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SECOND QUARTER 2019

# NORTH AMERICA

QUARTERLY CONSTRUCTION COST REPORT





## ON THE COVER

### GREATER COLUMBUS CONVENTION CENTER ▲

#### COLUMBUS, OHIO

Originally constructed in 1993, the \$140 million, multi-building Greater Columbus Convention Center (GCCC) Expansion & Renovation project added 137,000 SF of new space and renovated 800,000 SF of the existing convention center structure.

To better integrate the building within the neighborhood, GCCC's design included multiple areas of glass to reveal the activity happening inside the building to the outside world. This transparency continues throughout the building, with a new entry to the main exhibit hall and windows in the meeting rooms.

To provide enhanced flexibility in accommodating a wide range of events, the interior renovation included a revitalized spatial experience through the use of color and light. Sculptural lighting with custom color configurations animates the ceilings of the two multi-purpose ballrooms, enabling the interior expression to be choreographed to the unique visual characteristics of each event. The project anticipates LEED® Silver Certification.

RLB provided cost management services, including cost planning, milestone cost estimates, cost reconciliation with the Contractor and value engineering throughout.

# NORTH AMERICA

The shortage of qualified trade workers continues to be a prime concern for the construction industry. A survey by the Associated General Contractors of America (AGCA) cites 78% of construction firms report difficulty in filling open positions. With a combination of factors—experienced laborers retiring and the younger generation opting to pursue tech-sector jobs or higher education - 25% of survey respondents expect the shortage to worsen over time.

Traditionally, apprenticeship programs have been a major point of entry into the building trades. According to the Labor Department, in fiscal year 2018 there were 585,026 apprentices in the U.S. More than three-quarters of federally-administered apprenticeships are either in construction fields or part of military training.

A significant change to the structure of apprenticeships may be on the horizon. The Trump administration announced in late June a plan that proposes to eliminate unionized Labor Department oversight of apprenticeship programs, and would put them under private-sector supervision.

The pushback from the construction industry has been decisive and swift. The chief executive officer of the AGCA, Stephen E. Sandherr, said, “At a time when the vast majority of construction firms report having a hard time finding qualified workers to hire, it is deeply troubling that the Trump administration has opted to not include the sector in its new apprenticeship proposal. Instead of opening new routes for many thousands of Americans to embark on high-paying construction careers, the administration has instead opted to exclude one of the largest single sectors of the economy from what is supposed to be their signature workforce initiative.”

AGCA crafted its own workforce development plan in 2018, recommending increased federal funding for existing apprenticeship programs.

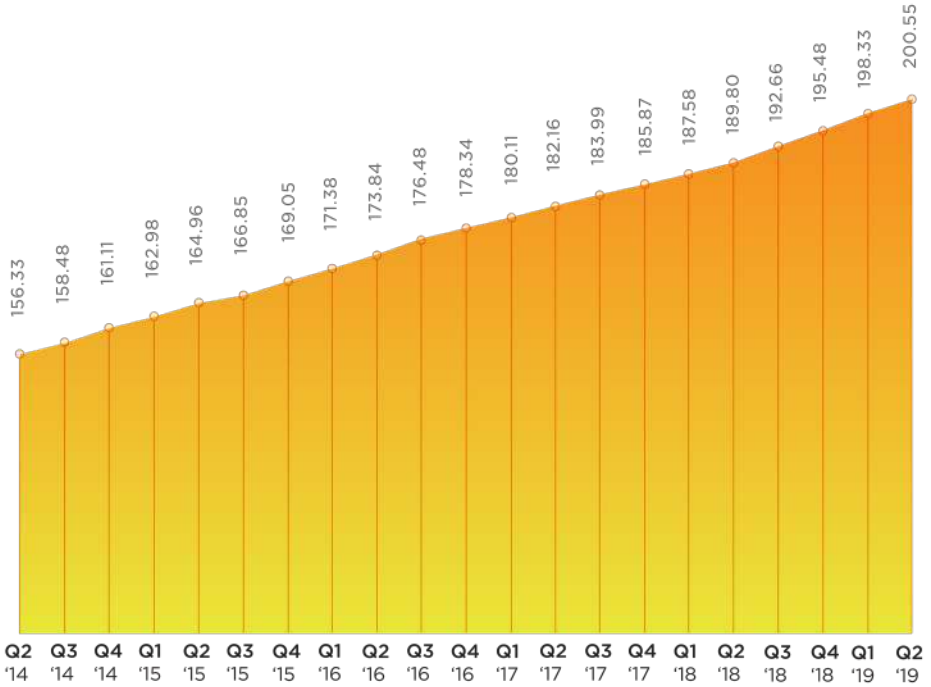
Even as technology transforms the jobsite, improving both efficiency and worker safety, skilled-labor recruitment and retention are essential to the future of construction. As the worker shortage makes projects more costly and slower to build, the risk of undermining broader economic growth increases. Pursuing a balanced solution that promotes a modern approach to apprenticeship benefits not only individual workers and the AEC industries, but the nation as a whole.



