RLB Rider Levett Bucknall

RIDERS DIGEST 2017

PERTH, AUSTRALIA EDITION

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RIDERS DIGEST

45TH EDITION

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 2016 (unless stated differently). All figures are rounded and exclude GST.

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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 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
- Estimating 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 and 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

INTERNATIONAL CONSTRUCTION BUILDING COST RANGES

All costs are stated in local currency as shown below.

Refer to www.rlbintelligence.com for updates.

LOCATION /CITY	LOCAL CURRENCY	COST PER M² OFFICE BUILDING PREMIUM LOW	PREMIUM HIGH	GRADE A LOW	GRADE A HIGH
AMERICAS @ Q3 2016					
BAHAMAS	USD	2,495	4,455	2,335	3,270
BOSTON	USD	2,960	4,840	1,940	2,960
CHICAGO	USD	2,475	3,875	1,505	2,155
HONOLULU	USD	3,070	5,705	2,635	4,305
LAS VEGAS	USD	1,505	3,175	1,130	2,045
LOS ANGELES	USD	2,260	3,390	1,560	2,370
NEW YORK	USD	3,765	5,920	2,960	4,035
PHOENIX	USD	1,615	2,960	1,185	1,885
SEATTLE	USD	2,045	2,530	1,400	1,990
WASHINGTON D.C.	USD	2,690	4,305	1,885	2,960
ASIA @ Q3 2016					
BEIJING	RMB	7,550	12,450	7,100	10,700
CHENGDU	RMB	6,900	9,940	7,750	11,240
HO CHI MINH CITY	VND ('000)	24,000	34,400	20,400	25,600
HONG KONG	$HKD	22,900	34,100	19,500	26,500
JAKARTA	RP ('000)	9,648	13,200	6,670	10,620
KUALA LUMPUR	RINGGIT	2,500	4,500	1,300	3,000
SEOUL	KRW ('000)	2,250	2,890	1,700	2,080
SHANGHAI	RMB	7,250	11,500	6,500	9,900
SHENZHEN	RMB	7,000	11,250	6,450	9,800
SINGAPORE	SGD	2,700	4,000	2,100	3,000
EUROPE @ Q3 2016					
BERLIN	EUR	1,355	1,775	990	1,150
BIRMINGHAM	GBP	1,725	2,430	1,500	2,435
BRISTOL	GBP	1,960	2,580	1,580	2,370
DUBLIN	EUR	1,800	2,000	1,600	1,800
LONDON	GBP	2,396	3,120	1,975	3,077
MANCHESTER	GBP	1,907	2,501	1,646	2,470
OSLO	EUR	2,840	3,690	2,190	2,850
MIDDLE EAST @ Q3 2016					
ABU DHABI	AED	5,800	7,000	4,700	6,600
DUBAI	AED	5,800	7,000	4,700	6,600
DOHA	QAR	6,500	8,500	6,100	8,200
OCEANIA @ Q4 2016					
ADELAIDE	AUD	2,600	3,850	2,100	3,250
AUCKLAND	NZD	3,400	4,500	2,600	4,250
BRISBANE	AUD	2,600	4,000	2,000	3,000
CANBERRA	AUD	3,274	4,245	2,655	3,349
CHRISTCHURCH	NZD	3,700	4,800	3,150	4,200
DARWIN	AUD	3,100	4,150	2,400	3,800
GOLD COAST	AUD	2,450	4,000	1,900	3,000
MELBOURNE	AUD	3,060	3,825	2,370	2,960
PERTH	AUD	3,150	4,770	2,575	3,740
SYDNEY	AUD	3,400	4,820	2,510	3,620
WELLINGTON	NZD	3,058	3,494	2,402	2,730

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 M²					
RETAIL				RESIDENTIAL MULTI STOREY	
MALL		STRIP SHOPPING			
LOW	HIGH	LOW	HIGH	LOW	HIGH
1,635	2,830	1,520	2,390	1,410	4,565
1,615	2,690	1,075	1,615	1,885	3,230
1,400	2,260	1,130	1,400	1,400	2,260
2,260	5,330	1,885	4,680	2,100	4,780
1,240	5,165	700	1,560	755	4,360
1,400	3,175	1,130	1,830	1,720	2,800
2,690	4,305	1,615	2,690	2,155	4,035
1,185	1,830	805	1,400	970	1,990
1,400	2,475	1,185	1,670	1,505	2,690
1,345	2,690	1,075	1,615	1,885	3,230
8,300	12,700	7,350	11,450	4,000	6,100
5,000	7,400	5,150	7,600	3,500	5,450
19,300	25,700	NP	NP	15,400	23,300
23,000	29,200	19,600	25,500	21,500	37,200
6,520	8,515	NP	NP	6,430	9,986
2,100	3,500	NP	NP	1,900	4,500
1,520	2,190	1,280	1,940	1,470	2,120
7,600	12,000	6,750	11,000	3,600	5,750
7,450	11,450	6,550	10,050	3,600	5,500
2,200	3,400	NP	NP	2,000	3,200
1,145	1,460	835	1,040	990	1,407
2,645	3,700	840	1,580	1,590	2,230
2,700	3,800	860	1,625	1,700	2,400
1,900	2,100	1,000	1,200	1,400	1,600
3,195	4,491	1,026	1,922	2,008	2,785
2,678	3,762	854	1,615	1,636	2,292
1,800	2,340	1,440	1,870	2,420	3,150
4,100	6,500	NP	NP	4,500	6,500
4,100	6,500	NP	NP	4,500	6,500
5,300	6,500	NP	NP	6,500	7,800
1,550	2,950	1,300	1,825	2,250	3,550
2,500	2,800	1,400	1,800	3,000	4,000
2,300	3,100	1,100	1,600	2,000	3,200
2,250	3,156	1,205	1,984	2,720	3,946
1,650	2,200	NP	NP	NP	NP
1,730	2,590	1,230	2,090	2,010	2,650
2,150	3,100	1,050	1,600	1,758	3,200
2,065	3,060	1,080	1,580	2,245	3,570
2,300	2,800	1,025	2,565	2,230	3,830
1,880	3,930	1,460	1,890	2,460	4,560
1,352	1,872	NP	NP	2,730	3,494

INTERNATIONAL CONSTRUCTION BUILDING COST RANGES

All costs are stated in local currency as shown below.

Refer to www.rlbintelligence.com for updates.

LOCATION /CITY	LOCAL CURRENCY	COST PER M²			
		HOTELS			
		3 STAR		5 STAR	
		LOW	HIGH	LOW	HIGH
AMERICAS @ Q3 2016					
BAHAMAS	USD	1,530	4,885	2,725	7,070
BOSTON	USD	2,420	3,765	3,765	5,400
CHICAGO	USD	2,045	2,585	3,120	4,845
HONOLULU	USD	3,500	5,865	5,545	8,020
LAS VEGAS	USD	1,615	2,960	3,765	5,005
LOS ANGELES	USD	2,260	3,120	3,390	5,060
NEW YORK	USD	2,960	4,035	4,035	5,920
PHOENIX	USD	1,615	2,690	2,960	4,575
SEATTLE	USD	1,720	2,260	2,315	3,390
WASHINGTON D.C.	USD	2,420	3,495	3,500	5,110
ASIA @ Q3 2016					
BEIJING	RMB	9,600	12,350	12,900	17,000
CHENGDU	RMB	8,730	11,000	11,600	14,900
HO CHI MINH CITY	VND ('000)	23,400	30,300	31,100	38,100
HONG KONG	$HKD	29,400	34,000	35,700	43,600
JAKARTA	RP ('000)	10,410	11,875	13,670	17,420
KUALA LUMPUR	RINGGIT	2,500	3,500	5,000	7,000
SEOUL	KRW ('000)	1,960	2,490	3,040	4,510
SHANGHAI	RMB	9,300	12,000	12,600	16,600
SHENZHEN	RMB	9,120	11,500	12,100	15,800
SINGAPORE	SGD	3,300	3,700	4,300	5,600
EUROPE @ Q3 2016					
BERLIN	EUR	1,355	1,770	1,985	2,755
BIRMINGHAM	GBP	1,270	1,870	2,015	2,750
BRISTOL	GBP	1,300	1,740	2,250	3,000
DUBLIN	EUR	1,340	1,440	2,000	2,200
LONDON	GBP	1,706	2,191	2,526	3,400
MANCHESTER	GBP	1,292	1,719	2,042	2,793
OSLO	EUR	2,960	3,850	3,920	5,090
MIDDLE EAST @ Q3 2016					
ABU DHABI	AED	6,000	8,500	9,000	12,000
DUBAI	AED	6,000	8,500	9,000	12,500
DOHA	QAR	7,500	8,500	11,500	14,500
OCEANIA @ Q4 2016					
ADELAIDE	AUD	2,550	3,450	3,550	4,450
AUCKLAND	NZD	3,800	4,300	4,500	5,500
BRISBANE	AUD	2,800	4,000	4,000	5,500
CANBERRA	AUD	2,933	4,095	4,031	4,970
CHRISTCHURCH	NZD	3,000	3,300	3,700	4,200
DARWIN	AUD	2,830	3,550	3,600	4,450
GOLD COAST	AUD	2,600	4,000	3,400	5,500
MELBOURNE	AUD	3,110	3,570	3,920	5,090
PERTH	AUD	2,645	3,635	3,600	4,430
SYDNEY	AUD	2,980	3,770	4,230	5,610
WELLINGTON	NZD	2,402	2,839	3,536	4,264

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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 M²					
CAR PARKING				INDUSTRIAL WAREHOUSE	
MULTI STOREY		BASEMENT			
LOW	HIGH	LOW	HIGH	LOW	HIGH
NP	NP	NP	NP	1,410	2,280
755	1,075	970	1,615	1,075	1,885
700	1,185	970	1,505	1,075	1,400
1,075	1,560	1,505	2,850	1,560	2,420
540	915	645	1,615	540	1,075
1,075	1,290	1,240	1,775	1,075	1,830
970	1,615	1,345	2,160	1,240	2,155
430	700	645	1,075	590	1,075
860	1,075	1,075	1,560	970	1,345
700	1,075	860	1,345	970	1,615
2,220	3,000	3,700	6,500	4,300	5,450
2,050	2,800	3,650	5,950	3,500	4,300
8,800	13,100	18,000	24,500	5,970	9,100
8,950	10,600	18,400	25,200	15,100	19,000
3,460	4,450	4,450	6,190	4,650	5,680
800	1,200	1,400	3,200	1,000	1,800
650	790	820	1,050	1,140	1,410
2,050	2,950	3,850	6,400	3,900	5,050
2,050	2,900	3,700	6,300	3,850	4,850
700	1,400	1,500	2,250	1,100	1,600
470	680	785	1,040	365	730
320	635	800	1,375	350	635
400	800	925	1,440	360	650
400	500	600	1,000	400	560
410	820	1,090	1,760	443	799
323	646	875	1,396	354	646
690	880	890	1,160	1,570	2,030
1,800	3,600	2,850	4,500	1,500	2,700
2,300	3,600	3,100	4,500	1,850	2,900
NP	NP	2,750	4,500	NP	NP
610	925	1,325	1,950	625	1,100
750	1,000	2,000	2,500	700	950
700	1,100	1,600	2,100	600	1,100
747	1,034	1,003	1,429	693	1,077
850	1,350	1,750	2,200	720	1,100
750	1,250	1,170	1,530	800	1,420
700	1,100	1,500	2,050	600	1,100
670	1,080	1,130	1,390	565	1,120
750	1,000	1,850	3,100	550	1,020
730	1,100	1,050	1,680	700	1,100
520	936	1,966	2,839	936	1,456

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.

