



**COST REPORT**

2020 | BIENNIAL REPORT BY THE BECK GROUP

# COVID-19

## **SPECIAL EDITION**

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### **SPECIAL COST REPORT**

The Beck Group Cost Report is a biannual report produced by our estimating teams to address market sector and AEC industry trends in the markets and offices that we serve.

Every six months, we poll our team to get an overview of what they are experiencing in the industry at that moment, and where they see movement happening in the future.

Given the current state of the market and the economy, our team wanted to provide an exclusive update on the impacts COVID-19 is causing our industry.

We look forward to sharing our full-length reports with you again throughout the year.

## UPDATE - 04.24.20

After our initial release of this special edition cost report on April 22, 2020, new data has been released in regards to industry confidence and backlog projections.

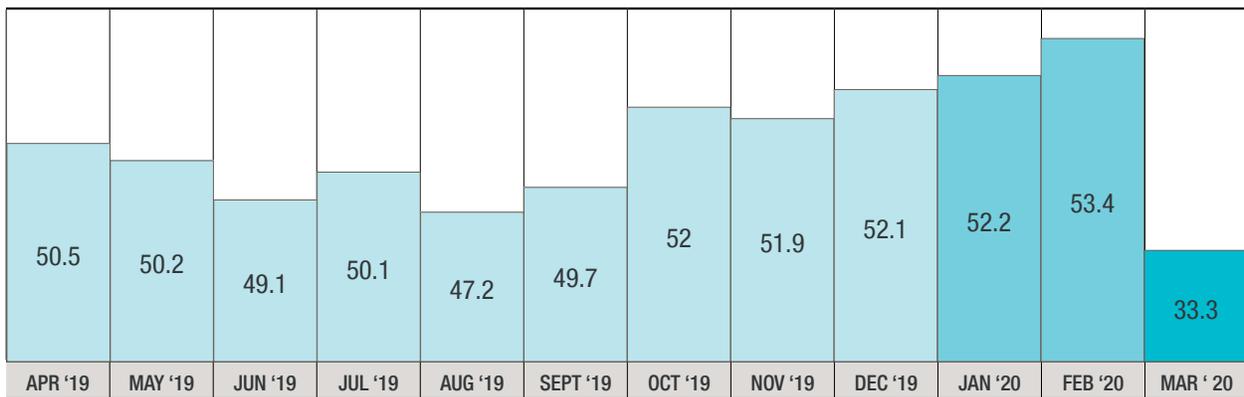
### ARCHITECTURE BILLINGS INDEX

A survey completed by the AIA Architecture Billings Index showed that current billings at architecture firms have plummeted in March. The billings score fell 20.1 points for the month; the largest single decline the index has seen in its nearly 25-year history.

In addition to a decline in current billings, indicators of future work declined in March. The value of new design contracts signed for the month did not fall as far as projects that were in the works or as low as inquiries into new projects. Backlogs fell to an average of five months, down from a high of just over six months at the start of the year.

Firms are bracing for revenue declines, with 94 percent of responding firms indicating that they expect a decline in revenue through the end of the second quarter of 2020. This is causing firms to consider or implement staffing changes such as hiring freezes, salary freezes, reduced salaries, and staff furloughs or layoffs.

ARCHITECTURE BILLINGS INDEX



### CONTRACTORS CONSTRUCTION CONFIDENCE INDEX

According Contractors Construction Confidence Index readings for sales, profit margins and staffing levels expectations fell below the threshold of 50 for the first time in the history of the series, signaling expected contraction along all three dimensions.

Less than 30 percent of survey respondents expected their sales to increase over the next six months, with fewer than 20 percent of contractors expected their profit margins to increase. More than one in five contractors expect decrease in profit margins, while one in four expect a decline in sales volumes.

Confidence levels are expected to continue to decline as the industry sees the full extent of the impacts of the COVID-19 crisis.

## COST COMMENTARY - 04.22.20

Things have changed dramatically since our last report in the fall of 2019. What consistently had been a message of rising labor costs and steady material costs, is now upended by COVID-19 while the landscape on the economics continues to change daily.

Below are thoughts of pricing impacts to projects from the mid- to late-April time-frame.

### PROJECTS UNDER CONSTRUCTION

At first, there was a lot of uncertainty as to whether construction projects could remain active. We now feel that in most jurisdictions in the United States that the rules are clear that commercial construction is considered “essential,” and our teams are reporting to jobsites daily.