**Julian Anderson** FRICS  
**President,**  
**North America**

# UNITED STATES

## NATIONAL CONSTRUCTION COST INDEX



Welcome to the second quarter 2019 issue of the Rider Levett Bucknall Quarterly Cost Report! This issue contains data current to April 1, 2019.

**\$1,298.5  
Billion**

According to the U.S. Department of Commerce, construction-put-in-place during April 2019 was estimated at a seasonally adjusted annual rate of \$1,298.5 billion, which is

**nearly the  
same as**

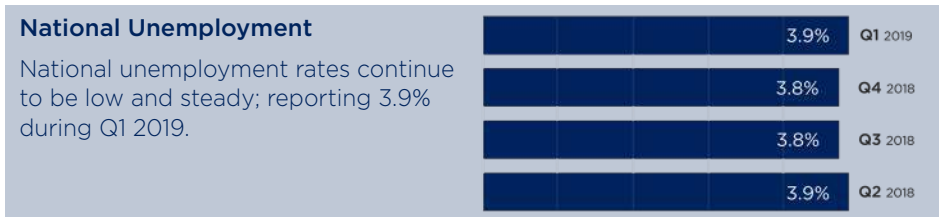
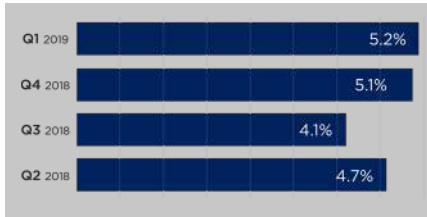
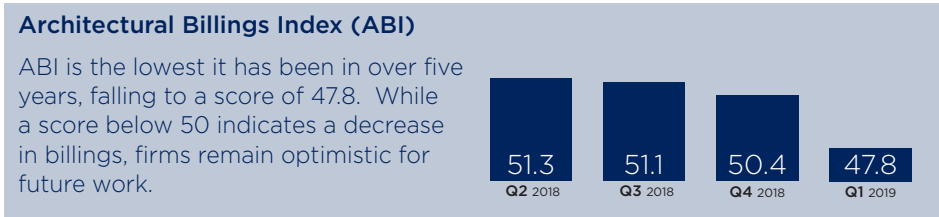
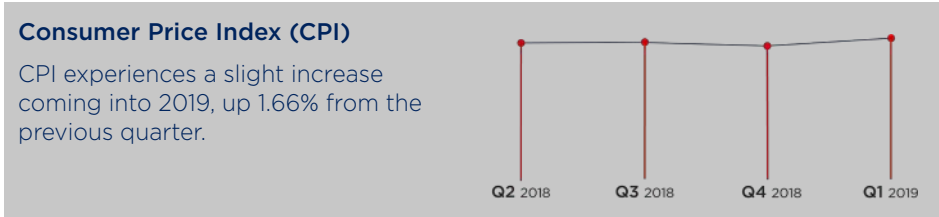
the revised March estimate of \$1,299.2 billion, and

**1.2%  
below**

the April 2018 estimate of \$1,314.7 billion.

The National Construction Cost Index shows the changing cost of construction between April 2014 and April 2019, 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. Unemployment rates are seasonally adjusted, reported at the end of the 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.

