

ALL AUSTRALIAN ARCHITECTURE

Guide to Preparing a Building Budget

INTRODUCTION

This guide has been prepared to assist the home owner in understanding and establishing a suitable & realistic budget for their renovation project or new home.

It is suggested that you discuss this guide with your architect before beginning the design process.

Once you have a design and sketch plans to a sufficient level of detail we suggest you have a specific costing prepared by either a builder, quantity surveyor (QS) or building cost estimator. This should be prepared prior to any council submission on projects that are cost sensitive.

Why is an accurate budget important?

Along with the fabric of your existing home, your site and councils' building controls, your building budget is a major constraint within which we design.

It is important to consider your budget options carefully as different development approaches and budget amounts can result in very different design results.

For example, if a workable budget is not clear at the starting point (i.e. too low) then many good design opportunities may be discarded because they are feared as too expensive. When this occurs it may be difficult to achieve the desired brief even when the budget is adjusted later.

What guides your budget?

The budgets for most renovations or new home projects are determined by the chosen design approach. Below are some typical examples;

Investment budget

This approach is concerned with maximising the rental return or rentability of an investment property. It may also

be concerned with achieving long term capital growth, whilst minimising ongoing running and maintenance costs.

Development budget

This approach is primarily concerned with resale profit immediately following or up to 2 years after completion. In this budget the brief is formulated and costed to achieve this profit.

Capitalisation conscious budget

This budget is capped to avoid the risk of overcapitalisation on the property, which may arise if the money spent improving the property added to its current value exceeds the likely resale value. The risk of overcapitalisation depends very much on the location of the property, the quality of the work done, the amenity added and the health of the market during the time it takes to complete.

Affordability budget

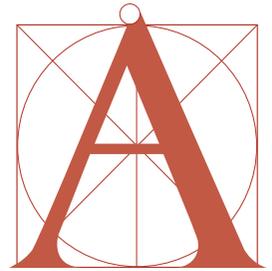
This budget is concerned with making the best use of the limited funds available and requires a design that achieves excellent value for money. On these kinds of projects the scope of the brief is restricted by the budget.

Staging budget

A staged budget approach comes about because the entire budget for the desired design is not available in one lump sum, but may be available in two or more installments. The brief for this kind of project is then concerned with creating a masterplan design that can be completed in stages. Note: Because council approvals don't last indefinitely, all stages should be started within 2-5 years of the approval.

No budget

For many projects the final budget is born out of the brief and the architects design - not driven by the budget. This is not to say the budget is limitless - simply that amenity, style, features and finish take precedence over cost.



ALL AUSTRALIAN
ARCHITECTURE

Suite 206, 20 Dale St
Brookvale NSW 2100

M: 04 12 348 575

info@aaarchitect.com.au

www.aaarchitect.com.au

ABN 95 492 673 232

Guide to Preparing a Building Budget

Adam Pressley FRAIA
Nominated Architect
NSW Reg. No. 6007



Member
Australian Institute
of Architects

Guide to Preparing a Building Budget

Budgets in Summary:

Most budgets are determined with the assistance of other experts, such as;

- Real estate agents
- Banks and mortgage brokers
- Investment consultants and solicitors
- Builders and building cost estimators
- Your architect

Once you have decided on the type of budget you have, you will find out the amount of budget a bit easier.

What building options do I have to meet my budget?

Your options will vary depending on whether you are renovating or building new.

Project Homes:

These are homes which are designed to be built in large numbers from a range of off-the-shelf designs.

Advantages:

- Represent excellent value for money
- Are very affordable

Disadvantages:

- Not designed to suit your block
- The design doesn't take into account factors such as orientation to the sun, views, neighbours, etc..
- Can usually only be built on level or near level sites
- Not specifically designed to be 'in-keeping' with area
- Usually have a shorter effective life
- Can only be used to build new homes, not renovations or additions
- Many are considered ugly and their style can be very 'in' at the time they are built, but date quickly
- Always cheaply built
- Easily recognised so they have a reduced resale value

Design and construct projects:

This is where a building company quotes to build or renovate your home and includes the design as a package. It is a good way of knowing what the final costs are from the beginning and some of the better ones use architects for the design work.

