



THIRD QUARTER 2018

# OCEANIA REPORT

CONSTRUCTION  
MARKET INTELLIGENCE

# KEY HIGHLIGHTS

**Sydney**  
construction volumes  
rose by 11% to

**\$60b**

**Queensland**  
construction volumes  
rose by 5.4% to

**\$42.2b**

**Melbourne**  
building approvals  
up 20% to

**\$37b**

**Perth**  
construction volumes  
rose by 26% to

**\$47.5b**

**Adelaide**  
construction volumes  
rose by 21% to

**\$11.1b**

**Canberra**  
construction volumes  
rose by 12% to

**\$3.7b**

# TABLE OF CONTENTS

## Auckland

construction volumes  
rose by 13% to

# \$6.3b

## Wellington

construction volumes  
rose by 33% to

# \$1.2b

## Christchurch

new construction work  
fell by 13% to

# \$3.4b

## AUSTRALIA

<b>Construction Market Intelligence</b>	<b>7</b>
<b>Tender Price Index</b>	<b>8</b>
<b>Relativity Index</b>	<b>8</b>
<b>RLB Market Activity Cycle</b>	<b>9</b>
<b>Location Intelligence</b>	
Adelaide	<b>11</b>
Brisbane	<b>13</b>
Canberra	<b>14</b>
Darwin	<b>15</b>
Gold Coast	<b>17</b>
Melbourne	<b>18</b>
Perth	<b>19</b>
Sydney	<b>20</b>
Townsville	<b>21</b>

## NEW ZEALAND

<b>Construction Market Intelligence</b>	<b>23</b>
<b>Tender Price Index</b>	<b>24</b>
<b>Relativity Index</b>	<b>24</b>
<b>RLB Market Activity Cycle</b>	<b>25</b>
<b>Location Intelligence</b>	
Auckland	<b>27</b>
Christchurch	<b>28</b>
Wellington	<b>29</b>
<b>RLB Market Activity Cycle - About Terminology and Sources</b>	<b>30</b>

Cover: International Towers Sydney, Barangaroo South, NSW

Anadara: Barangaroo South  
Client: Lend Lease (Millers Point)  
Architect: FJMT

Alexander: Barangaroo South  
Client: Lend Lease (Millers Point)  
Architect: PTW

# INDEPENDENT CONSULTANTS, LOCAL KNOWLEDGE AND EXPERTISE, GLOBAL NETWORK

## CONFIDENCE TODAY INSPIRES TOMORROW

With a network that covers the globe and a heritage spanning over two centuries, RLB is a leading independent organisation in quantity surveying and advisory services.

Our achievements are renowned: from the early days of pioneering quantity surveying, to landmark projects such as the Sydney Opera House, HSBC Headquarters Building in Hong Kong, the 2012 London Olympic Games and CityCenter in Las Vegas.

We continue this successful legacy with our dedication to the value, quality and sustainability of the built environment. Our innovative thinking, global reach, and flawless execution push the boundaries. Taking ambitious projects from an idea to reality.

## CREATING A BETTER TOMORROW

The RLB vision is to be the global leader in the market, through flawless execution, a fresh perspective and independent advice. Our focus is to create value for our customers, through the skills and passion of our people, and to nurture strong long-term partnerships. By fostering confidence in our customers, we empower them to bring their imagination to life, to shape the future of the built environment, and to create a better tomorrow.



# CONSTRUCTION INTELLIGENCE

The strength of Rider Levett Bucknall (RLB), the largest independent and most geographically prevalent construction cost consultancy of its kind in the world, is that it has the foremost construction intelligence available to it.

RLB collects and collates current construction data and forecast trends on a global, regional, country, city and sector basis. The RLB Oceania Report, published half-yearly, provides a snapshot of construction market intelligence provided by the RLB network of offices across Australia and New Zealand.

Each RLB office within Oceania contributes to the firm's global intelligence by providing current insights into the local conditions and trends that impact the construction industry within that region. Information that is gathered and disseminated by each local office includes:

- Forecast Tender Price Index
- RLB Construction Market Activity Cycle

---

## CONSTRUCTION MARKET INTELLIGENCE

A summary of Construction Market Intelligence is provided by each city highlighting the issues that are impacting the construction industry and providing key insights into current construction price movements.

## TENDER PRICE INDEX

RLB's Tender Price Index (TPI) showcases the historical and forecast movements in construction cost inflation/escalation on an annual basis. The TPI annual rate represents an overall forecast of the movement of construction costs for the industry as a whole within the key cities of RLB's network.

## RLB MARKET ACTIVITY CYCLE

The RLB Market Activity Cycle focusses on seven key sectors within the overall construction economy. Local RLB directors assess the current position of each sector within the market activity cycle for each respective city.

## RLB RELATIVITY INDEX

Using TPI data and cost modelling, RLB provides a general cost comparison for building costs between locations. The Relativity Index ranks each city in respect to other locations within the RLB network of Oceania offices.

The Oceania Report is supplemented by RLB's biannual International Report, quarterly NZ Forecast and annual Riders Digests, all published within the Oceania region. RLB also publishes key industry intelligence publications throughout each year. For more detailed sector, city, country and regional information that is published by RLB, please review our regional or country specific publications which can be found within the publications section of [RLB.com](http://RLB.com).

Chadstone Shopping Centre, VIC

Architect: The Buchanan Group



## CONSTRUCTION MARKET INTELLIGENCE

# AUSTRALIA

The Australian economy has entered its 27th consecutive year of growth, exceeding expectations and rising at the fastest pace in six years, according to the 2018/2019 Federal Budget. Real GDP grew to 2.4% in 2017 with forecasts of further acceleration to above 3.0% for 2018 and 2019.

Included within the 2018/2019 Federal Budget papers was \$24.5 billion in new funding for major transport projects and initiatives as part of their \$75 billion investment in transport infrastructure. This represents a significant boost to the pipeline of infrastructure works across the country.

Construction volumes remained strong across the country in 2017 at \$222 billion, the highest volume seen in the last 5 years. For 2017:

- Residential work grew by 0.4% to \$75.2 billion
- Non-residential activity grew by 10% (\$3.8 billion) to \$40.8 billion
- Engineering work picked up from its dip in 2016, returning to slightly above 2015 levels at \$106 billion

Building approvals have once again surpassed previous years' levels reaching \$116.1 billion for 2017.

- Residential approvals increased 1.7% (\$1.1 billion) on 2016 levels
- Non-residential approvals were the main driver of the increase with an 18% (\$7.3 billion) rise. This was mainly due to increases within the office, education and industrial sectors

Victoria was the main contributor to the boost in overall building approvals with a 20% (\$6.1 billion) lift, followed by New South Wales with a 6.2% (\$1.9 billion) increase.

While the total value of residential approvals remains high, the number of new dwellings approved has fallen from the peak in 2015. Comparing 2015 to 2017, the number of dwelling approvals for houses and apartments fell by 1.3% and 22% respectively. In contrast, semi-detached and townhouse dwellings recorded a rise of 14% over the same period.

The engineering sector (excluding heavy industry and power sectors) across the country continued to grow recording \$49.3 billion of activity in 2017. This represented an 18% (\$7.5 billion) increase in work done over the previous year. Significant increases were seen in all sectors with roads up 31% (\$2.5 billion), telecommunications up 17% (\$1.7 billion), rail up 19% (\$1.2 billion) and water up 36% (\$1.6 billion).

Work done in the heavy industry and power sectors grew by 31% (\$13.5 billion) for 2017. A key component of this rise was the likely inclusion of the 'one-off' cost of delivery and installation of the Ichthys LNG project's central processing facility platform off the north-west coast of Western Australia, reported to be in excess of \$4 billion.

Construction work done during 2017 was up by 14% (\$28 billion) over the 10 year average of \$193 billion. Total engineering work was up 4.7% (\$4.7 billion) highlighting the drop off in mining investment being offset by the growth in roads and rail infrastructure projects across the country. Total residential work was up by 33% (\$18.8 billion) and non-residential work was up 13% (\$4.5 billion).

### CONSTRUCTION WORK DONE (\$M)

AUSTRALIA	2015	2016	2017
NEW HOUSES	34,421	35,128	35,065
OTHER RESIDENTIAL	24,424	30,959	31,381
ALTERATIONS	8,342	8,785	8,749
<b>TOTAL RESIDENTIAL</b>	<b>67,187</b>	<b>74,871</b>	<b>75,195</b>
COMMERCIAL	1,445	1,189	1,476
EDUCATION	4,313	4,691	5,848
HEALTH	6,475	5,592	5,391
HOTELS	1,970	2,254	3,062
INDUSTRIAL	5,185	4,870	5,750
OFFICES	6,819	5,953	6,215
RETAIL	6,458	6,911	6,667
OTHER NON-RES.	4,432	5,523	6,368
<b>TOTAL NON-RES.</b>	<b>37,097</b>	<b>36,983</b>	<b>40,776</b>
HEAVY INDUSTRY	52,306	34,850	45,752
POWER	14,498	8,409	10,976
RAIL	6,714	6,163	7,346
RECREATION & OTHER	4,620	4,817	5,411
ROADS	14,669	16,678	19,167
TELECOMMUNICATIONS	8,047	9,866	11,540
WATER	4,281	4,266	5,816
<b>TOTAL ENGINEERING</b>	<b>105,135</b>	<b>85,049</b>	<b>106,007</b>
<b>TOTAL CONSTRUCTION</b>	<b>209,418</b>	<b>196,903</b>	<b>221,978</b>

### BUILDING APPROVALS (\$M)

AUSTRALIA	2015	2016	2017
HOUSES	34,254	35,237	36,469
SEMI-DETACHED	7,121	8,040	9,537
APARTMENTS	24,438	24,135	22,534
<b>TOTAL NEW RESIDENTIAL</b>	<b>65,814</b>	<b>67,412</b>	<b>68,540</b>
COMMERCIAL	1,187	1,520	1,804
EDUCATION	5,231	5,059	7,294
HEALTH	4,354	5,287	5,528
HOTELS	2,508	3,106	3,487
INDUSTRIAL	4,810	5,353	6,573
OFFICES	4,687	5,886	8,959
RETAIL	6,661	7,605	7,544
OTHER NON-RES.	5,167	6,401	6,322
<b>TOTAL NON-RES.</b>	<b>34,605</b>	<b>40,219</b>	<b>47,511</b>
<b>TOTAL BUILDING</b>	<b>100,419</b>	<b>107,630</b>	<b>116,051</b>

### BUILDING APPROVALS (NUMBER OF DWELLINGS)

AUSTRALIA	2015	2016	2017
NEW HOUSES	119,408	118,092	117,822
OTHER RESIDENTIAL	117,711	113,318	103,372
<b>TOTAL NEW DWELLINGS</b>	<b>237,119</b>	<b>231,410</b>	<b>221,194</b>

# CONSTRUCTION MARKET INTELLIGENCE AUSTRALIA

## TENDER PRICE INDEX

The current volume of work being undertaken in Australia is fuelling construction cost pressure. Both shortages of skilled labour and rising material costs are adding pressure on costs across the country. Over the past five years the economy has experienced strong building growth (4.5% p.a. compounding) together with engineering (excluding heavy industry & power) growth of 3.5% p.a. (compounding).

With growth in the residential, non-residential, roads and rail sectors over the past five years, pressure on labour availability is seeing escalation rates generally increasing across the country during 2018 over 2017 levels.

Adelaide is experiencing increases in both material supply and labour costs associated with concrete, reinforcement and formwork trade. As more large projects enter

the market there will be further increases in trade labour and material supply prices.

Brisbane escalation almost halved in 2017 from its 2016 peak of 7.2%. Looking forward, the 2018 forecast appears very stable at 3.0%, with a movement to 4.1% from 2019 onwards.

The market in Darwin remains weak with spare capacity at all levels of the industry and with very low levels of private investment.

There is an insufficient volume of new projects on the Gold Coast to push the future tender price index higher than forecasted CPI which is in the 2.0%-2.5% range for 2018.

General escalation in Melbourne is forecast to be relatively stable over the next three years at slightly above inflation rates. Within particular sectors (civil and commercial), pricing pressures

may see higher rates of escalation than the general rate due to increases in large scale projects coming into the market, offset by the reduction of apartment volumes.

There are signs that the second half of 2018 will see slightly higher construction volume on the back of some confidence returning to the Perth market but significant escalation increases are not anticipated until 2019.