Because of this, many projects under construction remain on track, and we have implemented pre-screening, social distancing, and split shifts to help contain the spread of the virus and allow these projects to remain operational. In Mexico, where we have a significant office, things have adjusted dramatically as all projects across the country are shut down, impacting the entire country and our team there immensely.

The projects most vulnerable to being put on hold include those in the hospitality, retail and entertainment spaces. We have had several projects in these sectors go on hold for both design and construction. Most hope to return to work again in 60-90 days; however a lot of that depends on the back-to-work plans issued by the government and how quickly the public returns to shopping and entertainment venues.

Ken Simonson, Chief Economist for the AGC, recently reported that increasing shares of contractors reported cancellations of upcoming projects, delays and disruptions to ongoing work, and layoffs due to the coronavirus pandemic, based on AGC’s latest weekly online survey, conducted April 6-9. Of the 830 respondents, 19 percent reported that an owner had directed them to cancel construction on a current project or one scheduled to start in the next 30 days.

In addition, 65 percent reported various causes for project delays or disruptions, including 39 percent who cited a shortage of personal protective equipment. Forty-two percent of respondents said suppliers had notified them or their subcontractors that deliveries would be late or canceled. About 40 percent said they furloughed or terminated workers, including jobsite workers and office employees.



## COST COMMENTARY - 04.22.20

### PROJECTS IN DESIGN

Similar to construction, the projects in design that are most affected are those in the hospitality, retail and entertainment spaces. There is not a slowdown, but typically, a full “stop drawing, and we will get back to you once we are ready to go again.” This occurrence is no surprise as these sectors are the hardest hit with layoffs and furloughs. Our teams continue to complete their work so that once we get going again, we can do so quickly and not lose time if the plans were simply stopped.

The value of construction starts are down 20 percent year-over-year this March from March 2019. ConstructConnect reported nonresidential building starts down 45 percent, residential starts down 9.7 percent, but civil starts are up 25 percent. These numbers will most likely continue to worsen as the effects of COVID-19 are more fully felt on the commercial real estate industry.

For projects that are currently bidding, we are getting more participation than what we seen for at least the last two years. Subcontractors are aware that opportunities will be more scarce over the next 3-6 months and are eager to bid. More qualified bids lead to better pricing for owners and that has been one of the positive trends from our current situation. If owners are able to continue design during this period, the timing should be favorable for pricing.

### INPUT COSTS

There are several factors in play for this conversation. First, the cost of oil will dramatically reduce the cost of petroleum-based products (roofing, asphalt, flooring) and transporting goods to our jobsites. Many material pricings have gone down, including aluminum, steel and energy inputs. These decreases will lead to lower costs, but many of the inputs into the final products still require labor. These labor costs continue to fluctuate wildly.

For projects that are on hold, we see workers transferred to other projects that can accept the labor. While still practicing social distancing and other COVID-19 health and safety practices, previously constrained sites now have more areas to work as they remain empty or close to empty. Examples of this include K-12, Higher Education and Airport renovations. Now is the time to get this work done, and these projects have been able to accept the excess workforce from projects put on hold.



## COST COMMENTARY - 04.22.20

### LOCAL JURISDICTIONS

Projects continue to get creative as we account for permitting requirements/restrictions and inspections by both the local jurisdictions and design teams. We have seen the following used on jobsites for these inspections to take place safely:

- Using StructionSite to do a virtual 360-photo site punchlist for those owners and architects who cannot travel.
- Connecting drones to a ZOOM meeting to help share an inspection and progress of an owner's building virtually.
- Recording an interior and exterior virtual job walk video for an owner's board meeting.
- Streaming live 360 video walks for virtual inspections to be done in real-time from the project, while the inspector can view a 360 video and inspect in any direction.

Most jurisdictions remain willing to work with us, and we continue to make accommodations like those mentioned above so that we can keep our existing and new projects moving forward.

### SUPPLY CHAIN

The supply chain was impacted initially most by those countries who were earliest affected by COVID-19. This includes LED lighting components, A/V network servers and steel from China, and stone and tile from Italy. Those lead times continue to get better, and the supply chain is now experiencing delays from items coming from areas that are seeing a current surge with the virus, including locksets, plumbing fixtures, and tile from Mexico, and VCT and tile in the US.

