long-term, fixed price contracts with no countervailing protections for volume fluctuations or termination. Across many industries, suppliers were even required to provide annual price reductions, i.e., year-over-year cost savings. With some hard knocks over the last two years, companies are seeking to build in greater pricing flexibility to account for variable costs whether through some form of predefined indexing, a periodic opportunity to renegotiate and market test, or other novel approaches.

3. Build Warehousing and Inventory Banks

The proven efficiency of lean, just-in-time (JIT) inventory management works as long as all systems run smoothly and on time. The ability to warehouse or otherwise create an inventory bank—whether on- or off-site—creates a buffer against shortages and disruptions. These can benefit both parties to a supply contract: they give the seller some degree of flexibility, and the buyer some level of protection.

4. Dual-Source

The drive toward minimizing costs, including the expenses associated with qualifying a new supplier, signaled a trend toward single sourcing materials and components.

In the current, unpredictable world of trying to bring global supply chains closer to home, companies should analyze their supply chains to understand where risks exist and whether a single source strategy still makes sense; this often requires drilling down into the details of the related business processes to identify the flow and sources of the supply chain. For example, if two unrelated suppliers are obtaining one hundred percent of their raw materials from the same vendor, your company is exposed to risk based on the sole source.

It is vital to have a contingency plan that makes the most business sense like dual sourcing from different locations, and have at least one prequalified alternate source ready.

5. Shift Risks for Freight Costs

Traditionally, many buyers have treated shipping costs, including expedited costs in cases of force majeure and commercial impracticability, as the suppliers' responsibility. This typically resulted in a zero-sum game with buyers demanding their suppliers pay the entire costs for "whatever is necessary to get my parts to me now," and suppliers often balking and refusing to pay such costs—even if obligated to do so under applicable law or existing contract provisions. (Do you know what your current contracts say in that regard?)

Companies should look for potential new approaches in which both buyers and sellers each share some of the risks for expedited freight arising from events that are out of their control. Companies should involve operational managers from both sides in preparing the relief plan.

6. Nearshoring and Reshoring

Many North American businesses are either bringing back, or contemplating bringing back, their manufacturing to North America in the near future; this is a practice commonly referred to as "reshoring" or "nearshoring."

The business areas that companies are considering reshoring range from backroom operations such as information technology, payroll, etc., to customer service and call centers, to design and production of key components or entire product lines.

Similarly, there are many variations in the ways in which reshoring is accomplished. In some cases, a company may return work to existing North American plants and facilities, while in others it can involve the construction of entirely new facilities. Regardless of the approach, the goal is the same—to mitigate the risk and costs associated with having an extended supply chain with long shipping times for trans-Atlantic or trans-Pacific shipping.

It should be noted however that, due to the complexities involved with moving production locations, particularly in cases where contracts may require revalidation and customer approval, reshoring and nearshoring cannot be achieved overnight. It is a promising long-term strategy, but may not offer much in the way of short-term relief.

Conclusion

If supply chain participants have learned anything from the pandemic and its effects on their business, it is that they should re-evaluate their contracting and operations across their global supply chains. Going forward, companies should build in additional layers of protection through contracting, processes and logistics. The bend-but-don't-break approach may add costs, but it will be worth it to enhance flexibility and maintain continuity of supply and operations.▪

2022 Construction Payments Report Summary

Will Mitchell
Chief Executive Officer | Rabbet

Timely payments to general contractors and subcontractors reduce project risk, added costs, and delays. Rabbet's 2022 Construction Payments Report[1] dives into what happens when those payments don't arrive on time and why it's the responsibility of all the parties involved to reduce these payment bottlenecks.

A survey was conducted of 137 subcontractors and general contractors across the U.S. about the speed of payments in the construction industry. They contributed their voice to issues like managing working capital, bidding decisions, and evaluating project risks in the face of slow payments during the last 12 months.

Information from the survey was analyzed for the impact on cost for contractors, developers, lenders, equity partners, and stakeholders within commercial real estate. The report compares survey data from this year with data collected in previous years to examine the accelerating cost of slow payments for the industry as a whole as well as demonstrates the primary and secondary cost of slow payments.

Cash flows out of a contracting business for wages and materials much quicker than the time it takes for cash to flow in. This process can impact bidding from general contractors and subcontractors. The goal of this report is for construction lenders and real estate developers to understand why all parties in the construction industry should take action to address the longstanding struggles of slow payments in the U.S. Construction Industry.

[1] https://info.rabbet.com/2022ConstructionPaymentsReport.html

Summary of Survey Highlights

$211B the cost of slow payments to the U.S. construction industry

37% of all respondents report that work has been delayed or stopped due to a delay in payments to crew members in the last 12 months

44 hours per month general contractors spend managing payments to subs and vendors

90% of general contractors surveyed see the value in paying their subcontractors faster

62% of general contractors have incurred billing charges, financing charges, or other costs when floating payments to others in the last 12 months

8.5x increase in general contractors using retirement savings to float payments for their business

The Real Cost of Slow Payments for Subcontractors and General Contractors

In 2022 an estimated 49% of contractors reported that they waited longer than 30 days to receive payment. This is unchanged from 2021 data that shows an estimated 50% of contractors claiming they waited longer than 30 days to receive payment.

62% of general contractors incurred financing costs while floating payments to subcontractors, a minimal change from 63% in 2021 and 65% in 2020.

Cash flows outwardly for subcontractors and general contractors before payments for their services are ever received. Because of this, they must include enough capital in their bids to account for overhead. Now, 93% of subcontractors claim they are at least somewhat confident that they have included enough overhead costs.

Slow Payments Materially Impacted Project Returns in 2022

By every measure—schedule, cost, and risk—slow payments were 30% more expensive in 2022 due to inflation and rising interest rates.

- **Schedule Delays:** 37% of subcontractors report work was delayed or stopped due to a delay in payments in the last 12 months (28% in 2021)
- **Risk Increase:** 27% of subcontractors report filing a lien due to slow payments in the last 12 months (17% in 2021)
- **Costs Surge:** Subcontractors added 12% to overall project costs

The Implications of Slow Payments

This survey asked general contractors and subcontractors what they felt the biggest contributor to project delays was. Their answers varied but the top three answers were:

1. **Workforce Shortage:** trouble finding labor
2. **Materials Concerns:** supply chain issues and rising materials costs
3. **Payment Processes:** the speed of payments and lack of streamlined payment processes

The Cost of Inflation on Construction

Because inflation can directly impact how general contractors and subcontractors bid on projects and plan ahead, this survey sought to understand how inflation will impact bidding strategies on projects and how confident they were that their business model will survive the next 12 months.

Both subcontractors and general contractors claimed their bidding strategy has shifted to account for the changing environment. Many respondents claimed they were choosing to bid more carefully and doing more extensive research before submitting bids because rising costs have cut into profitability. Additionally, some contractors are choosing to boost their bids anywhere from 5-10% to help absorb some of the additional costs. One respondent claimed that inflation caused them to charge more for jobs because of the rising cost of labor and supplies. Another stated that they have had to be pickier when selecting bids to take into account the increased prices of labor and supplies.

The answers were across the board when asked how confident they were that their bidding strategies would cause them to survive the next 12 months. Of course,

some mentioned they were nervous and that business has declined, but the large majority of respondents felt confident that with proper management and established business they will survive the current economic environment.

Slow payments are an industry-wide problem that requires an industry-wide solution. It is crucial for industry participants to work together to eliminate the manual, complicated processes involved in invoice approval and payment distribution.

2022 Construction Payments Report Takeaways

The 2022 Construction Payments Report offers insights into the rapidly accelerating costs associated with slow payments in the construction industry.

This year's edition uncovered how inflation impacts competitive bids from contractors, a jump in the overall cost of slow payments, and a spike in the reliance on retirement savings to float payments.

In addition, findings indicate that the cost of floating payments for wages and invoices are passed on to real estate developers and financiers in the form of project delays, added risk, and higher bids from contractors.

The rising inflationary environment coupled with climbing interest rates have direct and indirect impacts on schedule, cost, and risk for the entire construction industry. These takeaways suggest that the industry is beginning to prepare for this economic shift.

1. **Soaring materials costs hike project risk.**

Rising material costs is the biggest factor preventing bids for the second year in a row. Supply chain issues, which cause scarcity and timeline delays along with inflation, continue to drive up materials cost. This can cut into profits as well as increase the total project cost.

2. **Money is getting more expensive.**

Inflation is a major concern for general contractors and subcontractors as money itself becomes more expensive. The current inflationary environment coupled with rising interest rates has made construction more expensive and the money needed to fuel construction more expensive. In 2021 we reported the cost of slow payments to the industry was $136 billion. Today, that number stands at $211 billion. Though the 55% jump from $136 billion is significant, it is not surprising when factoring in this current state of the industry. Now more than ever, the value of faster and more reliable payments to general contractors and subcontractors is critical.