Within Sydney, despite increased opportunities, contractor's margins remain tight and competitive, prices however, are rising due to labour costs and subcontractor demand.

In Townsville, the market remains competitive; with current and pipeline projects thinly spread compared to years past. Competitive rates are being seen throughout the majority of trades.

## RLB TENDER PRICE ANNUAL % CHANGE

	2016	2017	2018 (F)	2019 (F)	2020 (F)	2021 (F)
ADELAIDE	1.8	3.1	3.5	4.0	4.0	4.5
BRISBANE	7.2	3.2	3.0	4.1	4.1	4.1
CANBERRA	2.5	2.8	3.5	3.2	3.0	3.0
DARWIN	1.0	1.0	0.8	1.2	1.5	2.0
GOLD COAST	6.5	2.5	2.5	3.0	3.0	3.0
MELBOURNE	2.0	3.0	3.6	3.5	3.5	3.0
PERTH	0.0	0.0	1.1	2.5	3.0	3.0
SYDNEY	4.8	4.3	4.9	3.9	3.9	3.5
TOWNSVILLE	3.0	4.0	3.0	3.5	3.5	3.5

(F) RLB Forecast as at June 2018

## RLB COST RELATIVITY INDEX

TPI relativities have been calculated using both model costings and basket of goods approaches to determine the construction cost in RLB offices and comparing the differences in cost between each office. All offices' costs have been recalibrated, calculating the relative building cost between each city.

For example, building costs in Melbourne (relativity of 122) when compared to Sydney (relativity of 139) are 12% cheaper, and conversely, Sydney's building costs are 14% more expensive than Melbourne. The calculations are:

$$\left[ 1 - \left( \frac{\text{MELBOURNE}}{\text{SYDNEY}} \right) \right] \cdot 100 = \text{Relativity \% Difference} \quad \text{i.e.} \quad 1 - \left( \frac{122}{139} \right) \cdot 100 = 12.2\%$$

$$\left[ 1 - \left( \frac{\text{SYDNEY}}{\text{MELBOURNE}} \right) \right] \cdot 100 = \text{Relativity \% Difference} \quad \text{i.e.} \quad 1 - \left( \frac{139}{122} \right) \cdot 100 = 13.9\%$$

## RELATIVITIES INDEX AT JUNE 2018

CITY	INDEX
ADELAIDE	116
BRISBANE	115
CANBERRA	125
DARWIN	128
GOLD COAST	105
MELBOURNE	122
PERTH	117
SYDNEY	139
TOWNSVILLE	117

# CONSTRUCTION MARKET INTELLIGENCE AUSTRALIA

## MARKET ACTIVITY CYCLE

Each RLB office within Australia reports on the current position of the seven major construction sectors in their city. The nine key cities' results are consolidated to form a current view of the industry across Australia.

Since the last report, a net two sectors have moved from the growth to the decline phase, resulting in almost 60% of all market sectors within the growth phase of the construction activity cycle. Both the civil and hotel sectors have seven of the nine key cities within the growth phase. This complements infrastructure projects committed to across the country and the number of new hotels planned or currently under construction.

Currently across Australia, 40% of all sectors are in the peak zone, 40% are in the mid zone and 20% are in the trough zone.

The apartment and retail sectors each have five cities within the peak zone, with both sectors having seen recent increases in activity.

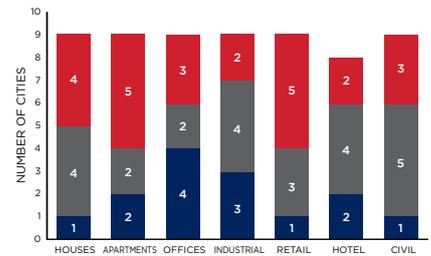
The house sector, with four cities in the peak zone, remains strong.

Adelaide's economy appears to be on the rise with all sectors within the growth phase. Darwin and Perth display the weakest sentiment with only one sector each within the peak zone of the development cycle.

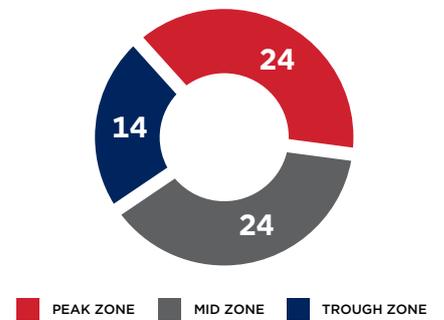
Sydney and Melbourne have the strongest activity with over half of their sectors within the peak zone and all remaining sectors in the mid zone.

Currently Queensland's market sectors are evenly apportioned between the peak, mid and trough zones indicating a mixed speed construction economy. While only hotels are within the growth phase in all regions (excluding Townsville), houses and apartments are all in the decline phase. Regionally, within Townsville and the Gold Coast, declines were also reported within the offices, industrial and civil sectors, while Brisbane is still reporting growth. The retail sector was the only sector with all cities in the peak zone.

## NUMBER OF CITIES PER SECTOR BY ZONE



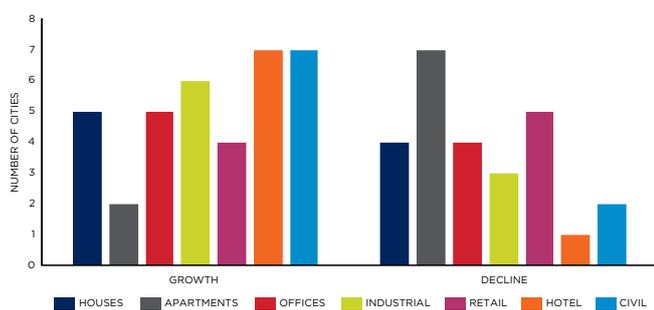
## TOTAL SECTORS PER ZONE



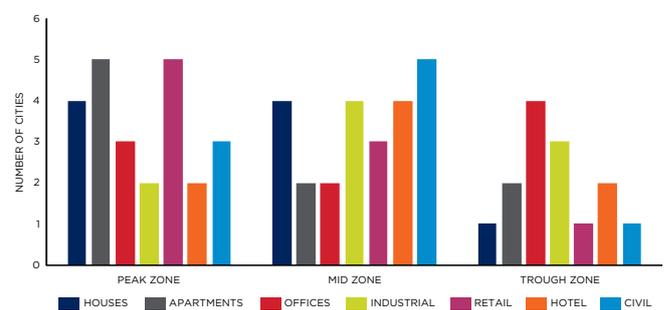
For more details on the RLB Market Sector Activity Cycle refer to Page 30 of this publication.

AUSTRALIA	HOUSES	APARTMENTS	OFFICES	INDUSTRIAL	RETAIL	HOTEL	CIVIL
ADELAIDE	▲	▲	▲	▲	▲	▲	▲
BRISBANE	▼	▼	▲	▲	▼	▲	▲
CANBERRA	▲	▲	▲	▼	▼	▲	▲
DARWIN	▲	▼	▼	▲	▼	▲	▲
GOLD COAST	▼	▼	▼	▼	▲	▲	▼
MELBOURNE	▲	▼	▲	▲	▼	▲	▲
PERTH	▲	▼	▼	▲	▲	▼	▲
SYDNEY	▼	▼	▲	▲	▲	▲	▲
TOWNSVILLE	▼	▼	▼	▼	▼		▼

## NUMBER OF SECTORS WITHIN PHASES



## NUMBER OF SECTORS WITHIN ZONES



115 King William Street, SA

Architect: Dash Architects



## LOCATION INTELLIGENCE

# ADELAIDE

Adelaide's construction market continues to maintain a healthy workload with a number of projects coming on line for both the private and public sectors.

The recent change in government has left some uncertainty as to how some public projects will be delivered, although the market remains confident that there will not be a reduction in the number of projects to be delivered. The public sector also remains very active with a significant number of projects under construction and new projects entering into the market.

For 2017, both building approvals and construction volumes increased, with rises of 16% (\$852 million) and 21% (\$1.9 billion) respectively. Building approvals rose to \$6.0 billion for 2017. The highest approval value seen in the last 10 years.

- Residential approvals rose 8.4% (\$235 million)
- Non-residential approvals increased 26% (\$616 million)

Construction volumes rose to \$11.1 billion for 2017.

- The residential sector saw an increase of 7.5% (\$225 million)
- Non-residential work jumped 15% (\$285 million)
- Engineering work recorded an increase for 2017 of 33% to \$5.8 billion

The defence sector has many opportunities in the pipeline including the next phases of Air 7000, the expansion of the ASC Site for both the Offshore Patrol Vessel and Frigate Shipyard Expansion (currently in the early phase of construction) and the commencement of the design work for the Submarine boat building expansion.

Stage 1 demolition of the former Royal Adelaide Hospital is well underway with Stages 2 and 3 recently out to tender. Over \$100 million in construction work on the former hospital site is expected in 2018.

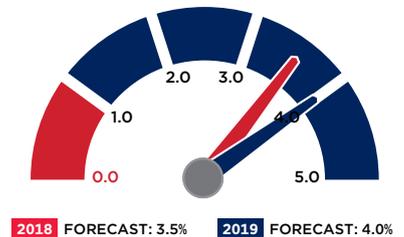
Work continues on the Sky City Casino and the Adelaide Airport Terminal expansion, while construction of the Oakland Crossing grade separation is expected to add another \$100 million civil and infrastructure project into the Adelaide market. The civil sector remains very busy in both the private and public arena with many civil contractors maintaining a healthy forward work load.

Market activity continues to pick up in Adelaide, with 29% of sectors reportedly in the peak zone, up from 14% in Q3 2017. The apartments sector is rebounding with a movement to the peak zone. Both the apartment and civil sectors now lie within the peak growth zone as at Q3 2018. All other sectors remain in a similar market position, with all sectors in the growth phase of the cycle.

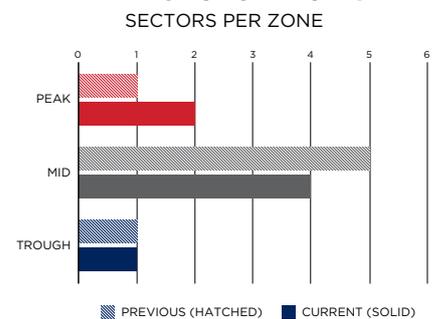
There are a number of new large projects anticipated to enter the market in 2018 providing an abundance of work for tier 2 and tier 3 contractors. With the increasing number of projects already in the market, and expected to enter the market in coming years, it is anticipated that an increase in prices will occur, as both head and trade contractors become busier. There are already signs of some trades becoming more selective in the work they tender for, particularly within the structural trades. There has been an evident increase in both material supply and labour costs associated with concrete, reinforcement and formwork trades.

As more large projects enter the market there will be further increases in trade labour and material supply prices. This will also see an expected shortage in skilled labour to properly resource these projects. Currently there appears to be a shortage in demolition labour and more particularly a shortage in licenced asbestos removalist labour due to the Royal Adelaide Hospital works.

## ANNUAL ESCALATION RATES



## MARKET SECTOR ACTIVITY



## CONSTRUCTION WORK DONE (\$M)

SOUTH AUSTRALIA	2015	2016	2017
NEW HOUSES	1,898	1,907	2,021
OTHER RESIDENTIAL	586	643	762
ALTERATIONS	444	441	432
<b>TOTAL RESIDENTIAL</b>	<b>2,928</b>	<b>2,991</b>	<b>3,215</b>
COMMERCIAL	36	42	83
EDUCATION	326	453	428
HEALTH	725	496	491
HOTELS	30	44	75
INDUSTRIAL	314	212	285
OFFICES	177	105	150
RETAIL	291	281	249
OTHER NON-RES.	227	227	385
<b>TOTAL NON-RES.</b>	<b>2,126</b>	<b>1,859</b>	<b>2,144</b>
<b>TOTAL ENGINEERING</b>	<b>4,653</b>	<b>4,363</b>	<b>5,787</b>
<b>TOTAL CONSTRUCTION</b>	<b>9,707</b>	<b>9,213</b>	<b>11,146</b>

## BUILDING APPROVALS (\$M)

SOUTH AUSTRALIA	2015	2016	2017
HOUSES	1,819	1,952	2,032
SEMI-DETACHED	362	358	451
APARTMENTS	385	498	561
<b>TOTAL NEW RES.</b>	<b>2,565</b>	<b>2,809</b>	<b>3,044</b>
COMMERCIAL	60	63	86
EDUCATION	469	366	383
HEALTH	456	509	210
HOTELS	47	79	148
INDUSTRIAL	217	306	558
OFFICES	134	145	631
RETAIL	284	265	514
OTHER NON-RES.	207	622	441
<b>TOTAL NON-RES.</b>	<b>1,874</b>	<b>2,355</b>	<b>2,971</b>
<b>TOTAL BUILDING</b>	<b>4,440</b>	<b>5,164</b>	<b>6,016</b>



## LOCATION INTELLIGENCE BRISBANE

The construction market in Queensland appears to be transitioning from the record volume of residential apartments constructed over the past three years to a more historically balanced sector spread of work performed within the state. Brisbane's contribution to this transition is seeing a movement away from new apartments to large mixed use developments and new social and hard infrastructure across the city.

