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What does it contain? - an overview

- Building costs, with each chapter giving increasing amounts of detail;
- Labour constants to aid in building up your own estimating rates;
- Construction indices for labour and materials, used in increased costs calculations;
- Details of how to build up your own labour charge out rates, including how to allow for holidays, sick time, Kiwisaver, insurances, overheads, to arrive at a charge out rate relevant to your business;
- Some indicative international costs;
- Construction management information, a list of legislation affecting the building and property industry, a section covering tax considerations for building owners, and a section covering weights, measures and charts
- Index – a full book style concept index

Is it similar to the Rawlinsons Handbook

The contents of *QV costbuilder* closely resemble the contents of the Rawlinsons NZ Construction Handbook, upon which it is based. If you have used the CD/pdf version of the Rawlinsons Handbook, then what you see in *QV costbuilder* will be very familiar.

How many cities does it cover?

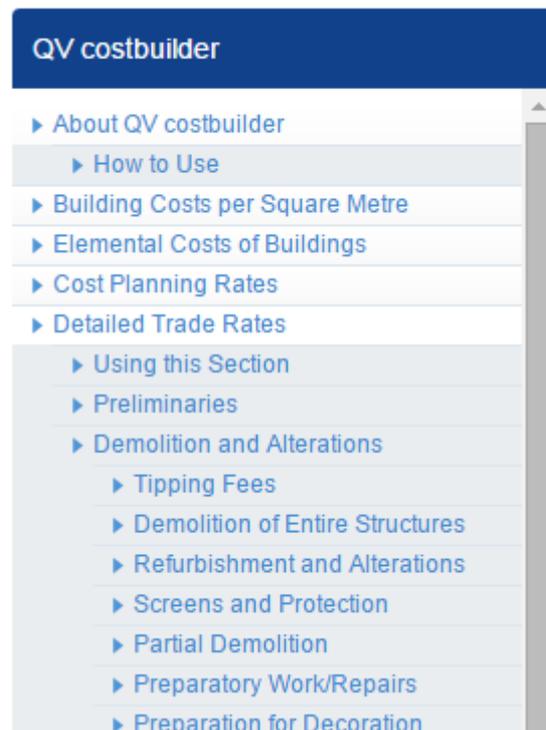
There are now six cities available: the original four; Auckland, Wellington, Christchurch and Dunedin, plus two more; Hamilton and Palmerston North.

Sidebar navigation/contents

'Bookmarks' are used to navigate and drill down to further levels of information that closely resemble the structure of a traditional table of contents.

Clicking on the arrows beside items will expand those items to reveal sub-headings, and where they exist in any given section, sub-sub-headings.

Clicking on these items will cause the main screen to navigate to that section.



What does it contain? – in detail

Building costs

Building costs per square metre

This section gives the average cost range for base building costs for a wide selection of typical buildings. Whilst square metre costs are recommended for use in initial feasibility studies only, they also provide the base figure in the valuation of buildings.

Types of buildings covered in this section include: administration and civic buildings, banks, primary, secondary and tertiary education buildings, entertainment, healthcare, hospitality, industrial, offices, parking, primary industry, recreational, residential, devotional, retail and miscellaneous.

The costs EXCLUDE: land, demolition of prior structures, landscaping and major earthworks, utilities further than 3m from the building, balconies and covered ways, professional and legal fees, and GST. Rates should be adjusted for factors specific to the site, usage and customer requirements.

This section has a template of a worked example that demonstrates taking a base building cost, and adding for site specific conditions, utilities to public connections, contingencies, inflation, fees, etc.

Below is an example of the type and level of detail of information included in this section:

Residential			
	Unit	Auck \$	Wg
House, One Storey			
House, 90-130m². Concrete slab or particle board floor. Kitchen, bathroom, WC. Fibre-cement weather boards, galvanised steel roof. Standard quality fittings	m ²	1,475- 1,675	1,4 1,
House, 90-130m². Rental or Investment Type. Concrete floor slab, kitchen, bathroom, WC. Brick cladding. Standard quality fittings	m ²	1,550- 1,750	1,4 1,
House, 100-250m². Concrete floor slab, kitchen, bathroom, WC, ensuite. Colorsteel [®] roof. Medium quality fittings			
Weatherboard cladding. Linea	m ²	1,750- 1,950	1,4 1,
Weatherboard cladding. cedar or pine	m ²	1,750-	1,4



Elemental costs of buildings

This section shows an elemental breakdown, both by percentage and by \$ per m² of gross floor area (GFA), for a selected set of the building costs per square metre. The 'elements' are for these purposes, functional parts of a building, in accordance with "Elemental Analysis of Costs of Building Projects", published by the New Zealand Institute of Quantity Surveyors Inc.