Advantages:

- Are designed specifically for your site and needs
- Total cost includes the design process
- Saves you the time and trouble of finding a builder and going to tender

Disadvantages:

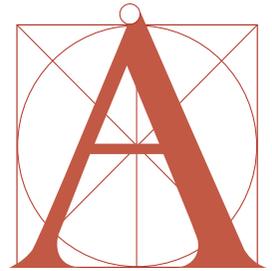
- They are designed more for profitability than for good design, quality or aesthetics
- You get a design that you must build with this builder - no tendering or taking the design elsewhere
- Not every style of home is suitable for this kind of service i.e. some companies just do upper level additions to certain types of homes only.

Architect / designer homes & renovations:

This is the best but also the most expensive way to design your home or renovations. Some architect-designed homes can be very inexpensive, while others can be quite lavish and fit into the luxury category. Some of the reasons that architect-designed homes are usually more expensive than project or design and construct homes are because of the closer attention to detail, the greater use of glass, more expensive finishes and the designs are one-off to suit your site and your brief.

Advantages:

- Custom-designed to meet your individual needs
- Unlimited choice of style or aesthetic expression
- Enhanced resale value
- Generally well-built with excellent attention to detail
- Designed to optimise your site's orientation to the sun, capitalise on views, enhance privacy and generally increase enjoyment.



ALL AUSTRALIAN
ARCHITECTURE

Suite 206, 20 Dale St
Brookvale NSW 2100

M: 04 12 348 575

info@aaarchitect.com.au

www.aaarchitect.com.au

ABN 95 492 673 232

Guide to Preparing a Building Budget

Adam Pressley FRAIA
Nominated Architect
NSW Reg. No. 6007



Member
Australian Institute
of Architects

Guide to Preparing a Building Budget

- Can be used for renovations on any type of home or site
- Architects are also skilled at incorporating specific requirements such as environmentally-friendly design

Disadvantages:

- More expensive than project homes or design & construct for the floor area and amenities provided
- Less control over the total cost than with project homes or design and construct

What do buildings cost overall per square metre?

Below is a guide to the average building cost per square metre for the different home building options available to you. These are very general and should only be used as a rough guide.

\$ Cost / Square metre *

\$900 - \$1500 / sqm Project homes
\$1700 - \$3000 / sqm Design + Construct projects
\$2500 - \$4000 / sqm* Architect designed homes & renovations

*Some luxury homes cost much more than this.

Example 1: *

A two storey 4 bedroom house with 2.5 bathrooms & a double garage, having a total gross floor area of 250 square metres could cost approx.

\$225 - \$375,000 Project homes
\$425 - \$750,000 Design and Construct projects
\$625 - 1,000,000 Architect designed homes and renovations
\$1,000,000 plus Luxury home

This example is based upon using standard forms of construction. Where a more cost effective solution is required, alternative building systems may need to be considered.

*Based on costs dated September 2008

How much can building costs vary?

Building costs can vary enormously depending on the type of construction you choose. An example of this would be the type of roofing you choose for your building. Below is a list of common roofing materials for the purpose of comparison;

Example 2:*

\$65-80/sqm	Concrete tile roof
\$75-110/sqm	Terra cotta tile roof
\$80-100/sqm	Colorbond metal roof
\$160-220/sqm	Ceramic slate roof (Nu-Lok)
\$180-240/sqm	Spanish slate roof (Nu-Lok)
\$220-300/sqm	Spanish slate roof
\$250-300/sqm	Welsh slate roof (Nu-Lok)
\$320-450/sqm	Welsh slate roof
\$550-700/sqm	Zinc roof
\$600-900/sqm	Copper roof

These costs are approximate only and include materials and labour but no sarking, insulation, flashing, guttering or main roof structure. The cost can also depend on the complexity of the roof design and economies of scale.

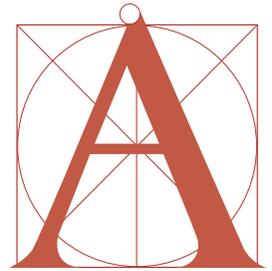
*Based on costs provided by Nu-Lok Roofing Systems dated 2009

What does my budget need to cover?