	2014	2015	2016 (F)	2017 (F)	2018 (F)	2019 (F)
AFRICA @ Q3 2016						
CAPE TOWN	5.0	6.0	7.0	8.0	4.8	4.8
JOHANNESBURG	8.3	7.2	7.5	8.0	4.8	4.8
PRETORIA	8.3	7.2	7.5	8.0	4.8	4.8
AMERICAS @ Q3 2016						
BOSTON	5.0	3.5	4.8	4.1	4.1	4.1
CHICAGO	4.9	4.1	4.6	4.1	4.1	4.1
DENVER	2.5	3.6	3.8	4.1	4.2	4.2
HONOLULU	13.3	11.2	4.0	4.0	4.1	4.1
LAS VEGAS	3.6	4.4	5.9	4.6	4.1	4.1
LOS ANGELES	4.9	5.2	5.4	4.1	4.1	4.1
NEW YORK	5.0	3.7	4.4	4.1	4.1	4.1
PHOENIX	3.7	3.7	4.4	4.3	4.1	4.1
PORTLAND	6.0	4.6	4.6	4.1	4.1	4.1
SAN FRANCISCO	6.1	9.4	4.3	4.1	4.1	4.8
WASHINGTON DC	5.0	4.4	4.3	4.1	4.1	4.1
ASIA @ Q3 2016						
BEIJING	2.0	(1.0)	0.5	2.0	2.0	2.0
CHENGDU	1.1	0.3	(1.1)	0.0	0.4	0.4
GUANGZHOU	3.0	(3.0)	1.0	2.0	2.0	2.0
HONG KONG	8.2	4.3	3.4	3.0	3.0	3.0
MACAU	10.4	3.5	2.0	3.0	3.0	3.0
SEOUL	1.1	(0.5)	1.3	1.7	1.8	1.9
SHANGHAI	(1.0)	(4.4)	(0.0)	2.0	2.0	2.0
SHENZHEN	1.5	(0.7)	1.0	2.0	2.0	2.0
SINGAPORE	1.5	1.5	NP	NP	NP	NP
EUROPE @ Q3 2016						
BERLIN	1.8	2.2	2.0	2.0	2.0	2.0
BRISTOL	7.1	4.5	5.0	5.0	5.5	4.8
BUDAPEST	NP	2.5	3.0	3.3	2.5	NP
DUBLIN	5.0	7.0	4.0	8.0	8.0	NP
LONDON	5.0	5.9	3.5	3.5	3.5	3.7
MADRID	0.0	(0.0)	0.1	0.8	0.1	0.1
MANCHESTER	7.1	4.0	5.0	5.0	5.5	4.8
WARSAW	(0.8)	0.7	3.2	3.2	1.2	NP
MIDDLE EAST @ Q3 2016						
ABU DHABI	3.3	4.7	5.7	6.1	7.3	7.3
DOHA	4.5	5.0	5.5	6.0	7.0	NP
DUBAI	3.7	4.6	3.0	3.5	3.5	3.5
RIYADH	5.0	4.8	5.0	5.0	5.0	5.0
OCEANIA @ Q4 2016						
ADELAIDE	0.6	0.8	1.8	3.0	3.5	3.5
AUCKLAND	4.1	5.1	5.6	4.6	3.0	1.5
BRISBANE	5.1	5.9	7.9	4.0	4.0	4.0
CANBERRA	1.6	2.0	2.5	2.8	3.0	3.0
CHRISTCHURCH	6.0	6.0	3.0	4.0	4.0	3.5
DARWIN	1.8	0.8	0.2	0.8	1.5	2.0
GOLD COAST	4.1	4.0	6.0	5.0	4.0	3.0
MELBOURNE	1.5	2.0	2.0	3.0	3.0	3.0
PERTH	0.8	0.8	0.8	1.5	3.0	3.0
SYDNEY	3.0	4.5	4.8	4.2	4.0	3.5
TOWNSVILLE	2.0	3.0	3.0	4.0	4.0	4.0
WELLINGTON	3.4	3.0	4.0	4.0	4.5	5.0

NP: Not published

AUSTRALIAN CONSTRUCTION

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	ADELAIDE		BRISBANE	
COST RANGE PER GROSS FLOOR AREA	$/M²		$/M²	
	LOW	HIGH	LOW	HIGH
OFFICE BUILDINGS				
Prestige, CBD				
10 TO 25 STOREYS (75–80% EFFICIENCY)	2,600	3,500	2,600	3,500
25 TO 40 STOREYS (70–75% EFFICIENCY)	3,000	3,850	2,700	3,700
40 TO 55 STOREYS (68–73% EFFICIENCY)	-	-	2,900	4,000
Investment, CBD				
UP TO 10 STOREYS (81–85% EFFICIENCY)	2,100	2,650	2,200	2,600
10 TO 25 STOREYS (76–81% EFFICIENCY)	2,350	2,950	2,300	2,700
25 TO 40 STOREYS (71–76% EFFICIENCY)	2,550	3,250	2,400	3,200
Investment, other than CBD				
WALK UP (83–87% EFFICIENCY)	1,750	2,250	1,600	2,200
UP TO 10 STOREYS (82–86% EFFICIENCY)	2,000	2,600	1,800	2,400
10 TO 25 STOREYS (77–82% EFFICIENCY)	-	-	2,000	2,600
HOTELS				
Multi-Storey				
FIVE STAR	3,550	4,450	4,000	5,500
FOUR STAR	3,050	4,150	3,400	4,500
THREE STAR	2,550	3,450	2,800	4,000
CAR PARK				
OPEN DECK MULTI-STOREY	610	925	800	1,200
BASEMENT: CBD	1,325	1,950	1,600	2,100
BASEMENT: OTHER THAN CBD	925	1,750	1,100	1,800
UNDERCROFT: OTHER THAN CBD	575	875	600	800
INDUSTRIAL BUILDINGS				
6.00 M to underside of truss and 4,500 M² Gross Floor Area with:				
ZINCALUME METAL CLADDING	625	1,000	700	1,000
PRECAST CONCRETE CLADDING	725	1,100	800	1,100
Attached Airconditioned Offices				
200 M²	1,550	2,150	1,600	2,000
400 M²	1,550	2,150	1,600	1,900

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 = $/M² ÷ the efficiency percentage.

Refer to www.rlbintelligence.com for updates.

CANBERRA		DARWIN		MELBOURNE		PERTH		SYDNEY	
$/M²		$/M²		$/M²		$/M²		$/M²	
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
3,274	3,977	3,100	4,000	3,060	3,455	3,150	4,080	3,400	3,880
3,520	4,245	3,250	4,150	3,265	3,670	3,445	4,470	3,920	4,450
-	-	-	-	3,400	3,825	3,735	4,770	4,340	4,820
2,655	3,103	2,400	3,430	2,370	2,805	2,575	3,315	2,510	2,930
2,773	3,210	2,550	3,800	2,500	2,905	2,670	3,485	2,980	3,300
2,826	3,349	-	-	2,550	2,960	2,775	3,740	3,140	3,620
1,418	1,941	2,200	2,800	1,250	1,735	2,300	3,100	1,990	2,360
2,015	2,303	2,300	3,350	1,760	2,345	2,500	3,300	2,190	2,830
2,133	2,720	2,550	3,430	1,940	2,550	2,900	3,600	2,510	3,200
4,031	4,970	3,600	4,450	3,920	5,090	3,600	4,430	4,230	5,610
3,465	4,714	3,330	4,050	3,515	4,535	3,105	4,035	3,550	4,930
2,933	4,095	2,830	3,550	3,110	3,570	2,645	3,635	2,980	3,770
747	1,034	750	1,250	670	1,080	750	1,000	730	1,100
1,003	1,429	1,170	1,530	1,130	1,390	1,850	3,100	1,050	1,680
981	1,429	1,040	1,520	1,080	1,480	1,400	2,800	1,050	1,570
747	928	720	1,020	725	875	700	1,350	-	-
693	715	800	1,390	565	980	550	815	700	860
800	1,077	840	1,420	670	1,120	630	1,020	760	1,100
1,653	2,122	1,700	2,400	1,505	1,940	1,450	2,110	1,880	2,460
1,578	2,047	1,700	2,400	1,455	1,885	1,405	1,995	1,930	2,620

AUSTRALIAN CONSTRUCTION BUILDING COST RANGES

All costs current as at Fourth Quarter 2016.

CITY	ADELAIDE		BRISBANE	
COST RANGE PER GROSS FLOOR AREA	$/M²		$/M²	
	LOW	HIGH	LOW	HIGH
AGED CARE				
SINGLE STOREY FACILITY	2,100	2,700	2,300	2,900
PRIVATE HOSPITALS				
Low Rise Hospital				
45-60 M^2 GFA/BED	3,600	5,550	4,200	5,500
55-80 M^2 GFA/BED WITH MAJOR OPERATING THEATRE	3,900	5,850	5,000	6,500
CINEMAS				
GROUP COMPLEX, 2,000-4,000 SEATS (WARM SHELL)	2,700	3,650	2,500	3,500
REGIONAL SHOPPING CENTRES				
DEPARTMENT STORE	1,350	2,350	1,600	2,100
SUPERMARKET/VARIETY STORE	1,300	1,750	1,600	2,000
DISCOUNT DEPARTMENT STORE	1,100	1,350	1,400	2,000
MALLS	1,550	2,950	2,500	3,500
SPECIALITY SHOPS	1,000	1,675	1,200	1,600
SMALL SHOPS AND SHOWROOMS				
SMALL SHOPS & SHOWROOMS	1,300	1,825	1,200	1,800
RESIDENTIAL				
SINGLE & DOUBLE STOREY DWELLINGS (CUSTOM BUILT)	1,575	3,450	1,800	4,000
RESIDENTIAL UNITS				
WALK-UP 85 TO 120 M^2/UNIT	1,650	2,750	1,600	3,400
TOWNHOUSES 90 TO 120 M^2/UNIT	1,700	2,600	1,600	2,800
MULTI-STOREY UNITS				
Up to 10 storeys with lift				
UNITS 60-70 M^2	2,350	3,450	2,300	3,000
UNITS 90-120 M^2	2,250	3,350	2,300	2,900
Over 10 and up to 20 storeys				
UNITS 60-70 M^2	2,450	3,550	2,500	3,100
UNITS 90-120 M^2	2,400	3,450	2,500	3,000
Over 20 and up to 40 storeys				
UNITS 60-70 M^2	2,650	3,450	2,600	3,300
UNITS 90-120 M^2	2,600	3,400	2,600	3,100
Over 40 and up to 80 storeys				
UNITS 60-70 M^2	-	-	3,000	3,800
UNITS 90-120 M^2	-	-	2,900	3,600

Building Costs include Building Works and Building Services

Refer to <u>www.rlbintelligence.com</u> for updates.

