



Building Consent Application Guide

Version 11/05/16



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Contacts for Further Information

MIBE Websites: www.building.govt.nz
www.smarterhomes.org.nz

NZ Building Code: www.building.govt.nz/#free.download

Helpline Phone: **0800 242 243**

Energy Wise NZ: <http://www.energywise.govt.nz>

BRANZ Website: www.branz.co.nz

General advisory helpline for building industry

Phone **0800 808 085**

The owner of a proposed building has the responsibility to make sure enough detail is provided in the plans, specifications and other documentation for the building consent authority to issue a building consent. Most applications for new building projects are completed on behalf of the owner by their design professional or building contractor.

This guide focuses on how to obtain approval from a building consent authority. It will help you prepare plans, specifications and documentation; and explain the building consent process. It is written more specifically for simple residential building work, however, the principles it contains can be applied to all types of building projects.

The basic information needed for a building consent application is similar across New Zealand. However, each local Council or building consent authority process applications slightly differently, so there can be variations from one area to another.

For a building consent to be approved, you need to demonstrate how the proposed building will comply with the Building Code. It helps to remember that the Building Code sets out only the minimum performance standards a building must meet. In many cases, home owners and designers will strive for better standards.

It is also important to remember that the building consent authorities in processing applications are looking for compliance with the Building Code. It is not their role to design the work or to monitor the quality and aesthetics, except where it has implications on compliance with the Building Code.

The documentation for even a simple new building project passes through many hands, including designers, builders, plumbers, drainlayers, home owners and developers, and finally the building consent authority for the consent approval process.

Good planning and documentation provides a solid foundation for everyone involved in the building process. It should speed up processing and approval times, and also provides an accurate historical record that can be used later when further work, repair or maintenance is needed.

Providing adequate documentation will help everyone involved in a building project play their part in ensuring the work is carried out properly the first time.

2.1 The Building Act 2004

The Building Act 2004 increased the focus on the content and quality of plans and specifications submitted for a building consent.

Section 45 of the Building Act sets out in broad terms what an application for a building consent must contain. However, it does not define the form, content or quality of the plans and specifications, or other information needed to support individual applications.

The Building Act allows each building consent authority to determine what plans, specifications and other information it reasonably requires. This allows for differences in requirements to be managed locally, however, it can result in variation of interpretation in what is necessary from one authority to another.

2.2 Building Consent Documentation

Form 2 - Application for Building Consent and/or Project Information Memorandum needs to be completed, signed and lodged with all supporting information. This includes the drawings, specifications and any necessary accompanying documentation such as product installation information and appraisals, Alternative Solution design, engineering and design calculations. Some building consent authorities have specific requirements for building consent documentation, including:

- specific size, form and scale of individual drawings or the elements they contain
- requirements for certain line types, or thicknesses, or for lettering of a certain type or size.

Often these requirements are a result of the building consent authority's process for storing and retrieving building consent information (for example, digital storage).

2.3 Coverage of Documents

This guide focuses on information needed to confirm compliance with the Building Code. However, information on tendering, contractual issues, project management, construction, and on those parts of a building project not requiring code compliance, can be included in a single set of documents suitable both 'for consent' and 'for construction'.

Building consent authorities may require other information, due to area-specific matters (such as known ground and environmental conditions), local district plan requirements, bylaws, or Local Government Act 2002 requirements. A Project Information Memorandum (PIM) would identify any issues for you in advance.

2.4 Additions and Alterations

You can also apply the principles and recommendations in this guide to projects involving additions and alterations to an existing building.

A building consent authority must not grant a building consent for an alteration to an existing building unless it is satisfied that after the alteration the building will comply with the current Building Code as near as practical for means of escape from fire.

For buildings other than residential, access and facilities for persons with disabilities must also meet the current Building Code as near as reasonably practical. All new building work must meet the current Building Code, whilst existing construction must continue to comply with the Building Code to at least the same extent as before the alteration.

Early consultation between you, your designer and the building consent authority plays an important role. Your designer will need to analyse the current degree of compliance of the building for means of escape and access and facilities for people with disabilities and what would be necessary to bring it to full compliance with the Building Code. Where the economics of full compliance may not be practical in the context of the total project works or value, your designer in collaboration with you may put a proposal to the building consent authority for partial or staged compliance with a list of benefits and sacrifices involved with the proposal.

2.5 Restricted Building Work

Restricted Building Work was introduced on 1 March 2012 for the design and construction of new or altered residential and small to medium apartment buildings. The designer and contractors for foundation work, carpentry, brick and blocklaying, external plaster, roofing and site management associated with Restricted Building Work must be Licensed Building Practitioners (LBPs). For further information on LBP's, please go to the following link: <http://www.building.govt.nz/lbp-consumer>.

2.6 Owner - Builder Exemption for Restricted Building Work

If you are a homeowner and wish to carry out Restricted Building Work yourself, there is an exemption that you can use that includes the signing of a statutory declaration that you meet the criteria of being an owner - builder.

The criteria include:

- Having a “relevant interest” in the land or the building as the owner.
- You live in or are going to live in the home.
- You carry out the Restricted Building Work yourself or with the help of your unpaid friends and family members.
- You have not carried out Restricted Building Work under the home owner exemption to any other home within the previous three years.

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The Building Consent Process

3.1 Building Consent Processing

Building consent applications can be lodged at the following main and service centre offices relevant to your particular Council. Refer to your Council website for office opening hours.

Clutha District Council			
Balclutha main office	1 Rosebank Terrace, PO Box 25, Balclutha 9240	P 03 4190200 F 03 4183185	E help.desk@goredc.govt.nz W www.cluthadc.govt.nz
Clutha	4 Clyde Street, Balclutha 9230	P 03 4180388 F 03 4181877	As above
Catlins	10 Campbell Street, Owaka 9535	P 03 4158371 F 03 4158371	As above
Lawrence	5 Peel Street, Lawrence 9532	P 03 4859909 F 03 4859013	As above
Milton	124-126 Union Street, Milton 4814	P 03 4178109 F 03 4178332	As above
Tapanui	Suffolk Street, Tapanui 9522	P 03 2048306 F 03 2048302	As above

Gore District Council			
Gore main office	29 Civic Avenue, PO Box 8, Gore 9740	P 03 2090330 F 03 2090357	E info@goredc.govt.nz W www.goredc.govt.nz
Mataura	1 Bridge Street, PO Box 14, Mataura 9356	P 03 2038115 F 03 2037615	As above

Invercargill City Council			
Invercargill main office	101 Esk Street, Private Bag 90104 Invercargill 9840	P 03 2111777 F 03 2111433	E service@icc.govt.nz W www.icc.govt.nz
Bluff	16 Gore Street, Bluff 9814	P 03 2128704 F 03 2128711	As above

Southland District Council			
Invercargill main office	15 Forth St, PO Box 903 Invercargill 9840	P 0800 732732 F 0800 732329	E info@goredc.govt.nz W www.southlanddc.govt.nz
Lumsden	18 Diana Street, Lumsden 9730	As above	As above
Otautau	174 Main Street, Otautau 9610	As above	As above
Riverton	117 Palmerston Street, Riverton 9822	As above	As above
Stewart Island	9 Ayr Street, Stewart Island 9818	As above	As above
Te Anau	116 Town Centre, Te Anau 9600	As above	As above
Winton	1 Wemyss Street, Winton 9720	As above	As above
Wyndham	41 Balaclava Street, Wyndham 9831	As above	As above

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The Building Consent Process

Building consent applications will be checked on lodging to ensure the form is completed correctly. Following that, an initial application assessment will be carried out to ensure all necessary supporting information has been provided.

For applications lodged at service centres there will be a minimal time delay for transit to the main office before the initial application assessment can be carried out.

Where an initial assessment identifies that not all the necessary supporting information has been provided, it will be returned to the applicant. Where assessed as being complete, the application is accepted into Council's building consent computer system, which initiates the monitoring of the processing timeframe. Normally a consent will be issued within 20 working days of the application being received into the system (excluding further information requests).

The application may pass through various sections of Council necessary to determine that the plans and specifications not only satisfy the Building Code but also meet property access and connection to any network service requirements.

This could include:

- Resource Management
- Water and Waste Services
- Area Engineers
- Environmental Health
- Hazardous Substances
- Auditing Engineer for Specific Design
- Building Control.

Alternative solution fire designs relating to new or major alterations on commercial or industrial buildings will need to be referred to the Fire Service Design Review Unit for comment as part of the building consent review process. Design review costs will be charged back to the consent applicant.

Where a detailed technical review identifies that further information is necessary to enable the consent to be issued, the application is placed on hold, which stops the 20 working day processing clock. The necessary further information is communicated to the applicant from the contact details provided on the application form. When all the requested further information has been put together, it can be submitted for consideration, which on being deemed adequate reactivates the process clock and enables the building consent to continue to be processed.

When the building consent authority is satisfied on reasonable grounds that the proposed building work meets the Building Code the consent is granted and then issued to the applicant. Building work can not progress until the building consent has been issued.

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The Building Consent Process

Once the building consent has been issued, there is a 12 month period within which the building should have commenced. Where there has been no inspection entry at the 11 month period, Council will forward correspondence requesting confirmation whether building work has commenced. Where no response is received confirming work has commenced or requesting an extension of the starting timeframe, the consent will be lapsed.

