



SECOND QUARTER 2022

NORTH AMERICA

QUARTERLY CONSTRUCTION COST REPORT



Photo Credit to Jared Logue/Line and Space

ON THE COVER

SAHUARITA LIBRARY ▲

SAHUARITA, AZ

The Pima County Public Library system welcomes a new, award-winning branch library in Sahuarita, Arizona. The 17,000 SF library, designed to LEED Silver standards, provides an improved space for visitors, administration, and students, including an expanded collection, access to cutting-edge learning services and technology, and a unique customer-centric experience for its users.

Community input was an integral part of the design and construction process, as Pima County met one-on-one with various stakeholders, including the Sahuarita Unified School District, and surveyed Sahuarita residents to query their needs and wishes for the new building.

Rider Levett Bucknall provided milestone cost estimating services to the project architect, Line and Space, aiding them in bringing an award-winning library, designed with community input, to the growing Town of Sahuarita.

NORTH AMERICA AT A GLANCE

The proverbial “help wanted” sign seem to be the sign of the times in our industry, with job openings at an all-time high and the unemployment rate at an all-time low in April. The workforce shortage is pervasive through every aspect of our industry right now.

The workforce shortage is just one piece of a larger confluence of challenges for the industry. The pandemic, which hit the construction industry hard with the immediate loss of 1.1 million employees from February to April 2020, is also challenging the supply chain. Nearly three-quarters of companies report that projects took longer than anticipated in 2021. And more recently this past May, inflation reached 8.6 percent, its highest rate in 40 years, with average diesel prices climbing over \$5.81, up 80% in the last year.

Recent employment data confirms the shortage of workers in the AEC industries is at a critical point. Construction job openings through the end of April totaled 494,000, which was a 40 percent increase year over year, and this is above and beyond the 455,000 workers that were hired during the month. Recent BLS data shows that 36,000 new employees joined the construction workforce in May, but that was just seven percent of the open positions.

This workforce shortage is hindering the industry’s ability to maximize construction growth. In April, spending on nonresidential construction declined 0.2 percent from March and public construction spending slid 0.7 percent for the month. April unemployment was at a record low of just 4.6 percent for jobseekers with construction experience. Given this situation, industry analysts are attributing the slowing growth almost solely to the workforce shortage.

In addition, the industry continues to watch activity related to the Infrastructure Investment & Jobs Act (IIJA) and its impact on the worker shortage. Estimates are that the IIJA’s impact on the total labor market is expected to create nearly 900,000 more jobs, more than half of which will be in the construction industry.

With recent economic activity and the cyclical nature of the construction industry, the timing and size of the IIJA-related employment needs may change in the coming months. It’s going to depend on two main factors: first is the timing of not only the IIJA projects, but also those in the broader construction industry. The second factor is the impact of growing inflation rates, which will likely impact the value of the IIJA’s allocated funds, resulting in a change to the size, scope and number of construction projects that come to fruition.

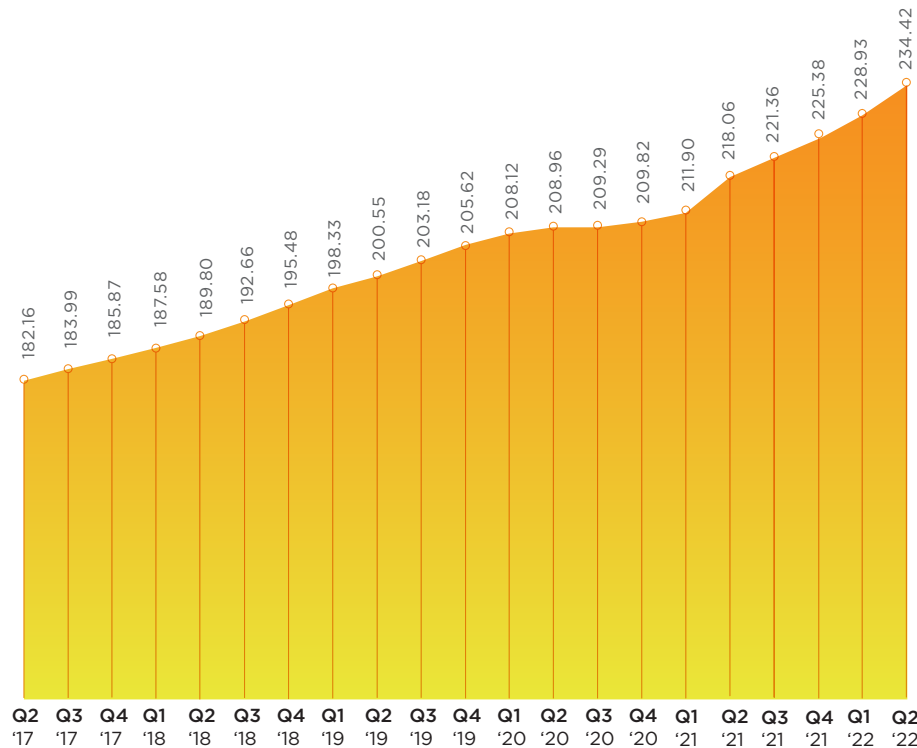
So, as we all try to read the signs of the times and decide our next turn, one thing is clear: it’s important we commit to bringing new people along for the ride.