3. The cost–and implications–of slow payments continues to climb.

As the industry grows, so does the cost of slow payments. A growing construction industry is seemingly a good thing. But, as highlighted in this report and Rabbet's annual State of Construction Finance Report, this industry is plagued with antiquated and disjointed processes that make it difficult for parties to track and collect payments in a timely manner. As the industry grows, so will the risk associated with these serious process problems, bottlenecks, and decentralized payment structures.

4. Spiked use of retirement savings to float payments.

General contractors reported using their retirement savings to float payments to their business 8.5x more often than in 2021 and subcontractors are relying on their retirement savings almost 2x more often than last year. Though this is a notable jump, respondents claim that credit cards are still the predominant method employed by both general contractors and subcontractors this year.

This year's report data remained aligned with last year's in many ways. The areas where the data shifted, however, seemed to be mostly related to the current economic shifts in the U.S.▪

Material Cost Spikes Prove Lethal for Some Contractors

Trey Meers
Senior Vice President, Real Estate Services - Construction Loan Monitoring
Wintrust Financial Corporation

Many contractors have experienced a whipsaw since the start of the COVID-19 pandemic, from deep recession to record backlog, and back to the brink of another recession in less than 36 months. The main drivers of our current headwinds are supply chain disruptions and inflation, coupled with a sharp drop off in what had been record demand for new housing units and logistics space. The result is that many contractors faced never-before-seen challenges to their business models, and some didn't survive the test.

The biggest issue contractors faced since the start of the pandemic was skyrocketing material costs coupled with Guaranteed Maximum Price (GMP) contracts. Promises to deliver a defined scope of work for a fixed price proved lethal for some general contractors (GCs) and subcontractors as their material costs shot up. If the contractors couldn't find a way to pass along some or all of these cost increases, they would need to absorb the material cost increases themselves. These stresses on cash flow and liquidity also impacted contractors' ability to retain proper administrative staff needed to document cost increases and prepare change orders. The result for several contractors was a "death spiral" that led to insolvency.

General Contractors were the most likely to get squeezed by these soaring costs. Under the GMP, the GCs were responsible to deliver a specific scope of work for an agreed upon fixed cost. Typically, GCs commit to their clients in the form of GMPs while only having "firm bids" from their subcontractors, and even less solid quotes from material suppliers. When those subcontractors and material suppliers presented cost increases to the GCs, there were generally four possible routes the GC could take: absorb the cost increases themselves, "value engineer" the design of the project to bring the cost down, figure out a way to pass those costs on to the property owner, or default on their GMP contract.

Counterintuitively, the saving grace for many GCs was that specified materials didn't just go up in price, but they weren't available at all. This circumstance meant that a change order was appropriate under the GMP contract for a replacement material or design change, which was an opportunity for the GC to pass along the increased costs to the Owner. Savvy GCs understood this and relied upon their administrative staff to properly manage the change order and avoided needing to absorb too many of these cost increases.

My team's direct experiences through this period included a few GCs who failed because they didn't manage this process well. One insisted on completing the building as designed, scrambling to find the specified materials at greatly increased costs. That tenacity, normally a very positive trait, became tunnel vision that prevented the GC from being able to pass along these increased costs to the Owner. Another GC had so many projects going at once that the material cost increases caused them to fully draw down their lines of credit, and they lost key staff because of the severe strains on liquidity. That loss of staff meant they didn't have the capacity to create all of the needed change orders in a timely manner, as required by the GMP, and most of these cost increases were ultimately absorbed by the GC by default.

In each of these cases, a replacement for the GC had to be found by the Property Owner in order to complete construction, or, the Owner had to step into the role of GC. In addition, all the Owners ended up paying a much higher cost to complete their projects. In most of these cases, the GC had already started down their "death spiral" and nothing could be done to save the GC. One Owner even

extended a loan to the GC to help him get through their troubles, but it wasn't enough to prevent the GC from failing.

Another significant problem we experienced were "zombie GCs" who were barely managing to stay in business, but whose resources were stretched so thin that they eventually had to be fired from the project. These "zombies" were GCs who couldn't order materials in a timely manner, didn't have the liquidity to cover material purchases, and didn't have sufficient workforce to focus on the project. The result was that these GCs had to be fired by the Owner to clear the way for a new GC who could get the project back on track, but typically that was after most of the project's contingency and interest reserve had been depleted. These separations often proved messy as the "zombie GC" would file liens, demand payment for work that hadn't been completed, and often sue for "breakup fees."

We found during this volatile time of cost increases that the most successful projects had Owners who were willing to work with their GC to "share the pain." It was arguably unfair to hold a GC to a contract amount that was agreed upon prior to the historic spike in material costs. From a practical perspective, the Sponsors who worked with their GCs regarding these cost spikes were more likely to have the project completed as close as possible to the original schedule, and without the cost and hassle of finding a new GC and defending against liens for the old GC.

From the Lender's perspective, it was important to understand the arrangements created between Owners and their GCs. The Lender would typically need to approve funding some or all of these arrangements from the construction loan, and it would usually involve heavy usage of the contingency early in the project. It took a critical eye by the Lender to determine if this early usage was a constructive use of funds, or merely trying to prolong the inevitable.▪

Understanding 4 Big Construction Risks

Robert W. Barone, RA, LEED AP
Director, Institutional Construction Services | Partner Engineering and Science, Inc.

When it comes to construction lending, nothing is more important than going in with your eyes wide open.

Construction lending comes with a lot of risks, so fully understanding those risks is an essential part of every lender's job. In fact, there are significantly more risks in construction lending today than there were just two years ago.

Despite those added risks, the strategy for a successful construction loan remains much the same: knowing fully where your project stands, understanding your project's risks and how the project can best be executed—and using the proper tools and best practices to mitigate potential risks. The execution of the project doesn't really change, you are just "building a better mousetrap."

"Construction lending comes with a lot of risks, so fully understanding those risks is an essential part of every lender's job."

Understanding Today's Current Risks

Expecting the unexpected and properly preparing for ways to mitigate risks is just one part of a lender's job. Keeping current with the market, the changing practices of contractors, and the risks they both present is the second part. Below are four big risk factors construction lenders should currently be aware of.

1. **Material Cost Escalations.** Material prices are up; this isn't news. However, it's important to note that these prices change constantly. This means that right now, no contractor is holding costs/quotes more than two to four weeks. So, when a lender is making a loan on a project, there is a necessity of speed to execution. A delay can cost the project more money because the bids will be out-of-date and need to be rebid. That being said, as you are deciding whether to loan on a project, always make sure the pricing is current.

2. Escalation Clauses and Allowances. These are the elephants in the room (aka contract) no one likes, but everyone should know about and learn to expect them in construction contracts now (or until the market has settled).

What's an escalation clause? It's a clause that allows the contractor to increase the owner's price of the materials after the contract is signed if material prices increase unexpectedly beyond the contractor's control. It allows the contractor to shift some of the risk to the owner, so everyone shares in the cost impact.

Until the last year, escalation clauses were not common; an increase in price was a risk owners preferred to place on the contractor. The last time we saw this happen was in 2007-2008 when projects experienced significant inflation prior to recession. Since then, these clauses have been newly dusted off and used more broadly than in the past.

Because of the unique and significant nature of today's problems, contractors are no longer willing to take all the risk. However, with the risk also falling on owners/borrowers, lenders must understand how this can affect the loan and the borrower's ability to meet loan requirements. Lenders must understand how risks will be mitigated and dealt with.

What contingencies are in place and how might they play out? It's very important the project be penciled out to cover all known and perceived risks before closing the loan. Mitigate as many risks as possible, within reason of making it a marketable deal, since the project ultimately needs to be able to support itself. Remember, contingency is for unknowns, and budgets should be established for those known and perceived risks.

What about allowances? Allowances aren't a new concept; they are set asides/budgets for elements of work that can't be scoped or priced at the time of bidding (e.g., decisions on cabinets not made yet). Allowances traditionally ranged from 5-10% of the contract, but they have gotten significantly bigger and are ranging around 20-25%. In fact, we have seen these numbers be as high as 40% due to contractors who, unable to sign subcontractors until the loan was closed, were unwilling to take on the risk of escalation.

Allowances also allow the owner to take advantage of potential reductions in costs for items that aren't needed on the project until later in the schedule, if the owner believes certain costs might come down. In any case, the lender should provide a specific window to the owner/contractor to award the subcontracts and reduce the allowances to a reasonable level. Although allowances in past markets gave the owner desired flexibility for undecided scope, now they protect the contractor from higher costs due to market volatility, which may put their business at risk.

3. Global Supply Chain Crisis. Currently, there is incredible difficulty sourcing materials from domestic and international locations. Although supply chain has been an issue for more than a year now, it is a continuing concern because of unexpected circumstances that can occur (e.g., China locking down manufacturing). There is not much visibility into the issues that may arise. Last year it was difficult to predict where the problems were going to be, and now new problems arise every month. In addition, there are no known quantities of the supplies available like there were two years ago.