CANBERRA		DARWIN		MELBOURNE		PERTH		SYDNEY	
$\$/M^2$		$\$/M^2$		$\$/M^2$		$\$/M^2$		$\$/M^2$	
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
1,994	2,698	2,400	3,550	1,785	2,425	2,200	2,625	2,510	3,250
4,156	5,623	3,850	4,600	2,650	3,110	2,780	3,425	2,720	3,410
4,572	6,186	4,500	5,500	2,960	3,570	3,145	4,220	3,450	4,510
2,911	3,252	2,700	3,450	2,370	2,650	2,535	2,995	3,140	4,300
2,293	2,517	1,700	2,380	1,965	2,370	1,195	1,655	1,460	2,040
1,397	1,899	1,790	2,440	1,240	1,835	1,355	1,700	1,410	2,720
1,269	1,493	1,630	2,230	1,175	1,630	1,995	2,870	1,250	1,520
2,250	3,156	1,730	2,590	2,065	3,060	2,300	2,800	1,880	3,930
1,174	1,578	1,430	2,050	1,080	1,530	1,010	1,445	1,620	2,410
1,205	1,984	1,230	2,090	1,080	1,580	1,025	2,565	1,460	1,890
1,568	2,570	1,780	2,750	1,390	2,755	1,420	2,263	1,620	4,560
1,674	3,359	1,970	2,370	1,495	3,110	1,745	2,803	-	-
1,674	3,274	1,970	2,370	1,445	2,705	1,585	2,613	-	-
2,773	3,402	2,030	2,430	2,270	2,905	2,280	2,975	2,720	3,460
2,720	3,349	2,010	2,400	2,245	2,960	2,230	2,880	2,460	3,200
2,996	3,626	2,100	2,520	2,580	3,300	2,725	3,375	2,870	3,770
2,933	3,626	2,050	2,480	2,550	3,315	2,655	3,275	2,720	3,560
3,455	3,946	2,340	2,650	3,060	3,570	3,405	3,830	3,710	4,560
3,349	3,733	2,280	2,580	2,855	3,470	3,335	3,780	3,550	4,190
-	-	-	-	3,415	4,080	3,810	4,475	4,280	5,190
-	-	-	-	3,265	3,980	3,665	4,395	4,180	5,080

AUSTRALIAN CONSTRUCTION BUILDING SERVICES COST RANGES

All costs current as at Fourth Quarter 2016.

COST RANGE PER GROSS FLOOR AREA	ADELAIDE		BRISBANE	
	$/M²		$/M²	
	LOW	HIGH	LOW	HIGH
OFFICE BUILDINGS				
Prestige, CBD				
10 TO 25 STOREYS (75-80% EFFICIENCY)	729	1,088	759	1,108
25 TO 40 STOREYS (70-75% EFFICIENCY)	781	1,192	837	1,187
40 TO 55 STOREYS (68-73% EFFICIENCY)	-	-	976	1,354
Investment, CBD				
UP TO 10 STOREYS (81-85% EFFICIENCY)	713	972	692	908
10 TO 25 STOREYS (76-81% EFFICIENCY)	716	1,023	742	976
25 TO 40 STOREYS (71-76% EFFICIENCY)	736	1,071	783	1,090
INVESTMENT, OTHER THAN CBD				
WALK UP (83-87% EFFICIENCY)	386	563	502	623
UP TO 10 STOREYS (82-86% EFFICIENCY)	532	759	631	882
10 TO 25 STOREYS (77-82% EFFICIENCY)	-	-	700	988
HOTELS				
Multi-Storey				
FIVE STAR	1,011	1,421	926	1,164
FOUR STAR	908	1,246	901	1,141
THREE STAR	856	1,044	860	1,097
CAR PARK				
OPEN DECK MULTI-STOREY	129	262	131	261
BASEMENT: CBD	208	412	221	392
BASEMENT: OTHER THAN CBD	208	412	221	392
UNDERCROFT: OTHER THAN CBD	102	114	74	99
INDUSTRIAL BUILDINGS				
6.00 M to underside of truss and 4,500 M² Gross Floor Area with:				
ZINCALUME METAL CLADDING	207	293	190	337
PRECAST CONCRETE CLADDING	207	334	190	337
Attached Airconditioned Offices				
200 M²	467	612	454	579
400 M²	460	605	454	579

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.

CANBERRA		DARWIN		MELBOURNE		PERTH		SYDNEY	
$/M²		$/M²		$/M²		$/M²		$/M²	
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
856	1,243	1,160	1,523	775	1,205	930	1,280	951	1,267
909	1,347	1,246	1,594	917	1,280	965	1,340	1,124	1,362
-	-	-	-	970	1,370	985	1,395	1,255	1,400
710	1,138	911	1,321	605	1,025	695	1,085	649	910
752	1,138	983	1,445	670	1,100	720	1,125	770	994
752	1,191	-	-	740	1,155	755	1,150	852	1,094
449	616	841	1,082	420	680	420	600	440	629
595	856	882	1,281	525	833	565	820	638	875
658	971	971	1,326	580	945	660	920	777	1,008
1,221	1,660	1,394	1,753	1,675	2,115	1,175	1,630	1,123	1,432
1,114	1,489	1,272	1,539	1,210	1,805	1,040	1,440	996	1,331
878	1,275	1,122	1,386	915	1,380	825	1,235	847	1,109
166	269	201	363	93	274	135	285	60	150
228	456	328	449	163	354	200	405	230	310
166	445	298	449	153	324	185	375	140	265
62	114	135	282	30	60	135	290	44	63
219	386	210	499	175	310	165	335	113	196
219	376	225	518	175	310	175	355	113	198
501	668	661	926	450	625	435	630	470	829
501	605	661	926	450	830	435	595	470	842

AUSTRALIAN CONSTRUCTION BUILDING SERVICES COST RANGES

All costs current as at Fourth Quarter 2016.

COST RANGE PER GROSS FLOOR AREA	ADELAIDE $/M²		BRISBANE $/M²	
	LOW	HIGH	LOW	HIGH
AGED CARE				
SINGLE STOREY FACILITY	417	680	478	767
PRIVATE HOSPITALS				
Low Rise Hospital				
45-60 M² GFA/BED	1,200	1,461	870	1,560
55-80 M² GFA/BED WITH MAJOR OPERATING THEATRE	1,407	1,873	1,321	1,990
CINEMAS				
GROUP COMPLEX, 2,000-4,000 SEATS. (WARM SHELL)	771	1,040	600	933
REGIONAL SHOPPING CENTRES				
DEPARTMENT STORE	405	700	486	769
SUPERMARKET/VARIETY STORE	420	655	480	712
DISCOUNT DEPARTMENT STORE	427	598	470	627
MALLS	511	776	558	840
SPECIALITY SHOPS	293	560	460	657
SMALL SHOPS AND SHOWROOMS				
SMALL SHOPS & SHOWROOMS	399	623	327	623
RESIDENTIAL				
SINGLE & DOUBLE STOREY DWELLINGS (CUSTOM BUILT)	245	538	246	537
RESIDENTIAL UNITS				
WALK-UP 85 TO 120 M²/UNIT	206	466	234	465
TOWNHOUSES 90 TO 120 M²/UNIT	209	474	234	456
MULTI-STOREY UNITS				
Up to 10 storeys with lift				
UNITS 60-70 M²	463	729	428	819
UNITS 90-120 M²	442	684	408	786
Over 10 and up to 20 storeys				
UNITS 60-70 M²	468	789	518	818
UNITS 90-120 M²	455	775	493	779
Over 20 and up to 40 storeys				
UNITS 60-70 M²	513	889	591	935
UNITS 90-120 M²	498	861	570	896
Over 40 and up to 80 storeys				
UNITS 60-70 M²	-	-	793	1,055
UNITS 90-120 M²	-	-	736	1,000

CANBERRA		DARWIN		MELBOURNE		PERTH		SYDNEY	
$/M²		$/M²		$/M²		$/M²		$/M²	
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
406	757	883	1,322	450	1,055	680	1,180	374	690
1,061	1,400	1,433	1,680	954	1,453	1,080	1,410	965	1,248
1,291	1,848	1,580	1,981	1,147	1,980	1,335	1,825	1,294	1,798
771	927	1,013	1,278	600	880	680	910	940	1,358
724	832	642	877	510	787	600	825	470	643
454	681	662	920	405	750	480	655	469	645
454	616	602	840	355	650	495	625	443	582
562	832	577	918	470	875	0	0	502	796
400	627	519	762	325	655	350	590	484	718
238	650	417	760	211	626	225	570	327	524
230	512	336	649	200	610	190	463	183	682
229	642	400	574	200	550	195	483	207	640
120	642	400	574	200	530	195	483	178	605
534	867	654	851	495	842	495	860	597	850
534	812	620	809	490	812	485	830	562	826
578	867	648	846	530	866	560	855	682	919
578	956	636	829	530	836	550	825	650	843
691	980	712	875	620	949	655	945	728	1,048
646	980	696	855	600	861	635	925	716	985
-	-	-	-	785	1,167	865	1,100	958	1,257
-	-	-	-	730	1,117	845	1,085	934	1,247

AUSTRALIAN CONSTRUCTION RLB TENDER PRICE INDEX

DATE	ADELAIDE		BRISBANE		CANBERRA	
	TPI	CPI	TPI	CPI	TPI	CPI
DEC-1972	11.7	11.7	12.7	12.7		
DEC-1973	14.7	13.3	15.6	14.5		
DEC-1974	19.3	15.6	19.8	16.7		
DEC-1975	22.6	17.7	20.6	19.1		
DEC-1976	26.6	20.7	21.8	21.8		
DEC-1977	28.9	22.7	23.6	23.7		
DEC-1978	30.6	24.2	24.4	25.8	24.4	24.4
DEC-1979	32.6	26.7	26.9	28.1	26.7	26.9
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
MAR-2016	141.8	116.1	133.0	124.0	151.4	114.6
JUN-2016	142.4	116.6	135.6	124.6	152.4	114.8
SEP-2016	143.0	117.6	137.7	125.4	153.3	115.8
DEC-2016	143.6		140.5		154.3	

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.

DARWIN		MELBOURNE		PERTH		SYDNEY	
TPI	CPI	TPI	CPI	TPI	CPI	TPI	CPI
		13.8	13.8	14.8	14.8	14.5	14.5
		15.3	15.7	17.0	16.4	16.2	16.4
		19.4	18.2	21.6	19.2	21.4	19.1
		22.6	20.9	26.3	22.0	24.6	21.7
		25.4	23.9	30.5	25.7	25.7	24.5
		27.7	26.2	34.2	28.6	27.7	26.5
		29.4	28.2	35.7	30.6	29.3	28.7
		32.3	31.0	36.0	33.5	32.5	31.7
		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
160.4	132.6	146.8	133.9	150.0	144.5	159.7	139.5
160.5	131.4	147.5	133.7	150.3	143.5	161.5	139.3
160.5	131.7	148.3	134.2	150.6	143.9	163.4	140.1
160.6	132.2	149.0	134.8	150.9	144.5	165.4	141.5
160.7		149.7		151.2		167.3	

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 International Building Cost Ranges on page 20).

HOTELS

RATING	GFA PER ROOM		
	TOTAL	ACCOMMODATION	PUBLIC SPACE
FIVE STAR	85-110 M^2	45-55 M^2	40-55 M^2
FOUR STAR	65-85 M^2	40-45 M^2	25-40 M^2
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 M^2 GFA/bed (150 beds).

HOSPITAL

Low rise hospital (45–60 M^2 GFA/Bed) - Minimal operating theatre capacity, specialist and service areas.

Low rise hospital (55–80 M^2 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.

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WSP Structures
Reinforcement Ratios.

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Construction and Building Data and CPI information.

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PERTH CONSTRUCTION COSTS

PERTH CONSTRUCTION BUILDING SERVICES COSTS

All costs current as at Fourth Quarter 2016.

