

RIDERS DIGEST 2019

MELBOURNE, AUSTRALIA FDITION

Victorian Office

Level 13, 380 St. Kilda Road, Melbourne VIC 3004 Telephone: +61 3 9690 6111



RIDERS DIGEST

A yearly publication from RLB's Research & Development department.

Riders Digest is a compendium of cost information and related data specifically prepared by RLB for the Australian construction industry.

While the information in this publication is believed to be correct, no responsibility is accepted for its accuracy. Persons desiring to utilise any information appearing in this publication should verify its applicability to their specific circumstances. Cost information in this publication is indicative and for general guidance only and is based on rates ruling at Fourth Quarter 2018 (unless stated differently). All figures exclude GST.

© Rider Levett Bucknall 2019 Reproduction in whole or part forbidden

CONTENTS

RLB PROFESSIONAL SERVICES Cost Management and Quantity Surveying Advisory	6 9
INTERNATIONAL CONSTRUCTION Building Cost Ranges RLB Escalation Forecasts	14 18
AUSTRALIAN CONSTRUCTION Building Cost Ranges Building Services Cost Ranges RLB Tender Price Index Definitions Acknowledgements	20 24 28 30 32
CONSTRUCTION COSTS Building Services Ranges Unit Costs Siteworks Demolition Hotel Furniture, Fittings & Equipment Office Fitout Recreational Facilities Vertical Transportation	34 38 39 40 40 41 42 44
DEVELOPMENT Stamp Duties Land Tax Planning - Car Parking Land Values Rental Rates Sector Data Historical Construction Activity RLB Market Activity Cycle	48 49 50 51 52 53 59 64

BENCHMARKS Regional Indices	66
Key City Relativities Office Building Efficiencies Reinforcement Ratios Labour and Materials Trade Ratios Progress Payment Claims Common Industry Acronyms Method of Measurement	67 68 68 69 70 71 72
ASSETS AND FACILITIES Sustainability and Quality Management Standards Useful Life Analysis Outgoings Essential Safety Measures Capital Allowances (Tax Depreciation)	76 77 78 79 80 81
OFFICES Oceania Africa Middle East United Kingdom Asia Americas	84 85 85 86 86
CALENDARS Calendars 2018 - 2021 2019 Rostered Days Off	92 94

Public Holidays

INTRODUCTION RIDER LEVETT BUCKNALL

"CONFIDENCE TODAY INSPIRES TOMORROW"

With a network that covers the globe and a heritage spanning over two centuries, Rider Levett Bucknall 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 Rider Levett Bucknall 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.

PROFESSIONAL SERVICES

Cost Management and Quantity Surveying	6
Advisory	9

COST MANAGEMENT AND QUANTITY SURVEYING SERVICES

The skilled cost management professionals at RLB use many tools when creating a plan that optimises the relationship between the cost and quality of a project and a client's cost objectives. The services offered by the firm to achieve these objectives are:

- Preparation of preliminary elemental estimates based on preliminary design
- Preparation of detailed estimates and cost planning advice throughout design development
- Estimation of building services
- Participation and leadership in the value management process
- Comparative cost studies and advice on cost effective design solutions
- Advice on materials selection and general buildability advice
- Advice on selection of tenderers
- Attendance at design meetings and construction control meetings

Feasibility Analysis

An accurate, reliable feasibility study is an essential prerequisite to any procurement decision-making process. Feasibility studies assess the viability of a project over its expected life and indicate the probable return, either at the point of sale or over a period of time, generally using discounted cash flow techniques. They can also assist in the process of obtaining project financing, as well as highlight variables that have the greatest impact on project returns.

Whether it's a simple developer's return on capital cost feasibility or a detailed discounted cash flow feasibility based on a range of rates of return and risk sensitivity tests, RLB can provide expert analysis and materials.

Financial Institution Auditing

RLB takes a two-step approach to financial institution audits.

At the pre-commencement stage, the firm looks beyond the items identified in the financier's brief, and expands upon it with a full analysis of all risk-related issues, providing a comprehensive profile of the project. During the post-contract stage, the company provides detailed cost-to-complete assessments. This ensures there are adequate funds should the financier be required to initiate step-in rights.

To provide effective financial management of the development process for the duration of the project, RLB will prepare a pre-commencement report including auditing project costs and the adequacy of project documentation, monitor authority approvals, prepare progress payment assessments and recommendations, and prepare cost-to-complete assessments.

Post-Contract Services

RLB ensures the successful performance building contracts by applying proven cost management, monitoring and cost reporting procedures, as well as through managing a productive working relationship with the project team.

To ensure efficient progress as specified in the cost plan, the firm will:

- Review progress claims for work in progress and recommend payment values
- Monitor documentation changes
- Prepare regular financial statements forecasting final end cost
- Measure, price, and negotiate variations
- Structure agreement of final account
- Attend meetings to represent the financial interests of the client

Tendering and Documentation

Among the tendering and documentation services offered by RLB:

- Preparation of bills/schedule bills of quantities or schedule of rates
- Preparation of bid documentation for tendering contractors
- Strategic advice of method of project procurement and tendering
- Advice on suitability of contractor tender lists
- Review of tenders received, reconciliation to budget, and recommendation of contractor
- Attendance at tender interviews

COST MANAGEMENT AND QUANTITY SURVEYING SERVICES

Value Management

RLB offers a strategic value-management process that is dedicated to assisting with the improvement of value obtained in capital expenditure. This is achieved through participatory workshops which challenge option and design assumptions and encourage creative and lateral thinking for better value solutions.

The integration of value management with cost management results in a powerful and dynamic approach to the economic management of projects, especially during the design process.

ADVISORY SERVICES

RLB's depth of experience in all aspects of the property cycle enables us to deliver mature and innovative solutions for property, construction, and facilities sector clients in seven principal areas:

Asset Advisory

With total operating costs amounting to several times the initial capital cost, clients are increasingly focused on longer term strategies that span their investment horizons and beyond, to ensure they are able to consider the impact on value at all points in a property's useful life. RLB works with owners and occupiers of buildings to ensure that they are able to take full account of the total impact of their buildings and can advise on many alternate methods of identifying and accounting for assets.

RLB is expert in the following strategic services:

- Total Asset Management Planning to ISO Standards
- Asset Recognition and Rationalisation
- Cost-Benefit Analysis
- Sustainability and Environmental Performance Issues
- Whole-Life Cost Modeling

RElifing of Assets

RLB is a pioneer in using building life-extension and repositioning studies to realise and optimise the use of buildings. This methodology identifies if, when, and where to spend money to capture remaining asset values and extend the life of existing buildings.

Facilities Consultancy

Facilities management is the business practice of optimising people, process, assets, and the work environment to support the delivery of the organisation's business objectives. As acknowledged thought-leaders in the facilities management field, RLB works with a diverse range of clients to enhance facilities performance through:

- Facilities Management (FM) Planning
- Building Quality Assessments (BQA)
- Facilities and Operational Performance Audits
- Maintenance Planning and Operating Expenditure Forecast
- Performance Reviews and Benchmarking
- Post-Occupancy Evaluations
- Space Audits and Utilisation Studies

ADVISORY SERVICES

Building Surveying

RLB works closely with major developers, corporations, fund managers, financial institutions, and property owners and tenants to understand, maintain, and enhance the value of their built assets. The firm's expertise includes:

- Condition/Dilapidation Surveys
- Compliance Advisory
- Conservation and Heritage Surveys
- Tenancy Make-Good Reinstatements Surveys

By combining a practical knowledge of construction issues with a strong understanding of property law, RLB offers a multi-faceted building surveying service that is responsive to the client's needs. The firm's understanding of local markets enables us to deliver a solution that is appropriate to your specific requirements.

Risk Mitigation and Due Diligence

RLB understands that clients and stakeholders are increasingly requiring more detailed information to ensure a level of confidence is achieved and maintained in terms of enhancing value and mitigating risks. The firm can conduct risk assessments to review the scope of required work, identify project risks, prioritise key issues, provide risk analysis and develop risk management action plans for your strategic asset/facilities plan or next capital works project.

RLB can provide key advisory services targeted at risk mitigation, including:

- · Review of the scope of required work
- Identification of project risks
- Capital Expenditure Forecasting
- Prioritisation of key issues
- Risk analysis and customized risk-management action plans

In addition, RLB's expert services extend to specific associated property risks, among them:

- Insurance replacement cost assessments
- Technical due diligence (for owners, vendors, purchasers and tenants)
- Services procurement, outsourcing, compliance, and supply chain issues

Property Taxation

RLB recognises the financial, compliance, and management benefits that can be achieved by adopting taxation advice from professionals who understand the business of property. The firm provides its clients with advice on capital allowances and property tax assessment and depreciation, inventories and asset registers, and changes in tax legislation to enable them to optimise their entitlements and potential for existing assets and new projects. Its experienced and qualified staff can provide proactive reporting and analysis of how taxation changes may affect a client's real estate decisions, including capital gains tax, land taxes and rating assessments, and stamp duty.

RLB's experience in property taxation covers all asset types. Data has been retained and compiled over many years to enable the firm to produce dynamic models that can quickly produce accurate indicative analysis for all property situations.

Litigation Support

RLB has a team of highly seasoned professionals with considerable expertise in the litigation arena. The firm offers comprehensive front-end, claims management, and dispute resolution services, and has particular expertise in scope definition claims appraisal, documentation, and negotiation; expert witness and determination; and arbitration and mediation.

Procurement Strategies

RLB develops procurement strategies that provide a systematic means of analysing the costs and benefits during project development, before any commitment is given to a particular option, including:

- Clear definition of project objectives
- Identification of practical ranges of options
- Quantification of the costs and benefits of each option
- Consideration for qualitative aspects
- Identification of the preferred option and development of action plans

ADVISORY SERVICES

RLB can examine the issues and assist in the development and evaluation of a project or service delivery with vast experience and knowledge of value enhancement through:

- Needs Analysis and Brief Definition
- Feasibility Studies
- Develop, Own and Lease Options
- Contractual Arrangements
- Project Monitoring and Certifications
- Value Engineering/Management Workshops

Our services do not deal with asset creation and capital projects alone. RLB's expertise and experience extends to property transactions, services procurement, outsourcing operations and supply chain management. RLB is uniquely positioned to provide independent and specialist advisory services and supplementary support to a client who wishes for certainty in contractual outcomes.

Research

- Industry and sectoral workload
- Cost escalation
- · Cost benchmarking by sector
- Industry trend analysis

INTERNATIONAL CONSTRUCTION

Building Cost Ranges	14
RLB Escalation Forecasts	18

INTERNATIONAL CONSTRUCTION BUILDING COST RANGES

All costs are stated in local currency as shown below.

Refer to www.rlbintelligence.com for updates.

		COST PER M ²				
LOCATION	LOCAL	OFFICE BUILDING				
/CITY	CURRENCY	PREI	MIUM	GRA	DE A	
		LOW	HIGH	LOW	HIGH	
AMERICAS @ Q3	2018					
BOSTON	USD	3,230	5,115	2,155	3,230	
CHICAGO	USD	3,015	4,845	1,885	3,015	
DENVER	USD	1,775	2,745	1,290	1,990	
HONOLULU	USD	3,015	5,595	2,585	4,250	
LOS ANGELES	USD	2,475	3,765	1,830	2,745	
NEW YORK	USD	4,035	6,190	3,230	4,305	
PHEONIX	USD	1,830	2,960	1,290	1,885	
SEATTLE	USD	2,315	2,800	1,505	2,155	
TORONTO	CAD	2,100	2,800	1,885	2,690	
ASIA @ Q3 2018						
BEIJING	RMB	8,400	13,750	7,800	11,750	
GUANGZHOU	RMB	7,700	12,250	7,100	10,750	
HO CHI MINH CITY	/ VND ('000)	23,900	35,800	21,300	26,600	
HONG KONG	HKD	23,250	34,500	19,750	26,750	
JAKARTA	RP ('000)	10,130	13,200	6,870	11,000	
KUALA LUMPUR	RINGGIT	2,600	4,500	1,400	3,200	
MACAU	MOP	18,500	26,500	16,250	22,750	
SEOUL	KRK ('000)	2,525	3,275	1,925	2,350	
SHANGHAI	RMB	8,200	13,000	7,300	11,250	
SINGAPORE	SGD	2,950	4,150	2,050	3,300	
EUROPE @ Q3 20	18					
BELFAST	GBP	1,400	1,960	1,220	1,960	
BERLIN	EUR	1,380	1,800	1,000	1,180	
BIRMINGHAM	GBP	1,940	2,850	1,580	2,850	
BRISTOL	GBP	2,000	2,900	1,640	2,900	
EDINBURGH	GBP	1,820	2,600	1,600	2,600	
LONDON	GBP	3,000	3,900	2,700	3,700	
MANCHESTER	GBP	2,150	2,750	1,820	2,750	
OSLO	EUR	2,900	3,750	2,250	2,900	
MIDDLE EAST @ 0	33 2018					
ABU DHABI	AED	5,700	6,800	4,600	6,400	
DUBAI	AED	6,000	7,200	4,850	6,800	
DOHA	QAR	6,500	8,500	6,100	8,200	
OCEANIA @ Q4 2	018					
ADELAIDE	AUD	2,650	3,800	2,200	3,150	
AUCKLAND	NZD	3,700	4,900	3,100	4,650	
BRISBANE	AUD	3,000	4,400	2,500	3,800	
CANBERRA	AUD	3,500	5,500	2,800	4,300	
CHRISTCHURCH	NZD	3,600	4,500	2,750	4,250	
DARWIN	AUD	3,100	4,150	2,400	3,800	
GOLD COAST	AUD	2,600	4,000	1,900	3,200	
MELBOURNE	AUD	3,250	4,350	2,500	3,450	
PERTH	AUD	3,000	4,700	2,400	3,750	
SYDNEY	AUD	3,750	5,500	2,850	4,050	
WELLINGTON	NZD	3,900	5,000	3,050	4,800	

The following data represents estimates of current building costs in the respective market. Costs may vary as a consequence of factors such as site conditions, climatic conditions, standards of specification, market conditions etc.

Rates are in national currency per square metre of Gross Floor Area except as follows:

Chinese cities, Hong Kong and Macau: Rates are per square metre of Construction Floor Area, measured to outer face of external walls.

Singapore, Ho Chi Minh City, Jakarta and Kuala Lumpur: Rates are per square metre of Construction Floor Area, measured to outer face of external walls and inclusive of covered basement and above ground parking areas.

Chinese cities, Hong Kong, Macau and Singapore: All hotel rates are inclusive of Furniture Fittings and Equipment (FF&E).

COST PER M ²								
	RET	AIL		RESIDI	ENTIAL			
MA	LL	STRIP SI	HOPPING	MULTIS	STOREY			
LOW	HIGH	LOW	HIGH	LOW	HIGH			
1,885	2,960	1,345	2,155	1,885	3,230			
1,990	3,120	1,455	2,370	1,775	4,305			
970	1,560	860	1,885	970	2,155			
2,205	5,220	1,885	4,575	2,100	4,680			
1,670	3,660	1,345	1,990	2,155	3,390			
2,960	4,575	1,885	3,230	2,155	4,035			
1,290	2,155	860	1,615	970	2,260			
1,455	3,285	1,185	1,670	1,720	2,905			
2,155	2,690	1,130	1,720	1,400	2,205			
9,200	14,000	8,100	12,750	4,400	9,000			
8,700	12,500	7,500	11,500	4,000	8,000			
20,100	26,750	-	-	15,400	23,300			
23,250	29,500	20,000	25,750	21,750	43,250			
6,520	8,515	-	-	6,870	16,000			
2,100	3,500	-	-	1,900	4,500			
20,250	24,750	17,000	21,750	13,750	25,250			
1,700	2,475	1,425	2,200	1,650	2,775			
8,600	13,750	7,600	12,500	4,000	8,200			
2,000	3,350	-	-	1,960	3,150			
2,200	3,000	680	1,280	1,280	1,800			
1,160	1,480	850	1,060	1,000	1,440			
2,900	4,100	910	1,760	1,660	2,350			
2,850	4,000	900	1,700	1,240	1,760			
2,850	3,950	890	1,680	1,680	2,400			
3,550	5,000	1,140	2,150	2,550	4,450			
3,000	4,200	960	1,800	1,760	2,550			
1,820	2,400	1,460	1,900	2,450	3,200			
4,000	6,300	-	-	4,400	6,500			
4,250	6,700	-	-	4,650	6,900			
5,300	6,500	-	-	6,500	7,800			
1,580	3,000	1,300	1,840	2,250	3,550			
2,850	3,200	1,660	2,050	3,700	4,900			
2,200	3,600	1,400	2,000	2,400	4,400			
2,400	4,050	1,260	2,550	2,950	5,200			
2,500	2,800	1,400	1,800	3,000	4,000			
1,760	2,650	1,260	2,150	2,050	2,650			
2,500	3,500	1,200	1,800	1,600	4,500			
2,200	3,200	1,240	1,680	2,500	4,400			
1,900	2,900	1,000	2,500	1,900	4,100			
2,100	4,400	1,600	2,100	2,750	5,900			
2,950	3,150	-		3,900	4,800			

INTERNATIONAL CONSTRUCTION BUILDING COST RANGES

All costs are stated in local currency as shown below.

Refer to www.rlbintelligence.com for updates.

		COST PER M ²				
LOCATION	LOCAL	HOTELS				
/CITY	CURRENCY	3 S	TAR	5 S	TAR	
		LOW	HIGH	LOW	HIGH	
AMERICAS @ Q3 2	2018					
BOSTON	USD	2,690	4,035	4,035	5,920	
CHICAGO	USD	3,120	4,415	4,305	7,105	
DENVER	USD	1,720	2,585	2,960	3,875	
HONOLULU	USD	3,445	5,760	5,435	7,860	
LOS ANGELES	USD	2,960	3,820	3,930	5,705	
NEW YORK	USD	3,230	4,305	4,305	6,460	
PHEONIX	USD	1,615	2,690	3,230	5,595	
SEATTLE	USD	2,420	2,585	2,635	3,875	
TORONTO	CAD	2,100	2,800	3,230	3,820	
ASIA @ Q3 2018						
BEIJING	RMB	10,750	13,750	14,250	18,750	
GUANGZHOU	RMB	10,250	12,500	13,750	17,750	
HO CHI MINH CITY	/ VND ('000)	25,000	32,300	35,600	42,700	
HONG KONG	HKD	29,000	33,750	35,250	43,000	
JAKARTA	RP ('000)	11,500	13,500	15,000	20,000	
KUALA LUMPUR	RINGGIT	2,500	3,500	5,000	7,000	
MACAU	MOP	24,750	28,500	31,000	38,000	
SEOUL	KRK ('000)	1,875	2,600	3,425	5,100	
SHANGHAI	RMB	10,500	13,500	14,250	18,750	
SINGAPORE	SGD	3,250	3,650	4,250	5,500	
EUROPE @ Q3 20	18					
BELFAST	GBP	1,040	1,520	1,640	2,250	
BERLIN	EUR	1,380	1,800	2,050	2,800	
BIRMINGHAM	GBP	1,340	2,100	2,200	3,150	
BRISTOL	GBP	1,400	1,860	2,400	3,200	
EDINBURGH	GBP	1,360	1,980	2,150	2,950	
LONDON	GBP	1,900	2,450	2,850	3,800	
MANCHESTER	GBP	1,540	1,920	2,300	3,150	
OSLO	EUR	3,000	3,900	4,000	5,200	
MIDDLE EAST @ 0	23 2018					
ABU DHABI	AED	5,900	8,300	8,800	11,750	
DUBAI	AED	6,200	9,300	9,300	14,500	
DOHA	QAR	7,500	8,500	11,500	14,500	
OCEANIA @ Q4 2	018					
ADELAIDE	AUD	2,700	3,550	3,700	4,550	
AUCKLAND	NZD	4,200	4,750	5,700	6,700	
BRISBANE	AUD	3,000	4,200	4,200	5,700	
CANBERRA	AUD	3,100	5,300	4,250	6,400	
CHRISTCHURCH	NZD	3,800	4,300	4,500	5,500	
DARWIN	AUD	2,850	3,550	3,600	4,450	
GOLD COAST	AUD	2,600	4,000	3,400	5,500	
MELBOURNE	AUD	2,950	3,800	4,150	5,600	
PERTH	AUD	2,600	3,600	3,600	4,800	
SYDNEY	AUD	3,350	4,200	4,650	6,300	
WELLINGTON	NZD	4,100	4,600	5,100	6,100	

The following data represents estimates of current building costs in the respective market. Costs may vary as a consequence of factors such as site conditions, climatic conditions, standards of specification, market conditions etc.

Rates are in national currency per square metre of Gross Floor Area except as follows:

Chinese cities, Hong Kong and Macau: Rates are per square metre of Construction Floor Area, measured to outer face of external walls.

Singapore, Ho Chi Minh City, Jakarta and Kuala Lumpur: Rates are per square metre of Construction Floor Area, measured to outer face of external walls and inclusive of covered basement and above ground parking areas.

Chinese cities, Hong Kong, Macau and Singapore: All hotel rates are inclusive of Furniture Fittings and Equipment (FF&E).

