Owner Builder

Study Guide

Edition Four

qbcc
queensland building and construction commission

Content

Foreword

The Owner Builder Study Guide (the Study Guide) was first introduced in 1997 as a resource to support the owner builder course. It was intended as a compulsory text to complement the curriculum and to help ensure greater consistency in the content, delivery and assessment of the course throughout the State.

The owner builder course was initially introduced by the Building Services Authority (predecessor to the QBCC) in 1992 to better equip owner builders to manage their construction projects. The course content was reviewed and updated in 2001 and again in 2008 in the face of changes to legislation, industry practice and in response to feedback received from course participants and providers.

In April – June 2001 the new owner builder course program was developed by a Training Product Advisory Committee (TPAC) of the following members:

- Alan Allsop – BIGA Training
- Jim Ellway - Open Learning Institute of TAFE (OLI)
- Brian Heaton - Owner Builder Solutions
- John Larsen (Chair) - Product Support Unit – Building (TAFE)
- Peter Roebig – Construction Training Qld (CTQ)
- Doug Sparkes - Queensland Building and Construction Commission (QBCC)
- Ron Thomason - Open Learning Institute of TAFE (OLI).

Consultant Ron Thomason was engaged to assist rewriting the Study Guide in line with these changes.

By design, much of the information provide in the Study Guide is brief and introductory. It is not presented as a definitive or exhaustive document but rather a general reference tool, providing a common starting point for all course participants and a springboard to further, more detailed information.

The Study Guide is intended to be of value to course providers as well as participants. The best course providers will enhance this course content with local resources to increase relevance and value. (eg. local building data, videos, presentations by industry or finance representatives, etc.).

While every attempt has been made to ensure the Study Guide's accuracy at time of print, relevant legislation and regulations are subject to change without notice. For this reason it is important that both course participants and providers check with relevant industry and government bodies to ensure that they obtain the latest information and documentation.

Your feedback (whether as a course provider or a participant) is welcome and will assist the QBCC in the ongoing refinement of course material.

DISCLAIMER

While every effort has been made and all reasonable care taken to ensure the accuracy of the material contained herein, the authors, editors, and publishers of this publication shall not be held responsible in any way whatsoever for any loss or damage costs or expenses however incurred by any person whether the purchaser of this work or otherwise. Nothing in this Study Guide should be interpreted or relied upon as providing specific legal advice.

Edition: No. 3: January 2009 (as updated January 2009)

Edition: No. 4: August 2013 (as updated August 2013)

Acknowledgments: Owner Builder Course Study Guide September 1996 Edition
Original Source Material: Queensland Building and Construction Commission (QBCC)

Project Manager: Doug Sparkes (QBCC)
Writers: Doug Sparkes (QBCC), Ron Thomason (OLI)
Instructional Design: Ron Thomason (OLI)
Word Processor: Ron Thomason (OLI)

Content for some areas was sourced from public information produced by the following organisations:

- Australian Taxation Office
- Brisbane City Council
- Office of Sustainable Energy
- TRADAC (Timber Research & Development Advisory Council of Qld)
- WorkCover Queensland
- The Division of Workplace Health & Safety
- Q-Leave

Material and assistance was also kindly provided by the following people and organisations:

- Richard Adams (Universal Texts)
- Alan Allsop (BIGA Training)
- Built Environment Team (Open Learning Institute of TAFE)
- Brian Heaton (Owner Builder Solutions)
- Anthony Mason (BHP Coated Steel)
- Letitia Robinson (Division of Workplace Health and Safety)
- Rod Smith (QBCC Licensed Builder)

Introduction to the Study Guide

Construction of a residential project requires meticulous organisation, co-ordination and communication between numerous trade areas to ensure the project is completed with minimum delay and maximum control over costs.

The Owner Builder Study Guide places emphasis on the development of broad management skills and an understanding of the basic responsibilities required for residential construction and being an owner builder.

Being an owner builder can be very satisfying and may save you money. However, you must be realistic when estimating costs, timeframes, and your own capabilities and limitations. Construction costs can easily exceed your budget if the proper management tools are not in place prior to the commencement of the project.

People with little or no previous experience in the residential construction industry may find that constructing, extending, refurbishing or relocating their own home may be more difficult and time consuming than anticipated.

You can be a successful owner builder if you:

- can read and interpret building documents in English (with assistance, if necessary)
- understand construction terminology and are practically minded
- are a good organiser and communicator
- diligently complete the course.

This document is presented mostly from the perspective of building a new house. However, because an owner builder can build a new house, renovate or extend an existing house, or relocate a house onto another block of land, all of these types of projects are addressed in the assessment.

If your project is other than the construction of a complete house you may find that some of the information presented may not be relevant to your situation, or you may need to source additional information.

Throughout this Study Guide, trade contractors and subcontractors will both be termed 'trade contractors'.

Course background

The QBCC owner builder course (compulsory where the value of the owner built work, including labour, materials and GST, will exceed $11000) has been developed to inform and equip prospective owner builders with the necessary building coordination skills.

With a minimum duration of 24 hours of class content, or the equivalent by distant learning, the course is obviously not intended to provide participants with trade skills or details of manual construction techniques. Instead, the course is designed to provide an overview of the processes and good practices associated with economic and effective management of the various stages of the owner builder project.

The focus is on giving prospective owner builders a basic grounding in essential project management skills including estimating/budgeting, scheduling, documentation and record keeping, monitoring, and the effective coordination of various trade contractors.

Having received a statement of attainment upon completion of this course, a participant who has title to or sufficient legal interest in a block of land or residential property may be eligible to apply for an Owner Builder permit from the QBCC. An Owner Builder permit will be recorded on the certificate of title for six years. You are only entitled to one permit every six years.

By gaining an Owner Builder permit from QBCC, the participant will be entitled to seek building approval from a building certifier and/or their relevant local authority. Once the appropriate approvals are obtained, then the proposed project can commence.

This course satisfies all owner builder course requirements specified in the *Queensland Building and Construction Commission Act 1991* and associated Regulation.

Further information is freely available from QBCC's website at www.qbcc.qld.gov.au where you can download fact sheets and other information to assist in your project.

Finally, the QBCC would like to wish you every success and satisfaction in your owner builder venture.

Explanation of icons

Throughout this Study Guide you will see the various icons (shown below) in the left hand margin of pages. The icons are there to signal special events in the text as described below.

This icon identifies a point to which you should pay particular attention.

This icon identifies books, fact sheets and other resources that will provide you with additional information relating to the current topic. Please note, it is not essential to read this information to complete this course.

This icon identifies exclusively internet-based resources that will provide you with additional information relating to the current topic.

Notices

The Queensland Home Warranty Scheme does NOT cover owner builder work.

As an owner builder in your role as head contractor, you are responsible for dealing directly with individual subcontractors if there are any problems with workmanship, including rectification of any defects in the building work or completing any unfinished work.

You are also responsible for dealing directly with individual subcontractors if there are problems with the workmanship or payment. The QBCC Dispute Resolution Services are not available to owner builders. Assistance may be available through the Queensland Civil and Administrative Tribunal or Queensland Courts.

If you are selling the property within 6 years of carrying out the owner builder work you MUST, before signing the contract of sale, provide the prospective purchaser with a notice which contains:

- details of the building work performed
- the name of the person (owner builder permit holder) who performed the work
- a statement confirming the work was performed under an owner builder permit.

The following warning:

"WARNING - THE BUILDING WORK TO WHICH THIS NOTICE RELATES IS NOT COVERED BY INSURANCE UNDER THE *QUEENSLAND BUILDING AND CONSTRUCTION COMMISSION ACT 1991*"

This notice MUST be given in duplicate to the purchaser who must sign one copy of the notice and return it to you on or before signing the contract of sale.

Key responsibilities of an owner builder

Are you ready to be an owner builder?

Before you finally decide, you may wish to read the information found on the Queensland Building and Construction Commission website at, *Home and Building Owners> Owner Builders> What is Owner Building?*

Queensland Building and Construction Commission is probably better known by its acronym: QBCC. This acronym will be used throughout the remainder of this Study Guide. To find out more about the QBCC, read the publication *"Facts for Smart Building and Renovating"*.

All QBCC information cited in this Study Guide can be obtained from your nearest QBCC office or downloaded from the QBCC website at www.qbcc.qld.gov.au

An owner builder serves in many roles during a project. This section will look at some of the more common roles you will have to play:

- Work Health and Safety Officer on site
- decision maker
- administrator
- PR Person
- labourer
- communicator.

The decision maker

Remember, the buck stops with you. All decisions regarding how, when, where, why, and how much, will ultimately be your responsibility.

Before you begin, review Figure 1- Preliminary Checklist, to assist with your intital decision-making and project planning.

Before giving a final 'yes' or 'no', be sure to carefully weigh up the 'benefits' versus 'the worst possible outcome'. As an example, it is not uncommon for you or even your trade contractor to want one or more variations made to the project.

Before deciding or giving the 'go ahead' for a variation, carefully assess what impact the change may have on the project. It is often the case that a small change at an early stage of a project has a major impact at some time in the future if all effects are not considered and allowed for in the updated planning. Variations should be in writing at the time of making the decision.

Obtain an estimate or a firm quotation for all variations, signed by both the trade contractor and yourself.

You are the one who has to live with your decisions. Do not be pressured into making ill-considered choices regarding your project.

Figure1: Preliminiary Checklist

No.	Task Particulars	Date	Payment	Completion	Comment
1	Complete owner builder course - before too many decisions				
2	Select land or residence				
3	Carry out searches, inquiries - legal and your own private inquiry				
4	Purchase property when satisfied				
5	Payment for conveyancing				
6	Design and select a house plan				
7	Obtain site survey and contour plan				
8	Obtain soil test and foundation report, sometimes prior to settlement				
9	Check your budget costs to build				
10	Provide design brief and final sketch to designer with contour diagram				
11	Obtain preliminary design drawings from designer, check				
12	Obtain waste management soil test if required - non sewer areas				
13	Submit soil test and house designs to engineer				
14	Collect final house designs and engineers drawings when completed				
15	Collect and collate all paperwork to submit Application for an Owner Builder permit				
16	Submit application and obtain Owner Builder permit, wait for approval				
17	Lodge long service leave levy requirements after Owner Builder permit number has been received				
18	Lodge plans and all documents to private certifier or with council				
19	Prepare full budget for preliminaries and building costs				
20	Prepare copies of plans for tendering from trades and suppliers				
21	Send plans and details of specific requirements to contractors (3 quotes)				
22	Prepare a list of Prime Cost items				
23	Prepare initial building schedule (take out public holidays)				
24	Obtain finance approval and submit all documents				
25	Obtain all necessary insurances prior to commencement: WorkCover, public liability, construction insurance, personal sickness and accident.				
26	Check list of contractors for correct licence - QBCC website www.qbcc.qld.gov.au and 1300 272 272				
27	Select successful licensed contractors				
28	Site Record and file trade contractors insurance details: a. WorkCover				
	b. Contractors all risk (Public risk and liability)				
	c. Personal sickness and accident				
29	Book and complete Site Safety Induction (White Card Course)				
30	Review all relevant Work Health and Safety legislation				
31	Prepare your Site Safety Induction training for your site.				
32	Prepare OB Work Method Statement for your site				
33	Obtain Work Method Statements from each trade contractor				
34	Confirm best price details with suppliers - negotiate prices				
35	Erect OB site signs				
36	Erect Site Safety signs				
37	Erect safety security fencing where required				
38	Have erosion control systems installed				
39	Confirm starting dates with trade contractors, update building schedule				
40	Make arrangements and pay for temporary services (e.g. Sanitary, water)				
41	Check final budget for project - check prices again				
42	Prepare a site diary from start date (1 day per page)				
43	Finalise an effective filing and project management system				
44	Send commencement notification to financier & insurer				
45	Contact site surveyor to set out site				
46	Ensure your professionals are insured				

The administrator

Whether your project ends with a saving (i.e. under budget) or a loss (i.e. over budget) depends on you and how you handle issues such as:

- costs
- time management
- materials - delivery, usage, storage
- planning
- control and coordination of all persons on site.

The PR person

The maintenance of good working relations, both on site with trade contractors and off site (material suppliers, local government, etc.), will help to ensure your project runs smoothly and within budget.

Some key elements include:

- Work Health and Safety Officer (WH&S)
- establishing goodwill and cooperation with all parties
- maintaining the peace and workflow (including between trade contractors)
- seeking direction/clarification - when unsure
- preparing for unforeseen natural elements - e.g. weather changes
- dealing with visitors, salespeople, inspectors/building certifiers, etc.

The labourer

To save some time and money, be prepared to be the 'go-for' person, and be willing to do those jobs that no one else wants to do, for example:

- cleaning up the site and keeping the site tidy by stacking materials ready for use
- keeping materials protected from the weather
- maintaining erosion and sediment control devices

Always be involved in your project, but don't get in the way of your trade contractors.

Facilitator of communication

The development of honest and accurate communication between all parties is essential for a 'hassle-free' project. Some points to note include:

- introducing licensed trade contractors to each other (where necessary)
- ensuring trust and good communication is maintained - not only your relationship with your licensed trade contractors but their relationships with each other (vital if costly delays are to be avoided). You may incur considerable additional costs if unexpected extra work needs to be done by a particular trade contractor due to the late completion or non-completion by another
- ensuring all obligations/agreements/contractual matters and any subsequent changes to these are accurately recorded in writing and dated with copies kept on file
- keeping your trade contractors fully informed, especially regarding any changes to arrangements
- consultation duties - you are required to ensure workers receive the information, training and supervision necessary to perform their work safely, pre-start meetings, toolbox meetings, site inductions
- keep up to date with all WH&S Regulations, Codes of Practice and requirements
- prepare and present - Work Method Statements, Construction Site Safety Plans.

For additional reading about this topic refer to the reference book 'Building Your Own Home'. Details of this book may be found in the section titled "Books".

Meeting with the neighbours

It is important to meet with all your immediate neighbours before any construction starts to inform them of your intentions and the fact that there will be construction noise from time to time (this is especially important in suburban locations or where neighbours are close).

Initiating this sort of friendly meeting up front should foster good relations. Remember, you are going to have to live with your neighbours for some time to come. First impressions count.

Also, most neighbours will often 'keep any eye on things' and let you know if something untoward occurs on site when you're not there. Constant communication with your neighbours is the key to 'keeping the peace'.

If you are doing an extension or renovation, especially if it will involve significant noise or dust, you should also inform your current neighbours of what will be occurring.

If you are doing extensive earthworks which may affect neighbouring properties, it would be wise to complete a Dilapidation Report before any work starts to minimise any possible dispute.

The following is an extract from the Environmental Protection Act 1994:

A builder or building contractor must not carry out building work on a building site in a way that makes or causes audible noise to be made from the building work–

a. on a Sunday or public holiday, at any time, or

b. on a Saturday or business day, before 6.30 a.m. or after 6.30 p.m.

Breaches of this provision can incur a significant fine. As breaches are complaint driven, it is in your interests to maintain good relations with your new (or existing) neighbours.

You need to make your trade contractors aware of what arrangements you make with your neighbours as ultimately your neighbours will tend to hold you responsible for the actions of your trade contractors.

Supervision of the work

If you decide to engage a building consultant (e.g. licensed builder, engineer, etc.) to supervise your project, check that they have appropriate qualifications and experience. Talk to past clients. You will then need to determine and clearly explain to the building consultant what responsibility, authority and role you intend them to have.