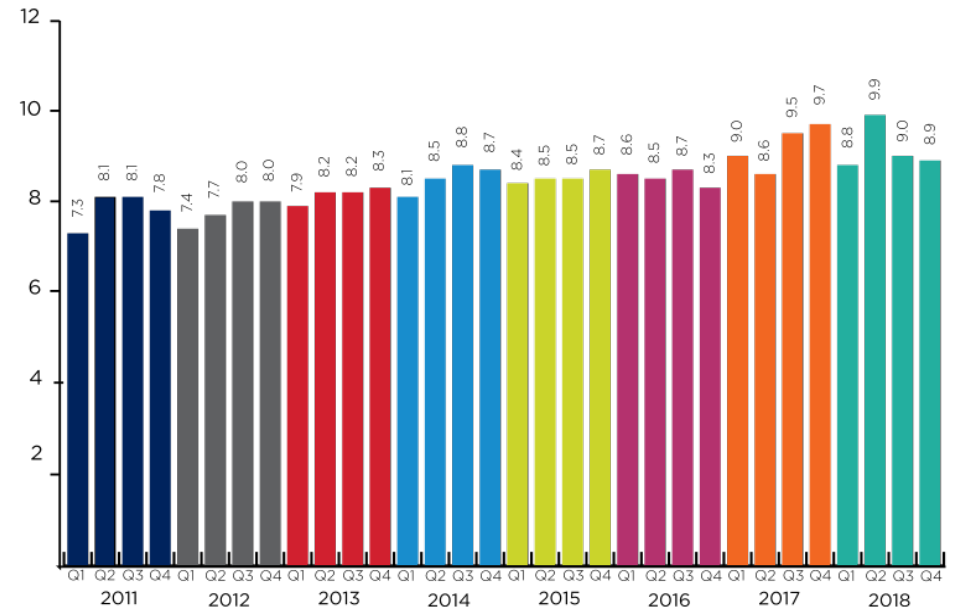
LOCATION	OFFICES				RETAIL SHOPPING				HOTELS				HOSPITAL		INDUSTRIAL		PARKING				RESIDENTIAL				EDUCATION					
	PRIME		SECONDARY		CENTER		STRIP		5 STAR		3 STAR		GENERAL		WAREHOUSE		GROUND		BASEMENT		MULTI-FAMILY		SINGLE-FAMILY		ELEMENTARY		HIGH SCHOOL		UNIVERSITY	
	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
<b>USA</b>																														
Boston	325	500	225	325	200	300	150	240	400	580	275	390	425	675	110	190	85	140	100	160	185	315	260	360	320	430	340	450	350	500
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	200	260	165	200	95	150	80	175	285	370	200	275	390	480	90	150	75	100	100	135	90	200	90	410	250	315	275	330	305	420
Honolulu	285	525	240	395	210	490	175	430	510	735	320	410	470	755	145	230	100	145	140	260	195	440	280	750	335	470	400	605	440	715
Las Vegas	160	295	105	190	115	480	80	145	350	550	150	300	350	455	60	100	50	85	60	150	90	405	100	350	180	315	200	455	275	455
Los Angeles	235	355	175	260	155	340	130	190	375	540	280	360	530	800	120	185	105	125	130	180	210	325	200	360	365	480	385	500	420	590
New York	400	600	300	400	275	425	175	300	400	600	300	400	500	750	115	200	95	175	125	200	200	375	275	400	375	500	400	530	400	600
Phoenix	190	290	140	195	120	200	80	150	350	520	170	250	425	525	60	100	45	70	70	110	90	210	120	450	190	300	250	400	300	450
Portland	200	270	150	200	160	260	150	210	205	295	165	200	405	540	100	160	105	135	120	195	160	250	140	295	290	360	305	365	330	465
San Francisco	280	400	250	350	250	400	240	350	450	630	380	520	460	685	150	200	125	160	220	275	375	520	230	430	350	430	350	460	400	550
Seattle	210	255	145	205	140	310	115	165	275	390	230	240	420	550	100	130	95	115	140	170	165	275	170	290	300	330	390	500	440	480
Washington	325	550	225	325	175	300	140	200	400	600	250	390	500	750	120	190	90	130	110	140	200	350	300	400	300	400	325	420	350	500
<b>CANADA</b>																														
Calgary	235	295	190	285	220	310	110	160	400	500	190	245	550	720	85	145	75	90	75	120	140	215	130	320	185	260	220	310	300	450
Toronto	200	260	180	250	225	275	115	150	400	500	195	260	500	650	115	150	70	90	115	150	180	225	190	350	195	210	205	235	205	305

## ABC CONSTRUCTION BACKLOG INDICATOR

The chart on the adjacent page relates the average construction backlog, by quarter, to backlog duration in months, as represented by the Associated Builders and Contractors, Inc. Construction Backlog Indicator (CBI).