Overall approval values for the past three years are remarkably stable across all sectors, which could result in a constant flow of new work across the state over the next few years. The state government's recently announced commitment to major investment in health, education and infrastructure, coupled with strengthening non-residential sectors should offset the declining number of apartments being approved or under construction.

Across Queensland, construction volumes rose by 5.4% (\$2.2 billion) mainly due to increased engineering work done. Building approvals remained steady for 2017 with a rise of 1% (\$196 million).

Building approvals remained steady at \$20.5 billion for 2017.

- Residential approvals declined by 1.2% (\$153 million)
- Non-residential approvals increased 4.7% (\$349 million)

Construction volumes reached \$42.2 billion for 2017.

- The main driver was engineering construction with a 13% (\$2.4 billion) increase
- Residential work saw a fall of 4.6% (\$687 million) slightly offset by a 6.4% (464 million) rise in non-residential work

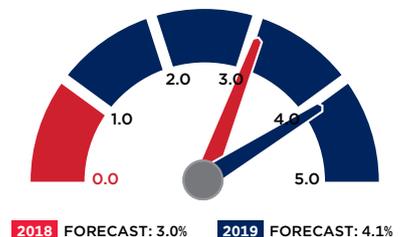
The hotel sector is undergoing a major resurgence with five major hotels currently under construction in Brisbane, including the Westin, the W, and an Art Series Hotel, all in the Brisbane CBD. A number of major place changing projects are planned for Brisbane including Dexus's Waterfront Precinct, Cross River Rail and the Brisbane Metro. Other significant current projects that will add to Brisbane's changing urban environment are Queens Wharf, Herston Quarter and Howard Smith Wharves revitalisation.

The state government has announced major hospital expansions at Logan and Caboolture, two inner-city vertical schools, expansion of Capricornia prison (Rockhampton) as well as the Townsville stadium that is currently under construction, all adding to the increasing volume of non-residential work being undertaken.

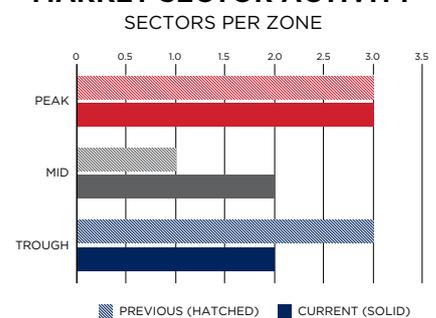
Market activity within Brisbane is mixed with 43% of sectors lying within the peak zone and the remaining sectors evenly spread between the mid and trough zones. The strength of the retail sector saw a shift from trough decline to peak decline.

As the apartment sector slows, construction costs have largely stabilised. It is anticipated that tender price levels will fall slightly in 2018 from 2017 levels, as contractors face lower work orders until the non-residential projects come to market. Due to the size of the Queens Wharf project and other committed projects within the Brisbane market, it is predicted that additional cost pressures will be felt from 2019 and beyond. This potentially will see the annual TPI uplift for Brisbane increase to 4% from 2019. The size of a number of committed projects may also impact the ability of tier 1 sub-contractors to service other projects. Wage cost pressures are also predicted due to increases in enterprise agreements at July 1.

### ANNUAL ESCALATION RATES



### MARKET SECTOR ACTIVITY



### CONSTRUCTION WORK DONE (\$M)

QUEENSLAND	2015	2016	2017
NEW HOUSES	6,620	6,855	7,069
OTHER RESIDENTIAL	4,579	6,536	5,645
ALTERATIONS	1,455	1,472	1,462
<b>TOTAL RESIDENTIAL</b>	<b>12,654</b>	<b>14,863</b>	<b>14,176</b>
COMMERCIAL	281	151	304
EDUCATION	700	896	1,015
HEALTH	1,403	1,139	911
HOTELS	352	514	661
INDUSTRIAL	717	989	1,129
OFFICES	1,104	926	906
RETAIL	1,711	1,680	1,732
OTHER NON-RES.	574	934	1,037
<b>TOTAL NON-RES.</b>	<b>6,842</b>	<b>7,230</b>	<b>7,694</b>
<b>TOTAL ENGINEERING</b>	<b>22,387</b>	<b>17,917</b>	<b>20,311</b>
<b>TOTAL CONSTRUCTION</b>	<b>41,883</b>	<b>40,011</b>	<b>42,181</b>

### BUILDING APPROVALS (\$M)

QUEENSLAND	2015	2016	2017
HOUSES	6,507	6,940	7,491
SEMI-DETACHED	1,495	1,911	1,733
APARTMENTS	5,447	4,017	3,492
<b>TOTAL NEW RES.</b>	<b>13,449</b>	<b>12,869</b>	<b>12,716</b>
COMMERCIAL	216	430	440
EDUCATION	860	1,127	959
HEALTH	807	768	1,079
HOTELS	962	328	631
INDUSTRIAL	788	1,118	1,047
OFFICES	727	914	687
RETAIL	1,966	1,546	1,883
OTHER NON-RES.	821	1,215	1,068
<b>TOTAL NON-RES.</b>	<b>7,147</b>	<b>7,446</b>	<b>7,794</b>
<b>TOTAL BUILDING</b>	<b>20,596</b>	<b>20,315</b>	<b>20,510</b>

## LOCATION INTELLIGENCE CANBERRA

The Australian Capital Territory is enjoying high levels of business confidence as activity increases in infrastructure and related urban renewal projects.

Building approvals and construction volumes strengthened for 2017, up 8.6% (\$205 million) and 12% (\$405 million) respectively.

Building approvals continued to rise to \$2.6 billion for 2017. For the first time since 2009, non-residential approval values exceeded residential approval values.

- Residential approvals fell 21% (\$344 million)
- Non-residential approvals had a strong increase of 71% (\$549 million)
- Large increases were seen in the education and industrial sectors with \$387 million and \$162 million respectively

Construction volumes reached \$3.7 billion for 2017.

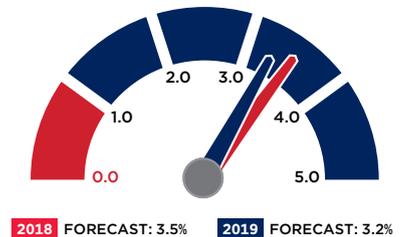
- The residential sector saw a slight increase of 3.2% (\$51 million)
- Non-residential work increased 15% (\$141 million)
- The engineering sector rose 27% (\$213 million)

New residential and commercial projects have commenced along the new Light Rail corridor activating these areas into new urban hubs. Major residential developments are also underway in Belconnen and more planned for the revitalisation of Woden.

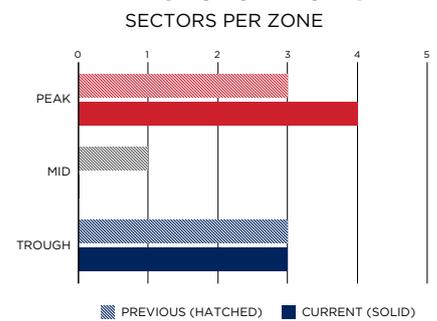
Work at the Australian National University continues with the new Bruce Hall student accommodation and Union Court projects well underway and the \$130 million Research School of Physics and Engineering about to commence. Major residential projects have also commenced on Northbourne Avenue. The \$300 million ACT Government Office is also due to start on the corner of London Circuit and Constitution Avenue. Planning has also commenced on the new Surgical Procedures, Interventional Radiology and Emergency (SPIRE) Centre at the ACT Health Canberra Hospital campus.

Activity in Canberra has picked up for Q3 2018, with over half (57%) of sectors in the peak zone, up from 43% in Q3 2017. For this edition Canberra is showing a clear divide between sectors, with the residential, office and civil sectors within the peak zone and the industrial, retail and hotel sectors within the trough zone.

### ANNUAL ESCALATION RATES



### MARKET SECTOR ACTIVITY



### CONSTRUCTION WORK DONE (\$M)

AUSTRALIAN CAPITAL TERRITORY	2015	2016	2017
NEW HOUSES	469	428	411
OTHER RESIDENTIAL	658	1,026	1,092
ALTERATIONS	134	126	128
<b>TOTAL RESIDENTIAL</b>	<b>1,260</b>	<b>1,581</b>	<b>1,632</b>
COMMERCIAL	41	34	27
EDUCATION	122	231	199
HEALTH	118	142	174
HOTELS	62	16	24
INDUSTRIAL	46	20	38
OFFICES	156	183	286
RETAIL	168	159	115
OTHER NON-RES.	138	141	204
<b>TOTAL NON-RES.</b>	<b>852</b>	<b>926</b>	<b>1,068</b>
<b>TOTAL ENGINEERING</b>	<b>684</b>	<b>789</b>	<b>1,002</b>
<b>TOTAL CONSTRUCTION</b>	<b>2,796</b>	<b>3,296</b>	<b>3,701</b>

### BUILDING APPROVALS (\$M)

AUSTRALIAN CAPITAL TERRITORY	2015	2016	2017
HOUSES	374	451	369
SEMI-DETACHED	222	353	235
APARTMENTS	540	799	656
<b>TOTAL NEW RES.</b>	<b>1,136</b>	<b>1,603</b>	<b>1,260</b>
COMMERCIAL	12	17	21
EDUCATION	301	70	457
HEALTH	99	268	48
HOTELS	25	37	79
INDUSTRIAL	38	29	190
OFFICES	125	217	360
RETAIL	127	93	87
OTHER NON-RES.	237	41	80
<b>TOTAL NON-RES.</b>	<b>964</b>	<b>772</b>	<b>1,322</b>
<b>TOTAL BUILDING</b>	<b>2,100</b>	<b>2,376</b>	<b>2,581</b>

## LOCATION INTELLIGENCE

# DARWIN

The Northern Territory construction market continues to go through a challenging time despite the government's efforts to keep the industry progressing.

Construction volumes have increased 4.5% (\$312 million), while approvals have declined 33% (\$352 million) to the lowest level seen in the last 10 years.

Building approvals fell to \$708 million for 2017.

- Residential approvals fell 32% (\$128 million)
- Non-residential approvals decreased 34% (\$223 million)

Construction volumes increased to \$7.2 billion for 2017.

- Engineering increased by 8.0% (\$457 million)
- The residential sector was down 25% (\$138 million)
- The non-residential sector remained steady

The recent NT Budget indicates the government's efforts to keep the industry progressing through this difficult time with minimal private investment being seen. The lifting of the moratorium on shale gas hydraulic fracturing is expected to inject a level of optimism and confidence which is intended to flow through to all sectors of the economy.

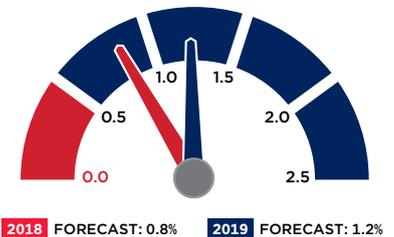
Defence is building its capability with major investments over the next ten years which should provide a boost to the local construction industry with corresponding flow on effects.

Major projects currently underway or in the planning stage include the Inpex Ichthys LNG plant, sports stadia for tennis, netball and rugby, a regional police station, defence facilities at Larrakeyah Barracks, secondary schools in Zoccali, a youth detention facility, an art gallery, the Arnhem Space Centre, a battery storage facility and defence projects at Tindal. New land subdivisions in Palmerston and Berrimah have commenced and are progressing.