Most project sites have been able to manage through the supply chain delays by choosing alternative materials or adjusting the schedule to account for new delivery dates. The supply chain issue remains a constant threat to projects not being delivered on time and is continuously monitored and updated by all project teams.

### IN CONCLUSION

By and large, projects under construction continue to progress while most firms see a 20-30 percent reduction in revenue. Most projects in design or being programmed are on a 60- to 90-day hold. We see those that are being budgeted are moving forward on a case-by-case basis.

While labor and material costs remain in flux, now is an excellent time to buy as subcontractors have been aggressive and are concerned about backlog. When considering all factors of input into projects (tight qualified labor market, reduction in some material costs and reduced oil cost) we see pricing lower and/ or holding steady compared to where we were at the beginning of 2020. Our hope is that we emerge from this current situation in a measured manner and projects are up and running by the end of the year.

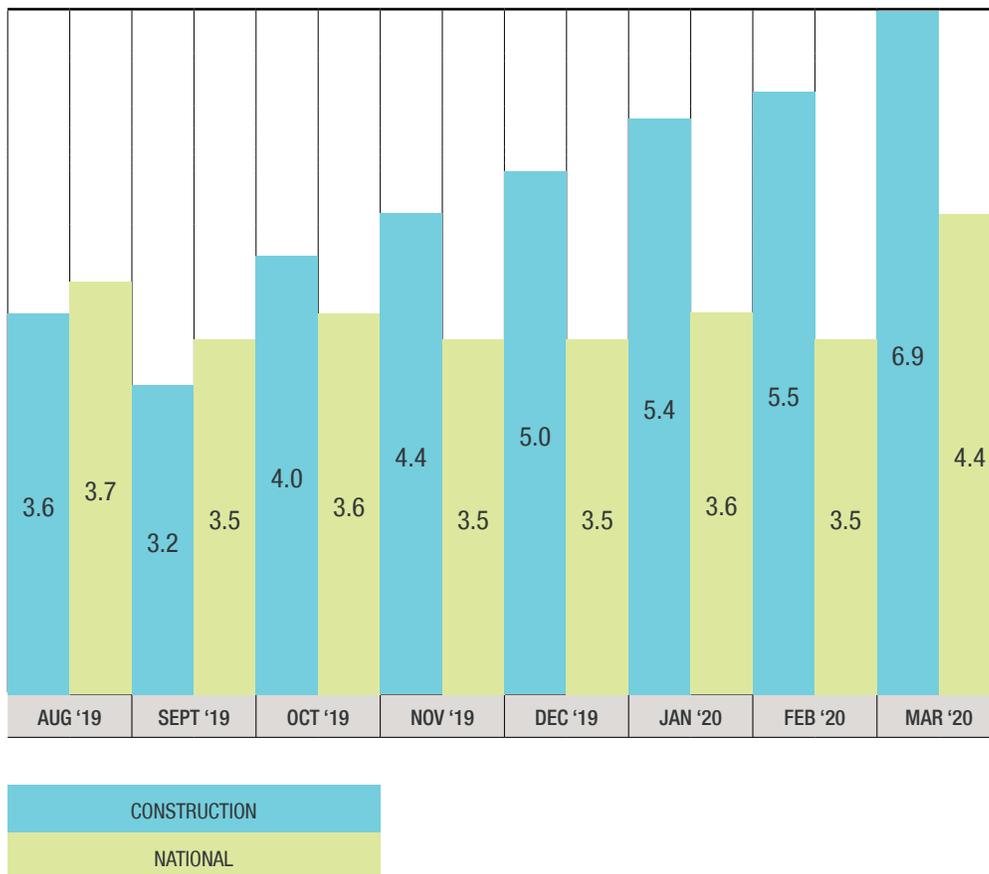
## MARKET SUMMARY - 04.22.20

### EMPLOYMENT AND EMPLOYMENT GROWTH

Construction industry employment declined by 29,000 in March, with nonresidential construction employment declining by 24,600 in March. All three nonresidential segments registered job losses, with the largest decrease experienced in nonresidential building (-10,700) followed by heavy and civil engineering (-10,200).

The construction unemployment rate was 6.9 percent in March, up 1.7 percentage points from the same time one year ago, a direct result of the global pandemic. This decrease ended a 113-month streak of employment gains, and it is believed that employment reports in future months are likely to be even worse.