COST PER M ²							
	CAR PA	RKING		INDUS	TRIAL		
MULTI S	STOREY	BASE	BASEMENT		HOUSE		
LOW	HIGH	LOW	HIGH	LOW	HIGH		
805	1,345	970	1,615	1,075	1,885		
860	1,345	1,345	1,830	1,185	1,990		
590	805	970	1,290	970	1,615		
1,075	1,505	1,505	2,800	1,505	2,420		
1,130	1,345	1,400	1,885	1,240	1,940		
1,025	1,885	1,345	2,155	1,240	2,155		
485	755	645	1,185	590	1,075		
970	1,130	1,455	1,720	1,025	1,345		
755	970	1,240	1,615	1,240	1,615		
2,400	3,350	4,100	7,100	4,750	6,000		
2,250	3,200	3,900	6,800	4,400	5,500		
9,100	13,700	18,800	25,700	6,210	9,400		
9,100	11,000	19,000	26,000	15,500	19,250		
3,500	4,500	5,000	7,000	4,790	6,078		
800	1,200	1,400	3,400	1,000	1,800		
-	-	10,750	13,500	-	-		
720	890	920	1,200	1,300	1,600		
2,300	3,300	4,300	7,200	4,350	5,700		
700	1,400	1,500	2,250	1,100	1,600		
260	520	650	1,120	285	510		
480	690	800	1,060	370	740		
370	710	840	1,440	420	590		
410	820	980	1,540	410	670		
350	680	850	1,460	380	680		
460	920	1,220	1,960	500	900		
560	720	1,080	1,560	490	720		
700	890	900	1,180	1,600	2,100		
1.700	7.500	2.000	4.400	1.400	0.650		
1,760	3,500	2,800	4,400	1,460	2,650		
2,400	3,700	3,200	4,650	1,900	3,000		
-	-	2,750	4,500	-	-		
500	000	1.740	1.000	CEO	1 100		
680	980	1,340	1,960	650 780	1,100		
1,060	1,360	2,300	2,800		1,060		
1,000	1,500	1,700	2,200	750	1,200		
790 850	1,320	1,060	1,840 2,200	740 720	1,400		
750	1,360	1,760 1.180		800	1,100		
	1,260	,	1,540		1,420		
700 810	1,200 1,280	1,500 1,280	2,100 1,680	700 660	1,100 1,220		
650	1,280	1,280	3.100	550	1,220		
810	1,000	1,800	1,900	770	1,060		
1,440	1,640	2,850	3,050	1,020	1,400		
1,440	1,040	2,030	3,030	1,020	1,400		

INTERNATIONAL CONSTRUCTION RLB ESCALATION FORECASTS

RLB TENDER PRICE INDEX ANNUAL CHANGE

All indices are stated as annual percentage changes.

Refer to www.rlbintelligence.com for updates.

CALENDAR YEAR	2016	2017	2018 (F)	2019 (F)	2020 (F)	2021 (F)
AFRICA @ Q3 2018						
CAPE TOWN	7.3	6.2	5.0	5.4	5.7	6.0
JOHANNESBURG	6.4	7.9	4.1	5.1	5.5	5.7
MAPUTO	4.0	0.3	0.5	1.0	1.1	NP
AMERICAS @ Q3 2018						
BOSTON	4.0	3.2	4.7	4.4	4.1	3.0
CALGARY	NP	0.3	4.0	2.5	1.8	1.8
CHICAGO	4.3	5.3	6.8	4.3	3.8	3.5
HONOLULU	0.7	-1.7	2.6	3.3	3.5	3.0
LAS VEGAS	3.3	3.5	5.3	4.3	3.5	3.0
LOS ANGELES	8.4	7.6	4.4	3.8	3.5	3.0
NEW YORK	3.9	3.3	4.1	4.1	3.3	3.0
PHEONIX	3.7	4.3	6.5	4.3	3.3	3.0
SEATTLE	4.7	5.1	5.3	4.1	3.5	3.0
TORONTO	NP	1.1	5.2	2.0	2.3	2.3
WASHINGTON DC	4.3	3.2	4.3	4.1	3.5	3.0
ASIA @ Q3 2018						
BEIJING	0.0	7.7	3.0	4.1	3.0	3.0
CHENGDU	-0.8	2.0	6.1	3.0	3.0	3.0
GUANGZHOU	1.0	2.5	2.0	3.0	3.0	3.0
HONG KONG	0.4	0.0	-2.0	0.0	2.0	2.0
MACAU	0.0	2.0	-2.0	0.0	2.0	2.0
SEOUL	3.9	2.5	4.4	4.9	4.5	4.1
SHANGHAI	6.0	7.0	3.5	3.5	3.0	3.0
SHENZHEN	1.0	2.0	4.1	4.1	4.1	4.1
SINGAPORE	-5.8	-1.5	0.0	NP	NP	NP
EUROPE @ Q3 2018						
BIRMINGHAM	3.0	2.8	2.5	2.3	3.3	4.0
BRISTOL	5.0	2.5	3.0	3.0	3.0	3.0
BUDAPEST	5.5	9.5	8.0	8.0	5.0	NP
LONDON	3.5	2.0	1.3	1.0	1.5	2.0
SHEFFIELD	2.5	2.0	-1.5	3.8	4.3	5.6
MADRID	0.1	0.8	0.1	0.1	NP	NP
MANCHESTER	4.0	2.0	1.0	1.0	2.5	3.5
MOSCOW	0.0	1.0	1.5	1.5	2.0	NP
MIDDLE EAST @ Q3 2018						
ABU DHABI	-5.0	-3.0	3.2	2.7	3.7	4.2
DOHA	5.5	6.0	7.0	NP	NP	NP
DUBAI	3.0	3.5	3.0	2.5	3.5	4.0
RIYADH	5.0	5.0	5.0	5.0	5.0	5.0
OCEANIA @ Q4 2018						
ADELAIDE	1.8	3.1	3.5	4.0	4.0	4.5
AUCKLAND	5.5	8.0	6.0	3.5	3.0	3.0
BRISBANE	7.2	3.0	1.0	3.0	5.1	4.1
CANBERRA	2.5	2.8	3.5	3.2	3.0	3.0
CHRISTCHURCH	3.0	3.0	3.0	2.0	2.0	2.0
DARWIN	1.0	0.8	0.5	0.8	1.2	1.8
GOLD COAST	6.5	2.5	2.0	2.5	3.0	3.5
MELBOURNE	2.0	3.0	4.0	4.0	3.5	3.2
PERTH	0.0	0.0	1.0	2.5	3.0	3.0
SYDNEY	4.8	4.3	4.9	4.4	4.2	3.8
TOWNSVILLE	3.0	4.0	3.0	3.5	3.5	3.5
WELLINGTON	4.5	5.3	6.0	4.0	4.0	3.0
ND: Not published		0.0	0.0			0.0

NP: Not published

AUSTRALIAN CONSTRUCTION

Building Cost Ranges	20
Building Services Cost Ranges	24
RLB Tender Price Index	28
Definitions	3C
Acknowledgements	32

AUSTRALIAN CONSTRUCTION BUILDING COST RANGES

CONSTRUCTION RATES

The following range of current building costs could be expected should tenders be called in the respective city. Items specifically included are those normally contained in a Building Contract.

Specific exclusions:

- Goods & Services Tax (GST)
- Land
- · Legal and professional fees · Loose furniture and fittings
- · Site works and drainage
- · Subdivisional partitions in office buildings
- Telstra and private telephone systems (PABX)
- Tenancy works

CITY	ADEL	AIDE	BRISBANE		
COST RANGE PER	\$/	M ²	\$/M ²		
GROSS FLOOR AREA	LOW	HIGH	LOW	HIGH	
OFFICE BUILDINGS					
Prestige, CBD					
10 TO 25 STOREYS (75-80% EFFICIENCY)	2,650	3,400	3,000	3,900	
25 TO 40 STOREYS (70-75% EFFICIENCY)	2,950	3,800	3,200	4,100	
40 TO 55 STOREYS (68-73% EFFICIENCY)	-	-	3,400	4,400	
Investment, CBD					
UP TO 10 STOREYS (81-85% EFFICIENCY)	2,200	2,650	2,500	3,000	
10 TO 25 STOREYS (76-81% EFFICIENCY)	2,350	2,950	2,800	3,300	
25 TO 40 STOREYS (71-76% EFFICIENCY)	2,550	3,150	2,900	3,800	
Investment, other than CBD					
WALK UP (83-87% EFFICIENCY)	1,800	2,300	2,000	2,400	
UP TO 10 STOREYS (82-86% EFFICIENCY)	2,050	2,550	2,200	2,600	
10 TO 25 STOREYS (77-82% EFFICIENCY)	-	-	2,400	2,800	
HOTELS					
Multi-Storey (ex FF&E)					
FIVE STAR	3,700	4,550	4,200	5,700	
FOUR STAR	3,150	4,250	3,600	4,700	
THREE STAR	2,700	3,550	3,000	4,200	
CAR PARK					
OPEN DECK MULTI-STOREY	680	980	1,000	1,500	
BASEMENT: CBD	1,340	1,960	1,700	2,200	
BASEMENT: OTHER THAN CBD	930	1,760	1,100	1,800	
UNDERCROFT: OTHER THAN CBD	580	880	700	900	
INDUSTRIAL BUILDINGS					
6.00 M to underside of truss and 4,500 M² Gross Floor Area with:					
ZINCALUME METAL CLADDING	650	1,000	750	1,100	
PRECAST CONCRETE CLADDING	750	1,100	850	1,200	
Attached Airconditioned Offices					
200 M ²	1,560	2,150	2,000	2,600	
400 M ²	1,560	2,150	2,000	2,400	

NOTES

- i Car Parking costs have been excluded to arrive at the various building rates.
- ii Refer to Page 30 for definitions.
- ii The percentages shown against each building may be used to calculate the rate per Net Lettable Area.

Example: the NLA rate for a Premium Office CBD 10 to 25 Storeys would be calculated NLA rate = $\frac{M^2}{100}$ + efficiency percentage.

Refer to www.rlbintelligence.com for updates.

CANB	ERRA	DAR	WIN	MELBO	DURNE	PEF	RTH	SYD	NEY
\$/	M ²	\$/	\$/M²		M ²	\$/	M ²	\$/	M ²
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
3,500	5,100	3,100	4,000	3,250	3,750	3,000	4,000	3,750	4,300
3,750	5,500	3,250	4,150	3,750	4,100	3,300	4,400	4,350	5,000
-	-	-	-	3,850	4,350	3,500	4,700	4,850	5,500
2,800	4,000	2,400	3,450	2,500	2,950	2,400	3,300	2,850	3,300
2,900	4,150	2,550	3,800	2,850	3,250	2,500	3,500	3,350	3,750
2,950	4,300	-	-	2,900	3,450	2,600	3,750	3,450	4,050
1,500	2,500	2,200	2,800	1,820	2,350	1,800	2,600	2,250	2,650
2,150	2,950	2,300	3,350	2,050	2,750	2,000	2,800	2,450	3,150
2,250	3,500	2,550	3,450	2,350	3,050	2,200	3,000	2,850	3,600
4,250	6,400	3,600	4,450	4,150	5,600	3,600	4,800	4,650	6,300
3,700	6,000	3,350	4,050	3,750	4,800	3,100	4,000	3,950	5,500
3,100	5,300	2,850	3,550	2,950	3,800	2,600	3,600	3,350	4,200
790	1,320	750	1,260	810	1,280	650	1,000	810	1,240
1,060	1,840	1,180	1,540	1,280	1,680	1,800	3,100	1,180	1,900
1,040	1,840	1,040	1,520	1,220	1,580	1,400	2,800	1,160	1,740
790	1,200	720	1,020	810	970	700	1,100	-	-
740	920	800	1,400	660	1,120	550	800	770	970
850	1,400	840	1,420	760	1,220	630	1,060	840	1,240
1,740	2,750	1,700	2,400	1,580	2,050	1,400	1,900	2,100	2,750
1,660	2,650	1,700	2,400	1,520	1,980	1,360	1,860	2,150	2,950

AUSTRALIAN CONSTRUCTION BUILDING COST RANGES

All costs current as at Fourth Quarter 2018.

CITY	ADEL	AIDE	BRISBANE		
COST RANGE PER	\$/	M²	\$/M ²		
GROSS FLOOR AREA	LOW	HIGH	LOW	HIGH	
AGED CARE					
SINGLE STOREY FACILITY	2,150	2,700	2,400	3,000	
PRIVATE HOSPITALS					
Low Rise Hospital					
45-60 M ² GFA/BED	3,700	5,700	4,500	5,800	
55-80 M ² GFA/BED WITH MAJOR OPERATING THEATRE	4,000	6,000	5,000	6,500	
CINEMAS GROUP COMPLEX, 2,000-4,000 SEATS (WARM SHELL)	2,750	3,650	3,500	4,500	
REGIONAL SHOPPING CENTRES					
DEPARTMENT STORE	1,560	2,400	1,600	2,100	
SUPERMARKET/VARIETY STORE	1,440	1,760	1,600	2,000	
DISCOUNT DEPARTMENT STORE	1,200	1,460	1,400	2,000	
MALLS	1,580	3,000	2,200	3,600	
SPECIALTY SHOPS	1,000	1,680	1,400	1,800	
SMALL SHOPS AND SHOWROOMS					
SMALL SHOPS & SHOWROOMS	1,300	1,840	1,400	2,000	
RESIDENTIAL					
SINGLE & DOUBLE STOREY DWELLINGS (CUSTOM BUILT)	1,580	3,450	1,800	4,000	
RESIDENTIAL UNITS					
WALK-UP 85 TO 120 M ² /UNIT	1,660	2,750	1,800	3,400	
TOWNHOUSES 90 TO 120 M ² /UNIT	1,740	2,650	1,500	3,500	
MULTI-STOREY UNITS					
Up to 10 storeys with lift					
UNITS 60-70 M ²	2,350	3,450	2,400	3,500	
UNITS 90-120 M ²	2,250	3,350	2,400	3,500	
Over 10 and up to 20 storeys					
UNITS 60-70 M ²	2,450	3,550	2,800	3,600	
UNITS 90-120 M ²	2,400	3,450	2,800	3,600	
Over 20 and up to 40 storeys					
UNITS 60-70 M ²	2,650	3,450	3,000	3,800	
UNITS 90-120 M ²	2,600	3,400	3,000	3,700	
Over 40 and up to 80 storeys					
UNITS 60-70 M ²	-	-	3,300	4,400	
UNITS 90-120 M ²	-	-	3,200	4,200	

Building Costs include Building Works and Building Services

Refer to www.rlbintelligence.com for updates.

CANB	ERRA	DAR	RWIN MELBOURNE PERTH		ARWIN MELBOURNE PERTH S		MELBOURNE		PERTH		RTH SYDNEY		NEY
\$/	M ²	\$/	M ²	\$/M ²		\$/	M²	\$/	'M²				
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH				
2,100	3,500	2,400	3,550	1,920	3,100	1,760	2,800	2,850	3,650				
4,400	7,300	3,900	4,650	2,900	3,450	3,400	4,300	3,000	3,800				
4,800	8,000	4,700	5,700	3,200	4,400	3,600	4,500	3,750	5,000				
3,050	4,200	2,750	3,500	2,500	3,300	2,200	2,700	3,450	4,850				
2,450	3,200	1,720	2,450	2,100	2,500	1,900	2,600	1,600	2,350				
1,480	2,450	1,820	2,500	1,300	1,940	1,200	1,760 1,700	1,560	3,050				
2,400	1,920 4,050	1,660 1,760	2,300	1,340 2,200	1,720 3,200	1,200	2,900	1,360 2,100	1,680 4,400				
1,240	2,050	1,460	2,100	1,240	1,720	1,000	1,500	1,780	2,750				
1,240	2,030	1,400	2,100	1,240	1,720	1,000	1,300	1,760	2,730				
1.260	2.550	1.260	2.150	1.240	1.680	1.000	2.500	1.600	2.100				
	,		,		,	,	,	,	,				
1,700	3,400	1,800	2,800	1,720	3,300	1,400	2,700	1,780	5,100				
1,800	4,400	1,980	2,400	1,820	3,300	1,460	2,900	-	-				
1,800	4,300	1,980	2,400	1,820	3,050	1,460	2,900	-	-				
3,000	4,500	2,050	2,450	2,500	3,150	2,000	3,000	3,000	3,900				
2,950	4,400	2,050	2,400	2,500	3,200	1,900	2,900	2,750	3,600				
3,250	4,800	2,100	2,550	2,800	3,600	2,300	3,300	3,150	4,200				
3,200	4,800	2,050	2,500	2,800	3,650	2,200	3,200	3,000	4,000				
3.750	5,200	2,350	2.650	3,250	3,900	2,800	3,600	4,100	5,200				
3,650	4.950	2,300	2,600	3,250	4.000	2,700	3,500	3.850	4.650				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,	.,	.,	,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,1.20	,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,				
-	-	-	-	3,650	4,300	3,300	4,100	4,700	5,900				
-	-	-	-	3,650	4,400	3,200	4,000	4,550	5,700				

AUSTRALIAN CONSTRUCTION BUILDING SERVICES COST RANGES

All costs current as at Fourth Quarter 2018.

	ADEL	AIDE	BRISBANE		
COST RANGE PER GROSS FLOOR AREA	\$/	Μ²	\$/	M ²	
	LOW	HIGH	LOW	HIGH	
OFFICE BUILDINGS					
Prestige, CBD					
10 TO 25 STOREYS (75-80% EFFICIENCY)	748	1,122	820	1,199	
25 TO 40 STOREYS (70-75% EFFICIENCY)	799	1,222	904	1,286	
40 TO 55 STOREYS (68-73% EFFICIENCY)	-	-	1,057	1,457	
Investment, CBD					
UP TO 10 STOREYS (81-85% EFFICIENCY)	731	998	747	983	
10 TO 25 STOREYS (76-81% EFFICIENCY)	733	1,047	803	1,053	
25 TO 40 STOREYS (71-76% EFFICIENCY)	753	1,096	846	1,182	
INVESTMENT, OTHER THAN CBD					
WALK UP (83-87% EFFICIENCY)	398	580	545	674	
UP TO 10 STOREYS (82-86% EFFICIENCY)	551	778	684	953	
10 TO 25 STOREYS (77-82% EFFICIENCY)	-	-	757	1,070	
HOTELS					
Multi-Storey					
FIVE STAR	1,037	1,456	1,001	1,260	
FOUR STAR	931	1,277	974	1,235	
THREE STAR	878	1,071	931	1,187	
CAR PARK					
OPEN DECK MULTI-STOREY	132	268	141	281	
BASEMENT: CBD	214	422	241	423	
BASEMENT: OTHER THAN CBD	213	422	241	423	
UNDERCROFT: OTHER THAN CBD	105	118	80	109	
INDUSTRIAL BUILDINGS					
6.00 M to underside of truss and 4,500 M² Gross Floor Area with:					
ZINCALUME METAL CLADDING	213	302	205	367	
PRECAST CONCRETE CLADDING	213	345	205	367	
Attached Airconditioned Offices					
200 M ²	481	631	493	626	
400 M ²	474	624	493	626	

BUILDING SERVICES COSTS INCLUDE:

- · Building Management
- Electrical
- Fire Protection
 Hydraulic
- Mechanical
- Special Equipment
- Vertical Transport

Refer to page 34 to 37 for detailed services costs.

CANB	ERRA	DAR	WIN	MELBO	DURNE	PERTH		SYD	NEY
\$/	M ²	\$/	/M ² \$/M ²		M ²	\$/	M²	\$/	M ²
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
909	1,319	1,160	1,523	811	1,260	930	1,340	1,028	1,357
964	1,429	1,246	1,594	958	1,338	965	1,395	1,212	1,356
-	-	-	-	1,014	1,432	990	1,470	1,353	1,498
753	1,208	911	1,321	632	1,082	695	1,125	702	976
798	1,208	983	1,445	701	1,150	720	1,185	831	1,066
798	1,263	-	-	774	1,207	760	1,225	920	1,174
476	654	841	1,082	439	711	420	600	480	679
632	909	882	1,281	549	871	565	820	692	941
698	1,030	971	1,326	607	988	660	920	838	1,083
1,295	1,761	1,394	1,753	1,751	2,211	1,235	1,750	1,213	1,535
1,182	1,579	1,272	1,539	1,265	1,887	1,025	1,465	1,075	1,426
932	1,352	1,122	1,386	957	1,443	825	1,265	918	1,192
176	286	201	363	97	286	135	300	67	163
242	483	328	449	171	370	200	405	249	332
176	472	298	449	160	339	185	390	153	285
66	121	135	282	31	63	135	305	50	70
232	410	210	499	183	325	160	335	125	215
232	399	225	518	183	325	170	355	125	217
531	708	661	926	470	654	385	630	514	893
531	642	661	926	470	868	385	595	514	906

AUSTRALIAN CONSTRUCTION BUILDING SERVICES COST RANGES

All costs current as at Fourth Quarter 2018.