You must be very specific what authority you are delegating to the building consultant. Your trade contractors and suppliers should also be advised of these arrangements or they may be unsure from whom to take instructions.

The building consultant is your liaison with the trade contractors (and suppliers). It is their job to control the day-to-day operations on-site.

Any directions should always be passed on to the building consultant who will then give them to the trade contractor (or supplier). Try not to interfere with your building consultant's authority, allow them to do what you are paying them for.

If you do have to give personal direction or want to have a discussion with a trade contractor (or supplier) you should first discuss this with your building consultant and they should be present at the meeting. Regular communication is key.

Coordination of the project

All trade contractors should know where and when their services will be required so as to avoid any on-site delays. Be sure that all trade contractors understand that they must show up on time.

A reminder phone call a few days beforehand may be a good idea. Care must also be taken to avoid any hold ups that may be caused by materials not being available on time. If there is a delay for any reason, contact all people who will be affected by the delay as soon as possible. (Your project schedule should be of help here.)

Some trades rely on other trades and have to work together at certain stages of the project. Be sure that each tradesperson knows who they need to co-ordinate with. Site meetings are required under the WH&S Act and are a good way to bring tradespeople together for the purposes of co-ordination.

Tradespeople need time to arrange their workload so as to avoid wasting time between jobs. Try to give tradespeople at least 24 hours' notice of any changes to the building program (longer would be better).

If a tradesperson 'walks off' the site before completing their contract because of a dispute, inform them orally and in writing that they may lose part of the monies owing to them, depending on the cost of completing the work, and that you reserve your rights to terminate the contract and employ another tradesperson to finish the work if it is not completed in a reasonable time.

Obtain legal advice if you are unsure of your rights, or the correct procedure, regarding contract termination.

If you cannot keep the material supplies up to the tradespeople, they may have to leave the site to do other work and it may be some time before you can get them back to your site. If it is your obligation to provide materials, you cannot penalise the tradespeople for your shortfall.

Work health and safety

Work place health and safety is an aspect of building work which has been subject to substantial changes. The information on the following pages is provided to give you a general guide only to your duties under the *Work Health and Safety Act 2011* and the *Work Health and Safety Regulation 2011*.

Work Health and Safety Act 2011

Work and safety is regulated under legislation which includes both Acts and Regulations. The Act and Regulations are supported by non-statutory codes of practice and other guidance material. It is essential to identify all relevant codes and guidance material relevant to hazards in the building industry.

The Act provides for administration and enforcement of WHS by placing certain duties on 'persons conducting a business or undertaking' (PCBU's), workers, self-employed persons, manufacturers, designers, importers and suppliers.

Regulations spell out any specific requirements of the legislation. They may prescribe minimum standards or they may define requirements related to a particular hazard or particular type of work.

Some regulations are Work Health and Safety Standards that either prohibit exposure to a risk or prescribe a way to prevent or minimise exposure to a risk. For example, a regulation for noise may state a level of noise exposure that must not be exceeded. To meet your duties under the Act you must comply with these regulations

Some of the matters covered by regulations include:

- noise
- confined spaces
- hazardous substances
- lead
- asbestos removal.

Regulations must be followed as directed - no alternative method or approach offering equivalent protection is permitted.

The regulations may rely on standards to provide further details on the requirements. Such standards are produced by Standards Australia or by Safe Work Australia. If a standard is specifically referenced by the regulations then it forms part of WHS law.

The Act and regulations are supported by non-statutory codes of practice and other guidance material. Codes of practice provide advice on how to meet the duty of care and their legal status is described in WHS Acts.

The Codes cover specific industry related risks and ways to control those risks and may be used to help identify what control measures need to be written into the Work Health and Safety Plan.

The following are some of the examples that have been developed for the construction industry:

- manual handling in the building industry
- personal protective clothing in the building industry
- scaffolding in the construction industry
- concrete pumping.

If the advice in a code of practice is not followed, a method that identifies and manages exposure to that risk must be adopted and followed.

Duties

A person may have duties under more than one area of the WH&S Act. For example, an owner builder who also does work on a site will have the duties of a PCBU/principal contractor as well as a worker. If the owner builder also employs direct labour, then the owner builder would also have the duties of an employer.

Person Conducting Business or Undertaking (PCBU)

The work health and safety laws require a PCBU to ensure, so far as is reasonably practicable, the health and safety of their workers while at work in the business or undertaking.

This includes:

- the provision and maintenance of a work environment without risks to health and safety
- the provision and maintenance of safe plant and structures
- the provision and maintenance of safe systems of work
- the safe use, handling, storage and transport of plant, structures and substances
- the provision of adequate facilities for the welfare of workers in carrying out work for the business or undertaking, including ensuring access to those facilities
- the provision of any information, training, instruction or supervision that is necessary to protect all persons from risks to their health and safety arising from work carried out as part of the conduct of the business or undertaking
- that the health of workers and the conditions at the workplace are monitored for the purpose of preventing illness or injury of workers arising from the conduct of the business or undertaking.

Principal contractor

Principal contractor duties include:

- signage identifying principal contractor
- preparation of the work health and safety (WHS) management plan (includes site rules)
- duty to inform all persons of plan before they commence
- duty to review – must remain up-to-date
- must obtain safe work method statement (SWMS) before high risk construction work commence
- put in place arrangements for ensuring compliance with specified requirements such as facilities and amenities
- manage risks associated with construction materials and waste, plant, traffic and essential services.

Workers

'Workers' includes any person who carries out work, in any capacity, for a person conducting a business or undertaking.

Workers must:

- take reasonable care for their own health and safety
- take reasonable care that their conduct does not adversely affect the health and safety of others
- comply, so far as they are reasonably able with instructions
- cooperate with reasonable health and safety policies or procedures that have been notified to workers.

Other persons at the workplace

A person at a workplace, whether or not the person has another duty under this part must:

- take reasonable care for his or her own health and safety
- take reasonable care that his or her acts or omissions do not adversely affect the health and safety of other persons
- comply, so far as the person is reasonably able, with any reasonable instruction that is given by the person conducting the business or undertaking.

Section 19 of the WHS Act sets out the primary duty of care including:

- ensuring so far as is reasonably practicable the health and safety of workers; and
- ensuring so far as is reasonably practicable the health and safety of others affected by the business or undertaking

The duty includes providing:

- safe working environment;
- safe plant and structures;
- safe systems of work;
- safe use, handling and storage of plant and substances;
- adequate facilities;
- adequate information instruction and training; and
- monitoring of the workplace.

In order to better understand their duties and the risks inherent in their building project,
Owner Builders should complete the WH&S General Construction Training course.

One specific point that you need to be aware of in the current climate of increasing litigation is that alcohol should not be allowed to be consumed on your site. This is not to say that you cannot buy a beer for your trade contractors or their workers, however, you should stipulate they take it home for consumption otherwise you could be seen to have some responsibility if someone had an accident after consuming alcohol on your site.

Consulting workers and other duty holders

Consultation involves sharing of information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

The Act requires that you consult, so far as is reasonably practicable, with workers who carry out work for you who are (or are likely to be) directly affected by a work health and safety matter.

If the workers are represented by a health and safety representative, the consultation must involve that representative.

You must consult your workers when proposing any changes to the work that may affect their health and safety.

The Act requires that you consult, cooperate and coordinate activities with all other persons who have a work health or safety duty in relation to the same matter, so far as is reasonably practicable.

Sometimes you may share responsibility for a health and safety matter with other business operators who are involved in the same activities or who share the same workplace. In these situations, you should exchange information to find out who is doing what and work together in a cooperative and coordinated way so that all risks are eliminated or minimised as far as reasonably practicable.

General Induction provides an opportunity for people working in the industry to gain some understanding of the types of hazards likely to be found on construction sites and the way risks from these hazards should be managed.

Employers, self-employed persons and workers must hold general induction evidence before construction-type work is started. General induction evidence means a statement of attainment or induction card issued by a Registered Training Organisation for successfully completing the General Construction Induction (White Card).

Where they take on the role of principal contractor, the owner builder has to make sure that any employers or self-employed persons coming on site have the required general induction evidence outlined above. It is the responsibility of employers to ensure that their workers have the appropriate general induction evidence.

Additionally, if the owner builder intends to play any part personally in the construction work on site the content of the general induction course will be valuable in assisting them to identify, assess and manage construction-related workplace health and safety risks.

Construction Workplace Plans and Work Method Statements

When owner builders perform the role of a principal contractor, they must develop a Construction Workplace Plan for their project before work commences and also to collect Work Method Statements from contractors carrying out high-risk construction activities (defined in the WH&S Regulation 2011) on the owner builder's site. Owner builders in this case are also responsible for monitoring and reviewing contractors' compliance with their work method statements.

The Department of Employment and Industrial Relations has prepared a sample Work Method Statement to give an idea of the quality and quantity of information required in this document.

Generic work method statements for specific trades may be available from some industry associations.

Refer to http://www.deir.qld.gov.au/workplace/law/whslaws/legislation/index.htm or phone 1300 369 915

Guide to Work Health and Safety Act 2011:
http://www.deir.qld.gov.au/workplace/resources/pdfs/guide-whs-act-2011.pdf

Codes of Practice, commenced 01 January 2012:
http://www.deir.qld.gov.au/workplace/law/legislation/codes/index.htm

Fact sheets and resources about the new work health and safety laws:
http://www.deir.qld.gov.au/workplace/law/whslaws/resources/index.htm

Construction Workplace Plans and Work Method Statements:
http://www.deir.qld.gov.au/workplace/business/construction/methods/wms/index.htm

Design

Who can provide design services for an owner builder?

- Licensed Building Designers - require a QBCC Building Designer Licence phone 1300 272 272, or visit QBCC's website online licence search, to confirm.
- Architects - do not require a QBCC licence but they must be registered with the Board of Architects, Qld. Phone the Board on 07 3224 4482 to check if registered.
- Engineers - can only design those items which require professional engineering services and must be registered with the Board of Professional Engineers, Qld - phone the Board on 07 3224 6032 to check if registered.

All QBCC licence holders will be able to produce a QBCC licence card (refer to Figure 2 below). The card will state the licence classes held by the contractor indicating the type of work that the contractor may perform.

It will also have the licensed person's name, expiry date, and licence number. You should always record all of this information and check the details with the QBCC.

Figure 2: QBCC Contractor Licence Card

Licensed builders are only entitled to design homes which they subsequently go on to build for a client.

Professional people

Always check that your professional people are insured:

- designer/architect
- soil tester, geotechnical
- engineer
- surveyor
- waste management consultant
- energy consultant.

The following list identifies some areas of work that can only be performed by properly licensed or certified professionals:

- plumbing/drainage/gasfitting
- electrical
- demolition
- removal of hazardous substances (e.g. asbestos, lead-based paint)
- scaffolding where a person can fall 4m or more
- pest control (installation of termite management systems)
- cranes/dogging and rigging
- earthmoving
- any type of engineering.

Choosing a designer

An owner builder can draw their own plans but they must be of an acceptable standard and comply with all regulatory requirements.

If you choose to use a designer the process of designing your home should be a partnership between you and your designer. The best results will depend on a good working relationship in which both parties clearly understand their roles and responsibilities from the beginning. For this reason it is important that you choose a properly qualified professional with whom you feel comfortable.

When selecting a designer you should:

- Be clear about the extent of work you require the designer to do
- Obtain at least three comparable quotations which clearly state what work and services they cover (the services designers are able to provide will vary)
- Do not always take the cheapest quote but look for value for money
- Check the past performance of the designers by contacting previous customers, especially those who have had similar work done. If you don't know any past clients, ask the designer for a list
- Speak to the designer about copyright issues concerning your design, especially who will have copyright ownership of the house plans and specifications you develop together.

Unless you specify otherwise in writing, copyright for the finished plans will usually belong to the designer even if you provide the original sketch plans. If you want exclusive control of the final plans and specifications you will need to state that clearly in your written contract with the designer.

You cannot use another person's design unless you obtain permission from the person who is the copyright owner.

Your role

As the plans and specifications you prepare with the designer will be vital to the success of your new home, be sure the designer clearly understands your requirements from the outset and that all points are fully and precisely documented and dated.

After the designer begins work, keep in regular contact with them as good communication will help prevent misunderstandings which can cost time and money. Before the designer begins the project, it is important that you have carefully considered and clearly conveyed the following:

- *your lifestyle* (e.g. indoor/outdoor living preferences)
- *your budget* for the construction or renovation work as well as how much you expect to spend on the design process itself (lending institutions or your accountant will be able to tell you how much you can borrow and what the repayments would be)
- *the important design features/facilities* for the new home/extension/renovation (e.g. overall size and shape of the home, number and location of bedrooms and bathrooms, ceiling height, window sizes, etc). Include photographs, sketches, magazine articles, etc. which can show the design features you like and may help to convey your requirements to the designer.
- *the specifications, fittings and materials* to be used (e.g. plastic vs. porcelain vanity basins, anodised vs. powder-coated window frames, tile vs. metal roof, the type of ceiling insulation - if any - to be included, the standard and type of kitchen and bathroom fittings and appliances, TV, telephones, intercom, etc.)

- *time constraints/expectations* (i.e. when you require the final design to be ready so the plans can be submitted for approval)
- *local government requirements* and the need for your plans to comply.

Some individual or unusual design features can add considerably to the construction costs of the home and if included, may necessitate an increase in your budget or a reduction in the living area you will receive for your money.

Arriving at a design which meets your needs and preferences may involve several stages of refinement that may take longer than you expect but will be worth the extra time & effort.

It is strongly recommended that the final payment to your design specialist in your written agreement is not required – or made – until after your plans have successfully completed the approval process. Otherwise, if you've paid all your money and a deficiency in the plans is later discovered, you may have to pay extra to rectify and resubmit them for approval.

The designer's role

Design professionals are expected to keep up to date with legislation, information and trends relating to the building process and can help you to clearly define your needs and preferences.

The designer should also be able to advise you regarding environmental and energy considerations including, but not limited to:

- energy rating
- the most appropriate house orientation with regard to sun and prevailing winds
- the feasibility of solar power
- the choice of building materials
- ventilation
- insulation
- landscaping.

To supply you with the best service and the most cost effective, functional and satisfying design, the designer will need to spend sufficient time with you to get to know your individual circumstances and requirements. Time invested by both parties at the early stages will help to develop the mutual trust and understanding which will be important to the success of your project.

For the construction of an entire house, your final plans should comprise a range of drawings including: a floor plan of each floor level of the building; a minimum of four elevations; at least one sectional view through the body of the house; a site plan; a bracing plan; a slab or footing plan; window and door schedule/details and, where required, tie-down details and a roof or truss plan.

Specific information that should be shown on one or more of the plans includes:

- *contours of the site* – the existing ground contours should be shown on the site plan material sizes (e.g. size of beams) – mainly seen on the floor plans or sometimes on a separate beam plan and in note form on either plan
- *construction systems* – this is indicated on the floor plans, elevations and section
- *all measurements of length, width, height* – appear on plans, sections and sometimes on elevations, but should always be sufficient to permit precise construction of the building

- *specifications and component schedules* – appear on most drawings in note form, but specifically on the floor plans, and sometimes also on drawings showing the elevations and sections, and on a separate specification drawing sheet
- *termite management system* – should be indicated on the section and on the slab or footing plan (the name varies but the plan details either the slab or footing dimensions); may also appear on a separate specification drawing sheet
- *design wind speed classification* – may appear in the notes on the floor plans or may also appear on a separate specification drawing sheet, but should definitely appear in the bracing details plan
- *total floor area* – this is the area in m^2 under roof excluding any eaves overhang.