The CBI is a national economic indicator that reflects the amount of work that will be performed by commercial and industrial contractors in the months ahead. This national economic data set is a reliable leading economic indicator offering a level of specificity focused on the U.S. commercial and institutional, industrial and infrastructure construction industries.

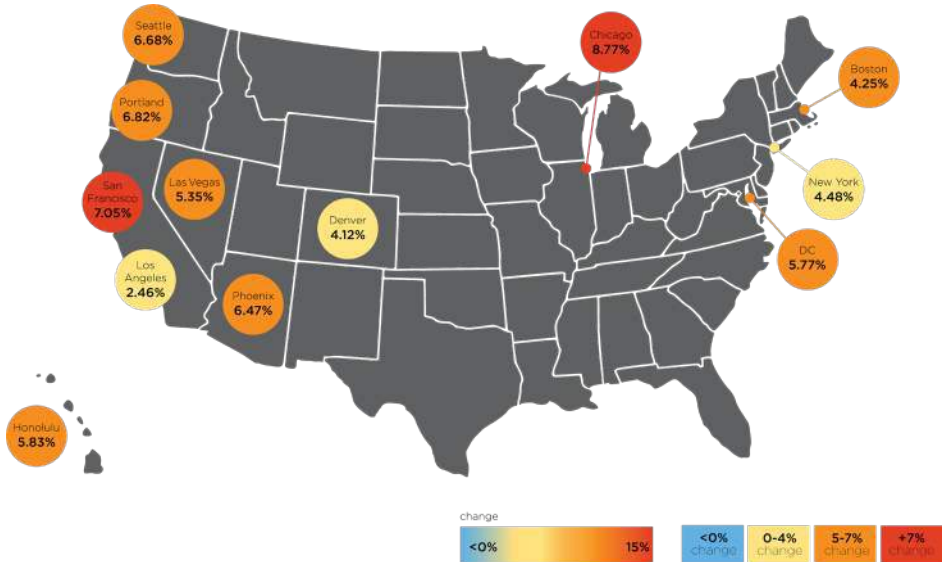
The backlog was up to a 9.15-month average in 2018 from a 7.8-month average in 2011, demonstrating an 17% increase in average monthly backlog across the United States over the last eight years. The average monthly duration of the construction backlog is now the highest in a decade.