Julian Anderson FRICS
President,
North America

UNITED STATES

NATIONAL CONSTRUCTION COST INDEX



Welcome to the second quarter 2022 issue of the Rider Levett Bucknall Quarterly Cost Report! This issue contains data current to mid-Q2 2022.

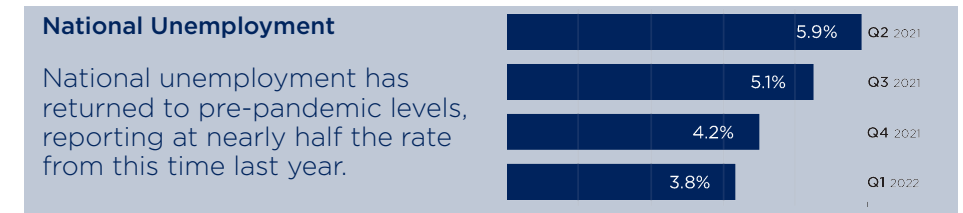
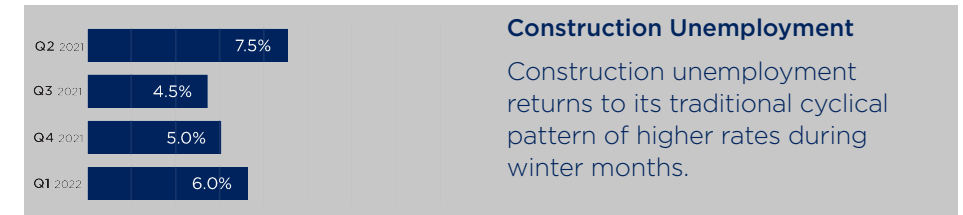
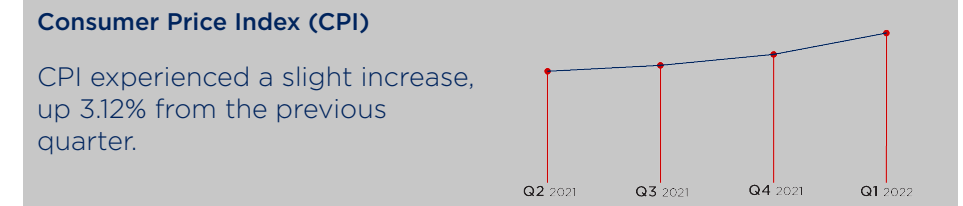
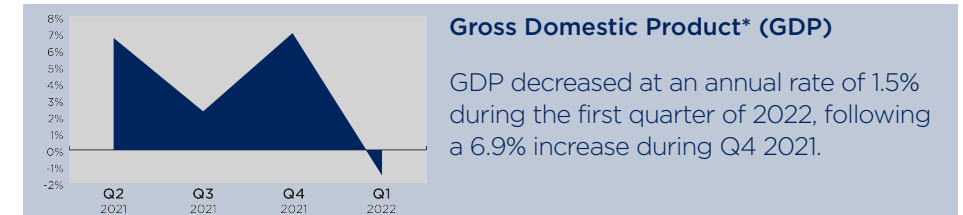
\$1,744.8 Billion According to the U.S. Department of Commerce, construction-put-in-place during April 2022 was estimated at a seasonally adjusted annual rate of \$1,744.8 billion, which is

0.2% above the revised March 2021 estimate of \$1,740.6 billion, and

12.3% above the April 2021 estimate of \$1,553.5 billion.

The National Construction Cost Index shows the changing cost of construction between April 2017 and April 2022, relative to a base of 100 in April 2001. Index recalibrated as of April 2011.

KEY UNITED STATES STATISTICS



GDP represented in percent change from the preceding quarter, seasonally adjusted at annual rates. CPI quarterly figures represent the monthly value at the end of the quarter. Inflation rates represent the total price of inflation from the previous quarter, based on the change in the Consumer Price Index. ABI is derived from a monthly American Institute of Architects survey of architectural firms of their work on the boards, reported at the end of the period. Construction Put-in-Place figures represent total value of construction dollars in billions spent at a seasonally adjusted annual rate taken at the end of each quarter. General Unemployment rates are based on the total population 16 years and older. Construction Unemployment rates represent only the percent of experienced private wage and salary workers in the construction industry 16 years and older. National unemployment rates are seasonally adjusted, reflecting the average of a three-month period.

* Adjustments made to GDP based on amended changes from the Bureau of Economic Analysis.

Sources: U.S. Bureau of Labor Statistics, Bureau of Economic Analysis, American Institute of Architects.

UNITED STATES

INDICATIVE CONSTRUCTION COSTS

The data in the chart below represents estimates of current building costs in each respective market. Costs may vary as a consequence of factors such as site conditions, climatic conditions, standards of specification, market conditions, etc. Values of U.S. locations represent hard construction costs based on U.S. dollars per square foot of gross floor area, while values of Canadian locations represent hard construction costs based on Canadian dollars per square foot.