Plans which lack detail will cause frustration, cost increases, arguments, errors and major time delays. This includes plans that may just pass minimum requirements for approval but lack construction detail.

A building designer or consultant will be able to advise the owner builder regarding the details needed to ensure plans are specific, complete and functional.

Consultants/designers can also provide (at a cost) the intricate details, drawings, etc. to help owner builders understand what to look for during construction (e.g. details of built-in cupboard construction, flashings, wall framing etc.)

Environment and energy

Environment and energy factors will be an important consideration in your discussions with your design professional. The correct orientation and the use of energy efficient materials and appliances will enhance the comfort and efficiency of the design you intend to build.

From May 2010, a 6-star energy equivalence rating in houses (class 1 buildings) is the minimum requirement in Queensland.

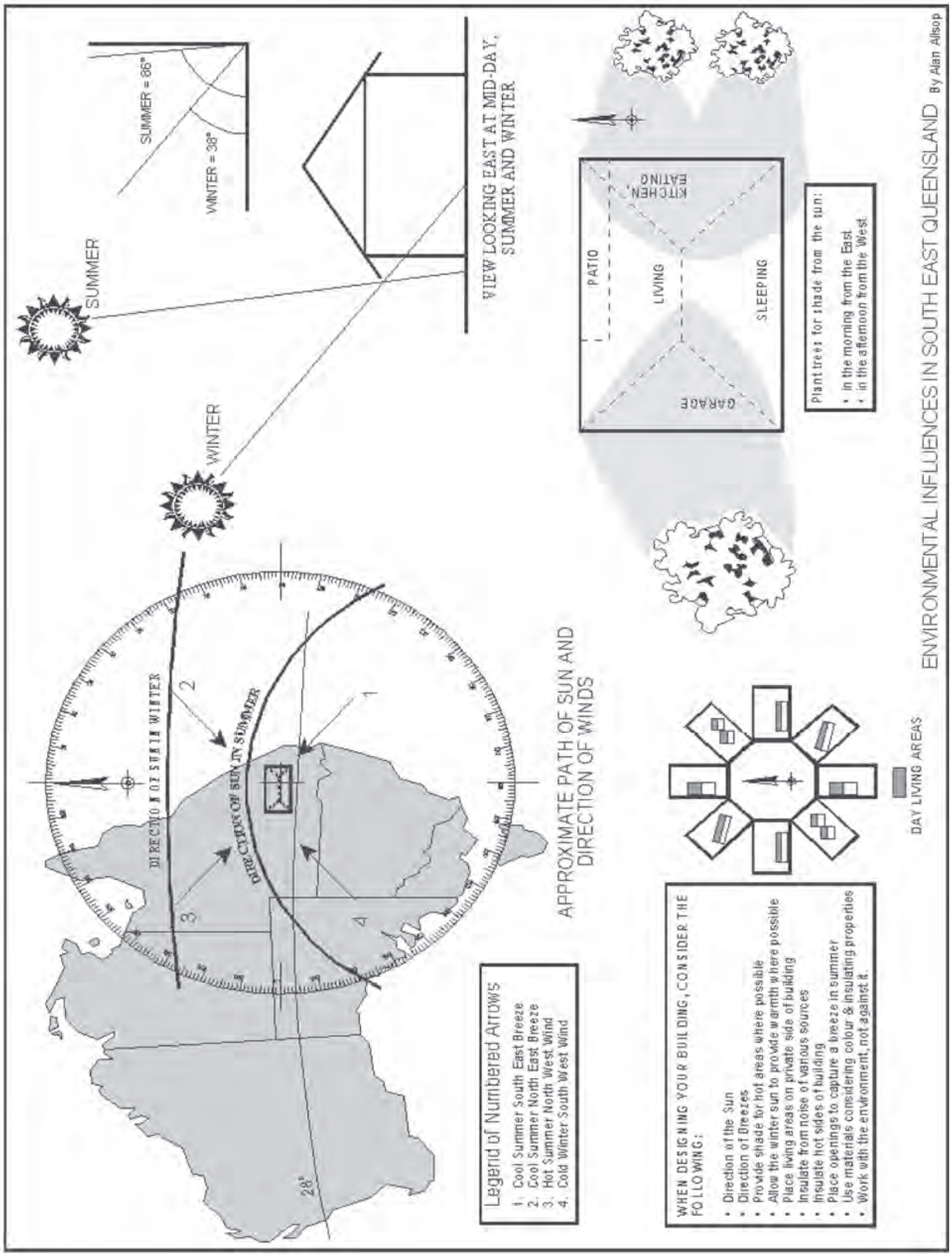
Some important steps in ensuring summer and winter comfort which a design professional can help you with include:

- designing to comply with the 6-star energy rating requirement
- orientating the project to minimise the impact of the summer sun – (refer to Figure 3 on the next page)
- locating the main window areas to minimise the impact of the summer sun
- reducing the number and size of windows in walls facing morning and afternoon summer sun
- shading hot areas by verandas, pergolas, trees or other means
- designing internal walls and doorways so that breezes can pass through the main living area and bedrooms
- using energy efficient building materials, appliances and wall and ceiling/roof insulation.

These aspects must be considered in relation to one another in an integrated design. There is no point striving for high levels in one area without considering the others.

For additional information regarding energy efficiency in residential construction (including advice on appliances, insulation & lighting) refer to an Australian Federal Government site at www.yourhome.gov.au

Figure 3: Environmental Influences on Buildings in Brisbane Area



Erosion and sediment control

It has been estimated that each year in Brisbane about 200,000 tonnes of sand, silt, mud, paint and cement is washed from building sites into waterways and would ultimately end up in Moreton Bay if no erosion and sediment controls were in place.

Allowing sand, silt, mud and cement to wash off building sites is not only irresponsible, it's illegal, and people who fail to stop this occurring face on-the-spot fines.

Under the *Environmental Protection Act 1994* and the subordinate *Environmental Protection (Water) Policy 2008*, authorised officers can issue substantial on-the-spot fines ($2,000 - $5,000 Feb 2012) for failure to undertake appropriate erosion and sediment control measures.

Best practice erosion and sediment control methods could be installed on a typical residential building site for approximately $400-500.

Installing effective on-site erosion and sediment controls provides many important benefits including:

- a better looking, more marketable site
- improved wet weather working conditions
- improved drainage and reduced site wetness
- reduced stockpile losses
- reduced clean-up costs
- fewer public complaints
- compliance with relevant environmental legislation (no on-the-spot fines)
- better public image
- better fishing and swimming

Energy efficiency guidelines

From May 2010, a 6-star energy equivalence rating in houses (class 1 buildings) is the minimum requirement in Queensland.

The 6-star requirement applies to all new houses and town houses (class 1 building) and enclosed garages (class 10a buildings) attached to class 1 buildings. The requirement also applies to new work done on existing buildings, such as additions, alterations and re-locations.

A house's energy equivalence rating is determined by the design of its envelope or "shell" – i.e. roof, walls, windows and floors. An energy equivalence rating does not take into consideration a house's fixtures and appliances, such as hot water systems, air conditioners, lighting and fridges.

You can also engage the services of energy assessors to provide a specialised assessment service in the design and planning of a new home.

For additional information visit the Department of Housing and Public Works at www.hpw.qld.gov.au and search the government's current available information on energy efficiency.

ABSA Association of Building Sustainability Assessors (Home Energy Rating Scheme) http://www.absa.net.au/

Environmentally friendly housing

While not mandatory at this time there are factors which demand consideration for responsible building practice.

These include:

- *energy efficiency* - minimise the use of non-renewable energy in the production of materials and products and the construction and operation of the house
- *high thermal comfort* - provide a house design that allows its occupants to live their lifestyles in comfort, while consuming minimal non-renewable energy
- *low environmental impact* - minimise the environmental impact from the construction and occupancy of the house
- *sustainable practice* - maximise the longevity of the house by good design, detailing and selection of appropriate materials
- *universal* (accessible housing).

The principal of 'universal' housing is based on the belief that a house should be designed for all future possibilities, including changes in the mobility levels of the occupants.

It is estimated that 35 per cent of the population will have restricted mobility at some time in their life, either through age, accident, illness or other causes.

When planning your new project you should consider the incorporation of design features which promote ease of access and involve easy-to-use fixtures for people with restricted mobility and dexterity.

This may include such features as an open plan design, wider hallways and doorways, spacious bathrooms and the use of ramps.

Planning for the future

Altering an existing house to accommodate special needs or changing lifestyles can cost up to three times more than incorporating the same inclusions during the initial design-and-build stage.

For example, you may not have to include items such as grab rails in bathrooms at the time of construction but by adding fixing points at this time (these should be noted on the plans for later reference) the rails can be added when needed without having to remove wall linings.

For additional information, visit the "Sustainable Housing" home page at www.hpw.qld.gov.au/construction/Sustainability/SmartSustainableHomes/SustainableHomeResources/Pages/Default.aspx

Estimating, costing and budgets

Estimating is the process of predicting the costs of a project before any physical work is commenced and accurate estimation is the most important element relating to the financial success of your project.

In the case of an owner builder project, estimating is the expected cost of building, renovating, extending or relocating your house and includes material, labour and any other costs associated with the project.

This section will give you some basic information about how to estimate the total cost for your project and help you prepare a realistic budget.

How do I start?

1. Prepare a take-off for the project - this is basically a list of all the materials and labour to be used in the project plus any associated activity or requirement that has a financial impact on the project.

2. Obtain prices for each item in the take-off - these prices are best obtained from the suppliers and trade contractors you intend to use on the project (try to get three quotes for each).
3. Total up all the item prices and you have the total price.

That is all you need to do - but what happens if the trade contractors' prices are not available, if there is a component that you are unfamiliar with, or if the house is not of a type you are familiar with?

Often you will be required to make a judgement on what the price will be and for this estimate to be accurate the estimator should be well informed about:

- various methods of construction
- the construction process
- the time required by individual trades to perform a task
- the time needed for the hire of plant and equipment over the course of a project.

When do I produce an estimate?

A reasonable estimate can be achieved at the design stage. Building consultants can guide you in this area.

To be able to accurately estimate the final cost of the project a number of factors should be considered, including:

- type of construction - has a direct bearing on costs, depending on how many specialists
- trade contractors needed and their availability
- time of year of construction – weather and public holidays (esp. Christmas) may extend timeframes
- availability of materials - some materials may be in short supply and alternatives may be necessary
- type of work you are prepared, and realistically capable of undertaking on the project.

There are many different ways of estimating the cost of a project.

We examine a few common methods below:

Costing by area (use for preliminary estimate only)

A rough estimate of total cost can be calculated by multiplying the total floor area of the building by an amount per square metre. You can base your amount per square metre on what a builder might charge to build a similar type of house.

To do this, you should look for a project home of comparable style, size, building material, fittings and inclusions (including the same number of bathrooms) on a block of land similar to your site (preferably a block of similar size, slope and soil type).

This method of estimating is quite rough being subject to many variables and should only be used to gain a preliminary 'order of magnitude' estimate, not the final price.

If you use an average cost per $m^{2,}$, as advertised by a large building company to form the basis for your estimate, you should remember their figures:

- include a profit margin - which can artificially inflate your costings
- often reflect savings due to bulk buying power - which your project is unlikely to benefit from.

Costing by material and labour

Calculating and adding all the material and labour costs is probably the most accurate method of estimating the total cost of your project and this will take some time as accuracy requires exhaustive research.

You will first need to compile a list of materials, along with their quantities which can be taken to suppliers for pricing. The labour component can be calculated by determining the costs for each task separately (based on sub contract rates and excluding any work you will perform yourself) and adding these together.

This process can be undertaken for you by a quantity surveyor or building consultant, for a fee. The accuracy of their work will be affected by the quality of your information, so it is important to supply plans, specifications and as much supporting material as possible.

Costing by a costing guide or estimating manual

Cost guides and estimating manuals are generally quite accurate and reasonably easy to use. Be aware that the prices listed in these guides and manuals are average figures and actual costs will vary in each situation.

These manuals utilise the combination of cost per product unit and average labour cost. The 'Reeds and Rawlinson' manuals are two of several guides suitable for this purpose.

Such guides are ideal for getting a reasonably accurate preliminary costing for your project. They can also assist you in developing a material and labour list which is then used to more accurately predict the cost of your project.

However, it is not recommended that the labour rates in such cost guides be used as a *final* price for your project estimate. Wherever possible, get quoted prices (at least three) from trade contractors.

Items commonly overlooked

Most people will note all 'big ticket' items when first producing an estimate but may forget or overlook many small and relatively inexpensive items (e.g. different screws and nails, wood glue needed by the fit out carpenter). These items add up considerably and will often run to many hundreds of dollars.

If you insist on doing your own estimating, utilise your suppliers. Many will offer a quotation/estimation service but be aware that these calculations are often carried out with an 'all care but no responsibility' clause which means you wear the cost if they make a mistake.

Don't forget to include fees and professional services such as those associated with the preparation and lodgement of plans.

It should be remembered that even with the best efforts, mistakes or oversights can still occur in the estimation process, particularly with a project as detailed as the construction of a house. For this reason, it is common practice to include a contingency sum in the estimate to cover unforeseen expenses.

Budgets

The total estimated cost of your project becomes your budget once the project begins (refer to Figure 4 - Example of an estimate summary sheet on page 24).

There are many ways of managing a project budget, including many dedicated computer programs and software but an exercise book can be just as effective.

Regardless of how you choose to do it, keep your figures up to date. Accurate and timely tracking of your finances will highlight potential overspend, allowing you to take appropriate and timely action.

*For additional reading about this topic refer to the reference book "**Building Your Own Home" .** Details of this book may be found in the section titled Books.*

Figure 4: Example of an estimate summary sheet

Cost centre	Materials and plant	Labour	Total cost of items
Professional fees: plans, engineering, supervisor			
Preliminaries: permits and fees, insurances, signs, surveying, soil test, temporary services, erosion control			
Demolition: full/partial demolition, house removal			
Excavation: earthworks (cut/fill), footings			
Termite management: under floor, exterior walls, perimeter treatment			
Concrete work: bored piers, strip footings, pad footings, slabs (on ground, elevated), pump			
Brickwork: ground floor walls and columns, 1st floor walls & columns, lintels, dpc, flashings, ancillaries			
Blockwork: ground floor walls and columns, 1st floor walls & columns, bond beams, core filling			
Exterior coating: texture coating on brick/block/sheeting, waterproofing of blockwork			
Structural steel: columns, beams, galvanising			
Metalwork: hand rails, stair stringers and step treads, sundries			
Carpentry: timber and/or steel for sub-floor, flooring, framing and trusses, cladding, eaves & gable sheeting			
Insulation: floors, walls, roof, ceiling			
Staircase: staircase, balustrade			
Joinery: door frames, architraves, skirtings, stops, strips, shelving			
Roof plumber: metal fascia/barge, gutters, valleys, down pipes			
Windows: timber, aluminium, other			
Doors: external, internal, garage			
Plastering: walls, ceilings, cornice, friezes and features			
Cabinetmaker: kitchen, bath, ensuite, powder, laundry, wardrobes – built-in, other			
Tiling: waterproofing to wet areas, wall & floor tiling, friezes, soap holders etc			
Paving: concrete/paving for paths and driveway			
Painting: exterior, interior, hand rails			
Plumbing: water connection and house piping, gas connection and house piping, waste connections to drains			
Drainage: sewer pipes, septic system, mini domestic treatment plant, stormwater drains			
Electrical: switchboard, lights, GPO's, phone, tv, computer, audio			
Floor coverings: carpet, cork, vinyl, underlay			
Landscaping: turf, mulch, plants, fencing, retaining walls			
Appliances: electrical/gas appliances, hot water, bath, spa, taps, basins, sinks, toilets, laundry tub, fans, light fittings etc			
Other:			
Total			

Planning and scheduling

A construction schedule is a document used to assist with the timing and coordination of activities on a construction project. It clearly demonstrates the order of tasks, the estimated time they will take and when they will commence.