COST RANGE PER		AIDE	BRISBANE		
COST RANGE PER GROSS FLOOR AREA	\$/	M ²	\$/	M ²	
	LOW	HIGH	LOW	HIGH	
AGED CARE					
SINGLE STOREY FACILITY	430	699	518	828	
PRIVATE HOSPITALS					
Low Rise Hospital					
45-60 M ² GFA/BED	1,246	1,514	943	1,686	
55-80 M ² GFA/BED WITH MAJOR OPERATING THEATRE	1,460	1,939	1,427	2,153	
GROUP COMPLEX, 2,000-4,000 SEATS.					
(WARM SHELL)	794	1,071	649	1,006	
REGIONAL SHOPPING CENTRES					
DEPARTMENT STORE	447	719	529	830	
SUPERMARKET/VARIETY STORE	433	674	521	771	
DISCOUNT DEPARTMENT STORE	440	616	511	678	
MALLS	527	799	603	907	
SPECIALTY SHOPS	302	577	497	710	
SMALL SHOPS AND SHOWROOMS					
SMALL SHOPS AND SHOWROOMS	411	642	356	672	
RESIDENTIAL SINGLE & DOUBLE STOREY DWELLINGS					
(CUSTOM BUILT) RESIDENTIAL UNITS	252	554	265	582	
WALK-UP 85 TO 120 M²/UNIT	212	480	253	502	
TOWNHOUSES 90 TO 120 M²/UNIT	215	488	253	493	
MULTI-STOREY UNITS					
Up to 10 storeys with lift					
UNITS 60-70 M ²	476	749	464	886	
UNITS 90-120 M ²	455	703	442	851	
Over 10 and up to 20 storevs					
UNITS 60-70 M ²	482	811	562	883	
UNITS 90-120 M ²	468	796	533	840	
Over 20 and up to 40 storeys					
UNITS 60-70 M ²	527	913	639	1,010	
UNITS 90-120 M ²	511	884	616	969	
Over 40 and up to 80 storeys					
UNITS 60-70 M ²	-	_	859	1,141	
UNITS 90-120 M ²	-	_	797	1,082	
222				2,002	

CANB	ERRA	DAR	WIN	MELBO	DURNE	PERTH		SYD	NEY
\$/	M²	\$/	M ²	\$/	M²	\$/	M²	\$/	M²
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
431	804	883	1,322	470	1,103	670	1,100	412	763
1,125	1,485	1,433	1,680	997	1,519	1,130	1,500	1,049	1,366
1,369	1,961	1,580	1,981	1,199	2,070	1,275	1,710	1,410	1,955
818	984	1,013	1,278	627	920	695	910	1,017	1,464
768	883	642	877	533	823	630	870	511	700
481	722	662	920	423	784	540	775	513	703
481	653	602	840	371	680	555	695	483	631
596	883	577	918	491	915	-	-	548	867
424	665	519	762	340	685	360	600	529	782
253	690	417	760	220	655	270	570	358	572
244	543	336	649	209	638	235	785	201	744
243	681	400	574	209	575	240	470	228	693
127	681	400	574	209	554	240	470	197	655
566	920	654	851	518	880	495	860	645	912
566	861	620	809	512	849	485	830	610	888
	000	640	0.45		005		0.00	776	000
614	920	648	846	554	905	555	860	736	988
614	1,015	636	829	554	874	550	825	702	908
777	1 040	712	875	648	002	6EE	OFF	701	1 171
733 686	1,040	712 696	855	627	992 900	655 630	955 935	791 778	1,131
000	1,040	090	000	027	900	030	333	776	1,004
_	_	-	_	821	1,220	870	1,110	1,035	1,345
_				763	1,220	850	1.095	1.009	1,335
				700	2,100		1,000	1,009	1,000

AUSTRALIAN CONSTRUCTION RLB TENDER PRICE INDEX

DATE	ADEL	AIDE	BRISBANE CAN		CANE	BERRA	
DATE	TPI	CPI	TPI	CPI	TPI	CPI	
DEC-1980	35.8	29.0	36.2	30.6	30.2	29.6	
DEC-1981	40.5	32.3	41.0	34.2	34.9	32.9	
DEC-1982	45.7	35.8	46.2	37.8	40.7	36.9	
DEC-1983	48.5	39.1	49.5	40.9	45.2	39.8	
DEC-1984	51.1	40.4	51.6	42.4	47.9	41.1	
DEC-1985	55.6	43.8	54.3	45.7	53.9	44.7	
DEC-1986	59.7	47.9	56.5	49.8	59.3	48.6	
DEC-1987	65.0	51.1	60.4	53.3	63.3	51.8	
DEC-1988	70.1	54.6	65.4	57.0	68.5	55.4	
DEC-1989	75.4	58.6	60.5	61.4	70.9	59.5	
DEC-1990	79.6	63.1	55.2	65.2	73.7	63.5	
DEC-1991	79.7	64.3	53.3	66.3	65.8	64.6	
DEC-1992	78.7	65.4	55.2	66.9	62.6	65.3	
DEC-1993	81.2	66.6	57.5	68.1	76.0	66.7	
DEC-1994	83.5	68.6	62.3	70.3	78.1	68.2	
DEC-1995	84.7	71.6	65.5	73.4	82.6	71.9	
DEC-1996	86.1	72.5	68.4	74.6	84.1	72.7	
DEC-1997	86.8	71.6	71.7	75.1	83.9	71.8	
DEC-1998	87.1	73.0	75.6	76.0	85.5	72.8	
DEC-1999	87.0	74.3	78.2	76.7	87.1	74.0	
DEC-2000	88.2	78.3	78.3	81.4	92.5	78.6	
DEC-2001	90.1	80.7	79.7	84.0	93.1	80.8	
DEC-2002	94.6	83.7	87.5	86.5	97.5	83.4	
DEC-2003	102.9	86.4	95.0	89.2	103.0	85.6	
DEC-2004	112.4	88.6	106.8	91.4	110.4	87.6	
DEC-2005	119.4	91.0	118.9	94.1	117.8	90.3	
DEC-2006	126.2	93.9	129.3	97.3	125.0	93.2	
DEC-2007	134.0	96.5	137.5	101.0	130.8	96.3	
DEC-2008	142.5	100.0	127.1	105.4	134.9	99.9	
DEC-2009	138.6	102.1	119.8	108.0	136.5	102.2	
DEC-2010	142.5	104.7	119.0	111.3	141.0	104.4	
DEC-2011	137.9	108.5	119.3	114.0	143.0	108.0	
DEC-2012	138.1	110.8	119.3	116.5	142.1	109.9	
DEC-2013	139.3	113.3	117.0	119.6	145.3	112.3	
DEC-2014	140.1	115.2	123.0	122.0	147.5	113.6	
DEC-2015	141.2	116.4	130.3	124.0	150.5	114.4	
DEC-2016	143.7	117.9	139.7	126.0	154.3	116.4	
DEC-2017	148.1	120.7	143.9	128.4	158.6	119.0	
MAR-2018	149.3	121.1	143.9	128.5	160.0	120.0	
JUN-2018	150.3	121.6	143.9	129.1	161.3	120.4	
SEP-2018	151.6	122.0	145.3	129.6	162.7	121.2	
DEC-2018	153.3		145.3		164.1		

The following indices reflect the change in tender levels for buildings, other than housing, as compared with the consumer price index. The Tender Price Index figures take into account labour and material cost changes and market conditions.

DAR	DARWIN		DURNE	PERTH		SYD	NEY
TPI	CPI	TPI	CPI	TPI	CPI	TPI	CPI
		35.5	33.9	38.4	36.3	37.3	34.7
		39.6	37.8	43.9	40.8	43.6	38.6
		44.4	41.7	51.3	44.8	46.9	43.2
		47.3	45.7	53.4	48.6	49.7	46.4
		52.0	46.8	56.0	49.5	52.6	47.5
		58.5	50.7	65.8	53.6	60.6	51.5
		63.4	55.9	72.6	59.1	67.2	56.5
		69.3	59.8	76.5	63.2	74.1	60.5
		74.9	63.9	81.7	68.0	80.6	66.1
		81.9	69.2	89.5	73.3	86.8	71.0
		82.6	74.4	92.1	78.8	84.1	75.5
		76.7	75.6	91.2	78.6	75.1	76.6
		74.8	75.5	91.2	78.6	71.4	76.9
		77.0	77.4	91.2	80.5	72.5	77.9
		78.3	79.0	92.1	82.2	75.4	80.0
		79.8	82.7	93.0	86.2	79.1	84.7
		82.0	83.7	95.0	87.8	83.8	86.1
		84.1	83.7	97.2	87.1	89.7	86.0
		86.8	84.4	99.3	89.1	96.1	87.6
88.0		89.4	86.1	101.9	90.9	100.0	89.3
89.8		93.8	91.3	102.6	95.5	99.9	94.6
91.8		96.7	94.1	100.6	98.3	100.9	97.8
93.7	93.7	104.6	97.0	103.8	101.1	103.9	100.5
101.1	95.2	110.1	99.2	112.1	103.1	110.1	102.8
113.2	97.1	114.7	101.5	124.5	106.2	117.8	105.5
121.8	100.0	118.4	104.2	135.0	110.4	123.1	108.0
132.7	105.0	122.2	107.2	147.2	115.2	128.7	111.5
144.7	108.0	128.0	110.6	163.4	118.8	133.2	114.2
159.1	112.0	129.6	114.1	159.9	123.2	139.2	118.4
164.7	115.4	131.8	116.2	150.0	125.7	139.2	121.0
168.0	118.1	137.4	119.8	147.6	129.0	140.6	123.9
148.8	121.0	141.4	123.5	149.5	132.8	143.7	127.9
151.8	124.1	141.4	126.1	146.1	135.6	145.4	131.1
156.4	129.5	141.8	129.5	147.7	139.6	148.3	134.6
159.1	132.0	143.9	131.4	148.9	142.3	152.8	136.9
160.7	132.6	146.8	133.9	150.0	144.5	159.7	139.5
162.3	132.1	149.7	135.8	150.0	145.0	167.3	142.1
163.6	133.4	154.2	138.8	150.0	146.2	174.4	145.2
163.8	133.4	155.7	140.0	150.3	146.3	176.5	145.6
164.0	133.9	157.3	140.7	150.7	146.6	178.7	146.1
164.2	134.8	158.8	140.9	151.1	147.4	180.8	147.0
164.4		160.4		151.5		183.0	

AUSTRALIAN CONSTRUCTION DEFINITIONS

CBD

Central Business District.

BUILDING WORKS

Building works include substructure, structure, finishings, fittings, preliminary items, attendance and builder's work in connection with services.

BUILDING SERVICES

Building services include special equipment, hydraulics, fire protection, mechanical, vertical transport, building management and electrical services.

OFFICE BUILDINGS

Prestige offices are based on landmark office buildings located in major CBD Office Markets, which are pacesetters in establishing rents.

Investment offices are based on high quality buildings which are built for the middle range of the rental market.

(used as generic descriptions for Building Cost Ranges on page 20).

HOTELS

RATING		GFA PER ROOM	
RATING	TOTAL ACCOMMODATION		PUBLIC SPACE
FIVE STAR	85-120 M ²	45-65 M²	40-55 M²
FOUR STAR	60-85 M²	35-45 M²	25-40 M²
THREE STAR	40-65 M ²	30-40 M ²	10-25 M ²

Note: Public space includes service areas.

CAR PARKS

Open Deck Multi-storey — minimal external walling.

Basement — CBD locations incur higher penalties for restricted sites and perimeter conditions.

INDUSTRIAL BUILDINGS

Quality reflects a simplified type of construction suitable for light industry.

Exclusions: hardstandings, roadworks and special equipment.

AGED CARE

Single storey domestic construction with no operating theatre capacity, minimal specialist and service areas. 35-45 M² GFA/bed (150 beds).

HOSPITAL

Low rise hospital (45-60 M² GFA/Bed) - Minimal operating theatre capacity, specialist and service areas.

Low rise hospital (55–80 M² GFA/Bed) - Major operating theatre capacity including extensive specialist and service areas.

Exclusions: Loose furniture, special medical equipment.

CINEMAS

Multiplex Group Complex (warm shell). 2,000-4,000 seats.

Exclusions: Projection equipment, seating.

SHOPPING CENTRES

Department Store

Partially finished suspended ceilings and painted walls.

Exclusions: Floor finishes, shop fittings, etc.

Supermarket/Variety Store

Fully finished and serviced space.

Exclusions: Cool rooms, shop fittings, refrigeration equipment, etc.

Malls

Fully finished and serviced space.

Specialty Shops

Partially finished with ceilings, unpainted walls and power to perimeter point.

Exclusions: Floor finishes and shop fittings.

SMALL SHOPS AND SHOWROOMS

Exclusions: Floor finishes, plumbing (other than hot and cold water to sink fittings in each shop) and shop fittings.

RESIDENTIAL

Single Storey or 1-3 Storey

Units reflect medium quality accommodation.

Multi-Storey

Units reflect medium to luxury quality and air conditioned accommodation up to 80 storeys in height.

Note: the ratio of kitchen, laundry and bathroom areas to living areas considerably affects the cost range. Range given is significantly affected by the height and configuration of the building.

Exclusions: Loose furniture, special fittings, washing machines, dryers and refrigerators.

RIDERS DIGEST

ACKNOWLEDGEMENTS

Rider Levett Bucknall wish to express their appreciation for advice received from the following organisations in the preparation of this compendium:

Property Council of Australia Measurement of Net Lettable Area.

Savills Research
Land Values, Rents and Yields, Rental Growth Rates
and Construction Sector Data.

Colliers International - NTNorthern Territory Land Values & Yields and Rental Rates.

WSP Structures
Reinforcement Ratios.

Australian Bureau of Statistics
Construction and Building Data and CPI information.

For further information or feedback contact: John Cross Oceania Research & Development Manager john.cross@au.rlb.com or your local RLB office (page 84)

Rider Levett Bucknall 13th Floor, 380 St Kilda Road, Melbourne Vic. 3004

Telephone: (03) 9690 6111 Facsimile: (03) 9690 6577

MELBOURNE CONSTRUCTION COSTS

Building Services	54
Unit Costs	38
Siteworks	39
Demolition	40
Hotel Furniture, Fittings & Equipment	40
Office Fitout	41
Recreational Facilities	42
Vertical Transportation	44

MELBOURNE CONSTRUCTION BUILDING SERVICES COSTS

All costs current as at Fourth Quarter 2018.

	SPECIAL EQUIPMENT		HYDR	AULIC	
COST RANGE PER	\$/	M ²	\$/M²		
GROSS FLOOR AREA	LOW	HIGH	LOW	HIGH	
OFFICE BUILDINGS					
Prestige, CBD					
10 TO 25 STOREYS (75-80% EFFICIENCY)	16	52	73	89	
25 TO 40 STOREYS (70-75% EFFICIENCY)	16	52	73	94	
40 TO 55 STOREYS (68-73% EFFICIENCY)	26	52	78	94	
Investment, CBD					
UP TO 10 STOREYS (81-85% EFFICIENCY)	-	10	63	78	
10 TO 25 STOREYS (76-81% EFFICIENCY)	21	47	63	84	
25 TO 40 STOREYS (71-76% EFFICIENCY)	16	47	68	89	
Investment, other than CBD					
1 TO 3 STOREYS (81-85% EFFICIENCY)	-	10	57	84	
UP TO 10 STOREYS (82-86% EFFICIENCY)	10	16	52	84	
10 TO 25 STOREYS (77-82% EFFICIENCY)	16	47	57	84	
HOTELS					
Multi-Storey					
FIVE STAR	94	115	235	287	
FOUR STAR	73	94	209	277	
THREE STAR	63	84	188	277	
CAR PARK					
OPEN DECK MULTI-STOREY	-	-	21	31	
BASEMENT: CBD	-	-	31	47	
BASEMENT: OTHER THAN CBD	-	-	26	37	
UNDERCROFT: OTHER THAN CBD	-	-	5	5	
INDUSTRIAL BUILDINGS					
6.00 M to underside of truss and 4,500 M² Gross Floor Area with:					
ZINCALUME METAL CLADDING	-	-	42	68	
PRECAST CONCRETE CLADDING	-	-	42	68	
Attached Air Conditioned Offices					
200 M ²	-	-	57	78	
400 M ²	-	-	57	73	

SPECIAL EQUIPMENT

Special Equipment includes Building Maintenance Units, Medical Gases, Chutes, Incinerators and Compactors where appropriate.

HYDRAULIC

Hydraulic Services include Cold Water Supply, Soil, Waste and Ventilation Plumbing and Associated Sanitary Fittings and Faucets where appropriate.

FII	RE	ME	CH.	VER1			DING GT.	ELECT	RICAL	тот	ΓAL
\$/	M²	\$/	M ²	\$/	M²	\$/	\$/M ² \$/M ² \$/I		M²		
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
68	78	314	481	115	230	57	89	167	240	811	1,260
63	78	324	502	247	272	57	89	178	251	958	1,338
63	84	335	512	261	335	57	94	193	261	1,014	1,432
57	73	261	497	52	157	47	78	152	188	632	1,082
57	78	272	460	84	209	42	63	162	209	701	1,150
57	84	282	439	136	261	42	57	172	230	774	1,207
52	73	209	314	-	42	16	31	105	157	439	711
52	78	220	335	63	149	21	42	131	167	549	871
52	78	240	345	73	193	21	57	146	183	607	988
78	94	376	470	157	314	78	94	732	836	1,751	2,211
73	89	314	397	84	261	42	89	470	680	1,265	1,887
68	89	293	366	42	172	42	89	261	366	957	1,443
10	47	-	26	34	103	5	31	26	47	97	286
37	57	21	57	34	103	16	37	32	68	171	370
31	52	21	52	34	103	16	37	32	57	160	339
5	10	-	-	-	-	-	11	21	37	31	63
47	68	37	73	-	-	5	21	52	94	183	325
47	68	37	73	-	-	5	21	52	94	183	325
47	78	230	283	-	-	16	47	120	167	470	654
47	78	230	303	-	188	16	47	120	178	470	868

FIRE PROTECTION

Fire Services include Detectors, Warden Communication, Sprinklers, Hydrants, Hose Reels and Extinguishers.

MECHANICAL

Mechanical Services include Air Conditioning, Ventilation, Heating and Domestic Hot Water where appropriate.

MELBOURNE CONSTRUCTION BUILDING SERVICES COSTS

	SPECIAL EQUIPMENT		HYDR	AULIC
COST RANGE PER GROSS FLOOR AREA		'M²	\$/	
	LOW	HIGH	LOW	HIGH
AGED CARE	10	00	140	000
SINGLE STOREY FACILITY	16	89	146	209
PRIVATE HOSPITALS				
Low Rise Hospital				
45-60 M² GFA/BED	37	94	146	209
55-80 M ² GFA/BED WITH MAJOR OPERATING THEATRE	42	105	167	230
CINEMAS				
GROUP COMPLEX, 2,000-4,000 SEATS (WARM SHELL)	-	37	63	94
REGIONAL SHOPPING CENTRES				
DEPARTMENT STORE	21	42	47	73
SUPERMARKET/VARIETY STORE	16	31	57	84
DISCOUNT DEPARTMENT STORE	16	31	57	68
MALLS	-	37	57	84
SPECIALTY SHOPS	-	-	42	68
SMALL SHOPS AND SHOWROOMS				
SMALL SHOPS & SHOWROOMS	-	-	73	105
RESIDENTIAL				
SINGLE AND DOUBLE STOREY DWELLINGS (CUSTOM BUILT)	-	-	84	157
RESIDENTIAL UNITS				
WALK-UP 85-120 M ² /UNIT	-	-	89	188
TOWNHOUSES 90-120 M ² /UNIT	-	-	84	188
MULTI-STOREY UNITS				
Up to 10 storeys with lift				
UNITS 60-70 M ²	5	37	167	220
UNITS 90-120 M ²	5	37	162	209
Over 10 and up to 20 storeys				
UNITS 60-70 M ²	5	37	178	220
UNITS 90-120 M ²	5	37	172	209
Over 20 and up to 40 storeys				
UNITS 60-70 M ²	5	37	188	230
UNITS 90-120 M ²	5	37	183	220
Over 40 and up to 80 storeys				
UNITS 60-70 M ²	5	37	193	240
UNITS 90-120 M ²	5	37	157	220

VERTICAL TRANSPORT

Transport Services include Lifts, Escalators, Travelators, Dumbwaiters, etc. where appropriate.

BUILDING MANAGEMENT

Building Management Services include Communications, Security and Building Automation Systems where appropriate.

FII	RE	ME	CH.	VERT TRANS			DING ST.	ELECT	RICAL	тот	ΓAL
\$/	M²	\$/	M²	\$/	M ²	\$/	M²	1 ² \$/M ² \$/M ²		M²	
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
31	84	94	366	-	-	37	125	146	230	470	1,103
57	84	470	627	46	86	52	125	188	293	997	1,519
57	84	575	889	75	209	73	157	209	397	1,199	2,070
68	73	366	497	-	21	26	52	105	146	627	920
52	68	220	272	_	86	26	47	167	235	533	823
42	63	157	230	_	146	26	42	125	188	423	784
42	63	125	209	_	105	26	47	105	157	371	680
47	78	188	314	-	105	21	47	178	251	491	915
47	68	188	314	-	105	-	26	63	105	340	685
31	68	52	283	-	84	-	-	63	116	220	655
5	10	26	157	-	125	-	31	94	157	209	638
_	26	20	188				26	89	146	200	C7C
5	26	26 26		-	-	-	26	94	125	209	575
5	20	20	188	-	-	-	20	94	125	209	554
57	73	115	261	21	64	16	47	136	178	518	880
57	73	125	251	21	64	16	47	125	167	512	849
57	73	125	261	26	68	16	47	146	199	554	905
57	73	136	251	26	68	16	47	141	188	554	874
57	73	152	282	63	92	16	47	167	230	648	992
57	73	146	272	63	42	16	47	157	209	627	900
63	78	193	340	172	247	16	47	178	230	821	1,220
63	78	183	329	172	247	16	47	167	209	763	1,168

ELECTRICAL

Electrical Services include the provision of Lighting and Power to occupied areas where appropriate.

