

Q1 2019 RLB CRANE INDEX® HIGHLIGHTS:

- RLB Crane Index® maintained at 173
- 735 cranes observed across Australia, 530 residential, 205 non-residential
- Number of cranes same as last edition
- Residential Index maintains level of 170
- Crane numbers in Melbourne pass 200 for the first time
- Record number of civil, commercial and education cranes
- Adelaide, Canberra, Gold Coast, Hobart and Melbourne recorded crane number increases

Q1 2019 RLB CRANE INDEX® SUMMARY:

CITIES	KEY SECTORS
ADELAIDE	CIVIC
BRISBANE	CIVIL
CANBERRA	COMMERCIAL
CENTRAL COAST	EDUCATION
DARWIN	HEALTH
GOLD COAST	HOTEL
HOBART	MIXED USE
MELBOURNE	RECREATION
NEWCASTLE	RESIDENTIAL
PERTH	RETAIL
SUNSHINE COAST	
SYDNEY	

LEGEND



AUSTRALIA

Since the initial RLB Crane Index® was published in October 2012, the construction sector in Australia has seen a significant shift in activity from heavy engineering work to medium/high density residential. This shift is easily identifiable by the quantity of cranes dotting the skylines of the major regions across the country.

Since 2012, residential activity undertaken in Australia has increased, in volume terms, by 44% or \$24 billion against a drop in engineering activity of 36%.

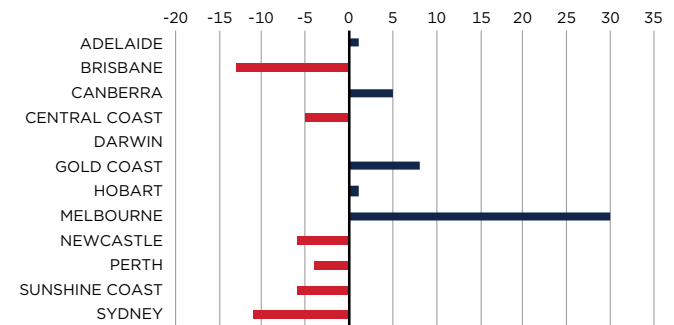
A significant number of cranes observed in this edition are a direct result of this construction shift, fuelled primarily by the trend in dwelling intensification across the country.

Residential cranes now account for 72% of total cranes across the nation which is down from the high of 84% in Q3 2016. The rising tide of infrastructure investment by all levels of government, the current cyclical surge in hotel developments over the past two years and the ongoing activity in large commercial developments have resulted in the overall mix of non-residential cranes lifting to 28%.

Across the country, five regions recorded increases in crane numbers and six recorded falls. Melbourne's crane numbers surged past the 200 mark for the first time, with an additional 30 cranes observed for this edition. Sydney's dominance has fallen slightly with Sydney's contribution to the overall count falling to 42%, which is down from the high of 51% in Q2 2017.

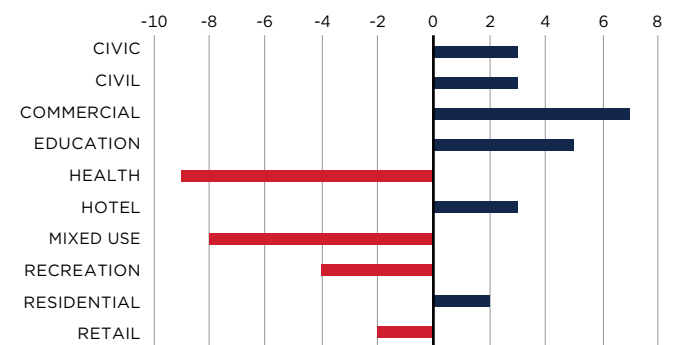
AUSTRALIA NET CRANE MOVEMENT BY CITY

NUMBER OF CRANES REMOVED / ADDED



AUSTRALIA NET CRANE MOVEMENT BY SECTOR

NUMBER OF CRANES REMOVED / ADDED



CRANE ACTIVITY - AUSTRALIA BY KEY CITIES

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
ADELAIDE	16	2.2%	5	-4	1	17	2.3%
BRISBANE	72	9.8%	30	-43	-13	59	8.0%
CANBERRA	23	3.1%	16	-11	5	28	3.8%
CENTRAL COAST	18	2.4%	3	-8	-5	13	1.8%
DARWIN	0	0.0%	0	0	0	0	0.0%
GOLD COAST	24	3.3%	18	-10	8	32	4.4%
HOBART	4	0.5%	2	-1	1	5	0.7%
MELBOURNE	192	26.1%	105	-75	30	222	30.2%
NEWCASTLE	12	1.6%	3	-9	-6	6	0.8%
PERTH	37	5.0%	17	-21	-4	33	4.5%
SUNSHINE COAST	16	2.2%	3	-9	-6	10	1.4%
SYDNEY	321	43.7%	175	-186	-11	310	42.2%
TOTAL	735	100.0%	377	-377	0	735	100.0%

CRANE ACTIVITY - AUSTRALIA BY SECTOR

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
CIVIC	4	0.5%	3	0	3	7	1.0%
CIVIL	26	3.5%	19	-16	3	29	3.9%
COMMERCIAL	60	8.2%	29	-22	7	67	9.1%
EDUCATION	12	1.6%	11	-6	5	17	2.3%
HEALTH	23	3.1%	7	-16	-9	14	1.9%
HOTEL	14	1.9%	12	-9	3	17	2.3%
MIXED USE	45	6.1%	17	-25	-8	37	5.0%
RECREATION	6	0.8%	0	-4	-4	2	0.3%
RESIDENTIAL	528	71.8%	272	-270	2	530	72.1%
RETAIL	17	2.3%	7	-9	-2	15	2.0%
TOTAL	735	100.0%	377	-377	0	735	100.0%

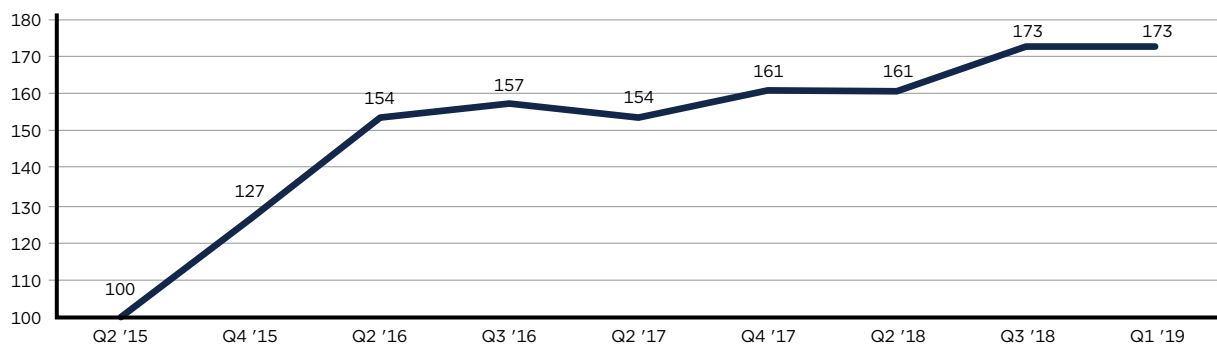
AUSTRALIA

The national value of building approvals, in original value terms, declined in CY 2018 by 6%, however it is still 20% above the current decade's average. The future commencement of a number of these developments could be affected by the current economic conditions impacting the property industry

such as; tightening finance availability, falling foreign investment and general market confidence. With potential developments delayed until more favourable conditions are felt, a reduction in crane numbers may be seen in future editions.

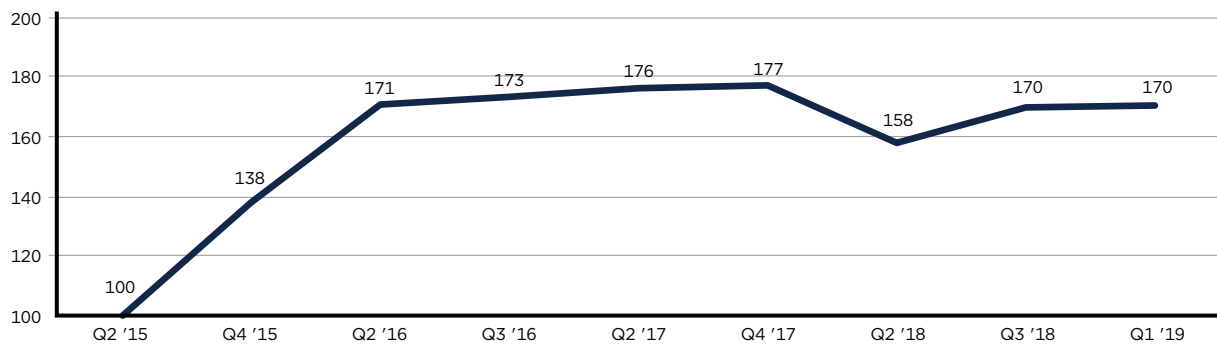
RLB CRANE INDEX®

BASE = Q2 2015 = 100



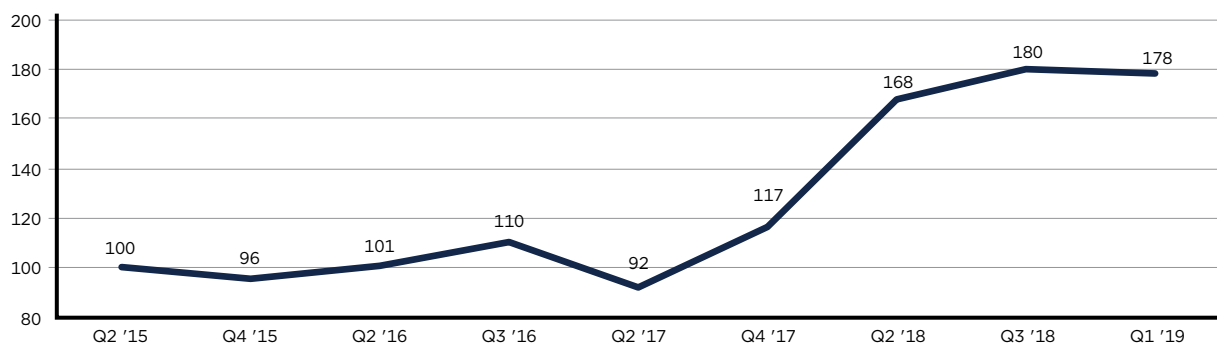
AUSTRALIA RESIDENTIAL CRANE INDEX

BASE = Q2 2015 = 100



AUSTRALIA NON-RESIDENTIAL CRANE INDEX

BASE = Q2 2015 = 100



ADELAIDE

Adelaide's RLB Crane Index® has increased for the second consecutive edition, equalling its Q4 2017 peak of 283.

Mirroring this increase, South Australian construction work done increased 12%, in chain volume terms, for CY 2018, reaching a ten year high. Increases were recorded in all sectors, with non-residential building work up 22%, engineering work up 10% and residential building work up 9.5%. South Australia's apartment sector drove the residential rise, up 27% for CY 2018.

While the residential sector continues to dominate, accounting for 71% of all cranes in Adelaide, the rise in cranes was driven by the non-residential sector.

Work commenced on the Her Majesties Theatre redevelopment, with one civic crane now on site.

The hotel count increased to one, with a crane now at the Sofitel Luminesque Hotel on Currie Street.

Three new residential cranes were erected for Ei8ht, East Terrace Apartments and 354 Bowden, while two were removed from the West Franklin development and one from Parkview, leaving the residential count at 12.

Work continued at the GPO Exchange and the \$330 million SkyCity Casino redevelopment, leaving the commercial and mixed use counts unchanged at one and two respectively.

The health crane at the new Calvary Adelaide Hospital was removed.