3.2 Producer Statements

General policy is to only accept specific design or construction review producer statements from Chartered Professional Engineers (CPEng). Councils may also nominate a reviewing or peer reviewing engineer to review the specific design as part of the process. This may be arranged internally as an additional charge to the applicant or the applicant may be asked to arrange externally and supply to Council.

Where producer statements are provided by installers/suppliers of products and systems such as moisture proofing membranes and coating systems, the documentation shall be filed on the appropriate property file. Council may also undertake inspections of such systems as an additional measure in determining compliance.

3.3 Fees and Charges

Councils have varying practices relating to the collection of building consent fees. Some invoice and collect the fee before granting, others invoice and grant, and others are paid at lodging if that is the customer's preference. Check your individual Council website for building consent fee schedules and mechanism for charging and collecting fees.

The Ministry of Building, Innovation and Employment (MBIE) and Building Research Association of NZ (BRANZ) levies are payable as an additional charge above Council's consent and service fees on building work having an estimated project value equal to or greater than \$20,000.00.

Please note that any fees or charges outstanding at the time of submitting an "Application for Code Compliance Certificate" may prevent it from being issued.

3.4 Exempt Building Work

Please note that although certain building work may be exempt from the need for a building consent under Schedule 1 of the Building Act, it must still be carried out to satisfy the provisions of the Building Code.

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The Building Consent Process

For a complete list of building work exempt from the need for a building consent refer to Schedule 1 of the New Zealand Building Act 2004 available free of charge on the Ministry of Business, Innovation and Employment (MBIE) website.

Go to: www.building.govt.nz/compliance-docs-get-copies#free-download

3.5 Inspection of Building Work

In issuing the building consent, the building consent authority will identify the inspections it deems necessary to determine that the work has been undertaken in accordance with the issued consent documents and the Building Code. Building consent authorities decide what inspections they need to carry out based on the applicants supervision proposal provided with the consent information and their own evaluation of the plans, specifications and other information. The applicant may propose inspections (for example, by any supervising CPEng Registered Engineer). Where no applicant supervision proposal is provided, the building consent authority will determine the necessary inspections. For more detail on possible required inspections, refer to Section 9 below.

It is the owner or his nominated agent's responsibility to notify the building consent authority when the building work is at the stage the specified inspections can be carried out. A minimum of 48 hours notice prior to the building work being ready for inspection is appreciated, however where possible longer periods are helpful to assist in co-ordinating inspections and accommodating longer travelling distances necessary for rural authorities.

The minimum notification period is 24 hours. This does not mean that if the building consent authority is unable to meet the inspection requested within that timeframe, the building work can be closed over. Work closed over that has not been viewed by the building consent authority relating to required inspections may place it in the position where the Code Compliance Certificate cannot be issued at the completion of the project.

Contact your individual building consent authority referenced in Section 3.1 above for inspection notification timing and methods along with needing to be on-site and availability of consent documents.

3.6 Variation from Issued Consent Documents

It is important that all building work carried out is in accordance with the issued consent documents. Where there are variations proposed, other than minor amendment, approval must be obtained for the variation before the work can proceed. Major amendment documentation detailing the variation will need to be submitted as a staged consent application to the building original. The application will be treated with priority within the system, with fees based on actual processing time plus any additional inspections necessary above that already charged, rather than a full consent fee as if it were a new application.

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The Building Consent Process

Minor amendments will be considered on a case by case basis. Where the proposed variation and time component to review is minimal, the change can be added to inspection note and consent documentation.

3.7 Code Compliance Certificate

The owner is responsible for submitting the Form 6 Application for Code Compliance Certificate once the building work described in the building consent along with any subsequent approved variations have been completed in accordance with the consented documents. The owner's agent may make application on the owner's behalf. An application is included with the issued consent, but another can be requested by contacting Building Control administration staff and specifying the building consent number or property address.

Depending on the complexity of the work type, supporting information such as energy certificates for gas/electrical work, cladding system or deck/wet area membranes, producer statements may be required. Construction review producer statements and alarm system audits may be necessary for more complex commercial buildings.

For Restricted Building Work, the Form 6 Application for Code Compliance Certificate must include Records of Work (ROW) from the Licensed Building Practitioners (LBP) involved in any foundation work, carpentry, brick and blocklaying, external plaster, roofing and site management associated with project. For further information on LBP's, please go to the following link: <http://www.building.govt.nz/lbp-consumer>

Once a Form 6 Application for Code Compliance Certificate is received, along with all necessary supporting information, the building consent authority must make a decision whether it can issue the Code Compliance Certificate within 20 working days.

Where all the supporting information is not provided with the application, the 20 day clock stops and a request for further information is sent. Once this information is provided, the 20 days clock is restarted.

The building consent authority must issue a Code Compliance Certificate where it is satisfied that the building work undertaken complies with both the issued building consent documents and the Building Code. Where the building consent authority is not satisfied it can issue a Notice to Fix and/or a Refuse Code Compliance Certificate notice.

Where the building consent authority does not receive an application for Code Compliance Certificate within 24 months of the consent being issued, correspondence will be forwarded requesting confirmation as to whether the work is complete, there are still outstanding compliance issues or further work is necessary requiring a maximum 12 month extension. If no response is received within 20 working days, the status of the building consent will be changed to Refused Code Compliance Certificate.

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The Building Consent Process

Work can still progress under Refused Code Compliance Certificate status as long as the necessary inspections are notified and the Application for Code Compliance Certificate is lodged on completion.

3.8 Compliance Schedule Specified Systems

Commercial buildings having life safety features such as fire alarm or other specified systems may require a compliance schedule/statement to be issued to set systems in place for ongoing checking and maintenance of the features. Consent applications containing new or altered specified systems shall specify these on the application form and supporting information.

The fire assessment should also include information on any specified systems necessary for the building, including such information as the system type, the standard installed to and the necessary performance monitoring and reporting to ensure its ongoing functioning.

Council will use this information to compile a draft Compliance Schedule for issuing with the building consent. A finalised Compliance Schedule/Statement will be issued with the Code Compliance Certificate at the completion of the building project.

3.9 Determination Processes

Where the owner or the owner's agent does not agree with a decision made by the building consent authority, the option is available to make application to the Ministry of Building, Innovation and Employment (MBIE) for a determination. Contact information for MBIE for advice on the process is at the start of this booklet.

3.10 Infringement Notices

From July 2008 territorial authorities have had the provision to issue infringement notices to persons committing an offence under the following sections of the Building Act. Infringement fees provide an enforcement tool for use in the limited number of situations where there is difficulty obtaining compliance, but still leaves the option to escalate more serious breaches to a prosecution.

Infringement notices can be issued to the building owner, tenant, builder, structural engineer, architect, property manager or an independent qualified person engaged for checking building warrant of fitness features on behalf of a building owner.

Sec	Infringement	Fee	Sec	Infringement	Fee
S 40	Failing to obtain Building Consent	\$750.00	S 116	Permit dangerous / insanitary building	\$1,500.00
S 42	Failing to obtain Cert of Acceptance	\$500.00	S 116	Permit inadequate fire egress	\$2,000.00
S 85	Not a LBP carrying out RBW	\$750.00	S 124	Failing to comply notice under S 124	\$1,000.00
S 85	LBP not appropriately licensed RBW	\$500.00	S 128	Occupying building with a S128 notice	\$2,000.00
S 85	LBP supervising RBW not licensed	\$500.00	S 168	Failing to comply with Notice to Fix	\$1,000.00
S 101	Failing to obtain Compliance Schedule	\$250.00	S 314	Stating licensed to do RBW but not	\$500.00
S 108	Failing to display Warrant of Fitness	\$250.00	S 363	Use bldg without Consent/COA/CPU	\$1,500.00
S 108	Displaying a false Warrant of Fitness	\$1,000.00	S 367	Obstructing a Building Control Officer	\$500.00
S 108	Warrant of Fitness not displayed S108	\$1,000.00	S 368	Remove or deface notice issued to BA	\$500.00

4.1 Definition

The Building Act defines 'plans and specifications' as 'the drawings, specifications and other documents according to which a building is proposed to be constructed, altered, demolished, or removed'.

This definition does not provide enough information for you to determine how much or how little detail is needed and how the information should be structured.

4.2 Building Consent Information

Information in the plans and specifications needs to be project-specific. Using general phrases such as 'refer to manufacturers' specification and/or requirements' or 'installed in accordance with best trade practice' is not sufficient. Manufacturers' specifications can change from time to time and 'best trade practice' is a standard that varies from individual to individual.

References to Standards and Compliance Documents need to be specific rather than general. Some Standards are cited (in whole or in part) in the Acceptable Solutions while other Standards offer advice only. Some Standards may also contain a range of options.

Make reference to Standards that are readily available to those involved in the building process. References to other industry guides, such as BRANZ publications, need to be specific and not general.

References need to:

- Uniquely identify documents with titles and dates.
- Be specific as to the paragraph/clauses to be followed.