Even the most experienced of builders will use a schedule to help maintain structured progress of their jobs. Most builders produce their schedules in a format called a 'bar chart'. An example of this follows on a later page.

If the bar chart is to be effective, each stage of construction should be represented by two lines:

- Line one - demonstrating the estimated time frame. This line is drawn when you are planning the construction
- Line two - reflecting the actual time frame (in different colour). This line is drawn as the construction progresses.

From this bar chart it is very easy to see how your project is progressing in relation to your desired schedule.

Producing a bar chart

The actual drawing up of a bar chart is only the final stage of a process involving the identification, sequencing and recording of the key stages in the construction process. The whole process involves at least the following steps:

Step 1: Listing the activities

Firstly, you must determine the level of detail you need. This depends on what the chart will be used for (e.g. for the preliminary planning stages or house construction). As the planning progresses, the listed number of activities increases and a more accurate timeline appears. The final bar chart should represent a detailed breakdown of activities.

Step 2: Allocating time to activities

To allocate time to each activity first you must determine the time scale (i.e. hours, days, weeks, months etc). The time scale will depend on the duration of the project and the breakdown of activities. Most construction bar charts used on-site are drawn using a day as the smallest defined grid line (refer to Figure 5 below).

Figure 5: Time plan example

Stage	Actual working days
Pre-Planning	5 weeks
Excavation	2 days
Setting Out	1 day
Footings	2 days
Base	2 days
Floor	1 week
Walls & Roof Framing	1 week
Roof	3 days
Services Rough-in	3 days
Internal & External Linings	5 days
Services	5 days
Fitout & Finish	15 days
Total number of construction days	**52 Days**

The number of actual working days required for each stage in the figure above may vary in practice. The total duration of your project from start to finish will be considerably longer than the total number of actual working days, depending on down time between stages, the time lost for holidays and wet weather, etc.

Step 3: Deciding on activity start dates

Now that you have the duration of each activity you must decide when each activity will commence. The simplest way to arrive at the start date for each activity is to decide what activity must be completed before the activity under consideration may begin (i.e. consider where that particular activity fits in the overall construction process).

In simple charts each activity can only be done once the previous activity has finished. So the starting time for each activity is the finishing time for the previous activity.

As the number of activities increase in complexity you will find that there are some activities that can, or should for efficiency reasons, be carried out at the same time. For example, the plumber and the electrician can do their work at the same time, but not at the same time as the roof tiler.

This is a very important point - while there are some activities that can coexist, there are others that should follow one after another. It is most important to establish the 'precedence' of each activity.

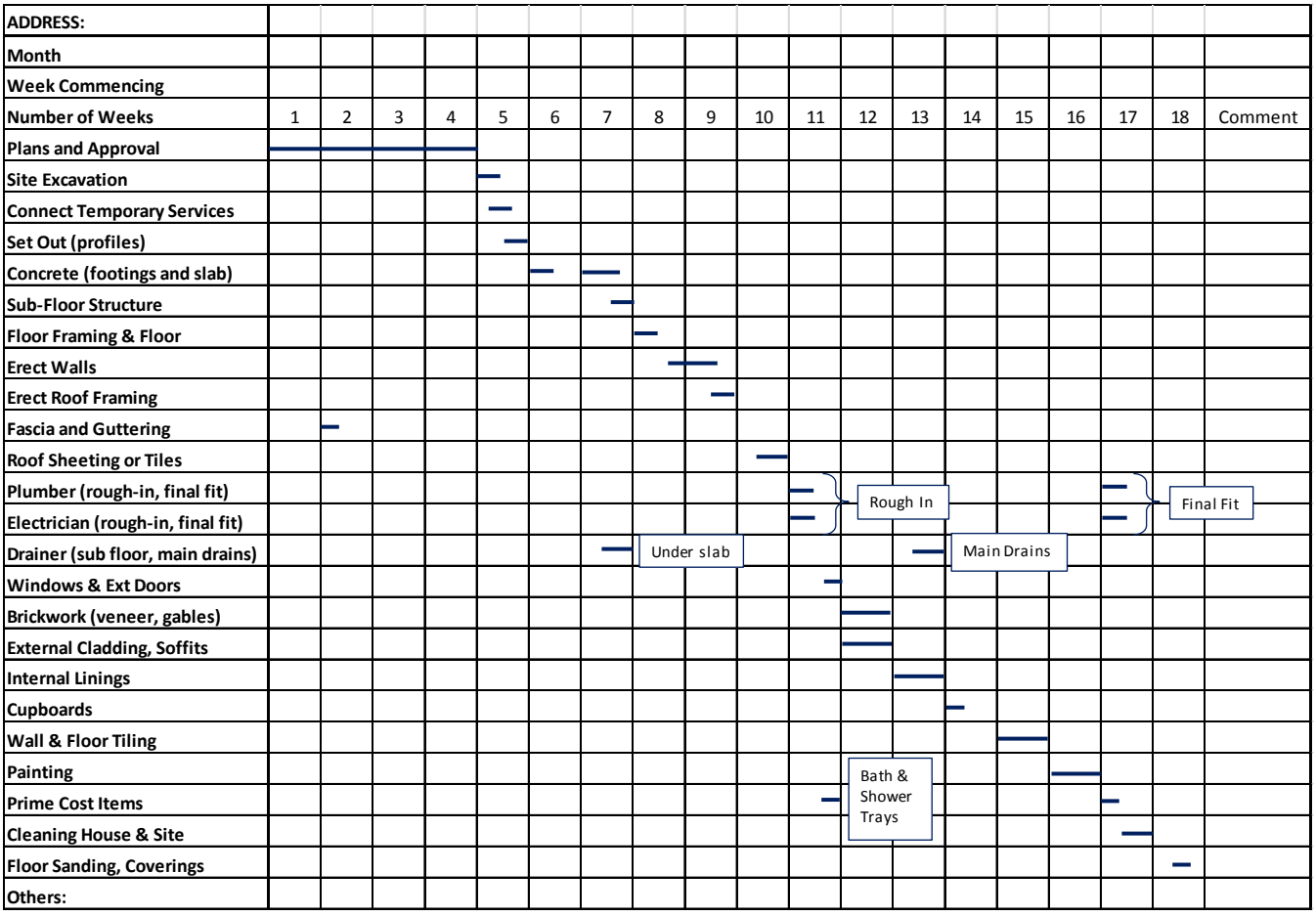
Hints for establishing the 'precedence' of each activity:

- write down all the activities in some logical sequence (don't try to make it perfect, just so long as it is reasonably close)
- number all activities from top to bottom
- note the activity which follows the first activity in your list
- continue through the list noting the activity which immediately precedes and follows each activity
- one activity can have more than one activity preceding (called a precedent) or following (called a dependant)

Step 4: Drawing the bar chart

Now that all the details are available you can begin to draw the bar chart (refer to *Figure 6 - Typical bar chart for construction of a complete house*, below).

Figure 6: Typical bar chart for construction of a complete house



However, there are a few points to note before you put pen to paper:

- A bar chart is best drawn on either purpose drawn sheets or graph paper
- Bar charts are almost universally drawn with time increasing from left to right across the chart and activities down the page with the first activity at the top and the last activity at the bottom

Now you are ready to begin drawing your chart. Follow the steps below:

i. Mark out the columns and write down the headings.

ii. Write all the activities down the left hand side of the sheet.

iii. Mark any public holidays or Rostered Day Off's (RDO) by shading the appropriate column(s).

iv. Mark in all the activity durations in pencil - begin drawing the bars lightly in the main part of the chart commencing with the first activity.

v. Using your list of activities with the notes on the following and preceding activities, you should be able to quickly complete the entire chart.

vi. Once you are satisfied that the chart is correct, you can go over the bars in your choice of either dark pencil, felt pen, ink or coloured pencil.

Controlling cost and time

Financial control, project construction planning and construction scheduling all go together to provide an important management tool. This information enables you to accurately assess progress and performance of the project against your budget expenditure.

A continuous review of the construction program (the bar chart) is required as you cannot always predict such uncontrolled factors as bad weather, late arrival on site of materials or trade contractors. The bar chart discussed in the previous section is the main document for your construction program and is a living document which will need regular revision.

If you are unsure of timeframes for construction of your project, consult your building consultant, licensed trade contractor or supplier.

The success of your project will be largely dependent upon your ability to manage the construction process and co-ordinate the resources involved.

This skill requires the owner builder to think ahead and have a basic knowledge of each building activity and where it fits in the overall construction process.

This means that you must be able to link up human resources (skilled labour) with the appropriate material resources at the right time to ensure that the work is done as scheduled.

Obviously there will be times when you will be facilitating several activities at once.

Sequencing building activities

Your certifier will need to be consulted prior to the commencement of your project to ensure you understand the timeframe needed to clear the application process and when to book for inspections, as a backlog of work may hinder your project's progress.

An example of a sequencing of basic building activities (in this case for brick veneer construction on a ground slab) would be:

- excavate site platform
- set-out the footings, excavate and pour
- form up and pour the floor slab
- set-out and construct house frame (timber, brick, block, steel)
- erect the roof framing/trusses
- fix roof cladding
- install external windows, plumbing and electrical (rough in)
- finish internal and external walls

- internal fitout, including services
- landscaping.

The following headings in this section give a more detailed indication of the sequence of construction and where applicable, the type of trade contractor who commonly performs each task.

It should be noted that this sequence may vary depending on the type of house being built and the building method adopted.

Clear site (excavator)

Clear the site of all unwanted vegetation that could inhibit construction. An excavator/drott may be required to level the site as per plans and specification. Try to limit the area disturbed by excavation.

Large trees should always be removed by a specialist.

Erosion and sediment control devices will need to be installed at this time. Discuss this with your installer prior to commencing any work on site. For example, you may need to install some controls (e.g. sediment control fence below the area to be excavated) prior to excavation commencing and then use the excavation equipment to install some controls (e.g. diversion channel up hill from the excavation and a stabilised entry to the site).

Temporary power and water (electrician, plumber)

Before construction starts you will need to organise the following temporary services (consult with appropriate trade contractors):

- electricity – if overhead, a temporary power pole may have to be hired
- water – your plumber will be able to connect temporary water though you may need to have a tank or a water connection installed
- a site toilet – is required and is best arranged at this stage (may be arranged through most building equipment hire services).

Set out (surveyor, concretor, carpenter, bricklayer)

For this task it is recommended that you engage a surveyor, concretor, carpenter, bricklayer or someone with experience in this area. Remember if this part is not done accurately it could be an expensive mistake.

Distances from boundaries to the building and the dimensions of the building are critical. The distances from the boundaries (can be called 'clearances') to the building shown on the approved plans will be checked for compliance with building regulations by the building certifier at the time of the footing inspection.

Excavation of footings (concretor, excavator)

In many cases the concretor may control this area of work utilising a competent excavator operator. Mistakes here will cost money as an over-excavated footing will use a lot more concrete.

After excavation, all steel specified for the foundation design is placed in the trenches and fixed into position ready for the engineer and/or compliance inspection.

Footing inspection (building certifier)

Give the specified notice (usually 24 to 48 hours) to the building certifier.

The engineer, if used, will also require some prior notice. (Contact the engineer before starting the project to determine how much lead time is required.)

Try to avoid any lengthy delays between completing the preparation and pouring the footings. It is imperative to give due consideration to the weather, especially if rain is forecast as water will quickly gather in open trenches which can cause considerable delays and be costly to clean up.

If footings are to be dug, prepared, inspected and poured in one day, you may need to give notice one or two days prior. Speak to the building certifier about what latitude there is in specifying an exact time of day (e.g. between 1-00pm and 1-30pm or just am or pm).

Pouring the footings (concretor)

Immediately after the footing inspection(s) is carried out the concrete should be poured for the footings.

The wet concrete should not be allowed to fall from a height of more than 1m as this could cause the large aggregate to clump at the bottom of the trench. This is termed 'segregation of the mix' and has an adverse effect on the strength of the finished concrete.

Segregation can also occur if the wet concrete is poured too quickly from the chute to get it to flow down the trenches. Concrete should be placed in its final location by allowing it to drop vertically from the end of the chute (less than 1m drop without additional vertical chutes) and should only be moved with a shovel once it is placed.

Water should never be added at the site to pre-mixed concrete. The concrete should be ordered with an appropriate 'slump' to enable ease of placement.

If you cannot access all parts of the site you will have to use wheelbarrows or a concrete pump to get the wet concrete to the remote areas of your site.

Under floor drainage (drainer)

Before the concrete for the footings is poured a drainer will be needed to install any pipe work required to go under the floor (i.e. wastewater drain pipes for the bathroom, toilet, laundry and kitchen as well as water supply in some cases). If you use a plumber/drainer the water supply from the mains should be run up to the house and a temporary tap installed to supply water to the site (if not already done).

Under floor drainage inspection (plumbing inspector)

An inspection by the relevant local government plumbing inspector will be needed prior to covering over the pipes for slab-on-ground and low clearance elevated floor types of construction (where the floor has less than standing room clearance off the ground). Give the specified notice (usually 24 to 48 hours) to the local government plumbing inspector. This would usually be done on your behalf by the drainer. Clarify this point when negotiating with the drainer.

Main drains (drainer)

In sewered areas, the sewerage and stormwater is often installed just before or just after the slab or sub-floor is constructed (this allows time for the trench backfill to compact so there should be no dips forming later in the landscaping).

Otherwise, it would be done after all the brickwork and/or cladding and internal linings are complete (the backfilling can be combined with a major site clean-up and near final trim if this option is used).

The latter would be the customary time that you would install an on-site sewerage facility and roof water drains (to minimise the likelihood of damage to any above ground parts of tanks and fixtures).

Main drain inspection (plumbing inspector)

Give the specified notice (usually 24 to 48 hours) to the local government plumbing inspector who will inspect all pipe work prior to backfilling of the trenches.

Electrical services (electrician)

These may need to be built in under the slab or behind brickwork. A licensed electrician will be required at this stage. In underground power supply areas, the meter box is often set-up on a temporary frame, in approximately its final location, to supply power for the site.

Only a licensed electrician may perform electrical work. Electrical trade contractors require two licences, an electrical worker's licence and an electrical contractor's licence. Both of these licences are issued by the Electrical Safety Office in Queensland. Electricians do not require a QBCC licence.

Preparation of slab (concretor)

Base walls are built by a bricklayer or fully braced edge boards (called boxing) are placed to form the perimeter of the slab.

Next, the under slab area is built up with compacted fill which is screeded off level. Any additional boxing is positioned and adequately braced (e.g. for garage doors).

Before the placement of the waterproof membrane over the under slab area, the following items will need to be undertaken:

- termite treatment system, if using chemicals (a reticulated delivery system) or graded stone barriers
- under floor services positioned to plan (generally only drainage pipe work).