KEY SECTORS

CIVIC	
COMMERCIAL	
HEALTH	
HOTEL	
MIXED USE	
RESIDENTIAL	

OVERALL STATUS

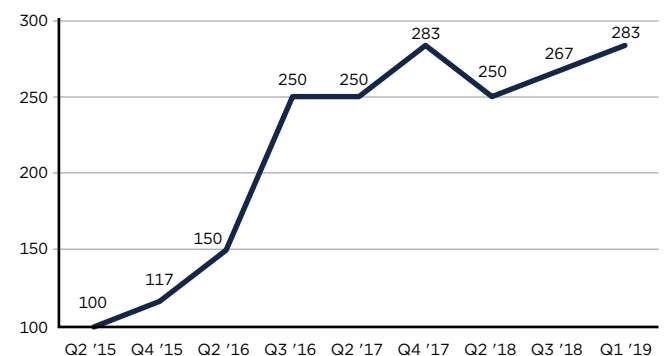


LEGEND

	INCREASE IN NUMBER OF CRANES		DECREASE IN NUMBER OF CRANES		CRANE NUMBERS STEADY
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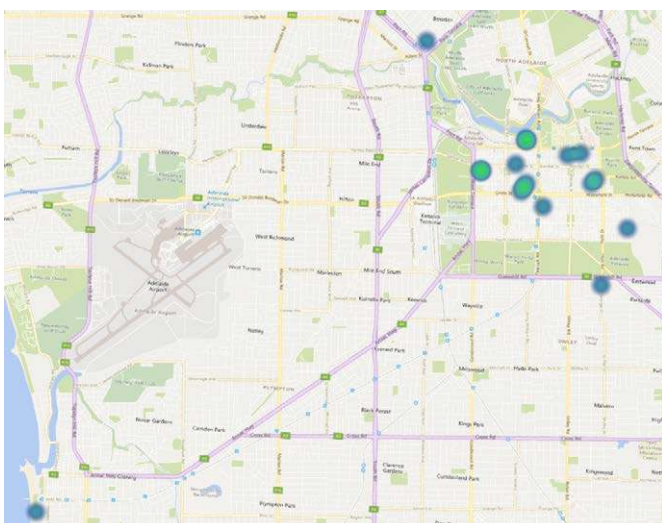
RLB CRANE INDEX® - ADELAIDE

BASE = Q2 2015 = 100



CRANE ACTIVITY - ADELAIDE

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
CIVIC	0	0.0%	1	0	1	1	5.9%
CIVIL	0	0.0%	0	0	0	0	0.0%
COMMERCIAL	1	6.3%	0	0	0	1	5.9%
EDUCATION	0	0.0%	0	0	0	0	0.0%
HEALTH	1	6.3%	0	-1	-1	0	0.0%
HOTEL	0	0.0%	1	0	1	1	5.9%
MIXED USE	2	12.5%	0	0	0	2	11.8%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	12	75.0%	3	-3	0	12	70.6%
RETAIL	0	0.0%	0	0	0	0	0.0%
TOTAL	16	100.0%	5	-4	1	17	100.0%



BRISBANE

Since the high in Q4 2015, Brisbane's RLB Crane Index® has declined to 81. Across Brisbane 30 cranes were added and 43 were removed, leaving a total of 59 cranes.

This decline is reflective of the fall in building work done for CY 2018. Queensland's building work done fell 6.2% in chain volume terms for CY 2018. The residential sector fell by 7.2%, with declines recorded for both new houses and apartments, and the non-residential sector fell by 4.2%.

The commercial and education sectors were the only sectors to have increases in cranes, with four and one respectively. Five new commercial cranes were placed on projects, while the commercial crane at the New Farm Ferry Terminal was removed. Within the education sector, one crane was erected for St Rita's College in Clayfield.

The health and civil sectors remained constant with two health cranes remaining at the Herston Quarter Redevelopment and one civil crane remaining on Ann Street.

The mixed use sector drove the decline in cranes, falling by eleven. Ten mixed use cranes were removed from projects reaching completion. Two cranes were removed from the Queens Wharf project, lowering the project count to one, and an additional crane was added to 300 George Street, increasing the project count to three.

Twenty-six residential cranes were removed from projects with 23 added, lowering the residential count to 42. Residential projects nearing completion include; Skyneedle Apartments, with all three cranes removed and two cranes removed from Student One's 97 Elizabeth Street. New projects where cranes commenced were observed in Brisbane, Bulimba, Greenslopes, Hamilton, Kangaroo Point, New Farm, Newstead, South Brisbane, Toowong, Westend, Windsor and Yeronga.

Two recreation cranes were removed from the RNA showgrounds, while one remained at the Festival Hall Replacement in Fortitude Valley, bringing the recreation count to one.

The two cranes for Bunnings in Newstead were removed, while an additional crane was erected at the Mercedes Benz Brisbane Autohaus project, lowering the overall retail count to three.

KEY SECTORS

CIVIL	
COMMERCIAL	
EDUCATION	
HEALTH	
MIXED USE	
RECREATION	
RESIDENTIAL	
RETAIL	

OVERALL STATUS

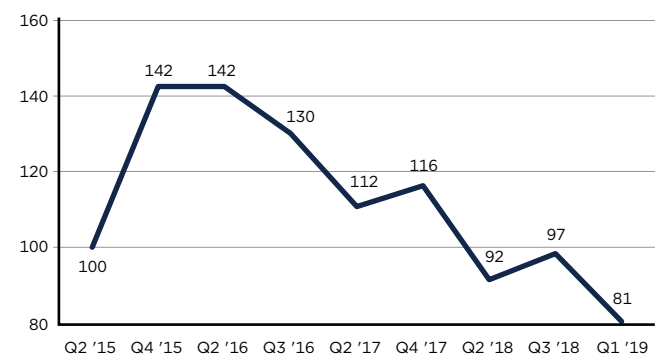


LEGEND

	INCREASE IN NUMBER OF CRANES		DECREASE IN NUMBER OF CRANES		CRANE NUMBERS STEADY
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RLB CRANE INDEX® - BRISBANE

BASE = Q2 2015 = 100



CRANE ACTIVITY - BRISBANE

	OPENING COUNT Q3 2018			MOVEMENT			CLOSING COUNT Q1 2019	
		%		+	-	NET		%
CIVIC	0	0.0%		0	0	0	0	0.0%
CIVIL	1	1.4%		0	0	0	1	1.7%
COMMERCIAL	1	1.4%		4	-1	3	4	6.8%
EDUCATION	0	0.0%		1	0	1	1	1.7%
HEALTH	2	2.8%		0	0	0	2	3.4%
HOTEL	0	0.0%		0	0	0	0	0.0%
MIXED USE	16	22.2%		1	-12	-11	5	8.5%
RECREATION	3	4.2%		0	-2	-2	1	1.7%
RESIDENTIAL	45	62.5%		23	-26	-3	42	71.2%
RETAIL	4	5.6%		1	-2	-1	3	5.1%
TOTAL	72	100.0%		30	-43	-13	59	100.0%

BRISBANE

Across Brisbane, declines in crane numbers were observed in Inner Brisbane, the west and the east. The north saw an increase of one crane and the south remained the same.

CRANE ACTIVITY - BRISBANE REGIONS

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
INNER BRISBANE	43	59.7%	17	-25	-8	35	59.3%
EAST	2	2.8%	0	-2	-2	0	0.0%
NORTH	16	22.2%	10	-9	1	17	28.8%
SOUTH	2	2.8%	2	-2	0	2	3.4%
WEST	9	12.5%	1	-5	-4	5	8.5%
TOTAL	72	100.0%	30	-43	-13	59	100.0%

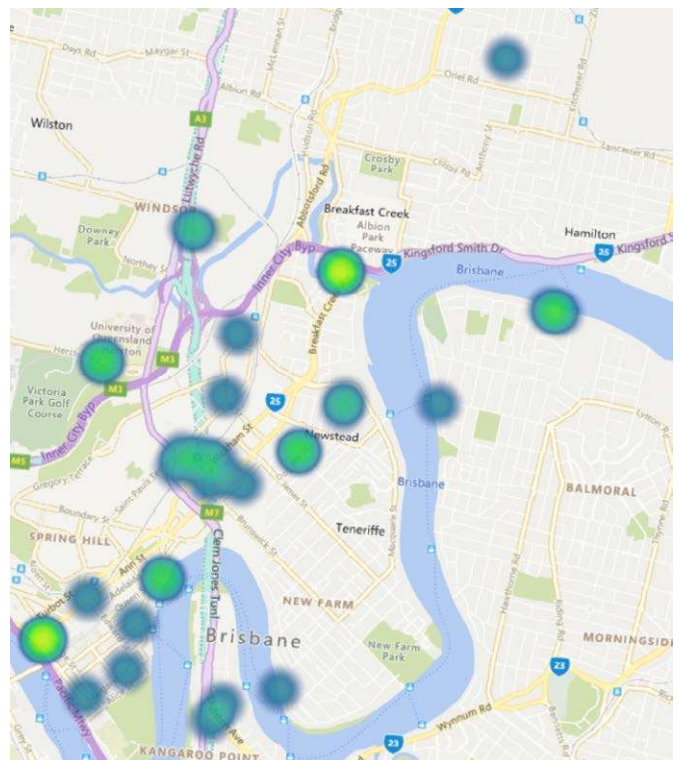
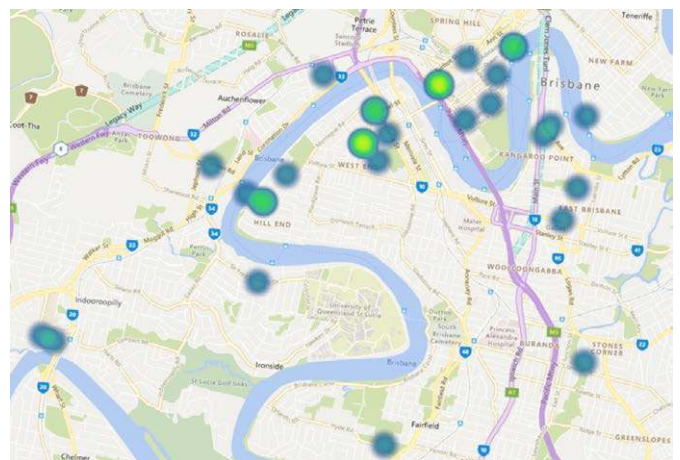
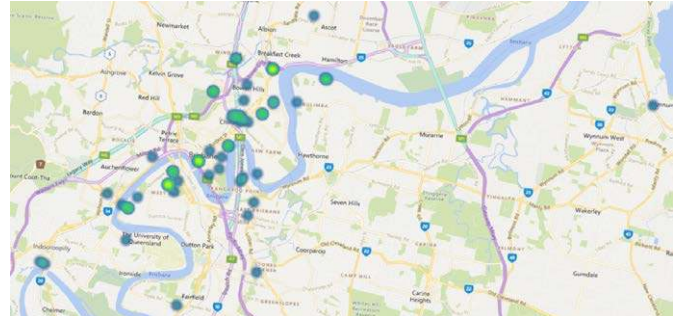
The overall decline of eight cranes in Inner Brisbane was driven by the mixed use sector, with cranes removed at Howard Smith Wharves, 949 Ann Street, Queens Wharf and South City Square. The residential and recreation sectors fell by two cranes each. The commercial sector saw four cranes erected, with one removed and the education sector saw the addition of one crane for St Rita's College in Clayfield.

Within the east, cranes were removed from the mixed use project on Lincoln Street and residential project on Logan Road in Stones Corner, lowering the count to zero.

Across the north, movements were felt within the residential, mixed use and retail sectors. The residential sector increased by four cranes. Nine were added counteracting the five cranes that were removed. The mixed use and retail sectors fell. Two mixed use cranes were removed from Portside Wharf and two retail cranes removed from Bunnings in West End, with one retail crane added to Mercedes Benz Brisbane Autohaus. Two health cranes remained on site for Herston Quarter.