MONTHLY UNEMPLOYMENT PERCENTAGES



## MARKET SUMMARY - 04.22.20

### INPUT PRICES AND CONSTRUCTION SPENDING

Construction input prices have fallen 1.9 percent year-over-year at the start of 2020. Six inputs have seen decreases, including all three energy-related categories. Nonresidential construction spending is up 6 percent on a year-over-year analysis, but down 1.3 percent since the last reporting. Experts are predicting that these deflationary prices will remain through the summer before being affected by demand and supply chain pressures in Q3 and Q4.

#### PRODUCER PRICE INDEX

	1-MONTH CHANGE	12-MONTH CHANGE
Inputs to Construction	-1.9%	1.9%
Inputs to Nonresidential Construction	-1.1%	-2.0%
Plumbing Fixtures and Fittings	0.2%	2.2%
Fabricated Structural Metal Products	0.2%	0.9%
Iron and Steel	1.5%	-11.0%
Steel Mill Products	1.3%	-11.5%
Nonferrous Wire and Cable	-0.2%	-2.8%
Softwood Lumber	4.6%	10.7%
Concrete Products	0.4%	4.2%
Prepared Asphalt, Tar Roofing, Siding Products	1.8%	5.4%
Crude Petroleum	-34.6%	-44.9%
Natural Gas	-1.5%	-38.0%
Unprocessed Energy Materials	-19.1%	-36.0%

#### CONSTRUCTION SPENDING (IN MILLIONS OF DOLLARS)

	FEB '20	JAN '20	DEC '19	NOV '19	OCT '19	FEB '19	CHANGE FEB '20 FROM -	
							JAN '20	FEB '19
Total Construction	1,366,697	1,384,486	1,347,333	1,342,490	1,320,788	1,288,951	-1.3%	6.0%
Nonresidential	795,114	809,532	793,497	799,497	788,266	775,971	-1.8%	2.5%
Total Private Construction	1,025,821	1,038,541	1,012,968	1,012,968	986,322	971,659	-1.2%	5.6%
Nonresidential	461,519	470,986	466,436	466,436	461,053	464,664	-2.0%	-0.7%
Total Public Construction	340,876	345,945	334,366	334,366	334,466	317,291	-1.5%	7.4%
Nonresidential	333,595	338,546	327,061	327,061	327,214	311,307	-1.5%	7.2%

## MARKET SUMMARY - 04.22.20

### MARKET CONFIDENCE

The ENR Construction Industry Confidence Index survey (CICI) measures executive sentiment about the current market and where it will be in the next three to six months and over a 12- to 18-month period. A reading above 50 indicates a growing market. The most recent release of the results from the survey has placed ENR's CIC at 56; up four points from the last reporting. This is based on response to surveys sent both before and after we began seeing the impacts of COVID-19 in U.S. markets.

#### YEARLY CONFIDENCE INDEX

59	58	51	52	56
Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020

#### PROSPECTS IN INDIVIDUAL SECTORS

	FIRMS	CURRENT (%)			3-6 MONTHS (%)			12-18 MONTHS (%)		
		DECLINING	STABLE	IMPROVING	DECLINING	STABLE	IMPROVING	DECLINING	STABLE	IMPROVING
Commercial Offices	157	11	67	22	16	67	17	36	50	14
Distribution, Warehouse	81	7	51	42	9	9	42	20	44	36
Education K-12	109	1	61	39	3	3	36	6	66	28
Entertainment, Theme Parks, Cultural	67	16	60	24	18	18	25	22	63	15
Hospitals, Healthcare	133	5	54	41	6	6	45	5	55	41
Higher Education	132	8	65	27	10	10	29	12	63	25
Hotels, Hospitality	104	8	64	28	16	16	21	28	57	15
Multi-Unit Residential	103	7	58	35	13	13	34	31	47	22
Retail	105	37	48	15	42	42	12	44	41	15
Industrial, Manufacturing	94	14	62	24	14	14	30	19	62	19
Transportation	72	8	51	40	10	10	47	10	44	46
Water, Sewer and Waste	65	2	58	40	3	3	46	6	57	37
Power	42	12	57	31	10	10	33	14	60	26
Petroleum, Petrochemical	28	19	56	26	21	21	29	22	56	22
Environmental, Hazardous Waste	21	29	52	19	19	19	24	14	62	24