Perhaps the best way to look at what should be included in the budget for your project is to look at a completed project.

Example 3:*

The following breakdown is of a new 160sqm single storey weatherboard beach house with a colorbond roof. It has 3 bedrooms, study, open plan kitchen and living areas, main bathroom, ensuite, powder room, double carport, lock up storage, large entertaining deck and a motorized pergola.



ALL AUSTRALIAN
ARCHITECTURE

Suite 206, 20 Dale St
Brookvale NSW 2100

M: 04 12 348 575

info@aaarchitect.com.au

www.aaarchitect.com.au

ABN 95 492 673 232

**Guide to
Preparing a
Building Budget**

Adam Pressley FRAIA
Nominated Architect
NSW Reg. No. 6007



Member
Australian Institute
of Architects

Guide to Preparing a Building Budget

List of completed costs:

\$232,000 Building envelope
\$ 58,000 Kitchen, laundry and wardrobe / storage fit-outs
\$ 42,000 Bathroom, ensuite and powder room fit-outs
\$ 34,000 Double carport and driveway
\$ 30,000 Decks, retaining walls, landscaping & fencing
\$ 12,000 Motorised pergola (Vergola).
\$408,000 Total building costs

\$ 40,000 Architect's fees
\$ 12,000 Curtains, blinds & other fittings
\$ 9,500 Surveyor, structural engineer, quantity surveyor
\$ 5,500 Council and building certification fees

\$475,000 Total costs

*Based on costs dated September 2008

The contingency sum:

What this example doesn't illustrate is the amount originally budgeted and the amount of contingency set aside. A contingency sum is often used to cover additional costs incurred for unforeseen / additional building repairs, landscaping or site works.

A reasonable contingency to allow in your budget would be 5-10% for new homes and can be up to 20% for renovations, alterations and additions homes.

What sorts of things can effect the cost of building?

Building costs can vary considerably, depending upon a number of factors. Some of which are as follows:

Site issues:

Slope of the site

The steeper the site the more it usually costs to build on it. This is because foundations and supporting structures are more difficult, excavation and the need for retaining walls increases, and more complex drainage issues arise. More space is usually wasted in basement and foundations,

because buildings often step up the slope and there is a greater perimeter to enclosed area ratio.

Ease of access to the site

Poor access makes materials handling difficult and more time consuming, which increases the labour cost component.

Ground or foundation conditions

Poor foundations may require additional engineering and structure to support your home. Sandy or clay soils can require deep piles to achieve an adequate footing.

Excavation in rock

Rock excavation can be expensive and drainage issues may be more costly to resolve.

Demolition & clearing the site

In some cases this can be as much as 10% of the overall cost of building a new home.

Availability of services

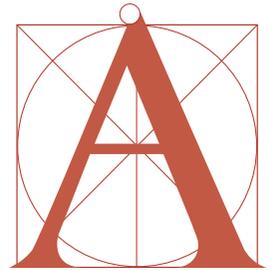
Such as water supply, stormwater, sewer lines, electricity, gas and phone. Distance from mains can also be an issue.

Particular council or government requirements

Such as the need for basement parking, onsite stormwater detention, rainwater storage or grey water systems, septic sewage systems.

Your suburb or location

Building work generally costs more in the city than the country and even more in the most affluent suburbs. This is often because expectations of service & quality are also higher.



ALL AUSTRALIAN
ARCHITECTURE

Suite 206, 20 Dale St
Brookvale NSW 2100

M: 04 12 348 575

info@aaarchitect.com.au

www.aaarchitect.com.au

ABN 95 492 673 232

**Guide to
Preparing a
Building Budget**

Adam Pressley FRAIA
Nominated Architect
NSW Reg. No. 6007



Member
Australian Institute
of Architects

Guide to Preparing a Building Budget

Design issues:

Size of project

Probably the biggest factor in the cost of building work. This includes the buildings total floor area, bulk or volume, number of storeys, ratio of envelope to useable floor area.

Development control legislation

Planning and Building controls can dramatically effect the cost of a project and often vary from state to state or across different councils. Examples include; requirements for parking, geotechnical and other site issues, rural fire service, stormwater detention and minimum standards.