Source: Associated Builders and Contractors, Construction Backlog Indicator

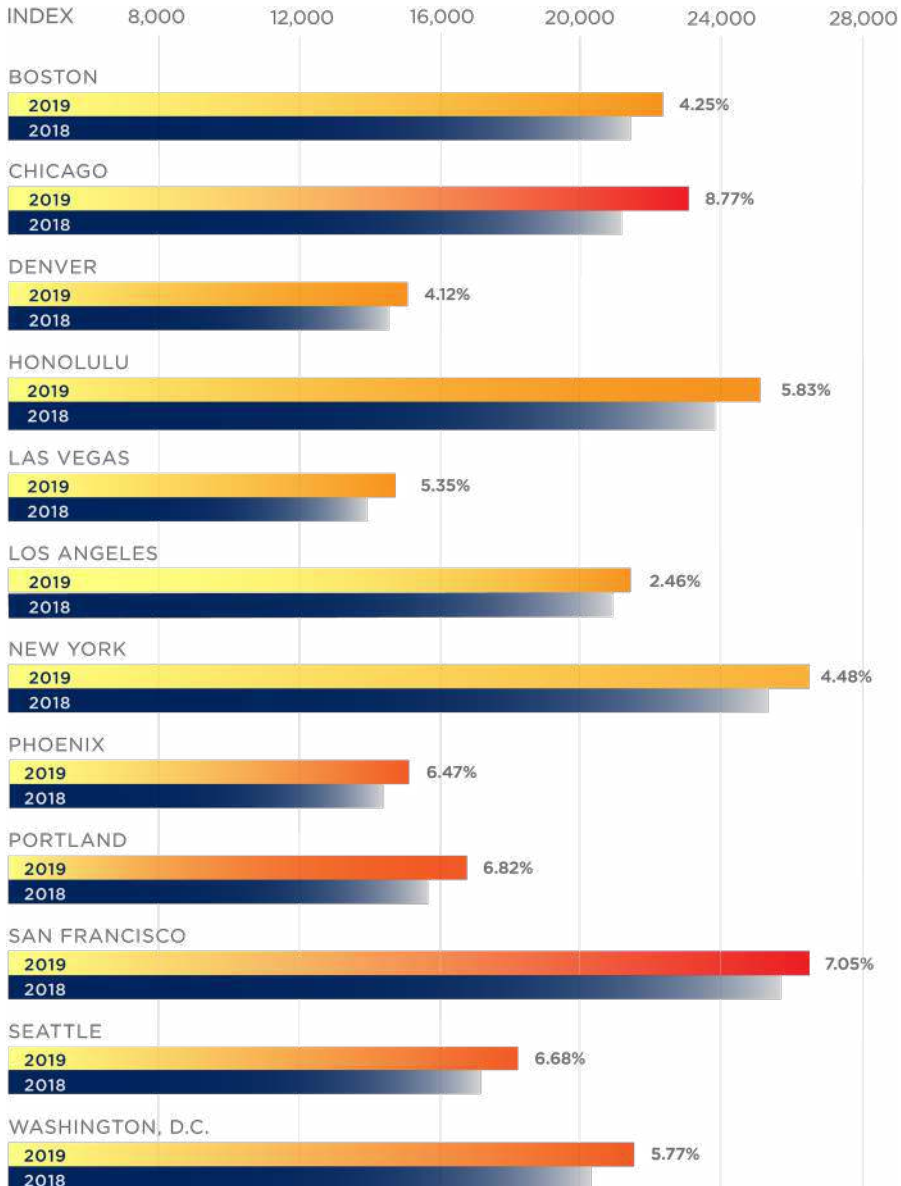
# UNITED STATES

## COMPARATIVE COST INDEX



City	April 2018	July 2018	October 2018	January 2019	April 2019	Annual % Change
• Boston	21,563	21,789	22,086	22,267	22,480	4.25%
• Chicago	21,394	22,055	22,416	22,789	23,269	8.77%
• Denver	14,649	14,819	14,937	15,096	15,253	4.12%
• Honolulu	23,804	24,048	24,520	24,812	25,192	5.83%
• Las Vegas	14,081	14,299	14,503	14,674	14,834	5.35%
• Los Angeles	21,010	21,266	21,567	21,792	21,526	2.46%
• New York	25,387	25,628	26,000	26,244	26,524	4.48%
• Phoenix	14,442	14,795	15,013	15,203	15,376	6.47%
• Portland	15,768	16,023	16,315	16,630	16,843	6.82%
• San Francisco	25,704	26,038	26,294	26,844	27,516	7.05%
• Seattle	17,250	17,525	17,810	18,120	18,402	6.68%
• Washington, DC	20,437	20,660	20,987	21,528	21,617	5.77%

Comparative Cost Map and Bar Graph Indicate percentage change between April 2018 and April 2019.



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.

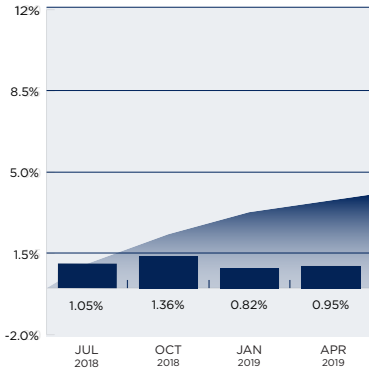


# UNITED STATES

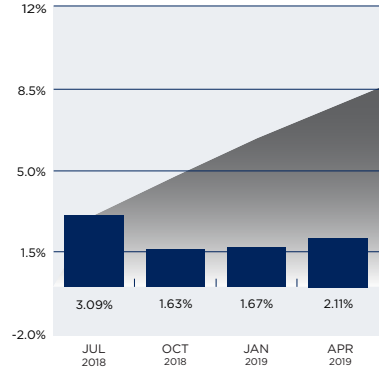
The following escalation charts track changes in the cost of construction each quarter in many of the cities where RLB offices are located. Each chart illustrates the percentage change per period and the cumulative percentage change throughout the charted timeline.