## MARKET SUMMARY - 04.22.20

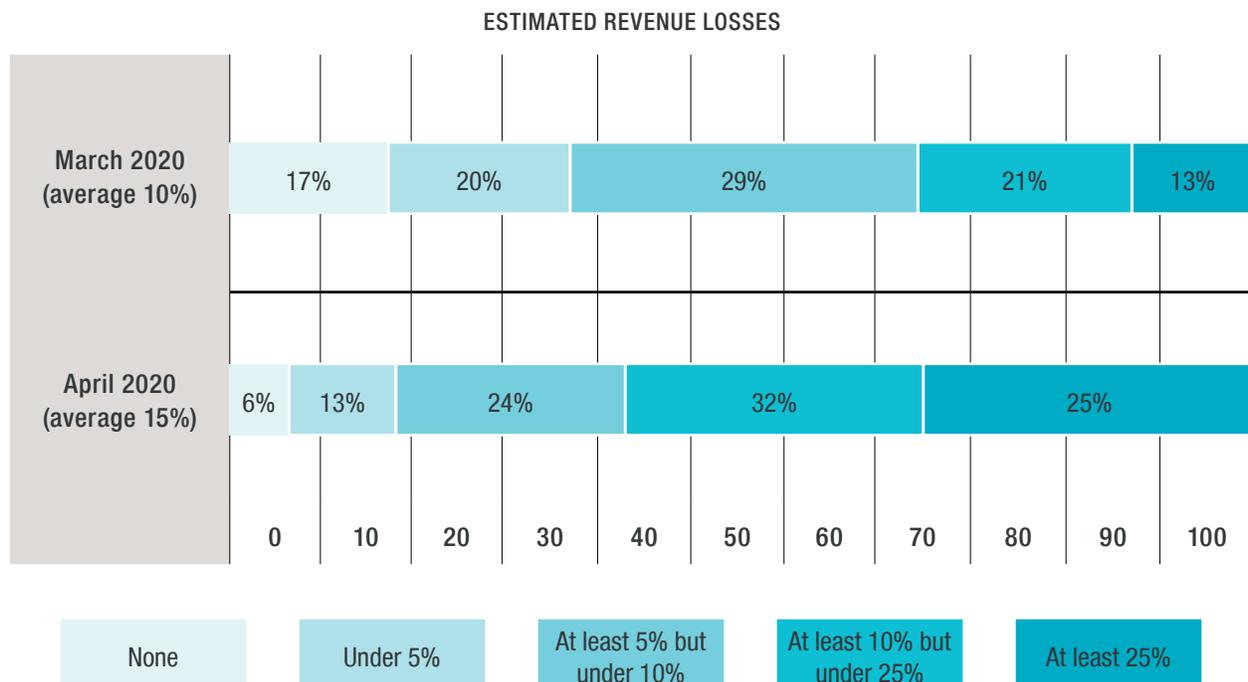
### ARCHITECTURE BILLINGS INDEX

Design and construction have not been an early industry to bear the full brunt of the economic fallout created by the spread of COVID-19, but as economic times have become more uncertain over the past month, more limits have been placed on these activities.

The recent survey conducted by the American Institute of Architects found that 50 percent of architecture firms reported fewer new design projects as of the March 23 survey date compared to their expectations entering the month.

This percentage increased to 59 percent for new inquiries for design work. In terms of work on active projects, the overwhelming majority of architecture firms 83 percent are anticipating a decline in revenue for March relative to their expectations heading into the month, with over a third of firms estimating that their revenue will be at least 10 percent below expectations. This is expected to worsen in April, with 94 percent of firms expecting revenue declines, and over half of firms 57 percent anticipating that the revenue falloff will exceed 10 percent.

Firms also reported that they have confronted a variety of problems with current projects that seem related to the COVID-19 outbreak, such as issues related to delayed projects, stalled construction, and increasing project cancellations among those cited. One quarter of firms indicated that they have had more difficulty obtaining permits for projects, likely because many offices are now closed due to the outbreak.



Sources: [aia.org](http://aia.org)

## NATIONAL REPORTS

Below is a snapshot of what national publications report in the design and construction industry.



AIA Architecture Billings Index



ENR Quarterly Cost Reports



Dodge Data & Analytics Newsroom



ULI COVID-19: Industry Insights



2020 CIRT Sentiment Index: Second Quarter Report



Building Design + Construction: How the Coronavirus is Impacting the AEC Industry



The Keckley Report: COVID-19 Resources

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