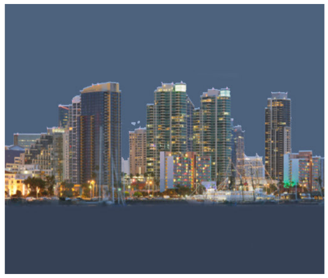
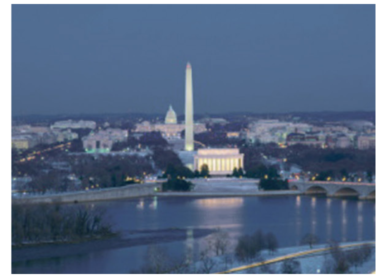





TBD MARKET REPORT

Summer 2022

tbd consultants

Construction Management Specialists

San Francisco, CA
(415) 981-9430 (San Francisco office)

Orinda, CA
(415) 981-9430 (East Bay office)

Rocklin, CA 95765
(415) 872-0996 (Sacramento office)

San Diego, CA
(858) 886-7373 (San Diego office)

Redmond, WA
(206) 571-0128 (Seattle office)

Los Altos, CA
(650) 386-1728 (South Bay office)

Los Angeles, CA
(424) 343-2652 (Los Angeles, CA, office)

Wicklow, Ireland
+353 86-600-1352 (Europe office)

www.TBDconsultants.com

In this Edition:

General Market Update

Covid 19 continues to exist in our daily lives, with the latest variants, Omicron BA.2, BA.4, and BA.5, being the dominant current strains that are significantly more transmissible than previous variants. However local restrictions for businesses and masking have scaled back, and schools are almost exclusively in person for this starting year, albeit with some masking still in place or at least recommended. We are continuing our path of learning how to live with it.

The “return to office” movement, which continually was met with implementation delays in 2021 due to the volatility of various Covid outbreaks, now is facing pushback and resistance from the workforce, even though many previous Covid related rules and restrictions have been removed. Many workers have found that a hybrid approach is their preferred compromise. It provides the flexibility that working from home provides, as well as the teamwork and co-learning that working in an office together can provide.

The construction industry thought it was going to have a robust recovery over the past 9 months, during this continued transition beyond strenuous Covid related

restrictions. But hyper material inflation occurred that drove construction costs jaw-droppingly high, and a continued battle with supply chain volatility and material availability is giving developers fits with their pro formas, and slowing project starts.

Single family housing starts have declined for the fifth month in a row, per the Census Bureau. This may be helping to put downward pressure on lumber, as we see those volatile costs recede again. An offshoot of slowing single family construction will be upward pressure on multifamily rental starts. However, the continued high cost of construction due to recent escalation and the increased cost in financing may nullify that opportunity for rental construction projects.

Pivoting to non-residential sectors, we can turn to the Dodge Momentum Index, where both Commercial and Institutional Buildings show similar peak values when compared to the past 13 years. However, this Index tracks projects in the pipeline getting ready to build, and getting over the hurdle of starting the construction of a project may prove to be too big of a hurdle for some projects.

The warehouse sector continues to be a hot market, to help with the Covid-driven logistics change to ordering products for delivery to people's homes. However, Amazon has started to pull back on warehouse construction, which can single handedly impact the market due to their size and market share. Additionally, the amount of warehouse projects in planning has begun to reduce a bit.

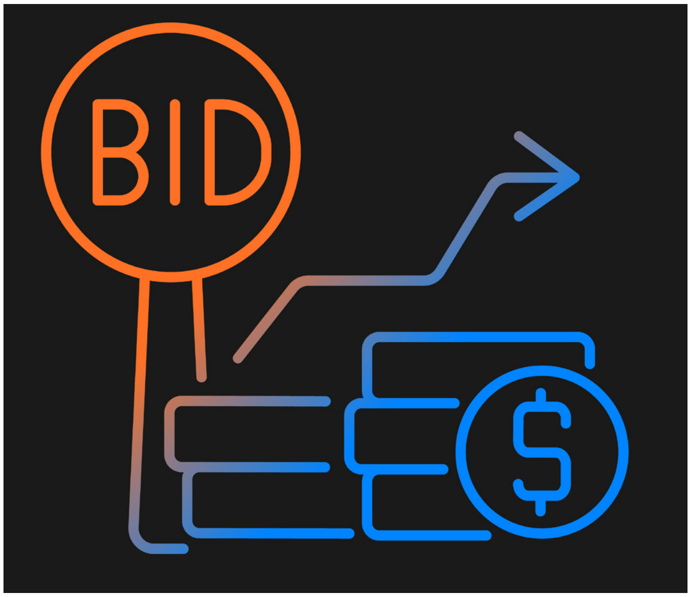
Healthcare and manufacturing (chip fabrication plants) construction also appear to be active markets, and we expect infrastructure to follow as well.

The Infrastructure Investment and Jobs Act was signed into law in November 2021 and allows for $1.2 trillion spending on heavy civil type projects. This will generate a healthy pipeline of work opportunities for the industry and could help soften the blow to Contractors in the event of a recession that cuts back on private investment in project starts.

There still is evidence of supply chain volatility and issues causing difficulties with construction schedules and material pricing. In July 2022, notifications from suppliers of exterior and 'exposed to moisture' gypboard products, such as the Dens family of products, reported a shortage of the raw materials to make the glass mat facing that goes into these products. This product typically could be obtained in large quantities in 1 week, suddenly reported 8 weeks for the same, and that was a hopeful projection. Some materials are still taking as long as 12 months or more to acquire, such as roof insulation, some HVAC and Electrical equipment, and appliances.