LOCATION	OFFICES				RETAIL SHOPPING				HOTELS				HOSPITAL		INDUSTRIAL		PARKING				RESIDENTIAL				EDUCATION					
	PRIME		SECONDARY		CENTER		STRIP		5 STAR		3 STAR		GENERAL		WAREHOUSE		GROUND		BASEMENT		MULTI-FAMILY		SINGLE-FAMILY		ELEMENTARY		HIGH SCHOOL		UNIVERSITY	
	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
USA																														
Boston	350	550	225	325	200	300	150	240	400	580	275	390	425	675	110	190	85	140	100	160	185	315	260	360	350	475	375	500	375	600
Chicago	280	450	175	280	185	290	135	220	400	660	290	410	380	720	110	185	80	125	125	170	165	400	220	420	265	380	300	405	350	600
Denver	300	425	175	235	135	225	125	220	350	550	275	400	415	635	100	185	125	145	140	185	175	310	200	450	280	415	310	470	380	575
Honolulu	320	550	200	315	250	535	230	400	625	760	360	575	485	815	115	240	145	195	160	260	255	430	280	535	485	800	495	680	625	915
Las Vegas	200	350	135	190	120	480	105	190	310	580	185	315	400	475	70	100	50	85	70	145	150	355	175	350	225	350	270	455	350	575
Los Angeles	240	360	180	265	160	350	135	195	380	560	285	365	615	930	125	190	105	125	135	195	235	370	205	365	365	480	310	550	460	625
New York	360	830	210	520	310	620	330	650	445	670	330	445	560	840	120	210	100	180	140	220	220	420	310	620	475	600	520	660	510	725
Phoenix	220	375	140	200	175	295	100	170	350	550	185	275	425	600	75	125	50	90	80	135	155	245	165	450	250	350	270	425	375	575
Portland	230	315	210	310	210	315	185	260	340	440	260	365	465	620	160	240	120	160	140	225	210	315	185	340	340	420	370	450	415	565
San Francisco	420	700	325	525	310	510	235	400	525	775	380	600	570	890	150	255	130	195	240	345	385	600	300	490	385	560	425	740	560	990
Seattle	290	550	195	265	210	350	160	265	370	585	265	370	480	670	130	190	95	130	150	215	220	375	200	310	345	530	265	530	475	650
Washington	335	550	230	360	180	325	145	240	425	650	280	435	510	810	130	210	70	90	90	150	205	355	265	390	320	430	340	450	420	665
CANADA																														
Calgary	250	380	210	255	205	285	130	175	275	430	200	230	620	855	105	155	85	115	95	140	170	230	250	370	225	315	230	325	305	470
Toronto	250	405	205	285	185	390	150	195	360	660	210	260	525	825	110	155	100	130	125	185	190	255	255	485	225	275	225	295	265	465

INDUSTRY MOMENTUM AND CONSTRUCTION COSTS CONTINUE TO INCREASE

The bar chart to the right is the Dodge Data & Analytics 'Momentum Index' (DMI). This index is a monthly measure of the initial report for non-residential building projects in planning that has been shown to lead construction spending for non-residential buildings for a full year.

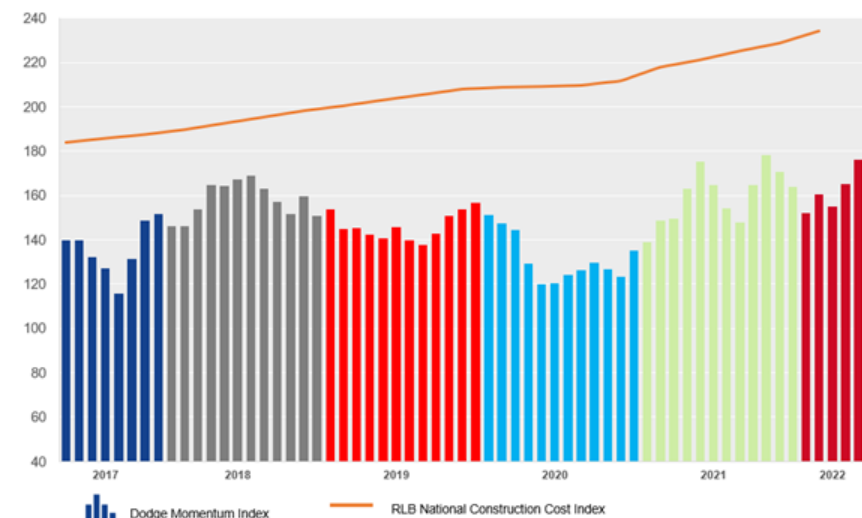
The orange line above the bar chart is Rider Levett Bucknall's National Construction Cost Index (NCCI) (see page 2 of the QCR). The NCCI represents the average escalation of costs across U.S. 12 cities, representing the hypothetical change in bid pricing across cities measured that quarter

WHAT DO THESE INDICES TELL US?