Compliance Documents and Acceptable Solutions:

The Building Code, being performance-based, requires a certain level of performance to be achieved in buildings. Unlike prescriptive bylaws that existed before, it allows more than one way to achieve that performance. The Acceptable Solutions provided in the Compliance Documents (produced by the Ministry of Business, Innovation and Employment) provide one means of demonstrating compliance with the Building Code. Building consent authorities must accept Compliance Documents as complying with the Building Code. Designers can provide an Alternative Solution, as long as they demonstrate to the building consent authority that the proposal will comply with the Building Code.

4

Plans and Specifications

4.3 Drawings

All drawings should contain a drawing number and title, the designer and owner's name, and job address, and be dated for version control. Drawing conventions - line types and widths, lettering type and size, symbols for building features and elements, designation of spaces, representation of materials and cross-referencing conventions - should generally conform to AS/NZS 1100 Technical Drawing. Either hand-drawn or CAD (computer-aided design) drawings are acceptable.

Drawing sizes may vary according to circumstance and convenience, usually ranging from A0 to A4 sizes. The size of drawing sheets should be consistent within a single set of project drawings. However, occasionally drawings or diagrams of components and construction details are more appropriately provided in A4 size and bound in with specification data (for example, a specific engineering detail).

The recognised Standard for architectural and engineering drawing in New Zealand is set out in different parts under AS/NZS 1100 Technical Drawing. This group of Standards provides useful advice on drawing conventions. While they do not provide a model for a typical set of building consent documents or construction documents, they nevertheless provide a good base to work from.

4.4 Drawing Range

The size and complexity of the project often determines the level or amount of detail needed and the extent of associated structural and building services documents. You can find more detailed information on the form and content of drawings in Section 6 of this guide.

4.5 Dimensions

AS/NZS 1100.301 sets out conventions for dimensions on drawings. Where a finished dimension is critical for compliance or construction, you should clearly identify it in the relevant drawing or specification. Timber size should be identified by its actual finished size.

4.6 Specification Structure

A specification must be project-specific. Where Masterspec or similar type generic specifications are used they will not be accepted unless modified to suit the particular project with all non-applicable information removed.

A good project specification has a logical structure and means of navigation. The default standard classification system for New Zealand is CBI (Co-ordinated Building Information), recognised by the 4-digit numbers used to classify each work section (i.e, chapter) of the specification.

4

Plans and Specifications

There should be a 'Preliminaries' and 'General' section, followed by a series of technical work sections, with each work section or chapter laid out in a consistent pattern (such as 'General', 'Products', 'Execution', 'Selections') and with a consistent clause numbering system.

Specifications have typically been based on proprietary model documents, or assembled by individual designers in a modified trade-based format. Specification sections have a long history of subdivision by trade (both traditional and influenced by NZS 4202:1995 Standard Method of Measurement of Building Works or work sections (based on CBI, a classification system modified from international practice by the Association for Co-ordinated Building Information New Zealand).

4.7 Specification Content

You should keep matters of tender, contract and project management separate from technical matters, and from the proposed product and material selections. You can describe product and material selections in each work section, grouped together in a single 'schedule', or list them on the drawings. A mix of trade-based, material-based, process-based and element-based sections or chapters is acceptable.

4.8 Specification to Complement the Drawings

Your specification should complement the drawings, not contain erroneous information and not contradict itself or associated documents. Information on drawings need not be in the specification and vice versa. Repeating the same information in two places may lead to contradiction and confusion, but may be useful for key points.

Sometimes information on timber sizes and treatments is best placed on the drawings and sometimes the specification may be the preferred location. There will also be instances where project selections - such as sanitary fittings or door hardware - are best scheduled on the drawings, alongside details of cabinetwork or kitchen/bathroom fixtures. In other cases such selections may be better contained within the specification text.

You can also include certain drawn information in a specification, such as 'standard' details of a catch pit, or gully trap, a series of 'standard' reinforcing details, or items for fabrication off site. Wherever you give this information in the document set, it should be clear, correct and complete.

Note: For minor projects, it is acceptable to include the specification data on the drawings for the convenience of both the building consent authority and the builder.

The future of documentation:

Many designers are able to deliver, store and retrieve documents electronically. Some building consent authorities can also process and store building consent applications in electronic form. If you have suitable technology, you should ask the building consent authority if your application can be lodged electronically. Not only can this reduce the cost and inconvenience of exchanging information, it can also prevent problems with accessing and interpreting hard copy or scanned documents.

4.9 National Multi-Proof Approval

The Multi-Proof service was launched to enable volume based builders to obtain a Multi-Proof or National Multi-Use Approval for standardised building designs that are intended to be replicated several times. Multi-Proof approvals create time and cost savings for volume builders by removing the need for the same or substantially similar building designs to be assessed repeatedly by individual building consent authorities for Building Code compliance.

A Multi-Proof is a statement that a specific set of building plans and specifications complies with the New Zealand Building Code. Under the Building Act 2004 (as amended in 2009), building consent authorities must accept a Multi-Proof as evidence of Building Code compliance.

A building consent is still required for a Multi-Proof approved building, however, the maximum 20 work day processing time for other consent types is reduced to 10 working days to reflect the reduced input necessary by the building consent authority in granting the building consent. Responsibility by the building consent authority for such consent applications is:

- Approve site-specific details, including foundations and utilities.
- Ensure that any Multi-Proof conditions have been met.
- Undertake normal inspections during construction.

4.10 The Simple House Acceptable Solution

The Simple House Acceptable Solution gives a framework for architects, designers and builders to develop consent application supporting documentation for modest, affordable houses that will make the consenting process easier and quicker, without compromising design or quality.

It is one of the initiatives under the better building blueprint to support standardised solutions to deal with simple, straightforward consent applications. The “Simple House Acceptable Solution” is available from the Ministry of Business Innovation and Employment (MBIE) link at the bottom of the Table of Contents page.

A design summary is a tabulated listing of how you propose to comply with each of the relevant Building Code clauses. A design summary is not mandatory, but does have several benefits. It can:

- Help the designer (during the documentation phase) and the building consent authority (during the building consent phase) by providing a checklist against compliance with the Building Code.
- Confirm which parts of the project are compliance-related, as opposed to construction or contract related only.
- Provide a checklist during construction, clarifying which changes will require a variation, amendment or a new building consent.
- Provide a useful checklist (where it is kept up to date) for the building consent authority to consider code compliance after the project is complete.

How much information is needed?

The purpose of building consent documentation is to demonstrate, to the satisfaction of the building consent authority, that all relevant performance requirements of the Building Code are met. How extensive the plans, specification and related information needs to be depends on the complexity and size of the project and how closely the design conforms with Acceptable Solutions or Verification Methods of the Compliance Documents for the Building Code. In some cases, you may need to describe how code compliance is achieved for individual building elements where the element must comply with a variety of code clauses (for example, a boundary wall that is fire-rated, provides bracing, has sound-control properties and is located in a wet area).

5.1 Compliance with Building Code Clauses

Take care to ensure all relevant clauses of the Building Code are correctly identified and considered during the design process. If you use a design summary, you could make specific reference to the relevant clause of the Building Code.

The relevant Building Code clauses for simple residential buildings are described below, however in each case you should consult the Building Code to check that the relevant performance criteria have been met.

The NZ Building Code is available for free access and download at: <http://www.building.govt.nz/compliance-docs-get-copies#free-download>

- B1 Structure - demonstrating how the building withstands likely loads; including wind, earthquake, live and dead loads (people and building contents).
- B2 Durability - confirming the use of materials that will remain functional for the minimum periods specified (5, 15 or at least 50 years).
- C Fire Safety - demonstrating means of escape and boundary separations.
- D1 Access Routes - the safety of entry/exit to the building; the safety of any internal or external stairs and slip resistance.

5

Design Summary

- E1 Surface Water - the method of disposal of, for example, rainwater from external surfaces, and confirmation that surface water cannot enter the building.
- E2 External Moisture - confirming that the design and detailing of all external roof and wall claddings and external openings will prevent external moisture from causing undue dampness or damage.
- E3 Internal Moisture - confirming that surfaces in wet areas are durable enough, easily cleaned and designed to resist moisture, and that ventilation and the space temperature are sufficient to avoid the excessive build-up of moisture.
- F1 Hazardous Agents on-site - identifying and neutralising any hazardous agents, or other contamination of the building site.
- F2 Hazardous Building Materials - confirming the appropriate selection of glass and glazing methods to ensure the safety of building users. It also considers building materials that give off noxious fumes.
- F4 Safety from Falling - confirming the safe design of all barriers (including handrails and balustrades) inside and outside the building (note: includes the design of swimming pool fences under the Fencing of Swimming Pools Act 1987).
- G1 Personal Hygiene - providing sufficient sanitary fixtures (toilets, showers and basins) for cleanliness.
- G2 Laundering - providing sufficient laundry facilities.
- G3 Food Preparation and Prevention of Contamination - providing sufficient safe and hygienic facilities for food storage and preparation.
- G4 Ventilation - confirming required natural or forced ventilation to all occupied spaces.
- G7 Natural Light - confirming that sufficient natural light is provided to occupied spaces and providing appropriate visual awareness for the occupants.
- G8 Artificial Light - confirming the provision of minimum light levels in occupied spaces.
- G9 Electricity - confirming safe distribution and use of electricity.
- G10 Piped Services - confirming the safe distribution of gas.
- G11 Gas as an Energy Source - confirming the safe installation of gas-powered appliances.
- G12 Water Supplies - confirming the safe supply (avoidance of scalding and backflow), storage, reticulation and, where needed, heating of potable water.
- G13 Foul Water - confirming the safe and sanitary collection and disposal of foul water and the prevention of foul air from entering the building.
- H1 Energy Efficiency - confirming the provision of a warm, dry interior environment through insulation and controlling air movement; and the efficient use of energy.