Energy pricing forecasts to have a negative impact on manufacturing, especially overseas. Energy costs are headed higher in most countries (especially Europe), and manufacturers will look to recover these energy impact costs via raising the prices of their products.

Climate change continues to wield its wrath on the world, with associated impacts to the construction industry. The droughts and excessive rainfall conditions in many countries will add to rising costs and exacerbate shortages of raw materials. For example, copper mines in Chile are operating only part time to save water.



Cost volatility with materials has forced suppliers into revising their typical pricing commitments that they extend to Contractors. Where prior price commitments allowed for 3 to 6 months or more, now price locks may extend a few weeks at most. Contractors in turn are forced to transfer this materials escalation risk onto owners, which consequently creates more uncertainty for owners looking to get financing for projects. When owners push back and force Contractors to take the material cost risk, the Contractors often respond by adding lots of contingencies into their bids to provide some protection, which inflates the cost.

Logistics bottlenecks have wreaked havoc, especially for materials traveling by boat through the port of Los Angeles and Long Beach. In 2021 Q3 and Q4, it was not uncommon to have materials stuck in the port for a month or two before moving on to rail or highway truck to travel to their next destination. Along with the port traffic, there was also a shortage of available shipping containers to package and ship more materials to the US. Add in fuel price increases and this created significant upward pressure on shipping costs. Importers who shifted deliveries to the other locations, looking for relief, have found they are triggering backups at East coast and Gulf coast ports. Fortunately, West coast ports are now approaching pre-pandemic levels of congestion. The next ingredient to this cocktail of port trouble is that West coast dockworkers are working on an expired contract. Happily, throughout roughly 2 months of negotiations, they have managed to avoid a labor strike, but there will continue to be concerns about this labor uncertainty until a deal is reached.

The industry appears to be cautiously approaching the next 6 to 12 months, with the likelihood that there will be some slowing of construction starts, and hopefully reducing material pricing to more palatable levels.

Labor and Material Pricing

In the last 12 months, where there was anticipation for escalation to recede, we instead saw material escalation spiking across most materials for 6 – 9 months. It's only in the last few months that we are starting to see a transition to either slowing month-to-month escalation, or de-escalation, in some materials. Through the combination of continued supply chain volatility, shipping constraints, intermittent Covid shutdowns in some countries, and the war in Ukraine, we have had a recipe for upward material pressures evident below.

A sample list of common raw products and the reported price escalation in the last 12 months (through July 2022) could be summarized as follows (with a column identifying a 6 month window when material escalation was peaking):

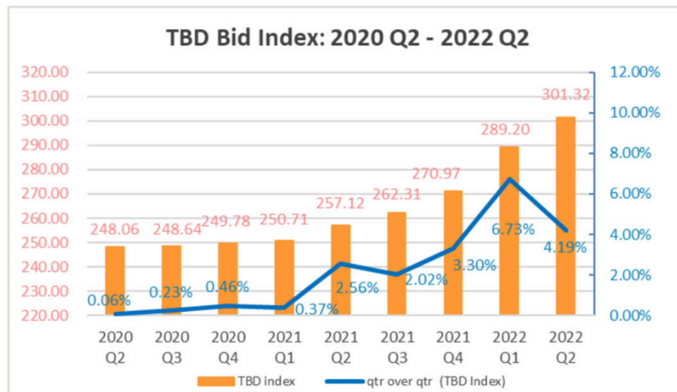
Item	YoY % Change	6 Month Spike
Structural Steel	29%	18% Aug'21–Jan'22
Metal Deck	-16%	9% Aug'21–Jan'22
Cold Frmd Mtl Studs	21%	13% Dec'21–May'22
Aluminum	8%	15% Sep'21-Feb'22
Wire	-6%	6% Nov'21-Apr'22
Plywood	-21%	52% Oct'21-Mar'22
Sheet Metal	20%	12% Aug'21-Jan'22
Ready Mix	14%	10% Jan'22-Jun'22
Roof Insulation	22%	13% Aug'21-Jan'22
Gypsum Board	16%	13% Jan'22-Jun'22
Paint	26%	18% Jan'22-Jun'22
Diesel Fuel	57%	44% Jan'22-Jun'22

Some materials have shown a helpful turnaround via month-to-month de-escalation in June and July ’22, such as metal decking, aluminum sheet, wire, plywood, and diesel fuel. However, not all materials are being impacted by this trend, with recent material cost escalation warnings from glass suppliers of a 20% - 40% increase (depending on the specific glass product) in July 2022.

Labor availability continues to be inadequate to meet contractor needs, such that many contractors find they need to pay overscale by a few % to keep adequate crews on staff and available. This shortage of workers is a long-term issue that continues to plague the industry.

Escalation

The hyper material escalation that occurred to inputs to construction, starting in the latter half of 2021, is subsequently influencing bid prices:



Looking forward to the coming years we are anticipating the following rates of escalation, representing a transition heading down, eventually back to historical norms:

Year	Range
Next 12 months ……..	6.0-7.0%
12 – 24 months……….	5.5-6.5%
24 – 36 months………..	5.0-6.0%
36 – 48 months………..	4.5-5.5%
Beyond 48 months…....	4.5-5.5%

A recession is not inevitable but is a possibility. US interest rates have moved higher in recent months and are likely to go even higher as the Fed attempts to dampen inflation, and that could trigger a recession. If a recession occurred, it would likely impact the above projections, provide some relief to construction costs, and a slowdown could provide a bit of a break for the supply chain volatility to settle down.