The waterproof membrane is then placed in position and all reinforcing mesh supported on bar chairs. Any boxing for recesses (e.g. for showers) or step-downs (e.g. for a sunken living room or to the garage) is now positioned and braced.

Service penetrations through the waterproof membrane must be sealed using 50mm duct tape or similar.

Termite treatment (pest controller)

An approved type of termite management system will need to be installed prior to the placement of the concrete slab or before work commences on the sub-floor.

Termite mesh, reticulated delivery system for chemical poison or some other acceptable form as detailed on the approved plans will be required. (Refer to QBCC information on this subject available on the QBCC website.)

Slab inspection (building certifier)

Give the specified notice (usually 24 to 48 hours) to the building certifier or engineer.

Try to avoid any lengthy delays between completing the preparation and pouring the slab by giving notice as the preparatory work is commencing. Give due consideration to the weather.

Pouring slab (concretor)

Where you allow the concretor to organise their own materials ensure they keep all of the dockets for all materials delivered. Also ask for the concrete test results. There are several ways to pour a concrete slab. Be guided in this area by an experienced concretor.

All boxing should be done by an experienced person to ensure that there is no movement of boxing that will form bulges in the edges of the slab.

Concrete should be placed in its final location by allowing it to drop vertically from the end of the chute (less than 1m drop without additional vertical chutes) and should only be moved with a shovel once it is placed.

If you cannot access all parts of the site you will have to use wheelbarrows or a concrete pump to get the wet concrete to the remote areas of your slab.

Walls and floor framing (carpenter, bricklayer, steel framer)

The trade contractor needed at this time will depend on the type of house construction you are undertaking. You will require either a carpenter for a timber or brick veneer house, or a bricklayer for a block or cavity brick house. If your project has block or cavity brick walls and a timber framed floor you will require both.

If you are using steel framing (for walls or floor), ensure the trade contractor is suitably trained and experienced in that system.

Roof framing (carpenter, steel framer)

The cutting out of a roof or the standing of trusses is a job for an experienced carpenter. If you are using steel trusses, ensure the trade contractor is suitably trained in that system.

Frame inspection (building certifier)

Give notice to the building certifier.

Guttering and downpipes (plumber, metal-fascia/gutter installer)

After all wall and roof framing is completed, the fascia and barges (if metal) and gutters are fixed, taking care to fall gutters to the correct downpipe positions.

Ensure valley irons (gutters) are in place before any roofing goes on. Connect downpipe 'droppers' to temporary downpipes and pipe any rainwater away from the footings and disturbed site area to street channel if possible or suitably approved dispersal areas to prevent soil erosion and foundation movement.

Roof (roof plumber, roofer)

Install roof sarking (foil or insulation backed foil or insulation blanket) prior to fixing roof battens. The roofing (generally either metal sheeting or concrete/clay tiles) can now be fixed.

Windows and external doors (carpenter, bricklayer)

Windows should be fixed as soon as possible, ensuring flashings are used where necessary. External door frames should be fixed making sure they are plumb and square.

In the case of a block or cavity brick home the bricklayer will perform these tasks.

Services (electrician, plumber, drainer, others – as required)

Before any wall sheeting is fixed on timber or steel framed walls, or when the walls are going up for cavity brick or all block, the following trade contractors will be needed:

- the plumber and drainer will 'rough in' (fix all necessary pipes into walls for hot and cold water), connect up to the mains, and test the installation for leaks
- the plumber and drainer will run any elevated pipe work for suspended floors and arrange for their inspection
- the electrician will pre-wire for all the power, lighting systems and fire detectors needed
- pre-wiring should also be carried out now for telephone/communication, computer network, and audio and visual systems (e.g. intercom, stereo or electronic security systems), etc.
- pipe work should be installed for central vacuum systems and ducted air-conditioning and the like.

Plumbing rough-in and elevated drain inspection (plumbing inspector)

The plumber/drainer will give the specified notice (usually 24 to 48 hours) to the local government plumbing inspector.

Brickwork - external walls (bricklayer for brick veneer)

After sarking has been fixed to the external walls, the bricklayer can then build the veneer to the outside of the house. The bricklayer may either work up to the finished soffiting, or the soffit can be fixed after completion of the brickwork.

The soffit option used needs to be shown on the working drawings as this will affect the design of rafters or trusses.

Internal linings (dry wall plasterer)

Before starting the interior linings:

- ensure that all plumbing and electrical work (and any other 'hidden' services) is correct
- check that the shower recess is properly prepared and the floor flashings are in place in the wet areas.
- the bath/spa must be positioned and set into the wall as required.

The Plasterer can now proceed. All interior linings must be fixed to the manufacturer's specifications.

Joinery (carpenter, cabinetmaker)

The carpenter can now fix all internal doors, skirtings, architraves and shelving (for built-in cupboards such as the linen, broom, robes, etc.).

Also installed at this stage, by the cabinetmaker, are the kitchen cupboards, vanities and other cupboards. The cabinetmaker should liaise with the plumber for sink and vanity basin installations and any necessary plumbing work.

The carpenter will then be able to finish-off any extraneous joinery and fit any mouldings as required.

Wet area flashings (waterproofer)

After the walls are sheeted, an accredited waterproofing system must be used to seal the walls and floors of all shower recesses. A copy of the waterproofing certificate must go to the building certifier.

Tiling to walls and floor (tiler)

An experienced tiler can make your finished bathroom look so much better (a bad tiling job can ruin the entire look of a bathroom), so it is recommended that you use an experienced trade contractor rather than attempt this job yourself (unless, of course, you are qualified and experienced in tiling).

When tiling the floors in wet areas, be sure that the floor is sloping to the floor waste. The tiler can also tile the laundry and kitchen areas while they are on the job.

If you are tiling large areas of slab floor (e.g. floors in rooms such as kitchen, meals, family, rumpus etc.) You need to take measures, such as the installation of control joints, to prevent long-term problems occurring such as cracking of the tiles, drummy tiles, etc.

Painting, internal and external (painter)

An experienced painter will finish the internal and external surfaces making sure that any minor imperfections in the surface finish are properly rectified. A professional job at this stage can really make the difference between an average and a good finish.

A common occurrence is that following trades cause some marks or slight damage when fitting fixtures. Ensure that the painter leaves some paint to use for touch-ups, or include in the painting contract a requirement for the Painter to come back to do the touch-ups.

Many owner builders do their own painting to save money. To ensure a high quality finish, always use good quality paint and apply it to the manufacturer's specifications.

Shower screens, mirrors and robe doors

Once the painter and tiler are finished the shower screens, mirrors and aluminium framed sliding robe doors can be measured and fitted.

Final fit-out for plumbing (plumber)

The plumber can now fit all wastes and taps to sinks and tubs, and install toilets and the hot water service. The plumber will check that the sewage has been connected and ensure all stormwater drainage is in place.

Final plumbing and drainage inspection (plumbing inspector)

Give the specified notice (usually 24 to 48 hours) to the local government plumbing inspector. This would usually be done on your behalf by the plumber. Clarify this point when negotiating with the trade contractor.

Final fit-out for electrical (electrician)

The electrician will now fit all switches, power points and wire up all electrical fittings (e.g. stove, hot water service, range hood, etc.). Don't forget smoke detectors!

Other services (others - as required)

The telephone company should be notified so that the installation of phone and fittings and cable (if required) can be undertaken.

All other service providers should be notified to allow installation of fittings and fixtures.

Perimeter termite treatment (pest controller)

Should you choose to use a chemical perimeter soil treatment system you may be required to install a 300mm wide x 50mm deep concrete cap for protection. Retain the treatment certificate for future reference.

Whatever termite management system you choose, a durable notice that describes the system and its maintenance requirements must be permanently fixed to the building in a prominent location (usually in the electrical meter box).

The perimeter treatment will need to be redone if the soil beside or adjacent to the building, or the concrete cap, is disturbed in any way (such as laying a path or landscaping adjacent to the building).

To maintain the termite management system on your property regular inspections of the dwelling are required to be carried out by a QBCC licensed pest controller as re-treatment will most likely be needed from time to time.

These inspections should be carried out at least annually although more frequent inspections may be required depending on local conditions. Your pest controller will advise you about this.

Final inspection (building certifier)

Give notice to the building certifier. Disconnect temporary services.

For additional reading about this topic read QBCC information entitled 'Termite Management – What Owners Need to Know' and 'Termite Management Systems'.

This may be accessed on QBCC's website.
Click on 'Home and Building Owners'> 'Forms, Fact sheets and Publications' then choose:

- *'Termite Management – What Owners Need to Know'*
- *'Termite Management Systems'.*

The following topics are also very useful information:-

- *Waterproofing*
- *Paint & plasterboard guides*
- *Roof flashing*
- *Subsidence*
- *Fire separation*
- *Stormwater drainage*
- *Foundations & footings*
- *Guidelines for sanitary & stormwater installation on reactive clay soil.*

These fact sheets may be accessed on QBCC's website.

Record keeping

As an owner builder, you will need to be aware that the volume of paperwork to be dealt with will be considerable. An accurate record must be kept of all aspects of the project from initial planning through to final payments. A system will need to be established and maintained for the sole purpose of running your building project as a business.

Key tools to help you to monitor and control your project include:

- a record keeping system
- an orderly filing system.

Keeping records (paper-based or computer based) is very important for any substantial project. Developing and maintaining orderly record keeping and filing systems will be fundamental to your ability to monitor and control your project. This will assist you to file and retrieve information easily.

You should maintain different files (or sub-files within a file), books and journals for different categories of information. The file system on the following pages is a suggested starting point.

For most projects you should have discreet sets of records.

These are:

- a master file
- site diary
- safety plans
- work method statements
- site induction and training plans
- purchase order book
- petty cash book
- duplicate A4 book:
  - » site instructions
  - » day labour costs and times
  - » variations.

By the time your project is about to begin you should have decided on your suppliers (at least for all major items).

It is important when ordering materials from the pre-arranged suppliers that you refer to the planning schedule you have prepared for construction.

It would be a mistake to do any of the following:

- Have too many materials delivered at once - they could be damaged or stolen.
- Have too few materials delivered, or order them in the wrong sequence - this could lead to frustration, inconvenience and unnecessary delays for both you and your trade contractors.

Take note of the trade contractors working on your site and the requirement for other trade contractors to work with them at different stages.

Material left on site may be stolen if you are not there to receive it. Ask your supplier to advise you in advance of the date and time of any deliveries.

Discuss your delivery arrangements with your trade contractors prior to engagement so that they know what to do if you are unable to be on site when a delivery is made.

When materials are delivered to site you should check that the quantities and quality matches your order. If not, make notes about any discrepancies (e.g. shortages or damage) on the supplier's copy of the delivery docket before signing.

Contact the supplier as soon as possible so that the problem can be rectified (e.g. by adjustments to the next delivery).

Paying accounts

Some suppliers may allow you to pay for your goods by way of an account. That is, you pay for the goods after they are delivered. You may get 7-day, 14-day or 30-day from delivery or end-of-following-month terms.

When paying accounts, note any variations (e.g. shortfalls or damaged goods not yet replaced) clearly on the invoice and only pay for what you have actually received.

The following checklist could assist you:

- keep track of, and file together by supplier, all orders sheets, delivery dockets and invoices relating to the same order
- check that materials supplied are as ordered and at the quoted prices
- compare quotations, delivery dockets, invoices and orders to be sure you are only paying for goods actually received and ordered and that they are at the agreed price
- keep track of your finances and only order items essential to complete the project
- to maintain the goodwill and cooperation of your suppliers, pay all accounts on or before the due date.

Any delay in paying your accounts could mean a delay in receiving more materials until the account is paid, or a demand to pay cash for all future deliveries. Be sure you regularly check your finances and arrange them so that you can pay your accounts on time.

Warranties

Some items supplied to your project will have a manufacturer's written warranty. Be sure to keep all paperwork relating to these items in a file for future reference. Read the conditions on any paperwork (delivery dockets, warranty certificates etc.) to be aware of time limits for claims on faulty items.

It is very important that you make any claims relating to damaged or faulty products as soon as possible.

Payments to trade contractors

Progress payments

The amount and timing of progress payments should have been determined and recorded in the contract prior to the commencement of the project. The owner builder is expected to respect claims under the contract and pay on time.

The following is a list of considerations with regard to progress payments:

- monitor work progress and anticipate when to expect a claim
- review the terms and conditions of contract to determine if the payment is due
- ensure sufficient funds are readily available to make payment on time
- inspect the work to ensure it is satisfactory and the stage completed before payment is made
- do not pay for unfixed materials or unfinished stages
- advise trade contractor immediately if payment may be delayed
- only make payments to the person(s) or company who is identified as the trade contractor in the contract
- is the progress payment subject to a retention provision in the contract? If so, ensure the amount paid accurately reflects this.

The question (and percentage) of retentions on progress payments is a matter for negotiation. Although there are no legal requirements binding on the owner builder, in terms of fairness it is recommended that no more than 10% is retained from any one progress payment prior to practical completion.

Once practical completion has been reached, it is recommended that no more than 2.5% of the contract price be retained for a maximum of 6 months as a defects liability protection.

Whether or not retentions are included in their written contracts, owner builders may present their domestic building disputes, including those of a contractual nature, to the Queensland Civil and Administrative Tribunal (QCAT).

- pay by cheque, not cash, and only on receipt of a tax invoice. The invoice must be titled 'tax invoice' and also show the ABN.
- use a progress payment certificate – *refer to Figure 7 on page 36.*

The example shown on the next page is a certificate for recording progress payments in accordance with industry standards. The use of this certificate will provide an accurate record of payments made to the trade contractor in accordance with your written agreement.

Figure 7: Typical progress payment certificate

(The numbers in brackets are to show you how the values are derived in this example, they would not appear on an actual progress payment certificate.)

PROGRESS PAYMENT CERTIFICATE

Owner: _____

Site address: _____

Trade contractors name and contact details: _____

Contract statement		
Contract Sum	**1**	$6,000.00
Variations Previously Claimed (show additions as '+' and deletions as '-')	**2**	+$400.00
Variations this Claim (show additions as '+' and deletions as '-')	**3**	-$100.00
Adjusted contract sum (1+2+3=)	**4**	**$6,300.00**
Total Value of Work to Date	**5**	$2,000.00
Total Payments to Date	**6**	$950.00
Total Retention to Date	**7**	$50.00
Amount of this Claim (5-(6+7)=)	**8**	$1,000.00
Retention for this Claim (5%) (8x0.05=)	**9**	$50.00
Calculate payment for this claim (8-9=)	**10**	**$950.00**
Total paid to Date (including this payment) (6+10=)	**11**	$1,900.00
Total Retention to Date (including this payment retention) (7+9=)	**12**	$100.00
Balance of adjusted contract sum still owing *(excluding all retentions)* (4-11+12)=)	**13**	**$4,300.00**

Signature of owner: _____ **Date:** _____

Signature of trade contractor: _____ **Date:** _____

Variations

Any variation must be in writing detailing the changes required and costs involved. Once accepted a variation forms part of the contract and is to be paid when the appropriate stage has been reached.

Final payment

As trade contractors complete their work they will want final payment. There is no reason to delay this payment if the work has been completed satisfactorily.

If the work is required to be inspected for compliance (e.g. with building and plumbing regulations), you should ensure your contract provides that the final payment may be delayed or withheld until a satisfactory inspection has been completed.