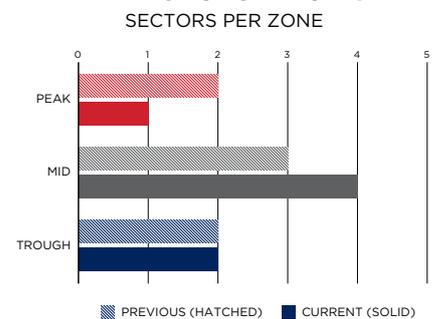
The market is generally very weak with spare capacity at all levels of the industry due to very low levels of private investment. The few government projects on offer are bid very competitively keeping price escalation at minimal levels. Defence projects coming on line will stimulate the market but we expect the spare capacity to take up the slack for this year. As more projects come on line we expect to see some low level price increases in both materials cost and subcontract labour.

Darwin's market sector activity reflects the challenging times the economy is currently facing, with sectors within the growth phase falling from 86% in Q3 2017 to 57% in Q3 2018 and over half (57%) of the sectors within the mid zone.

## ANNUAL ESCALATION RATES



## MARKET SECTOR ACTIVITY



## CONSTRUCTION WORK DONE (\$M)

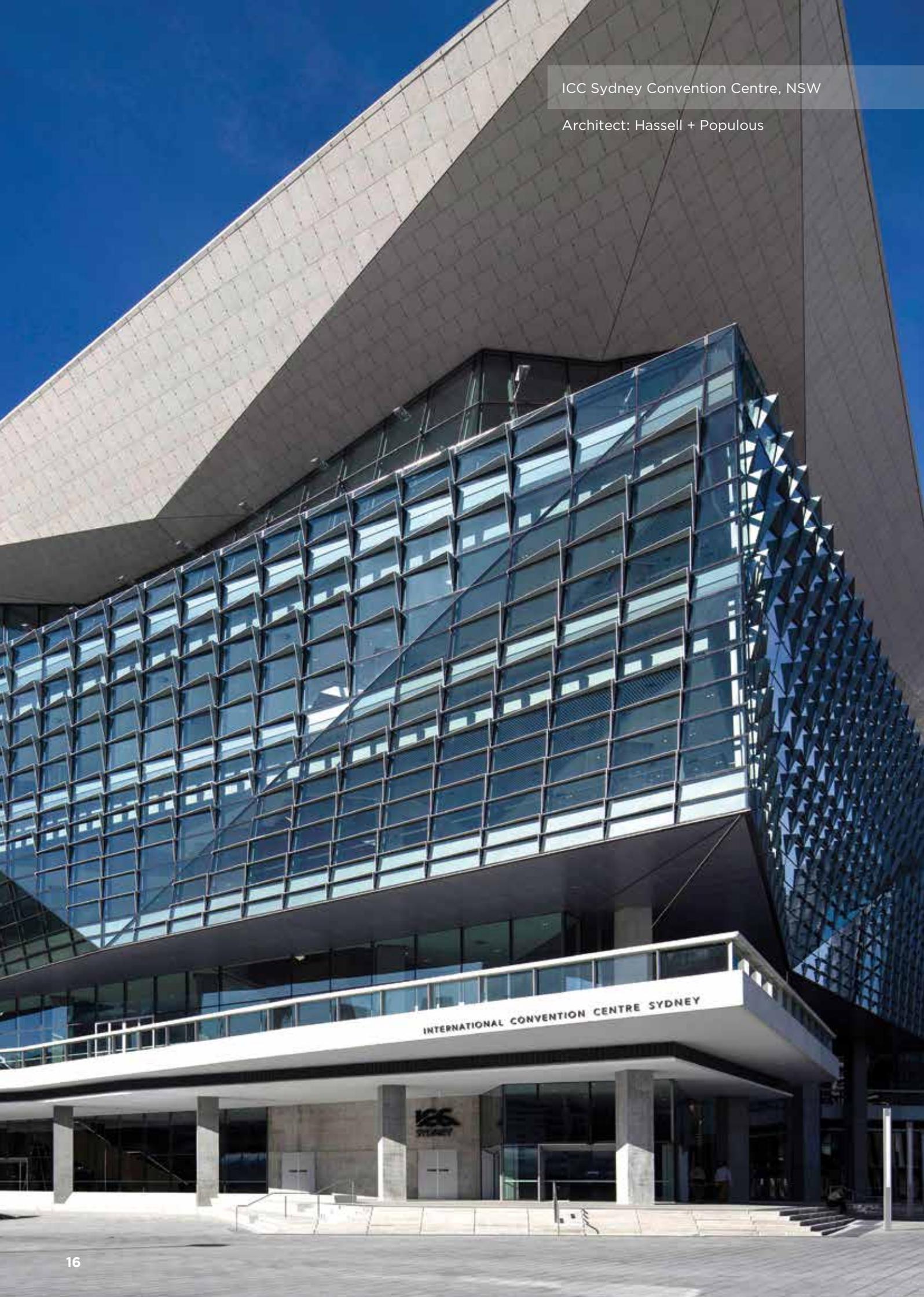
NORTHERN TERRITORY	2015	2016	2017
NEW HOUSES	345	313	236
OTHER RESIDENTIAL	268	132	70
ALTERATIONS	88	103	105
<b>TOTAL RESIDENTIAL</b>	<b>700</b>	<b>548</b>	<b>411</b>
COMMERCIAL	3	3	12
EDUCATION	80	128	70
HEALTH	74	130	127
HOTELS	86	13	11
INDUSTRIAL	165	23	54
OFFICES	111	35	40
RETAIL	79	165	110
OTHER NON-RES.	72	124	191
<b>TOTAL NON-RES.</b>	<b>669</b>	<b>622</b>	<b>615</b>
<b>TOTAL ENGINEERING</b>	<b>7,201</b>	<b>5,701</b>	<b>6,158</b>
<b>TOTAL CONSTRUCTION</b>	<b>8,570</b>	<b>6,872</b>	<b>7,184</b>

## BUILDING APPROVALS (\$M)

NORTHERN TERRITORY	2015	2016	2017
HOUSES	369	296	222
SEMI-DETACHED	53	53	36
APARTMENTS	131	54	17
<b>TOTAL NEW RES.</b>	<b>553</b>	<b>403</b>	<b>275</b>
COMMERCIAL	8	2	13
EDUCATION	137	103	81
HEALTH	202	79	60
HOTELS	20	2	22
INDUSTRIAL	55	32	46
OFFICES	72	41	39
RETAIL	372	64	67
OTHER NON-RES.	85	334	106
<b>TOTAL NON-RES.</b>	<b>951</b>	<b>657</b>	<b>433</b>
<b>TOTAL BUILDING</b>	<b>1,504</b>	<b>1,060</b>	<b>708</b>

ICC Sydney Convention Centre, NSW

Architect: Hassell + Populous



## LOCATION INTELLIGENCE GOLD COAST

The Gold Coast economy has now plateaued following the very successful hosting of the Commonwealth Games.

The housing, apartments, industrial and civil sectors have declined and retail has peaked. New hotel developments are on the rise with the Jewel now under construction, two new hotel projects about to commence construction and at least three new proposed hotel developments in the planning phase.

Building approval values for the Gold Coast (defined by the ABS ASGS, Statistical Area 4) region have increased 19% for 2017, while the number of dwelling approvals has declined 25%.

The average dwelling approval value for apartments increased from \$280k per apartment in 2016 to \$712k for 2017. Anecdotally it would appear that this significant increase was due to the approval of the Jewel development. This \$1 billion development consisting of luxury apartments (including a 6-star hotel) is being marketed as the 'ultimate in luxury' together with being 'generously proportioned'.

The value of building approvals rose to \$4.1 billion for 2017.

- Residential approvals rose 15% (\$361 million)
- Apartments saw a dip in 2016, to \$713 million, but has jumped back in 2017 to exceed 2015 levels at \$1.2 billion
- Non-residential approvals rose 30% (\$310 million)
- Retail saw the greatest boost, increasing \$448 million while commercial approvals fell 77% (\$183 million)

The number of dwellings approved fell to 6,178 for 2017.

With the increase in tourism visitation numbers to date and flow on effects of the Commonwealth Games, there are expectations that a rise in tourism related developments such as the expansion of the Gold Coast Airport Terminal, the new Art Gallery and theme park upgrades will occur.

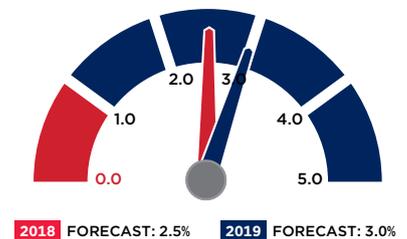
The \$1 billion Jewel project is now more than 50% constructed and will have a significant impact on the Gold Coast both visually and economically. Future major developments that will commence construction this year are Destination Gold Coast Stage 1, Gold Coast Airport Terminal Expansion and the Gold Coast Airport Hotel.

Market activity in the Gold Coast is fairly steady with 43% of sectors in the mid zone. Movements were seen by all zones, with both the peak and trough zones declining from 43% in Q3 2017 to 29% in Q3 2018. Sectors within the growth zone also declined from 57% to 29%.

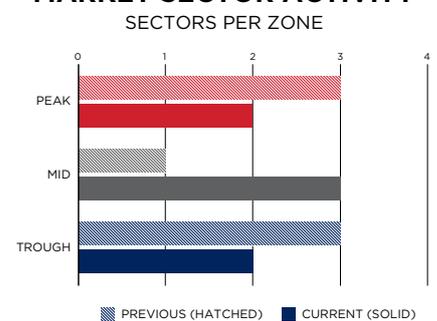
Due to the easing in the volume of new residential developments and the culmination of the Commonwealth Games in April, we have seen a stabilising of the construction market conditions.

There has been a decrease of up to 5% in the construction cost of smaller projects (less than \$50 million) due to increased competition amongst contractors, sub-contractors and material suppliers. Larger projects in excess of \$100 million, however, have experienced an increase in the order of 2.5% over the past year. This is mainly due to enterprise bargaining agreements that see labour increases of 5% per annum. Due to low volumes of new projects coming on line, future escalation rates will be in the CPI range which is currently between 2.0% - 2.5%.

### ANNUAL ESCALATION RATES



### MARKET SECTOR ACTIVITY



### BUILDING APPROVALS (\$M)

GOLD COAST	2015	2016	2017
NEW HOUSES	956	1,155	1,025
NEW SEMI-DETACHED	208	407	357
NEW APARTMENTS	1,086	713	1,235
ALTERATIONS	121	146	167
<b>TOTAL RESIDENTIAL</b>	<b>2,371</b>	<b>2,422</b>	<b>2,783</b>
COMMERCIAL	15	238	55
EDUCATION	92	68	110
HEALTH	84	95	96
HOTELS	361	42	18
INDUSTRIAL	96	135	143
OFFICES	33	83	53
RETAIL	300	270	718
OTHER NON-RES.	356	93	138
<b>TOTAL NON-RES.</b>	<b>1,338</b>	<b>1,022</b>	<b>1,332</b>
<b>TOTAL</b>	<b>3,709</b>	<b>3,444</b>	<b>4,115</b>

### BUILDING APPROVALS (NUMBER OF DWELLINGS)

GOLD COAST	2015	2016	2017
NEW HOUSES	3,278	3,913	3,019
NEW APARTMENTS	3,135	2,540	1,752
NEW SEMI-DETACHED	898	1,759	1,407
<b>TOTAL DWELLINGS</b>	<b>7,311</b>	<b>8,212</b>	<b>6,178</b>

## LOCATION INTELLIGENCE MELBOURNE

The Victorian economy recorded growth of 4.4% in 2017, well above the national level of 2.4%. Fuelling this strong performance is record population growth. For the twelve months to 30 September 2017, Victoria's population grew 2.4%, exceeding the national rate of 1.6%.

While construction in the residential sector appears to be easing, investment in non-residential buildings and infrastructure have been ramping up.

Government infrastructure investment is forecast to average \$10.1 billion per year for the next four years, more than double the previous 10 year average (FY 2006 to FY 2015).

Construction volumes and building approvals remained strong in 2017, with an 11% (\$4.7 billion) and 20% (\$6.1 billion) increase respectively.

Building approvals rose to \$37 billion in 2017, the highest level for the last 10 years.

- Residential approvals grew 11% (\$2.2 billion)
- Non-residential approvals increased 37% (\$3.9 billion)

Construction volumes continued its ascent to \$48 billion in 2017.

- Residential volumes remained steady with a 2.3% (\$516 million) rise
- Non-residential work showed strong growth, increasing 29% (\$2.7 billion)
- Engineering work recorded an increase of 13% to \$13.1 billion

Major projects under construction at present include CityLink Tulla Widening, Monash Freeway Upgrade, Metro Tunnel Project, Level Crossing Removal Projects, 447 Collins Street, 90 Collins Street, Olderfleet redevelopment, West Side Place and Australia 108.