MELBOURNE CONSTRUCTION UNIT COSTS

ITEM	CONSTR COST F	PER	
	LOW	HIGH	
HOTELS Multi-Storey (excluding basements)			
FIVE STAR	365,000	585,000	BEDROOM
FOUR STAR	300,000	397,500	BEDROOM
THREE STAR	197,500	285,000	BEDROOM
CAR PARKS Based on 30 M² per car			
OPEN DECK MULTI-STOREY	22,250	35,750	CAR
BASEMENT - CBD	48,500	87,000	CAR
BASEMENT - OTHER THAN CBD	42,500	82,000	CAR
UNDERCROFT - OTHER THAN CBD	22,750	28,500	CAR
AGED CARE			
FACILITY	157,500	200,000	BED
PRIVATE HOSPITALS Low Rise Hospital			
45-60 M ² GFA/BED	142,500	215,000	BED
55-80 M ² GFA/BED	212,500	330,000	BED
CINEMAS			
GROUP COMPLEX, 2,000-4,000 SEATS (WARM SHELL)	7,400	11,250	SEAT
HOUSING			
SINGLE AND DOUBLE STOREY DWELLINGS (CUSTOM BUILT) - 325 M ²	475,000	935,000	HOUSE
RESIDENTIAL UNITS (EXCL CARPARK/SI	TE WORKS)		
WALK-UP UNITS 85-120 M²/UNIT	147,500	362,500	UNIT
TOWNHOUSES 90-120 M ² /UNIT	157,500	402,500	UNIT
MULTI-STOREY RESIDENTIAL UNITS Up to 10 storeys with lift			
UNITS 60-70 M ²	197,500	300,000	UNIT
UNITS 90-120 M ²	290,000	502,500	UNIT
Over 10 and up to 20 storeys			
UNITS 60-70 M ²	222,500	330,000	UNIT
UNITS 90-120 M ²	300,000	575,000	UNIT
Over 20 and up to 40 storeys			
UNITS 60-70 M ²	270,000	372,500	UNIT
UNITS 90-120 M ²	360,000	600,000	UNIT
Over 40 and up to 80 storeys			
UNITS 60-70 M ²	305,000	550,000	UNIT
UNITS 90-120 M ²	410,000	812,500	UNIT

MELBOURNE CONSTRUCTION SITEWORKS COSTS

LANDSCAPING

	LOW	HIGH	PER
LIGHT LANDSCAPING TO LARGE AREAS WITH MINIMAL PLANTING AND SITE FORMATION BUT EXCLUDING TOPSOIL AND GRASSING	35,250	51,000	HECTARE
DENSE LANDSCAPING AROUND BUILDINGS INCLUDING SHRUBS, PLANTS, TOPSOIL AND GRASSING	75	210	M^2
GRASSING ONLY TO LARGE AREAS INCLUDING TOPSOIL, SOWING AND TREATING	15	35	M ²

CAR PARKS - ON GROUND

Based on $30\ M^2$ overall area per car with asphalt paving including sub base and sealing.

	LOW	HIGH	PER
LIGHT DUTY PAVING	1,160	1,400	CARSPACE
HEAVY DUTY PAVING TO FACTORY TYPE COMPLEX, LARGE AREA WITH MINIMAL SITE FORMATION, DRAINAGE AND KERB TREATMENT	2,250	3,200	CARSPACE
LIGHT DUTY PAVING TO SHOPPING CENTRE COMPLEX, LARGE AREA WITH MINIMAL SITE FORMATION, AND INCLUDING DRAINAGE AND KERB TREATMENT	1,860	3,100	CARSPACE

ROADS

Asphalt finish including kerb, channel and drainage.

	LOW	HIGH	PER
RESIDENTIAL ESTATE 6.80 METRES WIDE EXCLUDING FOOT PATH AND NATURE STRIP	710	1,100	М
INDUSTRIAL ESTATE 10.4 METRES WIDE INCLUDING MINIMAL TO EXTENSIVE FORMATION	1,060	1,820	М

MELBOURNE CONSTRUCTION DEMOLITION COSTS

Demolition costs include grubbing up footings, sealing services, temporary shoring, supports, removal of demolished materials, rubbish and site debris.

Exclusions: work carried out outside normal working hours, credit value of demolished materials and restricted site conditions.

BUILDING TYPE	LOW	HIGH	PER
SINGLE STOREY TIMBER FRAMED HOUSE WITH TIMBER CLADDING AND TILED ROOF	40	55	M ²
SINGLE/DOUBLE STOREY BRICK HOUSE WITH TILED ROOF	45	60	M^2
SINGLE STOREY FACTORY/ WAREHOUSE WITH REINFORCED CONCRETE GROUND SLAB, TIMBER OR STEEL FRAMED WALLS			
METAL CLAD	45	75	M^2
BRICK CLAD	60	85	M^2
TWO STOREY OFFICE BUILDING WITH REINFORCED CONCRETE FRAME MASONRY CLADDING AND METAL ROOF	105	120	M^2
MULTI-STOREY OFFICE BUILDING UP TO 15 FLOORS WITH MASONRY CLADDING			
REINFORCED CONCRETE	165	320	M^2
STRUCTURAL STEEL	175	320	M^2
MULTI-STOREY OFFICE BUILDING UP TO 25 STOREYS, CONSTRUCTED OF STEEL FRAME WITH MASONRY CLADDING	210	370	M^2

HOTEL FURNITURE, FITTINGS & EQUIPMENT COSTS

The cost of hotel furniture, fittings and equipment (FF&E) varies within a wide range and is dependent on the quality of items provided. The following gives the expected cost ranges for different rating hotels. These costs include fitting out public areas.

	LOW	HIGH	PER
FIVE STAR RATING	56,000	66,000	BEDROOM
FOUR STAR RATING	30,500	45,750	BEDROOM
THREE STAR RATING	22,250	35,750	BEDROOM

MELBOURNE CONSTRUCTION OFFICE FITOUT COSTS

The following costs, which include workstations, are an indication of those currently achievable for good quality office accommodation, inclusive of all loose and fixed furniture.

TYPE OF TENANCY	OPEN PLANNED		FULLY PARTITIONED		PER
	LOW	HIGH	LOW	HIGH	
INSURANCE OFFICES, GOVERNMENT DEPARTMENT	1,020	1,540	1,220	1,840	M^2
MAJOR COMPANY HEADQUARTERS	1,280	2,050	1,520	2,250	M^2
SOLICITORS, FINANCIERS	1,680	2,650	1,780	2,850	M^2
EXECUTIVE AREAS AND FRONT OF HOUSE	-	-	3,100	7,000	M^2
COMPUTER AREAS	2,350	4,950	-	-	M^2

Computer areas include access flooring and additional services costs but exclude computer equipment.

WORKSTATIONS

Fully self-contained workstation module size 1,800 x 1,800 MM including screens generally 1,220 MM high (managerial 1,620 MM high), desks, storage cupboards, shelving.

TYPE OF WORKSTATION	LOW	HIGH	PER
CALL CENTRE	1,680	3,700	EACH
SECRETARIAL	1,880	4,950	EACH
TECHNICAL STAFF	3,650	6,100	EACH
EXECUTIVE	5,600	9.400	EACH

REFURBISHMENT

Office

The following refurbishment costs include for demolition and removal of partitions and internal finishes, provide new floor, ceiling and wall finishes, but excluding fitting out and removal of asbestos and upgrading of building for Green Star ratings. The lower end of the range indicates re-use and modification of existing specialist building services, while the upper end of the range indicates complete replacement of equipment and accessories.

	LOW	HIGH	PER
CBD OFFICES TYPICAL FLOOR	640	1,880	M^2
CBD OFFICES CORE UPGRADE (EXCLUDING LIFTS MODERNISATION)	730	1,480	M^2

MELBOURNE CONSTRUCTION RECREATIONAL FACILITIES COSTS

BASKETBALL CENTRE

	LOW	HIGH	PER
CONSISTING OF BRICK WALLS, STEEL PORTAL FRAME AND PURLINS WITH METAL ROOF, TIMBER FLOOR TO PLAYING AREA, PUBLIC SEATING, PUBLIC TOILETS AND CHANGE ROOMS	1,020	1,340	M²

SWIMMING POOL CENTRES

	LOW	HIGH	PER
INCLUDING FOYER, KIOSK, OFFICE, LOCKERS, ADMINISTRATION OFFICES, CHANGE ROOMS	1,500	1,840	M^2

SWIMMING POOLS

High quality fully tiled including drainage and filtration but excluding surrounding paving and enclosures.

	LOW	нібн	PER
HALF OLYMPIC (25.0 X 12.5 M)	365,000	477,500	EACH
EXTRA FOR HEATING	20,000	40,000	EACH
EXTRA OVER FILTRATION AND DOSING PLANT FOR OZONE BASED DOSING SYSTEM	180,000	285,000	EACH
EXTRA FOR WET DECK	25,000	50,000	EACH
OLYMPIC (50.0 X 21.5 M)	1,425,000	1,875,000	EACH
EXTRA FOR HEATING	40,000	65,000	EACH
EXTRA FOR FILTRATION AND DOSING PLANT	260,000	435,000	EACH
EXTRA OVER FILTRATION AND DOSING PLANT FOR OZONE BASED DOSING SYSTEM	85,000	140,000	EACH

SMALL BOAT AND YACHT MARINA BERTHS

Floating pontoon walkways, serviced with power and water.

	LOW	HIGH	PER
DOUBLE LOADED BERTHS	17,000	23,500	BERTH
SINGLE LOADED BERTHS	28,750	34,500	BERTH
SUPER YACHTS	222,500	280,000	BERTH

MELBOURNE CONSTRUCTION RECREATIONAL FACILITIES COSTS

TENNIS COURTS

Six courts with minimal site formation and including sub base playing surface, chainwire fence 3.60 M high and spoon drains.

	LOW	HIGH	PER
SYNTHETIC GRASS	48,500	59,000	COURT
RED POROUS (EN-TOUT-CAS)	28,000	37,000	COURT
SYNTHETIC ACRYLIC (FLEXIPAVE)	41,000	48,750	COURT
ASPHALT (5 MM)	31,000	40,250	COURT
PLEXICUSHION	107,500	122,500	COURT
CONCRETE	39,000	43,500	COURT
FLOODLIGHTING	-	-	COURT

GOLF COURSES

18 hole championship course including siteworks, finishing works, irrigation, grassing, landscaping, green keeping, plant and equipment, course furniture and groundstaff to practical completion but excluding mains water supply to course, roads, carparks and clubhouse. The following are indicative costs only.

	LOW	HIGH	PER
SANDY SOIL SITE, REQUIRING MINIMAL EXCAVATION AND SITE PREPARATION	7,425,000	10,975,000	COURSE
SITE REQUIRING ROCK EXCAVATION	12,900,000	16,725,000	COURSE
SWAMPY SITE REQUIRING DREDGING FOR LAKES, ETC. AND EXTENSIVE FILL	14,200,000	21,825,000	COURSE

PLAYING FIELDS

Soccer, rugby, Australian rules, hockey or similar turfed areas with minimal site formation and including sub base, drainage and turfing.

	LOW	HIGH	PER
EXCLUDES SPRINKLERS	40	45	M ²

GRANDSTANDS

Prestige metropolitan grandstand with a high standard of finishes and facilities including bars, stores, meeting/change rooms, dining and kitchen area.

	LOW	HIGH	PER
GRANDSTAND	3,700	8,500	SEAT

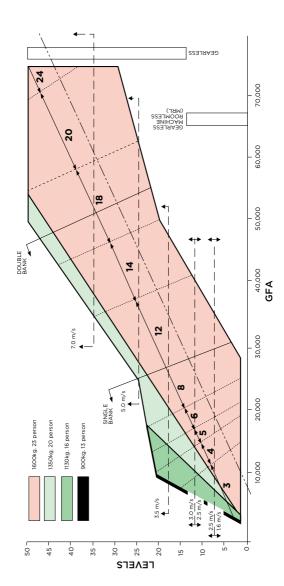
MELBOURNE CONSTRUCTION VERTICAL TRANSPORTATION

LIFT SELECTION CHART

To calculate the number and type of lifts:

- Locate a point on the graph by using the GFA in M² shown on the bottom axis and number of levels on the left axis
- The colour at the intersection point indicates the lift capacity, the horizontal lines the lift speed and the angled lines the number of lifts and the number of banks
- By extending the horizontal line to the far right hand side, the type of lift required can be obtained

Destination control is an optional lift control system in which passengers key-in the number of their destination floor at a button panel located in their current lift lobby area. Each floor lobby has a button panel. The lifts cars themselves do not have destination buttons and are designated to serve the floors as required. Destination control will generally boost the "Up peak" or morning performance of the lift system and will provide additional security provisions. The performance of the lift system during lunch times and at the end of the day is generally not improved with this control system. Lobby area may need to be increased.



MELBOURNE CONSTRUCTION VERTICAL TRANSPORTATION

APPLICATION	LIFT TYPE	SPEED NO. OF FLOORS			COST	ADDITIONAL FLOOR	EXPRESS FLOOR
		11/3	SERVED	LOW	HIGH	RATE	RATE
	ELECTRO-HYDRAULIC PASSENGER	0.5	2	-	-	-	-
	GEARLESS TO 17 PASSENGER	1	5	124,500	194,500	9,200	6,500
	GEARLESS UP TO 17 PASSENGER	1.6	8	162,000	248,500	9,200	6,500
	GEARLESS	2.5	10	303,000	465,000	10,800	8,100
OFFICE &	GEARLESS	3.5	10	497,500	595,000	12,400	8,100
RESIDENTIAL	GEARLESS	4	10	519,000	616,500	12,400	8,700
	GEARLESS	5	10	595,000	735,500	12,400	8,700
	GEARLESS	6	10	735,500	843,500	15,100	10,800
	GEARLESS	7	10	757,000	865,000	15,700	11,400
	GEARLESS	8	10	833,000	941,000	16,200	11,900
HOSPITAL	GEARED UP TO 40 PASSENGER	2	5	443,500	497,500	15,700	10,100
	GEARLESS	2.5	10	703,000	908,500	13,000	8,700
	GEARLESS MRL TO 2,000 KG	1.6	10	357,000	454,000	14,100	10,800
LARGE GOODS	ELECTRO-HYDRAULIC TO 5,000 KG	0.5	2	270,500	432,500	32,400	27,000
	GEARLESS 2,500 KG	2.5	10	778,500	908,500	13,500	9,700
ESCALATORS	RISE 2,600 TO 5,000 MM	0.5	-	130,000	173,000	-	-
MOVING WALKS	2,500 TO 5,000 MM	0.5	-	157,000	270,500	-	-
SERVICE LIFT	BENCH HEIGHT UNIT	0.2	3	35,500	40,000	4,500	1,500
SERVICE LIFT	LARGER UNIT	0.2	3	49,500	60,500	5,000	1,500
DISABLED PLATFORM	TO 1,000 MM	0.1	2	30,500	38,000	-	-
LIFT	1,000 TO 4,000 MM	0.1	2	45,500	51,000	-	-

Note: Destination Control Lift System option costs are not included in the above rates.

MELBOURNE DEVELOPMENT

Stamp Duties	48
Land Tax	49
Planning - Car Parking	50
Land Values	51
Rental Rates	52
Office Sector Data	53
Retail Sector Data	56
Industrial Sector Data	58
Construction Work Done	59
Dwelling Commencements	63
RLB Market Activity Cycle	64

MELBOURNE DEVELOPMENT STAMP DUTIES

When purchasing Victorian land, which may include buildings, there is a liability to pay stamp duty. The duty payable is based on the market value of the property or the purchase price, whichever is greater.

DUTIABLE VALUE RANGE	RATE AS AT 30/09/18
\$0 TO \$25,000	1.4 PER CENT OF THE DUTIABLE VALUE OF THE PROPERTY
\$25,001 TO \$130,000	\$350 PLUS 2.4 PER CENT OF THE DUTIABLE VALUE IN EXCESS OF \$25,000
\$130,001 TO \$960,000	\$2,870 PLUS 6 PER CENT OF THE DUTIABLE VALUE IN EXCESS OF \$130,000
MORE THAN \$960,000	5.5 PER CENT OF THE DUTIABLE VALUE

The Victorian Government offers a concession when purchasing an "off-the-plan property", either as a land and building package, or a refurbished lot.

Residential property purchased by foreign purchasers must pay Foreign Purchaser Additional Duty (FPAD) in addition to land transfer duty on the dutiable value of the property purchased. The dutiable value is the greater of the price paid, or the market value of the property/land.

For contracts, transactions, agreements and arrangements entered into on or after 1 July 2016, the additional FPAD duty rate is 7%.

For further details refer to www.sro.vic.gov.au.

MELBOURNE DEVELOPMENT LAND TAX

Land tax is an annual tax levied on owners of taxable land in Victoria as at midnight on 31 December of the year preceding the year of assessment. For example, the 2018 assessment is based on land holdings as at midnight on 31 December 2017.

In general, a principal place of residence or land used for primary production is exempt from land tax.

The absentee owner surcharge is an additional amount that applies over the land tax payable over the general and trust surcharge rates.

From 1 January 2017, the absentee owner surcharge increased to 1.5% in addition to the land tax liability assessed.

An absentee individual is any individual who:

- 1. Is not an Australian citizen or permanent resident,
- 2. Does not ordinarily reside in Australia, and
- 3. Was absent from Australia:
 - on 31 December of the year prior to the tax year, or
 - for more than six months in total in the calendar year prior to the tax year

Land tax is assessed on a calendar year basis.

TOTAL TAXABLE VALUE OF LANDHOLDINGS	LAND TAX PAYABLE
< \$250,000	NIL
\$250,000 TO \$600,000	\$275 PLUS 0.2% OF AMOUNT > \$250,000
\$600,000 TO < \$1,000,000	\$975 PLUS 0.5% OF AMOUNT > \$600,000
\$1,000,000 TO < \$1,800,000	\$2,975 PLUS 0.8% OF AMOUNT > \$1,000,000
\$1,800,000 TO < \$3,000,000	\$9,375 PLUS 1.3% OF AMOUNT > \$1,800,000
MORE THAN \$3,000,000	\$24,975 PLUS 2.25% OF AMOUNT > \$3,000,000

Land held on trust is taxed differently from land held by a person in their own right.

TOTAL TAXABLE VALUE OF TRUST OWNED LANDHOLDINGS	LAND TAX PAYABLE
< \$25,000	Nil
\$25,000 TO < \$250,000	\$82 PLUS 0.375% OF AMOUNT > \$25,000
\$250,000 TO < \$600,000	\$926 PLUS 0.575% OF AMOUNT > \$250,000
\$600,000 TO < \$1,000,000	\$2,938 PLUS 0.875% OF AMOUNT > \$600,000
\$1,000,000 TO < \$1,800,000	\$6,438 PLUS 1.175% OF AMOUNT > \$1,000,000
\$1,800,000 TO < \$3,000,000	\$15,838 PLUS 0.7614% OF AMOUNT > \$1,800,000
\$3,000,000 AND OVER	\$24,975 PLUS 2.25% OF AMOUNT > \$3,000,000

For further details refer to www.sro.vic.gov.au.

MELBOURNE DEVELOPMENT PLANNING - CAR PARKING

The following car parking information is derived from the Melbourne Planning Scheme, Clause 52.06 Car Parking, which details the appropriate number of car parking spaces to be provided to service particular uses of land.

The table sets out the car parking requirement that applies to the uses listed. A car parking requirement in the table is calculated by multiplying the figure in Column A or Column B (whichever applies) by the measure (for example M², number of patrons or number of bedrooms) in Column C.

Column A applies unless a schedule to the Parking Overlay or another provision of the planning scheme specifies that Column B applies. Full details of the Melbourne Planning Scheme can be found at: http://planningschemes.dpcd.vic.gov.au/schemes/melbourne.

TYPE OF PROPOSED USE	COLUMN A	COLUMN B	COLUMN C
	APPLIES THE STANDARD RATE TO ALL ZONES	ONLY APPLIES WHERE SPECIFIED IN A SCHEDULE TO THE PARKING OVERLAY	
	RATE	RATE	CAR PARKING MEASURE
	1	1	EACH 1 OR 2 BEDROOM UNIT, PLUS
DWELLINGS	2	2	EACH 3 OR MORE BEDROOM UNIT, PLUS
	1	0	1 VISITOR SPACE FOR EACH 5 UNITS FOR DEVELOPMENTS WITH MORE THAN 5 UNITS
HOTEL	0.4		EACH PATRON PERMITTED
HOTEL		3.5	EACH 100 M² OF LEASABLE AREA
OFFICE	3.5	3.0	EACH 100 M ² OF NET FLOOR AREA
RESIDENTIAL AGED CARE FACILITY	0.3	0.3	TO EACH LODGING ROOM
DECTALIDANT	0.4		EACH PATRON PERMITTED
RESTAURANT		3.5	EACH 100 M² OF LEASABLE AREA
RESTRICTED RETAIL PREMISES	3	2.5	EACH 100 M² OF LEASABLE AREA
SHOP	4	3.5	EACH 100 M² OF LEASABLE AREA
SUPERMARKET	5	5	EACH 100 M² OF LEASABLE AREA

MELBOURNE DEVELOPMENT LAND VALUES

The values shown are indicative of current land values in Victoria and may vary according to position, planning requirements, etc.

LOCATION (COSTS PER M²)	\$/	M ²
	LOW	HIGH
OFFICES		
CBD OFFICES	15,000	50,000
FRINGE	10,000	15,000
BOX HILL (2,000 M²)	8,000	11,000
CBD RETAIL		
CBD PRIME RETAIL (EG. 120 M²)	20,000	75,000
CBD SECONDARY AREAS	10,000	20,000
NEIGHBOURHOOD SHOPPING CENTRE	400	1000
SUBURBAN STRIP SHOPPING	1,000	5,000
INDUSTRIAL (1HA TO 5HA)		
SOUTH & EAST	300	425
NORTH & WEST	175	320
CITY FRINGE	600	800

Prepared in association with Savills.