Some things to do or check regarding the final payment:

- Read your contract carefully and comply with the provisions which relate to the final payment.
- Conduct your own careful final inspection to ensure all work agreed to has been satisfactorily completed in accordance with your written agreement:
  - » If the work is not completed satisfactorily, immediately advise the trade contractor, verbally and in writing (if you are entitled to withhold monies under your contract, the retention should correspond with the amount required to complete or rectify the job and the balance of the final payment should be promptly forwarded to the trade contractor).

» If you are in any doubt about your right to withhold a payment, or what your contract allows in this regard, be sure to obtain legal advice – failure to do so may result in a legal dispute which is costly in time and money.

- Be sure you advise trade contractors what to do with their rubbish - whether to remove off site or to place in a bin or designated area (this should be stated in your written agreements).
- Calculate the final payment of the contract allowing for variations, if any.
- If you are satisfied with the work, thank the trade contractor and make the final payment.

Trade contractors are running a small business and require their payments on time to continue to operate. Unnecessary delays in payment should be avoided. For advice on what to do in the event of a dispute with a trade contractor, see the Section: 'Conflict Prevention and Resolution'

Finance and loan requirements

Approaching lending institutions

When approaching a lending institution for money don't be reluctant to ask for a quote (including all service charges) for the finance you require. Also, do not feel rushed to sign up immediately. Take time to compare the offers received from different lenders before committing yourself.

To be truly professional in your approach to the lending institutions, and to give yourself the best chance of success, you will need to present a well prepared and documented proposal (if in doubt, ask the lender for a little more money than you think you'll need – it's preferable to having to come back and ask for more finance later).

You should provide as much supporting detail as possible concerning your project, including:

- detailed plans
- full budget estimates
- your proposed construction schedule
- details of your income and your partner's income if they will be involved in the loan (e.g. pay slips and recent group certificates)
- a statement of personal assets and liabilities.

Important matters to consider when arranging your finance include:

- stamp duty
- insurance costs
- interest and monthly repayments
- term of the loan
- account keeping fees
- time to set up and approve the loan.

One very important point to discuss with the lender is how they will pay the money to you. There are several options here:

- pay at designated stages (progress draws)
- pay on invoice (usually on a periodic basis - e.g. 7 days for a trade contractor and 30 days for a supplier)
- lump sum to your account and you then handle all the payments.

The contractual arrangements you make with your trade contractors and suppliers must be in accord with the draw-down facility that you establish with your lender so that you will always have sufficient funds readily available to meet your obligations.

When you are establishing a finance facility with a lender, it will be very important to your credibility that your submission includes realistic timeframes and costing which you can support with detailed workings (e.g. project schedule/bar chart and detailed estimate with supporting quotes).

Additional information about mortgage finance providers and products may be obtained from the following sources (among others):

Australian Consumers Association – www.choice.com.au
The ACA, an independent consumer watchdog group well known for comparisons of products and services. Some general financial information is available free of charge from the ACA web site while access to other material and reports may require subscription to Choice magazine.

Bank Choice - www.infochoice.com.au/banking
This web site provides a useful comparison, in table format, of the interest rates and fees charged by a wide range of finance providers.

Government assistance

From time to time both the Federal and State Governments provide grants, rebates and concessions to people (particularly first home owners) to assist them with the purchase or construction of a home. It is prudent to check with your respective governments to ascertain if any assistance is available. The assistance may be for solar, gas, renewable energy or stamp duties.

Financial records

As an owner builder you will need to keep records of all financial transactions associated with the project - it really is a necessity.

Failure to keep accurate records has been identified as a major cause of owner builders failing to complete their projects or exceeding their budget & therefore having to borrow more and in some cases much more.

In previous sections you were provided with tools to estimate the cost of your project and maintain a budget, but without keeping accurate financial records all your work could be wasted.

If you do not have accurate, up to date information you will be unable to make the right management decisions at the appropriate time to keep your project on track.

Every owner builder will need to use most, if not all, of the following financial documents:

- contract agreements
- copies of quotes
- cash book
- copies of sales invoices
- cheque butts
- petty cash book
- bank statements
- record of loan agreement payments.

The cash book

Probably the most important information is your cash position. This is the money currently available for making payments to suppliers and trade contractors.

For this purpose a cash book is used. The cash book details the different types of payments and the amount left over. Your cash book may be divided up into several columns which identify all cash outlays.

The cash book should have a 'total' column which records the current balance in your loan account. With each entry you will adjust the balance accordingly. This will give you ongoing information about your current cash position.

There are several computer software packages available to the owner builder which perform the same function as a cash book. As an alternative to these packages you could set up a spreadsheet to serve as your cash book (you could use a layout similar to that in Figure 8 below).

Figure 8: Example of a cash book

Date	Cheque no.	Payee	Cheque amount	Comment	Balance
					$100,000.00
15/1/08	123450	Bills Bobcat Hire	$575-00		$99,425.00
30/1/08	123453	John's Concreting	$15,595-50	All labour & material for footings and slab (Budget $16,150)	$83,829.50
02/2/08	123456	Bob's Bricklaying	$3,500	1st progress draw ($10,000 budgeted)	$80,329-50

Supplier accounts

The choice of suppliers will impact not only on the overall cost of your project but also on how smoothly it runs. Some owner builders waste valuable time searching for the ultimate bargain in building materials.

Remember, factors like reliability, willingness to provide friendly advice and assistance, the quality and range of materials offered, ability to deliver to site, and the availability and terms of credit may be even more important than the ticket price of the product and should be carefully considered when choosing your suppliers.

Most material suppliers will welcome new accounts. Ask to speak to the manager about your requirements. Do not be tentative in discussing the factors mentioned above as they may vary considerably from supplier to supplier.

Don't hesitate to ask your licensed trade contractors where they purchase their supplies. Local knowledge may save a lot of wasted time and money. Contractors may be especially well placed to advise on the reliability of particular suppliers (a 2% discount in price may be more than outweighed by the fact that the supplier is unable to deliver the material when promised and needed on site).

For the best results owner builders should have all relevant documentation well organised and ready for presentation when introducing themselves to suppliers.

In addition to the specific details of your project (including material lists/quantities, schedules and plans), be sure to have financial references (i.e. contact details of businesses you have dealt with in the past who can testify to your reliability and credit worthiness) on hand as they will help you to obtain the best payment arrangements (e.g. a 30 day account instead of cash on delivery).

Having this material readily available and well-presented will save time and assist you in your dealings with suppliers. Remember that you will have only one chance to make a favourable first impression.

The following are key questions you should ask suppliers:

- mode of payment – cash, weekly, monthly?
- deliveries - time, cost?
- how many types of product are available?
- can this supplier match a cheaper price offered by another supplier?
- is there a quantity take-off service? (i.e. where the supplier calculates the quantity of the product required for the job – *you should check the supplier's calculations before accepting their quotation/estimation*
- may excess materials be returned for credit?

Taxation and Portable Long Service Leave Levy

Goods and Services Tax (GST)

GST impacts on the owner builder as most of the materials used in a house are subject to GST. Also, all contracts are subject to GST and it must be included in the contract price (i.e. the supplier or service provider cannot quote a price then seek to charge you an additional, separate amount for GST).

GST must be included in the total amount shown on a contract, invoice, receipt or quotation. The amount of GST included in the supplier or service provider's account (which they must remit to the ATO) must be separately shown on the documentation they give to you.

Pay as you go tax (PAYG)

Under PAYG, trade contractors report on and pay their own taxes. There are no responsibilities on the owner builder in this respect.

If an owner builder pays for labour, the person who receives the money must first provide a tax invoice and must have an ABN. If an ABN is not provided the owner builder is required to deduct 48% of the payment from the total amount.

This money is to be paid to the Australian Taxation Office – with a written explanation of its origin. Keep a copy of these transactions.

For additional information refer to www.ato.gov.au for general taxation information.

Portable long service leave levy

This levy is a general charge that is payable on all building and construction projects in Queensland that are going to cost $80,000 or more, unless subject to exemption (see exemption categories on the form).

If you are carrying out work under your Owner Builder permit you will be exempt from payment of this levy. However, owner builders still need to notify Q-Leave about the work by completing and submitting all the necessary paperwork required by the Act.

You will not be required to pay the levy as owner builders come under the exempt category (refer to Section 71 (1) in the *Building and Construction Industry (Portable Long Service Leave) Act 1991*).

To obtain exemption, complete a Notification and Payment form (available from any Australia Post office) ensuring you have stated your Owner Builder permit number on the form. The form should then be stamped receipted for nil payment at an Australia Post office.

However, if you do not have your Owner Builder permit number when lodging the forms, you will have to pay the levy. You can apply for a refund once you have obtained your permit number.

Produce the yellow copy of the receipted form at your local government office or to your building certifier prior to receipt of your development permit.

You will need to have your receipt for Q Leave showing the exemption, plus the Owner Builder permit number when submitting the forms to the private certifier or council.

Refer to www.qleave.qld.gov.au ***or*** *free call Levy Payers Help line on 1800 803 481*

Obligations under the QBCC Act 1991

The QBCC Act allows persons (who are not licensed building contractors) to build their own home on land owned by them.

The Act provides that QBCC may issue an Owner Builder permit to the owner of land. This permit allows the owner to carry out certain prescribed building work on that land. The type of building work that may be carried out is domestic building work.

The Owner Builder permit does not allow the holder to carry out building work that is regulated by a statute other than the QBCC Act or building work in relation to a multiple dwelling or commercial or industrial buildings.

One of the requirements to obtain an Owner Builder permit is the successful completion of an owner builder course. Below is an extract from the QBCC Act.

Part 3 Licensing

s44B Criteria for granting application for permit

(1) The commission may grant the application only if the commission is satisfied- –

(b) that an applicant, or a director of a company that is an applicant, has successfully completed an owner builder course

In addition, the QBCC Regulation 2003 further states:

Part 4 Owner builders permits

s21 Prescribed course—Act, s43D, definition owner-builder course

For section 43D, definition owner builder course, the course prescribed is the Course in Preparation for Owner Builder Permit 39291QLD or a course the commission considers is at least equivalent to that course.

The value of the building work for the purpose of the QBCC Act is the equivalent cost calculated at normal commercial rates for all the work to be done including all labour & materials (i.e. the price that a builder or trade contractor would charge for carrying out the same work).

You will require an Owner Builder permit if the value of the work is $11,000 or greater.

The Act and the Regulations impose certain limitations and obligations upon owner builders.
The following should be noted:

1. The Queensland Statutory Insurance Scheme which protects consumers who contract with licensed contractors does not cover owner built work.
2. As an owner builder, in your role as head contractor, you will be personally responsible for dealing with individual contractors if problems in workmanship occur.
3. As an owner builder, you will be personally responsible for payment to rectify any defects in the building work or to complete any work left incomplete by an individual contractor.
4. Owner builders do not have access to the Queensland Building and Construction Commission's dispute resolution process.
5. The Act provides that an applicant is not entitled to be issued with an Owner Builder permit where that person has been issued with a permit in the last 6 years. (refer section 44B (1)(c) of the QBCC Act).
6. An applicant is not entitled to be issued with an Owner Builder permit where that applicant has had an Owner Builder permit cancelled in 3 years preceding the application.
7. An applicant is not entitled to be issued with an Owner Builder permit where the applicant is a banned individual.
8. All applicants must be deemed to be a fit and proper person to hold a permit.
9. The Queensland Civil and Administrative Tribunal (QCAT) operates separately to QBCC and is intended to have exclusive jurisdiction over domestic building disputes.
10. The QBCC does not provide assistance in relation to owner builder's payment issues. As the head contractor for your project, the subcontractors and suppliers working for you are able to use the *Building and Construction Industry Payments Act 2004*.

    If there is a dispute regarding payment, they may lodge an adjudication application to obtain payment. In such an instance you may wish to consider seeking independent legal advice.

Consumers (the building owner) can seek to have disputes resolved as quickly and inexpensively as possible through the tribunal (cost of application July 2013: $284.60).

Parties to a domestic building dispute are referred to mediation by the tribunal. If the parties fail to agree at mediation, then a tribunal member may, as a last resort, impose a decision which binds the parties.

This process in the tribunal is designed to minimise the need for expensive court action. The tribunal publishes case studies to promote awareness of consumer issues affecting building work.

Surrender of an Owner Builder permit

An owner may surrender the Owner Builder permit by written notice at any time. If an owner builder decides to enter into a contract with a licensed building contractor to carry out the owner builder work, the permit *must* be surrendered *prior* to signing the contract with the builder.

*An owner may **not** perform owner builder work on the land **after** the Owner Builder permit is surrendered.*

Surrendering a permit *after* work has commenced under the permit

- If an owner has commenced owner builder work and then surrenders the Owner Builder permit, any work carried out under that permit is not residential construction work and is not covered by the Queensland Statutory Insurance Scheme.

  After surrendering the Owner Builder permit, an owner may enter into a building contract with a licensed contractor to perform residential construction work on the land.

The work performed by the licensed contractor would be insurable work and an insurance premium must be paid. The work performed by the owner builder would remain uninsurable work and the Owner Builder Notification would remain on title for seven years.

- If an owner has commenced owner builder work and then enters into a contract with a licensed contractor to perform building work covered by the permit, this work would still be owner builder work and would be uninsurable. If the owner then surrenders the Owner Builder permit, the work performed would remain uninsurable work.

Surrendering a permit when *no* work has commenced under the permit

- If an owner has not commenced owner builder work under the Owner Builder permit, an owner may surrender the Owner Builder permit. If an owner builder decides to enter into a contract with a licensed building contractor to carry out the owner builder work, the permit **must** be surrendered **prior** to signing the contract with the builder.

  The work performed by the licensed contractor would be insurable work and an insurance premium must be paid. An owner could request the removal of the Owner Builder Notification from Title where:

  - Building approval has been obtained and cancelled - provide a copy of written confirmation from the building certifier confirming the cancellation of the approval.
  - No building approval has been obtained - provide a copy of a current council search or letter from your solicitor confirming 'vacant land status' on the property

- To surrender the permit, you must give written notice to the QBCC and return the permit. You will be required to complete and return (along with all requested documentation) an *'Application to Surrender Permit'* form. Note - A refund of 50% of the application fee only applies to permits surrendered within six months of the date of issue of the permit and where NO owner builder work has been performed under the permit.

If an owner has not commenced owner builder work under the Owner Builder permit, an owner may surrender the permit.

*If an owner builder decides to enter into a contract with a licensed building contractor to carry out the building work, the permit **must** be surrendered **prior** to signing the contract with the builder.*

Notification on certificate of title

When the QBCC issues an Owner Builder permit, the QBCC is required to notify the Registrar of Titles of the granting of the permit.

The Registrar of Titles will then make a notification on the certificate of title to the land specifying that an Owner Builder permit has been granted in relation to building work performed on that land.

The purpose of this requirement is to ensure that potential purchasers of the land are made aware that the building work was not performed by a licensed builder but by an owner builder. The notification may be removed after a period of seven years has elapsed from the date of the entry of the notification.

Warnings to purchasers of owner built houses

For a period of six years from the date of completion of their project, owner builders are required to provide a notice and a warning to purchasers of their property to the effect that owner builder work has been performed on the site.

The relevant provisions of the *QBCC Act and QBCC Regulation* are set out below:

QBCC Act (Section 47):

(1) If -

a. building work is carried out on land by a person who is not licensed to carry out that building work; and

b. the land is offered for sale within 6 years after completion of the building work; the vendor must, before the contract of sale is signed by the purchaser, give the prospective purchaser a notice containing details of the building work and a warning in the form required by regulation.