What does this mean to a construction project? It means the decisions that once could be postponed (like the previous cabinet pricing example) need to be made before

a project commences. It also means projects require more money down early on in the schedule for material deposits/pre-purchasing. Hesitation in making early decisions and funding material deposits/purchases can lead to costly delays in the construction progress.

4. **Labor Availability.** The labor crisis stems from many factors, including the following:

Fewer workers. COVID, unfortunately, has impacted the workforce and reduced it in ways it still has not recovered from. Some people left the construction workforce altogether, and many are aging out. In addition, there is a lot of difficulty recruiting young people, because there is diminished interest in joining the construction world.

Fewer bids. The lack of workforce also affects the number of contractors and subcontractors able to bid on a project. In fact, there are fewer serious bids on projects than ever before and/or more contractors turning projects down. Before lending on a project, lenders should ask the owner/borrower how many bids they received and how/why they made the specific selection. The selected contractor may very well be the only one willing and able to take it on. This may mean the pricing is not as competitive as in years past, and there may not be a replacement contractor in the wings in the event the original contractor defaults.

Building in a new area. Many projects are being constructed in new locations across the nation. The area may have a small workforce or supply pipeline that cannot support the volume of construction. A reduced workforce on a project will likely increase time to complete, which will also increase the cost to build the project.

Out-of-town contractors / subcontractors. When lending on a project, it's important to know where the contractor and their subcontractors are based out of. Out-of-town contractors will possibly have a hard time finding local subcontractors, not know whether they are reputable, and may be unfamiliar with the market; all of these equate to added risk.

In addition, attracting subcontractors from out of town is tricky because travel time plus increased fuel prices create less interest in the project. An out-of-town contractor may not have the market pull with local subcontractors when it comes to staffing the project, because subcontractors may put their available resources on projects with local contractors with whom they may have longstanding relationships. The result can be a project with a small workforce and slow progress.

Subcontractors' ability to honor obligations. Due to issues with the global supply chain already discussed, it may be difficult for subcontractors to honor their obligations. If they were hired to perform work during a certain time but a material delay or shortage postponed the project significantly, the subcontractors may not be able to honor their obligations once the project is ready for them—they may be committed to another project that was not delayed.

Vetting the Project Before Loan Closing

Thorough, timely due diligence on a construction project is crucial. In general, due diligence should be performed on the following: the borrower (which the lender conducts), the project's documentation completeness, and the construction team. The latter two are typically outsourced to third-party consultants.

Documentation, budget, and construction schedule review. It's important that a project have quality documentation and to know whether the scope of the project is well-defined. Where is the project in terms of drawings and permitting in order to quickly execute mobilization? How close is it to executing and locking in prices and delivery? Has a contractor been selected and where are they in the negotiation?

These reports do a deep dive not only into whether the plans are complete and realistic but also provide feedback as to whether the schedules and budgets offer an accurate representation of today's market risks as well as areas of concern.

Contractor and construction team. The contractor is one of the most important individuals to the success of the construction project. Evaluating the contractor and knowing the contractor's strength is, therefore, particularly important.

Does the contractor have the experience necessary to successfully complete the project? Is the contractor familiar with the product type (e.g., first time building a hotel)? Is the contractor keeping a positive cashflow or getting financially squeezed in too many places? Does the contractor have sufficient labor force (and have signed contracts)? How many projects is the contractor currently working on?

This type of review ultimately looks into whether the contractor and the team have the qualifications and capabilities for completing the project.

Putting Protections in Place Before Loan Closing

Putting extra risk management practices in place before loan closing offers the lender (and borrower) protections throughout the construction process. These practices will protect the project from delays, financial mismanagement, and defaults.

Construction monitoring. Having a project professionally monitored regularly ensures the project is progressing as required by the contract and to the standards/workmanship needed. In addition, it provides verification the work the contractor reports completed matches the actual work performed. In addition, the project's monitor can flag project concerns or potential work hindrances early on.

Funds control. Although funds control typically goes hand-in-hand with construction monitoring, having a funds control process in place ensures funds are not being diverted to different line items or different projects and that payments are not being made ahead of scheduled milestones or deliverables. Most important, it ensures the contractor is paying all parties while providing diligent oversight and collection of lien waivers (aka, no liens on the project).

Default management. There are a variety of tools lenders can use to protect against defaults.

The most common are surety bonds, such as performance and payment (P&P) bonds, which offer monetary protection to the owner/borrower in the event of contractor failure. In addition, some consultants offer completion commitments that provide the services necessary to help get a project back on track in the event of contractor failure. Another tool now available is construction project completion insurance, which names the lender as beneficiary and provides immediate funding to complete a project in the event of borrower default.

Despite all the risks, construction projects offer lenders fruitful rewards.

Some lenders keep some of the risk mitigation practices, such as funds control, in-house to keep costs down. Electing to self-perform risk management should be a decision based on expertise and capacity. For larger projects, in particular, the benefits of having consultants with a larger sample size of experience, project pricing, and construction knowledge can be incredibly valuable.

It is also very important for construction lenders to be aware of both current and traditional risks and to perform proper due diligence and risk management practices on each project before closing on any loan.▪

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The Value of a Construction Project

Understanding the factors that determine construction project value can help owners protect that value through project delivery.

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As with existing commercial real estate assets, assets in a pre-construction or construction phase require valuation for capital raising purposes, whether funds are to be borrowed or raised via equity investors. Unlike existing assets, however, construction projects lack financial history to demonstrate value—there's no rent roll, leases, or income statements for an appraiser to review. How, then, do commercial valuation consultants place a value on a construction project?

Construction Valuation Basics

The value of a construction project combines the value of the land on which the project is built with the project's anticipated income potential once complete. It can be greatly impacted by market changes and setbacks in project execution. There are three points for construction valuation: as is, which is the value of the land/project site; at completion, which includes leases executed when construction is complete; and at stabilization, which is when the project reaches 85%-100% occupancy depending on property type.

Land is appraised using comparable sales when available, and by considering the attributes of the parcel in the context of its highest and best use. Characteristics such as size, shape, location, topography, utilities and improvements, accessibility, natural features, and environmental factors affecting the property make it more or less desirable to buyers, much like the features and amenities of a building.

Supply and Demand

Beyond land value, appraising a construction project is a study of supply and demand. Construction projects should fulfill a need in the market. Typically, multifamily construction happens in areas where there is employment growth and/or amenity growth (i.e., pro sports teams, bars, or restaurants). Office construction tends to be build-to-suit; that is, the project is pre-leased or mostly pre-leased because currently, there is not sufficient demand for speculative office construction in most markets. In today's economy, new retail construction tends to be limited to discount stores, pharmacies, and similar single tenants—there is little to no demand for large shopping plazas or lifestyle centers. To be successful, a project must have sufficient demand to warrant its construction.

When appraising a construction project, a valuation consultant must consider whether there is sufficient demand for the project, and whether the completed project will be appropriate to meet the demand. Take, for example, multifamily projects and employment growth. Since people like to live near their workplace, there will be demand for housing in employment hot spots. But is the project designed to fit the demand? Say an apartment complex is being constructed near a large distribution center that employs many warehouse workers and drivers. Will the apartment complex contain affordable units in a mix of sizes to accommodate individual renters and families? Or, if the complex is being constructed near a downtown financial or technology district, will it offer luxury units?

Factors That Can Impact Project Value

Even with strong, well-matched demand, there are variables that can undermine the value of a construction project. First, there is the execution of the construction itself. Cost overruns can degrade profits and reduce value. Construction delays can result in poor timing of project delivery. Using the multifamily example: prime leasing seasons for apartments are spring and fall. Ideally, a multifamily project will be completed when leasing activity is strong. If construction issues delay completion until January, leasing will be slower, and the project can miss a leasing season. If the project is in an area with severe winter weather, leasing activity could be dampened for

months, resulting in an extended lease-up which negatively impacts value.

Because construction is a lengthy process, often taking a year or more for large projects, changes in the market during construction can impact value. Never has this been more apparent than during the COVID-19 pandemic. Buildings were designed to meet pre-COVID demand, but during COVID, the needs and preferences of end-users changed drastically. In the office market, open workspaces had been the trend pre-COVID, but the virus created the need for more separation between workers, so design specifications changed. People on lockdown or working remotely wanted larger homes, and commuting was less of a concern, so the multifamily market changed. In retail, drive-throughs and curbside pickup became more important than spacious dining rooms or storefronts, so the retail market changed. Even now you are seeing prototypes from restaurants that are all drive-through and curbside with no seating offered. Developers and project owners had to pivot to meet changing demand or face the consequences: a product that was no longer viable.