 Percentage change per quarter  Cumulative percentage change for the period shown

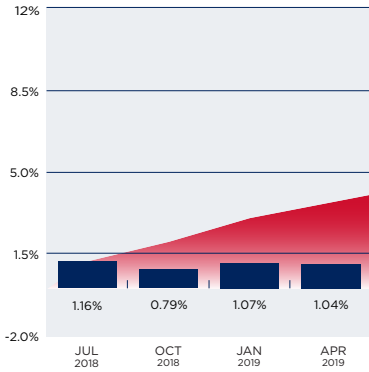
### COST INDEX BOSTON



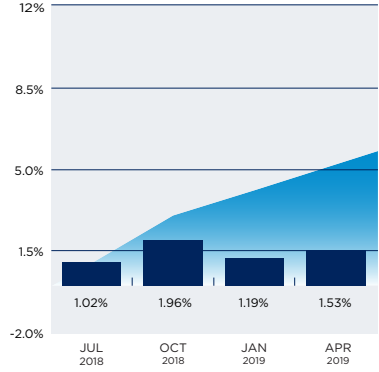
### COST INDEX CHICAGO



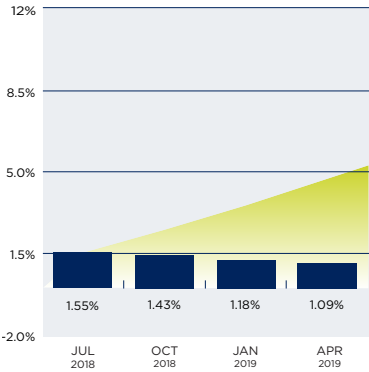
### COST INDEX DENVER



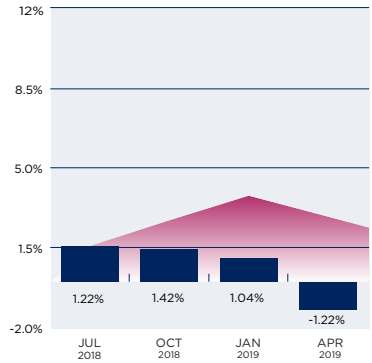
### COST INDEX HONOLULU



### COST INDEX LAS VEGAS

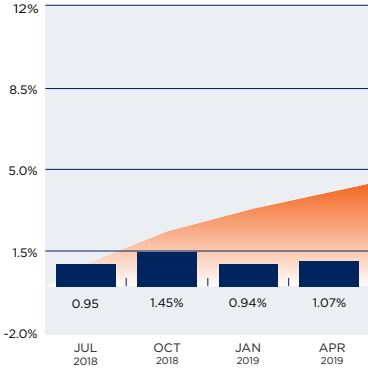


### COST INDEX LOS ANGELES

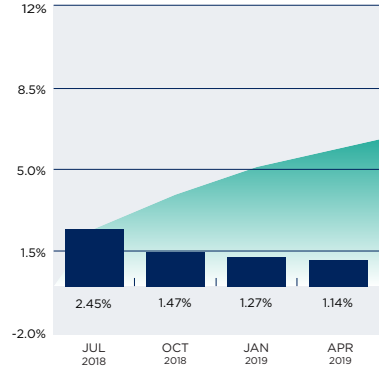


Our research suggests that between January 1, 2019 and April 1, 2019 the national average increase in construction cost was appropriately 1.12% (4.48% annualized). Chicago, Honolulu, Phoenix, Portland, San Francisco, and Seattle all experienced increases above the national average during the second quarter. Other locations have had more modest gains, including Washington, D.C. which experienced a slight increase of 0.41%. While the market is still buoyant, Los Angeles was the only city to experience a decrease this quarter.