(2) If a notice is not given as required by this section, the vendor will be taken to have given the purchaser a contractual warranty (which operates to the exclusion of any inconsistent provision of the contract of sale) that the building work was properly carried out.

QBCC Regulation 2003 (Part 4 Section 22):

(1) The notice to be given to a prospective purchaser of land under section 47 of the Act must -

a. state that building work detailed in the notice has been carried out under an Owner Builder permit by a person named in the notice; and

b. contain a warning in following terms –

WARNING - THE BUILDING WORK TO WHICH THIS NOTICE RELATES IS NOT COVERED BY INSURANCE UNDER THE QUEENSLAND BUILDING AND CONSTRUCTION COMMISSION ACT 1991

(2) The notice must be given in duplicate, and the purchaser must sign 1 copy of the notice and return it to the vendor on or before signing the contract.

The Act provides that in the event that this warning is not given, the owner builder is deemed to have given the purchaser a warranty that the building work was in fact properly carried out (See s47 of the Act).

Owner builder site signs

Finally, the Act requires an owner builder to display on their building site, a sign showing the number of the Owner Builder permit.

The sign must be:

a. made of waterproof materials;

b. of an area no less than 0.5m^2 (e.g. a sign approximately 900mm wide x 560mm high would comply); and

c. printed in letters at least 50mm high & placed in a way that can be easily read from the nearest street alignment.

The sign must remain visible throughout the duration of the performance of the building work. (Refer to Section 28 of the *QBCC Regulation*).

Relevant administrative Acts and authorities

Owner builders need to be aware of the different administrative authorities that, through legislation and associated regulations, regulate and control building activity, including Owner builder work.

Listed below are some of the Acts, Regulations, Standards and Codes that may influence your building project:

- *Integrated Planning Act 1997 (and the Integrated Planning Regulation 1998)*
- *Building Act 1975 (and the Building Regulation 2006)*
- *Metropolitan Water Supply and Sewerage Act 1909*
- *Plumbing and Drainage Act 2002*
- *Work Health and Safety Act 2011 (and the Work Health and Safety Regulation 2011)*

- *Queensland Building and Construction Commission Act 1991 (and the Queensland Building and Construction Commission Regulation 2003)*
- *Domestic Building Contracts Act 2000*
- *Building and Construction Industry Payments Act 2004 (and the Building and Construction Industry Payments Regulation 2004)*
- *Environmental Protection Act 1994 (and the Environmental Protection Regulation 1998)*
- local town plan
- relevant Australian Standards
- *Building Code of Australia*

The provisions of the above Acts, Standards and Codes mean that you will have contact with several administrative authorities which will have varying levels of control over your project.

Some examples of these relevant authorities include:

- Queensland Building and Construction Commission
- your local government (in particular the Building, Town Planning and Plumbing Departments)
- private certifier
- the Forestry Department and other State Government departmental bodies
- electrical and gas supply authorities
- communications service providers

Of those listed above, as an owner builder you will probably have most contact with your local government and/or private certifier.

For additional reading about Acts and Regulations related to owner builders consult the following:

- *Queensland Building and Construction Commission Act 1991*
- *Queensland Building and Construction Commission Regulation 2003*
- *Domestic Building Contracts Act 2000*
- *Building and Construction Industry Payments Act 2004*
- *Building and Construction Industry Payments Regulation 2004*
- *Queensland Civil and Administrative Tribunal Act 2009*
- *Queensland Civil and Administrative Tribunal Regulation 2009*

These are accessible online at www.legislation.qld.gov.au.

Local government responsibilities

General knowledge of the relevant laws and regulations assist the owner builder in knowing who to approach for information about a particular item. However, most communication will be done through your local government building office or private certifier.

Local governments administer building regulations at a local level. Private certifiers also have some control in this area. Matters over which private certifiers have no authority include:

- assessing town planning matters,
- reviewing the capacity and location of public utilities – e.g. sewer mains, water supply
- exercising discretion on the siting of buildings – e.g. reducing the set-back requirements
- granting exemptions to the requirements for installation of swimming pool fences.

Details of documents required at lodgement are available from building certifiers (i.e. your local government building certifier or private certifier).

Your licensed plumber may have to sign some of these applications before the building certifier will release them, check with your licensed plumber for placement of the water meter position.

A temporary power supply will be needed for construction. A temporary power pole can be hired for the construction period (consult your electrical contractor for proposed placement) and your electricity supply authority will connect the power when the necessary forms are lodged and fees and deposits paid.

Licensing requirements for trade contractors

The QBCC licenses builders and trade contractors in many different classes of licence, including those listed below. A licence is required if an individual or company wants to carry out or supervise building work over the value of $3,300 (including labour and materials), or wants to carry out or supervise work of any value in the following areas:

- plumbing and drainage
- gasfitting
- termite management - chemical
- completed residential building inspection
- fire protection
- building design
- site classifier.

Each licence class has a scope of work. It is important that the work your trade contractor intends to perform is covered in that scope of work. If this is not covered by one class of licence the trade contractor may have to hold more than one class.

A licence can only be issued to an individual or a company. The QBCC does not licence trusts or partnerships.

To check your trade contractor's licence please visit QBCC's website.

Approvals and inspections

Building approvals

When you get your final working drawings from the designer you will have to apply for building approval from a building certifier or directly with some regional councils, who can use either a local government building certifier or a private certifier. They will check that the plans comply with both the Building Code of Australia (BCA) and the *Building Act 1975* (and associated regulation).

Some building certifiers produce a checklist to ensure that people applying for building approval submit all documentation necessary for their application.

*You **must not** commence construction until you have received building approval for your plans.*

All work must comply with the approved plans. Any variations from the approved plan will require amended plans to be approved. This may incur a further fee and could delay progress on your project.

Inspections – who is responsible?

Throughout the various stages of construction there is a need to control the standard of workmanship and to ensure that the work is consistent with the approved plans and complies with the relevant building codes, regulations and Australian Standards.

The first part (quality control), is your responsibility while the second part (compliance with the approved plans and codes), is the responsibility of a building certifier.

The main responsibility of the building certifier is to ensure that the construction complies with the Building Code of Australia (BCA) and the approved plans. Building certifiers are not supervisors or quality control inspectors.

Quality control is your responsibility. If you feel that you do not have the necessary skill for checking the quality of workmanship then you should employ someone with the necessary experience.

What may be an acceptable standard in someone else's eyes may not necessarily satisfy you. It is strongly suggested you take the time to inspect the quality of a licensed trade contractor's work on some recently completed projects prior to entering into any formal agreements with that person.

An owner builder should consider the following points in relation to quality control:

- a competent person should inspect all work (e.g. a building consultant may be employed to inspect work on site at regular intervals)
- it is advisable to have these inspections whilst the licensed trade contractor is on-site (ensure this procedure was agreed to by both yourself and the licensed trade contractor at the signing of the contract)
- who controls the standard of workmanship?
- the trade work may meet certain standards and be structurally correct, but this alone may not ensure a tidy finish
- ensure all persons know the limits of their responsibilities whilst on site.

Compliance inspections

As an owner builder it will be your responsibility to inform the building certifier when the project has reached the stage where inspection is required. This will occur at various intervals during construction. When you collect your approved plans from the building certifier you should receive some inspection notice forms which you are required to complete and return.

For the construction of an entire home, the following building inspections are compulsory under the *Integrated Planning Act 2009* and must be carried out by either a building certifier or a competent person authorised by the building certifier:

- footings, prior to laying concrete
- slab-on-ground, prior to laying concrete
- frame (i.e. ready for roof)
- house final.

You will also have to provide copies of the following certificates to the building certifier where relevant to your project:

- *wet seal – for tiled showers*
- *glass – for windows and sliding glass doors*
- *termite management systems*
- *roof trusses*
- *electrical certificates*
- *any engineer's certificates, and*
- *any other relevant certificates the certifier may require.*

Check with your local government or private certifier for any additional inspection requirements in your particular area such as:

- landscaping (not in all areas)
- pool and pool fencing.

For the construction of an entire home, the following plumbing inspections are compulsory:

- drainage – under slab
- plumbing rough-in (and stacks for high set or 2 storey houses)
- drain test
- plumbing final.

These can only be carried out by your local government plumbing inspector and is normally arranged by your plumbing and drainage contractor.

For additional reading about this topic read QBCC's information entitled 'Inspections and Approvals', which can be found on the QBCC website.

Click on 'Home and Building Owners'> 'Buying and, Building or Renovating> Building or Renovating'> 'Building Inspections and Approvals'.

Insurances

Public liability

Regardless of precautions taken by the owner builder, visitors to their site could fall or injure themselves and seek to claim damages against the owner builder (as the owner/controller of the site).When the project is under construction it is impossible to supervise it constantly, day after day. Friends, family, new neighbours and the general public may wander onto the site at any time to inspect progress.

An insurance advisor/broker should be consulted for professional advice on the choice of policy, company and premium costs before commencement of your specific project.

With all your insurance, do not think your current policies will suffice for your owner builder work.

You need to contact your insurance broker and explain fully what you are about to undertake on your property and check to confirm you are covered. When discussing with your insurer, state clearly your intentions and obtain written quotations and policies for the insurance coverage.

Construction insurance

This type of policy (sometimes known as contractors all risk insurance) provides cover for financial losses suffered due to storm, fire, explosion, accidental or malicious damage, theft, damage in transit and other defined events which may occur during construction. Be sure to check the policy document to find out specifically what is included, and more importantly, what is excluded.

Some insurance companies may offer a reduced rate if construction insurance and public liability insurance are taken together. It may also be possible to reduce premiums through the use of excesses (i.e. where the policy owner covers some of the cost of any claim and pays a lower insurance premium).

Compulsory superannuation payments

At the time of print an owner builder is not responsible for paying the compulsory contributions on behalf of trade contractors' employees. However, if you engage workers on a labour-only basis (e.g. weekly/fortnightly wages for hours worked), you may have superannuation obligations. If in doubt contact the ATO for advice.

Personal accident and sickness

Personal accident and sickness insurance may be available and should be considered if you will be on site frequently. In the event of injuries that prevent work, this type of insurance will pay an agreed amount based on your income at the time.

If you already have this type of insurance, check with your insurance company to see if your policy will need to be amended due to your new role as an owner builder.

WorkCover

WorkCover insurance (previously known as Workers' Compensation) provides compensation to workers for loss of income due to work related injuries or illness. There is a legal obligation for anyone who employs another person to take out WorkCover insurance.

Owner builders usually sub-contract the work out to other people and in those circumstances you are not required to have cover, except if the contract is a 'labour only' contract.

However, if you do engage trade contractors, be sure to sight and check evidence that they have current WorkCover insurance. If staff are employed for a single task on a wage (e.g. paid per hour or day) WorkCover insurance cover must be taken out by the employer.

To protect yourself in all circumstances as an owner builder (particularly where trade contractors may have failed to meet their obligations) it is highly recommended that you contact WorkCover prior to engaging any trade contractors to ascertain your liability to pay WorkCover insurance.

Refer to www.workcoverqld.com.au

WorkCover Queensland will provide you with written advice on your liability to pay WorkCover insurance. Contact WorkCover on 1300 362 128.

Trade contractor - proof of insurance

Whenever you engage a trade contractor, whether to work for you in your capacity as an owner builder or just to do a small project around the house, ask to see evidence of all their insurances. Before any trade contractor commences work on site you should insist on sighting annual renewal certificates for all their insurance policies.

Never accept a cover note as proof of insurance *– these can be cancelled or allowed to lapse. Always ask to see the policy schedule and the payment receipt for the current period.*

When you sight the trade contractor's insurance policies you should record the following information:

- the insurance company
- type of cover
- policy number
- expiry date for each insurance policy
- name of the insured (this should also be the name that appears on any contract between yourself and the trade contractor).

Keep this insurance information, along with all other relevant details, for all the trade contractors you use.

Ultimately liability on site usually rests with you, the owner builder. You may be judged to be wholly or partially responsible for payment of any claim made against you or a trade contractor. It is therefore imperative that you have current and sufficient insurance cover.

Building coordination

Trade contractors

As an owner builder, even if you are a building tradesperson, you will not normally take on the construction of the entire house yourself. In addition to the occupational licensed trades, such as plumbing and electrical, you will also need to consider contracting with other trades.

The QBCC Act requires builders, trade contractors and building designers to be licensed. To contract with an owner builder they will need to hold a QBCC contractor licence.

When looking for trade contractors, a good starting point is to talk to people you know personally who have relevant experience and qualifications (e.g. friends who have built recently, or who are builders or trade contractors themselves).

Other ways of locating an experienced, properly qualified contractor include:

- trade and builder associations (these organisations can also help you obtain details of local trade contractors and may be a helpful source of technical information for your project)
- yellow pages and advertisements in local newspapers
- visit local building sites where appropriate.

Having made contact you will need to consider the following:

- » Is the trade contractor licenced – write down the name and number that appears on their licence card. Phone QBCC or visit the website to confirm that the contractor is currently and appropriately licensed to perform the work you want them to do.
- » A recent client list – check with those clients about the trade contractor's workmanship, reliability and client service.
- » Does the trade contractor have a good track record in your area?
- » Do you feel comfortable talking with the trade contractor? Is the communication two-way?
- » Does the trade contractor show an interest in your project?
- » Can the trade contractor fit in with your schedule and how much notice do they usually require?

For additional reading about this topic visit the QBCC's website:

Click on 'Home and Building Owners'> 'Buying, Building and Renovating'> 'Before building or renovating'> 'Starting building or renovating' – and – 'Home and Building Owners'> Complaints and defect issues'> 'How to avoid disputes'.

You need to get at least three quotes from experienced, properly qualified trade contactors, especially for the major parts of your project. When you have narrowed your list of trade contractors down to those you will ask to quote on your project, consider the following:

- Have you discussed all relevant points with the trade contractor, including your expectations regarding the finish, quality and material to be used in the work?
- Will the trade contractor provide a written quotation for all work? (A written quote, which can be incorporated in a contract, is essential for minimising the risk of misunderstandings or disputes).
- Are there any items not covered in the quote?
- Have you agreed on who does what?
- Will the trade contractor be able to finish on time, or are the trade contractor's present commitments on other projects likely to delay your project?
- Can the trade contractor provide a list of the materials required for their work?

- What payment arrangements (deposit and progress payments schedule) does the trade contractor normally use?

Discuss and clarify the following points with the trade contractor before agreeing to engage them:

- current and adequate insurance cover for employees and third party cover. You will need to see documentary evidence
- cleaning up of the site during construction and on completion – don't take this for granted. If a contractor fails to clean up their mess it will mean extra work for you
- provision for retentions to minimise the risk of the trade contractor failing to meet their agreed obligations
- the suppy and erection of scaffolding

A 'certificate to erect scaffold' is required for the erection of scaffolding where a person can fall four metres from the work platform.

Depending on the type of scaffold needed, the erector will require either a basic, intermediate or advanced certificate.

Refer to the WH&S Act or to your local WH&S office to check which types of scaffold the person can erect.

- responsibility for notifying the following at appropriate stages of the work (where applicable):
  - » building certifier/local government plumbing inspector (for mandatory inspections)
  - » engineer
  - » building consultant (if one is engaged to supervise quality).

Contracts

Once you have chosen the trade contractor, it is important that you record in writing all details of your agreement. This is best done through the use of a contract, or for a smaller job a written quote supported, where appropriate, by plans and specification.

A written document not only protects you and the trade contractor, it also defines all the work to be done and outlines the key responsibilities of both parties.