Those familiar with the Chicago real estate landscape may recall a particularly vivid example of this scenario in the failed Waterview Tower project at 111 W. Wacker Drive. In 2006, a local developer launched construction of a 90-story, mixed-use tower including ultra-luxury condos, a luxury hotel, retail spaces, and parking. The massive project was expected to take about three years to complete and the developer self-funded the construction. Whether there was sufficient demand for ultra-luxury housing in that market in 2006 is debatable; however, as the economy began to falter, demand declined, and by 2008 the developers could no longer get a construction loan. They walked away, leaving a 26-story shell for about four years until Related Midwest took over the project. After a complete redesign that scaled the tower back to 59 stories and eliminated the proposed condominium and hotel uses in favor of luxury rental units, the project was sold in 2015 to Heitman for a record-breaking price.

Protecting Project Value

While the Waterview Tower example is a dramatic one, it illustrates a key lesson for owners seeking to preserve the value of a construction project. It's not enough to assess demand before beginning; owners must stay abreast of the market and be sensitive to shifts in demand. More importantly, they must be able to pivot to meet those demands. In today's market, for instance, interest rates are a significant barrier for many would-be home buyers. A developer with a condo development in progress might consider shifting towards a multifamily rental model instead of constructing units for sale to individual buyers. Recently, some multifamily developers have replaced the large community spaces in their plans with several individual "WeWork"-style office space amenities in response to shifts in tenant demand. Flexing with changes in demand can keep a construction project viable and protect its value through delivery.

Another critical component of protecting project value is managing construction risks: stay on budget and stay on schedule. Use safeguards such as construction monitoring to avoid cost overruns and delays. An investment in third-party construction risk management can help protect your project from common pitfalls that undermine project value.

The potential for shifts in value during the span of a construction project reinforce the importance of engaging qualified valuation consultants who are attuned to the relevant sector and market. Sophisticated market analysis is required to assess supply and demand and place a credible value on a construction project. Project owners should select an experienced commercial valuation advisor with reliable data sources and well-developed industry connections to ensure their construction project valuation reflects the most current market conditions.▪

Gaining Leverage While Lowering Risk in Construction Lending

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Leverage typically comes in two forms – financial and power. When a borrower requests a construction loan, they need the financial leverage the loan provides so they can construct (or renovate) buildings to produce a profitable investment. However, once a construction loan is approved, they gain a different type of leverage – one of power that grows as each draw is disbursed. Why? Because no lender wants their borrower to default, forcing them to take back an unfinished property/project.

With today's economic uncertainty, which includes increased material prices, supply chain delays, and construction labor shortages, the risks continue to grow for all parties involved in a construction project. Although the borrower is ultimately meant to foot the costs of a project, the lender actually takes on the majority of the risks, as it is their funding that supports the construction. Construction loans have higher interest rates because they come with a lot of risks for the lenders. Unfortunately, most every construction risk equates to substantially increased costs: schedule delays translate into extended general conditions; material shortages mean higher prices; competition for a limited labor force means higher wages to attract and keep jobs staffed.

What happens when construction costs increase?

The increases *typically* fall on the borrower, as the lender has capped the amount of their loan. However, when costs surpass the borrower's budget, the borrower may push back on the lender to increase their loan amount. At that point, the lender is put in a situation where the borrower has more leverage: either approve a larger loan amount or risk that the borrower, unwilling to pay more, will default. A default mid-construction often results in the property being worth less than the land alone and/or the loan amount. Then come the headaches of appointing a receiver and foreclosing on the property… or at least that is what was *typically* done.

Today, lenders have options to gain the upper hand with difficult borrowers, which ultimately increases their leverage. They can require that project completion insurance be purchased prior to closing on a loan, which assigns the lender as the beneficiary in the event their borrower defaults. It is typically cheaper than most surety bonds and is both quick to fund and easy to call.

> *Today, lenders have the options to gain the upper hand with difficult borrowers, which ultimately increases their leverage.*

So, how does this provide the lender leverage?

The lender now has an alternative to customary foreclosure proceedings that will assure the project gets completed regardless of a borrower's

default. The lender no longer needs to fear default; in fact, the project completion insurance provides the lender with leverage to encourage their borrowers to comply with loan covenants, as they can now call a borrower's bluff.

Project completion insurance is a new type of insurance at competitive pricing because it is added on to the comprehensive construction risk management services required for the loan, which includes project documentation and contractor due diligence before loan closure, construction monitoring and funds control after loan closure, and professional project management services in the event of general contractor default. Most risky loans already require one or more of these due diligence and risk management services. Having project completion insurance simply completes a lender's risk management profile to include financial protection in the event of borrower's default.

What about today's construction market?

Today's climate necessitates that construction lenders place more and more scrutiny on their borrowers due to the uncertainty involved in a construction project. However, rising interest rates and inflation have had a cooling effect on the number of construction loans being requested. Construction lenders may now consider borrowers whom they previously may have rejected, as long as enough risk management and credit enhancement measures are taken. These once over-looked borrowers may not be as financially leveraged as lenders are used to working with during less risky climates. Deals lenders might now consider may originate from less experienced developers, or even from ultra-risky owner/builders. These borrowers require more scrutiny and caution, and credit enhancements can help to ensure the project can and will be funded through the project's completion.

The appeal of credit enhancements is that they benefit both the borrower and the lender. The borrower can use credit enhancements to get approved for a loan and to negotiate better terms. On the other hand, credit enhancements allow lenders to make a deal they may not have made without them.

Which credit enhancements should be considered?

Credit enhancements can include surety/P&P bonds, letters of credit, the inclusion of additional guarantors, restricted cash, as well as project completion insurance. However, the problem with many credit enhancements is that they can be expensive; the funding may be difficult to acquire; and/or they may result in litigation. The table below offers a very high-level overview of major advantages/disadvantages, and shows that with the exception of project completion insurance, credit enhancers often have more disadvantages to the borrower and lender than advantages.

CREDIT ENHANCEMENTS	ADVANTAGES	DISADVANTAGES
Project Completion Insurance	• Less costly than bonds (40-60 bps) • Lender is beneficiary in the event of borrower default • Quick funding / easy to call • Proactive • Contract is for the duration of the project (no renewals) • Enables more leverage	• Lender pays 10% copay of overbudget costs at each draw after original loan amount is depleted • Copay may or may not be recouped upon sale of the project • Borrower is not covered
Surety / P&P Bond	• Good for public projects • Borrower is beneficiary in the event of contractor default • Most commonly required credit enhancement measure	• Expensive (50-300 bps) • Slow to respond • Tough to perfect claims / difficult to collect • Can result in expensive litigation for owner • Not an option for owner/builders • Renewal fees in the event of delays • Does not fund in the event of borrower default
Letters of Credit	• Provide lenders access to cash with fewer obstacles to obtain • Quick to administer	• Expensive • Requires borrower to be well-capitalized • Handcuff borrower's operation by potentially restricting working capital • Has an expiration date – delays would require a renewal plus any fees
Additional Guarantors	• Improve a project's credit profile • Guarantors sign completion guarantees • Often improve borrower interest rate	• Difficult to obtain guarantors • Potentially costly to borrower or developer; may have to give up equity stake to secure guarantors • Lenders often need to file an after-the-fact suit for damages as a primary recourse against these tools
Restricted Cash	• Money is set aside for loan • Funds accrue interest • Reimbursed if project is completed on time and on schedule	• Ties up borrower's working capital • Not an additional source of capital • Deal killer for borrower/builders since cash is king

Are credit enhancement measures worth the cost to the borrower (and indirectly, to the lender)?

Absolutely. It's the difference between making a deal or not making a deal. But some options work better than others for both the borrower and the lender. For borrowers, the following points are important:

- Which is the least costly?
- Which can be procured easily?
- Which is the easiest to navigate and call upon?
- Which lowers the risks of substantial delays (and by default, additional costs)?
- Is the borrower also the developer? Developers don't qualify for most bonds and may be unwilling to tie up their capital as some options require.

However, the borrower's concerns are only half of the equation. Much like instructions given for use of an airplane's oxygen mask, lenders need to take care of themselves first and then consider:

- Is litigation likely if it's necessary to call upon the credit enhancement?
- How quickly will the project be funded?
- Who does the credit enhancement benefit? In cases like bonds, the main beneficiary is the borrower and is only called in the event of contractor failure. A bond offers no protection in the event of a borrower's default.
- Which provides the lender with the most leverage?

Choosing a credit enhancement is not an either/or scenario. The utilization of one or more credit enhancements is up to each lending institution so that they can get comfortable with the construction loan and borrower. Project completion insurance, for example, is relatively new to lenders. Despite being the most beneficial to lenders, it may take time before it becomes a standard selection from among the available credit enhancements. Project completion insurance can also benefit lenders and borrowers by allowing lenders to offer construction loans to owner/builders who would otherwise not be qualify for a loan due to their inability to be bonded. One of the greatest advantages of project completion insurance is it gives the lender added leverage when necessary to persuade a borrower to comply with loan covenants, and increases overall confidence that, even if the borrower doesn't comply, the project will still get completed.▪

How to Have Honest Conversations with Project Stakeholders About Cost Increases

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In today's economy, flash words like *Inflation* and *Supply Chain* are involved in just about every facet of our lives. Everything costs more than it did a year ago and store shelves seem to lack a different household essential every week. Construction projects are not immune from these disruptions. In fact, construction projects tend to feel the effects of inflation and supply chain delays more acutely than our standard consumer goods due to the long-term and large-scale nature of the work. A KPMG study found that, over the course of 3 years, only 25% of construction projects were completed within 10% of their originally projected schedule and just 31% were completed within 10% of their projected budget.[1] As lenders, it is all but inevitable that these issues will creep in to at least a few of our projects. When they do, we need to be prepared for the tough conversations ahead. How we prepare for and talk to project stakeholders when an issue is identified can affect the project's trajectory and ultimately decide the outcome.