Simplicity & repetition

Sometimes a design will make good use of simple building shapes and repetitive structural elements to reduce a building's cost per square metre.

Fit-out, fixtures and finishes

The number of fit-out areas such as bathrooms, ensuites, kitchens, laundries etc. adds greatly to the cost of a project as these are quite intensive on plumbing, electrical, joinery, fixtures and fittings.

Economy or tightness of design

Part of the design process involves careful consideration of space use and minimise waste. In poorly designed homes, circulation space can blow out and reduce the level of amenity possible for the same budget.

Design quality & individuality

A truly individual design with a large number of custom made elements, will cost more than a design with standard 'off the shelf' elements. Using standard industry practices and materials will generally reduce cost as compared to 'one-off' solutions.

Accuracy of documents

The completeness and proper co-ordination of contract & construction documents can be an important factor in the cost of construction because it can effect the accuracy of tendering, changes and additional work, and also create claims for undocumented or extra work during construction.

Building issues:

Number and type of trades

Each new trade involved in a building project will add cost directly and require overall co-ordination from the builder. A good way to reduce overall building cost is to reduce the number of building trades.

New or existing work

Building new is cheaper than alterations, additions and renovations.

Choice of builder & individual trades

Building prices do vary across the industry due to size, style of operation, popularity, profile and expertise.

The type, method & materials of construction

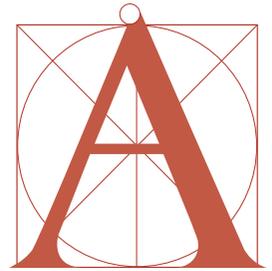
Traditional or standard forms of construction are generally cheaper than newer or more alternative systems.

Economies of scale

Generally medium to large size construction projects are more economical than smaller ones. This is the same for each of the trades involved and is largely because of the high set-up costs associated with construction projects.

Market forces

This can be described as fluctuations in the cost or availability of building materials, an under or oversupply of tradesmen and specialist contractors along with interest rates and other industry factors.



ALL AUSTRALIAN
ARCHITECTURE

Suite 206, 20 Dale St
Brookvale NSW 2100

M: 04 12 348 575

info@aaarchitect.com.au

www.aaarchitect.com.au

ABN 95 492 673 232

Guide to Preparing a Building Budget

Adam Pressley FRAIA
Nominated Architect
NSW Reg. No. 6007



Member
Australian Institute
of Architects

Guide to Preparing a Building Budget

Contractual conditions

The form of building contract, such as 'lump sum' or 'do and charge' may also effect building cost. This is also true of onerous terms or conditions of tender such as a tight construction program, which may make keen pricing more difficult.

Legislative controls

These issues such as home owners warranty insurance, occupational health and safety, training and continuing education, licensing etc. with which builders must comply and may also effect the cost of building work.

How do architect's fees work?

As sites, briefs and budgets differ from project to project, so too the scope and level of architect's services also vary. To account for these differences architects generally offer a range of ways to charge for their services.

Percentage based fees:

Traditionally, architects will charge a fee based on a percentage of the final building cost. Small projects attract a larger percentage and larger projects usually attract a smaller percentage. For example a \$50,000 job often has the same number of things to do as would a \$600,000 job but lacks economy of scale. Therefore the overall fee (full service) for an \$50,000 project could be as high as 18% (\$9,000) while the \$600,000 project may have a fee of 10% (\$60,000) to complete all the work required. Larger projects may have an even lower percentage fee depending upon the complexity of the brief and other factors. The scope of the service can still vary - with each stage having its own percentage charge. This system is reasonably fair to both parties because the final fee payable to the architect is based on the the contracted final cost of the construction work.

Lump sum or fixed fees:

Lump sum or fixed price fees are based on a calculation of the amount of work involved. Lump sum fees are not as common as percentage fees since there is more work to do costing a project (which the architect may not get) and because the architect carries the risk of losing money if the fee is not adequate. The advantage to the client is that they know the cost upfront and this is independent of the cost of the building. The disadvantage is that with most fixed fee agreements an additional fee component is added to help balance the risk of under quoting. Additional fees are still payable if the scope or the brief or service grows.