The Dodge Momentum Index increased in May, pushing planning over the most recent cyclical high in November 2021. The Momentum Index was 17 percent higher in May 2022 than it was in May 2021.

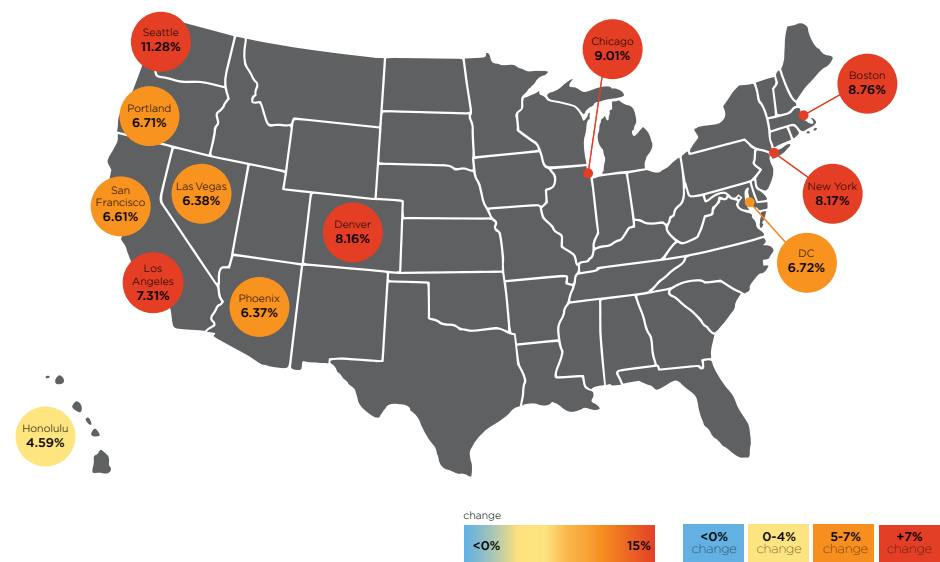
On a year-over-year basis the RLB's NCCI jumped from 218.06 to 234.42. This means both indexes are trending upward.

Non-residential development projects are steadily entering the planning cycle, despite increasing lending rates and fears of a recession. While rising pricing and labor shortages may cause projects to start later in 2022 or early in 2023, they give hope that the construction industry will be able to endure an economic slowdown fueled by higher interest rates.