Starting from the point that everyone involved is a person simply looking out for their best interests, we can look at some basic strategies when engaging in these more difficult discussions. Here, as in many aspects of our business, communication is key. Experts suggest some of the following ways to ease the pain of bad news. Start with being direct. Use straightforward, unambiguous language to cement the message in the mind of the receiver. Make eye contact to establish a personal connection. This is a simple yet powerful method of communication.[2] Use facts to make your argument. This will help, as feelings change over time because facts are constant and can be more easily referenced again later. Finally, it is important to prepare the listener for the type of conversation that is planned and to pick a time and place that is appropriate for serious discussion. Some people are better at delivering bad news than others, but no one enjoys it.

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[1] KPMG (2015). Global Construction Survey 2015: Climbing the Curve. https://assets.kpmg.com/content/dam/kpmg/pdf/2015/04/global-construction-survey-2015.pdf

[2] Heath, M. (March 24, 2014). How to Deliver Bad News to Anyone. https://www.lifehack.org/articles/communication/how-deliver-bad-news-anyone.html

As it pertains to construction lending and cost increases, it is important to remember that lenders have limits. Before entering a tough conversation, prepare yourself by formalizing the options in your mind. You should cement your boundaries and determine internally what you "can" and "cannot" do for the borrower. This might involve a pre-flight meeting with your credit committee or lending partners. It could mean revisiting the original underwriting and brainstorming the restructuring of the deal with the latest data. Regardless of the process, these types of conversations are best had after thoughtful planning. As you build your plan, take into consideration if your "can" involves additional debt; what do those terms look like? If additional debt isn't an option, what else is available?

After exploring internal options that the lenders can control, we can look to the Borrower's team for additional solutions. Is there an opportunity to bring in additional equity or a new partner? Can the general contractor rescue the scope of the project, or phase portions of it, to allow the available funds to cover the costs? If additional funds or a scope reduction are not available, is the bank prepared to issue a stop work order or potentially perform a takeover of the project? All these questions should be considered before broaching the difficult topic of cost overruns with the project stakeholders.

Once these conversations are underway, it is important to always keep the end goal in mind. Is the ultimate objective a Certificate of Occupancy or a benchmark percentage of completion? Does the project need to maintain a certain level of finish out to meet the pro forma, or is that marble countertop a want, not a need? Conversations like these do not need to happen in a vacuum or all at one time. Ongoing dialogue with the entire team is vital to finding a successful outcome.

Construction cost increases are an unpleasant fact in our current economy. As construction lenders, we should not shy away from discussing cost overruns and how to deal with them. Our borrowers rely on us to help get projects finished. We should act as solutions whenever possible, but be honest about our limitations when the answer is beyond our reach. Remember that these difficult conversations can be easier when you practice the C.O.Z.Y. strategy[3] throughout the life of the project.▪

[3] Rabalais, P., & Crawford, J. (March 2021). "Getting Cozy with Small General Contractors." CLRM Journal 2021. https://www.construction-lender-risk-management.org/wp-content/uploads/2021/03/CLRM-Journal-2021-Interactive.pdf#page=25

A Blueprint for the Unexpected: How to Manage Change Orders

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In a perfect world, every contractor could have access to a crystal ball that would show exactly how each construction project would be completed to anticipate all changes in costs and timing. Unfortunately, we are still waiting for that technology to be built. For now, the construction industry must rely on research and data to help map out specifications and costs for every project. Without the ability to look into the future, there will be times when plans and contracts need to be updated. Whether these changes require the scope of a project to be expanded or minimized, or another unexpected issue arises, change orders are required.

Understanding Change Orders

In basic terms, a change order is documentation that modifies the original contract for the project and provides a detailed description of its changes. This function is necessary for the project owner, the contractor, and the subcontractor to be aligned on the project costs and projected timeline to prevent possible disputes between involved parties. This is important because even when the scope of a project tries to account for the increased cost of materials or an extended timeline due to supply chain issues, change orders help ensure the project is successfully completed.

Even the slightest change to an initial contract can be extremely costly for projects in the construction industry due to the costs of materials and labor. That being said, submitting a change order does not necessarily mean there was a lack of planning, or the project was mismanaged, but how they are handled can severely impact how successfully a project is completed. Though these modifications cannot always be anticipated, there are ways for project managers to plan how a change order will be processed.

There are numerous controllable and uncontrollable reasons a change order may be required. Some circumstances that prompt a change order include issues obtaining necessary materials, design alterations, regulatory changes, and unfavorable site conditions. Regardless of the situation, it is important to approach the change with a clear strategy. By following detailed planning documents, it should be straightforward to identify the information needed to address the changes and who will cover the costs. Having these amendments outlined in a written change order and agreed to by all parties is critical before any out-of-scope work starts.

Planning for the Unpredictable

Though change orders have always been a common practice in the industry, the effects of the pandemic highlighted their importance. Industry-wide pandemic challenges helped identify some lessons that have now been adopted and folded into how project managers kick off projects. For example, the numerous delays and fluctuations in material costs made it clear that all contracts must have a clause outlining how change orders will be handled throughout a project and indicate who must approve the orders before any work that falls within the change order continues. This practice allows all parties to start off on the same page and dictates where the accountability lies as the project moves forward.

In some cases, it may be prudent to engage with a third party to review contracts and help mitigate risk. This process involves evaluating all agreements, cost projections, and timelines, and ensuring there is a detailed

change order clause within the contract. With the support of risk management experts, both the borrower and lender have the opportunity to analyze a project's cost fully, how it will be financed, and the loan's repayment terms before contracts are signed.

Reframing Project Funding

Generally, change orders indicate increased project costs which may require additional funding for a project. It is helpful to account for a contingency fund in expectation of project changes to help offset any budget increases during the initial planning phase. This additional sum of money can help keep schedules moving forward when certain areas of the project go over budget.

Understanding details regarding budgets and investing in a contingency fund is an important conversation for borrowers to have with lenders before the project breaks ground. Additionally, how the reallocation of funds will be handled should be clear from the start, similar to how the process of managing change orders is outlined. An experienced and supportive lender understands the construction industry and allows borrowers to negotiate flexibility when defining these terms. It is important for lenders to consider the project's timeline and take steps upfront to account for possible changes that will extend the length of construction, including such items as a reasonable interest-only period.

With every construction project, the ultimate goal is to complete the build on time and within budget. Careful planning and clear communication between all the parties involved help make it an achievable goal, even when handling change orders.▪

Evaluating Stalled, Distressed Construction Projects

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When a construction project has stalled, particularly when the borrower is unwilling or unable to complete construction, the lender, the investor contemplating acquisition of the project, or the court-appointed receiver stepping into the developer's shoes, will need to evaluate the construction in place, the underlying project approvals, and the cost and anticipated time to complete the project in order to make prudent business decisions.

A building or other construction project is not 'complete' until it has received a certificate of occupancy, or similar approval, from the public agency with primary jurisdiction over the project. Typically, it is the city or county where the project is located, although it could also be a state, federal, or even tribal agency. There may also be separate and significant tenant improvements or other project modifications necessary for the project to start generating income or otherwise be put into service for its intended use.

Unfortunately, time is the enemy on a stalled construction project: project permits and approvals may expire, key design and construction team members may leave, completed construction may deteriorate from weather, theft and vandalism, and security and insurance costs can soar.

The good news is that with sufficient time and money, almost anything can be fixed. However, the cost to complete a stalled project is almost invariably higher than if the project was completed without interruption.

Some Initial Issues and Considerations

A key consideration for evaluating distressed construction projects is that the lender cannot take any action that may be viewed as interfering with the borrower's operation and control of the project. The consequence of lender interference can be the involuntary conversion of the loan into a passive equity interest in the project – a bad outcome. To obtain project information, talk with project team members or access the project itself, it is important to first have the borrower's consent and cooperation.

At the first sign of borrower distress – and while the borrower is still cooperative – gather, organize, and review as much of the loan and project documentation as possible. Compile contact information for everyone involved in the design, approval, construction, and inspection of the project. Walk the project, preferably with consultants skilled in evaluating construction, and take as many photographs as possible. Determine what materials, if any, have been purchased and stored off-site or with suppliers. Confirm that the project jobsite is secure and that insurance policies are current. If all goes well, the borrower/developer will remain cooperative through the process of working out the loan and completing construction.