In addition, the North East Link, West Gate Tunnel Project, Queen Victoria Market redevelopment and Melbourne Airport Rail Link are in the pipeline.

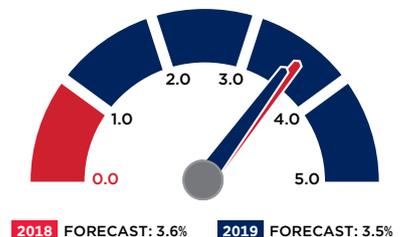
Melbourne market activity continues to be heated with 71% of sectors within the peak zone and no sectors falling within the trough zone. Additionally, sectors within the growth phase remain high at 71%. The apartment sector saw a shift in phase from growth to decline, as we see work done and approvals on the decline in 2018, but from historically strong levels.

Volatile escalation uplifts, seen in other Australian cities over the past number of years, have not eventuated in Melbourne. This may be due to Victoria's reasonably constant level of work done rather than the surges seen in other states. Competition still exists for tier 1 contractors looking to secure a constant workload.

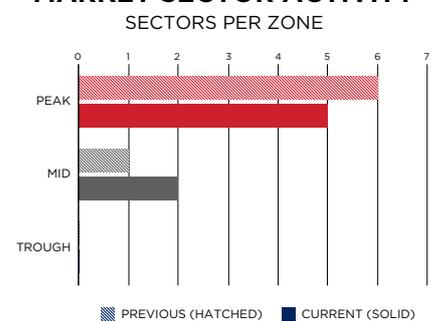
General escalation is forecast to be relatively stable over the next three years at slightly above inflationary rates. Within particular sectors (civil and commercial), pricing pressures may see higher rates of escalation than the general market rate due to increases in large scale projects coming into the market. Overall however falls in the high rise apartment sector will offset these potential increases.

Throughout 2018 and 2019, we are anticipating annual rates of TPI increases in civil trades within 3.0%-5.0% and general building works between 2.5%-4.0%.

### ANNUAL ESCALATION RATES



### MARKET SECTOR ACTIVITY



### CONSTRUCTION WORK DONE (\$M)

VICTORIA	2015	2016	2017
NEW HOUSES	9,584	10,819	11,119
OTHER RESIDENTIAL	7,600	8,713	8,781
ALTERATIONS	2,579	2,718	2,866
<b>TOTAL RESIDENTIAL</b>	<b>19,763</b>	<b>22,250</b>	<b>22,767</b>
COMMERCIAL	379	179	339
EDUCATION	1,334	1,279	2,137
HEALTH	1,791	1,310	1,206
HOTELS	206	296	605
INDUSTRIAL	1,737	1,381	1,851
OFFICES	1,849	1,775	2,141
RETAIL	1,558	1,638	1,714
OTHER NON-RES.	1,141	1,203	1,736
<b>TOTAL NON-RES.</b>	<b>9,995</b>	<b>9,063</b>	<b>11,729</b>
<b>TOTAL ENGINEERING</b>	<b>10,613</b>	<b>11,558</b>	<b>13,104</b>
<b>TOTAL CONSTRUCTION</b>	<b>40,371</b>	<b>42,871</b>	<b>47,600</b>

### BUILDING APPROVALS (\$M)

VICTORIA	2015	2016	2017
HOUSES	10,281	11,324	12,263
SEMI-DETACHED	2,398	2,785	3,625
APARTMENTS	6,374	6,158	6,535
<b>TOTAL NEW RES.</b>	<b>19,053</b>	<b>20,267</b>	<b>22,423</b>
COMMERCIAL	255	384	433
EDUCATION	1,482	1,684	2,679
HEALTH	1,002	1,188	1,657
HOTELS	314	892	831
INDUSTRIAL	1,457	1,789	1,731
OFFICES	1,559	1,910	3,921
RETAIL	1,264	1,448	1,766
OTHER NON-RES.	1,677	1,449	1,665
<b>TOTAL NON-RES.</b>	<b>9,011</b>	<b>10,744</b>	<b>14,683</b>
<b>TOTAL BUILDING</b>	<b>28,064</b>	<b>31,010</b>	<b>37,106</b>

## LOCATION INTELLIGENCE PERTH

The Perth economy is showing signs of plateauing from the bottom of the 'boom/bust' cycle with the early emerging signs of an economic recovery. Unemployment, a significant indicator in the west, has remained steady for several months at 5.6%.

While building approvals saw a fall for 2017, construction volumes experienced a 26% (\$9.9 billion) increase driven by engineering construction work done. The result was still positive even with a reduction in value due to the 'one-off' Ichthys LNG project's central processing facility platform, as explained earlier within this report.

Building approvals fell to \$10.0 billion for 2017.

- Residential approvals fell 12% (\$756 million)
- Non-residential approvals fell 3.7% (\$177 million)

Construction volumes rose to \$47.5 billion for 2017 after a fall in 2016.

- Engineering work increased 42% (\$10.9 billion)
- The residential sector fell 21% (\$1.6 billion)
- Non-residential work rose 16% (\$640 million)

The office leasing market has seen increased levels of activity in both Premium and Grade-A office stocks with the vacancy rates falling in the 12 month period from 22% to 20%.

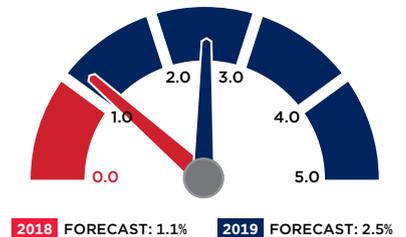
April saw the completion and the opening of the 368-room Westin Hotel on the eastern side of the city. In addition the Ritz Carlton Hotel (205 beds) & Apartment Development (379 apartments), being the first of the building projects at Elizabeth Quay, have approximately 18 months left to completion. There are 6 new smaller city hotels currently under construction.

Construction has commenced on several large scale retail redevelopments with more in design phases or approaching commencement. The aged care sector is steady and continues to provide significant work volumes for contractors. The apartment market continues to have slow pre-sales and therefore relatively low construction starts.

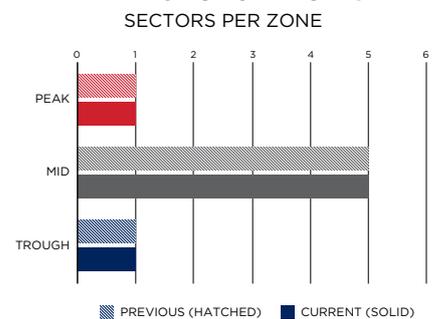
Perth's market activity highlights the steady conditions, with 71% of sectors remaining within the mid zone for Q3 2018. Slight growth was seen in the housing sector, moving from mid decline to mid growth.

We anticipate that for the next six months construction costs will remain largely static without any significant changes to effect the current supply/demand status. There are some signs that the second half of 2018 will see slightly higher construction volume on the back of some confidence returning to the market, but significant changes to existing TPI levels is not anticipated until 2019.

### ANNUAL ESCALATION RATES



### MARKET SECTOR ACTIVITY



### CONSTRUCTION WORK DONE (\$M)

WESTERN AUSTRALIA	2015	2016	2017
NEW HOUSES	6,800	5,121	4,100
OTHER RESIDENTIAL	2,035	1,810	1,385
ALTERATIONS	733	726	584
<b>TOTAL RESIDENTIAL</b>	<b>9,568</b>	<b>7,657</b>	<b>6,070</b>
COMMERCIAL	272	202	219
EDUCATION	613	539	530
HEALTH	597	361	488
HOTELS	460	487	487
INDUSTRIAL	696	176	484
OFFICES	886	568	454
RETAIL	607	758	1,092
OTHER NON-RES.	765	965	943
<b>TOTAL NON-RES.</b>	<b>4,896</b>	<b>4,056</b>	<b>4,696</b>
<b>TOTAL ENGINEERING</b>	<b>42,102</b>	<b>25,906</b>	<b>36,757</b>
<b>TOTAL CONSTRUCTION</b>	<b>56,565</b>	<b>37,619</b>	<b>47,523</b>

### BUILDING APPROVALS (\$M)

WESTERN AUSTRALIA	2015	2016	2017
HOUSES	5,844	4,501	4,007
SEMI-DETACHED	608	477	437
APARTMENTS	1,276	1,146	925
<b>TOTAL NEW RES.</b>	<b>7,729</b>	<b>6,124</b>	<b>5,368</b>
COMMERCIAL	146	143	118
EDUCATION	555	594	488
HEALTH	197	359	520
HOTELS	479	542	537
INDUSTRIAL	680	538	554
OFFICES	618	525	582
RETAIL	611	1,329	1,409
OTHER NON-RES.	711	793	440
<b>TOTAL NON-RES.</b>	<b>3,996</b>	<b>4,824</b>	<b>4,647</b>
<b>TOTAL BUILDING</b>	<b>11,725</b>	<b>10,948</b>	<b>10,015</b>

## LOCATION INTELLIGENCE SYDNEY

High levels of activity continue to be experienced throughout New South Wales. Construction levels remain at record levels for the residential sector as many projects near completion. Activity continues to rise in the non-residential and engineering sectors, providing strong economic growth for the state.

Both construction volumes and building approvals have increased 11% (\$6.1 billion) and 6.3% (\$2.3 billion) respectively for 2017.

Building approvals rose to \$38 billion for 2017.

- Residential approvals remained steady at \$23 billion
- Non-residential approvals increased 18% (\$2.3 billion)

Construction volumes reached a five year high with \$60 billion for 2017.

- The residential sector increased 8% (\$2.0 billion)
- Non-residential work remained steady with a 1% (\$154 million) increase
- Engineering work recorded an increase of 22%, to \$22 billion

The April 2018 RLB Crane Index® saw total cranes erected in Sydney falling from 350 to 346. Cranes erected on residential projects dropped from 85% to 73% of the total cranes. In addition, contractors who work in the residential sector are now finding reduced opportunities to replace completed projects. Increases in the number of cranes in the non-residential sector provided an offset to the fall in crane numbers in the residential sector.

The outlook for the remainder of 2018 continues to be positive for all sectors due to the strong level of development approvals in the last quarter of 2017.

Sydney market activity continues to be heated, with zones and phases unchanged from Q3 2017.

The availability of labour resources to all sectors of the construction industry continues to be an issue. Design consultants and contractors alike continue to report limited available resources to undertake additional or new opportunities. On projects requiring a significant commitment to 'tight' deadlines, availability and assurance of labour resources at the time of award are an important consideration for the award of contracts.

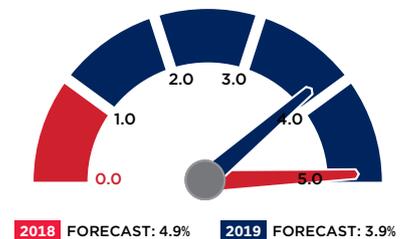
Contractors are increasing efforts to engage subcontractors at the tender stage to provide more certainty on cost and resources to achieve planned construction time and reduce the cost risk profile for the project.

New enterprise bargaining agreements rates continue to rise, in the range of 4.0% to 5.0% per annum.

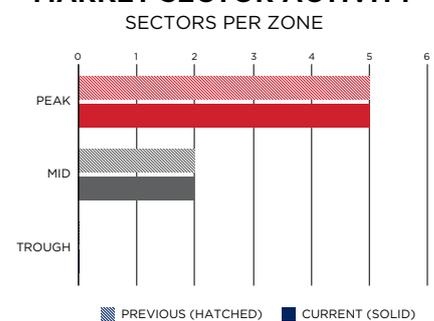
In the later months of 2017 and early months of 2018 material price rises were stable. From April 2018 material price rises have occurred in concrete, brick, cement, formply, selected steel products and residential windows. These increases are in the range of 2% to 10%. It is possible in the future, that prices of materials that are derived from oil, such as PVC piping and flooring may rise due to the recent price increase in international oil markets.

The rate of construction cost increases remains in the range of 4%-5% per annum. Despite increased opportunities, contractor's margins remain tight and competitive prices are rising due to labour costs and subcontractor demand. Careful consideration as to when projects are brought to market is critical to avoid demand price rises and the mitigation of inflated cost risk allowances being incorporated into project pricing.