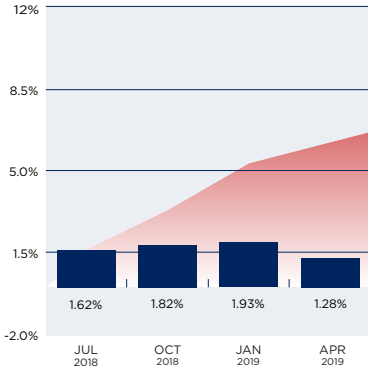
**COST INDEX NEW YORK**



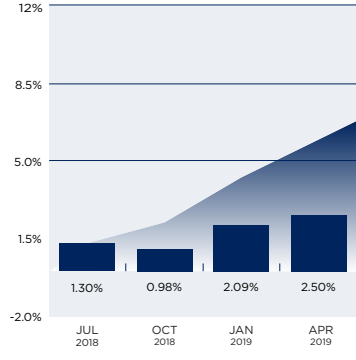
**COST INDEX PHOENIX**



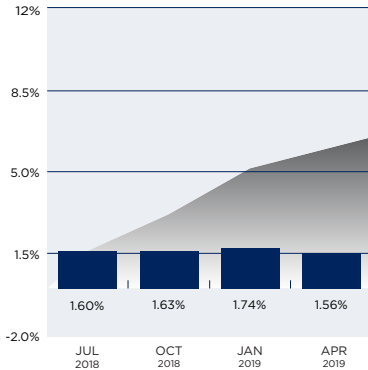
**COST INDEX PORTLAND**



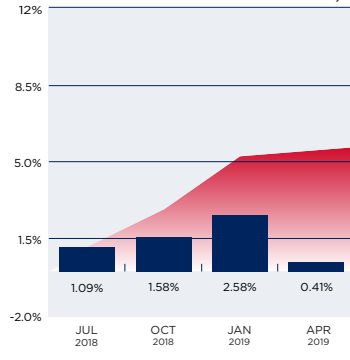
**COST INDEX SAN FRANCISCO**



**COST INDEX SEATTLE**

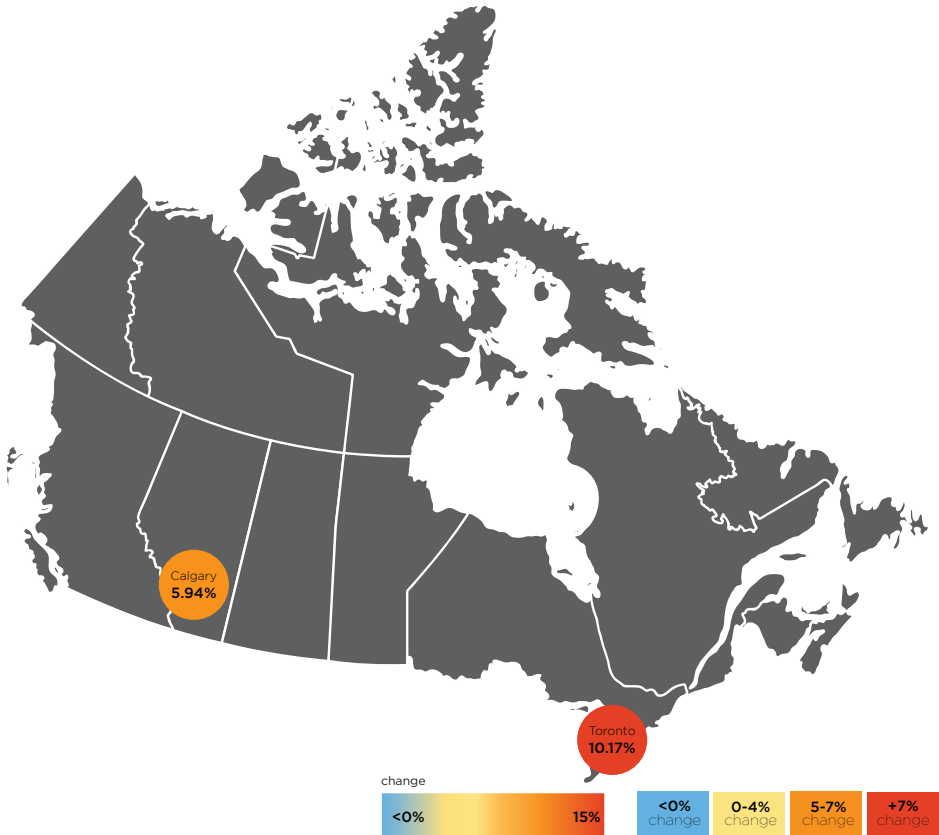


**COST INDEX WASHINGTON, D.C.**



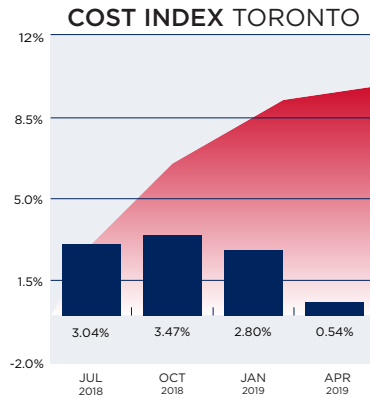
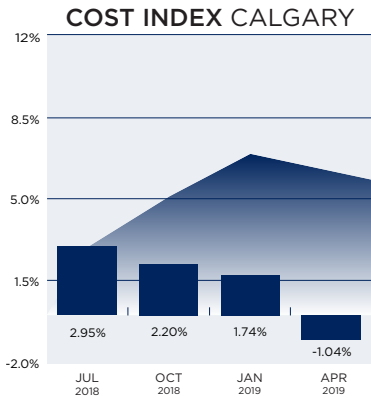
# CANADA

## COMPARATIVE COST INDEX



City	April 2018	July 2018	October 2018	January 2019	April 2019	Annual % Change
• Calgary	18,292	18,833	19,247	19,582	19,379	5.94%
• Toronto	18,978	19,555	20,232	20,798	20,909	10.17%

Canada's economy grew just 0.4% in the first quarter, and is projected at increase for the balance of 2019. The construction market continues to be busy with current work, however there is a slow down of planned work ahead, and some projects are being canceled due to high pricing. This is freeing up trades' availability which in isolated cases is starting to show a reduction in some trades pricing for projects moving forward. There are a number of large infrastructure projects on the market, but many smaller public sector projects are being postponed.



## KEY CANADIAN STATISTICS

### Gross Domestic Product (GDP)

GDP growth reports at 3.2% for the Q1 2019; up from 2.6% at the close of 2018.



### Consumer Price Index (CPI)

Canada's CPI continues its upward trend, reporting an inflation rate of 1.8% during the first quarter of 2019.



### Housing Starts

Housing starts in Canada report a significant decline in during the first quarter, down 35% from the previous quarter.



### Unemployment

Canada's unemployment experienced little change over the past year and holds steady at 5.8%.