The south count remained constant with two. The addition of two residential cranes at 665 Fairfield Road in Yeronga and Hanlon Park Residences in Greenslopes was offset by the removal of two residential cranes from 43 Beresford Terrace in Coorparoo and Ivie in Greenslopes.

All cranes in the west remain on residential projects. Five residential cranes were removed as projects are nearing completion while one new crane was added. Four cranes remain at 11-13 Priory Street and Vista in Indooroopilly, Icon Apartments in Milton, and White Dawn in Toowong.



CANBERRA

Canberra's RLB Crane Index® continues to strengthen, up 22% to a new peak of 560. Total cranes now number 28 with 16 cranes added and 11 cranes removed.

Construction work done in the Australian Capital Territory reflects the current strength of the industry, with CY 2018 recording the highest chain volume value in the last ten years of \$3.9 billion. Non-residential work jumped 20%, while residential work increased 8.5%. The increases in building work done offset the 8.3% fall in engineering work.

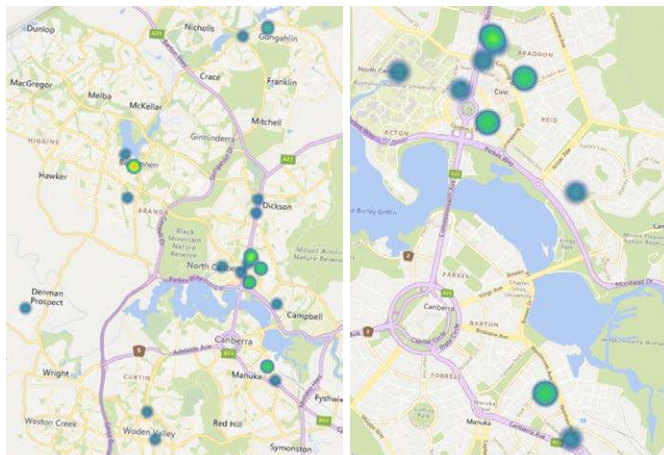
Cranes within the residential sector rose by five, to reach 24, representing 86% of all cranes in Canberra. Thirteen cranes were added and eight were removed from projects.

Four cranes were erected for High Society in Belconnen and two for Atria in Kingston. An additional crane was added to Constitution Place, increasing the project count to two. Other new residential cranes were at Polo in Denman Prospect, Cirrus in Belconnen, Tarlo in Woden, Abrazo in Griffith and Lumi and Jade in Gungahlin. Residential cranes were removed from; the ANU Student Accommodation in Acton, Campbell 5 in Campbell, Highgate in Civic, Artisan in Braddon, Goodwin Aged Care in Farrer, On Forbes in Turner, Nest in Lawson and The Valley Way in Gungahlin.

The mixed use sector increased to two, with new cranes placed at the \$160 million DKS N precinct development in Dickson and Embark on Northbourne in Lyneham. The crane at the National Capital Hospital in Garran was removed.

One commercial crane remains at Civic Quarter in Braddon.

Within the education sector, a new crane was placed at the ANU Research School of Social Sciences and two were removed from the ANU Union Court, bringing the sector total to one.



KEY SECTORS

COMMERCIAL	
EDUCATION	
MIXED USE	
RESIDENTIAL	

OVERALL STATUS

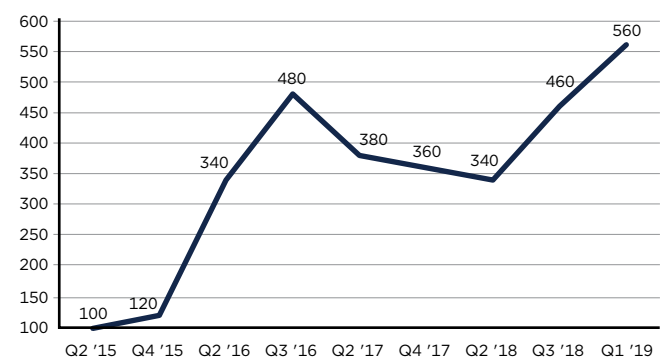


LEGEND

	INCREASE IN NUMBER OF CRANES		DECREASE IN NUMBER OF CRANES		CRANE NUMBERS STEADY
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RLB CRANE INDEX® - CANBERRA

BASE = Q2 2015 = 100



CRANE ACTIVITY - CANBERRA

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
CIVIC	0	0.0%	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
COMMERCIAL	1	4.3%	0	0	0	1	3.6%
EDUCATION	2	8.7%	1	-2	-1	1	3.6%
HEALTH	0	0.0%	0	0	0	0	0.0%
HOTEL	0	0.0%	0	0	0	0	0.0%
MIXED USE	1	4.3%	2	-1	1	2	7.1%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	19	82.6%	13	-8	5	24	85.7%
RETAIL	0	0.0%	0	0	0	0	0.0%
TOTAL	23	100.0%	16	-11	5	28	100.0%

CENTRAL COAST

Since their initial entry in the previous RLB Crane Index®, the Central Coast index has seen a drop of 22% to 72, representing a drop of five cranes. Eight cranes were removed from sites with three additions. Cranes now number 13 across the region.

The residential sector accounts for 92% of all cranes, up from 89% in the previous edition.

The residential sector fell by four cranes to 12. Seven cranes were removed from projects at Lynne Avenue, 159 Mann Street, 18 Hargraves Street, 18 Kendell Street, 14 Batley Street, 2 Wilhelmina Street, all in Gosford and 31 Anthony Crescent in Kilcare. Three new cranes were placed at 70 Hills Street in Gosford, 14-18 Cape Three Points Road in Avoca and at 36-38 Campbell Crescent in Terrigal.

Two residential cranes remained at 154 Terrigal Drive in Terrigal, with single cranes remaining on projects in Gosford at Faunce Street, 8 Kendell Street, Donnison Street West, George Street, 10 Fielders Lanes, Beane Street and 5 Ormond Street.

One health crane remained in Gosford on Railway Parade, while the commercial crane at Mann Street in Gosford was removed.

KEY SECTORS

COMMERCIAL	
HEALTH	
RESIDENTIAL	

OVERALL STATUS

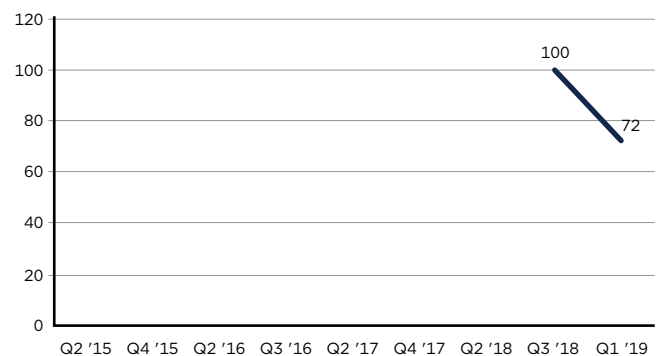


LEGEND

	INCREASE IN NUMBER OF CRANES		DECREASE IN NUMBER OF CRANES		CRANE NUMBERS STEADY
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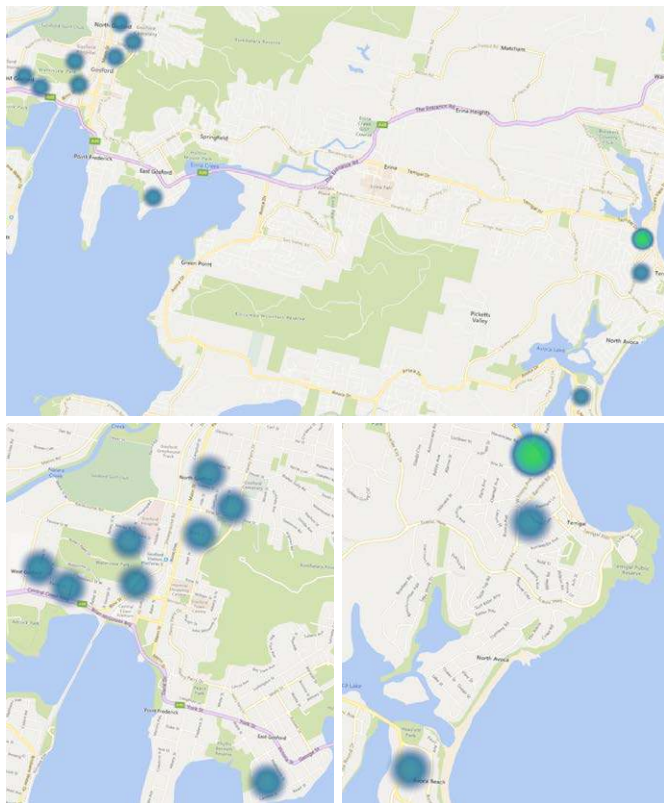
RLB CRANE INDEX® - CENTRAL COAST

BASE = Q2 2015 = 100



CRANE ACTIVITY - CENTRAL COAST

	OPENING COUNT			MOVEMENT			CLOSING COUNT	
	Q3 2018	%		+	-	NET	Q1 2019	%
CIVIC	0	0.0%		0	0	0	0	0.0%
CIVIL	0	0.0%		0	0	0	0	0.0%
COMMERCIAL	1	5.6%		0	-1	-1	0	0.0%
EDUCATION	0	0.0%		0	0	0	0	0.0%
HEALTH	1	5.6%		0	0	0	1	7.7%
HOTEL	0	0.0%		0	0	0	0	0.0%
MIXED USE	0	0.0%		0	0	0	0	0.0%
RECREATION	0	0.0%		0	0	0	0	0.0%
RESIDENTIAL	16	88.9%		3	-7	-4	12	92.3%
RETAIL	0	0.0%		0	0	0	0	0.0%
TOTAL	18	100.0%		3	-8	-5	13	100.0%



DARWIN

For the fifth consecutive edition, there are no cranes installed on developments in Darwin's CBD and environs.

Building work done in the Northern Territory reflects similar sentiment to the crane index. Total building work done fell 1.2% in chain volume terms for CY 2018. While the residential building sector rose 2.0% this was offset by a 3.3% fall in non-residential building work done.

OVERALL STATUS



LEGEND



INCREASE
IN NUMBER
OF CRANES



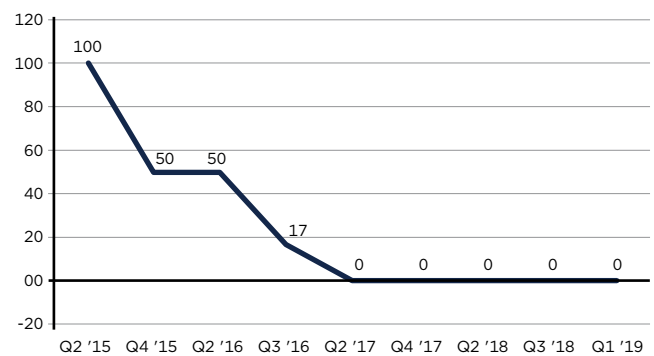
DECREASE
IN NUMBER
OF CRANES



CRANE
NUMBERS
STEADY

RLB CRANE INDEX® - DARWIN

BASE = Q2 2015 = 100



CRANE ACTIVITY - DARWIN

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
CIVIC	0	0.0%	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
COMMERCIAL	0	0.0%	0	0	0	0	0.0%
EDUCATION	0	0.0%	0	0	0	0	0.0%
HEALTH	0	0.0%	0	0	0	0	0.0%
HOTEL	0	0.0%	0	0	0	0	0.0%
MIXED USE	0	0.0%	0	0	0	0	0.0%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	0	0.0%	0	0	0	0	0.0%
RETAIL	0	0.0%	0	0	0	0	0.0%
TOTAL	0	0.0%	0	0	0	0	0.0%

GOLD COAST

The Gold Coast RLB Crane Index® continued its upward trajectory, recording a 33% increase to 213. Eighteen cranes were added and ten were removed bringing the coast's total to 32.