5.2 General Compliance Issues

You need to show how the project complies. For example, for a simple residential building the performance requirements of Clauses B1 and B2 can be achieved by demonstrating compliance with NZS 3604 Timber Framed Buildings and NZS 3602 Timber and Wood Based Products for Use in Building, which are referenced in B1/AS1 and B2/AS1 of the B1 and B2 Compliance Documents respectively.

Where a part of the design does not comply with the chosen Acceptable Solution, you will need to demonstrate how that particular element or part element complies with the Building Code.

Using general details or a general statement of compliance with the Building Code in the specification is not sufficient to demonstrate compliance. The drawings and the details they contain must be specific to the project. You should clearly identify in the specification the particular materials and/or systems you intend to use.

Manufacturers' Information

The Acceptable Solutions and Verification Methods in the Compliance Documents do not reference specific branded products or systems. However, brand-specific products and systems can be proposed to demonstrate compliance with the Building Code. Once the building consent has been issued, any changes to the specific products or systems named in the application will need to be approved by the building consent authority.

Where a product is not needed to achieve compliance with the Building Code, you may describe it generically.

Manufacturers should, as a matter of good practice, ensure the data sheets they provide to designers, specifiers and builders are clearly dated and include only relevant technical data on the selected material or product. Be mindful that some materials and products contain mixed technical and marketing data. (Refer to AS/NZS 1388 Guidelines for Technical Information for Building and Construction Products.)

This section includes examples of the following types of construction drawings:

- Site plan.
- Foundation plan.
- Floor plan.
- Exterior elevation.
- Sections.
- Construction details.

The descriptions are not exhaustive, but are typical of what is required in the drawings. Some of the information recommended in the following drawings is not related to the Building Code, but will help the territorial authority to determine whether the work breaches or needs approval under other legislation such as bylaws or the Resource Management Act.

6.1 Site Plan

The purpose of a site plan is to show the dimensions and form of the site, the proposed location of the building work on the site and include the distances to boundaries and existing buildings. You should also include any known information on existing and proposed services.

Drainage information in a diagrammatic form can be included on the site plan provided it can be clearly legible. For particularly complex systems or larger scale rural site plans, a separate drainage plan may be more appropriate. This should show any existing and new stormwater, sewer and drainage pipework.

You should also detail how you propose that these services will connect with the utility operators' systems, or discharge into an approved on-site drainage system (soakage and/or treatment system).

Additional Information:

Show distances from building work to boundaries, and include a north point.

It is helpful to include the site's legal description, building area (in m²) and site area.

When preparing the plan, check with the building consent authority and network utility operators for information on the location of existing services both to and across the site.

Include a site datum. This may be a manhole cover or similar on the site or in the street. The builder may need to establish and maintain a new site datum.

6

Drawings

Drawing type (Note 1)	Recommended scale (Note 4)	Recommended detail (Note 2)
Site plan (Note 3)	1:200 (Note 4)	<ul style="list-style-type: none"> Legal description, legal boundaries and easements. North point. Building location, including dimensions in metres to boundaries, and boundary fire ratings. Spot levels or contours and site datum. Location of existing and new services (water, power, gas, stormwater, foul water). Proposed/actual driveway, site finishes (hard and soft) with levels and falls. Excavation details (cut and fill) and retaining walls. Existing buildings and site features. Identify natural hazards (where known). Identify vehicle crossing(s).

Table Notes

Note 1: Drawings may be combined.

Note 2: Requirements may differ where the building project is an alteration or addition to an existing building.

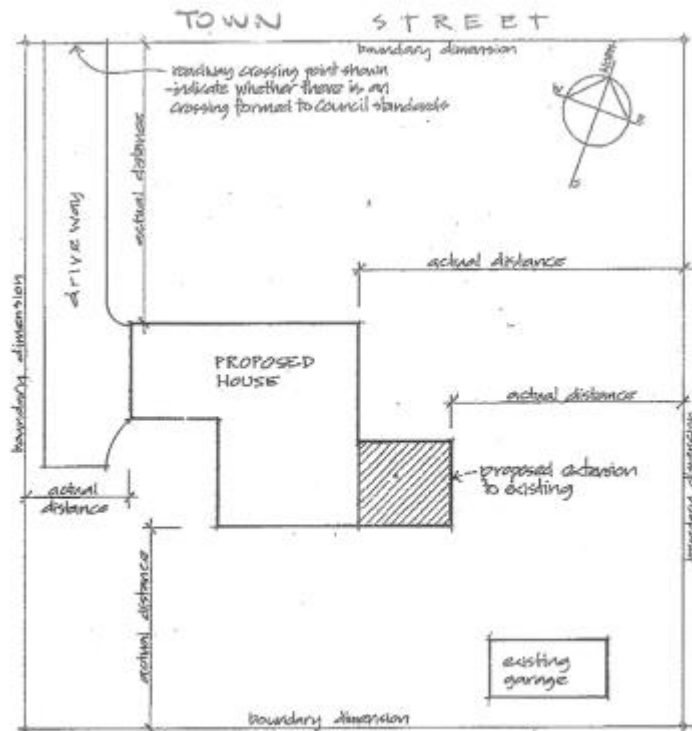
Note 3: For rural and/or larger sites a 1:500 (or 1:1000) location plan may be needed to confirm the site location.

Note 4: A scale of 1:500 or 1:100 may be adequate in some cases.

Example Urban Site Plan

RESIDENTIAL: For building work on-sites generally less than 4000 m² (1 acre)

- Show all legal boundaries as lines and their approx length should be same shape as the Certificate of Title plans.
- Show any legal roads beside the boundaries and their names.
- Show shape and position of new buildings or show existing building and added/alterd new parts.
- Show actual intended distances of any new building work to boundaries.
- Show approx position and size of any existing buildings on the site.
- Show location of driveways indicating whether new or existing and whether there is a formed roadway crossing.
- If on a corner section show the proposed location of letter box as this will determine which street address applies.



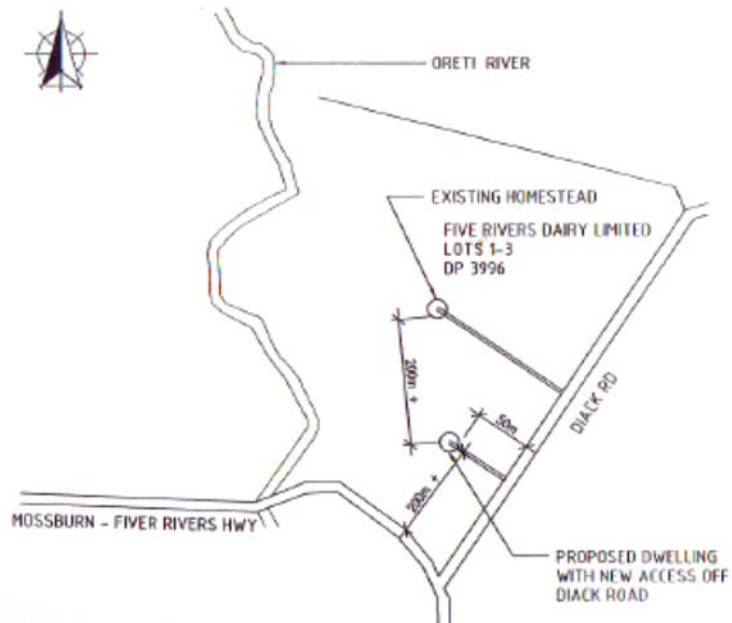
6

Drawings

Example Rural Site Plan

RURAL: For building work on-sites generally greater than 4000 m² (1 acre).

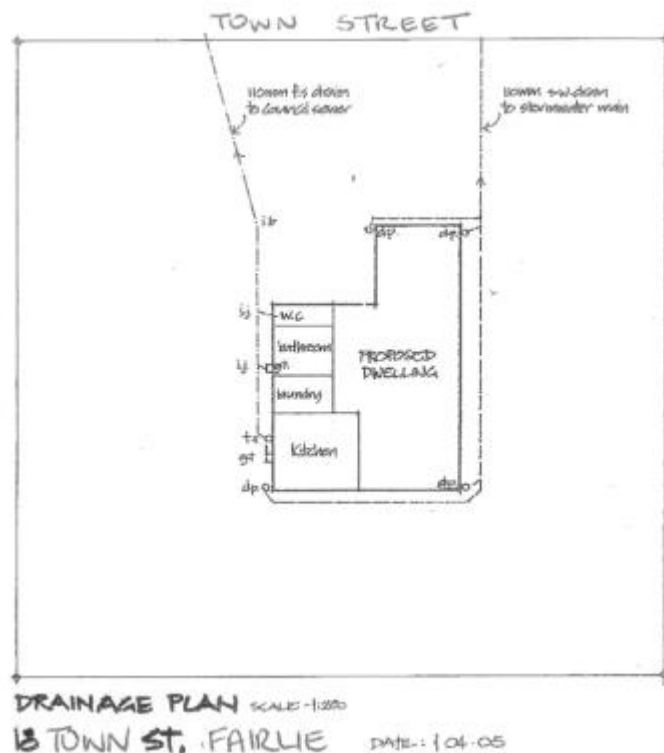
- Show closest legal boundaries.
- Show any roads.
- Show the shape and position of the new building and distance to any neighbouring buildings with their RAPID number if they have one.
- Show position and state the use of any of the existing buildings.
- Show the intended distances of the new building to all property boundaries.
- Show location of any existing driveway and where a new driveway is to be formed, the location in terms of distance from the property boundaries or intersecting roads.
- Show and specify the source of household water supply.