### ANNUAL ESCALATION RATES



### MARKET SECTOR ACTIVITY



### CONSTRUCTION WORK DONE (\$M)

NEW SOUTH WALES	2015	2016	2017
NEW HOUSES	8,118	9,173	9,613
OTHER RESIDENTIAL	8,621	12,024	13,550
ALTERATIONS	2,772	3,062	3,050
<b>TOTAL RESIDENTIAL</b>	<b>19,512</b>	<b>24,259</b>	<b>26,212</b>
COMMERCIAL	429	567	583
EDUCATION	1,055	1,059	1,362
HEALTH	1,719	1,866	1,841
HOTELS	747	805	1,116
INDUSTRIAL	1,151	1,421	1,852
OFFICES	2,475	2,279	2,052
RETAIL	1,925	2,149	1,593
OTHER NON-RES.	1,473	1,884	1,784
<b>TOTAL NON-RES.</b>	<b>10,973</b>	<b>12,030</b>	<b>12,184</b>
<b>TOTAL ENGINEERING</b>	<b>16,270</b>	<b>17,668</b>	<b>21,619</b>
<b>TOTAL CONSTRUCTION</b>	<b>46,755</b>	<b>53,956</b>	<b>60,015</b>

### BUILDING APPROVALS (\$M)

NEW SOUTH WALES	2015	2016	2017
HOUSES	8,494	9,282	9,559
SEMI-DETACHED	1,933	2,063	2,900
APARTMENTS	10,249	11,455	10,321
<b>TOTAL NEW RES.</b>	<b>20,676</b>	<b>22,800</b>	<b>22,780</b>
COMMERCIAL	475	477	685
EDUCATION	1,280	1,020	2,128
HEALTH	1,519	2,036	1,877
HOTELS	629	1,159	1,204
INDUSTRIAL	1,479	1,470	2,393
OFFICES	1,414	2,096	2,673
RETAIL	1,977	2,797	1,768
OTHER NON-RES.	1,395	1,852	2,458
<b>TOTAL NON-RES.</b>	<b>10,168</b>	<b>12,907</b>	<b>15,187</b>
<b>TOTAL BUILDING</b>	<b>30,845</b>	<b>35,707</b>	<b>37,966</b>

# LOCATION INTELLIGENCE

## TOWNSVILLE

Townsville and the North Queensland region has seen tough economic times of late, and many hoped for 2017 to be the start of an upturn in economic activity.

This was true in some sectors; with the city being the largest regional centre in Queensland, the port, defence base and university saw continuing activity. For conventional construction activity (outside civil infrastructure) there remain challenges ahead.

Building approval values in Townsville (defined by the ABS ASGS, Statistical Area 4) region have increased 34% during 2017, while the number of dwellings approved fell 8%. This increase in approvals appears to be the result of the 'once in a decade' \$250 million North Queensland Stadium approval.

The value of building approvals rose to \$801 million for 2017.

- Residential approvals fell 6% (\$16 million)
- Non-residential approvals rose 69% (\$218 million) driven by the stadium approval mentioned above (it would have been a fall of 10% without the stadium)

The number of dwellings approved fell slightly from 2016 levels to 822.

The Carmichael Coal Mine project has not yet hit its stride, but the wider region will benefit from future water security due to the commencement of the pipeline to the Burdekin Dam.

Construction commenced for the North Queensland Stadium and this appears to be a catalyst for further works in the precinct including both public sector (parklands precinct connecting to the city) and private (possible hotel). The Townsville City Council has launched their 2020 Masterplan for the city but unfortunately shelved some previous projects that proceeded past their respective masterplan stage, including the Waterfront Revitalisation of Ross Creek which was to become shovel ready in 2017.

The expansion and renovation of Townsville Hospital is continuing, albeit on a much smaller scale than in years past; the Mater Hospital expansion will see a new \$40 million wing added.

Defence capital projects are in the pipeline in Townsville and surrounds.

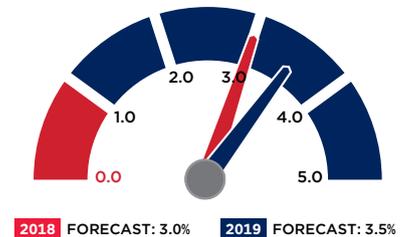
The expansion of the Port of Townsville to accommodate the forecast growth in trade and address current capacity constraints, remains on the cards with an approved Environmental Impact Statement (EIS).

Education remains a relatively active sector, with new schools in the northern suburbs and ongoing activity at James Cook University.

Market activity in Townsville has seen a fall from Q3 2017, with the number of sectors in the peak zone declining from 33% to 17%. Retail is the only sector to remain in the peak zone between Q3 2017 and Q3 2018, with civil shifting from peak to mid. All sectors were reported to be in the decline phase, illustrating the tough conditions the region is experiencing.

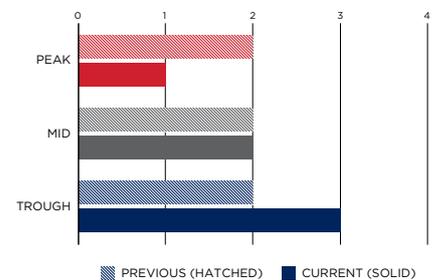
The construction market remains competitive as current and pipeline projects are thinly spread compared to past years. The region is experiencing competitive rates throughout the majority of trades. We anticipate an adjustment in the TPI as more projects come on line and order books are filled. This will impact the levels of commercial discounting currently being undertaken to secure jobs.

### ANNUAL ESCALATION RATES



### MARKET SECTOR ACTIVITY

SECTORS PER ZONE



### BUILDING APPROVALS (\$M)

TOWNSVILLE	2015	2016	2017
NEW HOUSES	261	201	204
NEW SEMI-DETACHED	27	14	8
NEW APARTMENTS	17	14	5
ALTERATIONS	52	52	48
<b>TOTAL RESIDENTIAL</b>	<b>358</b>	<b>281</b>	<b>265</b>
COMMERCIAL	14	5	3
EDUCATION	113	35	86
HEALTH	68	33	52
HOTELS	38	3	0
INDUSTRIAL	28	83	36
OFFICES	12	11	21
RETAIL	180	27	58
OTHER NON-RES.	14	122	280
<b>TOTAL NON-RES.</b>	<b>468</b>	<b>318</b>	<b>536</b>
<b>TOTAL</b>	<b>825</b>	<b>599</b>	<b>801</b>

### BUILDING APPROVALS

(NUMBER OF DWELLINGS)

TOWNSVILLE	2015	2016	2017
NEW HOUSES	985	749	759
NEW APARTMENTS	57	67	25
NEW SEMI-DETACHED	174	75	38
<b>TOTAL DWELLINGS</b>	<b>1,216</b>	<b>891</b>	<b>822</b>

Manukau Bus Station, Auckland

Architect: Beca Ltd & Cox Architecture

# Manukau Bus Station

## CONSTRUCTION MARKET INTELLIGENCE

# NEW ZEALAND

In recent years robust global growth has provided support to the New Zealand economy. High net migration and low interest rates continue to support growth, with strong net migration since 2012 driving both demand and supply within the New Zealand economy.

Real GDP for 2017 was 2.9%, with a forecast increase to 3.2% in 2018, according to the ANZ New Zealand Economic Outlook report (March 2018).

In December 2017 a new labour government was elected. Their first budget, Budget 2018, was released in May 2018 and indicated that the 'construction sector was one-sector where there is limited room for expansion without it adding to inflationary pressure.' This highlights the pressure the industry is currently under as demand has increased substantially over the past three years.

With the introduction of 'KiwiBuild', a program to build 100,000 new 'affordable' houses for first home buyers in the next 10 years, capacity pressures within the construction sector are unlikely to ease, with 'KiwiBuild'-related construction revenues forecast to become progressively larger over the government's budget forecast period (2022) and beyond.

New construction volumes and building consents continued to rise during 2017 by 8.5% and 7.8% respectively.

New residential projects continued to dominate the industry in 2017 representing 70% of the total new consents value and 67% of the total new work put in place across the country.

- *New building volumes reached \$17.2 billion for 2017*
- *New residential work continued its double digit year on year growth with an 11% (\$1.1 billion) increase from 2016 results*
- *New non-residential work put in place increased 4.4% for 2017 to \$5.6 billion*

New building consents continued to rise, recording \$16.4 billion for 2017.

- *New residential consents grew 7.8% (\$828 million)*
- *New non-residential approvals increased 6.5% (\$297 million)*

This continuing growth in work put in place across the country was reflected in the Q1 2018 RLB Crane Index which recorded 125 cranes around New Zealand, a slight rise from Q4 2017 levels. Sector movements were minimal, with a net increase of three cranes on hotel projects being seen. Auckland experienced the highest net increase in cranes, with ten, highlighting the strong growth and activity occurring within the region.

### NEW BUILDING WORK PUT IN PLACE (\$M)

NEW ZEALAND	2015	2016	2017
<b>TOTAL RESIDENTIAL</b>	<b>8,420</b>	<b>10,467</b>	<b>11,577</b>
EDUCATION	638	901	964
HEALTH	407	477	545
HOTELS	246	369	498
INDUSTRIAL	1,075	1,143	1,249
OFFICES	836	1,245	1,117
RETAIL	596	629	495
OTHER	633	580	711
<b>TOTAL NON-RES.</b>	<b>4,430</b>	<b>5,344</b>	<b>5,578</b>
<b>TOTAL WORK PUT IN PLACE</b>	<b>12,850</b>	<b>15,811</b>	<b>17,154</b>

### NEW BUILDING CONSENTS (\$M)

NEW ZEALAND	2015	2016	2017
<b>TOTAL RESIDENTIAL</b>	<b>8,796</b>	<b>10,648</b>	<b>11,475</b>
EDUCATION	777	942	769
HEALTH	431	551	371
HOTELS	218	429	550
INDUSTRIAL	1,030	939	1,174
OFFICES	852	816	859
RETAIL	549	474	498
OTHER	548	426	653
<b>TOTAL NON-RES.</b>	<b>4,404</b>	<b>4,578</b>	<b>4,875</b>
<b>TOTAL CONSENTS</b>	<b>13,201</b>	<b>15,225</b>	<b>16,350</b>

# CONSTRUCTION MARKET INTELLIGENCE NEW ZEALAND

## TENDER PRICE INDEX

Escalation forecasts for 2018 remain elevated with all regions forecasting TPI increases above current CPI levels (2.0% p.a.).

Moving forward, expectations are that escalation will decline in all cities. Auckland and Wellington's escalation is forecast to fall 50% by 2021 to 3.0%, while Christchurch's escalation will remain constant at 2.0% from 2019 onwards.

As identified in the recent RLB Forecast Report 87, 'construction sector firms continue to report acute labour shortages. Skilled labour is particularly hard to find, although shortages have eased slightly from levels seen in

mid-2016. Migrants have helped alleviate labour shortages, with the number of technicians and trades' workers moving to New Zealand on a work visa in recent years.'

Planned reductions in migration may impact on future escalation rates if skilled trade labour demand is not met.

Auckland's construction market has been under resource pressure with escalation peaking at 8.0% in 2017. Moving forward, expectations for Auckland are that market forces will take effect and increasing costs will soften demand, thus easing escalation. As such, long term forecasts for 2020 to 2021 are lower at 3.0%.

Christchurch's TPI is coming off its 2015 post-earthquake peak of 6% and is now in a stable escalation climate. Escalation forecasts for 2019 onwards are expected to remain close to inflation, at 2.0%.

Wellington continues to experience strong growth, with many projects committed while other larger projects are reaching completion. Labour shortages continue to be an issue as workloads appear to have no end in sight. Short term forecasts see escalation peaking in 2018 at 6.0% falling to 3.0% in 2021.

## RLB TENDER PRICE ANNUAL % CHANGE

	2016	2017	2018 (F)	2019 (F)	2020 (F)	2021 (F)
AUCKLAND	5.5	8.0	6.0	3.5	3.0	3.0
CHRISTCHURCH	3.0	3.0	3.0	2.0	2.0	2.0
WELLINGTON	4.5	5.3	6.0	4.0	4.0	3.0

(F) RLB Forecast as at June 2018

## RLB COST RELATIVITY INDEX

TPI relativities have been calculated using the model costings to determine the construction cost in RLB offices and comparing the differences in cost between each office. All offices' costs have recalibrated highlighting the building cost relativities between each city.

