

Q3 2018 RLB CRANE INDEX® HIGHLIGHTS

- Record number of long-term cranes
- National increase of 15 cranes with 64 additions and 49 removals
- Total of 140 long-term cranes on construction sites (90 in Auckland, 22 in Christchurch and 10 in Queenstown)
- New work put in place increased 7.1% in FY 2018 (ending 31 March 2018)
- RLB Crane Index[®] has risen to 184, the highest Index since commencement
- Residential crane index value rose to 438, the highest index recorded
- Non-residential crane index value rose to 132, up from 113, matching the previous Q2 2017 peak

CRANE ACTIVITY - NEW ZEALAND



Q3 2018 RLB CRANE INDEX® SUMMARY

CITIES		S
	CIVIC	HOTEL 💽
CHRISTCHURCH	CIVIL	MIXED USE
DUNEDIN	COMMERCIAL	l 🚺 RESIDENTIAL [
	EDUCATION	RETAIL 🚺
QUEENSTOWN	HEALTH	
TAURANGA		
	INCREASE IN NUMBER OF CRANES	



NEW ZEALAND

The Tenth edition (Q3 2018) of the RLB Crane Index[®] highlights the strong growth within New Zealand's construction industry. There are now 140 long-term cranes within New Zealand, a record high. Since our last edition, 64 cranes were erected and 49 cranes were removed. Auckland continues to be the engine room of the index, contributing 64% of all New Zealand's cranes.

Despite the recent announcement of the Ebert receivership, coupled with Fletcher Construction's withdrawal from the vertical construction market, Auckland's crane count remains on the rise. Currently, Fletcher Construction accounts for ten tower cranes, while Ebert Construction's Union Green site accounts for two. There still remains uncertainty about the impact these failures will have on future crane counts, and future large projects in Auckland and across New Zealand.

Across New Zealand, residential remains the most dominant sector with 57 cranes, representing 41% of all cranes counted in Q3 2018. Since the commencement of the RLB Crane Index[®], the residential sector has consistently increased, with this edition having the highest count on record for New Zealand. This sector includes both the busy aged care and student residential accommodation sectors together with the private residential sector in Auckland particularly.

The 'bricks and mortar' retail sector appears to be under a current boom, which is reflected by the increase of nine retail cranes, bringing the total across New Zealand to 15 (11% of total cranes).

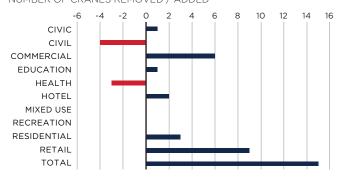
The commercial sector remains strong, with significant continued investment from Precinct Properties in Auckland and Wellington, and from Mansons TCLM in Auckland.

The health sector has declined significantly, with only a single crane remaining at Christchurch Hospital. Whilst significant forward health spend is anticipated, announcements on government forward spend and approval of key health projects and business cases are awaited.

NEW ZEALAND NET CRANE MOVEMENT BY CITY



NEW ZEALAND NET CRANE MOVEMENT BY SECTOR NUMBER OF CRANES REMOVED / ADDED



CRANE ACTIVITY - NEW ZEALAND

	OPENING Q1 2018	COUNT	MO +	VEME -	ENT NET	CLOSING Q3 2018	COUNT %
AUCKLAND	83	66.4%	33	-26	7	90	64.3%
CHRISTCHURCH	13	10.4%	17	-8	9	22	15.7%
DUNEDIN	2	1.6%	0	0	0	2	1.4%
HAMILTON	2	1.6%	2	-2	0	2	1.4%
QUEENSTOWN	9	7.2%	7	-6	1	10	7.1%
TAURANGA	7	5.6%	2	-3	-1	6	4.3%
WELLINGTON	9	7.2%	3	-4	-1	8	5.7%
TOTAL	125	100.0%	64	-49	15	140	100.0%