Example Serviced Site Drainage Plan

SERVICED SITE:

- Show position of plumbing fixtures within building.
- Show proposed sanitary drainage layout including pipe sizes, their gradient, cleaning access points, venting and location for connection to Council services (indicate any existing drains are being used).
- Show proposed layout of stormwater drains, pipe sizes and their gradient, cleaning access points and discharge point.



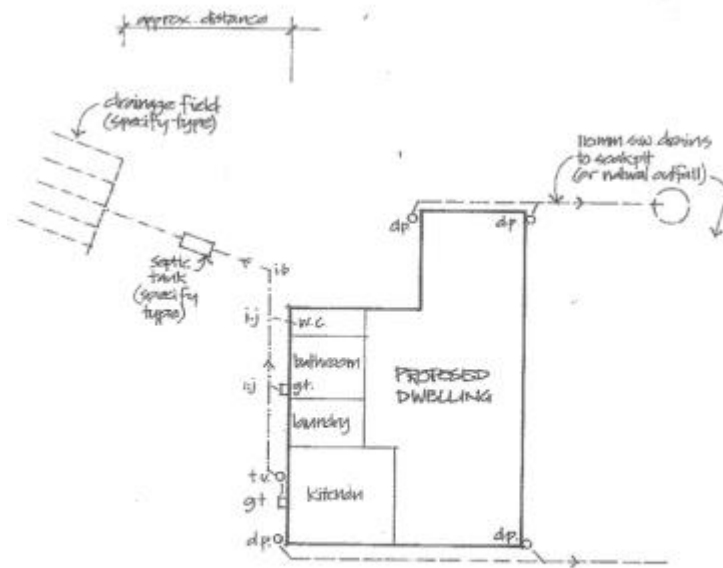
6

Drawings

Example Un-serviced Site Drainage Plan

UNSERVICED SITE:

- Show position of plumbing fixtures within building.
- Show proposed sanitary drainage layout including pipe sizes, their gradient, cleaning access points, venting and type of on-site effluent disposal system.
- Show position and specify the type of drainage field for effluent disposal system.
- Show proposed layout of stormwater drains, pipe sizes and their gradient, cleaning access points and discharge point.



DRAINAGE PLAN SCALE - 1:200
204 HALF CHAIN ROAD DATE: 1-04-05

6.2 Foundation Plan

The purpose of the foundation plan is to show the building consent authority the building foundations you propose, their elements and individual dimensions.

Additional Information:

The plan should include the finished floor height(s) in relation to the site datum. Where the property is located in a flood zone, confirm the relationship between the site datum and the minimum occupied floor level set by the territorial authority in the district plan.

Where foundations are designed by a registered engineer, supporting information should be provided, including calculations, design assumptions (eg, soil bearing) and possibly a producer statement for design. You should identify details of inspections and tests to be carried out by the design engineer on the building consent application under the heading 'Proposed owner inspections'.

6

Drawings

Drawing type (Note 1)	Recommended scale	Recommended detail (Note 2)
Foundation plan	1:100 (Note 3)	<ul style="list-style-type: none">• Concrete slab dimensions and thickenings (where applicable).• Foundation walls.• Pile layout with dimensions, pile type bearer sizes (including decks and pergolas).• Sub-floor bracing layout.• Sub-floor ventilation (or show on elevations).• Floor framing layout (optional) (Note 4).• Specific design foundations.

Table Notes

Note 1: Drawings may be combined.

Note 2: Requirements may differ where the building project is an alteration or addition to an existing building.

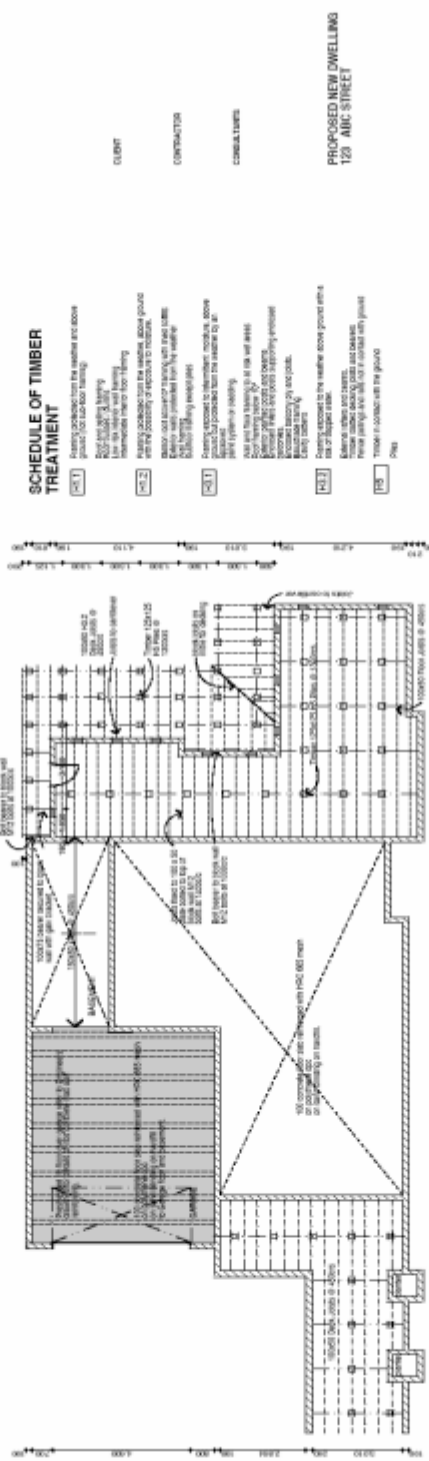
Note 3: A scale of 1:50 may be needed where foundations are relatively complex.

Note 4: Provided it is clear as to what is required, it may not be necessary to show each and every floor joist.

6

Drawings

CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE
REGARDING



PROPOSED NEW DWELLING
120 ABC STREET

Foundation and Sub floor
Framing Plan

SCALE: 1:100
DATE: 21 February 19
JOB NO: 1234
DRAWN: [Name]
CHECKED: [Name]
STATUS: [Name]
DRAWING NO. 04
REVISION: [Name]

6.3 Floor Plan

The purpose of the floor plan(s) is to provide details of room types and sizes, the layout and location of the internal elements, and the location of all fixtures and fittings.

6

Drawings

Additional Information:

Show and describe the bracing elements and lintels on the floor plan. Where a floor plan is complex, use a separate key plan containing just the critical structural information, such as bracing elements and lintels, to avoid cluttering the floor plans.

Provide reference numbers for all windows and doors shown on the plans that may be scheduled elsewhere on the drawing set, or in the specification.

Separate electrical plans, detailing electrical fixtures and fittings, are sometimes justified. Show any installations related to the building consent, such as smoke alarms and ventilation fans.

Where the building work is an addition or alteration to an existing building, the floor plan should clearly distinguish between the new and the existing.

Drawing type (Note 1)	Recommended scale	Recommended detail (Note 2)
Floor plans	1:50 (Note 3)	<ul style="list-style-type: none"> • Floor levels relative to the site datum. • Overall dimensions of walls and other structural elements. • Internal dimensions of rooms. • Bracing layout or reference to a schedule elsewhere. • Lintel sizes or reference to a schedule elsewhere. • Window and door locations and plan dimensions. • Special wall constructions (sound, fire, moisture control). • Room layouts and location of all internal fixtures and fittings. • Staircase layouts. • Plumbing diagram and location of plumbing fixtures. • Cross-section references, space numbers, door/window numbers. • References to detailed drawings. • Outline of roof or pergola overhangs. • Electrical fittings needed for compliance. • Concrete slab reinforcing details and construction joints (if not shown on the foundation plan). • Openings for services.

Table Notes

Note 1: Drawings may be combined.