Elements are described further under the 'Definition of Elements' heading, and full details are available from the NZIQS. The elements are grouped in major headings of Structure, External Fabric, Internal Finishing, Services, and External Works & Sundries.

The purpose of this section is to give the user a breakdown of the costs per m², giving the user the ability to analyse or amend as required the costs of any particular element. For instance, if a site has soft ground, then the percentage or cost per m² for the Site Preparation and Substructure elements can be increased as required to cover the additional cost that may be required.

There is a worked example to explain the philosophy behind this section, and also to demonstrate the effects on the \$ per m² of GFA rates when multi-storey buildings are the subject, as these can give odd-looking results until you remember that the rates are per m² of gross floor area. So the rate for a roof of a multi-storey building will have a lower cost (relative to the gross floor area) than will a single storey building.

Below is an example of the type and level of detail of information included in this section:

Classroom Buildings

	Primary, single storey		Secondary, Classrooms, maximum 2-storey	
Site Preparation	23.86	1.1%	0.00	0.0%
Substructure	227.05	10.3%	132.30	6.3%
Frame	144.84	6.6%	159.60	7.6%
Structural Walls	49.03	2.2%	56.70	2.7%
Upper Floors	0.00	0.0%	98.70	4.7%
Structure	444.78	20.2%	447.30	21.3%
Roof	253.05	11.5%	153.30	7.3%



Cost planning rates

The rates in this section are intended to be used as estimating or cost planning rates, for budgets and feasibility studies. Rates are compiled using a combination of detailed trade rates together with appropriate quantities, to arrive at composite rates. For instance, a rate for foundation beams will include excavation incorporating working space, backfill, disposal of surplus excavated material, formwork, reinforcing steel and concrete.

Some items include the details of the build-up, and some items include alternative methods of presenting the information, for instance, m3 rates and lineal metre rates for concrete footings.

The element headings in this section are:

▶ Cost Planning Rates
▶ Using this Section
▶ Site Preparation
▶ Substructure
▶ Frame
▶ Structural Walls
▶ Upper Floors
▶ Roof
▶ Exterior Walls, Exterior Finish
▶ Windows and Exterior Doors
▶ Stairs and Balustrades
▶ Partitions
▶ Interior Doors
▶ Floor Finishes
▶ Wall Finishes
▶ Ceiling Finishes
▶ Sanitary Plumbing
▶ Mechanical Services
▶ Fire Services
▶ Electrical Services
▶ Vertical/Horizontal Transportation
▶ Drainage
▶ Exterior Works
▶ Preliminaries

Below is an example of the type and level of detail of information included in this section:

▶ Substructure
▶ Piling
▶ Foundations
▶ Isolated Base Foundations
▶ Floor Slabs on Grade
▶ Additional Filling Under Floor Slabs
▶ Suspended Floor Slabs
▶ Underslab Service Ducts
▶ Lift and Escalator Pits
▶ Tanking and Protection
▶ Residential Floors, Timber
▶ Residential Footings, Concrete
▶ Residential Floors, Concrete
▶ New Foundations, TC1 and TC2
▶ New Foundations, TC3

900mm dia, permanent	0.50	m	1,050.00	1,040.00	1,06
Foundations					
Strip Footing, 25MPa concrete, reinforcing 100kg/m3, formwork, shallow excavation	13.48	m3	1,640.00	1,510.00	1,67
Rate Breakdown					
Excavate, remove surplus, return fill	0.35	m3	141.00	125.00	15
Site concrete to base of excavation	0.90	m3	153.00	139.00	14
25MPa concrete	1.68	m3	376.00	351.00	34
Formwork to sides	8.40	m3	563.00	509.00	61
Reinforcing steel	2.14	m3	402.00	383.00	42
Total	13.48	m3	1,635.00	1,507.00	1,67
Rate per Lineal Meter, including formwork					
300mm wide x 300mm deep	1.21	m	147.00	136.00	15

Detailed trade rates

The Detailed Rates section gives indicative rates for reasonable quantities of work, applying to projects in the \$1,000,000 to \$5,000,000 range, with average site conditions.

Rates are for the completely installed item of work, including overheads and profit. Wherever possible, rates are built up from 'first principles', in accordance with standard estimating practice, and in accordance with the following generic rate structure.