The residential sector accounts for 94% of all Gold Coast cranes, falling slightly from the previous edition.

The residential sector saw 17 new cranes placed on sites and ten removed, bringing the sector count to 30.

New residential cranes were added to Bluewater in Bilinga, Vue Apartments and Elysian in Broadbeach, Zinc in Coolangatta, 372 Marine Parade in Labrador, Ocean in Mermaid, 17 Jefferson Lane, Canopy, Pacific, Magnoli, Periscope, Sea Palm Beach, 80-106 Jefferson Lane, ACQUA and Aleia in Palm Beach, 23 Railway Street in Southport and Evelve in Tweed Heads.

Residential cranes were removed from Qube in Broadbeach, John Francis Drive in Carrara, Iconic in Kirra, Waterpoint Stage 4 in Labrador, Neo in Mermaid, Miami Apartments in Miami, ONE in Palm Beach and Ruby Stage 1 in Surfers Paradise.

Work continued at the Jewel Residences, with two cranes removed from the project, lowering the count to two. Other projects with continuing cranes were Anchorage Apartments in Hope Island, Otto in Mermaid, The Jefferson in Palm Beach, South Lakes Stage 3 in Reedy Creek, 23 Norman Street and 6 Meron Street in Southport, One16, Northcliffe Residences, La Riviere on Cannes and Peninsular Residences in Surfers Paradise and Bay Grand Apartments in Tweed Heads.

One health crane commenced at the Gold Coast North Medical hub in Helensvale.

The mixed use sector was unchanged with one crane remaining at the Japara Care Home in Robina.

KEY SECTORS

HEALTH	↑
MIXED USE	↑
RESIDENTIAL	↑

OVERALL STATUS

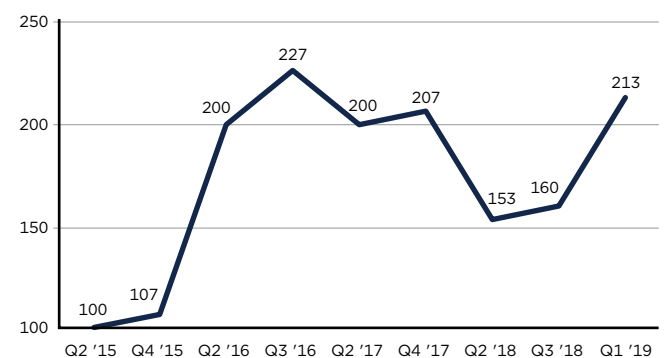


LEGEND

↑	INCREASE IN NUMBER OF CRANES	↓	DECREASE IN NUMBER OF CRANES	↔	CRANE NUMBERS STEADY
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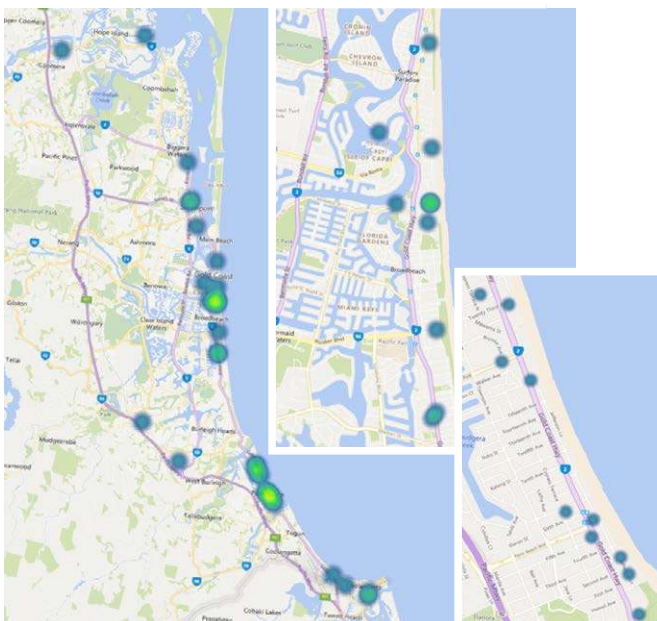
RLB CRANE INDEX® - GOLD COAST

BASE = Q2 2015 = 100



CRANE ACTIVITY - GOLD COAST

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
CIVIC	0	0.0%	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
COMMERCIAL	0	0.0%	0	0	0	0	0.0%
EDUCATION	0	0.0%	0	0	0	0	0.0%
HEALTH	0	0.0%	1	0	1	1	3.1%
HOTEL	0	0.0%	0	0	0	0	0.0%
MIXED USE	1	4.2%	0	0	0	1	3.1%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	23	95.8%	17	-10	7	30	93.8%
RETAIL	0	0.0%	0	0	0	0	0.0%
TOTAL	24	100.0%	18	-10	8	32	100.0%



HOBART

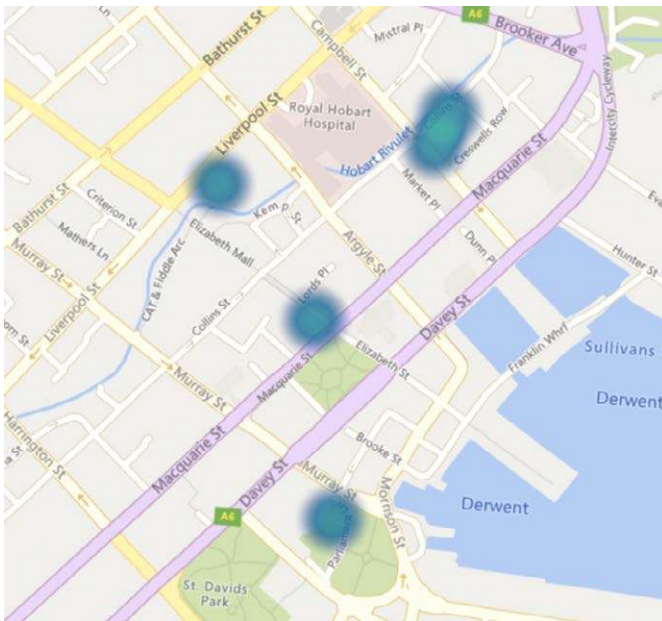
Hobart's RLB Crane Index® rebounded back to 125 for this edition. Two new cranes were observed with one removal, bringing the crane total across Hobart to five.

Tasmania's construction work done increased 10% in chain volume terms for CY 2018. Residential work rose 23%, with new houses increasing 30% and apartments increasing 1.5%. The non-residential sector increased by 6.6%.

One crane was removed from the Hobart Hospital, with one crane remaining on site, lowering the health count to one.

The mixed use and civic sector counts were unchanged, with one mixed use crane remaining at Parliament Square and one civic crane remaining at the Hobart Academy of Performing Arts.

Two new hotel cranes were installed for the Vibe Hotel and Hyatt developments.



KEY SECTORS

CIVIC	
HEALTH	
HOTEL	
MIXED USE	

OVERALL STATUS

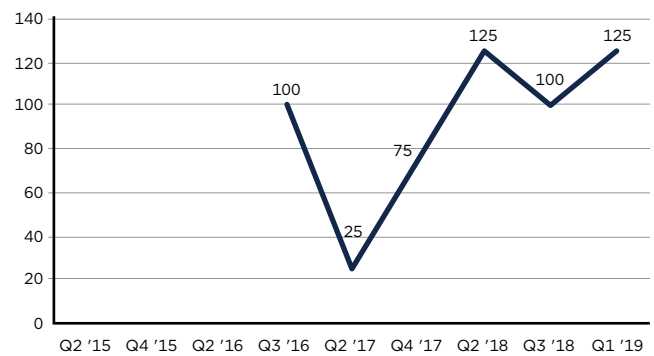


LEGEND

	INCREASE IN NUMBER OF CRANES		DECREASE IN NUMBER OF CRANES		CRANE NUMBERS STEADY
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RLB CRANE INDEX® - HOBART

BASE = Q3 2016 = 100



CRANE ACTIVITY - HOBART

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
CIVIC	1	25.0%	0	0	0	1	20.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
COMMERCIAL	0	0.0%	0	0	0	0	0.0%
EDUCATION	0	0.0%	0	0	0	0	0.0%
HEALTH	2	50.0%	0	-1	-1	1	20.0%
HOTEL	0	0.0%	2	0	2	2	40.0%
MIXED USE	1	25.0%	0	0	0	1	20.0%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	0	0.0%	0	0	0	0	0.0%
RETAIL	0	0.0%	0	0	0	0	0.0%
TOTAL	4	100.0%	2	-1	1	5	100.0%

MELBOURNE

Melbourne's RLB Crane Index® jumped 16% to a record high of 191. Across Melbourne 105 cranes were added to projects and 75 were removed, increasing crane numbers to a record 222.

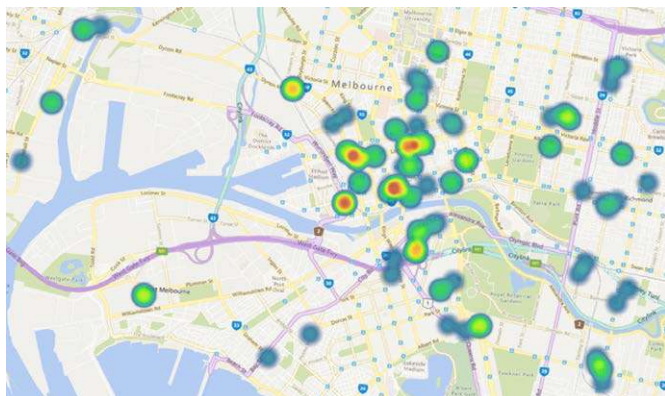
Solidifying the current strength of Victoria's construction industry, construction work done rose 15% in chain volume terms for CY 2018, with increases recorded for all sectors. Engineering work done jumped 30% as activity ramps up on a number of key infrastructure projects. The residential and non-residential building sectors increased 9.1% and 9.5% respectively.

The surge in crane numbers was driven by the addition of new cranes to existing projects. Nineteen additional cranes were added to existing projects, 12 for residential projects, four for commercial, two for civil and one for health.

The residential sector continues to dominate the Melbourne skyline with 148 cranes across 69 suburbs. Additional cranes were added to continuing projects at 380 Melbourne in the CBD, St Boulevard in St Kilda, 1060 in Dandenong, PM Port Melbourne, East Brunswick Village, Northumberland in Collingwood, Pace of Carnegie, and Flinders Gate and Queens Place in the CBD.

Eight cranes were added and two were removed from the mixed use sector, increasing the sector count to 18. Four additional cranes were added to M-City in Clayton, increasing the project count to six, two new cranes commenced at Melbourne Connect in Carlton and one crane was erected at both the Altona Refinery and Cato Square in Prahran. Four cranes remained for Collins Arch and West Side Place.

The civic sector saw the addition of one crane at Sacred Heart Community Centre in St Kilda, with cranes remaining on site at Parliament House and GPAC in Geelong.