COST RANGE PER GROSS FLOOR AREA	SPECIAL EQUIPMENT $/M²		HYDRAULIC $/M²		FIRE PROTECTION $/M²	
	LOW	HIGH	LOW	HIGH	LOW	HIGH
OFFICE BUILDINGS						
Prestige, CBD						
10 TO 25 STOREYS (75–80% EFFICIENCY)	20	40	85	115	70	80
25 TO 40 STOREYS (70–75% EFFICIENCY)	10	20	85	115	70	85
40 TO 55 STOREYS (68–73% EFFICIENCY)	5	10	90	115	70	85
Investment, CBD						
UP TO 10 STOREYS (81–85% EFFICIENCY)	-	-	75	95	65	80
10 TO 25 STOREYS (76–81% EFFICIENCY)	10	20	75	95	65	85
25 TO 40 STOREYS (71–76% EFFICIENCY)	5	10	85	105	60	85
Investment, other than CBD						
1 TO 3 STOREYS (81–85% EFFICIENCY)	-	-	60	80	55	80
UP TO 10 STOREYS (82–86% EFFICIENCY)	-	-	60	80	55	80
10 TO 25 STOREYS (77–82% EFFICIENCY)	-	-	85	105	55	80
HOTELS						
Multi–Storey						
FIVE STAR	40	70	235	335	60	90
FOUR STAR	40	75	225	330	60	95
THREE STAR	30	55	215	320	60	95
CAR PARK						
OPEN DECK MULTI–STOREY	-	-	20	30	45	55
BASEMENT: CBD	-	-	35	45	45	60
BASEMENT: OTHER THAN CBD	-	-	25	35	45	55
UNDERCROFT: OTHER THAN CBD	-	-	20	30	45	55
INDUSTRIAL BUILDINGS						
6.00 M to underside of truss and 4,500 M² Gross Floor Area with:						
ZINCALUME METAL CLADDING	-	-	40	65	45	85
PRECAST CONCRETE CLADDING	-	-	50	85	45	85
Attached Air Conditioned Offices						
200 M²	-	-	45	85	45	85
400 M²	-	-	45	65	45	85

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.

MECHANICAL		VERTICAL TRANSPORT		BUILDING MANAGEMENT		ELECTRICAL		TOTAL	
$/M²		$/M²		$/M²		$/M²		$/M²	
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
340	560	140	170	60	90	215	225	930	1,280
340	590	190	205	55	90	215	235	965	1,340
340	600	195	225	60	105	225	255	985	1,395
260	530	120	130	40	70	135	180	695	1,085
280	510	120	180	30	45	140	190	720	1,125
275	510	160	195	25	50	145	195	755	1,150
200	300	-	-	-	-	105	140	420	600
210	330	90	120	25	40	125	170	565	820
240	360	105	140	25	55	150	180	660	920
415	500	150	215	45	100	230	320	1,175	1,630
340	435	140	195	40	85	195	225	1,040	1,440
260	360	105	130	40	85	115	190	825	1,235
-	45	30	85	5	30	35	40	135	285
40	105	30	85	15	35	35	75	200	405
35	105	30	85	15	35	35	60	185	375
-	50	30	85	5	30	35	40	135	290
30	65	-	-	-	25	50	95	165	335
30	65	-	-	-	25	50	95	175	355
230	280	-	-	10	40	105	140	435	630
230	280	-	-	10	35	105	130	435	595

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.

PERTH CONSTRUCTION BUILDING SERVICES COSTS

	SPECIAL EQUIPMENT		HYDRAULIC		FIRE PROTECTION	
COST RANGE PER GROSS FLOOR AREA	$/M²		$/M²		$/M²	
	LOW	HIGH	LOW	HIGH	LOW	HIGH
AGED CARE						
SINGLE STOREY FACILITY	-	-	170	235	70	85
PRIVATE HOSPITALS						
Low Rise Hospital						
45–60 M² GFA/BED	85	130	140	190	50	90
55–80 M² GFA/BED WITH MAJOR OPERATING THEATRE	115	150	170	205	50	90
CINEMAS						
GROUP COMPLEX, 2,000–4,000 SEATS (WARM SHELL)	-	-	55	85	70	90
REGIONAL SHOPPING CENTRES						
DEPARTMENT STORE	30	40	55	85	50	70
SUPERMARKET/VARIETY STORE	40	45	50	80	45	70
DISCOUNT DEPARTMENT STORE	40	45	55	70	45	70
MALLS	-	-	-	-	-	-
SPECIALITY SHOPS	-	-	40	70	45	75
SMALL SHOPS AND SHOWROOMS						
SMALL SHOPS & SHOWROOMS	-	-	75	90	45	75
RESIDENTIAL						
SINGLE AND DOUBLE STOREY DWELLINGS (CUSTOM BUILT)	-	-	85	150	5	8
RESIDENTIAL UNITS						
WALK-UP 85 TO 120 M²/UNIT	-	-	85	160	5	8
TOWNHOUSES 90 TO 120 M²/UNIT	-	-	85	160	5	8
MULTI-STOREY UNITS						
Up to 10 storeys with lift						
UNITS 60–70 M²	5	35	180	225	60	80
UNITS 90–120 M²	5	35	170	225	60	80
Over 10 and up to 20 storeys						
UNITS 60–70 M²	5	35	175	225	65	75
UNITS 90–120 M²	5	35	175	220	60	80
Over 20 and up to 40 storeys						
UNITS 60–70 M²	5	25	205	220	65	80
UNITS 90–120 M²	5	25	200	225	70	80
Over 40 and up to 80 storeys						
UNITS 60–70 M²	5	20	220	215	65	85
UNITS 90–120 M²	5	20	220	215	65	85

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.

MECHANICAL		VERTICAL TRANSPORT		BUILDING MANAGEMENT		ELECTRICAL		TOTAL	
$/M²		$/M²		$/M²		$/M²		$/M²	
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
230	390	-	-	20	45	190	425	680	1,180
510	580	40	70	30	50	225	300	1,080	1,410
620	860	55	85	70	80	255	355	1,335	1,825
450	520	-	-	-	35	105	180	680	910
240	275	-	70	25	40	200	245	600	825
200	230	-	-	25	40	120	190	480	655
200	230	-	-	25	40	130	170	495	625
-	-	-	-	-	-	-	-	-	-
200	305	-	-	-	25	65	115	350	590
40	285	-	-	-	-	65	120	225	570
30	155	-	-	-	35	70	115	190	463
30	165	-	-	-	35	75	115	195	483
30	165	-	-	-	35	75	115	195	483
100	290	20	45	10	25	120	160	495	860
100	270	20	45	10	25	120	150	485	830
160	260	30	40	10	25	115	195	560	855
155	245	30	40	10	25	115	180	550	825
195	300	50	85	10	25	125	210	655	945
180	295	50	85	10	25	120	190	635	925
275	360	130	180	10	25	160	215	865	1,100
265	350	125	185	10	25	155	205	845	1,085

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

PERTH CONSTRUCTION UNIT COSTS

ITEM	CONSTRUCTION RANGE		PER
	LOW	HIGH	
HOTELS			
Multi-Storey (excluding basements)			
FIVE STAR	346,500	470,000	BEDROOM
FOUR STAR	275,000	346,500	BEDROOM
THREE STAR	191,000	265,000	BEDROOM
CAR PARKS			
Based on 30 M² per car			
OPEN DECK MULTI-STOREY	21,000	35,000	CAR
BASEMENT - CBD	50,000	80,000	CAR
BASEMENT - OTHER THAN CBD	40,000	60,000	CAR
UNDERCROFT - OTHER THAN CBD	13,900	20,800	CAR
AGED CARE			
FACILITY	102,000	158,500	BEDROOM
PRIVATE HOSPITALS			
Low Rise Hospital			
45–60 M² GFA/BED	195,000	255,500	BED
55–80 M² GFA/BED	270,000	345,500	BED
CINEMAS			
GROUP COMPLEX, 2,000–4,000 SEATS (WARM SHELL)	1,900	2,300	SEAT
HOUSING			
SINGLE AND DOUBLE STOREY DWELLINGS (CUSTOM BUILT) – 325 M²	300,000	800,000	HOUSE
RESIDENTIAL UNITS (EXCL CARPARK/SITE WORKS)			
TOWNHOUSES (90–120 M²)	147,000	310,000	UNIT
1 TO 3 STOREY UNITS (85–120 M²)	138,250	314,000	UNIT
MULTI STOREY RESIDENTIAL UNITS			
Up to 10 storeys with lift			
UNITS 60–70 M²	286,000	369,000	UNIT
UNITS 90–120 M²	387,000	525,000	UNIT
Over 10 and up to 20 storeys			
UNITS 60–70 M²	309,000	387,000	UNIT
UNITS 90–120 M²	419,500	571,000	UNIT
Over 20 and up to 40 storeys			
UNITS 60–70 M²	336,500	401,000	UNIT
UNITS 90–120 M²	452,000	608,000	UNIT
Over 40 and up to 80 storeys			
UNITS 60–70 M²	382,000	595,000	UNIT
UNITS 90–120 M²	599,000	905,000	UNIT

PERTH CONSTRUCTION SITEWORKS COSTS

LANDSCAPING

	LOW	HIGH	PER
LIGHT LANDSCAPING TO LARGE AREAS WITH MINIMAL PLANTING AND SITE FORMATION BUT EXCLUDING TOPSOIL AND GRASSING.	33,000	47,000	HECTARE
DENSE LANDSCAPING AROUND BUILDINGS INCLUDING SHRUBS, PLANTS, TOPSOIL AND GRASSING.	65	120	M^2
GRASSING ONLY TO LARGE AREAS INCLUDING TOPSOIL, SOWING AND TREATING.	20	30	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.	1,070	1,210	CARSPACE
HEAVY DUTY PAVING TO FACTORY TYPE COMPLEX, LARGE AREA WITH MINIMAL SITE FORMATION, DRAINAGE AND KERB TREATMENT.	2,055	2,420	CARSPACE
LIGHT DUTY PAVING TO SHOPPING CENTRE COMPLEX, LARGE AREA WITH MINIMAL SITE FORMATION, AND INCLUDING DRAINAGE AND KERB TREATMENT.	2,270	2,650	CARSPACE

ROADS

Asphalt finish including kerb, channel and drainage.

	LOW	HIGH	PER
RESIDENTIAL ESTATE 6.80 METRES WIDE EXCLUDING FOOT PATH AND NATURE STRIP.	695	1,125	M
INDUSTRIAL ESTATE 10.4 METRES WIDE INCLUDING MINIMAL TO EXTENSIVE FORMATION.	1,070	1,820	M

PERTH 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	38	47	M^2
SINGLE/DOUBLE STOREY BRICK HOUSE WITH TILED ROOF	45	55	M^2
SINGLE STOREY FACTORY/ WAREHOUSE WITH REINFORCED CONCRETE GROUND SLAB, TIMBER OR STEEL FRAMED WALLS			
• METAL CLAD	47	80	M^2
• BRICK CLAD	55	85	M^2
TWO STOREY OFFICE BUILDING WITH REINFORCED CONCRETE FRAME MASONRY CLADDING AND METAL ROOF	65	95	M^2
MULTI STOREY OFFICE BUILDING UP TO 15 FLOORS WITH MASONRY CLADDING			
• REINFORCED CONCRETE	170	195	M^2
• STRUCTURAL STEEL	180	210	M^2
MULTI-STOREY OFFICE BUILDING UP TO 25 STOREYS, CONSTRUCTED OF STEEL FRAME WITH MASONRY CLADDING	190	220	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
THREE STAR RATING	25,500	44,500	BEDROOM
FOUR STAR RATING	30,000	48,000	BEDROOM
FIVE STAR RATING	42,500	80,000	BEDROOM

PERTH 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	915	1,210	1,210	1,575	M^2
MAJOR COMPANY HEADQUARTERS	1,020	1,395	1,210	1,860	M^2
SOLICITORS, FINANCIERS	1,210	1,865	1,490	2,050	M^2
EXECUTIVE AREAS AND FRONT OF HOUSE	-	-	2,240	2,885	M^2
COMPUTER AREAS	2,335	4,440	-	-	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	1,600	3,000	EACH
SECRETARIAL	2,350	3,400	EACH
TECHNICAL STAFF	1,750	4,000	EACH
EXECUTIVE	2,500	5,000	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 GreenStar 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	795	2,060	M^2
CBD OFFICES CORE UPGRADE (EXCLUDING LIFTS MODERNISATION)	605	1,025	M^2

PERTH 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.	1,700	2,500	M^2

SWIMMING POOL CENTRES

	LOW	HIGH	PER
INCLUDING FOYER, KIOSK, OFFICE, LOCKERS, ADMINISTRATION OFFICES, CHANGE ROOMS.	1,900	2,700	M^2

SWIMMING POOLS

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

	LOW	HIGH	PER
HALF OLYMPIC (25.0 X 12.5 M)	900,000	1,000,000	EACH
• EXTRA FOR HEATING	80,000	140,000	EACH
• EXTRA OVER FILTRATION AND DOSING PLANT FOR OZONE BASED DOSING SYSTEM	180,000	270,000	EACH
• EXTRA FOR WET DECK	50,000	80,000	EACH
OLYMPIC (50.0 X 21.5 M)	1,800,000	1,950,000	EACH
• EXTRA FOR HEATING	180,000	240,000	EACH
• EXTRA FOR FILTRATION AND DOSING PLANT	300,000	500,000	EACH
• EXTRA OVER FILTRATION AND DOSING PLANT FOR OZONE BASED DOSING SYSTEM	100,000	150,000	EACH

SMALL BOAT AND YACHT MARINA BERTHS

Floating pontoon walkways, serviced with power and water.