CRANE ACTIVITY - NEW ZEALAND BY SECTOR

	OPENIN Q1 2018	G COUNT %	MO +	VEMI -	ENT NET	CLOSIN Q3 2018	G COUNT
CIVIC	8	6.4%	4	-3	1	9	6.4%
CIVIL	11	8.8%	4	-8	-4	7	5.0%
COMMERCIAL	26	20.8%	16	-10	6	32	22.9%
EDUCATION	6	4.8%	2	-1	1	7	5.0%
HEALTH	4	3.2%	0	-3	-3	1	0.7%
HOTEL	6	4.8%	4	-2	2	8	5.7%
MIXED USE	4	3.2%	2	-2	0	4	2.9%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	54	43.2%	22	-19	3	57	40.7%
RETAIL	6	4.8%	10	-1	9	15	10.7%
TOTAL	125	100.0%	64	-49	15	140	100.0%



NEW ZEALAND

Over the past two years, the index has increased from 129 to the current 184 (+43%), the highest index since the commencement of the RLB Crane Index[®]. Since the previous index, Christchurch's index rose 69% to 71. Auckland and Queenstown saw increases of 8% and 11% respectively, partially offset by decreases in Tauranga and Wellington of 14% and 11% respectively.

New Zealand's new work put in place continued to grow for FY 2018, up 7.1% from FY 2017, totalling over \$17 billion. The residential sector remains the most dominant sector, increasing 8.9% to \$12 billion.

New building consents in New Zealand have been steadily increasing in both number and value since 2012, albeit at a slower pace in recent years. For FY 2018 the number of new consents increased 2.7% to 37,421, while the value increased 5.5% to \$17 billion.

Auckland and Christchurch both saw net increases of seven and nine respectively, driven by the retail and commercial sectors respectively.

Auckland has seen a jump of six new retail cranes, with four cranes at 277 Westfield in Newmarket, and one new crane at both the Galleria expansion at Sylvia Park and the Commercial Bay Mall.

Christchurch saw a surprising jump in crane numbers for this edition with 22, up from 13. Previously in Christchurch, the crane count has dropped, emphasising the decline in workload. In contrast to this decline in workload, cranes have risen especially in the commercial sector, with a net increase of seven cranes together with two new cranes on the new Convention Centre.

Wellington and Tauranga experienced net decreases of one crane each, while Hamilton and Dunedin remained constant with two cranes each.

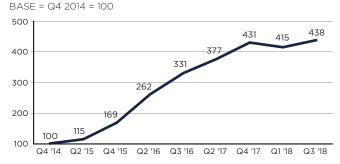
After a slight dip in the last edition, Queenstown has seen an increase in crane numbers, now totalling ten.

RLB CRANE INDEX® - NEW ZEALAND

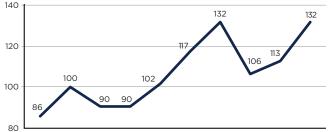




NEW ZEALAND - RESIDENTIAL CRANE INDEX



NEW ZEALAND - NON-RESIDENTIAL CRANE INDEX BASE = Q4 2014 = 100



Q2 '14 Q4 '14 Q2 '15 Q4 '15 Q2 '16 Q3 '16 Q2 '17 Q4 '17 Q1 '18 Q3 '18

RLB CRANE INDEX® COMPARATIVE DATA

	5TH EDITION Q2 '16	6TH EDITION Q4 '16	7TH EDITION Q2 '17	8TH EDITION Q4 '17	9TH EDITION Q1 '18	10TH EDITION Q3 '18	% INDEX MOVEMENT
AUCKLAND	181	246	277	281	319	346	8%
CHRISTCHURCH	97	81	81	55	42	71	69%
DUNEDIN	100	-	300	200	200	200	0%
HAMILTON	71	86	114	43	29	29	0%
QUEENSTOWN	100	175	250	275	225	250	11%
TAURANGA	200	400	400	400	700	600	-14%
WELLINGTON	150	183	167	217	150	133	-11%
NEW ZEALAND	129	154	174	162	164	184	12%

Note: This table does not represent crane numbers but rather the RLB Crane Index[®]. Refer to last page for more details of the calculation of the RLB Crane Index[®].



AUCKLAND

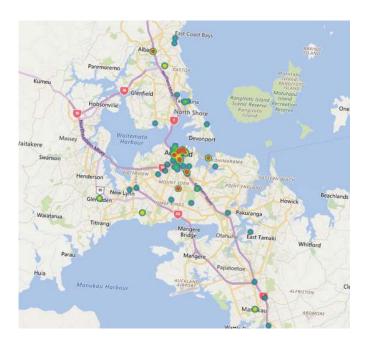
Auckland's RLB Crane Index[®] continued to rise reflecting the buoyancy of the Auckland construction market. Auckland's Q3 2018 index increased 8% on the record high recorded for the previous edition (9th edition).