KEY SECTORS

CIVIC	
CIVIL	
COMMERCIAL	
EDUCATION	
HEALTH	
HOTEL	
MIXED USE	
RESIDENTIAL	
RETAIL	

OVERALL STATUS

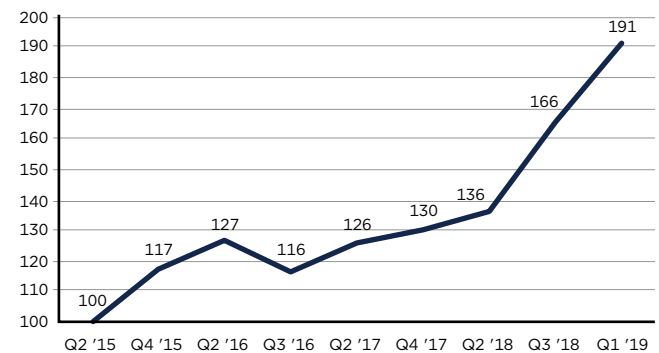


LEGEND

	INCREASE IN NUMBER OF CRANES		DECREASE IN NUMBER OF CRANES		CRANE NUMBERS STEADY
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RLB CRANE INDEX® - MELBOURNE

BASE = Q2 2015 = 100



CRANE ACTIVITY - MELBOURNE

	OPENING COUNT Q3 2018		MOVEMENT			CLOSING COUNT Q1 2019	
		%	+	-	NET		%
CIVIC	2	1.0%	1	0	1	3	1.4%
CIVIL	13	6.8%	4	-6	-2	11	5.0%
COMMERCIAL	23	12.0%	10	-6	4	27	12.2%
EDUCATION	2	1.0%	2	-1	1	3	1.4%
HEALTH	9	4.7%	1	-7	-6	3	1.4%
HOTEL	5	2.6%	2	-3	-1	4	1.8%
MIXED USE	12	6.3%	8	-2	6	18	8.1%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	124	64.6%	74	-50	24	148	66.7%
RETAIL	2	1.0%	3	0	3	5	2.3%
TOTAL	192	100.0%	105	-75	30	222	100.0%

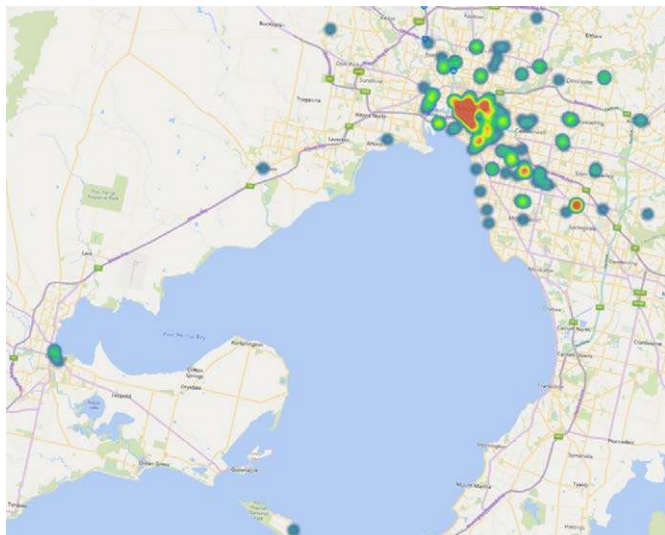
MELBOURNE

There was a decline of two cranes overall within the civil sector, with 11 cranes being observed. With ongoing enabling works underway for both the Metro Tunnel and Western Distributor projects, long term crawler cranes are being used to assist in the construction of the Tunnel Boring Machine launch and retrieval sites, together with associated infrastructure and in ground services diversions. Two cranes were removed from the Metro Tunnel work site in West Melbourne. Four civil cranes were added to the Metro Tunnel work sites on St Kilda Road and Victoria Street in the CBD. Three cranes were removed from the Western Distributor project, lowering the project count to two.

The commercial sector increased by four cranes. Melbourne Square, 80 Collins Street and 405 Bourke Street all saw additional cranes installed, increasing their project counts to four, three and two respectively.

Two education cranes were erected for the Deakin Law School building, while one crane was removed at Prahran High School, increasing the education count to three.

Significant crane removals were seen in the health sector in this edition. Cranes were removed from the Joan Kirner Hospital (three), Ryman's Nellie Melba's retirement village in Wheelers Hill (three) and Melbourne Clinic's extension in Richmond (one). An additional crane was added to the continuing Epworth Freemasons redevelopment in East Melbourne and a crane remained at the Cabrini Hospital in Malvern. The loss of six cranes for the sector indicates that key social assets will be operational in the near future.



CRANE ACTIVITY - MELBOURNE REGIONS

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
INNER MELBOURNE	111	57.8%	51	-39	12	123	55.4%
EAST	17	8.9%	9	-8	1	18	8.1%
GEELONG	4	2.1%	1	-1	0	4	1.8%
NORTH	12	6.3%	17	-7	10	22	9.9%
SOUTHEAST	33	17.2%	25	-13	12	45	20.3%
WEST	15	7.8%	2	-7	-5	10	4.5%
TOTAL	192	100.0%	105	-75	30	222	100.0%

Since the last edition we have re-categorised Melbourne's suburbs to be consistent with the ABS's Statistical Area Level 4 classification. Prior period results have been adjusted to the new groupings.

Crane increases were seen within Inner Melbourne (12), southeast (12), north (10) and east (1). Geelong remained constant with four cranes while the west saw a decrease of five cranes.

The rise in cranes within Inner Melbourne was driven by increases in the residential and commercial sectors of five and four cranes respectively. The hotel sector recorded a fall of one, lowering the count to two.

In the east, crane numbers rose by one to 18. Fifteen cranes remained in the residential sector, with seven added and seven removed. Two new cranes were added within the education sector, while one was removed from the hotel sector, resulting in an overall increase of one crane for the east.

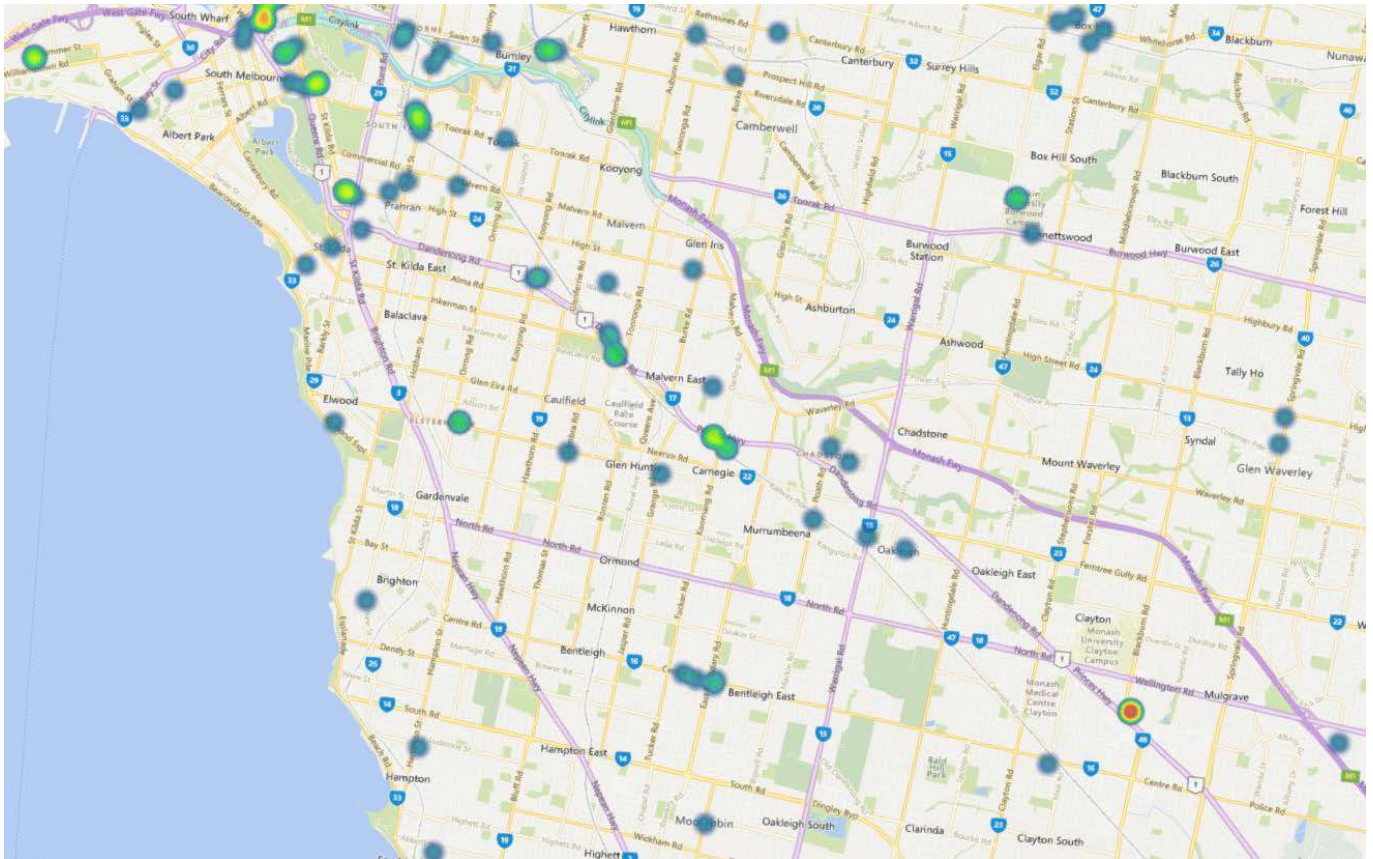
The number of cranes in the north has almost doubled to 22. Seven cranes were removed with 17 added. Residential projects pushed the rise with an increase of nine cranes. Two new retail cranes were placed for Pentridge, Coburg's retail hub, while one mixed use crane was removed from Parkside Apartments in Essendon North.

Twelve cranes were added to the southeast bringing the total to 45. Large crane increases were seen in the residential and mixed use sectors with nine and five respectively. Strong residential growth can be seen along the Dandenong rail corridor with significant residential developments in Carnegie, Murrumbeena and Oakleigh.

MELBOURNE

In the west, crane numbers declined 33%, to ten. The civil and health counts both fell, with three civil cranes removed from the West Gate Tunnel project and three health cranes removed from the Joan Kirner Hospital project. The residential sector was unchanged with six cranes, while one new mixed use crane was erected.

Geelong saw the removal of one commercial crane at NDIA HQ and one residential crane added for The Mercer, leaving the region count at four.



NEWCASTLE

Newcastle's RLB Crane Index® fell 50% from its Q3 2018 peak, to 75. Nine cranes were removed from projects with three additions, bringing the count to six.

Falls in crane numbers were recorded for the residential (three), retail (two) and commercial (one) sectors, while the health sector remained constant with one crane.

There are now five residential cranes across Newcastle, down from eight in our last edition.

Removals were seen at the Herald, Parque, Westend and Centrale Apartments projects together with the Cascades Senior Living development. Two cranes remained at Verve Apartments and one at Highpoint Apartments on Charles Street. New residential cranes were placed at Lume Apartments and Waters Edge Apartments.

The retail sector saw the two cranes at Westfield Kotara removed. Similarly, the commercial crane at 783 Stewart Avenue was removed.

One health crane was removed from the RSL Lifecare Residential Aged Care project and one new crane was erected for Long Tan Village, leaving the health count constant at one.