For example, building costs in Auckland (relativity of 121) when compared to Wellington (relativity of 124) are 2.5% cheaper, and conversely, Wellington's building costs are 2.4% more expensive than Auckland.

The calculations are:

## RELATIVITIES INDEX AT JUNE 2018

CITY	INDEX
AUCKLAND	121
CHRISTCHURCH	118
WELLINGTON	124

$$\left[ 1 - \left( \frac{\text{WELLINGTON}}{\text{AUCKLAND}} \right) \right] \times 100 = \text{Relativity \% Difference} \quad \text{i.e.} \quad 1 - \left( \frac{124}{121} \right) \times 100 = 2.4\%$$

$$\left[ 1 - \left( \frac{\text{AUCKLAND}}{\text{WELLINGTON}} \right) \right] \times 100 = \text{Relativity \% Difference} \quad \text{i.e.} \quad 1 - \left( \frac{121}{124} \right) \times 100 = 2.5\%$$

# CONSTRUCTION MARKET INTELLIGENCE NEW ZEALAND

## MARKET ACTIVITY CYCLE

Each regional RLB office within New Zealand reports on the current position of the seven major construction sectors in their city. The three cities' results are consolidated to form a current view of the industry across New Zealand.

For Q3 2018, New Zealand market activity is strong, with over half (52%) of all sectors within the peak zone, up from 33% in Q3 2017. The civil sector remains the only sector in the peak zone for all regions.

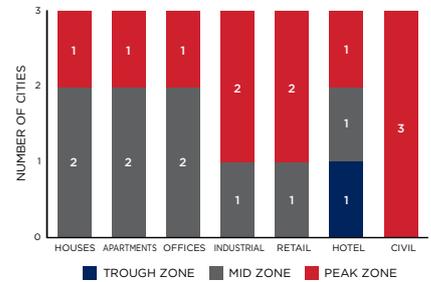
The growth in work put in place during 2017 is reflected in the 71% of sectors in the growth phase of the cycle. A total of four sectors moved from the mid zone to the peak zone reinforcing the strong growth within the market as a whole.

Auckland continues to show the effects of strong growth with all sectors in the peak zone. Sectors within the growth phase remained constant.

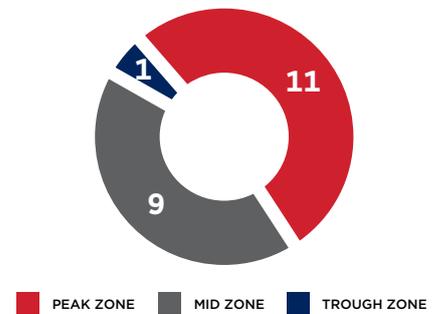
Christchurch market activity shows signs of an economy that is on the tail end of a peak. Six sectors fell within the mid zone for Q3 2018. The civil sector remained the only sector within the peak zone.

Market activity in Wellington continues to grow with five sectors within the growth phase of the cycle and three sectors within the peak zone. The industrial, retail and civil sectors are currently within the peak zone highlighting their strong performance.

## MARKET SECTOR ACTIVITY CYCLE



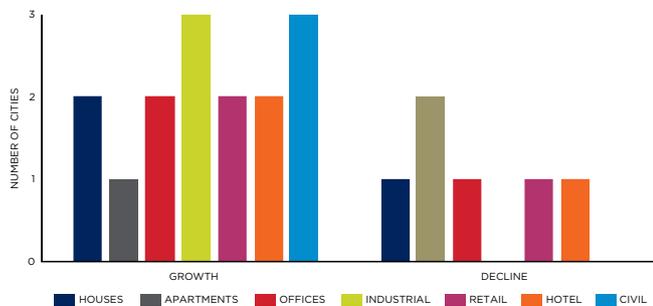
## MARKET SECTOR ACTIVITY



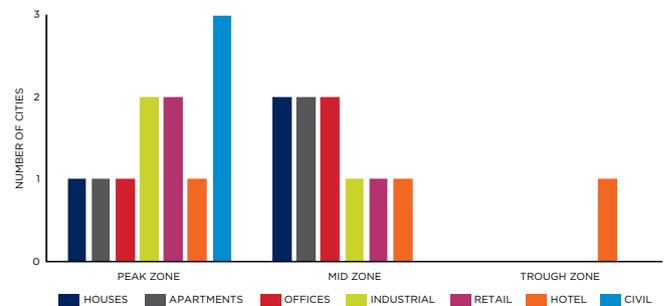
For more details on the RLB Market Sector Activity Cycle refer to Page 30 of this publication.

NEW ZEALAND	HOUSES	APARTMENTS	OFFICES	INDUSTRIAL	RETAIL	HOTEL	CIVIL
AUCKLAND	▲	▼	▲	▲	▲	▲	▲
CHRISTCHURCH	▼	▼	▼	▲	▲	▲	▲
WELLINGTON	▲	▲	▲	▲	▼	▼	▲

## NUMBER OF SECTORS WITHIN PHASES



## NUMBER OF SECTORS WITHIN ZONES



12 Madden Street, Auckland

Architect: Warren and Mahoney Architects Ltd



## LOCATION INTELLIGENCE AUCKLAND

The Auckland region continues to have strong growth through migration and tourism. Although numbers have cooled, there is still a pipeline of work to support the surge in population growth over the last few years. The new Labour government's introduction of 'KiwiBuild' and the intention to underwrite financing for these residential developments will support construction in this sector, despite capacity and funding constraints. Other significant spending on local infrastructure including roads and rail has been announced which will maintain high levels of activity over the next five to ten years.

New construction volumes and building consents highlight the strong growth currently being experienced in the region. Increases in 2017 over 2016 were 13% (\$700 million) and 11% (\$597 million) respectively.

New construction work put in place reached \$6.3 billion for 2017.

- *New residential work put in place continued to rise by 13% (\$484 million)*
- *New non-residential work put in place grew 12% (\$215 million)*

New building consents in 2017 continued its growth, with an 11% increase on 2016, to \$6.2 billion.

- *New residential consents grew 5.3% (\$211 million)*
- *New non-residential consents saw a significant increase of 24% (\$386 million) on 2016 levels*

There is significant work within Auckland's CBD, with the City Rail Loop, Commercial Bay and the Skycity Convention Centre and Hotel projects continuing and other new major projects in their early phases. Many commercial and residential projects are also in full swing within the Wynyard Quarter area and city fringe, as well as a significant amount of retail projects in the wider region. The University of Auckland continues to roll out significant projects and continued population growth is resulting in significant investment in infrastructure projects.

Market activity in Auckland highlights its strong growth, with all sectors in the peak zone for Q3 2018. Additionally, 86% of sectors were reportedly within the peak growth zone, with apartments the only sector to be in the peak decline zone.

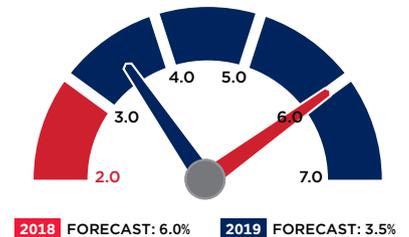
The construction market, particularly with respect to the \$100 million plus projects requiring tier 1 or 2 contractors is severely stretched. The issues of the overheated market are unfortunately well demonstrated by the massive losses the premier building contractor in New Zealand has suffered.

The Fletcher Building and Interiors division has provisioned approximately \$660 million of losses for the 2018 financial year and are no longer bidding on any new work. This leaves a significant gap in the market and the market's capacity to deliver large complicated projects.

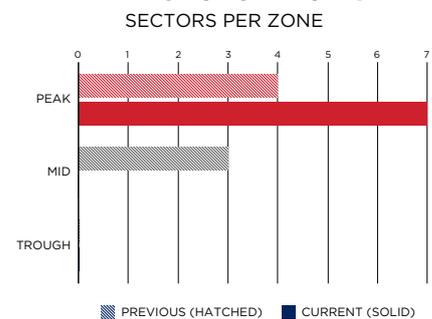
The subcontractor market across the board is also under resource pressure and this is seen in poor tender responses and volatile pricing. The lack of skilled resources is affecting productivity and cost, slowing projects down and leading to higher preliminaries costs and late completion of projects.

These market issues may dissuade new market entrants filling the void left by Fletcher. Despite CPI inflation being below 2.0% per annum, within the construction sector wage growth and supply shortages has seen tender prices increase in the order of 8.0% for 2017 with a forecast of 6.0% for 2018. Given the level of increasing costs it is anticipated that demand will soften and escalation will ease to some degree.

### ANNUAL ESCALATION RATES



### MARKET SECTOR ACTIVITY



### NEW WORK PUT IN PLACE (\$M)

AUCKLAND	2015	2016	2017
RESIDENTIAL	2,813	3,800	4,285
NON-RES.	1,217	1,804	2,019
<b>TOTAL</b>	<b>4,030</b>	<b>5,604</b> 39%	<b>6,304</b> 13%

### NEW BUILDING CONSENTS (\$M)

AUCKLAND	2015	2016	2017
RESIDENTIAL	3,076	4,005	4,215
EDUCATION	149	385	321
HEALTH	77	160	113
HOTELS	137	205	357
INDUSTRIAL	345	259	435
OFFICES	263	366	398
RETAIL	204	173	212
OTHER NON-RES	100	69	167
<b>TOTAL NON-RES</b>	<b>1,276</b>	<b>1,617</b>	<b>2,003</b>
<b>TOTAL CONSENTS</b>	<b>4,351</b> 18%	<b>5,622</b> 22%	<b>6,219</b> 11%

## LOCATION INTELLIGENCE

# CHRISTCHURCH

The Christchurch rebuild peak has now been reached with respect to both residential and commercial projects.

New construction volumes and building consents during 2017 saw a decline of 13% (\$487 million) and 8.9% (\$291 million) respectively.

New construction work put in place fell to \$3.4 billion for 2017.

- *New residential work fell 11% (\$239 million)*
- *New non-residential work fell 14% (\$248 million)*

New building consents fell below \$3 billion after three consecutive years of exceeding \$3 billion.

- *New non-residential consents fell 11% (\$142 million)*
- *New residential consents fell 7.5% (\$149 million)*

The general election led to a number of spending initiatives including additional central government funding of a new stadium being announced. Following the election, Canterbury gained a new Minister for Greater Christchurch Regeneration and as a result, there have been some changes in the rebuild planning and timetable.

In the past year a large amount of office space has been completed and occupied in the Christchurch CBD. Several key CBD anchor projects are now underway which should give some certainty to the Cathedral Square area, although there is still doubt over reinstatement timing with regard to the damaged Christchurch Cathedral building. The Crossing Retail development in the CBD is also providing renewed impetus in CBD retail and the Terraces Hospitality precinct is near completion and has a number of tenancies operating.

A number of major projects under construction include: Christchurch Convention Centre, Christchurch Hospital Acute Services Building, Central Library and The Town Hall rebuild project continues and is due for completion in 2019.

Outside of Christchurch City, tendering has begun for the main contract component of the major Lincoln University Hub project.

The ECI contract for the Metro Sports Facility was terminated in late 2017 following budget issues and a resolution was recently announced with the project revived with a number of design changes. Construction is expected to commence before the end of 2018.

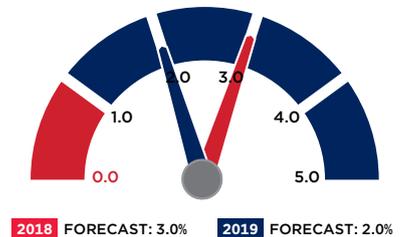
Market activity within Christchurch confirms that the construction peak has been reached. Since Q3 2017, there has been a decline in sectors within the peak zone, while the mid zone saw a considerable rise. Civil is the only sector remaining within the peak growth zone.

Construction escalation has slowed somewhat in the last period. Major and complex projects still see trade related and extraordinary escalation spikes. Among others, the Hospital and Convention Centre projects will continue to use considerable resources. There are still a number of major projects getting underway as well as those due for completion next year. This will continue to put demand on key trades for the foreseeable future and result in continuing tender price increases.

Demand from other cities is also drawing some resources away from Christchurch as work becomes available.

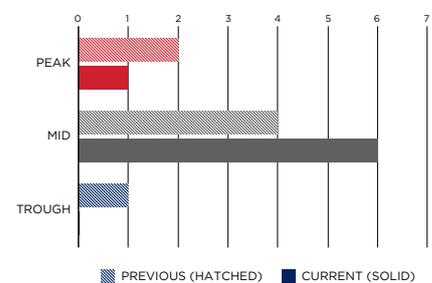
The recent announcement by Fletcher Construction may impact the ability of New Zealand companies to tender for major local projects.