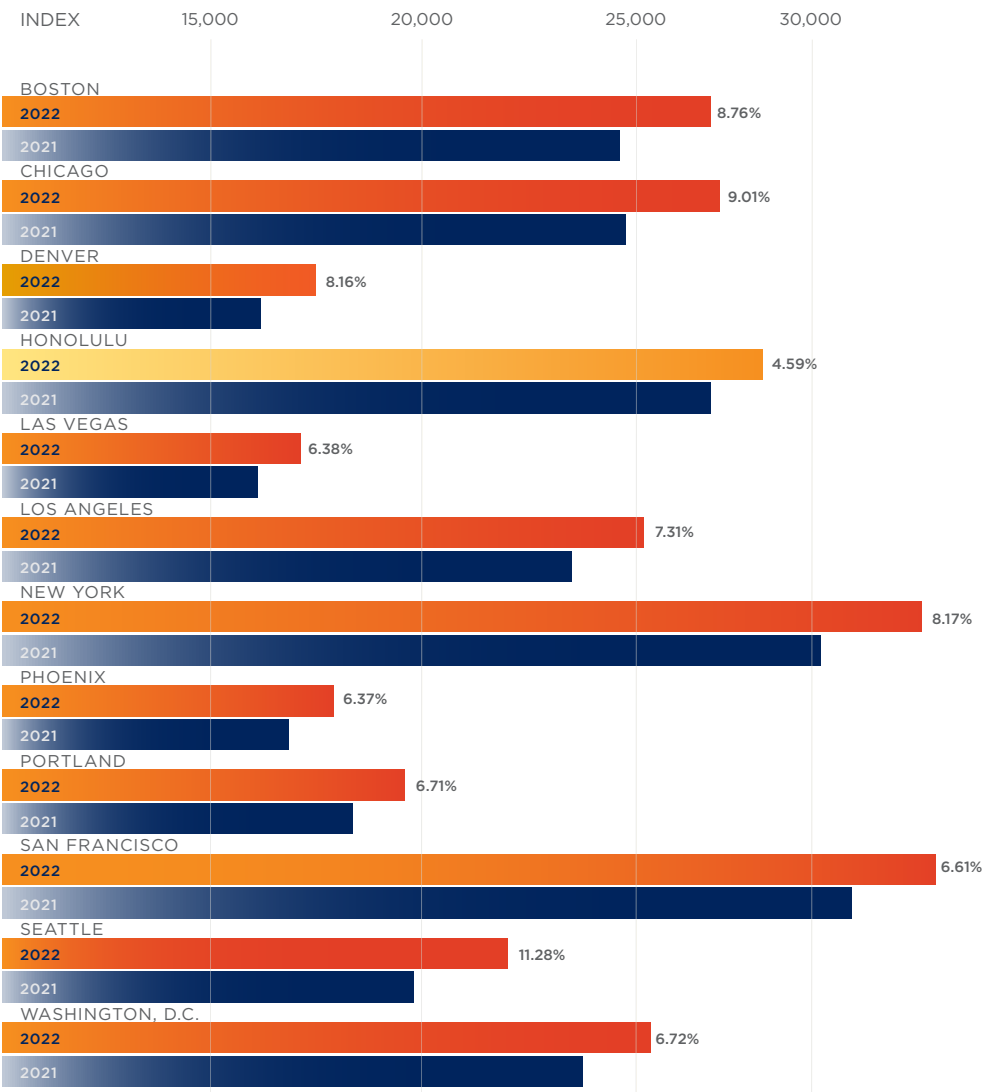
UNITED STATES

COMPARATIVE COST INDEX



City	April 2021	July 2021	October 2021	January 2022	April 2022	Annual % Change
• Boston	24,711	25,207	25,877	26,350	26,876	8.76%
• Chicago	24,854	25,064	25,636	26,026	27,093	9.01%
• Denver	16,150	16,349	16,567	16,805	17,468	8.16%
• Honolulu	26,891	27,158	27,413	27,705	28,125	4.59%
• Las Vegas	16,077	16,302	16,522	16,762	17,102	6.38%
• Los Angeles	23,567	24,006	24,341	24,760	25,291	7.31%
• New York	29,507	29,930	30,504	31,087	31,918	8.17%
• Phoenix	16,824	17,068	17,276	17,516	17,897	6.37%
• Portland	18,348	18,616	18,864	19,141	19,578	6.71%
• San Francisco	30,246	30,467	31,073	31,748	32,246	6.61%
• Seattle	19,804	20,305	21,320	21,551	22,038	11.28%
• Washington, DC	23,841	24,369	24,460	24,918	25,444	6.72%

Comparative Cost Map and Bar Graph Indicate percentage change between April 2021 to April 2022.



Each quarter we look at the comparative cost of construction in 12 US cities, indexing them to show how costs are changing in each city in particular, and against the costs in the other 11 locations. You will be able to find this information in the graph titled Comparative Cost Index (above) and in the Cost and Change Summary (right).

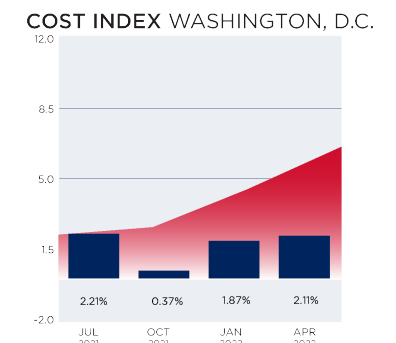
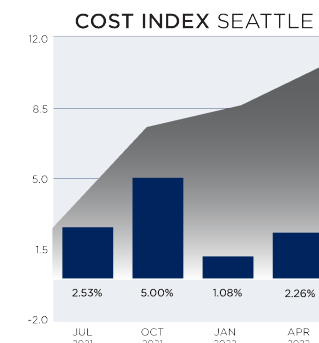
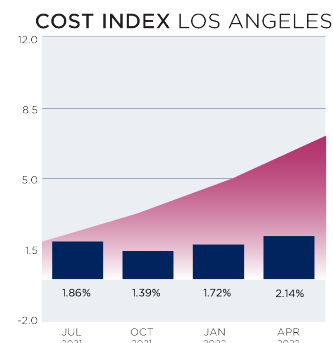
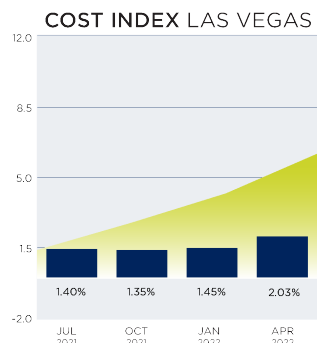
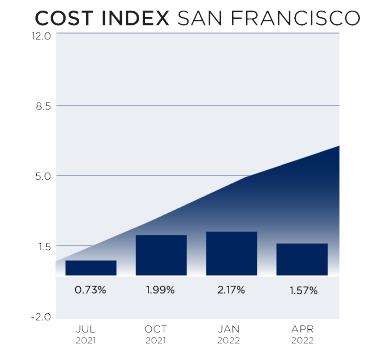
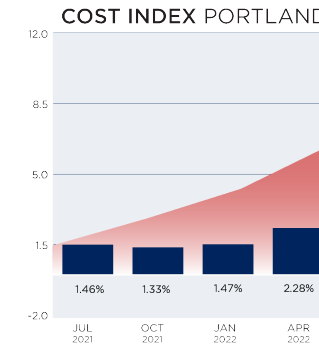
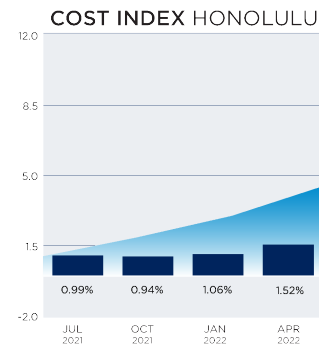
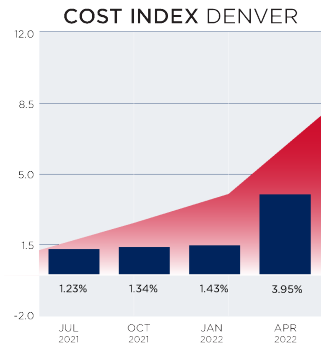
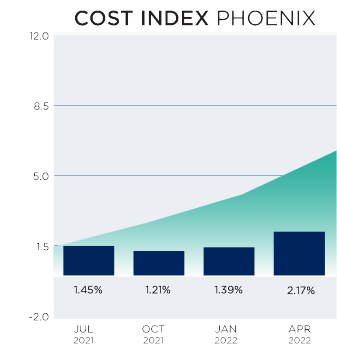
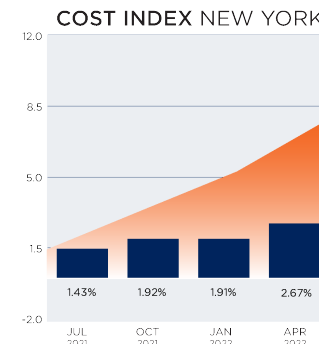
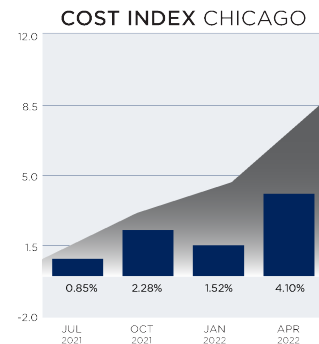
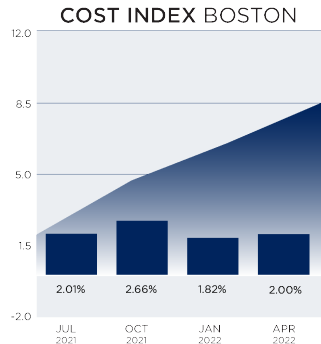
Our Comparative Cost Index tracks the 'true' bid cost of construction, which includes, in addition to costs of labor and materials, general contractor and sub-contractor overhead costs and fees (profit). The index also includes applicable sales/use taxes that 'standard' construction contracts attract. In a 'boom,' construction costs typically increase more rapidly than the net cost of labor and materials. This happens as the overhead levels and profit margins are increased in response to the increasing demand. Similarly, in a 'bust', construction cost increases are dampened (or may even be reversed) due to reductions in overheads and profit margins.