KEY SECTORS

COMMERCIAL	
HEALTH	
RESIDENTIAL	
RETAIL	

OVERALL STATUS

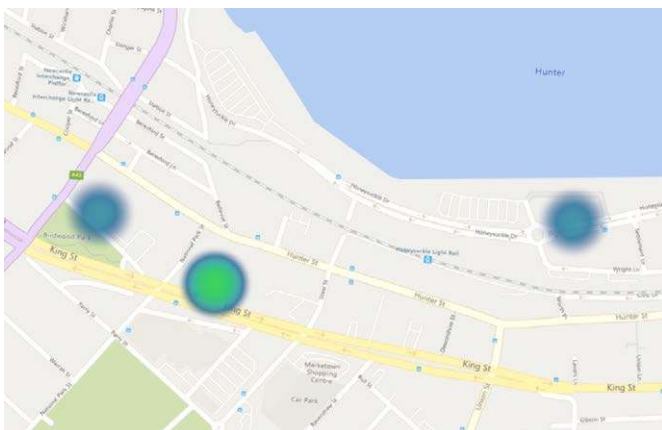
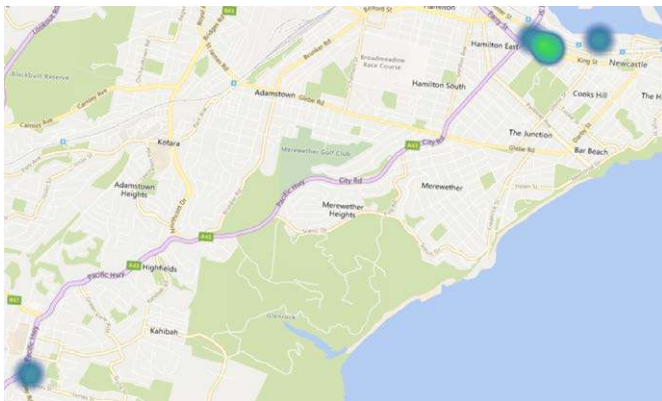
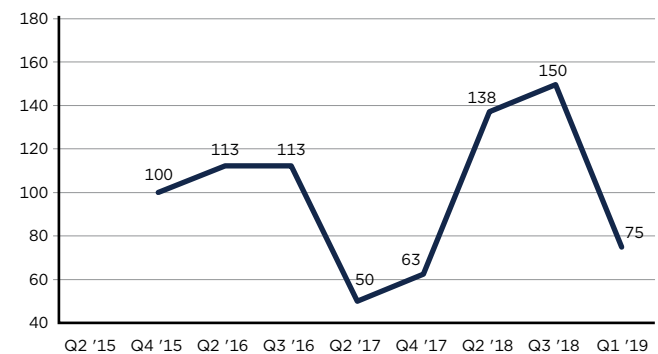


LEGEND



RLB CRANE INDEX® - NEWCASTLE

BASE = Q4 2015 = 100



CRANE ACTIVITY - NEWCASTLE

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
CIVIC	0	0.0%	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
COMMERCIAL	1	8.3%	0	-1	-1	0	0.0%
EDUCATION	0	0.0%	0	0	0	0	0.0%
HEALTH	1	8.3%	1	-1	0	1	16.7%
HOTEL	0	0.0%	0	0	0	0	0.0%
MIXED USE	0	0.0%	0	0	0	0	0.0%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	8	66.7%	2	-5	-3	5	83.3%
RETAIL	2	16.7%	0	-2	-2	0	0.0%
TOTAL	12	100.0%	3	-9	-6	6	100.0%

PERTH

After increasing for the last three editions, Perth's RLB Crane Index® fell 11%, to 77. Seventeen cranes were added and 21 cranes were removed lowering the number of cranes across Perth to 33.

Building work done mirrors the current drop in crane numbers with Western Australia's activity for CY 2018 falling 7.4% in chain volume terms. Both residential and non-residential work done fell, with 2.1% and 14.4% respectively.

Residential cranes drove the overall decline, falling from 26 to 18. While remaining the most dominant sector, residential cranes fell from 70% of all cranes to 55% in this edition.

KEY SECTORS

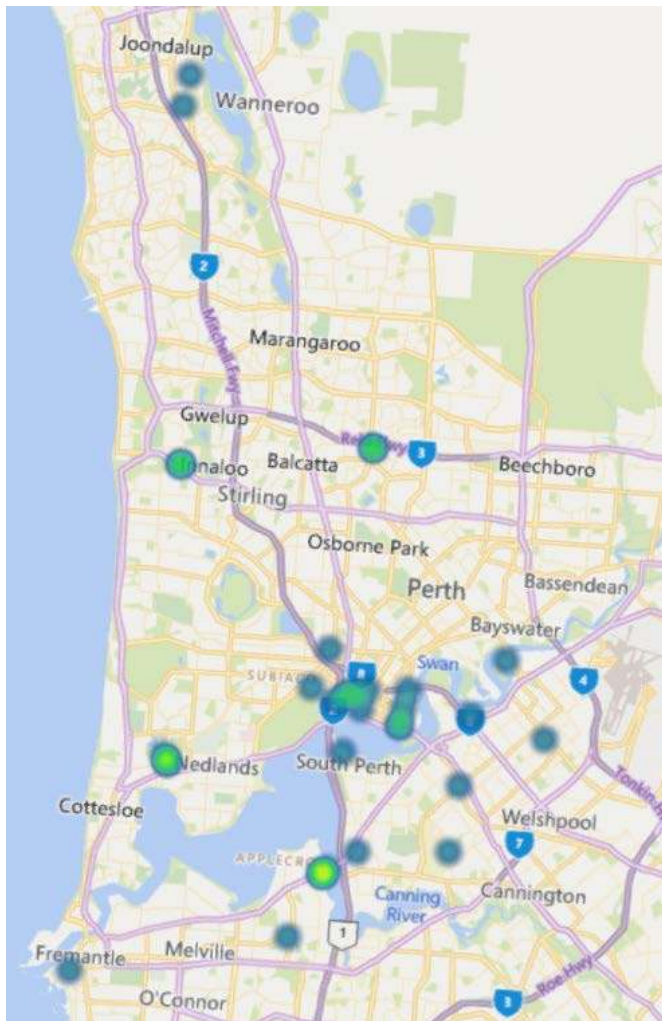
CIVIC	
EDUCATION	
HOTEL	
MIXED USE	
RESIDENTIAL	
RETAIL	

OVERALL STATUS



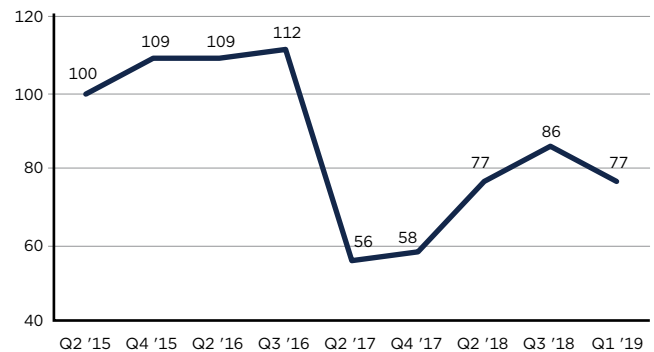
LEGEND

	INCREASE IN NUMBER OF CRANES		DECREASE IN NUMBER OF CRANES		CRANE NUMBERS STEADY
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RLB CRANE INDEX® - PERTH

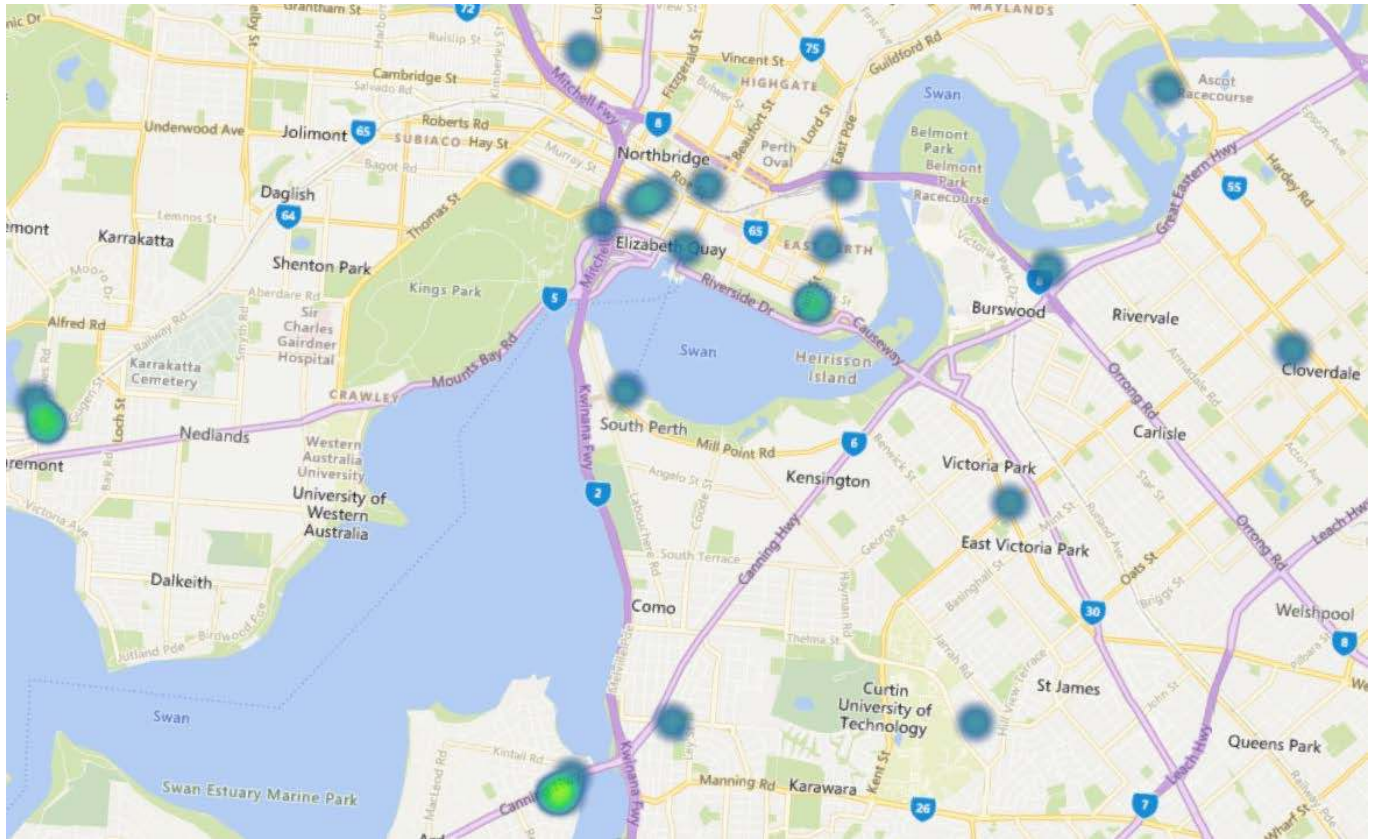
BASE = Q2 2015 = 100



CRANE ACTIVITY - PERTH

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
CIVIC	1	2.7%	1	0	1	2	6.1%
CIVIL	0	0.0%	0	0	0	0	0.0%
COMMERCIAL	0	0.0%	0	0	0	0	0.0%
EDUCATION	0	0.0%	1	0	1	1	3.0%
HEALTH	0	0.0%	0	0	0	0	0.0%
HOTEL	4	10.8%	1	-1	0	4	12.1%
MIXED USE	4	10.8%	5	-4	1	5	15.2%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	26	70.3%	7	-15	-8	18	54.5%
RETAIL	2	5.4%	2	-1	1	3	9.1%
TOTAL	37	100.0%	17	-21	-4	33	100.0%

PERTH



Fifteen residential cranes were removed from sites. Two cranes were removed from the Botanical in Subiaco and Riseley Street in Booragoon, while single cranes were removed from The Crest in Burswood, Oracle in East Perth, Verdant and 89 Stirling Street in Perth, Azure in Rockingham, Australis in Rossmoyne, Sundance and Horizon in Scarborough and Reva in South Perth.

New residential cranes include; Essence in Claremont with two cranes and Sabina in Applecross, Henley on Park in Como, Skypark in Leederville, Camilla Residences in Perth and The Residences Tribeca North in Rivervale, with one crane each.

Two residential cranes were removed from NV Apartments, lowering the project count to one. Existing residential projects with cranes remaining on site include Claremont on the Park, Vue Tower, 9Tully and Skye One Seven in East Perth, Precinct on Canning and Cirque in Mount Pleasant, Echelon in South Perth, Victoria Quarter in Victoria Park and 15 Ventnor Avenue in West Perth.

A new civic crane was placed at Faulkner, while one crane remained at the Museum in Northbridge, raising the sector count to two.

One new education crane was added at the Edith Cowan University.