There have been 33 new long-term cranes positioned on projects, with 26 removed from projects nearing completion, resulting in a growth of seven cranes for this edition.

Auckland's residential crane count remained high, accounting for 86% of all residential cranes in New Zealand and 35% of all cranes nationally. This includes cranes on projects for multi-residential apartments, private residential, student residential accommodation and the aged care sector.

New building work put in place increased 12.4% in FY 2018, to \$7 billion, with increases felt in both the residential and non-residential sector. New residential work increased 12.8% and non-residential work increased 11.5%, both significant increases in a busy market. New building consents in Auckland do not seem to be slowing down, with the number of consents increasing 8.7% for FY 2018, to 11,983. New residential consents were the main driver, contributing 11,192 for FY 2018.

While the residential sector continued to contribute the largest amount to the crane count, with 49 (54%), the retail sector recorded the largest growth, with six new cranes added. New retail cranes were sighted at 277 Broadway Westfield Development (four cranes) and the Galleria expansion (one crane).





RLB CRANE INDEX® - AUCKLAND



CRANE ACTIVITY - AUCKLAND

		OPENING COUNT Q1 2018 %			ENT NET	CLOSING COUNT Q3 2018 %		
	QI 2018	70	+	-	INEI	Q3 2018	70	
CIVIC	6	7.2%	0	-2	-2	4	4.4%	
CIVIL	6	7.2%	3	-3	0	6	6.7%	
COMMERCIAL	13	15.7%	6	-4	2	15	16.7%	
EDUCATION	2	2.4%	1	0	1	3	3.3%	
HEALTH	0	0.0%	0	0	0	0	0.0%	
HOTEL	6	7.2%	2	-2	0	6	6.7%	
MIXED USE	2	2.4%	0	-1	-1	1	1.1%	
RECREATION	0	0.0%	0	0	0	0	0.0%	
RESIDENTIAL	48	57.8%	15	-14	1	49	54.4%	
RETAIL	0	0.0%	6	0	6	6	6.7%	
TOTAL	83	100.0%	33	-26	7	90	100.0%	



AUCKLAND

The civic and mixed use sectors saw a decrease of two and one crane respectively, while the education sector saw an increase of one crane. The civil and hotel sectors remained the same.

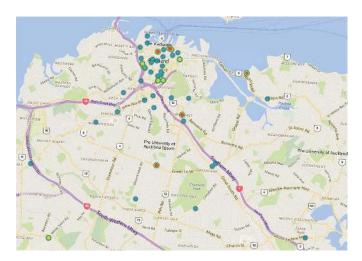
The four cranes at the Sky City's NZICC Convention Centre project were the only ones to remain for the civic sector.

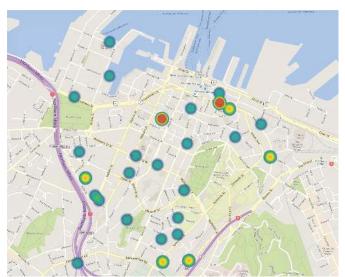
In the commercial sector, three cranes remained on site for the Commercial Bay office project. These are expected to stay in place until late 2019. Notably, there were no cranes recorded on health projects in Auckland currently despite significant forward workload planned in the health sector.

Despite the perception in the market that the construction sector is at capacity and resources are stretched, the crane numbers have again increased. Two tower cranes remain idle at the Ebert's Union Green Project and two former idle cranes at Alexandra Park have commenced again following CMP Construction taking over from Canam Construction.

Additional new long-term cranes were observed on the following projects around Auckland:

- Pacifica Residential Tower
- Westfield's 277 Broadway
- Sylvia Park Galleria extension
- FIORE Apartments in Wakefield Street
- 139 Greys Avenue (Housing New Zealand)
- Student Residential Scheme in Airdale Street
- Life Apartments in Liverpool Street
- University of Auckland B507 Park West
- Skhy Apartments Stage 2
- Marewa Lane in Green Lane
- Shakespeare Road in Takapuna
- Residential scheme in Narrow Neck
- Victor Apartments in Browns Bay
- Residential Apartments, Hillcrest
- Outlook Apartments in Orakei
- Ramada Suites in Victoria Street
- Kerrs Road in Manukau
- SH1 widening and bridge works in Rosedale







CHRISTCHURCH

Christchurch has seen its first lift in crane numbers since Q4 2015, with a significant 17 cranes erected and eight cranes removed. A total of 22 cranes have been seen around Christchurch.