UNITED STATES

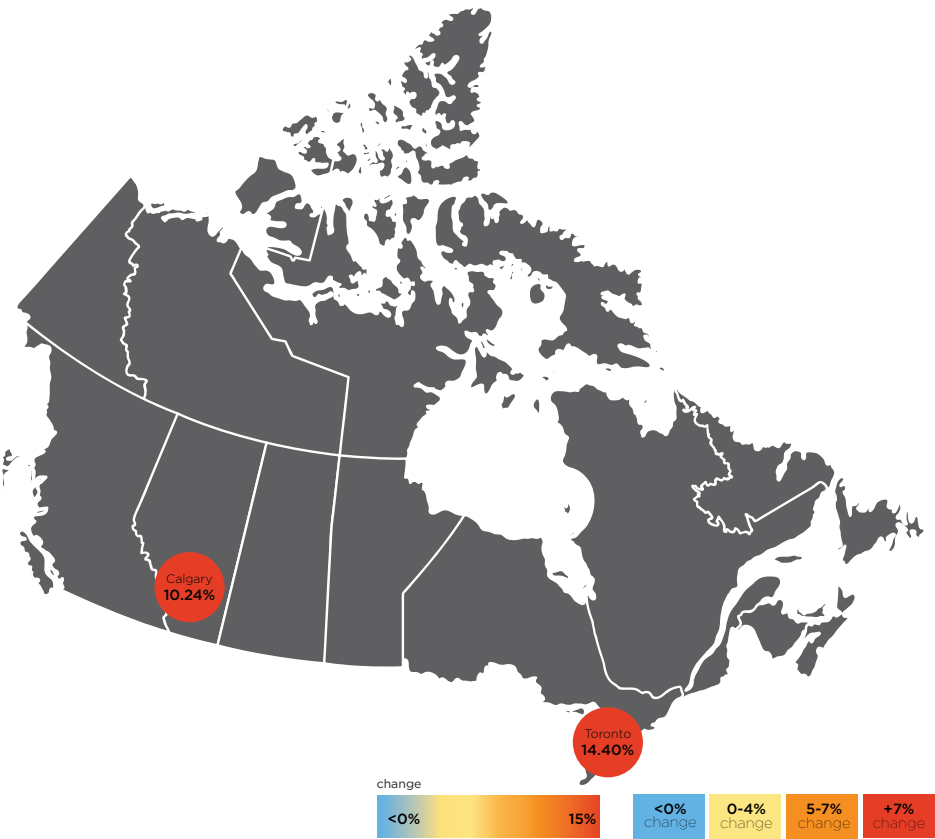
The following escalation charts track changes in the cost of construction each quarter in many of the cities where RLB offices are located. Each chart illustrates the percentage change per period and the cumulative percentage change throughout the charted timeline.