	LOW	HIGH	PER
DOUBLE LOADED BERTHS	23,500	37,600	BERTH
SINGLE LOADED BERTHS	37,600	56,500	BERTH
SUPER YACHTS	235,000	329,000	BERTH

PERTH 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	46,500	56,000	COURT
RED POROUS (EN-TOUT-CAS)	29,000	37,000	COURT
SYNTHETIC ACRYLIC (FLEXIPAVE)	39,000	47,000	COURT
ASPHALT (5 MM)	30,000	38,500	COURT
REBOUND ACE	82,000	89,000	COURT
CONCRETE	37,500	42,000	COURT
FLOODLIGHTING	35,000	50,000	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	7,190,000	11,515,000	COURSE
SITE REQUIRING ROCK EXCAVATION	11,120,000	14,100,000	COURSE
SWAMPY SITE REQUIRING DREDGING FOR LAKES, ETC. AND EXTENSIVE FILL	14,425,000	20,440,000	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	38	47	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	4,700	8,900	SEAT

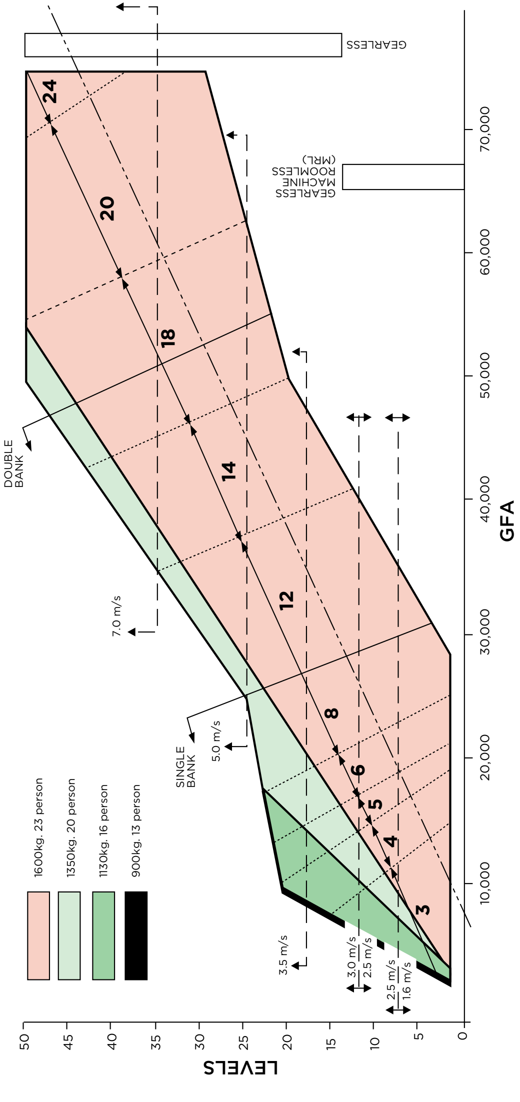
PERTH CONSTRUCTION VERTICAL TRANSPORTATION

LIFT SELECTION CHART

To calculate the number and type of lifts:

- Locate a point on the graph by using the GFA in M^2 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.


1600kg. 23 person
1350kg. 20 person
1130kg. 16 person
900kg. 13 person
LEVELS
GFA
10,000
20,000
30,000
40,000
50,000
60,000
70,000
0
5
10
15
20
25
30
35
40
45
50
3.5 m/s
3.0 m/s
2.5 m/s
2.5 m/s
1.6 m/s
5.0 m/s
7.0 m/s
SINGLE BANK
DOUBLE BANK
GEARLESS MACHINE ROOMLESS (MRL)
GEARLESS
3
4
5
6
8
12
14
18
20
24

PERTH CONSTRUCTION VERTICAL TRANSPORTATION

APPLICATION	LIFT TYPE	SPEED M/S	NO. OF FLOORS SERVED	BASE COST $		ADDITIONAL FLOOR	EXPRESS FLOOR
				LOW	HIGH	RATE	RATE
OFFICE & RESIDENTIAL	ELECTRO-HYDRAULIC PASSENGER	0.5	2	70,000	90,000	5,000	2,000
	GEARLESS TO 17 PASSENGER	1	5	115,000	175,000	5,000	2,000
	GEARLESS UP TO 17 PASSENGER	1.6	8	130,000	195,000	5,000	2,000
	GEARLESS	2.5	10	295,000	355,000	10,000	4,000
	GEARLESS	3.5	10	620,000	730,000	9,000	12,000
	GEARLESS	4	10	670,000	830,000	9,000	12,000
	GEARLESS	5	10	770,000	940,000	9,000	12,000
	GEARLESS	6	10	860,000	1,050,000	9,000	12,000
	GEARLESS	7	10	950,000	1,150,000	9,000	12,500
	GEARLESS	8	10	1,030,000	1,230,000	9,000	12,500
HOSPITAL	GEARED UP TO 40 PASSENGER	2	5	600,000	690,000	15,000	5,000
	GEARLESS	2.5	10	780,000	940,000	15,000	5,000
LARGE GOODS	GEARLESS MRL TO 2,000 KG	1.6	10	345,000	480,000	15,000	5,000
	ELECTRO-HYDRAULIC TO 5,000 KG	0.5	2	445,000	510,000	15,000	5,000
	GEARLESS 2,500 KG	2.5	10	690,000	820,000	15,000	5,000
ESCALATORS	RISE 2,600 TO 5,000 MM	0.5	-	125,000	200,000	-	-
MOVING WALKS	2,500 TO 5,000 MM	0.5	-	135,000	270,000	-	-
SERVICE LIFT	BENCH HEIGHT UNIT	0.2	3	35,000	50,000	5,000	2,000
	LARGER UNIT	0.2	3	50,000	65,000	6,500	2,000
DISABLED PLATFORM LIFT	TO 1,000 MM	0.1	2	30,000	45,000	-	-
	1,000 TO 4,000 MM	0.1	2	45,000	60,000	-	-

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

PERTH DEVELOPMENT

PERTH DEVELOPMENT STAMP DUTIES

Transfer duty applies to dutiable transactions over dutiable property in Western Australia.

Dutiable property is: land in Western Australia, certain rights over dutiable property, business assets and chattels located in Western Australia.

The general rate applies to commercial property, rural property that is not also used as residential property, and vacant land which does not qualify for the residence rate.

Where an eligible dutiable transaction includes residential property and other dutiable property (eg. business assets, commercial land) the entire transaction will be assessed at the residential rate.

Residential property includes primary residences, rental properties and vacant land where building commences within 5 years.

GENERAL RATE OF DUTY

VALUE OF TRANSACTION	RATE OF DUTY
$0–$ 80,000	$1.90 PER $100 OR PART THEREOF
$80,001–$100,000	$1,520 + $2.85 PER $100 OR PART THEREOF ABOVE $80,000
$100,001–$250,000	$2,090 +$3.80 PER $100 OR PART THEREOF ABOVE $100,000
$250,001–$500,000	$7,790 + $4.75 PER $100 OR PART THEREOF ABOVE $250,000
$500,001 UPWARDS	$19,665 +$5.15 PER $100 OR PART THEREOF ABOVE $500,000

RESIDENTIAL RATE OF DUTY

VALUE OF TRANSACTION	RATE OF DUTY
$0–$120,000	$1.90 PER $100 OR PART THEREOF
$120,001–$150,000	$2,280 + $2.85 PER $100 OR PART THEREOF ABOVE $120,000
$150,001–$360,000	$3,135 + $3.80 PER $100 OR PART THEREOF ABOVE $150,000
$360,001–$725,000	$11,115 + $4.75 PER $100 OR PART THEREOF ABOVE $360,000
$725,001 AND UPWARDS	$28,453 + $5.15 PER $100 OR PART THEREOF ABOVE $725,000

Refer to www.finance.wa.gov.au for more details.

PERTH DEVELOPMENT LAND TAX

Land Tax is an annual tax based on the ownership and usage of land owned at midnight on 30 June. Land tax is levied in respect of the financial year immediately following that date.

In general, Land Tax is not levied on the property if it is the principal place of residence.

TOTAL UNIMPROVED VALUE OF LAND	2016/17 TAX RATES
$0 TO $300,000	NIL
$300,001 TO $420,000	FLAT RATE OF $300
$420,001 TO $1,000,000	$300 + 0.25 CENT FOR EACH $1 IN EXCESS OF $420,000
$1,000,001 TO $1,800,000	$1,750.00 + 0.90 CENT FOR EACH $1 IN EXCESS OF $1,000,000
$1,800,001 TO $5,000,000	$8,950 + 1.80 CENTS FOR EACH $1 IN EXCESS OF $1,800,000
$5,000,001 TO $11,000,000	$66,550 + 2.00 CENTS FOR EACH $1 IN EXCESS OF $5,000,000
>$11,000,00	$186,550.00 + 2.67 CENTS FOR EACH $1 IN EXCESS OF $11,000,000

Refer to www.finance.wa.gov.au for more details.

PERTH DEVELOPMENT PLANNING – CAR PARKING

Provisions for all developments in the city are provided in the City of Perth City Planning Scheme No. 2, Version 5, July 2015 (CPS2). This Policy sets out the additional considerations for off-street parking and should be used in conjunction with other planning documents, in particular the City Development Design Guidelines.

Parking for residential development in the Residential Scheme use area are assessed in accordance with the Residential Design Codes and variations to the Residential Design Codes set out in CPS2. As a guide, the following table represents the key residential car parking requirements.

	MINIMUM BAYS PER DWELLING	MAXIMUM BAYS PER DWELLING
CBD AREA	NIL	1.5
AREA TO THE WEST OF MITCHELL FREEWAY AND NORTH OF WELLINGTON ST.	1.0	2.0

The provision of parking for commercial development within the Perth Parking Management Area will be assessed in accordance with the Perth Parking Policy

The amount of parking that can be provided relates directly to the surface area of the lot or lots on which development is situated and not the amount of development in square meters of proposed retail and office uses.

The intention is to create a sustainable limit to the number of tenant parking bays within the central area, regardless of the density of development. The amount of tenant parking that can be provided per hectare of development foot print depends on the category of the street where parked vehicles enter the street system.