Christchurch's RLB Crane Index[®] rose 69% to 71 from its record low in the last edition.

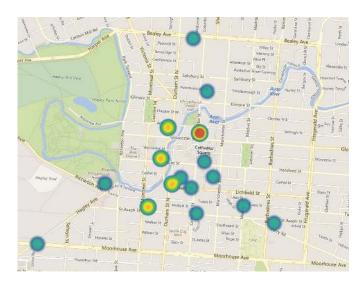
Contrary to the crane index rising, new building work put in place in Canterbury fell 13.2% for FY 2018. New residential work fell 11.7%, while new non-residential work fell 15.0%. The number of new consents in Canterbury have fallen for the third consecutive year, recording a 12.4% decline in FY 2018.

Commercial cranes drove the majority of the rise with a net increase of seven cranes, increasing their proportion of Christchurch's overall crane count to 55%. Commercial cranes were observed on sites at Tuam Street, Montreal Street (2), Colombo Street (2), Cathedral Square, High Street, Bealey Avenue, Durham Street (2) and Armagh Street (2).

The civic and retail sectors also recorded increases for this edition of three and two cranes respectively. Two new cranes were added for the Christchurch Convention Centre project, totalling three, while two new cranes were erected for Town Hall. Within the retail sector cranes were added for both the Ballantynes and Cashel Street projects.

Cranes were removed from each of Christchurch Hospital's Outpatients building, Laboratory and Acute Services building. The Acute Services building is anticipated to open in late 2018 and is the country's only health specific crane. One crane remains to assist in the completion of the project.

The education sector saw the lone crane at the Health Research Education Facility removed.







OVERALL STATUS

RLB CRANE INDEX[®] - CHRISTCHURCH



CRANE ACTIVITY - CHRISTCHURCH

	OPENING	G COUNT	мо	VEM	ENT	CLOSING COUNT	
	Q1 2018	%	+	-	NET	Q3 2018	%
CIVIC	2	15.4%	4	-1	3	5	22.7%
CIVIL	0	0.0%	0	0	0	0	0.0%
COMMERCIAL	5	38.5%	9	-2	7	12	54.5%
EDUCATION	1	7.7%	0	-1	-1	0	0.0%
HEALTH	4	30.8%	0	-3	-3	1	4.5%
HOTEL	0	0.0%	0	0	0	0	0.0%
MIXED USE	0	0.0%	1	0	1	1	4.5%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	1	7.7%	1	-1	0	1	4.5%
RETAIL	0	0.0%	2	0	2	2	9.1%
TOTAL	13	100.0%	17	-8	9	22	100.0%

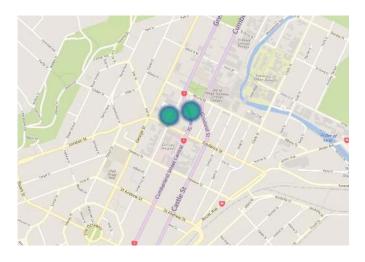


DUNEDIN

Dunedin's crane count remained at two, with both cranes on projects within the University of Otago precinct on the Otago Dental School and the new Research Support Facility projects.

Both cranes remain from the previous edition and are expected to remain until the end of this year for the Dental School and early 2019 for the Research Support Facility.

This city is awaiting the new hospital which has been announced on the site of the former Cadbury Factory. The hospital will eventually be close to 100,000m² and anticipated to commence construction in 2020 and be completed by 2026.