Once the borrower relationship becomes adversarial, the only way to obtain additional non-public project information is to seek the appointment of a receiver or wait until the foreclosure is complete. The fact that the borrower may

have abandoned the project is not sufficient reason by itself to access, secure, inspect, operate, or control the project.

'Invasive' inspections, such as assessment of potential soil and groundwater contamination, are often necessary and appropriate to fully evaluate the condition and status of construction. Those inspections may include mold, asbestos, structural, mechanical, electrical, low voltage, plumbing, and roofing. However, unless the borrower consents in writing or a receiver is in place with the appropriate authority, invasive inspections – particularly environmental – can be problematic given the possibility that the results may have a negative impact on project value.

Borrowers in distress often cut corners and make poor decisions. They will use cheaper materials, less skilled and/ or less supervised contractors, and overlook mistakes and substandard construction – all in an effort to complete the project as quickly as possible with whatever funds are remaining.

Below is a list of some of the typical construction issues that can arise on a stalled project:

- Expired project approvals and construction permits
- Incomplete plans and/or permit applications for design/build work
- Design professionals, subcontractors, or suppliers are no longer in business or uncooperative and/or restrict access to permitted plans due to nonpayment
- Long-lead materials, fixtures, and equipment are not yet ordered, significantly delayed, or unavailable
- Inadequate, improperly located or installed and/or delayed public utility installations
- Use of substandard, substituted, or uncertified materials and fixtures
- Substandard or improper construction
- Incorrect clearances, setbacks, building height, and other dimensional issues
- Construction extending past property lines, both above and below ground
- Low voltage electrical systems for access, communication, security, and fire/life safety not designed, installed, inspected, or operating properly
- Major building components damaged or compromised by prolonged exposure to weather such as wood framing, weather resistant barriers, insulation, drywall, and flooring
- Compromised or voided warranties
- Theft of high-value building materials and equipment stored on-site or installed, such as copper electrical wiring, electrical switchgear, heating and air conditioning equipment, and appliances

In addition, stalled projects often require 24/7 on-site security, and insurance policies must be extended or converted to 'vacant building' policies. As a result, both security and insurance can be unexpectedly costly.

Another consideration is that construction can involve potential long-term liability for construction defects – particularly condominiums and tract housing with homeowners' associations – so most lenders and many investors do not want to complete construction without some insulation from liability that can be provided by a court-appointed receiver and/or a construction defects insurance policy.

If the borrower/developer is 'self-performing' as the project architect and/or the general contractor – and to the extent that the borrower/developer has close relationships with the project's subcontractors – it is likely that these related project team members will, at a minimum, be reluctant to talk, and often will be uncooperative and adversarial.

The Construction Evaluation Process

This is the time to engage a third-party consultant who specializes in construction evaluation, unless this capability already exists in-house. When construction has stalled, the existing project team will expect a third-party construction evaluation consultant to be involved in the lender's or the investor's due diligence process.

First – and to the extent that this information is available – compile and review the project's approvals, the construction and consultant contracts, the building department inspection record card comments, other inspection reports (i.e. architect, structural engineer, accessibility, building envelope, acoustical, insurance carrier, deputy inspectors, and loan disbursement inspector), the contractor's pay applications and logs, and a current title report to identify mechanics liens and other documents of record. Look for issues that may have arisen during construction, and to what extent the architect, the general contractor, and their respective insurance carriers, may be contractually obligated to resolve those issues.

Next, walk the project. This is likely to be one of several job walks. However, the initial review of project documents and reports will provide some indication of what to initially focus on. Each subsequent job walk will further inform the assessment of the status of the project.

Talk with the architect, the other design and engineering consultants, the deputy inspector(s), the general contractor, subcontractors, and major material suppliers. A great deal can typically be learned from the people actually working on the project. This includes whether they are interested in and/or capable of completing the project, the remaining issues, as well as who will need to be paid and how much they will need to be paid before restarting work. Ask about upcoming decisions, alternatives, and the cost and time to complete the project. If possible, it is better to do separate job walks, first with the design and inspection teams, followed by the construction team. The design team often has a different perspective than the construction team. Project team members may be reluctant to be candid when both the design and construction teams are together in the same room.

Once it is clear what is known and what is unknown about the project from the existing project team, it is time to separately talk with one or more third-party architects and general contractors who are experts in this specific type of construction in the same city as the project is located. They may identify issues that the existing team may be reluctant to talk about or may not be aware of. Assume that the existing project team will find out about discussions with new consultants and contractors, since subcontractors all tend to travel in the same circles.

If the project has been stalled for some time and many of the team members are gone, uncooperative, or adversarial, it may be necessary to pay a third-party general contractor to prepare a cost-to-complete estimate and a completion schedule. Unless there's a strong existing relationship with the contractor, they will often be reluctant to do this work without compensation.

It's often best to delay talking with the city or any of the other public agencies involved with the oversight and approval of the project until the end of the evaluation process. These conversations are certainly important, and often critical, but better to have after becoming fully informed as to the condition and status of the project – including the potential need to reinstate expired project and construction approvals and/or eliminate or modify conditions of approval, including costly required off-site construction requirements.

At this point it should be possible to develop a reasonably accurate 'best-guess' project completion budget and schedule, relative to the original project costs and status of completion, bearing in mind that material and labor costs have probably escalated from initial pricing. There may be

significant additional costs and schedule delays to account for protective measures, corrective work, material lead times, and soft costs incurred in evaluating and completing the project.

Conclusion

Regardless of how much due diligence is performed beforehand, with construction comes surprises – the ‘unknown unknowns’ that inevitably arise in any construction project. This is particularly the case in a distressed, incomplete project, where it is probable that the quality, fit, and finish of the work has suffered as project funding has run out. Moreover, once things have become adversarial, existing team members no longer have the incentive to help identify and solve construction issues. The best insurance against surprises is a thorough assessment, healthy contingencies for both budget and schedule, and a great deal of persistence and patience.▪

PROJECT COMPLETION CHECKLIST

- ☐ Public Agency Project Approvals & Permits
- ☐ Building Permit Inspection Record Card
- ☐ Permit Set of Construction Drawings
- ☐ Architect
- ☐ Civil Engineer
- ☐ Structural Engineer
- ☐ Mechanical, Electrical, & Plumbing Consultants
- ☐ Waterproofing Consultant
- ☐ Acoustical Consultant
- ☐ ADA Access Consultant
- ☐ Utility Consultant
- ☐ Elevator Consultant
- ☐ Low Voltage Electrical Systems for Access, Security, & Emergency Communications
- ☐ Other Consultants
- ☐ Special / Deputy Inspector Reports Deputy Inspector Reports
- ☐ Insurance – Property & Liability / Owner or Contractor Controlled
- ☐ General Contractor – 3rd Party or Self Performed
- ☐ Loan Draw Inspections
- ☐ Loan Draw Applications – Payment Status & Change Orders
- ☐ Subcontractors
- ☐ Stored Materials
- ☐ Status of equipment, finishes and fixtures not yet installed
- ☐ Environmental Reports – Phase 1 & 2
- ☐ Asbestos & Mold Inspection
- ☐ Utility Status – Electricity, Water, Sewer, Gas, Storm Drains, Internet, Telephone
- ☐ Mechanics Liens
- ☐ Stop Notices

All Builders Risk Policies Are Not Created Equal

Mike Yovino
Construction Specialist | Jencap

The $1.4 trillion U.S. construction industry is expected to see a boost in nonresidential construction activity in 2023, in part due to the Infrastructure Investment and Jobs Act. A.M. Best notes that these funds "will bring a significant increase in public-sector spending to supplement the growing annual expenditures on private construction projects, boosting overall construction spending."[1]

When you factor increased construction activity into existing inflation on material costs, labor shortages, and project delays, a spotlight gets shined on construction materials. Construction materials generally make up two thirds or more of the total construction cost for a project[2] which is why it's imperative that they be stored and managed properly. Equally imperative is the importance of properly insuring construction materials at a project site, offsite location, drop site, or while in transit to the onsite location.

The primary concern with stored materials is the risk of their loss, whether through physical damage, theft, or deterioration due to improper storing. So, what are some factors that need to be considered when insuring them?

Insurance Considerations for Stored Materials Onsite

Onsite construction refers to traditional construction

[1] https://www.propertycasualty360.com/2022/10/20/tips-for-insurance-agents-who-work-with-builders-in-2022/

[2] https://rabbet.com/blog/the-basics-of-stored-materials/

methods to build structures sequentially in their permanent location. There is no one-size-fits-all insurance solution for stored construction materials onsite. The size of the job, the combustible nature of the project (i.e., frame versus joisted masonry), and the location of the risk are all key underwriting considerations.

Once construction materials hit the onsite location, they are covered under the hard cost builders risk limit and have the full policy coverage provided. Most if not all project sites will require fencing around the job site and that it be well lit. Security services and surveillance cameras may come into play as well.