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.

**VOTED #1  
COST CONSULTANT**  
IN WORLD ARCHITECTURE  
MAGAZINE 2016-2019



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This issue was compiled by Taryn Harbert with contributions from Cassie Idehara, Catherine Stoupas, Chris Harris, Daniel Junge, Edd Hamzanlui, Emile le Roux, Evans Pomegas, George Bergeron, Graham Roy, Grant Owen, James Casey, Joe Pendlebury, Lucy Liu, Maelyn Uyehara, Michael Moynihan, Paul Brussow, Peter Knowles, Philip Mathur, Robin Kankerwal, Scott Macpherson, and Simon James.

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

### **BOSTON**

Phone: +1 617 737 9339  
E-mail: BOS@us.rlb.com  
Contact: Grant Owen

### **CALGARY**

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

### **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: Kevin Mitchell

### **HONOLULU**

Phone: +1 808 521 2641  
E-mail: HNL@us.rlb.com  
Contact: Erin Kirihara  
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: Phillip Mathur  
Brian Lowder

### **MAUI**

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

### **NEW YORK**

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

### **PHOENIX**

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

### **PORTLAND**

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

### **SAN FRANCISCO**

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

### **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: Kirk Robinson

### **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: Joe Pendlebury

### **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: Kevin Mitchell

### **WASHINGTON, DC**

Phone: +1 240 599 8176  
E-mail: DCA@us.rlb.com  
Contact: Grant Owen