As a guide, the following table represents the key non-residential car parking requirements. Full details can be reviewed at http://www.perth.wa.gov.au/planning-development/planning-schemes-and-policies/cps2-planning-policies

	MAXIMUM ALLOWANCE (BAYS PER 10,000 M² OF LOT AREA)	
STREET PRIORITY	**AT GRADE ACCESS**	**INTEGRATED ACCESS**
CATEGORY 1	80 OR REPLACEMENT OF EXISTING LICENSED TENANT PARKING BAYS, WHICHEVER IS LESS	120 OR REPLACEMENT OF EXISTING LICENSED TENANT PARKING BAYS, WHICHEVER IS LESS
CATEGORY 2	100	150
CATEGORY 3	150	200
CATEGORY 4	200	250

PERTH DEVELOPMENT LAND VALUES

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

LOCATION (COSTS PER M^2)	$/$M^2$	
	LOW	HIGH
OFFICES		
CBD OFFICES	3,000	8,000
WEST PERTH	2,500	4,500
RETAIL (EG. 120 M^2)		
HAY STREET MALL	15,000	25,000
CBD – SECONDARY AREAS	2,000	3,500
NEIGHBOURHOOD SHOPPING CENTRE	200	350
SUBURBAN STRIP SHOPPING	200	3,000
INDUSTRIAL (1HA TO 5HA)		
CORE – PRIME	375	525
NORTH – PRIME	300	475
SOUTH – PRIME	175	450
EAST – PRIME	180	475

Prepared in association with Savills.

PERTH 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	WEST PERTH	PRIME
1988	156	140	65
1989	206	170	73
1990	224	189	76
1991	153	162	74
1992	77	59	60
1993	54	44	60
1994	81	49	55
1995	99	55	55
1996	133	125	56
1997	143	158	56
1998	149	176	58
1999	147	176	60
2000	163	182	62
2001	170	185	64
2002	186	193	64
2003	178	195	64
2004	171	186	65
2005	206	205	73
2006	296	277	83
2007	488	388	108
2008	735	575	123
2009	563	457	110
2010	460	360	98
2011	632	497	100
2012	708	527	113
2013	698	500	122
2014	698	500	122
2015	640	475	112
2016	458	353	112

Prepared in association with Savills.

PERTH DEVELOPMENT OFFICE SECTOR DATA

PERTH CBD VACANCY RATES – Q3 2016

PCA GRADE	STOCK M²	VACANCY M²	VAC % JUN–16	VAC % JUN–15
PREMIUM	356,322	59,353	16.7	9.3
PCA GRADE A	726,164	144,661	19.9	15.7
PCA GRADE B	478,667	136,498	28.5	21.7
PCA GRADE C	198,862	41,747	21.0	17.6
PCA GRADE D	8,122	3,044	37.5	49.8
TOTAL	**1,768,137**	**385,303**	**21.8**	**16.6**

Source: PCA/Savills Research.

CURRENT CBD OFFICE DEVELOPMENT ACTIVITY

PROPERTY	PRECINCT	NLA (M^2)	TYPE	STATUS	COMPLETION	MAJOR TENANT
CAPITAL SQUARE 98 MOUNTS BAY RD	WEST CBD	55,000	NEW	UC	JUN-18	WOODSIDE
QV2 SOUTH TOWER 250 ST GEORGES TERRACE	WEST CBD	7,365	NEW	DA	MOOTED	
QV3 NORTH TOWER 250 ST GEORGES TERRACE	WEST CBD	20,565	NEW	DA	MOOTED	
ESPLANADE BUSPORT	MID CBD	17,000	NEW	EP	MOOTED	
LOT 7 & 8 ELIZABETH QUAY	MID CBD	52,355	NEW	EP	MOOTED	CHEVRON (OWNER OCCUPIED)

UC: Under Construction DA: Development Approval EP: Early Planning / Development Application

Source: Cordell/Savills Research.

PERTH DEVELOPMENT OFFICE SECTOR DATA

KEY MARKET INDICATORS – Q3 2016

PERTH CBD	PCA PREMIUM	
	LOW	HIGH
RENTAL – GROSS EFFECTIVE ($/M²)	480	570
RENTAL – NET FACE ($/M²)	600	725
RENTAL – NET EFFECTIVE ($/M²)	315	380
OUTGOINGS – OPERATING ($/M²)	115	125
OUTGOINGS – STATUTORY ($/M²)	50	60
OUTGOINGS – TOTAL ($/M²)	165	185
TYPICAL LEASE TERM (YEARS)	7	10
YIELD – MARKET (% NET FACE RENTAL)	5.75	7.75
IRR (%)	7.50	8.25
CARS PERMANENT RESERVED ($/P.C.M)	675	750
CARS PERMANENT ($/P.C.M)	675	750
OFFICE COMPONENT CAPITAL VALUES ($/M²)	7,750	12,600

WEST PERTH	PCA GRADE A	
	LOW	HIGH
RENTAL – GROSS EFFECTIVE ($/M²)	300	430
RENTAL – NET FACE ($/M²)	250	400
RENTAL – NET EFFECTIVE ($/M²)	155	250
OUTGOINGS – OPERATING ($/M²)	80	90
OUTGOINGS – STATUTORY ($/M²)	65	90
OUTGOINGS – TOTAL ($/M²)	145	180
TYPICAL LEASE TERM (YEARS)	3	5
YIELD – MARKET (% NET FACE RENTAL)	7.50	8.50
IRR (%)	8.50	9.25
CARS PERMANENT RESERVED ($/P.C.M)	300	325
CARS PERMANENT ($/P.C.M)	325	350
OFFICE COMPONENT CAPITAL VALUES ($/M²)	2,950	5,300

Source: Savills Research.

PCA GRADE A		PCA GRADE B	
LOW	HIGH	LOW	HIGH
395	520	275	380
475	650	250	400
250	340	130	210
95	120	95	110
50	60	50	60
145	180	145	170
5	7	3	5
7.00	8.50	8.25	10.00
7.75	8.75	8.00	9.25
625	725	475	625
625	725	475	625
5,500	9,250	2,500	4,800

PCA GRADE B	
LOW	HIGH
250	315
225	275
140	175
50	55
65	90
115	145
3	5
8.25	9.50
8.50	10.50
300	350
300	325
2,400	3,300

PERTH DEVELOPMENT RETAIL SECTOR DATA

KEY MARKET INDICATORS – Q3 2016

PERTH ENCLOSED CENTRES	ENCLOSED CENTRES REGIONAL	
	LOW	HIGH
MAJOR TENANT NET RENTAL ($/M²)	160	240
DDS TENANT NET RENTAL ($/M²)	160	235
SPECIALTY TENANT NET RENTAL ($/M²)	1,050	1,800
YIELD – MARKET (%)	5.00	6.50
IRR (%)	7.50	8.50
OUTGOINGS – OPERATING ($/M²)	80	125
OUTGOINGS – STATUTORY ($/M²)	40	50
OUTGOINGS – TOTAL ($/M²)	140	200
CAPITAL VALUES ($/M²)	5,000	10,500

PERTH RETAIL SHOPS	HAY AND MURRAY ST MALL	
	LOW	HIGH
NET RENTAL ($/M²)	2,300	5,250
YIELD – MARKET (%)	6.00	7.50
OUTGOINGS – OPERATING ($/M²)	50	285
OUTGOINGS – STATUTORY ($/M²)	100	145
OUTGOINGS – TOTAL ($/M²)	150	430
CAPITAL VALUES ($/M²)	5,200	10,500

PERTH BULKY GOODS	LOW	HIGH
TENANT NET RENTAL ($/M²) > 1,000 M²	120	270
YIELD – MARKET (%)	5.50	9.50
IRR (%)	9.00	11.50
OUTGOINGS – OPERATING ($/M²)	35	55
OUTGOINGS – STATUTORY ($/M²)	20	35
OUTGOINGS – TOTAL ($/M²)	55	90
CAPITAL VALUES ($/M²)	1,900	3,000

Source: Savills Research.

SUB REGIONAL		NEIGHBOURHOOD	
LOW	HIGH	LOW	HIGH
150	220	135	220
150	220	NA	NA
600	1,200	350	900
5.75	8.25	6.00	8.50
7.75	9.00	7.50	9.00
75	120	40	80
35	40	30	50
120	120	70	150
2,700	6,500	2,500	5,000

OTHER CBD		SHOPPING STRIP	
LOW	HIGH	LOW	HIGH
650	2,800	400	1,500
6.50	9.00	6.00	9.00
120	170	50	65
45	80	25	35
165	250	75	100
4,200	7,200	4,000	6,500

PERTH DEVELOPMENT INDUSTRIAL SECTOR DATA

KEY MARKET INDICATORS – Q3 2016

PERTH CORE – BELMONT, CANNING VALE, KEW DALE, OSBORNE PARK, WELSHPOOL, JANDAKOT AIRPORT

	PRIME		SECONDARY	
	LOW	HIGH	LOW	HIGH
RENTAL NET FACE ($/M²)	75	105	55	85
YIELD – MARKET (%)	6.50	7.75	7.25	9.00
IRR (%)	8.00	9.25	8.75	9.50
OUTGOINGS – TOTAL ($/M²)	20	40	15	30
CAPITAL VALUES ($/M²)	975	1,600	600	1,175
LAND VALUES 3,000–5,000 M² ($/M²)	375–525			
LAND VALUES 10,000–50,000 M² ($/M²)	275–425			
LAND VALUES 10 HA AND ABOVE ($/M²)	200–325			

PERTH NORTH – BALCATTA, JOONDALUP, MALAGA, WANGARA, LANDSDALE

	PRIME		SECONDARY	
	LOW	HIGH	LOW	HIGH
RENTAL NET FACE ($/M²)	70	100	55	80
YIELD – MARKET (%)	7.25	8.50	7.50	9.25
IRR (%)	8.25	9.25	8.75	9.75
OUTGOINGS – TOTAL ($/M²)	20	40	15	30
CAPITAL VALUES ($/M²)	825	1,375	600	1,075
LAND VALUES 3,000–5,000 M² ($/M²)	300–475			
LAND VALUES 10,000–50,000 M² ($/M²)	100–425			
LAND VALUES 10 HA AND ABOVE ($/M²)	50–325			

PERTH SOUTH – BIBRA LAKE, HENDERSON, JANDAKOT, KWINANA, MYAREE, NAVAL BASE, O'CONNOR, ROCKINGHAM, LATITUDE 32

	PRIME		SECONDARY	
	LOW	HIGH	LOW	HIGH
RENTAL NET FACE ($/M²)	60	95	45	80
YIELD – MARKET (%)	7.25	8.75	7.75	10.00
IRR (%)	8.50	9.75	9.25	10.50
OUTGOINGS – TOTAL ($/M²)	15	35	15	30
CAPITAL VALUES ($/M²)	675	1,300	450	1,025
LAND VALUES 3,000–5,000 M² ($/M²)	175–450			
LAND VALUES 10,000–30,000 M² ($/M²)	125–300			
LAND VALUES 10HA+ ($/M²)	90–200			

Source: Savills Research.

PERTH DEVELOPMENT CONSTRUCTION WORK DONE

ANNUAL VALUE OF CONSTRUCTION WORK DONE IN WESTERN AUSTRALIA

YEAR ENDING	RESIDENTIAL	NON-RESIDENTIAL	ENGINEERING	TOTAL CONSTRUCTION
JUN-1990	1,633	1,277	1,432	4,342
JUN-1991	1,217	947	1,422	3,585
JUN-1992	1,226	643	1,506	3,375
JUN-1993	1,589	722	1,541	3,852
JUN-1994	1,973	867	1,805	4,645
JUN-1995	2,171	782	1,572	4,525
JUN-1996	1,696	820	2,654	5,169
JUN-1997	1,682	1,063	2,684	5,429
JUN-1998	1,954	1,135	3,252	6,341
JUN-1999	2,178	986	3,305	6,469
JUN-2000	2,788	1,210	2,775	6,774
JUN-2001	2,331	1,069	2,257	5,657
JUN-2002	2,660	1,051	3,119	6,831
JUN-2003	3,066	1,311	4,735	9,112
JUN-2004	3,395	1,449	4,881	9,725
JUN-2005	3,959	1,721	6,184	11,865
JUN-2006	5,051	2,018	11,490	18,559
JUN-2007	6,192	2,697	16,227	25,116
JUN-2008	6,809	3,770	19,559	30,139
JUN-2009	7,041	4,647	22,664	34,352
JUN-2010	7,000	4,593	23,513	35,106
JUN-2011	7,289	5,420	25,467	38,177
JUN-2012	6,351	6,169	41,399	53,920
JUN-2013	6,666	5,695	43,744	56,105
JUN-2014	8,214	5,446	43,736	57,396
JUN-2015	9,080	5,250	40,944	55,274
JUN-2016	8,888	4,779	36,255	49,922

Source: ABS 8752.0 & 8755.0 (Current Prices – Original Series – $ millions).