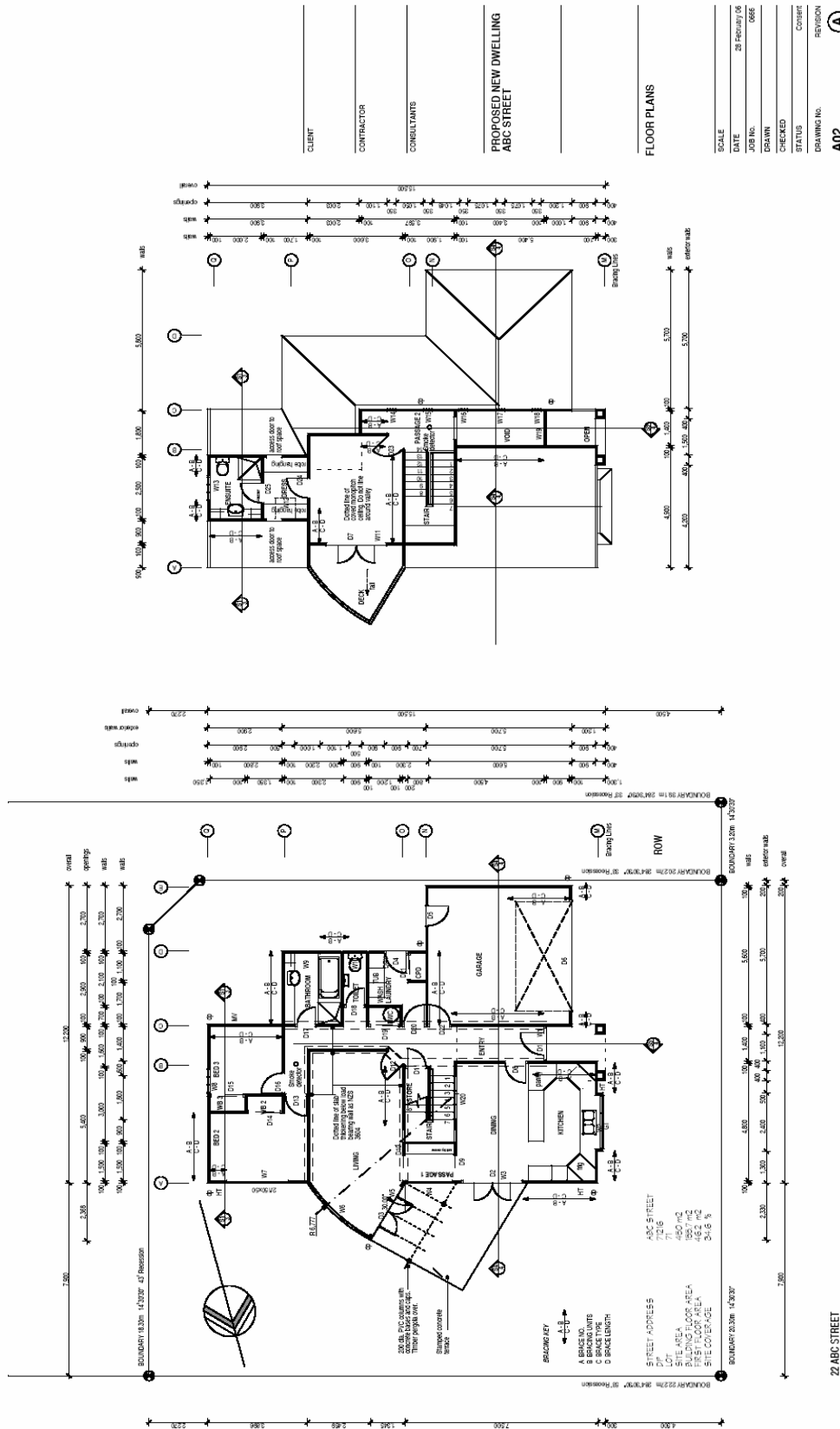
Note 2: Requirements may differ where the building project is an alteration or addition to an existing building.

Note 3: A scale of 1:100 may be adequate for a simple project. A separate plan must be provided for each level of the building. Where the lower floor is timber framed, a foundation plan will be needed to clarify the foundation layout (see Section 6.2 of this guide).

6

Drawings

CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE
REVISIONS



6

Drawings

6.4 Exterior Elevations

The purpose of an exterior elevation is to show the overall shape, form and size of the proposed building. In addition, it needs to show the location, form and finish of exterior elements, including wall claddings, roof claddings, window and door sizing/locations and the location of specific elements, such as decks, stairs, downpipes and vents, and wall and roof openings.

Additional Information:

Include ground lines (existing and finished) and heights of building elements relative to the site datum.

Extending ground lines through to adjacent boundaries, showing maximum height to boundary angles (sunlight access planes), will help the territorial authority confirm compliance with planning requirements.

Drawing type (Note 1)	Recommended scale	Recommended detail (Note 2)
Elevations (Note 3)	1:100	<ul style="list-style-type: none"> All exterior elevations of the building. Relative levels, overall height of dwelling. Windows, doors and other openings, indicating size and opening type and direction. Cladding types. Roofing types, roof shapes and overhangs. Exterior decks, stairs, balustrades. Skylights, chimneys and other openings through walls and roof. Gutter, downpipe and vent locations. Location of construction joints in claddings. References to detailed drawings. Reference to risk matrix (Note 4).

Table Notes

Note 1: Drawings may be combined.

Note 2: Requirements may differ where the building project is an alteration or addition to an existing building.

Note 3: Increase to 1:50 minimum scale where exterior openings are not scheduled elsewhere.

Note 4: Refer to the Ministry of Business, Innovation and Employment (MBIE) guide *External moisture - a guide to using the risk matrix*.

6

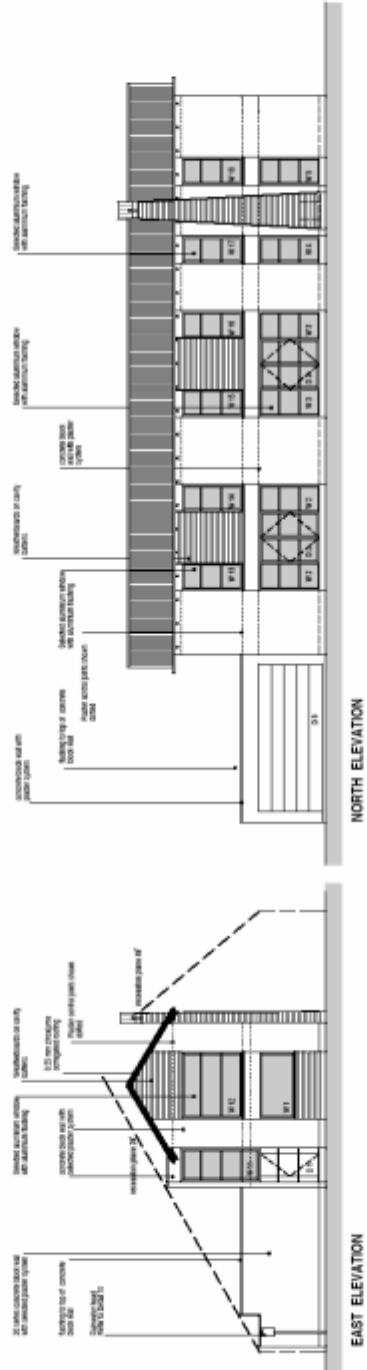
Drawings

COMMERCIAL AND RESIDENTIAL ARCHITECTURE
REVISED

CLIENT _____
 CONTRACTOR _____
 CONSULTANTS _____
 PROPOSED NEW DWELLING
 ABC STREET

ELEVATIONS

SCALE _____
 DATE 28 February 08
 JOB NO. 0712
 DRAWN _____
 CHECKED _____
 ESTIMATED COST _____
 DRAWING NO. _____
 REVISION: **(8)**
A05



6

Drawings

6.5 Sections

The purpose of sections is to show all vertical and horizontal building elements and the relationship of the ground, floors, ceilings and roofs to each other, and to detail structural framing and other construction elements.

Additional Information:

Sections and details can be combined on the same drawing, if appropriate. This can often improve clarity for those using the drawings, especially if details are shown in their relative position to an accompanying cross-section.

You can use sections to more accurately locate details. When of a suitable scale, sections can be used to detail elements such as staircases, decks and balustrades.

Drawing type (Note 1)	Recommended scale	Recommended detail (Note 2)
Cross sections (Note 3)	1:50 (Note 4)	<ul style="list-style-type: none">• Ground levels and levels relative to site datum.• Wall heights.• Window and door height dimensions.• Framing sizes and treatments (or in the specification) (Note 5).• Construction details (eg, wall and floor linings)• Roof and ceiling pitches.• Floor slopes.• Location of details.

Table Notes

Note 1: Drawings may be combined.

Note 2: Requirements may differ where the building project is an alteration or addition to an existing building.

Note 3: The number of cross-sections provided must be adequate to show all vertical relationships. Location of cross-sections should be shown on floor plans.