The hotel sector remained constant with four cranes. One crane was removed from the Quest Apartments in South Perth and one was added to the Quest Apartments in Joondalup. Cranes remained on site at the Double Tree Hilton and Mantra Hotel in Perth and Ibis Styles Hotel in East Perth.

Within the mixed use sector, all cranes at Elizabeth Quay towers were removed and five new cranes were erected for MyVista in Mirrabooka (two), the Caversham mixed use development, SwanCare's Ningana Aged Care facility and CraigCare (one each).

One retail crane was removed from Kings Square in Fremantle, with one crane remaining. Two new retail cranes were erected for Karrinyup Shopping Centre, bringing the retail total to three.

SUNSHINE COAST

After rising in the last edition, the Sunshine Coast RLB Crane Index® fell back to 100. Three cranes were erected with nine removed, reducing the count to ten.

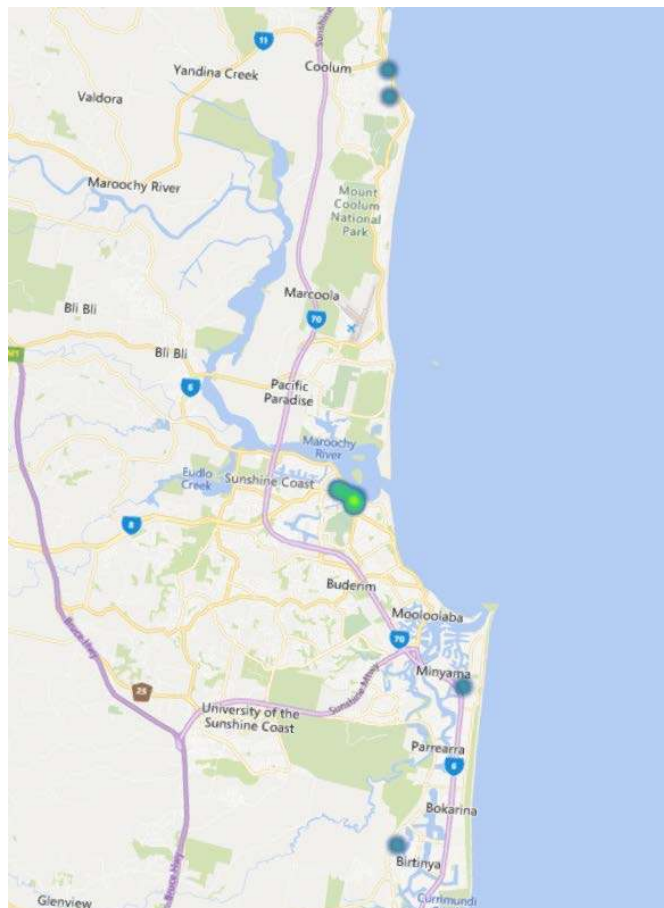
Cranes previously on the Sunshine Plaza in Maroochydore, Kawana Shopping World and the Sports Hub in Birtinya were all removed, leaving only residential cranes within the region.

The residential sector saw the addition of three cranes, with five removed.

New cranes were erected for The Rhythm and The Ivy in Maroochydore and Revive in Birtinya.

Cranes were removed from 116 Alex in Alexandra Headland, Solis in Kings Beach, Pinnacle in Maroochydore, Allure in Mooloolaba and McAnally Dr in Sunshine Beach.

Two cranes remained at the Cosmopolitan in Cotton Tree and single cranes remain on site for Land Court and Drift in Coolum, The Avenue and Alpha / New Haven in Maroochydore and The Hedge in Kawana.



KEY SECTORS

MIXED USE	
RESIDENTIAL	
RETAIL	

OVERALL STATUS

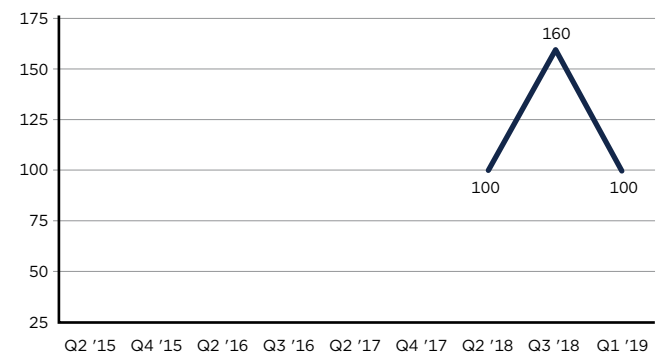


LEGEND

	INCREASE IN NUMBER OF CRANES		DECREASE IN NUMBER OF CRANES		CRANE NUMBERS STEADY
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RLB CRANE INDEX® - SUNSHINE COAST

BASE = Q2 2018 = 100



CRANE ACTIVITY - SUNSHINE COAST

	OPENING COUNT Q3 2018			MOVEMENT			CLOSING COUNT Q1 2019	
		%		+	-	NET		%
CIVIC	0	0.0%	0	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0	0.0%
COMMERCIAL	0	0.0%	0	0	0	0	0	0.0%
EDUCATION	0	0.0%	0	0	0	0	0	0.0%
HEALTH	0	0.0%	0	0	0	0	0	0.0%
HOTEL	0	0.0%	0	0	0	0	0	0.0%
MIXED USE	1	6.3%	0	-1	-1	0	0	0.0%
RECREATION	0	0.0%	0	0	0	0	0	0.0%
RESIDENTIAL	12	75.0%	3	-5	-2	10	100.0%	100.0%
RETAIL	3	18.8%	0	-3	-3	0	0	0.0%
TOTAL	16	100.0%	3	-9	-6	10	100.0%	100.0%

SYDNEY

The Sydney RLB Crane Index® recorded its third consecutive fall, albeit small. The index fell by 3% to 191, down 11% from the high of 216 in Q4 2017.

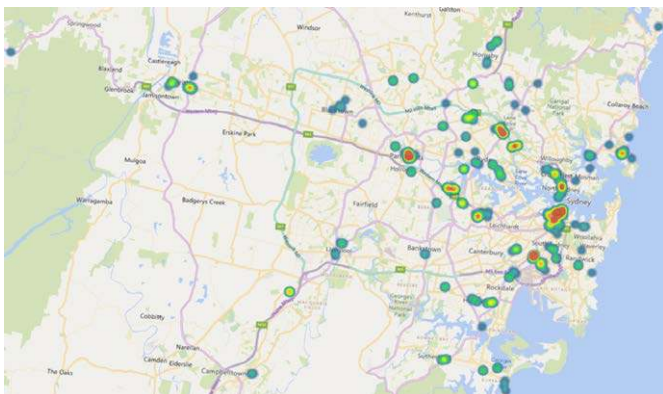
Crane numbers in Sydney declined by eleven cranes, lowering the count to 310 from 321 previously. 175 cranes were added and 186 removed.

Despite the slight fall in cranes, New South Wales' construction work done continued to grow, up 9.0% in chain volume terms for CY 2018. Engineering work rose 12%, while residential and non-residential work increased 6.3% and 8.9% respectively.

Across Sydney, 40% of sectors had increases in cranes, 40% had decreases and 20% were unchanged. The civil sector had the largest increase with five, followed by the education sector with three, the commercial sector with two and the hotel sector with one crane. Offsetting these increases, the residential sector fell by fourteen cranes, the mixed use sector by four and the health and recreation sectors by two each.

Fifteen new commercial cranes were erected across Sydney with 13 removed. Work has commenced at Macquarie Park Stage 1 with two cranes. Within Barangaroo one crane was removed, lowering the project count to four, while additional cranes were added to NextDC in Macquarie Park, 1 Denison Street in North Sydney and Circular Quay Tower, all increasing their respective project counts to two. Three cranes were removed from Airtrunk's data centre site in Huntingwood and two from 100 Mount Street in North Sydney.

Twelve new civil cranes were added in St Peters for the Westconnex project and two in North Sydney for the Sydney Metro, with ten removed from projects in Ashfield, Balmoral, Bella Vista, Hornsby, Kingsgrove, North Sydney and Pendle Hill.



KEY SECTORS

CIVIL	↑
COMMERCIAL	↑
EDUCATION	↑
HEALTH	↑
HOTEL	↑
MIXED USE	↑
RECREATION	↑
RESIDENTIAL	↑
RETAIL	↓

OVERALL STATUS

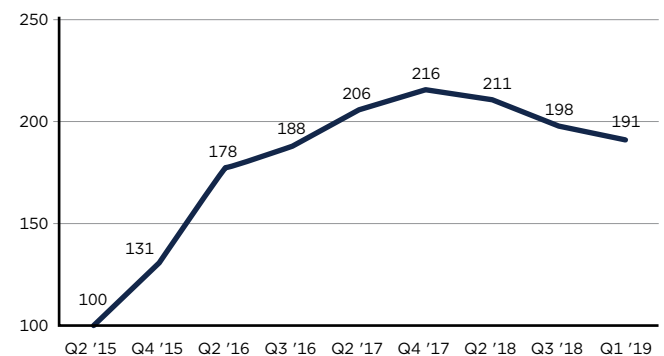


LEGEND

↑	INCREASE IN NUMBER OF CRANES	↓	DECREASE IN NUMBER OF CRANES	↔	CRANE NUMBERS STEADY
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RLB CRANE INDEX® - SYDNEY

BASE = Q2 2015 = 100



CRANE ACTIVITY - SYDNEY

	OPENING COUNT Q3 2018		MOVEMENT			CLOSING COUNT Q1 2019	
		%	+	-	NET		%
CIVIC	0	0.0%	0	0	0	0	0.0%
CIVIL	12	3.7%	15	-10	5	17	5.5%
COMMERCIAL	32	10.0%	15	-13	2	34	11.0%
EDUCATION	8	2.5%	6	-3	3	11	3.5%
HEALTH	7	2.2%	4	-6	-2	5	1.6%
HOTEL	5	1.6%	6	-5	1	6	1.9%
MIXED USE	7	2.2%	1	-5	-4	3	1.0%
RECREATION	3	0.9%	0	-2	-2	1	0.3%
RESIDENTIAL	243	75.7%	127	-141	-14	229	73.9%
RETAIL	4	1.2%	1	-1	0	4	1.3%
TOTAL	321	100.0%	175	-186	-11	310	100.0%

In the education sector, two new cranes were erected at the Arthur Phillip High School, offsetting the two cranes removed from the UNSW. New cranes were also added to Inner Sydney High School, Shore College, Arden School and OTEN Maritime Studies, while one crane was removed from the University of Technology Building 2 project.

Residential cranes in Sydney now account for 44% of residential cranes nationally and 74% of all cranes in Sydney. With 127 additions and 141 removals, 229 residential cranes were counted in 113 suburbs across Sydney.

Within the health sector, cranes were erected at Royal North Shore, Somerset Street Private Hospital in Kingswood and the Royce aged care in Penrith. Six cranes were removed from Westmead Hospital (three) and Hornsby, Blacktown and Sydney Adventist hospitals (one each). An additional crane was added to the Nepean Hospital, increasing the project count to two.

SYDNEY

Since the last edition we have re-categorised Sydney's suburbs to be consistent with the ABS's Statistical Area Level 4 classification. Prior period results have been adjusted to the new groupings.