MELBOURNE DEVELOPMENT RENTAL RATES

The net rents indicated below show the change in levels since 1988. Allowance has been made for the effects of rental incentives, rent free periods, etc.

		OFFICES		INDUSTRIAL
	CBD	ST.KILDA ROAD	SUBURBAN OFFICES	PRIME
1988	345	186	206	49
1989	271	218	217	47
1990	192	213	231	56
1991	160	172	209	66
1992	71	145	188	62
1993	54	117	157	60
1994	57	108	183	50
1995	73	130	179	47
1996	85	145	181	48
1997	103	160	183	52
1998	132	166	183	58
1999	142	168	183	65
2000	191	168	183	64
2001	265	190	205	66
2002	317	193	201	66
2003	255	195	182	66
2004	188	186	199	70
2005	238	188	196	70
2006	259	201	222	75
2007	281	207	223	75
2008	367	256	254	75
2009	349	206	228	78
2010	370	217	225	85
2011	404	219	239	83
2012	400	249	228	83
2013	324	238	229	83
2014	352	248	235	85
2015	352	240	230	85
2016	420	240	275	85
2017	440	270	285	87
2018	461	310	295	87

Prepared in association with Savills.

MELBOURNE DEVELOPMENT OFFICE SECTOR DATA

MELBOURNE CBD VACANCY RATES - Q2 2018

PCA GRADE	STOCK M²	VACANCY M²	VAC % JUN-18
PREMIUM	756,800	35,000	4.6
GRADE A	2,258,800	65,000	2.9
SECONDARY	1,526,200	62,700	4.1
TOTAL	4,541,900	162,700	3.6

Source: PCA/Savills Research.

CURRENT CENTRAL MELBOURNE OFFICE DEVELOPMENT ACTIVITY

PROPERTY	PRECINCT	NLA M²	STATUS	COMPLETION	TENANT(S)
140 LONSDALE ST	CIVIC	15,000	PA	2020	
1000 LATROBE ST	DOCKLANDS	33,000	PA	2021	
130 LONSDALE ST	CIVIC	55,000	UC	2020	CBUS VANGUARD, TELSTRA SUPER, UNITING CHURCH
TOWER 5, COLLINS SQUARE	DOCKLANDS	40,000	UC	2018	NBN CO, TRANSURBAN, GRANT THORNTON
ONE MELBOURNE QUARTER, 695 COLLINS ST	DOCKLANDS	26,400	UC	2018	ARUP, LENDLEASE, AMP
839 COLLINS ST	DOCKLANDS	38,000	UC	2019	ANZ, WEWORK
311 SPENCER ST	DOCKLANDS	65,500	UC	2019	VIC POLICE
TWO MELBOURNE QUARTER, 697 COLLINS ST	DOCKLANDS	50,000	UC	2021	ENERGY AUSTRALIA
271 SPRING ST	EASTERN CORE	15,600	UC	2019	AUSTRALIAN UNITY
80 COLLINS ST	EASTERN CORE	43,000	UC	2020	MACQUARIE GROUP, SAVILLS, MCKINSEY
405 BOURKE ST	SPENCER	63,000	UC	2021	NAB
477 COLLINS ST	WESTERN CORE	55,000	UC	2020	DELOITTE, NORTON ROSE
447 COLLINS ST	WESTERN CORE	49,000	UC	2020	KING & WOOD MALLESONS, HWL EBSWORTH, GADENS, MINTERS
180 FLINDERS ST	WESTERN CORE	20,100	UC	2020	JOHN HOLLAND

PA: Plans Approved/Applied UC: Under Construction Source: Cordells/Savills Research.

MELBOURNE DEVELOPMENT OFFICE SECTOR DATA

KEY MARKET INDICATORS - Q3 2018

MELBOURNE CBD	PCA PF	REMIUM
	LOW	HIGH
RENTAL - GROSS FACE	750	1,020
RENTAL - NET FACE	560	830
INCENTIVE LEVEL (%) GROSS	20	27
RENTAL - NET EFFECTIVE	430	635
OUTGOINGS - OPERATING	115	135
OUTGOINGS - STATUTORY	60	70
OUTGOINGS - TOTAL	175	205
TYPICAL LEASE TERM (YEARS)	6	10
YIELD - MARKET (% NET FACE RENTAL)	4.75	5.05
IRR (%)	6.50	6.85
CARS PERMANENT RESERVED (\$/PCM)	550	800
CARS PERMANENT (\$/PCM)	450	600
OFFICE COMPONENT CAPITAL VALUES	10,000	15,000

OFFICE SALES ACTIVITY - Q3 2018

PROPERTY	PRICE (\$M)	DATE
697 COLLINS ST (TWO MELBOURNE QUARTER), DOCKLANDS	550.00	MAR-18
60 COLLINS ST, MELBOURNE	160.00	SEP-18
383 LA TROBE ST, MELBOURNE	122.00	SEP-18
637 FLINDERS ST (WORLD TRADE CENTRE), DOCKLANDS	122.00	FEB-18
699 BOURKE ST, DOCKLANDS (50%)	102.00	APR-18
160 HARBOUR ESPLANADE, DOCKLANDS	100.00	JUN-18
CNR STURT ST & SOUTHBANK BLVD, SOUTHBANK	95.38	FEB-18
464 ST KILDA RD, MELBOURNE	95.38	APR-18
277 WILLIAM ST, MELBOURNE	93.88	JUL-18
601 BOURKE ST, MELBOURNE	70.10	MAY-18
52 COLLINS ST, MELBOURNE	70.00	SEP-18
10 QUEENS RD, MELBOURNE	60.00	JUN-18
600 CHURCH ST, CREMORNE	50.00	JUN-18
105 YORK ST, SOUTH MELBOURNE	49.00	SEP-18

All rates are \$/M² unless otherwise noted. Source: Savills Research.

PCA GI	PCA GRADE A		RADE B
LOW	HIGH	LOW	HIGH
685	805	550	625
520	640	410	485
24	28	22	26
385	475	310	370
100	110	85	109
55	60	37	47
155	170	122	156
5	8	3	7
4.95	5.40	5.00	5.70
6.50	7.00	6.75	7.25
500	700	450	600
450	600	420	500
8,000	12,000	7,000	10,000

NLA (M²)	\$/M²
46,349	11,866
13,817	11,580
10,200	11,961
23,049	5,293
18,644	10,942
7,980	12,531
11,679	8,167
13,827	6,898
12,080	7,772
8,082	8,674
3,454	20,266
9,004	6,664
5,667	8,823
5,105	9,598

MELBOURNE DEVELOPMENT RETAIL SECTOR DATA

KEY MARKET INDICATORS - Q2 2018

MELBOURNE ENCLOSED CENTRES	REGIONAL	
	LOW	HIGH
DEPARTMENT STORE RENT (GROSS)	150	300
DDS RENT (GROSS)	210	300
SUPERMARKET RENT (GROSS)	250	400
SPECIALTY TENANT NET RENTAL	750	2,000
MINI-MAJOR RENT (GROSS)	400	1,750
YIELD - MARKET (%)	4.25	5.50
IRR (%)	6.25	7.25
OUTGOINGS - OPERATING	100	150
OUTGOINGS - STATUTORY	40	75
OUTGOINGS - TOTAL	140	225
CAPITAL VALUES	7,500	12,000

RETAIL SALES ACTIVITY - Q2 2018

PROPERTY SALES	TYPE	
HIGHPOINT SC (25%)	REGIONAL	
PACIFIC WERRIBEE	REGIONAL	
PACIFIC EPPING	REGIONAL	
BRANDON PARK SHOPPING CENTRE	SUB REGIONAL	
GATEWAY PLAZA SC	SUB REGIONAL	
THE VILLAGE BACCHUS MARSH	NEIGHBOURHOOD	
STOCKLAND HIGHLANDS SHOPPING CENTRE	NEIGHBOURHOOD	
MORDIALLOC PLAZA	NEIGHBOURHOOD	
MORNINGTON VILLAGE	NEIGHBOURHOOD	
BELLARINE VILLAGE SHOPPING CENTRE	NEIGHBOURHOOD	
TORQUAY VILLAGE	NEIGHBOURHOOD	
NORTHCOTE CENTRAL	NEIGHBOURHOOD	
VIRGIN ACTIVE CENTRE	OTHER	
LAKESIDE SQUARE SC	NEIGHBOURHOOD	
BUNNINGS MERNDA	LARGE FORMAT	

All rates are \$/M² unless otherwise noted. Source: Savills Research.

SUB RE	GIONAL	NEIGHBOURHOOD		LARGE I	FORMAT
LOW	HIGH	LOW	HIGH	LOW	HIGH
170	340				
250	400	250	400		
550	1,500	450	750	175	300
400	1,500	300	650		
5.25	6.25	5.00	6.25	6.00	7.50
7.00	7.75	6.25	7.50	7.75	8.75
75	100	50	75	25	50
25	50	25	35	10	20
100	150	75	110	35	70
3,500	7,500	3,000	7,000	2,000	3,500

PRICE (\$M)	DATE	GLA (M²)	\$/M²
660.00	JUL-17	153,900	17,154
598.00	JUN-18	109,997	10,873
402.00	JUN-18	130,997	6,138
135.00	APR-18	22,805	5,920
117.00	JUN-18	33,510	3,491
61.65	APR-18	16,108	3,827
43.00	MAY-18	7,394	5,816
41.00	MAY-18	4,532	9,047
39.38	JUN-18	7,963	4,945
36.50	MAY-18	10,443	3,495
35.00	FEB-18	6,779	5,163
34.00	NOV-17	6,657	5,107
33.96	SEP-17	4,816	7,051
30.38	JUL-17	6,271	4,845
25.00	DEC-17	15,000	1,667

MELBOURNE DEVELOPMENT INDUSTRIAL SECTOR DATA

KEY MARKET INDICATORS - Q3 2018

SOUTH EASTERN (BRAESIDE, CARRUM DOWNS, DANDENONG, KEYSBOROUGH, MOORABBIN)

\$/M ²	PRIME		SECONDA	
	LOW	HIGH	LOW	HIGH
RENTAL NET FACE	80	95	55	65
INCENTIVES (%)	10	20	15	20
YIELD- MARKET (%)	5.50	6.50	6.50	7.75
IRR (%)	6.75	7.50	7.50	8.50
OUTGOINGS - TOTAL	14	18	12	16
CAPITAL VALUES	1,300	1,700	800	1,200
LAND VALUES 3,000 - 5,000 M ²	450 (I	LOW)	550 (HIGH)
LAND VALUES 10,000 - 50,000 M ²	325 (I	LOW)	425 (HIGH)
LAND VALUES 10 HA AND ABOVE	130 (I	LOW)	175 (HIGH)
ENGLOBO LAND VALUES	45 (L	.OW)	80 (H	HIGH)

WEST (ALTONA, DERRIMUT, LAVERTON NORTH, SUNSHINE, TRUGANINA)

\$/M ²	PRIME		SECONDARY	
	LOW	HIGH	LOW	HIGH
RENTAL NET FACE	75	80	50	60
INCENTIVES (%)	15	30	20	30
YIELD- MARKET (%)	5.50	6.75	6.75	8.00
IRR (%)	7.00	7.75	7.75	8.75
OUTGOINGS - TOTAL	12	16	10	15
CAPITAL VALUES	1,200	1,600	600	900
LAND VALUES 3,000 - 5,000 M ²	230 (LOW)	360 (HIGH)
LAND VALUES 10,000 - 50,000 M ²	200 (LOW)	300 (HIGH)
LAND VALUES 10 HA AND ABOVE	140 (LOW)	210 (HIGH)
ENGLOBO LAND VALUES	40 (L	.OW)	80 (H	HIGH)

CITY FRINGE (PORT MELBOURNE)

\$/M²	PRIME		SECONDARY	
	LOW	HIGH	LOW	HIGH
RENTAL NET FACE	90	150	65	90
INCENTIVES (%)	5	15	5	10
YIELD- MARKET (%)	5.50	6.25	6.75	8.00
IRR (%)	7.00	8.00	7.75	8.75
OUTGOINGS - TOTAL	25	40	25	40
CAPITAL VALUES	1,500	2,750	900	1,400
LAND VALUES 3,000 - 5,000 M ²	800 (LOW)	1,100	(HIGH)
LAND VALUES 10,000 - 50,000 M ²	600 (LOW)	800 (HIGH)

All rates are \$/M² unless otherwise noted. Source: Savills Research.

MELBOURNE DEVELOPMENT CONSTRUCTION WORK DONE

ANNUAL VALUE OF CONSTRUCTION WORK DONE

YEAR ENDING	RESIDENTIAL	NON- RESIDENTIAL	ENGINEERING	TOTAL CONSTRUCTION
JUN-1990	3,614	4,450	2,360	10,424
JUN-1991	2,904	3,643	2,314	8,861
JUN-1992	2,725	2,404	1,916	7,045
JUN-1993	3,063	1,971	2,098	7,131
JUN-1994	3,450	1,902	2,329	7,681
JUN-1995	3,581	2,322	2,409	8,313
JUN-1996	3,261	2,870	2,353	8,484
JUN-1997	3,385	3,252	2,472	9,110
JUN-1998	4,480	2,960	3,137	10,577
JUN-1999	5,312	3,571	3,885	12,768
JUN-2000	7,089	3,431	3,451	13,971
JUN-2001	6,646	3,544	3,216	13,407
JUN-2002	8,161	3,929	3,389	15,480
JUN-2003	9,364	4,705	4,244	18,313
JUN-2004	10,219	5,102	4,983	20,305
JUN-2005	10,453	5,863	5,911	22,227
JUN-2006	10,085	6,215	7,406	23,706
JUN-2007	10,094	7,138	7,217	24,449
JUN-2008	10,928	9,089	7,324	27,341
JUN-2009	12,337	9,042	8,346	29,725
JUN-2010	13,941	8,531	9,539	32,011
JUN-2011	15,910	8,495	11,189	35,594
JUN-2012	16,036	8,578	11,756	36,370
JUN-2013	16,268	8,398	10,905	35,571
JUN-2014	16,281	8,914	10,386	35,580
JUN-2015	18,252	9,611	10,209	38,072
JUN-2016	21,337	9,483	11,075	41,895
JUN-2017	22,743	10,281	12,021	45,046
JUN-2018	24,099	12,336	16,519	52,954

Source - ABS 8752.0 & 8762.0 (Current Prices - Original Series - \$Millions)

MELBOURNE DEVELOPMENT CONSTRUCTION WORK DONE

ANNUAL VALUE OF NON-RESIDENTIAL BUILDING WORK DONE IN VICTORIA

YEAR ENDING	COMMERCIAL	INDUSTRIAL	RETAIL	EDUCATION	HEALTH
JUN-2002	895	640	762	648	257
JUN-2003	1,111	913	852	615	314
JUN-2004	1,597	732	814	704	344
JUN-2005	1,564	1,118	956	700	330
JUN-2006	1,543	1,271	1,007	759	356
JUN-2007	1,710	1,462	1,389	816	421
JUN-2008	2,520	1,427	2,106	869	466
JUN-2009	2,503	1,142	1,892	933	758
JUN-2010	1,359	935	1,226	2,681	758
JUN-2011	1,329	1,158	1,350	2,819	745
JUN-2012	1,817	1,193	1,721	1,685	609
JUN-2013	2,163	1,047	1,688	1,165	778
JUN-2014	2,296	840	1,441	1,187	1,035
JUN-2015	2,169	1,483	1,356	1,208	1,530
JUN-2016	2,195	1,548	1,584	1,262	1,153
JUN-2017	1,849	1,664	1,827	1,702	759
JUN-2018	3,054	1,711	1,465	2,303	726

Source: ABS 8752.0 (Original Cost - \$ Millions).

AGED CARE	HOTELS	ENTERTAINMENT & RECREATION	OTHER	TOTAL
181	125	224	198	3,929
236	188	311	165	4,705
238	121	354	197	5,102
215	144	496	339	5,863
254	194	459	371	6,215
285	246	478	331	7,138
386	443	624	248	9,089
323	589	681	221	9,042
216	341	485	528	8,531
159	165	418	353	8,495
202	296	641	413	8,578
249	218	650	440	8,398
335	163	765	851	8,914
339	186	622	717	9,611
429	221	401	691	9,483
413	429	886	750	10,281
699	723	999	656	12,336

MELBOURNE DEVELOPMENT CONSTRUCTION WORK DONE

ANNUAL VALUE OF RESIDENTIAL BUILDING WORK DONE IN VICTORIA

YEAR ENDING	NEW HOUSES	NEW APARTMENTS & SEMI DETACHED HOUSING	ALTERATIONS & ADDITIONS INCLUDING CONVERSIONS	TOTAL RESIDENTIAL
JUN-1990	2,777	206	631	3,614
JUN-1991	2,147	195	562	2,904
JUN-1992	1,993	181	550	2,725
JUN-1993	2,287	196	579	3,063
JUN-1994	2,521	278	651	3,450
JUN-1995	2,574	300	708	3,581
JUN-1996	2,111	452	698	3,261
JUN-1997	1,989	621	775	3,385
JUN-1998	2,808	760	911	4,480
JUN-1999	3,366	948	998	5,312
JUN-2000	4,468	1,352	1,269	7,089
JUN-2001	3,926	1,521	1,199	6,646
JUN-2002	4,918	1,799	1,445	8,161
JUN-2003	5,782	2,119	1,463	9,364
JUN-2004	6,051	2,429	1,739	10,219
JUN-2005	6,199	2,513	1,740	10,453
JUN-2006	6,231	2,188	1,666	10,085
JUN-2007	6,493	1,815	1,786	10,094
JUN-2008	6,802	2,094	2,031	10,928
JUN-2009	7,669	2,631	2,038	12,337
JUN-2010	8,781	3,193	1,968	13,941
JUN-2011	9,310	4,433	2,167	15,910
JUN-2012	8,670	5,042	2,324	16,036
JUN-2013	8,161	5,771	2,335	16,268
JUN-2014	7,895	5,906	2,480	16,281
JUN-2015	8,960	6,807	2,485	18,252
JUN-2016	10,341	8,402	2,594	21,337
JUN-2017	11,052	8,754	2,937	22,743
JUN-2018	11,918	9,391	2,791	24,099

Source: ABS 8752.0 (Original Cost - \$Millions).

MELBOURNE DEVELOPMENT DWELLING COMMENCEMENTS

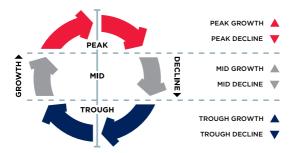
ANNUAL NUMBER OF DWELLING COMMENCEMENTS IN VICTORIA

YEAR ENDING	NEW HOUSES	NEW APARTMENTS & SEMI DETACHED HOUSING	TOTAL RESIDENTIAL
JUN-1990	27,572	2,444	30,122
JUN-1991	21,094	2,486	23,640
JUN-1992	22,392	3,029	25,451
JUN-1993	25,716	2,438	28,175
JUN-1994	27,904	3,562	32,664
JUN-1995	25,847	3,612	30,510
JUN-1996	19,399	4,276	24,588
JUN-1997	18,652	6,047	25,831
JUN-1998	26,004	7,598	34,942
JUN-1999	29,165	8,307	39,038
JUN-2000	34,716	11,725	48,337
JUN-2001	24,126	9,562	34,558
JUN-2002	34,782	11,551	47,546
JUN-2003	32,630	12,337	45,877
JUN-2004	34,658	9,986	45,343
JUN-2005	30,365	9,483	40,910
JUN-2006	29,615	8,897	39,207
JUN-2007	29,553	8,516	38,683
JUN-2008	30,850	10,400	41,824
JUN-2009	30,576	10,992	41,922
JUN-2010	37,977	16,691	54,955
JUN-2011	34,889	23,727	59,113
JUN-2012	30,134	19,896	50,568
JUN-2013	28,009	21,511	50,794
JUN-2014	29,462	21,727	51,521
JUN-2015	32,357	31,988	64,946
JUN-2016	35,574	31,979	68,591
JUN-2017	35,760	28,021	64,027
JUN-2018	38,387	37,287	75,900

Source: ABS 8752.0 (Number).

MELBOURNE DEVELOPMENT RLB CONSTRUCTION MARKET ACTIVITY CYCLE

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.

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

The 'up' and 'down' arrows within the table represent whether the sector is in a growth or decline phase with the colour of the arrow determining the zone within the cycle.