## ANNUAL ESCALATION RATES



## MARKET SECTOR ACTIVITY

SECTORS PER ZONE



## NEW WORK PUT IN PLACE (\$M)

CANTERBURY	2015	2016	2017
RESIDENTIAL	2,207	2,149	1,910
NON-RES.	1,602	1,722	1,474
<b>TOTAL</b>	<b>3,809</b>	<b>3,871</b> 2%	<b>3,384</b> -13%

## NEW BUILDING CONSENTS (\$M)

CANTERBURY	2015	2016	2017
RESIDENTIAL	2,140	1,983	1,834
EDUCATION	370	245	189
HEALTH	261	249	117
HOTELS	27	107	92
INDUSTRIAL	280	301	253
OFFICES	424	150	183
RETAIL	126	133	113
OTHER NON-RES	150	102	198
<b>TOTAL NON-RES</b>	<b>1,638</b>	<b>1,286</b>	<b>1,144</b>
<b>TOTAL CONSENTS</b>	<b>3,778</b> 5%	<b>3,269</b> -14%	<b>2,978</b> -9%

## LOCATION INTELLIGENCE WELLINGTON

The Wellington region continues to grow in terms of construction activity and work put in place.

Various larger projects are finishing with further new projects in the pipeline ready to start. The industry as a whole is still awaiting advice on new projects to replace recently demolished buildings and further news on possible demolition of other vacant buildings. Office space vacancy levels remain extremely low and new space is needed to cope with current demand.

New construction volumes and value of building consents both rose over the twelve month period, with 33% (\$294 million) and 14% (\$129 million) respectively.

Construction work put in place reached \$1.2 billion for 2017.

- Residential work increased by 30% (\$170 million)
- Non-residential work grew 37% (\$124 million)

Building consents rose to \$1.1 billion for 2017.

- Residential consents was the driver, with a growth of 28% (\$164 million)
- Non-residential consents fell 10% (\$35 million)

The new Labour government is planning major capital spending over their 3-year term. This was outlined in the Budget presentation last month and includes significant sums for health, education, defence, social housing and infrastructure. This will be focused in the major centres but regional expenditure will also occur to lower levels.

Two office towers are nearing completion, with multiple smaller projects still ongoing around the city and into the outer regions of the Lower North Island.

Between Q3 2017 and Q3 2018 Wellington has seen a transition to the peak zone, with 43% of sectors in the peak zone, up from 14% in Q3 2017. The only sector to fall within the trough zone was hotels. For Q3 2018, 71% of sectors are within the growth phase, this is a slight decline from Q3 2017 where all sectors were reported to be in the growth phase, highlighting a possible shift away from some sectors, to focus on others. Sectors remaining within the peak growth zone are industrial and civil.

The major civil projects north of Wellington are ongoing and gearing up for the major concrete construction stages of the project. This work still has 2-3 years to run and is having a big impact on resources across the region. A number of other large building projects are in the later design phases at present and will likely come to market during this year.

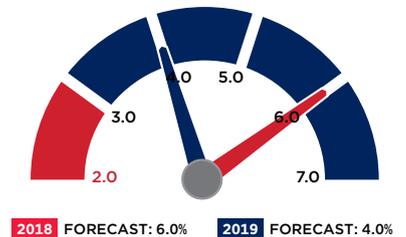
The impact of the loss of Fletcher Construction from the tender market is still to be analysed.

Building cost escalation is continuing to outstrip inflation levels by some margin. Subcontract resources are stretched and we are seeing significant price increases in various trades due more to a lack of competitive tension rather than market inflation.

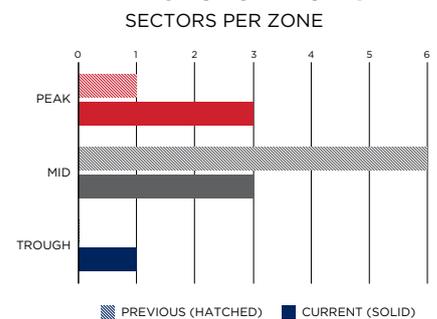
Many companies are continuing to experience labour shortages due to a lack of personnel coming into the Wellington market given the prevailing conditions in most other regions of New Zealand. This level of workload has no precedent and also has no end in sight given the favourable economic conditions prevailing currently.

TPI index movements are likely to stay in the 4.0%-6.0% p.a. range for 2018, but could spike higher than this depending on the timing of new projects coming into the market.

### ANNUAL ESCALATION RATES



### MARKET SECTOR ACTIVITY



### NEW WORK PUT IN PLACE (\$M)

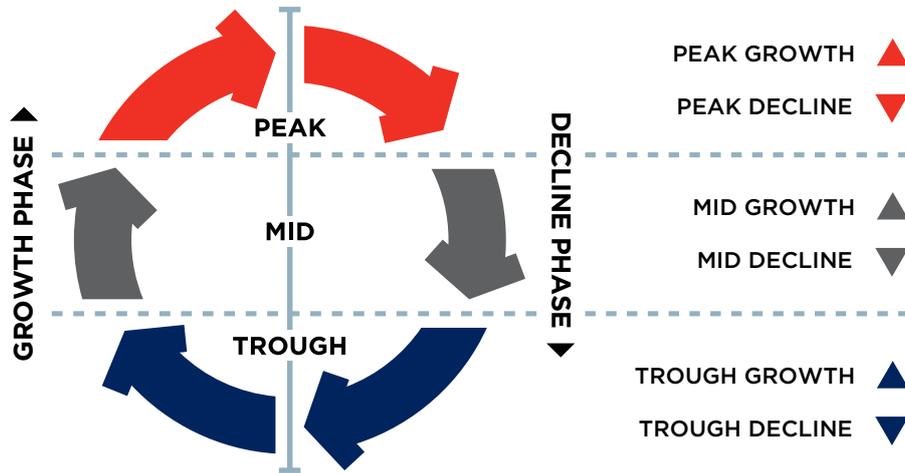
WELLINGTON	2015	2016	2017
RESIDENTIAL	492	560	730
NON-RES.	198	338	461
<b>TOTAL</b>	<b>690</b>	<b>898</b>	<b>1,192</b>
		30%	33%

### NEW BUILDING CONSENTS (\$M)

WELLINGTON	2015	2016	2017
RESIDENTIAL	467	586	750
EDUCATION	148	43	86
HEALTH	27	5	34
HOTELS	3	43	9
INDUSTRIAL	15	27	30
OFFICES	64	152	79
RETAIL	16	31	10
OTHER NON-RES	14	35	54
<b>TOTAL NON-RES</b>	<b>287</b>	<b>337</b>	<b>302</b>
<b>TOTAL CONSENTS</b>	<b>755</b>	<b>923</b>	<b>1,052</b>
	26%	22%	14%

# RLB MARKET ACTIVITY CYCLE - ABOUT

Activity within the construction industry traditionally has been subject to volatile cyclical fluctuations. The RLB Construction Market Activity Cycle (cycle) is a representation of the development activity cycle for the construction industry within the general economy.



Within the general construction industry, RLB considers seven sectors to be representative of the industry as a whole. These sectors are: houses, apartments, offices, industrial, retail, hotel and civil.

Each sector is assessed as to which of the three zones (peak, mid and trough) best represents the current status of the sector within the cycle, then further refined by identifying whether the current status is in a growth phase or a decline phase.

The 'up' and 'down' arrows within the tables on Page 9 and Page 25 represent whether the sector is in a growth or decline phase with the colour of the arrow determining the zone within the cycle. The three colours identified in the cycle diagram (red, grey and blue) represent the peak, mid and trough zones of the cycle.

The country doughnut graphs contained within this publication showcase the combined number of city responses for each sector that are either in the peak, mid or trough zones of the cycle. The country tabular graph represents the number of city responses per sector which have been deemed to be in the peak, mid or trough zones of the cycle. The city bar graphs show the number of sectors within the peak, mid or trough zones for the current Oceania Report, compared to the previous Oceania Report.

## RIDER LEVETT BUCKNALL OCEANIA OFFICES

### AUSTRALIA

- Adelaide
- Brisbane
- Cairns
- Canberra
- Coffs Harbour
- Darwin
- Gold Coast
- Melbourne
- Newcastle
- Perth
- Sunshine Coast
- Sydney
- Townsville

### NEW ZEALAND

- Auckland
- Christchurch
- Hamilton
- Palmerston North
- Queenstown
- Tauranga
- Wellington

## TERMINOLOGY

### ABBREVIATIONS

<b>\$B</b>	Billion (Thousand Million) Dollars
<b>\$M</b>	Million Dollars
<b>ABS</b>	Australian Bureau Of Statistics
<b>CVM</b>	Chain Volume Measure
<b>CPI</b>	Consumer Price Index
<b>FY</b>	Financial Year Ending 30 June
<b>K</b>	Thousands
<b>RBA</b>	Reserve Bank Of Australia
<b>SNZ</b>	Statistics New Zealand
<b>2017</b>	Calendar Year 2017
<b>2016</b>	Calendar Year 2016

### DEFINITIONS

AUSTRALIA	
<b>CONSTRUCTION</b>	Building and Engineering
<b>BUILDING</b>	Residential and Non-Residential
<b>ENGINEERING</b>	Includes but not limited to: roads, runways, rail, bridges, harbours, water storage, sewerage works, pipelines, electricity generation and distribution, telecommunications and mining works.
<b>RESIDENTIAL</b>	New houses & Other new residential & Alterations/ additions (incl. refurb and conversion)
<b>NEW HOUSES</b>	Detached Dwellings
<b>OTHER NEW RESIDENTIAL</b>	Semi-detached dwellings (Townhouses etc.) & multilevel dwellings (Apartments)
<b>NON-RESIDENTIAL</b>	Includes but not limited to: offices, commercial, industrial, retail, education, health, recreation, civic, short-term accommodation and other buildings not classified, but not Residential or Engineering
NEW ZEALAND	
<b>CONSTRUCTION</b>	Building
<b>BUILDING</b>	New Residential and New Non-Residential
<b>NEW NON-RESIDENTIAL</b>	Includes but not limited to: offices, commercial, industrial, retail, education, health, recreation, civic, short-term accommodation, farm buildings and other buildings not classified, but not Residential or Non-building construction

## SOURCES OF INFORMATION

AUSTRALIA	
<b>BUILDING ACTIVITY &amp; APPROVAL VALUE SUMMARY</b>	All values are in current price Building Approvals - ABS, <i>Building Approvals, Australia</i> , cat. no. 8731.0 Building work done, work yet to be done, work in the pipeline, work commenced and work under construction - ABS, <i>Building Activity, Australia</i> , cat. no. 8752.0
<b>BUILDING ACTIVITY DWELLING SUMMARY</b>	All values are in current price All values are from ABS, <i>Building Activity, Australia</i> , cat. no. 8752.0
<b>STATE CONSTRUCTION WORK DONE</b>	All values are in current price Building work done values are from ABS, <i>Building Activity, Australia</i> , cat. no. 8752.0 Engineering work done values are from ABS, <i>Engineering Construction Activity, Australia</i> , cat. no. 8762.0
<b>STATE BUILDING APPROVALS</b>	All values are in current price Building Approvals - ABS, <i>Building Approvals, Australia</i> , cat. no. 8731.0
<b>GOLD COAST/ TOWNSVILLE BUILDING APPROVAL VALUE</b>	All values are in current price ABS, <i>Building Approvals, 2011-17 - SA2 - Queensland</i> , SuperWEB2 ABS, <i>Building Approvals, 2016-18 - SA2 - Queensland</i> , SuperWEB2
<b>GOLD COAST/ TOWNSVILLE DWELLINGS</b>	ABS, <i>Building Approvals, 2011-17 - SA2 - Queensland</i> , SuperWEB2 ABS, <i>Building Approvals, 2016-18 - SA2 - Queensland</i> , SuperWEB2
NEW ZEALAND	
<b>BUILDING WORK PUT IN PLACE</b>	All values are in current price Stats New Zealand, <i>Value of building work put in place</i> ,
<b>BUILDING CONSENTS</b>	All values are in current price Stats New Zealand, <i>Building consents issued</i> ,

[RLB.com](https://www.rlb.com)

AFRICA | AMERICAS | ASIA | EUROPE | MIDDLE EAST | OCEANIA