It's important to note that any materials/supplies to be installed or become part of the permanent project that are located at the job site are treated as the project site would. Even if the goods are stored in trailers or in the structure to be erected, they would be subject to the same security protocols as instituted at the site.

Insurance Considerations for Stored Materials Offsite

Offsite construction includes the designing, planning, and prefabrication of different construction elements in a separate location prior to installation onsite. Prefabrication can increase efficiency, mitigate safety risks, and reduce the cost/duration of the same work performed in the field by approximately 30%.[3]

However, it is much more challenging to insure these materials. Offsite materials often have sub-limited coverage on a builders risk policy and are subject to the same deductibles as the jobsite. If the value of materials at the offsite location are within the sublimit, then nothing usually needs to be reported to the insurance carrier. However, when the values exceed the offsite storage sublimit or are exposed to higher hazards than the jobsite, it's important to communicate that to your carrier to ensure the appropriate coverage and terms are in place.

Let's say for example ABC Construction's builders risk policy offers a $250,000 sublimit for offsite materials and inland marine transit. However, they have a large tilt-up project where they are prefabricating larger structures and the slab costs $1 million. Even if the prefabrication company has their own insurance, there is a coverage gap when ABC Construction moves the prefabricated larger item from the offsite location to the onsite premises. It's critical that they have their insurance carrier increase their inland marine transit limit.

Offsite staging locations (not fixed locations) are typically not spelled out on an insurance policy and, as a result, you can expect to see limited coverage for flood, theft, earthquake, and other perils. The bottom line is the insurance carrier doesn't know where the materials being insured are located, but as soon as you can tell them, the perils come back onto your builders' risk policy.

If combustible supplies are being staged at an offsite location, your insurance carrier may require monitoring services at that location for extra assurance.

Regular Insurance Reviews Are Important

Determining if you have adequate insurance coverage in place requires you to review more than just hard and soft costs. You must consider where your liability sits at all times and in all scenarios. Thoroughly analyze what materials will be stored onsite, what materials will be transported, and what materials will be stored offsite.

Working with a specialized construction retail agent will ensure that you're getting a customized insurance policy to fit your unique needs. The right insurance carrier partner can also provide loss-control services and valuable insights to mitigate risk from the beginning and help avoid a claim from ever happening.▪

[3] https://www.hm-ec.com/blog-posts/on-site-vs-off-site-construction-the-pros-and-cons-hm

What is C-PACE Financing?

Rebecca Nemirovsky
Vice President, C-PACE Credit | Nuveen Green Capital

By now, most of the real estate world has heard of Commercial Property Assessed Clean Energy (C-PACE) financing. This unique form of government-enabled incentive financing provides capital for the construction of renewable and energy efficient measures in commercial real estate. Reaching over $4 billion of originations in 2022[1], the C-PACE industry has quickly gained traction with property owners and capital markets alike, since its launch less than a decade ago.

C-PACE makes it possible for commercial property owners and developers to obtain low-cost, long-term, fixed-rate construction financing. C-PACE is unique because it is legislatively viewed as a public benefit assessment – like a sewer assessment – and thus billed through property taxes. This allows the C-PACE repayment, which is typically spread over 20-30 years, to be passed from one owner to the next along with the property. Additionally, because of the priority of payments (usually just junior to taxes, ahead of all other financing on the property), the interest rate is very competitive, often on par with or better than senior construction debt terms.

So, who can benefit from C-PACE? Generally, most properties with recent or planned renewable energy measures; upgrades to their mechanical, electrical, systems; or seismic/flood resiliency improvements will qualify for C-PACE, as well as above-code green new construction. The rest of this article walks through different project types that can leverage C-PACE financing.

1. Renewable Installations

The majority of commercial properties adding or replacing renewable energy measures on their property, most often solar and related measures such as batteries and roof replacements, are eligible to finance that work with C-PACE. In these cases, C-PACE can cover 100% of the cost, with no out of pocket expenses, with the first repayment beginning 1-3 years later. The eligibility of these projects is state-by-state but often based on a savings-to-investment ratio, or SIR, which ensures via third party technical review that the project will save more money over its lifetime than it will cost.

2. Energy Efficiency Upgrades

Similarly, a popular use of C-PACE financing is for energy efficiency upgrades. C-PACE is able to provide capital for deferred maintenance or energy efficiency upgrades on a broad range of measures, including building envelope, lighting, HVAC, water conservation – to name a few. Similar to solar, C-PACE can cover 100% of the cost, with no out of pocket expenses, with the first repayment beginning 1-3 years later, and eligibility is often based on a savings-to-investment ratio.

3. New Construction

C-PACE has rapidly gained traction as a source of financing for new construction and gut renovation projects with its comparatively low cost of capital and ability to bring down the overall weighted cost of capital on a project. For example, if a traditional construction project has 20% equity (assume a 15% cost of equity), 15% mezzanine debt (at 13%), and 65% senior debt (at 8%), the weighted cost of capital is 10.15%. In a project such as that, C-PACE could replace all of the mezzanine and take the equity down by half. With a rate of approximately 7%, that puts the weighted cost of capital down to 8.45% - significantly lower than the original project's stack. Eligibility for new construction varies by state, with some states looking at the specific costs of the measures, others basing the eligibility on how far above code the project is expected to perform, and still

[1] https://www.pacenation.org/pace-market-data/

others simply looking for the new building to exceed code. Financing is typically limited to 25%-30% of the property's anticipated value.

4. Retroactive Financing

Most states offer retroactive periods for projects that recently completed C-PACE eligible work – both new construction and retrofit projects. These look-back periods can range from 1-5 years, with most states around 2-3. Retroactive C-PACE financing was very popular in 2020 and 2021, providing what functioned as crucial operating capital to hotels that recently completed but were not able to reach stabilization due to COVID. Nuveen Green Capital financed over $250 million in hospitality loans in 2020 and 2021.

5. Gap or Rescue Financing

Finally, and related to the retroactive use case noted above, C-PACE can be used to provide gap or rescue financing to any of the project situations described above. With volatile capital markets and construction costs inflation over the last two years, many projects are seeing gaps in their capital stacks either caused by ballooning project costs or lenders needing to reduce proceeds. C-PACE can help in both situations, reducing the exposure of other players in a project's capital stack or increasing the total capital available to get the project completed and operational.

C-PACE is a modern form of financing well suited to today's complex commercial real estate landscape.▪

How Will the IRA Impact Commercial Real Estate?

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While you've no doubt heard about the Inflation Reduction Act (IRA), it may have evaded your sphere of concern as something only relevant to those focused on battling economic inflation or combating climate change. You may want to take a second look, though, as the bill has major considerations for the commercial real estate (CRE) industry. Since the bill is broad and its implications far-reaching, we will focus only on the bill's impacts to CRE and exclude consequences related to domestic manufacturing, single-family residences, medical costs, etc. If you are a commercial or multifamily property owner, property manager, developer, or investor in CRE, this article will be of particular interest to you.

The IRA (H.R. 5376) was signed into law by President Biden this past August, allocating $369 billion toward a myriad of strategies for reducing carbon emissions, with a particular focus on aiding poorer communities.

It's difficult not to notice the constant increase in electricity prices, which reached an all-time high in the first half of 2022 as a result of record high fossil fuel costs as well as inflation. Those in the CRE industry know that operational expenses can make or break a bottom line. The IRA aims to reduce these expenses by subsidizing both energy efficiency retrofits (to reduce total consumption) and renewable energy installations (to offset the cost of consumption). The bill primarily does this through tax deductions and credits.

Energy Efficiencies

179D Tax Deduction

IRC Section 179D is an existing incentive which allows property owners and developers to claim a tax deduction on energy efficiency buildings and installations. The IRA enhanced this tax deduction by:

- Significantly increasing the $1.88/square foot deduction to a maximum deduction of $5.00/square foot.
- Significantly decreasing the minimum efficiency requirement to qualify for the tax deduction from 50% to 25%.

This deduction is applicable to all commercial buildings as well as multifamily buildings 4 stories and taller. Both existing buildings undergoing retrofits and new construction are eligible. Other updates to 179D include allowing REITs and tax-exempt building owners (ex. non-profits) to take advantage of these tax deductions, although in a limited capacity.

179D also allows real estate investors to deduct a significant portion of the cost of a new energy-efficient building, or a retrofit to an existing building, in the first year, as opposed to having to wait many years to realize those deductions as depreciation. Calculating the total amount of the first-year tax deduction can be complicated and requires that an independent engineer certify the energy savings target. An engineering consulting firm can design the energy efficiency improvements for the maximum tax deduction and ensure compliance to Section 179D and ASHRAE standards. Without going into the 'enthralling' details of the tax law, we can confidently say that many energy-efficiency projects which historically failed to "pencil out" will now be economically profitable.

45L Tax Credit

IRC Section 45L is a federal tax credit which incentivized developers of multifamily properties to meet energy efficient design criteria until its expiration in 2021. Developers received a tax credit of $2,000 for every energy efficient housing unit within their buildings. The IRA improved the tax credit by:

- Extending the 45L credit through 2032.
- Starting in 2023, the IRA will increase the maximum value of the tax credit from $2,000 to $5,000 per property for single family and multifamily homes.