MELBOURNE	Q2 2016	Q4 2016	Q2 2017	Q4 2017	Q2 2018	Q4 2018
HOUSES	A	A	A	A	A	A
APARTMENTS	A	A	A	A	•	\blacksquare
OFFICES			A	A	A	A
INDUSTRIAL	_	A	_	_	A	A
RETAIL	•	A	A	•	₩	\blacksquare
HOTEL	_	A	A	A	A	A
CIVIL					A	A

BENCHMARKS

Regional Indices	66
Key City Relativities	67
Office Building Efficiencies	68
Reinforcement Ratios	68
Labour and Materials Trade Ratios	69
Progress Payment Claims	70
Common Industry Acronyms	71
Method of Measurement	72

BENCHMARKS REGIONAL INDICES

The construction cost information in this publication is based upon rates for capital city construction projects and are current for the Fourth Quarter 2018. For towns or cities outside capital cities, costs can be expected to vary in accordance with the following table of indices:

NEW SOUTH WALES		QUEENSLAN	ND	WESTERN AUSTRALIA		
SYDNEY	100	BRISBANE	100	PERTH	100	
ARMIDALE	105	CAIRNS	105	ALBANY	110	
COFFS HARBOUR	100	GLADSTONE	125	BROOME	145	
NEWCASTLE	99	GOLD COAST	95	BUNBURY	103	
ORANGE	106	MACKAY	114	CARNARVON	145	
TAMWORTH	102	SUNSHINE COAST	95	ESPERANCE	125	
WAGGA WAGGA	106	TOWNSVILLE	108	GERALDTON	105	
WOLLONGONG	100			KALGOORLIE	125	
				KUNUNURRA	165	
				PORT HEDLAND	160	
				TOM PRICE	165	

The above table should be used only as a comparative guide, and is only appropriate for the urban precincts nominated and for the larger commercial projects.

Care must be taken to review specific local market conditions within the anticipated time frame of a project's development period before establishing and committing viable budgets for projects.

In the event that projects are required to be constructed in remote locations or in areas without urban infrastructure, then special consideration must be given to the budget structure of these projects. Each project must be considered in detail and its specific resource requirements assessed and sourced to establish budget costs.

RLB recommend that advice on local market conditions be sought from our regional offices when initial project budgets and feasibility studies are in the process of establishment. Our regional offices are identified on page 84.

BENCHMARKS KEY CITY RELATIVITIES - Q4 2018

RLB's Key City Relativity Matrix highlights the cost relativity between key Australian cities. The Relativity Matrix compares the general cost of building between cities. Each column represents a base city indexed to 100 with other city's relativities re-indexed to that base city.

In order to calculate the relativity between different cities, the difference can be calculated using the following formula:

where:
$$Ccc = Bcc \times (\frac{Cr}{Cb})^{-1}$$

For example, when comparing costs between Sydney (base city) and Perth (compared city), Sydney building costs are generally 20.5% more than Perth i.e. ($\frac{100}{83}$) and Perth is 17.4% cheaper than Sydney i.e. ($\frac{100}{121}$)

If the tendered price of a building in Sydney was \$1,000,000, the equivalent cost in Perth would be \$830,000 i.e. 1,000,000 x $(\frac{100}{83})^{-1}$ and conversely a \$1,000,000 building in Perth would cost \$1,210,000 in Sydney, i.e. 1,000,000 x $(\frac{100}{121})^{-1}$

ADEL 10		BRISBANE 100		CANBERRA 100		DARWIN 100		GOLD COAST 100	
BNE	95	ADE	105	ADE	93	ADE	93	ADE	113
CAN	107	CAN	113	BNE	89	BNE	88	BNE	107
DAR	107	DAR	113	DAR	100	CAN	100	CAN	121
GC	89	GC	93	GC	83	GC	83	DAR	121
MEL	105	MEL	110	MEL	98	MEL	98	MEL	118
PER	99	PER	104	PER	92	PER	92	PER	112
SYD	119	SYD	126	SYD	111	SYD	111	SYD	135
TVE	99	TVE	105	TVE	93	TVE	93	TVE	112

MELBC 10		PERTH 100		SYDNEY 100		TOWNSVILLE 100	
ADE	96	ADE	101	ADE	84	ADE	101
BNE	91	BNE	96	BNE	79	BNE	95
CAN	102	CAN	108	CAN	90	CAN	108
GC	85	GC	90	GC	74	GC	89
DAR	103	DAR	109	DAR	90	DAR	108
PER	94	MEL	106	MEL	88	MEL	105
SYD	114	SYD	121	PER	83	PER	99
TVE	95	TVE	101	TVE	83	SYD	120

BENCHMARKS OFFICE BUILDING EFFICIENCIES

The efficiency of an office building is expressed as a percentage of the Net Lettable Area (NLA) to the Gross Floor Area (GFA). The table below indicates that relationship to the GFA of the whole building both with car parks and basements included and excluded, that could be expected for an average project in the nominated category. Also shown is the average net to gross efficiency of the office floors only in each of the eight building types listed below.

	EFFICIENCY				
	BASE	BASEMENTS AND CAR PARKS			
TYPE OF CBD OFFICE BUILDING	INCLUDED %	EXCLUDED %	OFFICE FLOORS		
PRESTIGE					
10 TO 25 STOREYS	63-68	75-80	85-90		
25 TO 40 STOREYS	58-63	70-75	80-85		
40 TO 55 STOREYS	53-58	68-73	75-80		
INVESTMENT					
UP TO 10 STOREYS	69-74	81-85	86-91		
10 TO 25 STOREYS	64-69	76-81	81-86		
25 TO 40 STOREYS	59-64	71-76	76-81		
INVESTMENT, OTHER THAN					
UP TO 10 STOREYS	70-75	82-86	87-92		
10 TO 25 STOREYS	65-70	77-82	82-87		

PLANT ROOM SPACE

Generally plant room space represents 6-11% of the GFA of a multi-storey office building.

REINFORCEMENT RATIOS

The following ratios give an indication of the average weight of reinforcement per cubic metre of concrete for the listed elements. Differing structural systems and sizes of individual elements and grid sizes will cause considerable variation to the stated ratios. For project specific ratios a structural engineer should be consulted.

	AVE KG/M³		AVE KG/M ³
	AVE NG/M		AVE KG/M
STRIP FOOTINGS	50	STRAP BEAMS	120
COLUMN BASES	40	SLAB ON GROUND	40
PILE CAPS	50	SUSPENDED SLABS 100-150 MM ONE AND TWO WAY	90
BORED PIER	90	250 MM FLAT PLATE	120
RAFT FOUNDATION	70	250 MM WAFFLE	160
PEDESTAL & STUB COLUMNS	240	COLUMNS	240
RETAINING WALLS			
1-2 STOREY	70	BEAMS	170
2-3 STOREY	120		
GROUND BEAMS	120	WALLS (CORE)	140
		STAIRS	80

BENCHMARKS LABOUR AND MATERIALS TRADE RATIOS

The following represents the ratio of on-site labour to material for various trades and sub-trades based upon our own survey.

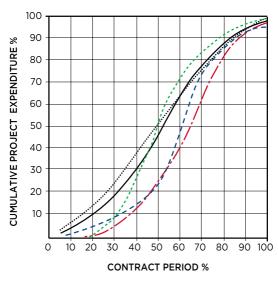
The figures are relevant to all works constructed by traditional methods; variations to these methods will change the ratios, i.e. on-site fabrication of items traditionally factory fabricated such as joinery fittings, metalwork items, etc.

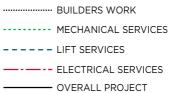
PRELIMINARIES	40 10 50
DEMOLISHER	85 15
EXCAVATOR	32 15 53
PILER	20 50 30
IN SITU CONCRETOR	25 75
FORMWORKER	70 30
REINFORCEMENT FIXER	20 80
PRECAST CONCRETOR	20 80
BRICKLAYER & BLOCKLAYER	50 50
MASON	10 90
ASPHALTOR	40 60
STRUCTURAL STEELWORK	60 40
METALWORKER	20 80
SUSPENDED CEILING FIXER	40 60
CARPENTER	45 55
JOINER	15 85
STEEL DECK ROOFER	40 60
BITUMINOUS BUILT UP ROOFER	30 70
PIPEWORK PLUMBER	60 40
FITTING PLUMBER	25 75
DRAINER	65 35
PLASTERER	80 20
PLASTERBOARD & FIB. PLASTER FIXER	40 60
CERAMIC TILER	55 45
VINYL TILER	45 55
IN SITU PAVIOR	75 25
GLAZIER	20 80
PAINTER	75 25
CARPET LAYER	10 90
ROADWORKER & EXTERNAL PAVIOR	15 85
AIR CONDITIONING SPECIALIST	35 65
LIFT INSTALLER	25 75
ELECTRICAL SPECIALIST	40 60
WATER FIRE SERVICE SPECIALIST	44 56

LABOUR MATERIAL FIXED FACTOR

BENCHMARKS PROGRESS PAYMENT CLAIMS

Average rate of claims expenditure on construction projects from \$4,000,000 to \$34,000,000 and/ or greater than one year but less than two years construction period to practical completion are depicted in the following graph.





BENCHMARKS COMMON INDUSTRY ACRONYMS

PROJECT MANAGEMENT

 \wedge Architects Advice

ABIC Australian Building Industry

Contracts

ΔΙ Architects Instruction AIA Australian Institute of

Architects

BCA. Building Code of Australia

BOQ Bill of Quantities

ВÞ **Building Permit** BS Building Surveyor

CA Contract Administration

CAN Consultants Advice Notice DΑ Development Application

חח Design Development DWG Drawing (also an Autocad

file format)

FBD Evidence Based Design

FSD Environmentally Sustainable Design

ы Professional Indemnity

(Insurance)

ΡМ Project Manager

Quantity Surveyor

RCP Reflected Ceiling Plan RFI Request for Information

SD Schematic Design

ARCHITECTURAL DRAWINGS

ABS Acrylonitrile Butadiene

Styrene (Edging)

AS Australian Standards

COL Column

CTS Centres (Spacing)

DP Downpipe

FNS Ensuite ΕX Existina

FC. Fibre Cement (Sheet)

EC1 Finished Ceiling Level FFI

Finished Floor Level FR Fire Rated

GEA Gross Floor Area

Highly Moisture Resistant HMR

(Particleboard)

KDHW Kiln Dried Hardwood

MDF Medium Density Fibreboard

PR Plasterboard

RI Relative Level

Stainless Steel

TYP Typical

VOC. Volatile Organic Compound

WC Water Closet (Toilet)

LAND SURVEYS

AHD Australian Height Datum AMG Australian Mapping Grid

DΡ Downpipe Ш Invert Level

Underground RI Relative Level

STRUCTURAL DRAWINGS

CFW Continuous Fillet Weld

CHS Cylindrical Hollow Section Construction Joint

FΑ Egual Angle

PFC Parallel Flange Channel

RB Roof Beam

RHS Rectangular Hollow Section

SB Sill Beam

SHS Square Hollow Section

TR Tie Beam

IJΑ Unequal Angle UB Universal Beam

UC Universal Column

WT Wall Tie

HYDRAULIC DRAWINGS

DCW Domestic Cold Water DHW Domestic Hot Water

FΗ Fire Hydrant

FHR Fire Hose Reel

FIP Fire Indicator Panel

FS Fire Service

FW Floorwaste

Hot Water System HWS

Tundish

TM\/ Thermostatic Mixing Valve

UPVC Unplasticated Polyvinyl

Chloride (Pipework)

VP Vent Pipe

MECHANICAL DRAWINGS

A/C Air Conditioning A/P

Access Panel ACU Air Conditioning Unit

AHU Air Handling Unit

Condensina Unit

FCU Fan Coil Unit

Fire Damper R/A Return Air

S/A Supply Air

cn.

Smoke Damper

ELECTRICAL DRAWINGS

DB Distribution Board Double General Power DGPO

Outlet

GPO General Power Outlet MSB Main Switchboard

Residual Current Device RCD

CB Switchboard

BENCHMARKS METHOD OF MEASUREMENT OF BUILDING AREAS

The rules for measurement of building areas are defined by the Australian Institute of Quantity Surveyors and the Australian Institute of Architects.

The definitions are as follows: Unit of measurement: square metres (M²).

GROSS FLOOR AREA (GFA)

The sum of the "Fully Enclosed Covered Area" and "Unenclosed Covered Area" as defined.

FULLY ENCLOSED COVERED AREA (FECA)

The sum of all such areas at all building floor levels, including basements (except unexcavated portions), floored roof spaces and attics, garages, penthouses, enclosed porches and attached enclosed covered ways alongside buildings, equipment rooms, lift shafts, vertical ducts, staircases and any other fully enclosed spaces and usable areas of the building, computed by measuring from the normal inside face of exterior walls but ignoring any projections such as plinths, columns, piers and the like which project from the normal inside face of exterior walls. It shall not include open courts, lightwells, connecting or isolated covered ways and net open areas or upper portions of rooms, lobbies, halls, interstitial spaces and the like which extend through the storey being computed.

UNENCLOSED COVERED AREA (UCA)

The sum of all such areas at all building floor levels. including roofed balconies, open verandahs, porches and porticos, attached open covered ways alongside buildings, undercrofts and usable space under buildings. unenclosed access galleries (including ground floor) and any other trafficable covered areas of the building which are not totally enclosed by full height walls, computed by measuring the area between the enclosing walls or balustrade (ie. from the inside face of the UCA excluding the wall or balustrade thickness). When the covering element (ie. roof or upper floor) is supported by columns, is cantilevered or is suspended, or any combination of these, the measurements shall be taken to the edge of the paving or to the edge of the cover, whichever is the lesser. UCA shall not include eaves overhangs, sun shading, awnings and the like where these do not relate to the clearly defined trafficable areas, nor shall it include connecting or isolated covered ways.

BENCHMARKS METHOD OF MEASUREMENT OF BUILDING AREAS

BUILDING AREA (BA)

The total enclosed and unenclosed area of the building at all building floor levels measured between the normal outside face of any enclosing walls, balustrades and supports.

USABLE FLOOR AREA (UFA)

The sum of the floor areas measured at floor level from the general inside face of walls of all interior spaces related to the primary function of the building. This will normally be computed by calculating the "Fully Enclosed Covered Area" (FECA) and deducting all the following areas supplementary to the primary function of the building:

Deductions

- (a) Common Use Areas
- (b) Service Areas
- (c) Non-Habitable Areas

NET LETTABLE AREA (NLA)

Application

Calculating tenancy areas in office buildings and office & business parks.

Definition

- 3.1 The net lettable area of a building is the sum of its whole floor lettable areas.
- 3.2 Net Lettable Area Whole Floors

The whole floor net lettable area is calculated by:

- 3.2.1 taking measurements from the internal finished surfaces of permanent internal walls and the internal finished surfaces of dominant portions of the permanent outer building walls
- 3.2.2 included in the lettable area calculation are:
 - 3221 window mullions
 - 3.2.2.2 window frames
 - 3.2.2.3 structural columns
 - 3.2.2.4 engaged perimeter columns or piers
 - 3.2.2.5 fire hose reels attached to walls
 - 3.2.2.6 additional facilities specially constructed for or used by individual tenants that are not covered in section 3.2.3

BENCHMARKS METHOD OF MEASUREMENT OF BUILDING AREAS

- 3.2.3 excluded from the lettable area of each tenancy are:
 - 3.2.3.1 stairs, accessways, fire stairs, toilets, recessed doorways, cupboards, telecommunication cupboards, fire hose reel cupboards, lift shafts, escalators, smoke lobbies, plant/motor rooms, tea rooms and other service areas, where all are provided as standard facilities in the building
 - 3.2.3.2 lift lobbies where lifts face other lifts, blank walls or areas listed in section 3.2.3.1 above
 - 3.2.3.3 areas set aside for the provision of all services, such as electrical or telephone ducts and air conditioning risers to the floor, where such facilities are standard facilities in the building
 - 3.2.3.4 area dedicated as public spaces or thoroughfares such as foyers, atria and accessways in lift and building service areas
 - 3.2.3.5 areas and accessways set aside for use by service vehicles and for delivery of goods, where such areas are not for the exclusive use of occupiers of the floor or building
 - 3.2.3.6 areas and accessways set aside for car
 - 3.2.3.7 areas where there is less than 1.5 metre height clearance above floor level - these spaces should be measured and recorded separately
- 3.3 Net Lettable Area (NLA) Sub Divided Floors Follow 3.2 but measure to the centre line of inter-tenancy walls or partitions except where the walls or partitions adjoin public areas, such as lobbies and corridors, in which case measure to the line of the dominant portion of their public area faces.
- 3.4 Treatment of Balconies, Verandahs etc.

Balconies, terraces, planter boxes, verandahs, awnings and covered areas should be excluded from tenancy area calculations, but may be separately identified for the purpose of negotiating rentals.

Areas should be measured to the inside face of the enclosing walls or structures. The outer edge of the awning or covered area is the defined edge.

ASSETS AND FACILITIES

Sustainability and Quality	76
Management Standards	77
Useful Life Analysis	78
Outgoings	79
Essential Safety Measures	80
Capital Allowances (Tax Depreciation)	81



Through the Rider Levett Bucknall | Life suite of services, we are able to provide meaningful, practical, commercial advice to clients in the delivery of sustainable and economically responsible projects.

The services help building owners understand the life value and expectancy of their buildings' whole life costs and provide options to extend the useful life of buildings and maintain quality.

ASSETS AND FACILITIES SUSTAINABILITY AND QUALITY

Sustainability is concerned with improving the quality of life while living within the carrying capacity of supporting ecosystems. The planning, delivering and managing of our Built Environment requires a balance between environmental, economic and social factors.

The provision of a more productive, sustainable and liveable Built Environment is best considered in collaboration with all the stakeholders, including owners, managers and tenants. This process should include not only the review of sustainability objectives and initiatives, but address functional requirements and whole of life costings along with the implementation of facilities planning and asset management strategies. Rating systems developed to assist with performance benchmarking within Australia include:

Green Star - The Green Building Council of Australia's (GBCA) six star environmental rating system evaluates: communities, design, as-built of buildings, interiors, building performance in terms of energy and water efficiency, indoor environmental quality and resource conservation.

NABERS - National Australian Built Environment Rating System is a national program managed by the NSW Department of Environment and Heritage. NABERS measures the environmental performance of Australian offices, tenancies, shopping centres, hotels, data centers and homes. There are NABERS tools for energy efficiency, water usage, waste management and indoor environment quality. Additionally, a NABERS Energy rating forms part of the Building Energy Efficiency Certificate (BEEC) requirement under the Commercial Building Disclosure (CBD) program. The CBD Program requires most sellers and lessors of office space of 2,000 M² or more to have an up-to-date Building Energy Efficiency Certificate (BEEC).

IS - The Infrastructure Sustainability Council of Australia's (ISCA) Infrastructure Sustainability (IS) rating scheme. Is is Australia's only comprehensive rating system for evaluating sustainability across design, construction and operation of infrastructure. IS evaluates the sustainability (including environmental, social, economic and governance aspects) of infrastructure projects and assets including transport, energy, water and communications sectors.

Quality - Property Council of Australia's (PCA) "a Guide to Office Building Quality" (2006, 2012), provides separate tools for assessing office building quality in new and existing buildings. The tools provide a guide to parameters that typically influence building quality. They offer a voluntary, market-based approach to classifying building characteristics and performance. The 2nd edition of the guide took effect on 1 January 2012 and includes expanded environmental performance criteria for Energy, Water, Waste and Indoor Environment. Additionally, the Building Management criteria was expanded to include Level of Service, Energy and Water Sub-Metering and Life Cycle/Maintenance Plan requirements.

RLB have staff accredited in the use of Green Star, NABERS, along with access to LEED, BREEAM, GreenMark and other international standards.

RLB also provides Building Quality Assessment (BQA) services for PCA Quality gradings.

ASSETS AND FACILITIES MANAGEMENT STANDARDS

Since late 2012 Standards Australia, supported by FMA Australia, PCA, RICS, SBEnrc, TEFMA and other industry bodies, have been involved with the ISO's international Facilities Management (FM) standards initiative.

ISO 41001:2018 specifies the requirements for a facility management (FM) system when an organization:

- a) needs to demonstrate effective and efficient delivery of FM that supports the objectives of the demand organization
- b) aims to consistently meet the needs of interested parties and applicable requirements
- c) aims to be sustainable in a globally-competitive environment

The requirements specified in ISO 41001:2018 are non-sector specific and intended to be applicable to all organizations, or parts thereof, whether public or private sector, and regardless of the type, size and nature of the organization or geographical location.

Separately, there was the release in 2014 of the ISO 55000 series for Asset Management (AM). ISO 55000 specifies the requirements for the establishment, implementation, maintenance and improvement of a management system for asset management, referred to as an "asset management system" for those wishing to:

- improve the realisation of value for their organization from their asset base
- be involved in the establishment, implementation, maintenance and improvement of an asset management system
- be involved in the planning, design, implementation and review of asset management activities along with service providers



Meanwhile, FMA Australia's local efforts include "An Operational Guide to Sustainable Facilities Management" (2010) - a practical document that provides technical guidance in achieving a more sustainable FM approach in an Australian context.

RLB can provide strategic advisory and technical support across the latest in AM and FM practices.

ASSETS AND FACILITIES USEFUL LIFE ANALYSIS

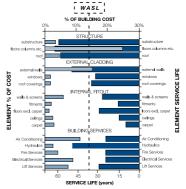
LIFE CYCLE ANALYSIS

Life Cycle Studies recognise that every 'whole' asset consists of many component parts, each with its own life expectancy, interrelationships, resulting quality and maintenance issues. However, in addition to physical obsolescence, useful life expectancy is also dependent on the influence of economic, functional, technological, social and legal obsolescence.

WEIGHTED AVERAGE SERVICE LIFE

Weighted Average Service Life (WASL) is a

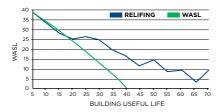
methodology used to determine the "Useful Life" of an asset. For buildings the WASL is the collective result of applying service life criteria to each element of a cost analysis; excluding capital recurrent expenditure other than routine maintenance.



RELIFING

RElifing takes the

"WASL" a stage further by considering the effect of capital upgrades, refurbishments, replacement of plant, architectural fabric and finishes. Below is a graphical representation of a RElifing profile for a typical office building, compared to the base WASL. RElifing analysis is useful for developers, owners and occupiers in financial planning, calculating depreciation and in the negotiation of long term property costs.