RLB CRANE INDEX[®] - DUNEDIN BASE = Q4 2014 = 100



CRANE ACTIVITY - DUNEDIN

	OPENING Q1 2018	G COUNT %	MO +	VEM -	ENT NET	CLOSING Q3 2018	G COUNT %
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	2	100.0%	0	0	0	2	100.0%
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	2	100.0%	0	0	0	2	100.0%



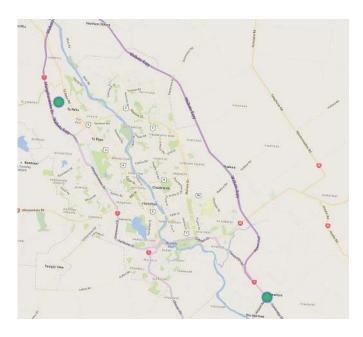
HAMILTON

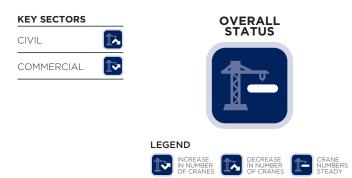
Hamilton's crane count remained steady at two for this edition, keeping the RLB Crane Index[®] at 29.

New building work within the Waikato region remains strong, increasing 4.9% for FY 2018. Increases were seen for both new residential work and new nonresidential work with 2.6% and 11.9% respectively, increasing the total value of new work put in place to \$1.7 billion.

Both cranes previously assisting roadworks at the Hamilton Expressway and Ruakura Bridge have been removed, while one crane was added for the Tamahere Bridge works.

One new crane is assisting a commercial development in Te Rapa.





RLB CRANE INDEX[®] - HAMILTON BASE = Q4 2014 = 100



CRANE ACTIVITY - HAMILTON

	OPENING Q1 2018	G COUNT %	MO +	VEM -	ENT NET	CLOSIN Q3 2018	G COUNT
CIVIC	0	0.0%	0	0	0	0	0.0%
CIVIL	2	100.0%	1	-2	-1	1	50.0%
COMMERCIAL	0	0.0%	1	0	1	1	50.0%
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	2	100.0%	2	-2	0	2	100.0%



QUEENSTOWN

After a dip in the last edition of the RLB Crane Index[®], Queenstown's index increased 11%, to 250 from 225. This represents a total of ten cranes, up from nine.

The residential and hotel sectors, both saw increases of two cranes each.

Two new cranes are at the Holiday Inn project in Melbourne Street.

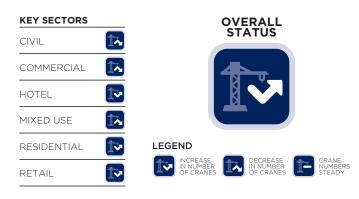
Four cranes have been added for residential projects at Millbrook, Middleton Road, Marina Village, and Peninsula Road. Two cranes were removed from Lake Haze Apartments and Kerry Drive.

The retail sector added an additional crane for the Queenstown Central Retail development, bringing the total count to four.

The commercial sector saw two cranes removed from the iFLY and 5 Mile developments. One crane was removed from each of the civil and mixed use sectors. Projects completed included Kawarau Bridge and Hardware Lane.







RLB CRANE INDEX® - QUEENSTOWN



CRANE ACTIVITY - QUEENSTOWN

	OPENING Q1 2018	COUNT	MO +	VEM	ENT NET	CLOSING Q3 2018	COUNT
CIVIC	0	0.0%	0	0	0	0	0.0%
CIVIL	1	11.1%	0	-1	-1	0	0.0%
COMMERCIAL	2	22.2%	0	-2	-2	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%	2	0	2	2	20.0%
MIXED USE	1	11.1%	0	-1	-1	0	0.0%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	2	22.2%	4	-2	2	4	40.0%
RETAIL	3	33.3%	1	0	1	4	40.0%
TOTAL	9	100.0%	7	-6	1	10	100.0%



TAURANGA

Tauranga's RLB Crane Index[®] fell from its peak in the last edition. Two cranes were added, while three were removed, bringing Tauranga's total crane count to six.

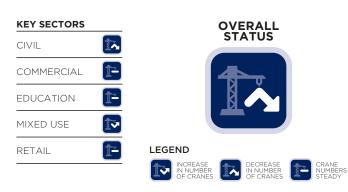
The Harrington Street transport hub, saw the addition of one crane within the mixed use sector. One crane was erected at Bayfair Shopping Centre.

Cranes remain at the University of Waikato Tauranga Campus (education), Zespi Office Building (commercial), Tauranga Crossing Stage 2 and Tauranga Crossing- the Depot (retail). One crane was removed from the Excelsa Shopping Centre (retail).

The two cranes at the Maungatapu Tunnel Underpass and the Mount North Stormwater Upgrade were removed, bringing the civil crane count to zero.