■ Percentage change per quarter ▲ Cumulative percentage change for the period shown

Our research suggests that between January 1, 2022 and April 1, 2022 the national average increase in construction cost was approximately 2.40% (7.50% annualized). Chicago, Denver, and New York all experienced increases above the quarterly national average during Q2 2022. Locations below the national average included Boston, Honolulu, Las Vegas, Los Angeles, Phoenix, Portland, San Francisco, Seattle, and Washington, D.C.



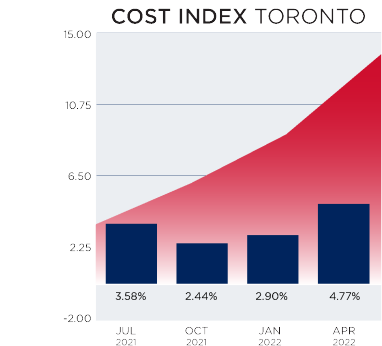
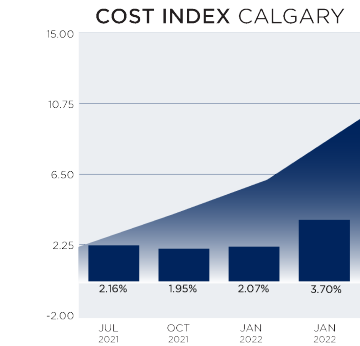
COMPARATIVE COST INDEX



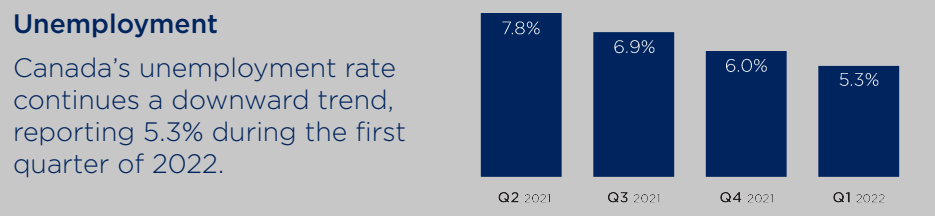
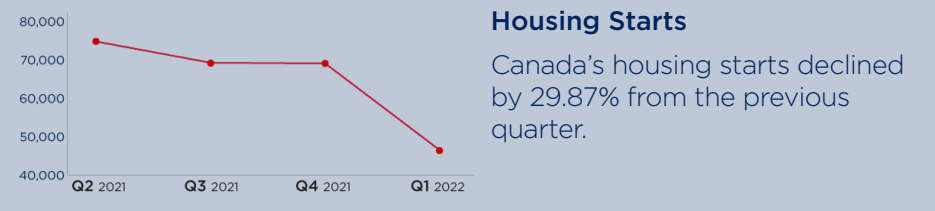
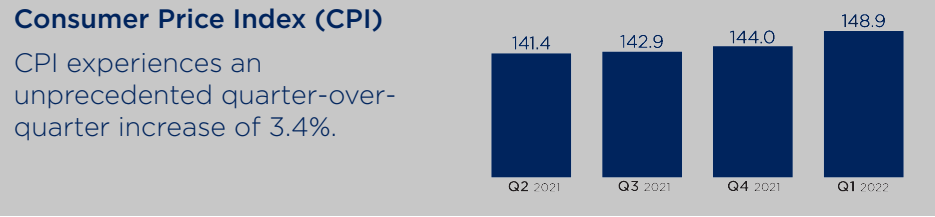
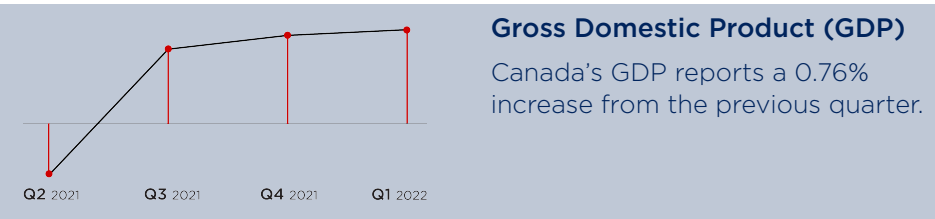
City	April 2021	July 2021	October 2021	January 2022	April 2022	Annual % Change
• Calgary	21,160	21,617	22,039	22,494	23,326	10.24%
• Toronto	26,050	26,983	27,642	28,445	29,801	14.40%

The Alberta government unveiled a handful of projects that will begin this summer as part of a \$1.4 billion provincial construction initiative that includes more than 300 projects over the next two years. These projects will employ around 12,000 Albertans. The provincial budget 2022 set aside \$789.4 million in this year's Capital Plan for roads and bridges. In Calgary, the Green Line LRT is moving ahead this year. Phase 1 includes 13 stations and station buildings, bridges, three Park and Ride facilities, and a maintenance storage facility. Calgary officials say the city is moving forward with projects to enhance traffic flow and access to numerous neighborhoods and businesses, with more than \$140 million in infrastructure investment planned for the construction season.