Proper documentation will go a long way towards minimising the risk of a costly, disruptive dispute. The written contract should clearly state the following:

- name of the builder/trade contractor who is contracted to carry out the building work
- licence number of the builder/trade contractor
- address of the land where the building work is to be carried out
- scope of the building work covered by the contract

Where appropriate the description of the work should be supported by plans and specifications and include any special requirements with regard to finish/materials/construction, etc.

- commencement and completion dates or a timeframe for performance of the contracted work. Any grounds for extensions of time should be clearly stated
- amount to be paid for the contracted work (inclusive of GST), including details of the amount and timing of any deposit and progress payments (where appropriate) – in addition to the final payment

It is recommended that deposits never exceed 20% of the contract value. The timing and amount of any progress payments included in your contract should be directly related to (and not in advance of) work progress. In practice, it is customary on very small, quick jobs for all or nearly all of the money to be paid on completion

- any variations to the contract should be recorded in writing and include full details of the change
- parties' agreement about retention amounts and securities to be held (if any)

The question, and percentage, of retentions on progress payments is a matter for negotiation between the owner builder and their trade contractors.

In terms of fairness it is recommended that no more than 10% be retained from any one progress payment prior to practical completion. Once practical completion has been reached, it is recommended that no more than 2.5% of the contract price be retained.

Once agreement has been reached, both parties must sign the contract and retain a copy.

Ensure that the person with whom you are signing the contract is the principal of the firm or business which will be performing the contracted work.

Once the work gets underway the QBCC strongly recommends that you take care to ensure:

- you stick to the contractual arrangements and never pay early or in advance of progress on the project
- progress payment arrangements (timing and exact amount) set out in your contract are directly related to work progress
- work is satisfactorily completed in accordance with your written agreement before making the final payment
- you seek legal advice if you have any further questions concerning payment arrangements.

Whatever the value of the work, make sure that (after paying the minimum deposit) you never pay for work before it is completed as this may expose you to the risk of financial loss in the event of the trade contractor going broke or otherwise failing to complete the job.

A number of industry associations produce standard form contracts which may be appropriate for owner builder projects. The QBCC also produces a range of subcontracts, available for free on our website.

For additional reading about this topic read QBCC information entitled 'Reducing the Risk of Things Going Wrong'.

This information may be accessed on QBCC's website.

Applicability of *Domestic Building Contracts Act 2000* to owner builders

The *Domestic Building Contracts Act 2000* (the DBC Act) regulates contracts for domestic building work over $3,300 between building contractors and homeowners. It does not, however, regulate contracts between a building contractor and sub-contractors.

For the purposes of the DBC Act an owner builder falls within the definition of a 'building contractor' – therefore the contractual arrangements between an owner builder and their building contractors are not covered by the requirements of the DBC Act.

Tendering checklist

The following is a checklist of steps in the tendering process:

- make contact with contractors
- send out copies of plan and specification to trade contractors (try to get at least three quotes) and allow approximately two weeks before following up
- compare prices received on an equal basis ('apples with apples')
- check trade contractor's qualifications, references and past work, and insurance policies
- conduct final negotiations.

Always try to work within your budget, but never at the expense of quality or workmanship. Also, record all details of the final agreement in writing.

Give a signed copy to the trade contractor and retain a copy for your own records.

Intolerance within the building industry

There is an attitude among some people in the building industry that anyone who does not work in the industry knows nothing, or at best very little, about how to build a house, extension or renovation.

This attitude may be experienced by some owner builders, particularly women, when negotiating or dealing with some trade contractors and suppliers.

The best way anyone can counter an attitude of this nature (i.e. "I know best what you need/want as I'm the expert."), irrespective of your gender, is to do your research about the work or material to be done or supplied prior to contacting the trade contractor/supplier.

If you are unfamiliar with the work or material make use of your consultant(s) and industry organisations such as Queensland Master Builders Association (QMBA) and Housing Industry Association (HIA). Timber Queensland is particularly helpful for timber related issues (e.g. flooring, framing, decks, etc.).

Your research is done so that you can negotiate from a position of understanding, not expertise - that is still your trade contractor or supplier's position.

Keep in mind that it is your money and your project, accept advice willingly but ultimately *you will have to live with the results of your decisions.*

Conflict prevention and resolution

As an owner builder, conflict management will need to be a priority of your project. Listed below are some issues you will need to be mindful of in managing your project:

- Owner builders do not have access to the QBCC's dispute resolution process.
- Always have written contracts with your trade contractors so that the work to be undertaken, payment terms and time limits are clear to both parties. Conflict often results when key arrangements are not fully and accurately recorded in writing.
- Be courteous and respectful to trade contractors (and their workers) as they are trained specialists whose skills you need to complete the project. Co-operation and harmony will be important in ensuring that the project progresses smoothly with minimum delays.
- Leave trade contractors (and their workers) alone to carry out their work if and when your assistance is not required. When you inspect their work, do so unobtrusively but with the trade contractor's full knowledge.
- Beware of supplying trade contractors with second hand or inferior materials. As well as compromising the work of the trade contractor, and the overall integrity of your project, such materials may actually be more time consuming and expensive to install than quality products.

- Always make payments promptly and within the time stipulated in the written agreement. If there is some legitimate reason (as defined in the agreement) for delaying a payment, contact the trade contractor as soon as possible to resolve any issues and then make payment promptly when the problem is resolved.

Owner builders may refer disputes with trade contractors regarding domestic building work to the Queensland Civil & Administrative Tribunal (QCAT).

Contact QCAT on 1300 753 228 or GPO Box 1639, Brisbane, QLD 4001 or www.qcat.qld.gov.au

Move in and maintenance

If you are building a new home, moving in can occur once the building is ready for occupation. You would normally move in once the services are connected and the building can be securely locked up.

You should also observe the following:

- take out a full householder's insurance policy
- ensure that your keys are collected from trade contractors
- let your new neighbours know that you are moving in
- don't leave valuable or irreplaceable items in the house if it is to be left unattended for long periods (the risk of theft from houses is particularly high while people are moving in).

Connection of services

When nearing the end of the project final connections to services will need to be made. In some cases (e.g. electricity) service providers may require a deposit and their procedures may cause delays.

Advise trade contractors of any changes to your schedule. Sometimes inspections may be required before connections are made.

The hot water system needs to be full of water before electricity is connected to the system (it is also harder to steal).

Some local governments require payment of a bond or lodgement of a bank guarantee before building approval is given to ensure that certain commitments are met (e.g. a bond may be required to cover repair of any damage to footpaths which might occur during construction).

Be sure to obtain refund of the deposit or release of your guarantee as soon as you have met the relevant commitments.

Checklists

General items

- all keys collected from trade contractors.
- householder's insurance policy arranged.
- new neighbours informed.
- measures taken to minimise theft whilst moving in.
- electricity, telephone, etc. deposits paid.
- inspections before connections completed.
- hot water system full of water.
- cleaning services arranged.
- refunds received for security deposits (e.g. local government).

Specific items

The following list should serve as a guide to help you determine when your house is ready to be inspected:

- is the building generally in accordance with the approved plans?
- have all facilities been provided?
- is the building generally complete and habitable (requirements include: facilities for washing clothes and the preparation and cooking of food; a bath or shower; a toilet and wash basin; etc.)?
- is the building weatherproof and vermin-proof?
- is the road and gutter clean of old concrete and building spoil?
- fences not to exceed 2000mm in height from ground level
- gates not to open over footpath
- all downpipes connected to stormwater
- are all weepholes clear and not covered by landscaping (including under windows)? do not rake or poke sharp objects into weephole to clean them or you could puncture the dpc
- check for minimum height of floor level above landscape (min. 225mm) and paths (min.150mm)
- ensure adequate site drainage exists (in some cases this may require yard gullies to be piped to the kerb and channel or to roof drains) may require additional fill
- cut and fill as well as any retaining walls to comply with the requirements of the relevant local government
- final ground level must slope away from the building in accordance with footing design and local government requirements
- check siting, including setbacks (this would only be inspected at this time where the final inspection is also the first inspection; siting would normally have been checked at an earlier inspection)
- laundry seal around laundry trough pipes to be vermin-proof
- hot water tank pipes and electric cable to be vermin-proof (through wall)
- toilet door to comply with Queensland amendments to Building Code of Australia (BCA)
- vermin-proof bathroom pipes and seal side of vanity
- window openings to comply with relevant conditions
- all windows and sliding glass doors comply with relevant Australian Standard (AS 2047 – 1999 and AS 1288-2006)
- tread width and rise of stairs to meet BCA
- handrails and balustrades to stairs and balconies to meet BCA requirements.

Maintenance

Generally, the maintenance of an owner built project is the responsibility of the owner. The following list provides some issues to consider:

- If faulty workmanship is found, it may be possible to have the tradesperson responsible return and make adjustments.
- If major failure occurs, immediately inform the trade contractor, both verbally and in writing. If the trade contractor fails to respond within a reasonable time despite agreements made in the contract, contact QBCC or your solicitor. (The key responsibilities of trade contractors should be detailed in your contracts).
- Yard work or landscaping is to be carried out with due consideration to other components of the building. Excavations should not be done near to the house unless qualified persons are involved.
- You may need to redo the perimeter (in-ground chemical) termite protection if the soil adjacent to the building is disturbed in any way.
- Do not allow concrete slabs, soil or landscaping (bark, etc.) To encroach on the weep holes of the brickwork.
- Retaining walls may be required within the site. Make sure that these are constructed to a suitable design (if they exceed a certain height, retaining walls will require an engineer's certificate and/or building approval).
- If you have excavated on the boundary, it is your responsibility to retain. If you have filled, it is also your responsibility to retain.
- Fences are normally jointly-owned on side and rear boundaries.

  Speak to your neighbours or inform them by letter of your intention to construct a fence on your shared boundary. While it is common practice for the costs of boundary fences to be shared, do not expect neighbours to pay half the cost if the fence you intend to build is more elaborate than usual for your area.

  Once a fence is erected, it becomes jointly-owned. If it is on or near the boundary, it is considered to be servicing both sides.
- Do not plant trees which will grow high and have large root systems too close to the house - trees should generally be planted no closer than their mature height or spread whichever is greatest as tree roots can cause severe damage to footings and slabs (check expert advice on tree planting).
- Monitor the perimeter of the house at least every six months for termites. Do not disturb tell-tale mud tunnels - obtain the advice of a qualified pest controller at once.
- If you have a timber floor, do not block off air vents to walls below the floor.

Congratulations.

You have now reached the end of the Owner Builder Study Guide.

This guide was designed to provide you with information relevant to the management of the owner builder process. It is not a guide on how to undertake the building of your project, rather it is intended to provide you with some proven tools to assist your monitoring and control of the project.

Good luck with your venture into owner building.

Appendix A: list of external resources

On the following pages are lists of reference materials provided as a further source of information.

Queensland Building and Construction Commission information

The following QBCC information may be of interest to owner builders and is available from QBCC's website at www.qbcc.qld.gov.au

Titles include:

- ***Homeowner education seminars***
- ***Building Options***
  - *Display Homes*
  - *Individually Designed Homes*
  - *Swimming Pools*
  - *Sustainable Housing*
  - *Project Homes*
- ***Starting Building or renovating***
  - *Licence requirements for building work*
  - *Using licensed contractors*
  - *Building plans*
  - *Building quotes*
  - *Products and cost*
- ***Building inspections and approvals***
  - *Building inspections*
  - *Building certifiers*
  - *Mandatory inspection stages*
  - *Facts for Smart Building and Renovating*
- ***Defective building work***
- ***Handover and after***
  - *Practical completion (handover)*
  - *Pre-handover inspection*
- ***Home maintenance***
- ***Termites, asbestos and subsidence (soil movement)***
- ***Owner builders***
  - *What is owner building?*
  - *Applying for a Permit*
  - *Approved owner builder course providers*
  - *Owner builder course exemptions*
  - *Forms for owner builders.*

For more information on some technical items identified by QBCC as potential problems areas, go to QBCC's website homepage and click on 'Contractors', then on 'Forms, Fact Sheets and Publications' – or call 1300 272 272.

Legislation

These Acts may be purchased through the Queensland Government printers (called GoPrint) or you can access them on the government legislation website at www.legislation.qld.gov.au/OQPChome.htm

The Acts are listed alphabetically on the website. Some of the Acts and Regulations relevant to owner builders include:

- *Queensland Building and Construction Commission Act 1991*
- *Queensland Building and Construction Commission Regulation 2003*
- *Queensland Civil & Administrative Tribunal Act 2009*
- *Queensland Civil & Administrative Tribunal Regulation 2009*
- *Building and Construction Industry Payments Act 2004*
- *Building and Construction Industry Payments Regulation 2004*
- *Building and Construction Industry (Portable Long Service Leave) Act 1991*
- *Building and Construction Industry (Portable Long Service Leave) Regulation 2002*
- *Work Health and Safety Act 2011*
- *Workplace Health and Safety (Codes of Practice) Notice 2005*
- *Work Health and Safety Regulation 2011*
- *Domestic Building Contracts Act 2000*
- *Domestic Building Contracts Regulation 2010*
- *Environmental Protection Act 1994*
- *Environmental Protection (Air) Policy 2008*
- *Environmental Protection (Noise) Policy 2008*
- *Environmental Protection Regulation 2008*
- *Environmental Protection (Waste Management) Policy 2000*
- *Environmental Protection (Waste Management) Regulation 2000*
- *Environmental Protection (Water) Policy 2008*
- *Integrated Planning Act 1997 (and Regulations)*
- *Building Act 1975*
- *Building Regulation 2006.*

Energy efficiency in residential construction

For additional reading on energy efficiency in residential construction (including advice on appliances, insulation and lighting), visit the website at www.ehp.qld.gov.au/sustainability/sustainable_housing.html

Association of Building Sustainability Assessors: www.absa.net.au

Lending institutions

For more information, and a list of lending institutions, go to the following website at www.apra.gov.au

Click on 'Authorised Deposit -taking Institutions'and 'Register of ADIs' – this will take you to a page that will give you access to a list of financial lending institutions. Select one of your choice.

Books

Building Your Own Home
Author: George Wilkie
Publisher: New Holland Publishers (Australia) Pty Ltd
Available from most bookstores and larger newsagents

The following owner builder books, though not referenced in the Study Guide may also be considered valuable for building projects:

The Australian House Building Manual

How to be a Successful Owner Builder and Renovator

The Roof Building Manual

Australian Decks and Pergola Construction Manual

The Australian Renovators Manual

Building products and materials

Though not referenced in this guide, the following website provides a building materials product directory at www.aecinfo.net.au and has a very extensive list of links to product and material suppliers.

Taxation and GST

For further information regarding GST, and taxation generally, visit the following ATO website at www.ato.gov.au/

Worker checklist

WorkCover Queensland has a 'Worker Determination' you can use to see if you are required to have a WorkCover policy. The checklist may be accessed on the following website at www.workcoverqld.com.au/

Workplace health and safety - general

The following website contains relevant information for building and construction at www.deir.qld.gov.au/workplace/industry/construction/index.html

Construction safety plan and work method statements

The Division of Workplace Health and Safety provides information regarding construction safety plans and work method statements.

This information may be obtained from the following website at www.deir.qld.gov.au/workplace/industry/index.htm then click on 'Health and safety tips' under 'See Also'.

qbcc
queensland building and construction commission

For more information: phone 1300 272 272 or visit our website at www.qbcc.qld.gov.au