The retail, education and commercial sectors saw overall crane numbers unchanged from the previous edition.

North Island new building work put in place (excluding major regions) grew by 9.3% in FY 2018, with new residential activity jumping 14.7% to over \$2 billion. New non-residential work in the region fell 5.3% after peaking in FY 2017.



RLB CRANE INDEX® - TAURANGA



Q4 '14 Q2 '15 Q4 '15 Q2 '16 Q4 '16 Q2 '17 Q4 '17 Q1 '18 Q3 '18



CRANE ACTIVITY - TAURANGA

	OPENING Q1 2018	G COUNT %	MO +	VEM -	ENT NET	CLOSING Q3 2018	COUNT %
CIVIC	0	0.0%	0	0	0	0	0.0%
CIVIL	2	28.6%	0	-2	-2	0	0.0%
COMMERCIAL	1	14.3%	0	0	0	1	16.7%
EDUCATION	1	14.3%	0	0	0	1	16.7%
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%	1	0	1	1	16.7%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	0	0.0%	0	0	0	0	0.0%
RETAIL	3	42.9%	1	-1	0	3	50.0%
TOTAL	7	100.0%	2	-3	-1	6	100.0%



WELLINGTON

Wellington's RLB Crane Index[®] recorded its lowest result since Q2 2015, with cranes now totalling eight. Four cranes were removed from sites and three cranes commenced, a net decrease of one crane.

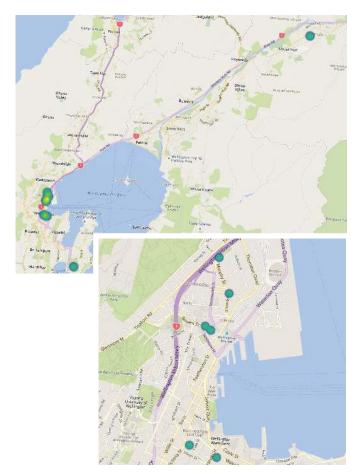
New building work put in place for Wellington jumped again for FY 2018, recording a 28.9% increase on FY 2017 levels. New residential and non-residential both surged, recording increases of 25.6% and 34.5% respectively.

The commercial sector saw two cranes removed, from the Bowen State Building refurbishment and Wellington Airport.

One new crane was seen in Wallace Street for Massey University, and two new residential cranes were added to projects in Hanson Street and Kent Terrace.

Cranes were removed from residential projects in Victoria Street and Taranaki Street.

Continuing projects include Bowen State Building refurbishment, Biosecurity Laboratory in Ward Street, Indian High Commission building (currently stalled), apartments in Molesworth Street and an office tower refurbishment in Lambton Quay.







OVERALL STATUS

RLB CRANE INDEX® - WELLINGTON



CRANE ACTIVITY - WELLINGTON

	OPENING Q1 2018	COUNT %	MO +	VEM	ENT NET	CLOSING Q3 2018	COUNT %
CIVIC	0	0.0%	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
COMMERCIAL	5	55.6%	0	-2	-2	3	37.5%
EDUCATION	0	0.0%	1	0	1	1	12.5%
HEALTH	0	0.0%	0	0	0	0	0.0%
HOTEL	0	0.0%	0	0	0	0	0.0%
MIXED USE	1	11.1%	0	0	0	1	12.5%
RECREATION	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	3	33.3%	2	-2	0	3	37.5%
RETAIL	0	0.0%	0	0	0	0	0.0%
TOTAL	9	100.0%	3	-4	-1	8	100.0%





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 New Zealand RLB Crane Index[®] tracks the numbers of cranes in the key cities within New Zealand.

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 (2nd edition Q4 2014), which enables the RLB Crane Index[®] to be calculated highlighting the relative movement of crane data over time for each city.

Subsequent movements in crane numbers were applied to the base RLB Crane Index[®] to highlight the crane movements in each city over time based on the relative count in Q4 2014.

Using the RLB Crane Index[®] table data makes for quick comparisons in determining city by city crane activity. For example, when comparing Auckland cranes for the base period of Q4 2014, against the count in Q2 2018, the following formula can be used to determine the percentage increase (or decrease).



where Crane $Index_{cp}$ is the RLB Crane $Index_{cp}$ for the current period and Crane $Index_{pp}$ is the RLB Crane $Index^{\otimes}$ 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. 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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