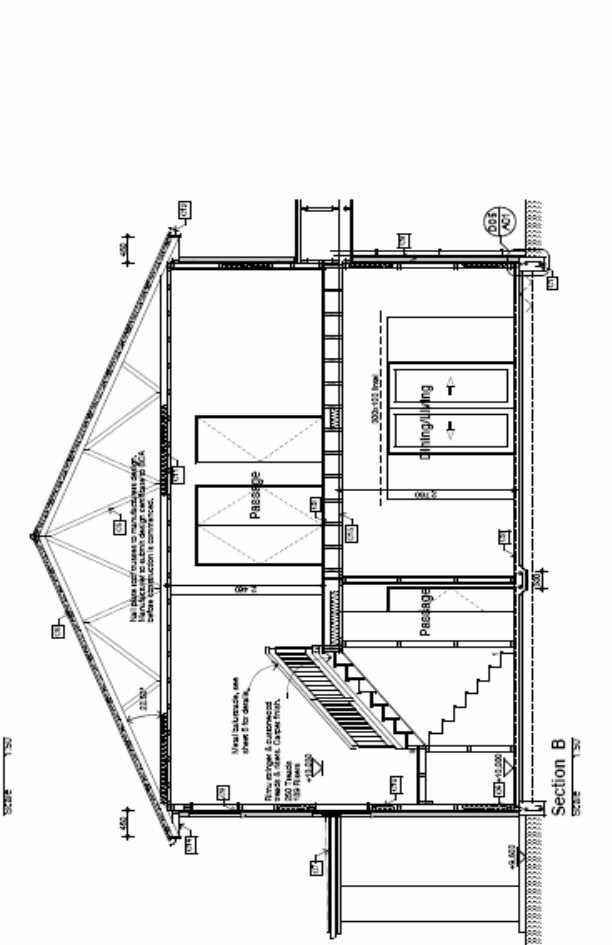
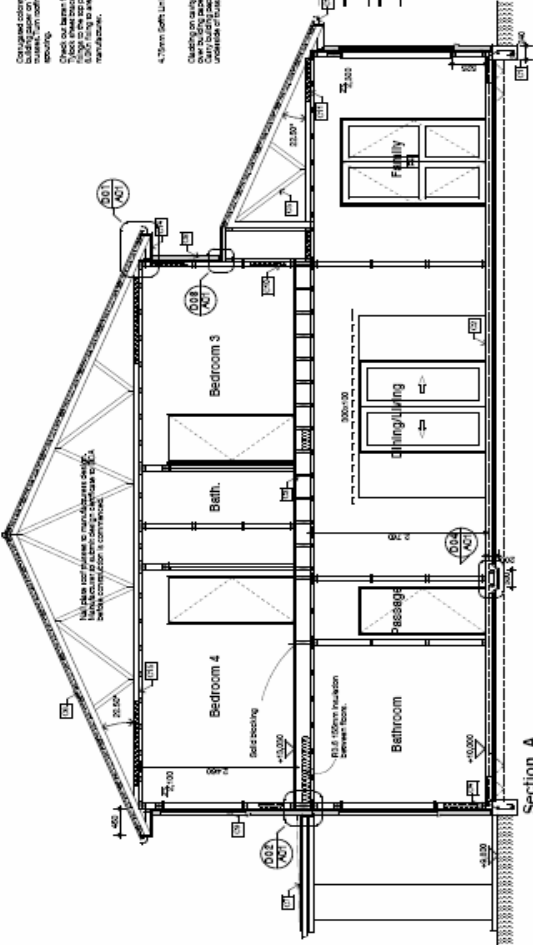
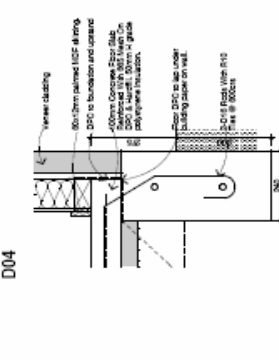
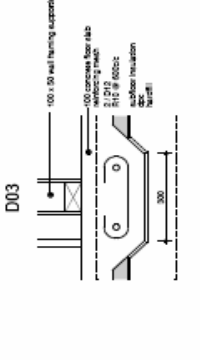
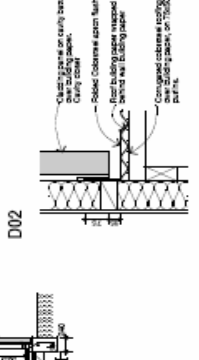
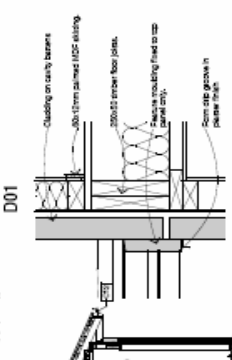
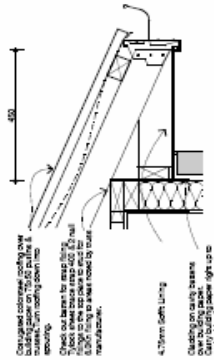
Note 4: A scale of 1:20 may be used in some cases.

Note 5: Timber grades may be identified on the drawings or in the specification.

C:\PROJECTS\2016\16-0000\DRAWINGS\DWG\16-0000-01.dwg
 16-0000-01.dwg
 16-0000-01.dwg

KEY NOTES

- C1 2x16 OSB & R10 she @ R202R.
- C2 1/2" OSB she on 2x12 joists @ R202R.
- C3 2x12 floor joists @ R202R. 2x12 joists shall be spaced @ 24" o.c. and shall be cut at 45 degree angle at all exterior walls & 90 degree at interior walls & 90 degree at 20mm sheath break @ 300 c/c.
- C4 15/32" i-joist @ R202R. Deck above wall section shall use 15/32" i-joist @ 48" o.c. Full continuous she @ R202R. 2x12 joists shall be spaced @ 24" o.c. at all exterior walls & 90 degree at interior walls & 90 degree at 20mm sheath break @ 300 c/c.
- C5 Floor truss @ 24" o.c. spacing. Truss shall be spaced @ 24" o.c. and shall be cut at 45 degree angle at all exterior walls & 90 degree at interior walls & 90 degree at 20mm sheath break @ 300 c/c.
- C6 1/2" OSB she on 2x12 joists @ R202R.
- C7 1/2" OSB she on 2x12 joists @ R202R.
- C8 2x12 floor joists @ R202R. 2x12 joists shall be spaced @ 24" o.c. and shall be cut at 45 degree angle at all exterior walls & 90 degree at interior walls & 90 degree at 20mm sheath break @ 300 c/c.
- C9 2x12 floor joists @ R202R. 2x12 joists shall be spaced @ 24" o.c. and shall be cut at 45 degree angle at all exterior walls & 90 degree at interior walls & 90 degree at 20mm sheath break @ 300 c/c.
- C10 2x12 floor joists @ R202R. 2x12 joists shall be spaced @ 24" o.c. and shall be cut at 45 degree angle at all exterior walls & 90 degree at interior walls & 90 degree at 20mm sheath break @ 300 c/c.
- C11 15/32" i-joist @ R202R. Deck above wall section shall use 15/32" i-joist @ 48" o.c. Full continuous she @ R202R. 2x12 joists shall be spaced @ 24" o.c. at all exterior walls & 90 degree at interior walls & 90 degree at 20mm sheath break @ 300 c/c.
- C12 1/2" OSB she on 2x12 joists @ R202R.
- C13 1/2" OSB she on 2x12 joists @ R202R.
- F1 1/2" OSB she on 2x12 joists @ R202R.
- F2 1/2" OSB she on 2x12 joists @ R202R.
- F3 1/2" OSB she on 2x12 joists @ R202R.



Section A
 SCALE: 1/8" = 1'-0"

Section B
 SCALE: 1/8" = 1'-0"

SCALE	1/8" = 1'-0"
DATE	07 February 08
JOB No.	0702
DRAWN	CA
CHECKED	UR
STATUS	COMPLETION
DRAWING No.	A01
REVISION	A

PROPOSED NEW DWELLING
 ABC STREET
 CHRISTCHURCH

Section / Details

6.6 Construction Details

The purpose of construction details is to fully describe junctions and interfaces between and within all major building elements. You need to provide details for all relevant Building Code clauses, including structural and weatherproofing design, and all necessary information about the construction needed.

Additional Information:

You can combine sections and details on the same drawing. This can improve clarity, especially if details are shown in their relative position to an accompanying cross-section.

A range of scales from 1:10 to 1:2 may be justified, depending on the complexity of the material relationships within the element being described. The detail needs to identify critical dimensions.

It is sensible to group the details of common materials on the same drawing, such as all exterior window and door details.