ASSETS AND FACILITIES OUTGOINGS

Outgoings are the costs required to operate a property that are generally recoverable by a Landlord from the tenants. The recovery of outgoings is usually calculated by a sharing of costs amongst tenants relative to their leasehold interest. They generally cover the recurrent costs for the delivery of services, maintenance, power and statutory and management costs.

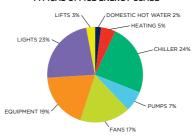
The level of recovery of outgoings is normally governed and regulated by leases and other agreements with tenants.

The cost of outgoings varies depending upon:

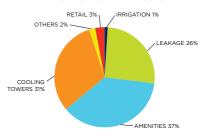
- · the level of management and services provided
- · lease agreements
- · quality, type and efficiency of the building
- · location and statutory regimes applicable

The following graphs highlight typical component usage of both energy and water consumption for office buildings.

TYPICAL OFFICE ENERGY USAGE



TYPICAL OFFICE WATER USAGE



ASSETS AND FACILITIES ESSENTIAL SAFETY MEASURES

The following table provides a brief overview of building owners' responsibilities with regard to certifying the annual maintenance of essential safety systems and measures within commercial buildings.

	Ν	ag	NSW	S,	TAS	ACT	۸	Ę
IS MAINTENANCE OF ESSENTIAL SAFETY MEASURES REQUIRED BY LEGISLATION (OTHER THAN BCA)?	✓	✓	✓	✓	✓	✓	×	✓
IS THERE A PRESCRIBED FORM OF CERTIFICATE?	✓	✓	✓	✓	✓	×	×	×
CERTIFICATE REQUIRED TO BE DISPLAYED	×	×	✓	×	✓	NA	NA	NA
CERTIFICATE REQUIRED TO BE FORWARDED TO AN AUTHORITY	×	✓	✓	✓	×	NA	NA	NA
CAN FINES BE IMPOSED IF MAINTENANCE IS NOT CARRIED OUT?	✓	✓	✓	✓	✓	✓	NA	✓

The relevant legislation governing the essential safety measures by state are:

- VIC Building Regulations 2018 Part 15
- QLD Fire and Emergency Services Act 1990
- NSW Environmental Planning and Assessment Regulations 2000
- SA Development Regulations 2008 & Minister's Specifications SA 76
- TAS Fire Services Act 1979 & General Fire Regulations 2010
- ACT Emergencies Act 2004
- WA Building Regulations 2012 & Building Amendment Regulations 2014
- NT Northern Territory Fire and Emergency Regulations

Note:

The above is a brief guide only. Other state or national legislation and laws may also be relevant. It is recommended that all property owners consult a building surveyor regarding responsibilities associated with maintenance of essential measures within their buildings.

ASSETS AND FACILITIES CAPITAL ALLOWANCES (TAX DEPRECIATION)

The Australian Taxation Office (ATO) allows a tax deduction for the recovery of the cost of assets used in a business or for the production of income. The Income Tax Assessment Act (ITAA) allows two types of allowances for assets:

Division 40 - Depreciating Assets

Assets with a limited effective life that are reasonably expected to decline in value. The decline in value is based on the cost and effective life of the depreciating asset, not its actual change in value. Examples of these are carpet, air conditioning plant, lights etc.

Division 43 - Capital Allowances

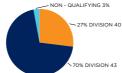
Capital allowances are the building allowance and structural improvement deductions that are available for buildings. Depreciating rates are either 2.5% or 4% dependent on the use of the building and construction commencement date.

The ATO issued the latest effective life review of assets under TR2018/4 which came into effect on the 1st July 2018. The following broad principles outline the rates of

The following broad principles outline the rates of depreciation deductions relative to income producing assets under ITAA 1997 (Division 40 & 43).

- The effective life and hence the rate of depreciation of an item of plant can be self-assessed by the taxpayer
- Depreciating Assets (Division 40) are subject to a balancing adjustment on disposal. Capital works deductions (Division 43) are subject to Capital Gains Tax on disposal
- Low value pool option for assets less than \$1,000 in value depreciated at 18.75% in the first year and 37.50% in subsequent years
- The Diminishing Value rate is currently 200% of Prime Cost rate (excluding low value pool), with the effect of accelerating the tax write off in earlier years of the asset's life





Typical percentage apportionment of depreciation allowances based on new \$300m Commercial Office Tower including fitout with 6 Star Green Star certification.

RLB employs qualified staff, who are registered with the Tax Practitioners Board under the Tax Agent Services Act 2009, for the preparation of Capital Allowance Reports.

ASSETS AND FACILITIES CAPITAL ALLOWANCES (TAX DEPRECIATION)

SCHEDULE OF ASSETS	PRIME COST %	DIMINISHING VALUE %		
THE FOLLOWING LIST GIVES A SAMPLE OF ELIGIBLE DEPRECIATING ASSETS.				
OFFICE BUILDING				
HOT WATER INSTALL ATIONS	6.667	13.333		
MULTI TYPE FIRE DETECTION SYSTEMS	4-16.67	8-33.33		
CENTRAL AIR CONDITIONING (VARIOUS RATES				
APPLY TO EQUIPMENT COMPONENTS)	4-10	8-20		
ROOM AIR CONDITIONING	10	20		
PACKAGED AIR CONDITIONING	6.667	13.333		
ELECTRIC HAND DRYERS	10	20		
DEMOUNTABLE PARTITIONS	5	10		
SECURITY SYSTEMS	14.286-50	28.572-100		
LIGHTING PLANT	10	20		
VINYL FLOORING	10	20		
CARPET	12.5	25		
WINDOW BLINDS	5	10		
OFFICE FURNITURE, FREESTANDING	4-10	8-20		
ESCALATORS	5	10		
LIFTS, ELEVATORS & HOISTS	3.333	6.667		
SIGNAGE FOR BUSINESS IDENTIFICATION HOTELS, MOTELS	10	20		
CARPETS	14.286	28.572		
WINDOW BLINDS AND CURTAINS	16.667	33.333		
FURNITURE AND FITTINGS (FREE STANDING)	14.286-20	28.572-40		
HOT WATER SYSTEMS	10	20		
BEDS AND BEDDING	14.286-50	28.572-100		
SHOPPING CENTRES Generally, the list for office buildings will appadditions:	oly with the fol	lowing		
FLOATING TIMBER FLOORS	10	20		
FURNITURE, FREESTANDING	10	20		
INDUSTRIAL Generally, the list for office buildings will appared additions:	ply with the fol	lowing		
CRANES	5	10		
GANTRIES	3	6		
DOCK LEVELLERS	5	10		
ROLLER SHUTTER ELECTRIC MOTORS	5	10		
RESIDENTIAL Only for assets continuously owned prior to 10/05/17 or new assets (not used) purchased from 10/05/17. FLOOR COVERINGS:				
CARPET	10	20		
FLOATING TIMBER	6.667	13.333		
Hot Water Systems (excluding piping):				
ELECTRIC AND GAS	8.333	16.667		
SOLAR	6.667	13.333		
Miscellaneous:				
INTERCOM SYSTEM ASSETS	10	20		
WINDOW BLINDS	10	20		
ROOM AIR CONDITIONING	10	20		
Kitchen Assets:				
COOKTOPS, OVENS, RANGEHOODS	8.333	16.667		
DISHWASHERS, WASHING MACHINES, CLOTHES DRYERS	10	20		

Oceania	84
Africa	85
Middle East	85
United Kingdom	86
Asia	86
Americas	89

AUSTRALIA

ADELAIDE

Rider Levett Bucknall SA Pty Ltd Level 1, 8 Leigh Street, Adelaide, SA 5000

T: +61 8 8100 1200

E: adelaide@au.rlb.com Contact: Andrew Suttie

BRISBANE

Rider Levett Bucknall QLD Pty Ltd Perth, WA 6000 Level 13, 10 Eagle Street, Brisbane, QLD 4000 T: +61 7 3009 6933

E: brisbane@au.rlb.com Contact: Dave Stewart

CAIRNS

Rider Levett Bucknall QLD Pty Ltd Suite 7, 1st Floor, Cairns Professional Centre, 92-96 Pease Street.

Cairns, QLD 4870 T: +61 7 4032 1533

E: cairns@au.rlb.com Contact: Nicholas Duncan

CANBERRA

Rider Levett Bucknall ACT Pty Ltd 16 Bentham Street, Yarralumla, ACT 2600 T: +61 2 6281 5446 E: canberra@au.rlb.com

Contact: Mark Chappe

COFFS HARBOUR Rider Levett Bucknall NSW Pty Ltd Level 1. 9 Park Avenue. Coffs Harbour, NSW 2450 T: +61 2 4940 0000

E: northernnsw@au.rlb.com Contact: Mark Hocking

DARWIN

Rider Levett Bucknall NT Pty Ltd Level 4, 62 Cavenagh Street, Darwin, NT 0800 T: +61 8 8941 2262

F: darwin@au.rlb.com

Contact: Paul Lassemillante

GOLD COAST

Rider Levett Bucknall QLD Pty Ltd 45 Nerang Street, Southport, QLD 4215

T: +61 7 5595 6900 E: goldcoast@au.rlb.com Contact: Mark Burow

MELBOURNE

84 I

Rider Levett Bucknall VIC Pty Ltd Level 13, 380 St. Kilda Road, Melbourne, VIC 3004

T: +61 3 9690 6111

E: melbourne@au.rlb.com Contact: Ewen McDonald

NEWCASTLE

Rider Levett Bucknall NSW Pty Ltd 63 Lindsay Street, Hamilton, NSW 2303 T: +61 2 4940 0000 E: newcastle@au.rlb.com Contact: Mark Hocking

PERTH

Rider Levett Bucknall WA Pty Ltd Level 9, 160 St Georges Tce,

T: +61 8 9421 1230 E: perth@au.rlb.com

Contact: Mark Bendotti SUNSHINE COAST

Rider Levett Bucknall QLD Pty Ltd Suite 11, The Boarding Offices 100-102 Brisbane Road Mooloolaba, QLD 4557 T: +61 7 5443 3622 E: suncoast@au.rlb.com

SYDNEY

Rider Levett Bucknall NSW Pty Ltd Level 19, 141 Walker Street, North Sydney, NSW 2060 T: +61 2 9922 2277

E: sydney@au.rlb.com Contact: Matthew Harris

Contact: David Stewart

TOWNSVILLE

Rider Levett Bucknall QLD Pty Ltd Level 1, 45 Eyre Street, North Ward, Townsville, QLD 4810 T: +61 7 4771 5718

E: townsville@au.rlb.com Contact: Chris Marais **NEW ZEALAND**

AUCKLAND

Rider Levett Bucknall Auckland Ltd Level 16, Vero Centre, 48 Shortland Street, Auckland 1141 T: +64 9 309 1074

E: auckland@nz.rlb.com Contact: Stephen Gracey

CHRISTCHURCH

Rider Levett Bucknall Christchurch I td

Level 1, 254 Montreal Street, Christchurch 8013

T: +64 3 354 6873

E: christchurch@nz.rlb.com Contact: Neil O'Donnell

HAMILTON

Rider Levett Bucknall Hamilton Level 3, 103 London Street, Hamilton 3204 T: +64 7 839 1306

E: hamilton@nz.rlb.com

Contact: Richard Anderson

PALMERSTON NORTH

Rider Levett Bucknall Palmerston North Ltd Suite 1, Level 1, 219 Broadway Avenue, Palmerston North 4440

T: +64 6 357 0326

E: palmerstonnorth@nz.rlb.com Contact: Michael Craine

QUEENSTOWN

Rider Levett Bucknall Otago Ltd Level 3. The Mountaineer Building. 32 Rees Street, Queenstown 9348

T: +64 3 409 0325

E: queenstown@nz.rlb.com Contact: Tony Tudor

TAURANGA

Rider Levett Bucknall Auckland Ltd Ground Floor, 3/602 Cameron

Road, Tauranga 3141 T: +64 7 579 5873

E: tauranga@nz.rlb.com Contact: Richard Anderson

WELLINGTON

Rider Levett Bucknall Wellington Ltd Level 1, 279 Willis Street, Wellington 6011

T: +64 4 384 9198

E: wellington@nz.rlb.com Contact: Tony Sutherland

AFRICA

CAPE TOWN

9th Floor, 22 Bree Street, Cape Town, South Africa

T: +27 21 418 9977

E: martin.meinesz@za.rlb.com Contact: Martin Meinesz

DURBAN

77 Richefond Circle, Ridgeside Office Park, Suite 201, Umhlanga Ridge, Durban, 4319, South Africa

T: +27 31 072 0999 E: evan.sim@za.rlb.com

Contact: Evan Sim

GABORONE (BOTSWANA)

Unit 32, Kgale Mews, Gaborone, Botswana T: +27 72 622 9852

F: fred.selolwane@bw.rlb.com

Contact: Fred Selolwane

JOHANNESBURG

Mac Mac Building, Magwa Crescent Building No. 287, West, Waterfall City Midrand, Johannesburg 2090

T: +27 11 548 4000 E: leon.cronje@za.rlb.com

Contact: Leon Cronie

MAPUTO (MOZAMBIQUE)

Sommerschield 1, Maputo, Mozambique

T: +27 12 348 1040

E: christiaan.rademan@mu.rlb.com Contact: Christiaan Rademan

PRFTORIA

1st Floor, Banking Court, Menlyn Maine Central Square, Cnr Aramist and Corobay Avenue, Waterkloof Glen, Pretoria

T: +27 12 348 1040

E: nicolas.sheard@za.rlb.com Contact: Nicolas Sheard

SAINT PIERRE (MAURITIUS)

Vivea Business Park, Moka Mauritius

T: +230 5767 8815

E: marvind.beetul@mu.rlb.com Contact: Marvind Beetul

STELLENBOSCH

Office 11, Rouxcor House, 37 Mark Street, Stellenbosch. 7599, South Africa

T: +27 21 861 4880

E: lichelle.neethling@za.rlb.com Contact: Lichelle Neethling (du Plessis)

MIDDLE FAST

ABU DHABI

Mezzanine Level, Al Mazrouei Building, Muroor Road, Abu Dhabi, United Arab Emirates

T: +971 2 643 3691

E: sam.barakat@ae.rlb.com Contact: Sam Barakat

DOHA

Office 32, Second Floor, Al Mirgab Complex, Al Mirgab Al Jadeed Street, Al Naser Area, Doha, Qatar T: +971 4016 2777

E: dean.mann@ae.rlb.com Contact: Dean Mann

DURAL

Office 2302 Marina Plaza, Dubai Marina, Dubai, United Arab **Emirates**

T: +971 4 339 7444

F: natalie.stockman@ae.rlb.com Contact: Natalie Stockman

MUSCAT

18 November Road,

North Azaiba, Sultanate of Oman

T: +971 2 643 3691

E: sam.barakat@ae.rlb.com Contact: Sam Barakat

RIYADH

Unit F43 - First Floor, Localizer Mall, Prince Mohammad Bin Abdulaziz Road (Tahliyah Street), Riyadh 11492, Saudi Arabia T: +966 11 217 555 1

E: iohn.prior@sa.rlb.com Contact: John Prior

UNITED KINGDOM

BIRMINGHAM

Cathedral Court, 15 Colmore Row, Birmingham, B3 2BH

T: +44 121 503 1500

E: adam.ellis-morgan@uk.rlb.com Contact: Adam Ellis-Morgan

BRISTOL

Embassy House, 86 Queen's Avenue, Bristol, BS8 ISB T: +44 117 974 1122

E: jackie.pinder@uk.rlb.com Contact: Jackie Pinder

CUMBRIA

44 Springfield Road.

Egremont, Cumbria, CA22 2TQ T: +44 1925 851 787

E: dervck.barton@uk.rlb.com Contact: Deryck Barton

LEEDS

4D. Platform, New Station Street. Leeds LS1 4JB

T: +44 113 457 3225

E: matt.summerhill@uk.rlb.com

Contact: Matt Summerhill

LIVERPOOL

Suite 620, 6th Floor, The Plaza, 100 Old Hall Street, Liverpool L3 9QJ, United Kingdom

T: +44 077 6428 5920

E: jason.brownlee@uk.rlb.com Contact: Jason Brownlee

2nd Floor, 60 New Broad Street. London, EC2M 1JJ

T: +44 20 7398 8300 E: nick.eliot@uk.rlb.com

Contact: Nick Eliot

MANCHESTER

1 King Street,

Manchester, M2 6AW

T: +44 161 868 7700 E: russell.bolton@uk.rlb.com

Contact: Russell Bolton

SHEFFIELD

6th Floor Orchard Lane Wing, Fountain Precinct, Balm Green, Sheffield, S1 2,JA

T: +44 114 273 3300

E: matt.summerhill@uk.rlb.com Contact: Matt Summerhill

THAMES VALLEY

1000 Eskdale Road, Winnersh Triangle, Wokingham,

Berkshire, RG41 5TS T: +44 118 974 3600

E: michael.righton@uk.rlb.com Contact: Michael Righton

WARRINGTON

Ground South Wing, 401 Faraday Street, Birchwood Park, Warrington, Cheshire WA3 6GA

T: +44 1925 851787 E: dervck.barton@uk.rlb.com

Contact: Deryck Barton

CHINA

BEIJING

Room 1803-1809, 18th Floor, East Ocean Centre, 24A Jian Guo Men Wai Avenue. Chaoyang District, Beijing 100004, China T: +86 10 6515 5818 E: sm.tuen@cn.rlb.com

CHENGDU 29th Floor, Square One, No. 18 Dongyu Street, Jinjiang District, Chengdu 610016, Sichuan Province, China T: +86 28 8670 3382 E: eric.lau@cn.rlb.com Contact: Eric Lau

Contact: Simon Tuen

CHONGQING

Contact: Eric Lau

Room 3007-3008, 30th Floor, Metropolitan Tower. No. 68 Zourong Road, Central District, Chongging 400010, China T: +86 28 8670 3382 E: eric.lau@cn.rlb.com

DALIAN

Room 1103, 11th Floor, Xiwang Tower, No. 136 Zhongshan Road, Zhongshan District, Dalian 116001, Liaoning Province, China

T: +86 10 6515 5818

E: sm.tuen@cn.rlb.com Contact: Simon Tuen

GUANGZHOU

Room 1302-1308. Central Tower. 5 Xiancun Road, Guangzhou 510623 Guangdong Province

T: +86 20 8732 1801

E: danny.chow@cn.rlb.com Contact: Danny Chow

GUIYANG

Room E, 12th Floor, Fuzhong International Plaza, 126 Xin Hua Road, Guiyang 550002, Guizhou Province, China T: +86 20 8732 1801

E: danny.chow@cn.rlb.com Contact: Danny Chow

HAIKOU

Room 1705, 17th Floor, Fortune Center, 38 Da Tong Road, Haikou 570102, Hainan Province, China

T: +852 2823 1828 E: stephen.lai@hk.rlb.com Contact: Stephen Lai

HANGZHOU

Room 1603, 16th Floor, North Tower, Modern City Center, No. 161 Shao Xing Road, Xia Cheng District, Hangzhou 310004, Zhejiang Province, China T: + 86 21 6330 1999 E: iris.lee@cn.rlb.com

Contact: Iris Lee HONG KONG

20th Floor, Eastern Central Plaza, 3 Yiu Hing Road, Shaukeiwan T: +852 2823 1823

E: kenneth.kwan@hk.rlb.com Contact: Kenneth Kwan

MACAU

Alameda Dr. Carlos D'Assumpcao, No. 398 Edificio CNAC 9 Andar, I-J Macau SAR

T: +852 2823 1830

E: kenneth.kwan@hk.rlb.com Contact: Kenneth Kwan

NANJING

Room 1201, South Tower, Jinmao Plaza, 201 Zhong Yang Road, Nanjing 210009, Jiang Su Province, China

T: +86 21 6330 1999 E: eric.fong@cn.rlb.com Contact: Eric Fong

NANNING

Room 2203, Block B Resources Building No. 136 Minzu Road Nanning 530000 Guangxi, China

T: +86 20 8732 1801 E: danny.chow@cn.rlb.com

Contact: Danny Chow

SHANGHAI

22nd Floor, Greentech Tower, 436 Hengfeng Road, Jingan District, Shanghai 200070, China T: +86 21 6330 1999

E: wq.wang@cn.rlb.com Contact: W.Q. Wang

SHENYANG

25th Floor, Tower A, President Building, No. 69 Heping North Avenue, Heping District, Shenyang 110003, Liaoning Province, China T: +86 10 6515 5818

E: sm.tuen@cn.rlb.com Contact: Simon Tuen

SHENZHEN

SHEAZHEN
Room 4510-4513, 45th Floor,
Shun Hing Square Diwang
Commercial Centre,
5002 Shennan Road East,
Shenzhen 518001,
Guangdong Province, China
T: +852 2823 1830

E: kenneth.kwan@hk.rlb.com Contact: Kenneth Kwan

TIANJIN

Room 502, 5th Floor, Tianjin International Building, 75 Nanjing Road, Heping District, Tianjin 300050, China T: +852 2823 1828 E: stephen.lai@hk.rlb.com Contact: Stephen Lai

WUHAN

Room 2301, 23rd Floor, New World International Trade Centre, No. 568 Jianshe Avenue, Wuhan 430022, Hubei Province, China T: +852 2823 1828 E: stephen.lai@hkrlb.com

wuxi

Juna Plaza, Wuxi 214000, Jiangsu Province, China T: +86 21 6330 1999 E: wq.wang@cn.rlb.com Contact: W.Q. Wang