PERTH DEVELOPMENT CONSTRUCTION WORK DONE

ANNUAL VALUE OF NON-RESIDENTIAL BUILDING WORK DONE IN WESTERN AUSTRALIA

YEAR ENDING	COMMERCIAL	INDUSTRIAL	RETAIL	EDUCATION
JUN-2002	239	173	185	198
JUN-2003	281	259	252	157
JUN-2004	316	293	266	200
JUN-2005	365	340	310	203
JUN-2006	363	440	426	235
JUN-2007	447	672	531	351
JUN-2008	737	1,112	674	401
JUN-2009	1,308	1,432	566	427
JUN-2010	1,082	1,109	432	845
JUN-2011	945	1,294	507	1,180
JUN-2012	1,198	1,835	455	561
JUN-2013	987	1,859	514	488
JUN-2014	1,167	1,264	851	592
JUN-2015	1,360	822	776	650
JUN-2016	895	298	641	564

Source: ABS 8752.0 (Original Cost – $ millions).

HEALTH	AGED CARE	HOTELS	OTHER	TOTAL NON-RESIDENTIAL
38	37	34	147	1,051
41	43	59	219	1,311
77	83	74	140	1,449
129	59	123	192	1,721
75	57	123	300	2,018
93	111	149	342	2,697
146	70	204	427	3,770
152	103	143	515	4,647
466	78	110	470	4,593
708	65	161	559	5,420
1,144	64	236	677	6,169
1,127	38	181	500	5,695
942	49	119	462	5,446
600	84	309	651	5,250
367	121	520	861	4,779

PERTH DEVELOPMENT CONSTRUCTION WORK DONE

ANNUAL VALUE OF RESIDENTIAL BUILDING WORK DONE IN WESTERN AUSTRALIA

YEAR ENDING	NEW HOUSES	NEW APARTMENTS & SEMI DETACHED HOUSING	ALTERATIONS & ADDITIONS INCLUDING CONVERSIONS	TOTAL RESIDENTIAL
JUN-1990	1,120	363	150	1,633
JUN-1991	857	212	148	1,217
JUN-1992	872	228	127	1,226
JUN-1993	1,102	346	141	1,589
JUN-1994	1,412	411	150	1,973
JUN-1995	1,520	480	171	2,171
JUN-1996	1,190	323	182	1,696
JUN-1997	1,275	229	177	1,682
JUN-1998	1,548	213	193	1,954
JUN-1999	1,698	265	216	2,178
JUN-2000	2,097	410	282	2,788
JUN-2001	1,684	398	248	2,331
JUN-2002	1,977	396	287	2,660
JUN-2003	2,346	412	308	3,066
JUN-2004	2,569	507	319	3,395
JUN-2005	2,907	677	375	3,959
JUN-2006	3,803	818	430	5,051
JUN-2007	4,514	1,143	535	6,192
JUN-2008	4,687	1,458	664	6,809
JUN-2009	4,722	1,682	638	7,041
JUN-2010	5,006	1,267	727	7,000
JUN-2011	5,076	1,396	817	7,289
JUN-2012	4,620	984	748	6,351
JUN-2013	4,777	1,185	704	6,666
JUN-2014	5,920	1,615	679	8,214
JUN-2015	6,591	1,810	678	9,080
JUN-2016	6,076	2,003	810	8,888

Source: ABS 8752.0 (Original Cost – $ millions).

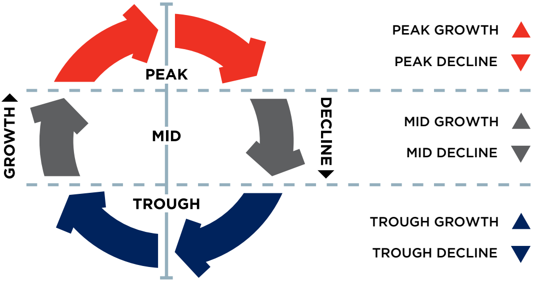
PERTH DEVELOPMENT RLB CONSTRUCTION MARKET ACTIVITY CYCLE

Activity within the construction industry traditionally has been subject to volatile cyclical fluctuations. The RLB Construction Market Activity Cycle represents the construction development activity cycle.

Each RLB office highlights the current construction sector activity position within the market activity cycle of those key construction sectors within their region. Each sector is categorised by three positions within the cycle; Peak, Mid and Trough. Within each position, activity is further defined by either declining or growing within that sector.

The “up” and “down” arrows highlight the current status within the three positions of the cycle by means of the three colours identified in the cycle diagram below.

RLB CONSTRUCTION MARKET ACTIVITY CYCLE



PERTH DEVELOPMENT RLB CONSTRUCTION MARKET ACTIVITY CYCLE

The following tables represent the position of each sector within the RLB Market Activity Cycle. The tables reflect the movement of each sector within the cycle for the period represented.

PERTH	Q2 2015	Q4 2015	Q2 2016	Q4 2016
HOUSES	▲	▼	▼	▼
APARTMENTS	▲	▼	▼	▼
OFFICES	▼	▼	▼	▼
INDUSTRIAL	▲	▲	▲	▲
RETAIL	▲	▲	▲	▲
HOTEL	▲	▲	▲	▲
CIVIL	▼	▼	▼	▼

BENCHMARKS

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 2016. For towns or cities outside capital cities, costs can be expected to vary in accordance with the following table of indices:

NEW SOUTH WALES		QUEENSLAND		WESTERN AUSTRALIA	
SYDNEY	100	BRISBANE	100	PERTH	100
ARMIDALE	105	CAIRNS	105	ALBANY	108
COFFS HARBOUR	100	GLADSTONE	125	BROOME	140
NEWCASTLE	99	GOLD COAST	95	BUNBURY	103
ORANGE	106	MACKAY	114	CARNARVON	140
TAMWORTH	102	SUNSHINE COAST	95	ESPERANCE	125
WAGGA WAGGA	106	TOWNSVILLE	108	GERALDTON	105
WOLLONGONG	100			KALGOORLIE	120
				KUNUNURRA	170
				PORT HEDLAND	145
				TOM PRICE	160

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 2016

RLB's Key City Relativity Matrix highlights the cost relativity between key Australian cities. The Relativity Matrix compares the cost of a range of building types in a standardised form based on tender prices. Each column represents a base city indexed to 100 with other city's relativities reindexed to that base city.

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

Base city (C_b), divided by the Relativity of city to be compared with (C_r) i.e. (C_b/C_r)-1

For example, when comparing costs between Sydney and Perth, Sydney building costs are generally 11% more than Perth.

i.e (100/90)-1=~11.1%

If the tendered price of a similar building in Sydney was $1,000,000, the equivalent cost in Perth would be $900,000 or conversely a $1,000,000 building in Perth would cost $1,110,000 in Sydney.

i.e $1{,}000{,}000 \times \frac{100}{90} = \sim 1{,}111{,}000.$

ADELAIDE 100		BRISBANE 100		CANBERRA 100		DARWIN 100		GOLD COAST 100	
BNE	98	ADE	102	ADE	93	ADE	89	ADE	111
CAN	107	CAN	110	BNE	91	BNE	87	BNE	109
DAR	112	DAR	114	DAR	104	CAN	96	CAN	119
GC	90	GC	92	GC	84	GC	80	DAR	124
MEL	104	MEL	107	MEL	97	MEL	93	MEL	116
PER	105	PER	108	PER	98	PER	94	PER	117
SYD	116	SYD	119	SYD	108	SYD	104	SYD	129
TVE	99	TVE	101	TVE	92	TVE	89	TVE	110

MELBOURNE 100		PERTH 100		SYDNEY 100		TOWNSVILLE 100	
ADE	96	ADE	95	ADE	86	ADE	101
BNE	94	BNE	93	BNE	84	BNE	99
CAN	103	CAN	102	CAN	92	CAN	108
GC	86	GC	86	GC	77	GC	91
DAR	107	DAR	106	DAR	96	DAR	113
PER	101	MEL	99	MEL	89	MEL	105
SYD	112	SYD	111	PER	90	PER	106
TVE	95	TVE	94	TVE	85	SYD	118

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.

TYPE OF CBD OFFICE BUILDING	EFFICIENCY		
	BASEMENTS AND CAR PARKS		
	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/M³
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.

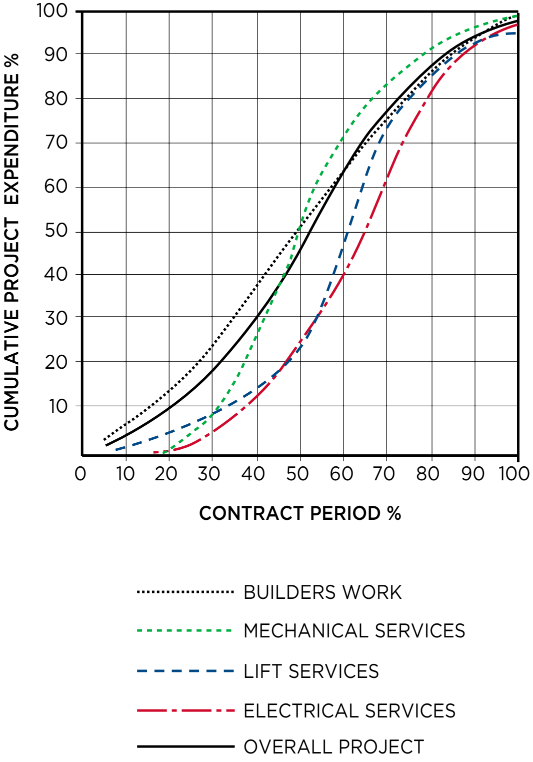
The figures are relevant to all works constructed by traditional methods; variations to these methods will change the ratios, i.e. on-site fabrication of items traditionally factory fabricated such as joinery fittings, metalwork items, etc.

Trade	Labour	Material	Fixed Factor
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

AA	Architects Advice
ABIC	Australian Building Industry Contracts
AI	Architects Instruction
AIA	Australian Institute of Architects
BCA	Building Code of Australia
BOQ	Bill of Quantities
BP	Building Permit
BS	Building Surveyor
CA	Contract Administration
CAN	Consultants Advice Notice
DA	Development Application
DD	Design Development
DWG	Drawing (also an Autocad file format)
EBD	Evidence Based Design
ESD	Environmentally Sustainable Design
PI	Professional Indemnity (Insurance)
PM	Project Manager
QS	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
ENS	Ensuite
EX	Existing
FC	Fibre Cement (Sheet)
FCL	Finished Ceiling Level
FFL	Finished Floor Level
FR	Fire Rated
GFA	Gross Floor Area
HMR	Highly Moisture Resistant (Particleboard)
KDHW	Kiln Dried Hardwood
MDF	Medium Density Fibreboard
PB	Plasterboard
RL	Relative Level
SS	Stainless Steel
TYP	Typical
VOC	Volatile Organic Compound
WC	Water Closet (Toilet)

LAND SURVEYS

AHD	Australian Height Datum
AMG	Australian Mapping Grid
DP	Downpipe
IL	Invert Level
U/G	Underground
RL	Relative Level

STRUCTURAL DRAWINGS

CFW	Continuous Fillet Weld
CHS	Cylindrical Hollow Section
CJ	Construction Joint
EA	Equal Angle
PFC	Parallel Flange Channel
RB	Roof Beam
RHS	Rectangular Hollow Section
SB	Sill Beam
SHS	Square Hollow Section
TB	Tie Beam
UA	Unequal Angle
UB	Universal Beam
UC	Universal Column
WT	Wall Tie

HYDRAULIC DRAWINGS

DCW	Domestic Cold Water
DHW	Domestic Hot Water
FH	Fire Hydrant
FHR	Fire Hose Reel
FIP	Fire Indicator Panel
FS	Fire Service
FW	Floorwaste
HWS	Hot Water System
TD	Tundish
TMV	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
CU	Condensing Unit
FCU	Fan Coil Unit
FD	Fire Damper
R/A	Return Air
S/A	Supply Air
SD	Smoke Damper

ELECTRICAL DRAWINGS

DB	Distribution Board
DGPO	Double General Power Outlet
GPO	General Power Outlet
MSB	Main Switchboard
RCD	Residual Current Device
SB	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 (M^2).