In addition, the energy efficiency criteria will change to match the Department of Energy's (DOE's) programs which apply to all residential developments (as opposed to only low-rise developments). Multifamily properties 4 stories and up can be eligible for the 45L credits in addition to the 179D deductions.

Renewable Energy Generators

The IRA is more than just a tool for incentivizing the reduction of energy use; it also promotes the implementation of renewable energy generators like solar, and the technologies that support it like batteries and electric vehicles.

Solar

One of the biggest inclusions in the IRA is the extension of the solar investment tax credit (ITC) until 2034. **This credit allows owners and investors in solar arrays to claim a 30% tax savings on the hard-cost budget of their project.**

In layman's terms, the government will reimburse you for 30% of the cost of your solar project in the form of a tax credit. Without getting too deep into the tax benefits of the legislation, we'll note that the energy code also allows for the solar asset to be depreciated (under MACRS) using a 5-year recovery period and for the owner to expense the depreciable basis of the system using the bonus depreciation rules.

While a 30% tax credit already gives most CRE professionals the necessary push to get their solar project over the hump, the IRA also includes provisions to increase the tax credit even further. A 10% adder will be applied to the tax credit for projects installed in low-income communities (20% for qualified low-income residential buildings). Additional adders are available for projects using equipment manufactured in the U.S. and for projects located in an “energy community” (areas with significant employment related to coal and natural gas).

Just as for energy efficiency improvements, starting in 2023 tax-exempt property owners and investors (ex. non-profits and state/local governments) will be allowed to transfer their renewable energy tax credit to a third party. This change effectively enables these entities to sell their tax credits for cash.

If you have available roof space with 15 years or more of usable life and have high utility rates, a solar PV system could provide a reliable investment with great tax incentives. Experienced consultants can help you maximize all the available rebates and incentives and ensure that the project is sound from feasibility through implementation.

Energy Storage

The IRA now considers energy storage or battery energy storage systems (BESS) to be a standalone project instead of having to be tied to a renewable energy project. **This means that energy storage systems will be able to receive the same tax credit benefits and extensions as those mentioned in the solar section above.** This is great news for all property owners currently owning or considering installing an energy storage system, especially properties

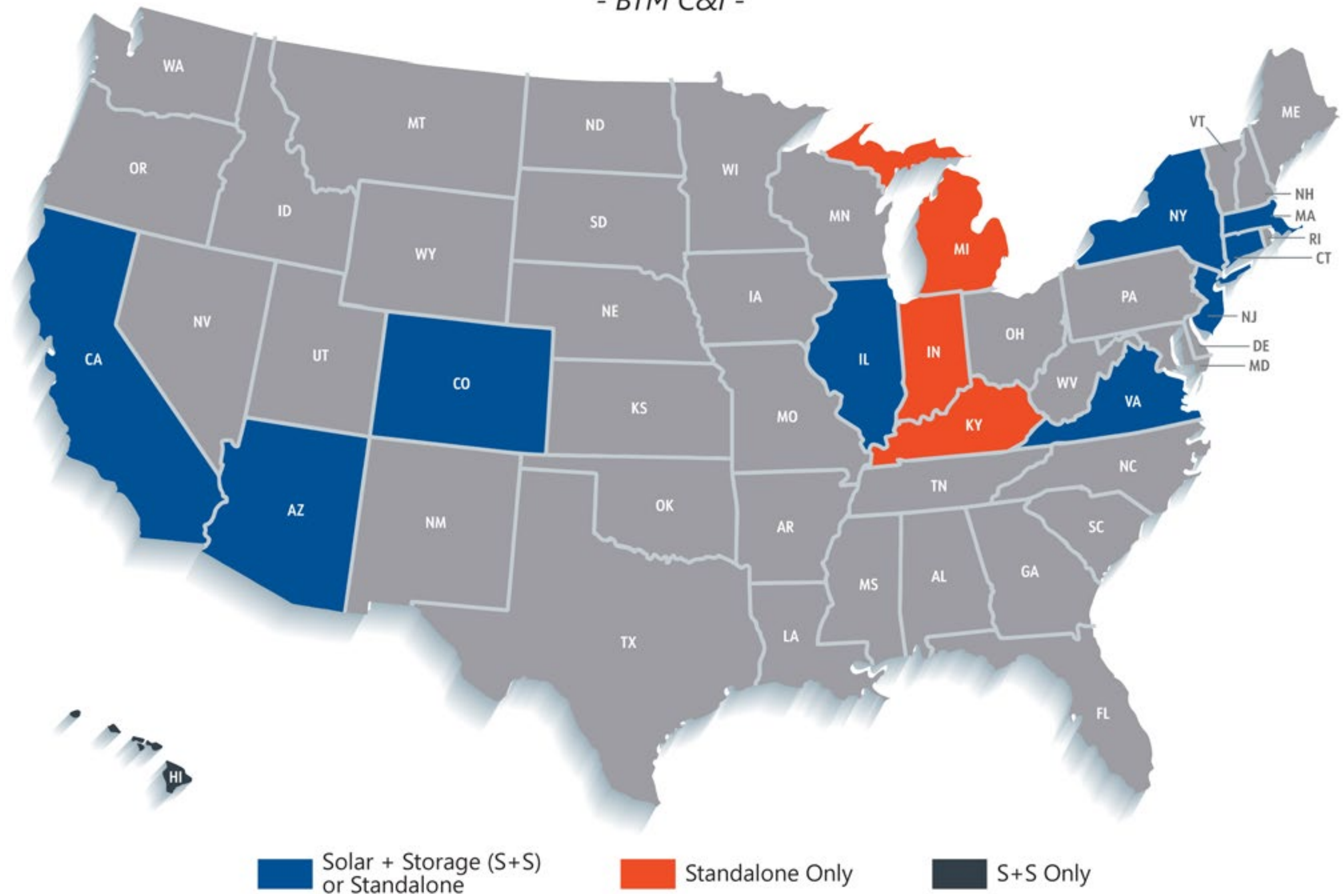

Figure 1: *Great markets for solar plus storage (S+S) or standalone* energy storage projects

with limited roof space. Pre-IRA, energy storage systems had to be charged by at least 75% for the first five years by renewable resources, which limited the possible services an energy storage system could provide and deterred property owners that could not install solar from installing an energy storage system. With the IRA, energy storage systems are now capable of offering a wider range of revenue streams than ever before. If a CRE property is located in any of the states seen in ***Figure 1***, an energy storage system will likely be a reliable investment with great tax incentives. Working with renewable energy consultants can allow you to quickly analyze these projects and provide detailed economic metrics for CRE clients that may be interested in an energy storage project.

Electric Vehicle Chargers

Property owners and investors interested in installing electric vehicle charging stations in their parking lots (or garages) in low-income or rural areas are now able to take advantage of the extended and modified Alternative Fuel Vehicle Refueling Property Credit. From 2023 through 2032, a 30% tax credit will be applied to this charging infrastructure up to $100,000 per item of property.

All above-mentioned project types that start in 2023 that are over 1 MWAC, however, must adhere to the IRA's prevailing wage and apprenticeship requirements; otherwise, the tax credits are reduced to 6%.

Conclusion

The direct financial benefits of the IRA discussed above are considerable and will go a long way toward incentivizing those in the CRE industry to incorporate renewable energy and energy efficiency systems into their business models. However, there are a variety of indirect and/or operational aspects of the IRA, which are beneficial to anyone whose business model requires attracting and keeping tenants. Lower electricity costs despite market volatility, energy supplied by onsite solar panels, protection from grid-outages, and the ability to charge electric vehicles are all major selling points for those whose business relies on keeping their buildings occupied.

Since the government is heavily subsidizing the cost of these improvements, now is a great time to take action.▪

About CLRM and Getting Involved

Who Attends?

Seasoned construction risk managers as well as the next generation of professionals from national, regional, and local lending institutions, as well as equity providers. This includes senior vice presidents, asset managers, directors of construction risk, and similar titles.

Typical Agenda Topics

Discussions include: regulatory environment, market trends, recurring problems in construction projects and how to address them, management of workflow and vendors, risk management approaches and scopes of work, data and technology, emerging issues, and so much more.

Meetings

CLRM hosts one national roundtable every spring and several regional forums across the U.S. throughout the year. The current locations for the 2023 regional forums are listed below. Dates will be announced at a later time, but we are looking for local leaders to join and lead these meetings. Contact us if you are interested.

CLRM 2023 Regional Meetings:

- New York, NY
- Dallas, TX
- Atlanta, GA

Monthly Calls

CLRM hosts monthly calls to keep the conversations going in between meetings. This is great way to plug in from afar. Join us and invite your team!

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Participate! Email us at the address below to find out how to join a call and attend an event. There is no fee for membership.

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Please contact us if you would like to contribute to future editions of this journal.

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