Contact: Stephen Lai

XIAMEN

Room 2216, The Bank Centre, 189 Xiahe Road, Xiamen 361000, China T: +86 21 6330 1999 E: eric.fong@cn.rlb.com Contact: Eric Fong

XIAN

Room 1506, 15th Floor, Chang'an Metropolis Center, No.88 Nanguan Zheng Street, Beilin District, Xian 710068, Shaanxi Province, China T: +86 28 8670 3382

E: eric.lau@cn.rlb.com Contact: Eric Lau

7HUHAI

Room 1401-1402, 14th Floor, Taifook International Finance Building, No. 1199 Jiu Zhuo Road East, Jida, Zhuhai 519015, Guangdong Province, China

T: +86 20 8732 1801 E: danny.chow@cn.rlb.com Contact: Danny Chow

INDONESIA

JAKARTA

Jl. Jend. Surdirman Kav. 45-46 Sampoerna Strategic Square South Tower, Level 19, Jakarta 12930, Indonesia

T: +62 21 5795 2308

E: widitomo.puntoadi@id.rlb.com Contact: Widitomo Puntoadi

MALAYSIA

KUALA LUMPUR

B2-6-3 Solaris Dutamas. No 1 Jalan Dutamas. 50480 Kuala Lumpur, Malaysia

T: +60 3 6207 9991 E: kf.lai@my.rlb.com

Contact: Dato' Lai Kar Fook

MYANMAR

YANGON

Union Business Center, Nat Mauk St, Yangon, Myanmar (Burma)

T: +95 1 860 3448 (Ext 4004) E: serene.wong@vn.rlb.com Contact: Serene Wong

PHILIPPINES

BACOLOD CITY

Suite 403 & 404, 4th Floor Carmen Building, Lizares Avenue Bacolod City, Negros Occidental 6100 Philippines

T: +63 34 432 1344

E: armando.baria@ph.rlb.com Contact: Armando Baria

CAGAYAN DE ORO

Rm. 702, TTK Tower, Don Apolinar Velez Street, Bgy. 14 Cagayan De Oro City, Misamis Oriental, 9000 Philippines

T: +63 88 850 4105

E: rev.clemena@ph.rlb.com Contact: Raymundo Clemena

CEBU

Suite 601 & 602, PDI Condominium, Arch. Bishop, Reyes Avenue Corner J. Panis Street, Banilad, Cebu City 1604, Philippines T: +63 38 502 8660

E: joy.marasigan@ph.rlb.com Contact: Jolly Joy Cantero

CLARK

Units 202 - 203, Baronesa Place Mc Arthur Hi-way City of Mabalacat Angeles Pampanga

T: +63 916 794 9156 E: marie.tendenilla@ph.rlb.com Contact: Marie E. Tendenilla

DAVAO

Room 307 & 308, 3rd Floor Coco Life Building, C.M. Recto Street, corner J. Palma Gil St., Davao City, 8000 Philippines

T: +63 82 297 4589

E: armando.baria@ph.rlb.com Contact: Armando Baria

ILOILO

Uy Bico Building, Yulo Street, Iloilo City, 5000 Philippines T: +63 33 320 0945 E: armando.baria@ph.rlb.com Contact: Armando Baria

METRO MANILA

Corazon Clemeña Compound. Bldg. 3 No. 54 Danny Floro Street, Bagong Ilog, Pasig City 1600, Philippines

T: +63 2 234 0141

E: coraballard@ph.rlb.com Contact: Corazon Ballard

PANGLAO, BOHOL

Sitio Cascajo, Looc, Panglao Bohol, 6340 Philippines

T: +63 38 502 8660 E: rlb@ph.rlb.com

Contact: Corazon Ballard

STA. ROSA CITY, LAGUNA

Unit 201, Brain Train Center, Lot 11. Blk 3 Sta Rosa. Business Park, Greenfield Bgy. Don Jose, Sta. Rosa Laguna 4026 Philippines

T: +63 917 572 9533

E: pedro.vambao@ph.rlb.com Contact: Pedro J. Yambao, Jr.

SUBIC

The Venue Building, Unit 418 Lot C-5, Commercial Area, SBF Park Phase 1, Subic Bay Freeport Zone, Zambales

T: +63 917 517 3962

E: ioselito.mendoza@ph.rlb.com Contact: Joselito Mendoza

SINGAPORE

SINGAPORE

911 Bukit Timah Road Level 3 Singapore 589622

T: +65 6339 1500

F: silas.loh@sq.rlb.com Contact: Silas Loh

SOUTH KOREA

1084, Seogwang-ri, Andeok-myeon, Seogwipo-si,

Jeju-do, Korea

T: +852 2823 1828 E: stephen.lai@hk.rlb.com

Contact: Stephen Lai

SEOUL

Yeoksam-Dong, Daon Building, 8th Floor, 8, Teheran-ro 27-gil, Gangnam-Gu, Seoul, 06141 Korea

T: +852 2823 1828 E: stephen.lai@hk.rlb.com Contact: Stephen Lai

VIETNAM

HO CHI MINH CITY

Centec Tower, 16th Floor, Unit 1603, 72-74 Nauven Thi Minh Khai Street, Ward 6, District 3 Ho Chi Minh City, Vietnam

T: +84 83 823 8070

E: cb.ong@vn.rlb.com Contact: Ong Choon Beng

CANADA

CALGARY

Campana Place, 200-609 14th Street NW, Calgary, Alberta

T2N 2A1, Canada T: +1 905 827 8218

E: joe.pendlebury@ca.rlb.com

Contact: Joe Pendlebury

TORONTO

1155 North Service Road West. Unit 5, Oakville, Ontario, L6M 3E3 T: +1 905 827 8218

E: joe.pendlebury@ca.rlb.com

Contact: Joe Pendlebury

CARIBBEAN

ST LUCIA

Desir Ave, Saint Lucia

T: +1 758 452 2125

E: mark.williamson@lc.rlb.com Contact: Mark Williamson

UNITED STATES OF **AMERICA**

AUSTIN

111 Congress Avenue, Suite 400. Austin, Texas 78701

T: +1 602 443 4848

E: ward.simpson@us.rlb.com Contact: Ward Simpson

BOSTON

Two Financial Center, Suite 810, 60 South Street, Boston.

Massachusetts 02111

T: +1 617 737 9339

E: grant.owen@us.rlb.com Contact: Grant Owen

CHICAGO

141 W. Jackson Boulevard, Suite

3810, Chicago, Illinois 60604

T: +1 312 819 4250

E: chris.harris@us.rlb.com Contact: Chris Harris

DENVER

1675 Larimer Street, Suite 470.

Denver, Colorado 80202

T: +1 720 904 1480

E: peter.knowles@us.rlb.com

Contact: Peter Knowles

80 Pauahi Street, Suite 104, Hilo, Hawaii 96720

T: +1 808 883 3379

E: kevin.mitchell@us.rlb.com

Contact: Kevin Mitchell

HONOLULU

American Savings Bank Tower, 1001 Bishop Street, Suite 2690, Honolulu, Hawaii 96813

T: +1 808 521 2641

E: maelyn.uyehara@us.rlb.com Contact: Maelyn Uyehara

LAS VEGAS

3753 Howard Hughes, Parkway, Suite 211, Las Vegas, Nevada 89169

T: +1 702 227 8818

E: simon.james@us.rlb.com

Contact: Simon James

LOS ANGELES

The Bloc, 700 South Flower Street, Suite 630 Los Angeles, California 90017

T: +1 213 689 1103

E: philip.mathur@us.rlb.com Contact: Philip Mathur

MAUI

300 Ohukai Road, Building B, Kihei, Hawaii 96753

T: +1 808 883 3379

E: kevin.mitchell@us.rlb.com Contact: Kevin Mitchell

NEW YORK

31 Penn Plaza, 132 West 31st Street, 15th Floor, New York, New York 10001

T: +1 646 821 4788

E: michael.moynihan@us.rlb.com Contact: Michael Moynihan

PHOENIX

4343 East Camelback Road, Suite 350, Phoenix, Arizona 85018

T: +1 602 443 4848

E: scott.macperhson@us.rlb.com Contact: Scott Macpherson

PORTLAND

Brewery Block 2, 1120 NW Couch Street, Suite 730, Portland, Oregon 97209

T: +1 503 226 2730

E: graham.roy@us.rlb.com Contact: Graham Roy

SAN FRANCISCO

735 Montgomery Street, Suite 350, San Francisco, CA 94111

T: +1 415 362 2613

E: catherine.stoupas@us.rlb.com Contact: Catherine Stoupas

SAN JOSE

800 West El Camino, Real Suite 180, Mountain View CA 94040

T: +1 520 777 7581

E: joel.brown@us.rlb.com

Contact: Joel Brown

SEATTLE

2003 Western Avenue, Suite 515, Seattle, Washington 98121

T: +1 206 223 2055

E: emile.leroux@us.rlb.com Contact: Emile le Roux

TUSCON

33 West Congress Street, Suite 215, Tucson, Arizona 85701

T: +1 520 777 7581

E: josh.marks@us.rlb.com Contact: Josh Marks

WAIKOLOA

Waikoloa Highlands Centre 68-1845 Waikoloa Road, Suite 202, Waikoloa, Hawaii 96738

T: +1 808 883 3379

E: kevin.mitchell@us.rlb.com Contact: Kevin Mitchell

WASHINGTON, D.C

199 E. Montgomery Avenue, Suite 100, Rockville, Maryland 20850

T: +240 599 8176

E: neil.sinclair@us.rlb.com Contact: Neil Sinclair

CALENDARS

Calendars 2018 - 2021	92
2019 Rostered Days Off	94
Public Holidays	96

CALENDARS 2018 - 2021

2018

2018			
JANUARY 2018	FEBRUARY 2018	MARCH 2018	
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	S M T W T F S 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	
APRIL 2018	MAY 2018	JUNE 2018	
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	
JULY 2018	AUGUST 2018	SEPTEMBER 2018	
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	
OCTOBER 2018	NOVEMBER 2018	DECEMBER 2018	
S M T W T F S 1 2 3 4 5 6	S M T W T F S 1 2 3	SMTWTFS	
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	
JANUARY 2019	2019 FEBRUARY 2019		
		MARCH 2019	
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S	S M T W T F S 1 2 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	
S M T W T F S 1 2 3 4 5 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 APRIL 2019 S M T W T F S 1 2 3 4 5 6 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	S M T W T F S 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 MAY 2019 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 3 4 5 6 7 8 9 10 11 12 13 14 12 53 24 25 26 27 28 29 30 31 JUNE 2019 S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 SEPTEMBER 2019	
S M T W T F S 1 2 3 4 5 5 6 7 8 9 10 11 12 13 14 15 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 APRIL 2019 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 MAY 2019 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	
S M T W T F S 1 2 3 4 5 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 MAY 2019 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2019 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 30 30 30 30 30 30 30 30 30 30 30 30	

2020

JANUARY 2020 S M T W T F S	FEBRUARY 2020 S M T W T F S	MARCH 2020 S M T W T F S
1 2 3 4	1	1 2 3 4 5 6 7
5 6 7 8 9 10 11	2 3 4 5 6 7 8 9 10 11 12 13 14 15	8 9 10 11 12 13 14
12 13 14 15 16 17 18 19 20 21 22 23 24 25	16 17 18 19 20 21 22	22 23 24 25 26 27 28
26 27 28 29 30 31	23 24 25 26 27 28 29	29 30 31
APRIL 2020	MAY 2020	JUNE 2020
SMTWTFS	SMTWTFS	SMTWTFS
1 2 3 4 5 6 7 8 9 10 11	3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9 10 11 12 13
12 13 14 15 16 17 18	10 11 12 13 14 15 16	14 15 16 17 18 19 20
19 20 21 22 23 24 25 26 27 28 29 30	17 18 19 20 21 22 23 24 25 26 27 28 29 30	21 22 23 24 25 26 27 28 29 30
	31	
JULY 2020	AUGUST 2020	SEPTEMBER 2020
1 2 3 4	S M I W I F S	1 2 3 4 5
5 6 7 8 9 10 11 12 13 14 15 16 17 18	2 3 4 5 6 7 8 9 10 11 12 13 14 15	6 7 8 9 10 11 12 13 14 15 16 17 18 19
19 20 21 22 23 24 25	16 17 18 19 20 21 22	20 21 22 23 24 25 26
26 27 28 29 30 31	23 24 25 26 27 28 29 30 31	27 28 29 30
OCTOBER 2020	NOVEMBER 2020	DECEMBER 2020
SMTWTFS	SMTWTFS	SMTWTFS
1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10 11 12 13 14	1 2 3 4 5
11 12 13 14 15 16 17	15 16 17 18 19 20 21	13 14 15 16 17 18 19
18 19 20 21 22 23 24 25 26 27 28 29 30 31	22 23 24 25 26 27 28 29 30	20 21 22 23 24 25 26 27 28 29 30 31
JANUARY 2021	2021 FEBRUARY 2021	MARCH 2021
1 2	1 2 3 4 5 6	1 2 3 4 5 6
3 4 5 6 7 8 9 10 11 12 13 14 15 16	7 8 9 10 11 12 13 14 15 16 17 18 19 20	7 8 9 10 11 12 13 14 15 16 17 18 19 20
17 18 19 20 21 22 23	21 22 23 24 25 26 27	21 22 23 24 25 26 27
24 25 26 27 28 29 30 31	28	28 29 30 31
		20 29 30 31
APRIL 2021	MAY 2021	JUNE 2021
SMTWTFS	SMTWTFS	JUNE 2021 S M T W T F S
S M T W T F S 1 2 3 4 5 6 7 8 9 10	S M T W T F S 1 2 3 4 5 6 7 8	JUNE 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	JUNE 2021 S M T W T F S
S M T W T F S 1 2 3 4 5 6 7 8 9 10	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	JUNE 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	JUNE 2021 S M T W T F S 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
S M T W T F S 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 JULY 2021 S M T W T F S	S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2021 S M T W T F S	JUNE 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 SEPTEMBER 2021 S M T W T F S
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 JULY 2021 S M T W T F S 1 2 3	S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2021 S M T W T F S 1 2 3 4 5 6 7	SEPTEMBER 2021 S M T W T F S
S M T W T F S	S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	SEPTEMBER 2021 S M T W T F S
S M T W T F S 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 S M T W T F S 4 5 6 7 8 9 10	S M T W T F S 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 32 42 52 62 72 8	S M T W T F S
S M T W T F S 1 2 3	S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	SEPTEMBER 2021 S M T W T F S
S M T W T F S 1 2 3	S M T W T F S 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 32 42 52 62 72 8	S M T W T F S
S M T W T F S 1 2 3	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 NOVEMBER 2021 S M T W T F S 1 2 3 3 4 5 6 7	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
S M T W T F S	S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 NOVEMBER 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13	SEPTEMBER 2021 S M T W T F S
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 AUGUST 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 32 24 25 26 27 28 NOVEMBER 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 12 22 32 42 25 26 27 8 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 12 22 32 42 25 26 27	S M T W T F S 1 2 3 4 4 5 6 7 8 9 10 11 12 12 13 14 15 16 17 18 19 19 19 12 13 14 15 16 17 18 19 19 19 12 13 14 15 16 17 18 19 19 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 6 7 28 29 30 S C C C C C C C C C
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 24	S M T W T F S 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 AUGUST 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 NOVEMBER 2021 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 13 19 19 20 11 22 23 24 25 26 27 28 29 30 31	SEPTEMBER 2021 S M T W T F S

CALENDARS 2019 ROSTERED DAYS OFF

	ADELAIDE	BRISBANE & DARWIN
BASIS	CFMEU EBA	CFMEU EBA
HOURS BASIS	36	36
JAN	TUE 29	WED 2
	WED 30	THU 3
		FRI 4
		TUE 29
FEB	MON 11	MON 25
	MON 25	
MAR	TUE 12	MON 25
	WED 13	
APR	THU 18	MON 23
	TUE 23	TUE 24
	WED 24	FRI 26
	FRI 26	
MAY	MON 13	MON 20
	MON 27	
JUN	TUE 11	MON 17
	WED 12	
JUL	MON 15	MON 15
	MON 29	
AUG	MON 12	MON 12
	MON 26	TUE 13
SEP	MON 9	MON 9
	MON 23	
ост	TUE 8	TUE 8
	WED 9	
NOV	MON 11	MON 4
	MON 25	TUE 5
		WED 6
DEC	MON 23	MON 2
	TUE 24	FRI 20
		MON 23
		TUE 24
		FRI 27
		MON 30
		TUE 31
TOTAL	26	26

CANBERRA	MELBOURNE	PERTH SYDNE	
CFMEU EBA	CFMEU EBA	CFMEU EBA	CFMEU EBA
36	36	36	36
WED 2	TUE 8	WED 2	TUE 29
FRI 25	TUE 29	THU 3	
TUE 29		FRI 4	
		TUE 29	
MON 4	MON 11	MON 11	MON 25
MON 25	MON 25		
FRI 8	TUE 12	TUE 5	MON 25
TUE 12			
TUE 23	MON 1	TUE 23	FRI 26
WED 24	TUE 23	WED 24	
FRI 26	WED 24		
	FRI 26		
FRI 24	MON 13	MON 13	MON 27
TUE 28	MON 27		
TUE 11	TUE 11	TUE 4	TUE 11
MON 17	MON 24		
MON 1	MON 8	MON 1	MON 8
MON 22	MON 22	MON 29	
MON 5	MON 5	MON 26	MON 5
MON 26	MON 19		
MON 9	MON 9		MON 2
MON 30	MON 30		
FRI 4	MON 14	TUE 1	TUE 8
TUE 8		MON 28	
MON 4	MON 4	MON 4	MON 4
MON 25	WED 6	TUE 5	
	MON 18		
MON 2	MON 23	MON 23 TUE 3	
MON 23	TUE 24	TUE 24	MON 23
	FRI 27	FRI 27	
		MON 30	
		TUE 31	
26	26	22 FIXED & 4 VARIABLE	13 FIXED & 13 VARIABLE

CALENDARS PUBLIC HOLIDAYS IN AUSTRALIA

ALL STATES	2019	2020	2021
NEW YEARS DAY	1 JAN	1 JAN	1 JAN
AUSTRALIA DAY	28 JAN	27 JAN	26 JAN
GOOD FRIDAY	19 APR	10 APR	2 APR
EASTER MONDAY	22 APR	13 APR	5 APR
ANZAC DAY	25 APR	25 APR	25 APR
QUEENS BIRTHDAY (EXCL QLD & WA)	10 JUN	8 JUN	14 JUN
CHRISTMAS DAY	25 DEC	25 DEC	27 DEC
BOXING DAY	26 DEC	28 DEC	28 DEC
AUSTRALIAN CAPITAL TERRITORY			
CANBERRA DAY	11 MAR	9 MAR	8 MAR
EASTER SATURDAY	20 APR	11 APR	3 APR
EASTER SUNDAY	21 APR	12 APR	4 APR
RECONCILIATION DAY	27 MAY	1 JUN	31 MAY
LABOUR DAY	7 OCT	5 OCT	4 OCT
NEW SOUTH WALES			
EASTER SATURDAY	20 APR	11 APR	3 APR
EASTER SUNDAY	21 APR	12 APR	4 APR
BANK HOLIDAY	5 AUG	3 AUG	2 AUG
LABOUR DAY	7 OCT	5 OCT	4 OCT
NORTHERN TERRITORY			
EASTER SATURDAY	20 APR	11 APR	3 APR
MAY DAY	6 MAY	4 MAY	3 MAY
PICNIC DAY	5 AUG	3 AUG	2 AUG
QUEENSLAND			
EASTER SATURDAY	20 APR	11 APR	3 APR
LABOUR DAY	6 MAY	4 MAY	3 MAY
ROYAL QUEENSLAND SHOW	14 AUG	12 AUG	11 AUG
QUEENS BIRTHDAY	7 OCT	5 OCT	4 OCT
SOUTH AUSTRALIA			
EASTER SATURDAY	20 APR	11 APR	3 APR
ADELAIDE CUP DAY	11 MAR	9 MAR	8 MAR
LABOUR DAY	7 OCT	5 OCT	4 OCT
TASMANIA	11.550	10.555	0.550
ROYAL HOBART REGATTA	11 FEB	10 FEB	8 FEB
LAUNCESTON CUP	27 FEB	26 FEB	24 FEB
EIGHT HOURS DAY	11 MAR	9 MAR	8 MAR
EASTER TUESDAY	23 APR	14 APR	6 APR
LAUNCESTON SHOW	10 OCT	8 OCT	7 OCT
HOBART SHOW	24 OCT	22 OCT	21 OCT
RECREATION DAY (NORTHERN) VICTORIA	4 NOV	2 NOV	1 NOV
LABOUR DAY	11 MAR	9 MAR	8 MAR
EASTER SATURDAY	20 APR	9 MAR 11 APR	3 APR
EASTER SATURDAY	20 APR 21 APR	12 APR	4 APR
GRAND FINAL EVE DAY	21 APR 27 SEP	25 SEP	TBA
MELBOURNE CUP DAY	5 NOV	3 NOV	2 NOV
WESTERN AUSTRALIA	2 IVU V	JIVUV	21101
LABOUR DAY	4 MAR	2 MAR	1 MAR
FOUNDATION DAY	3 JUN	1 JUN	7 JUN
QUEENS BIRTHDAY	30 SEP	28 SEP	27 SEP
	00 OL.	20 02.	2, 02,