Hourly rate fees:

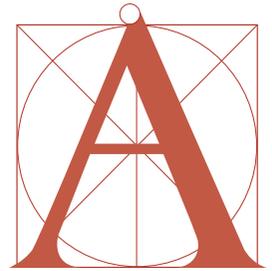
Many architects today charge simply for the work they do on an hourly rate basis. This is a do and charge system which can work well for small projects and for sole practitioners as there is no quoting to do and clients pay no additional margin. It also works well on projects which may be difficult but could also turn out to be resolved quicker than expected - but the reverse can also be true.

Combination fixed & hourly rate fees:

As the requirements and regulations for residential projects increases year by year, some architects offer their clients a combination of fixed fees and hourly rates. This system gives the client a good idea of the likely costs involved, but allows the architect to quote more keenly and with less fear of underquoting or losing money because the final cost of the work can be adjusted to suit the scope of work and level of service provided.

Have you considered a Masterplan Design?

One way around having to design to a fixed budget is to have your architect consider a 'masterplan' design. This involves looking at the best use of your site, home etc. without too much concern for cost – although we often still consider likely resale values. Once you have a map of your 'ideal' design, you can then look at how you might break it up into stages and complete it over time as more



ALL AUSTRALIAN
ARCHITECTURE

Suite 206, 20 Dale St
Brookvale NSW 2100

M: 04 12 348 575

info@aaarchitect.com.au

www.aaarchitect.com.au

ABN 95 492 673 232

**Guide to
Preparing a
Building Budget**

Adam Pressley FRAIA
Nominated Architect
NSW Reg. No. 6007



Member
Australian Institute
of Architects

ALL AUSTRALIAN ARCHITECTURE

Guide to Preparing a Building Budget

funds become available. This way, at least you know that everything you do to your home is part of a bigger picture.

Is my budget compatible with my design brief?

Your 'brief' is the description of what you want your proposed building work to achieve, i.e. an extra bathroom, new master suite, more light in the living room, improved indoor – outdoor flow...

In every brief there are some factors you can change and some you can't. If you have any budget concerns you may need to determine which factors you are prepared to be flexible on and which you are not. The following are some key factors for determining how much your project is likely to cost:

Size:

This is measured in square metres and represents the amount of additional area you want to add to your home, or the amount you plan to substantially change. This is usually called Gross Floor Area.

Fit-out areas:

The number of detailed fit-out areas - such as kitchens, bathrooms, laundries, powder rooms, en-suites, wardrobes etc..

Construction Materials:

Are you looking to build in full brick or weatherboard? Will you want a traditional slate or corrugated metal roof?

Complexity:

Are you planning a relatively simple addition or will it need careful integration into the design of your existing home?

Quality:

This includes your choice of finishes, fixtures, fittings and accessories such as floor finishes, kitchen appliances, lighting and home automation systems and other devices.

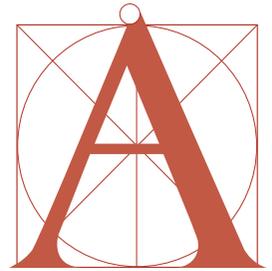
Design features:

These include those special improvements that can make a real difference to a home and your lifestyle, such as cabanas, lap pools, conservatories, grand staircases.

Summary / Checklist:

Building costs (and therefore budgets) are impacted by a large number of factors. Understanding these factors and their possible effect on your project is an important part of preparing an accurate brief and budget. Once again this guide is designed to highlight many of the issues you may need to discuss with your architect or financial advisors. The following is a simple summary / checklist based on the information discussed;

- Work out what sort of budget you have, what guides it and how this might effect your brief.
- Look at what options you have and what your budget needs to include to achieve your brief - such as staging the work or selecting a project home.
- Discuss your current budget and brief with your architect to ensure they are compatible & make any changes before you start the design process.



ALL AUSTRALIAN
ARCHITECTURE

Suite 206, 20 Dale St
Brookvale NSW 2100

M: 04 12 348 575

info@aaarchitect.com.au

www.aaarchitect.com.au

ABN 95 492 673 232

**Guide to
Preparing a
Building Budget**

Adam Pressley FRAIA
Nominated Architect
NSW Reg. No. 6007



Member
Australian Institute
of Architects