- Material supply, with average trade discounts applied--these vary
- Delivery of materials to site, allowance for waste
- Fixings and consumables--nails/screws/glue/etc
- Labour to install, generally at labour constants detailed in Labour Constants section
- Allowance for small tools and hand plant
- Overheads and profit

The trade headings included in this section are:

Detailed Trade Rates	
▶ Using this Section	▶ Steel Framing
▶ Preliminaries	▶ Insulating Panel Systems
▶ Demolition and Alterations	▶ Proprietary Cladding Systems
▶ Excavation	▶ Roof Coverings
▶ Piling	▶ Plumbing
▶ Concrete Work	▶ Gasfitting
▶ Formwork	▶ Drainage
▶ Precast Concrete	▶ Mechanical Services
▶ Reinforcing Steel	▶ Fire Protection
▶ Structural Steelwork	▶ Lifts and Escalators
▶ Waterproofing	▶ Electrical Services
▶ Brickwork	▶ Solid Plaster
▶ Concrete Blockwork	▶ Plasterboard Linings
▶ Masonry	▶ Suspended Ceilings
▶ Metalwork	▶ Tiling
▶ Carpentry	▶ Resilient Flooring
▶ Hardware	▶ Painting & Specialist Finishes
▶ Laminated Timber	▶ Glazing
▶ Joinery	▶ Fire Proofing
▶ Windows	▶ External Works
▶ Doors	▶ Infrastructure
▶ Partitions	▶ Specialist Fittings
▶ Steel Framing	

Below is an example of the type and level of detail of information included in this section:

Framing Floor, H1.2, KD, SG8	Hrs	Unit	Auck \$	Wgtn
Ground Floor Joists, T7.1				
150mm x 40mm/ 140mm x 35mm	0.13	m	12.30	12.0
100mm x 50mm/ 90mm x 45mm	0.13	m	10.70	10.4
150mm x 50mm/ 140mm x 45mm	0.15	m	14.60	14.4
200mm x 50mm/ 190mm x 45mm	0.16	m	17.30	17.4
250mm x 50mm/ 240mm x 45mm	0.16	m	19.80	20.4
300mm x 50mm/ 290mm x 45mm	0.16	m	23.10	22.9
Mid Floor Joists, T7.1				
100mm x 40mm/ 90mm x 35mm	0.15	m	11.60	11.0
150mm x 40mm/ 140mm x 35mm	0.15	m	13.40	12.8



Labour constants;

The labour constants are for the major items of "on-site" works for which rates are given in the "Detailed Trade Rates" section. The constants are intended as an average guide only, and 'labour factor' could be considered a better term, as the labour content of work items can vary considerably depending on the circumstances.

Each contractor will have their own opinion as to what the "constant" should be, especially with regard to variables such as the type of job, site conditions, location and scope for mechanical plant use.

Constants are expressed as hours per unit of measure, e.g., 1 hour per m², or 7 hours per No (each).

For ease of calculation, parts of hours are expressed in decimals, not in minutes. For example; 1.50 hours = one and a half hours; 1.80 hours = one and eight tenths hours, or one hour and 48 minutes.

Construction indices

This section includes several indices, including the Labour Cost Index and the Producers Price Index that are both referenced in the NZIA and NZS3910 cost indexation formulae. In recent times, Statistics NZ have produced a Canterbury labour index, and this is now included. The indices are presented as index numbers, with an annual percentage change column now included.

An example of the indexation formula calculation is included.

Labour constants;

This section details of how to build up labour charge out rates, including adding for holidays, sick time, Kiwisaver, insurances, overheads, to arrive at a charge out rate relevant to your business.

International costs

This is an overview of some building costs for various countries, represented in their local currency.

- Australia
- Canada
- Fiji
- Hong Kong
- Japan
- Malaysia
- Papua New Guinea
- Singapore
- South Africa
- Thailand
- United Kingdom
- United States of America
- Vanuatu



Construction management information

This section covers various aspects of building cost management processes.

The topic headings included in this section are:

▶ Construction Management
▶ Cost Planning Procedures
▶ Design Documentation
▶ Cost Management
▶ Specifications
▶ Measurement of Buildings
▶ Feasibility Studies
▶ Contractual Systems
▶ Contract Conditions
▶ Retentions
▶ Construction Periods
▶ Cash Flow
▶ Contract Insurances
▶ Property Insurance
▶ Insurance Valuations
▶ Operating Costs of Buildings
▶ Life Cycle Costing
▶ Professional Fees
▶ Value Management

Legislation affecting the building and property industry

This section covers a list of Acts of Parliament that affect the building and property industry.

Tax considerations for building owners

This section discusses taxation matters pertaining to building and owning property, including tax depreciation rates.

The topic headings included in this section are:

▶ Tax
▶ Revenue Recognition
▶ Income Tax--Land Sales
▶ Goods and Services Tax
▶ Annual Warrants of Fitness
▶ Other Taxes
▶ Tax Depreciation