In Toronto, residential developers are dealing with a labor scarcity and rising construction-materials costs, which will likely result in postponed project launches. Although home resales have slowed since the first interest rate hike, the new home or preconstruction market has remained active. This indicates that, while 2022 will be a colder year than 2021, it will still be a very solid year for the Toronto residential market. Non-residential investment is expected to contribute to the province expansion. In 2022, the province government plans to increase spending on public infrastructure by 11%. Expansion of public transportation and the construction of new motorways are two major undertakings. During the second half of 2022, the labor market is predicted to expand by 3.9 percent.



KEY CANADIAN STATISTICS



GDP represented in percent change from the preceding quarter, seasonally adjusted at annual rates. CPI quarterly figures represent the monthly value at the end of the quarter. Inflation rates represent the total price of inflation from the previous quarter, based on the change in the Consumer Price Index. General Unemployment rates are based on the total population 16 years and older. Construction Unemployment rates represent only the percent of experienced private wage and salary workers in the construction industry 15 years and older. Unemployment rates are seasonally adjusted, reported at the end of the period.

Sources: Statistics Canada



ABOUT RIDER LEVETT BUCKNALL

Rider Levett Bucknall is an award-winning international firm known for providing project management, construction cost consulting, and related property and construction advisory services – at all stages of the design and construction process.

While the information in this publication is believed to be correct, no responsibility is accepted for its accuracy. Persons desiring to utilize any information appearing in this publication should verify its applicability to their specific circumstances.

This issue was compiled by Taryn Harbert with contributions from Aled Jenkins, Antonio Gonzales, Cassie Idehara, Chris Harris, Daniel Junge, Evans Pomegas, James Casey, Julia Flores, Kirk Miller, Lucy Liu, Maelyn Uyebara, Mel Yungblut, Paul Brussow, Paraic Morrissey, Peter Knowles, and Scott Macpherson.

© Q2 2022 by Rider Levett Bucknall Ltd.

If you have questions or for more information, please contact us.

BOSTON

Phone: +1 617 737 9339
E-mail: BOS@us.rlb.com
Contact: Michael O'Reilly

CALGARY

Phone: +1 403 571 0505
E-mail: YYC@ca.rlb.com
Contact: Mel Yungblut

CHICAGO

Phone: +1 312 819 4250
E-mail: ORD@us.rlb.com
Contact: Chris Harris

DENVER

Phone: +1 720 904 1480
E-mail: DEN@us.rlb.com
Contact: Peter Knowles

HILO

Phone: +1 808 934 7953
E-mail: ITO@us.rlb.com
Contact: Guia Lasquete

HONOLULU

Phone: +1 808 521 2641
E-mail: HNL@us.rlb.com
Contact: Erin Kiriara
Cassie Idehara

KANSAS

Phone: +1 816 977 2740
E-mail: MCI@us.rlb.com
Contact: Julian Anderson

LAS VEGAS

Phone: +1 702 227 8818
E-mail: LAS@us.rlb.com
Contact: Paul Brussow

LOS ANGELES

Phone: +1 213 689 1103
E-mail: LAX@us.rlb.com
Contact: Aled Jenkins

MAUI

Phone: +1 808 875 1945
E-mail: OGG@us.rlb.com
Contact: Paul Belshoff

NEW YORK

Phone: +1 646 821 4788
E-mail: NYC@us.rlb.com
Contact: Paraic Morrissey

PHOENIX

Phone: +1 602 443 4848
E-mail: PHX@us.rlb.com
Contact: Julian Anderson
Scott Macpherson
John Jozwick
Scott Sumners

PORTLAND

Phone: +1 503 226 2730
E-mail: PDX@us.rlb.com
Contact: Daniel Junge

SAN FRANCISCO

Phone: +1 415 362 2613
E-mail: SFO@us.rlb.com
Contact: Brian Schroth

SAN JOSE

Phone: +1 650 943 2317
E-mail: SJC@us.rlb.com
Contact: Joel Brown

SEATTLE

Phone: +1 206 441 8872
E-mail: SEA@us.rlb.com
Contact: Craig Colligan

ST. LUCIA

Phone: +1 758 452 2125
E-mail: UVF@us.rlb.com
Contact: David Piper

TORONTO

Phone: +1 905 827 8218
E-mail: YYZ@us.rlb.com
Contact: Mel Yungblut

TUCSON

Phone: +1 520 777 7581
E-mail: TUS@us.rlb.com
Contact: Josh Marks

WAIKOLOA

Phone: +1 808 883 3379
E-mail: KOA@us.rlb.com
Contact: Guia Lasquete

WASHINGTON, DC

Phone: +1 410 740 1671
E-mail: DCA@us.rlb.com
Contact: Kirk Miller

RLB.com