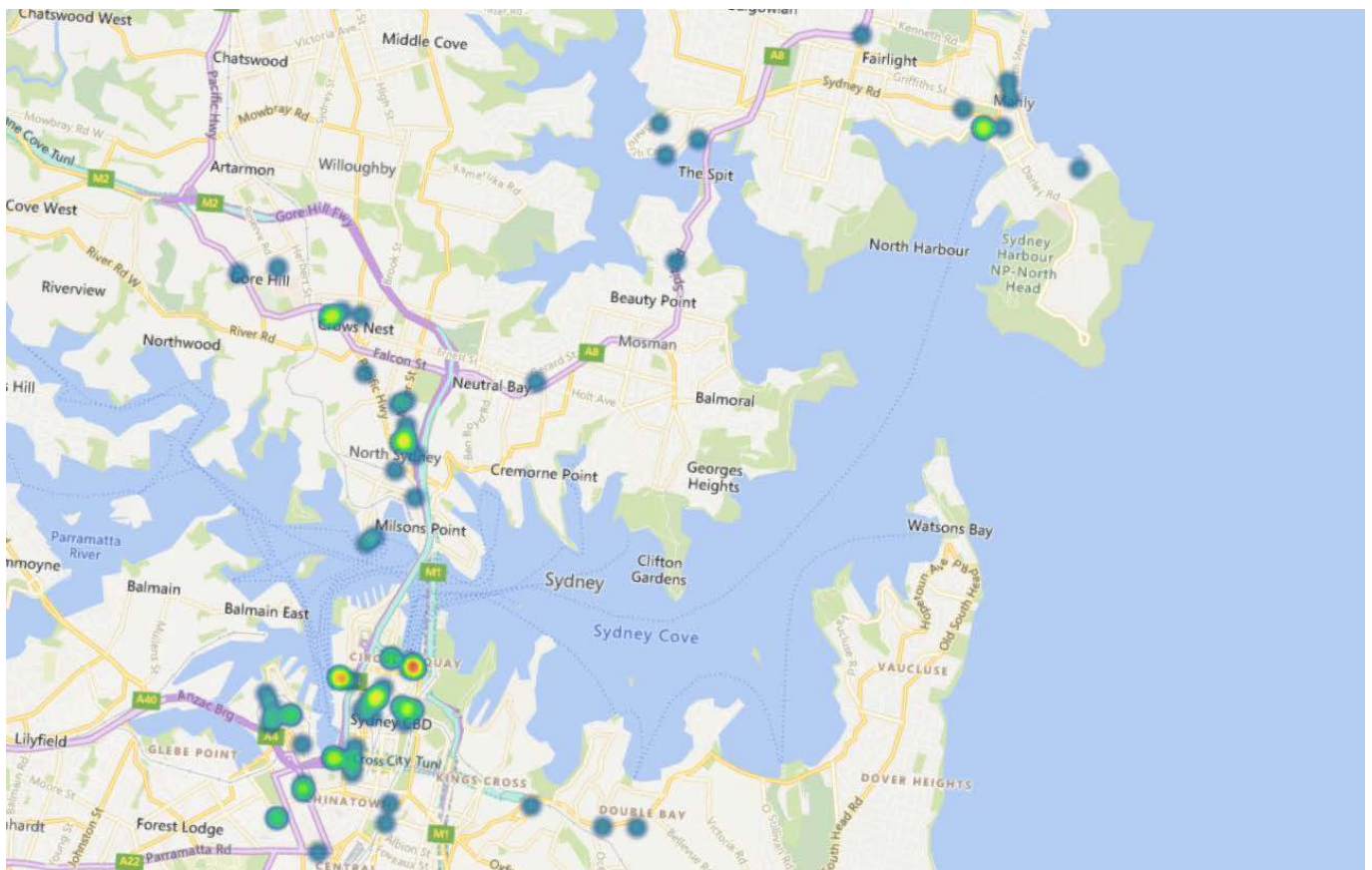
Crane numbers in Inner Sydney saw 69 cranes added and 41 removed bringing the total to 106. Crane increases were recorded in the civil (eleven), residential (seven), hotel (five), commercial (three) and education and mixed use (one each) sectors. The significant rise in civil cranes was a result of twelve cranes erected for WestConnex work in St Peters and an additional crane added to Martin Place Station, with removals at Balmoral and North Sydney.

The east's crane count fell slightly. Movements were felt in the education sector (down two), residential sector (down one) and the hotel sector (up one). The two education cranes at the University of NSW were removed, while one hotel crane was erected for the Meriton project in Mascot.

CRANE ACTIVITY - SYDNEY REGIONS

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2018	%	+	-	NET	Q1 2019	%
INNER SYDNEY	78	24.30%	69	-41	28	106	34.20%
EAST	15	4.70%	7	-9	-2	13	4.20%
NORTH	113	35.20%	60	-66	-6	107	34.50%
SOUTH	37	11.50%	11	-21	-10	27	8.70%
WEST	78	24.30%	28	-49	-21	57	18.40%
WOLLONGONG	0	0.00%	0	0	0	0	0.00%
TOTAL	321	100.00%	175	-186	-11	310	100.00%

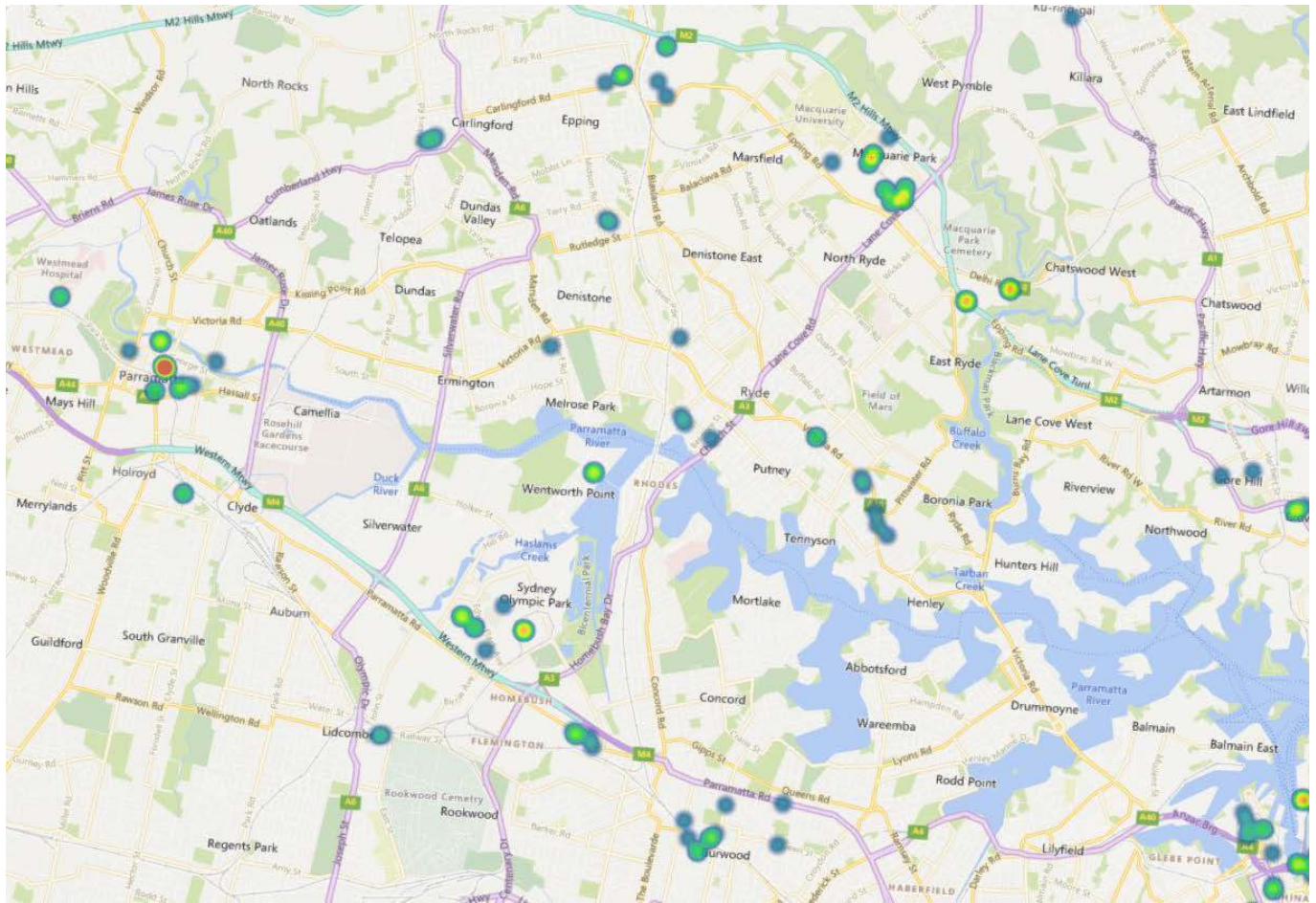
Cranes in the north fell to 107, with 66 removals and 60 additions. Driving the fall in cranes were the mixed use and civil sectors falling by five and three cranes respectively. The residential sector fell by two and the health and retail sectors fell by one each, while the commercial sector increased to 11. Two new cranes were erected for both Sydney Metro works in North Sydney and Macquarie Park Stage 1. New education cranes were erected for Shore College in North Sydney and Arden School in Epping, increasing the education count to three.



SYDNEY

Seven cranes were removed from residential projects in the south, driving the overall decline in cranes. Existing cranes on civil and commercial projects were also removed, leaving only residential cranes in the south.

The west saw the most significant decline in cranes from 78 to 57. Forty nine cranes were removed and 28 added. Residential cranes now number 42 or 73.7% of all cranes in the west, with all previous civil, hotel and recreation cranes removed. Two new cranes were added to the education sector and one to the retail sector. Significant projects in the west include; Parramatta Square and Ed Square (four cranes each), Parramatta public school project, Wentworth Point and the Lennox in Parramatta (three cranes each).



ABOUT THE RLB CRANE INDEX®

The RLB Crane Index® is published by Rider Levett Bucknall biannually in Australia, New Zealand, USA, Gulf States and Southern Africa. The Australian index tracks the numbers of cranes in the key cities within Australia.

In September 2012, the Rider Levett Bucknall (RLB) Oceania Research & Development and Communication teams created the RLB Crane Index® 'index' as a simple insight into the construction sector's health within Australia. It was based on the theory that cranes in the sky supported the construction industry which is a significant contributor to Australia's economic growth.

The RLB Crane Index® gives a simplified measure of the current state of the construction industry's workload in each of these locations.

Each RLB office physically counts all fixed cranes on each city's skyline twice yearly which provides the base information for the index. This information is then applied to a base date (6th edition Q2 2015), which enables the RLB Crane Index® to be calculated highlighting the relative movement of crane data over time for each city.

The indexing of RLB Crane Index® data commenced in Q3 2013, when it was determined that the data collection and reporting methodology was mature and consistent between all offices. Crane counts for that release were indexed to 100 in each city. The index was recalibrated at Q2 2015, which saw the base index value of 100 established for each city. Subsequent cities which are now included within the index have had their base value of 100 established on their initial entry into the count. Subsequent movements in crane numbers are applied to the base RLB Crane Index® to highlight the crane movements in each city over time based on the relative count in Q2 2015.

Using the RLB Crane Index® table data makes for quick comparisons in determining city by city crane activity. For example, when comparing Sydney cranes for the base period of Q2 2015, against the count in Q2 2018, the following formula can be used to determine the percentage increase (or decrease).

$$\text{PERCENTAGE CHANGE} = \left[\frac{\text{CRANE INDEX}_{cp} - \text{CRANE INDEX}_{pp}}{\text{CRANE INDEX}_{pp}} \right] \times 100$$

where Crane Index_{cp} is the RLB Crane Index_{cp} for the current period and Crane Index_{pp} is the RLB Crane Index® for the previous period.

HEATMAPS

The RLB Crane Index® hotspot maps offer a pictorial representation of the collected data for each city using a heatmap indicator to indicate the level of crane activity across the respective city. The size of hotspot is relative to the scale of the map and is not an indication of the crane count in that position. The heatmap uses blue to indicate a lower crane activity, and the brighter red insert to indicate higher crane activity.

The location of the hotspots are indicative only and have been positioned to convey the general spread of cranes within a city.

The levels of intensity are calculated on a map by map basis and should not be compared between different cities.

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