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:
  - 3.2.2.1 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, and,
  - 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 parking, and;
- 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)

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

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 centers, 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 M^2 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. To date this has involved 34 countries, plus EuroFM and Global FM, looking at Terms and Definitions and Guidance on strategic sourcing and the development of agreements. Now designated ISO 41000, work has commenced on a Management Systems Standard for FM.

Separately, there was the release in 2014 of the ISO 55000 series for **Asset Management (AM)**. This comprises three parts: Overview, principles and terminology; Management systems requirements; and Guidelines for the application of *the standard*. 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, and
- 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 the Australian context.

Recent internationally publications have included the IFMA Foundation's "Work on the Move 2" (2016), IFMA's "FM Outlook" (2016) and "FM Outsourcing" (2016).

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

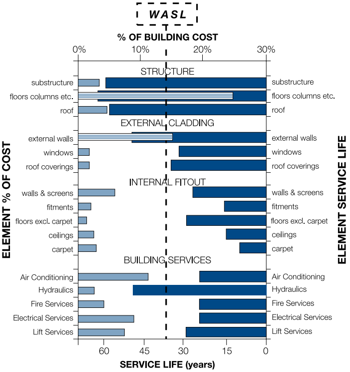
ASSETS AND FACILITIES USEFUL LIFE ANALYSIS

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.

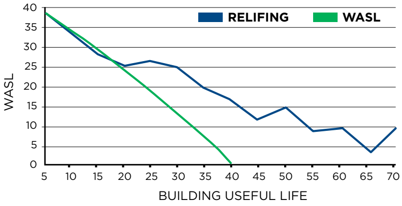
WEIGHTED AVERAGE SERVICE LIFE

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.

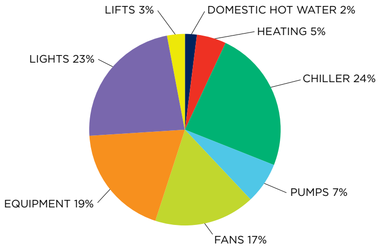
The level of recovery of outgoings is normally governed and regulated by leases and other agreements with tenants.

The cost of outgoings varies depending upon:

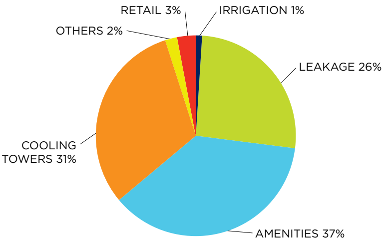
- the level of management and services provided
- lease agreements
- quality, type and efficiency of the building
- location and statutory regimes applicable

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.

	VIC	QLD	NSW	SA	TAS	ACT	WA
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
CERTIFICATE REQUIRED TO BE FORWARDED TO AN AUTHORITY	✗	✓	✓	✓	✗	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 2006 Part 12

QLD Queensland Fire and Rescue Service Amendment Act 2006

NSW Environmental Planning and Assessment Regulations 2000

SA SA Development Act 1993 & Minister's Specifications SA 76

TAS Fire Services Act 1979 & General Fire Regulations 2010

ACT ACT Emergencies Act 2004

WA No specific legislation

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.

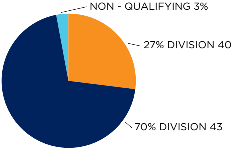
Division 43 – Capital Allowances
Capital allowances are the Building Allowance and Structural Improvement deductions that are available for buildings. Depreciating rates are either 2.5% or 4% dependent on the use of the building and construction commencement date.

The ATO issued the latest effective life review of assets under TR2016/1 which came into effect on the 1st July 2016.

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.

TOTAL ALLOWANCES ($)



Typical percentage apportionment of depreciation allowances based on new $300m Commercial Office Tower 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 INSTALLATIONS	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	5	10
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	10	20
HOTELS, MOTELS		
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 apply with the following additions:		
FLOATING TIMBER FLOORS	10	20
FURNITURE, FREESTANDING	10	20
INDUSTRIAL		
Generally, the list for office buildings will apply with the following additions:		
CRANES	5	10
GANTRIES	3	6
DOCK LEVELLERS	5	10
INFLATABLE DOCK SEALS	10	20
RESIDENTIAL		
EFFECTIVE FROM 1ST JULY 2004		
FLOOR COVERINGS:		
CARPET	10	20
FLOATING TIMBER	6.667	13.333
Hotwater 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

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CALENDARS

CALENDARS 2016 – 2019

2016

JANUARY 2016

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
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FEBRUARY 2016

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MARCH 2016

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APRIL 2016

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MAY 2016

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JUNE 2016

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JULY 2016

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AUGUST 2016

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SEPTEMBER 2016

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OCTOBER 2016

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NOVEMBER 2016

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DECEMBER 2016

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2017

JANUARY 2017

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FEBRUARY 2017

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MARCH 2017

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APRIL 2017

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MAY 2017

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JUNE 2017

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JULY 2017

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AUGUST 2017

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SEPTEMBER 2017

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OCTOBER 2017

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NOVEMBER 2017

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2018

JANUARY 2018

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FEBRUARY 2018

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MARCH 2018

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APRIL 2018

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MAY 2018

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JUNE 2018

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JULY 2018

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AUGUST 2018

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SEPTEMBER 2018

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OCTOBER 2018

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NOVEMBER 2018

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2019

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FEBRUARY 2019

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MARCH 2019

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MAY 2019

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JUNE 2019

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JULY 2019

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AUGUST 2019

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SEPTEMBER 2019

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OCTOBER 2019

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NOVEMBER 2019

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DECEMBER 2019

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CALENDARS 2017
ROSTERED DAYS OFF

	ADELAIDE	BRISBANE & DARWIN
BASIS	**CFMEU EBA**	**CFMEU EBA**
HOURS BASIS	36	36
JAN	FRI 27	MON 3
	MON 30	TUE 4
		WED 5
		THU 6
		FRI 27
FEB	MON 13	MON 20
	MON 27	
MAR	TUE 14	MON 20
	WED 15	
APR	THU 13	TUE 18
	TUE 18	WED 19
	MON 24	THU 20
		FRI 21
		MON 24
MAY	MON 15	MON 29
	MON 29	
JUNE	TUE 13	MON 26
	WED 14	
JUL	MON 10	MON 17
	MON 24	
AUG	MON 14	MON 14
	MON 18	TUE 15
SEP	MON 11	MON 11
	MON 25	
OCT	MON 3	TUE 3
	TUE 4	
	MON 30	
NOV	MON 13	MON 6
	MON 27	TUE 7
		THU 8
DEC	THU 21	MON 4
	FRI 22	WED 27
		THU 28
		FRI 29
TOTAL	**26**	**26**

CANBERRA	MELBOURNE	PERTH	SYDNEY
CFMEU EBA	**CFMEU EBA**	**AWARD**	**CFMEU EBA**
36	36	38	36
TUE 3	TUE 10	FRI 27	FRI 27
WED 25	FRI 27		
FRI 27			
MON 6	MON 6	MON 13	MON 27
MON 20	MON 20		
TUE 14	TUE 14	TUE 7	MON 27
MON 27	MON 27		
TUE 18	TUE 18	MON 24	MON 24
FRI 21	WED 19		
MON 24	MON 24		
MON 8	MON 8	MON 15	MON 22
MON 22	MON 22		
TUE 13	TUE 13	TUE 6	TUE 13
MON 26	MON 26		
MON 10	MON 10	MON 3	MON 17
MON 24	MON 24		
MON 14	MON 7	MON 28	MON 14
MON 28	MON 21		
MON 11	MON 4	MON 25	MON 11
FRI 22	MON 18		
TUE 3	MON 2	MON 30	TUE 3
MON 16	MON 16		
MON 6	MON 6	MON 27	MON 6
MON 20	WED 8		
	MON 20		
MON 11	WED 27	FRI 22	MON 4
WED 27	THU 28		TUE 5
			WED 27
26	**26**	**13**	**13 FIXED & 13 VARIABLE**

CALENDARS
PUBLIC HOLIDAYS IN AUSTRALIA

ALL STATES	2017	2018	2019
New Years Day	1 & 2 JAN	1 JAN	1 JAN
Good Friday	14 APR	30 MAR	28 MAR
Easter Monday	17 APR	2 APR	2 APR
Anzac Day	25 APR	25 APR	25 APR
Queens Birthday (excl. QLD & WA)	12 JUN	11 JUN	11 JUN
Christmas Day	25 DEC	25 DEC	25 DEC
Boxing Day	26 DEC	26 DEC	26 DEC
A.C.T			
Canberra Day	13 MAR	12 MAR	11 MAR
Easter Saturday	15 APR	31 MAR	29 APR
Easter Sunday	16 APR	1 APR	30 APR
Family and Community Day	25 SEP	24 SEP	30 SEP
Labour Day	2 OCT	1 OCT	7 OCT
QUEENSLAND			
Easter Saturday	15 APR	31 MAR	29 APR
Labour Day	1 MAY	7 MAY	6 MAY
Royal Queensland Show	16 AUG	15 AUG	14 AUG
Queens Birthday	2 OCT	1 OCT	7 OCT
NEW SOUTH WALES			
Easter Saturday	15 APR	31 MAR	29 APR
Easter Sunday	16 APR	1 APR	30 APR
Bank Holiday	7 AUG	6 AUG	5 AUG
Labour Day	2 OCT	1 OCT	7 OCT
NORTHERN TERRITORY			
Easter Saturday	15 APR	31 MAR	29 APR
May Day	1 MAY	7 MAY	6 MAY
Picnic Day	7 AUG	6 AUG	5 AUG
QUEENSLAND			
Easter Saturday	15 APR	31 MAR	29 APR
Labour Day	1 MAY	7 MAY	6 MAY
Royal Queensland Show	16 AUG	15 AUG	14 AUG
Queens Birthday	2 OCT	1 OCT	7 OCT
SOUTH AUSTRALIA			
Easter Saturday	15 APR	31 MAR	29 APR
Adelaide Cup Day	13 MAR	12 MAR	11 MAR
Labour Day	2 OCT	1 OCT	7 OCT
TASMANIA			
Royal Hobart Regatta	13 FEB	12 FEB	11 FEB
Launceston Cup	22 FEB	28 FEB	27 FEB
Eight Hours Day	13 MAR	12 MAR	11 MAR
Easter Tuesday	18 APR	3 APR	2 MAY
Launceston Show	12 OCT	11 OCT	10 OCT
Hobart Show	26 OCT	25 OCT	24 OCT
Recreation Day (Northern)	6 NOV	5 NOV	4 NOV
VICTORIA			
Labour Day	13 MAR	5 MAR	11 MAR
Easter Saturday	15 APR	31 MAR	29 APR
Easter Sunday	16 APR	1 APR	30 APR
Grand Final Eve Day	29 SEP	28 SEP	27 SEP
Melbourne Cup Day	7 NOV	6 NOV	5 NOV

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