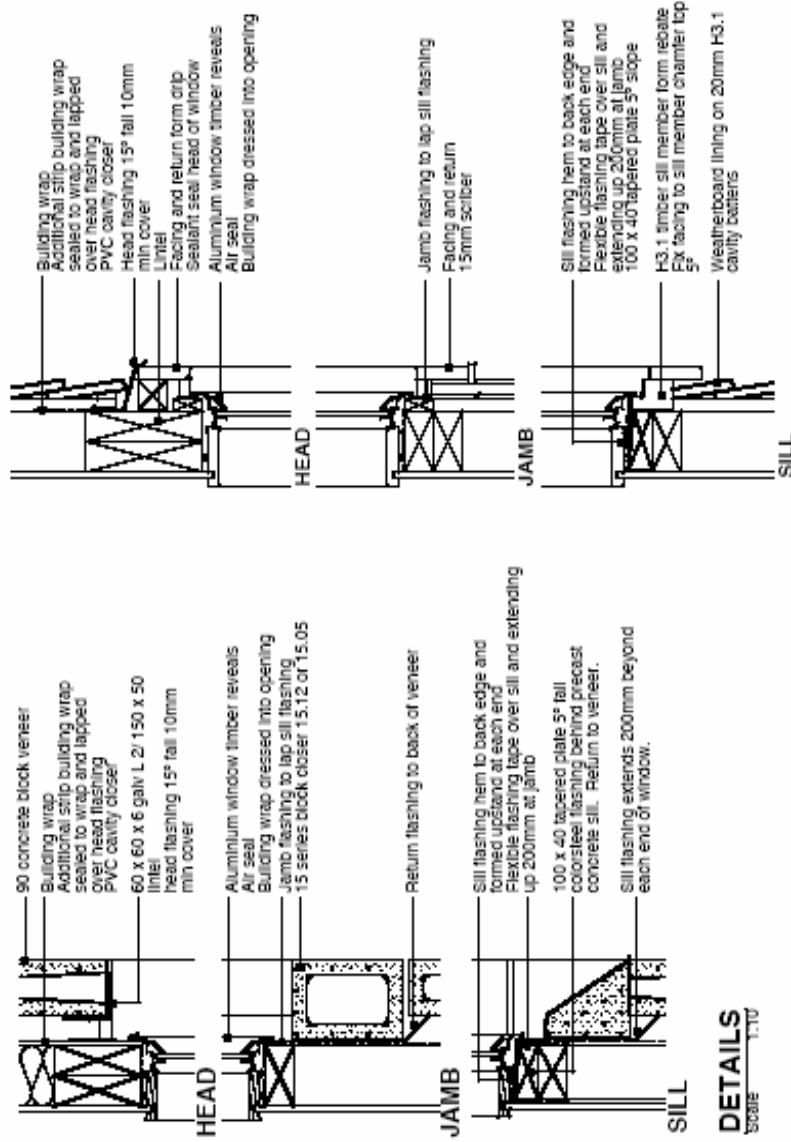
Drawing type (Note 1)	Recommended scale	Recommended detail (Note 2)
Details	1:5 (Note 3)	<p>The extent and number of details will vary significantly depending on the size and complexity of the building design. However, the following might constitute minimum requirements.</p> <ul style="list-style-type: none"> • Structural elements, junctions and fixings. • Penetrations through exterior walls and roofs. • Window and door head/sill/jamb. • Cladding junctions (horizontal and vertical). • Expansion and movement joints. • Wall/roof junctions. • Bottom plate/cladding overhang. • Soffit and parapet details. • Retaining wall details. • Tanking and damp proofing, cross-sections and details. • Deck or pergola connections to main structure. • Stairs showing rise/going/pitch/handrails. • Deck balustrades and handrails, layouts and fixings. • Fire separation junction and penetration details.

Table Notes

Note 1: Drawings may be combined.

Note 2: Requirements may differ where the building project is an alteration or addition to an existing building.

Note 3: Larger or smaller scales may be justified in some cases, depending on circumstances, to show sufficient detail.



DETAILS
SCALE 1:10

PROPOSED NEW DWELLING
ABC STREET
City field empty

Window Details

SCALE	1:5
DATE	22/11/05
JOB No.	0712
STATUS	CONSTRUCTION
DRAWING No.	REVISION
D07	(A)

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6.7 Additional Drawings

It may not always be possible to adequately describe or show clearly the full level of detail required on the drawings discussed in Sections 6.1 to 6.6 of this guide. You may need to provide additional drawings, such as the following:

Location plan

A location plan is a high-level 'bird's eye view' of the area surrounding the proposed construction work. It shows the location of the proposed work in relation to adjoining streets or properties. These plans are particularly useful in rural or remote locations, or multi-unit residential complexes.

Floor framing plan

This is required when floor joists do not follow a regular pattern, or specific structural requirements need to be shown. It can include:

- Floor beam and joist layouts and sizes, including blocking, trimmer joists and boundary joists.
- Drawings of specially engineered timber and timber/steel products (where these are detailed, calculations and data sheets should be included in the consent documentation).

Roof/ceiling framing plan

This is needed where a range of roof and ceiling forms are involved or complex junctions occur. It can include:

- A plan layout of all roof and ceiling framing members and seating of trusses and beams.
- Drawings of timber trusses, and proprietary timber and timber/steel (where these are detailed, calculations and data sheets should be included in the consent documentation).

Roof plan

This is needed for complex roof forms, or where a number of different roofing types are used. It can include:

- Details of roof falls (direction and slope).
- Location and size of all rainwater heads, scuppers, internal gutters, spouting and downpipes (including calculations).

Elevations of exterior openings

These are needed when window and door elevations are not clearly shown on the wall elevations. It can include:

- 1:50 elevations of each exterior window and door element layout.
- Details of glazing types and window opening types, or reference to the specification.

Protection of adjoining properties

The building consent authority may require information on how adjoining properties will be protected from the work being undertaken on-site (for example, surface water control, temporary retaining wall, site hoarding or fencing).

Details of specialist installations

When these are needed, they can include:

- Details of proprietary installations, such as suspended concrete floors, precast concrete panels, timber trusses, engineered timber products and steel bracing frames.
- Drainage and plumbing schematics for buildings that are more than one storey or where plumbing designs are complicated.

Wet area details

These are needed to detail wall and floor moisture proofing systems for wet areas, such as bathrooms or laundries.

7.1 Building Removal and Relocation

When relocating a building a building consent will be necessary for uplifting from its current site and for re-establishment on the new site.

Depending on individual Council policy, a relocation assessment report may be necessary for consideration of approval to relocate. A relocation assessment may be considered necessary to determine the building is in a safe and sanitary condition and whether there are structural considerations associated with transporting from a lower wind or earthquake zone.

The relocation assessment is usually undertaken by the Council where the building is located, however across boundary inspections may be considered on a case by case basis.

At the place of origin a building consent is needed to cover:

- Lifting the building from its foundations and disconnection from the services.
- Any necessary temporary strengthening or separation into parts.
- Demolition and removal of existing foundations, services and subsequent work to restore the site.

At the new site a building consent is needed to cover:

- Construction of the new foundations and services.
- Connection of the building to the new foundations.
- Reconnecting any parts of the building which were separated for transportation and repair of any damage resulting from relocation.
- Details of any renovations/additions intended as part of the relocation.

Building Consent for Removal:

The building consent for the removal of the building from the old site is often called a demolition consent. It is usually the responsibility of the property owner to organise, however, may be contracted out as the responsibility of the purchaser depending on the sale agreement. The demolition consent:

- Removes the value of the building from the property.
- Ensures the services are disconnected by suitably qualified tradespeople.
- In the case of on-site disposal, systems include appropriate decommissioning of the septic tanks and effluent disposal system and stormwater soakholes.

Building Consent for Placement on New Site:

A building consent will be needed for the relocation of the building to its new site. The information necessary as part of the application will generally include:

- A full site plan including location of any new site access necessary.
- Pile layout and cross-section detailing braced, anchor or cantilever pile foundation system to be used. If brick veneer also strip foundation details.
- Floor plan.
- Elevations showing proposed building heights on new foundations.
- Subfloor bracing calculations.
- Provisions for subfloor ventilation.
- Details proposed for water supply, sanitary drainage/stormwater disposal.
- Where Council network services are not available for connection, details of the on-site disposal proposed will need to be provided.
- Details of any upgrade identified as necessary as part of relocation assessment report.
- Construction details for any proposed alterations or additions intended as part of the relocation consent. This can be staged as a separate consent to the original relocation consent if preferred.

7.2 Fire Assessment for Commercial Accommodation - Crowd - Working Activities

A fire assessment is necessary in support of all consent applications relating to commercial accommodation, crowd or working activities with the exception of very minor works. This is necessary to demonstrate the design process followed in determining the structural fire duration, spread to adjoining fire cells/properties and fire egress satisfying the provisions of the Building Code.

The fire assessment should also include information on any specified systems necessary for the building, including such information as the system type, the standard installed to and the necessary performance monitoring and reporting to ensure its ongoing functioning.

7.3 Calculations

When the performance of building components such as bracing, beams-lintels, glazing/opening areas for confirming required insulation values or flow rates for mechanical ventilation systems need to be demonstrated, calculations will be necessary as part of the documentation required with a building consent application.

7.4 Factory-Manufactured Building Elements (Roof Truss, Beam-Lintel And Flooring Systems)

The Building Act 2004 has placed more emphasis on the complete 'for construction' documentation being supplied with an application for building consent.

Before lodging a building consent application, you must obtain a buildable truss design, including supporting producer statement from a fabricator, for any roof trusses, beam-lintel or flooring system proposed as part of the construction. The design information needs to be included as part of the building consent application information submitted for approval.

Buildable designs are based on industry-accepted computer design programmes, which in turn are based on relevant design standards. The information provided should also include the details of the fabricator and the design programme/version used.

Roof Truss Systems

Truss design information should include:

- The producer statement from the fabricator of the truss design shall specify the company having developed the truss design software from which the design is sourced.
- The producer statement from the fabricator of the truss design shall be signed, along with accompanying printed text, to enable identification of the person having responsibility on behalf of the company for the correct input of truss design data.
- Species and grade of timber to be used for truss members.
- Truss design reference numbers for trusses of differing designs in a roof plan set-up.
- Truss spans expressed both as total span between supports and loaded dimension.
- Elevations of principal trusses.
- Location and type of fastenings used in fabricating the various trusses.
- Truss spacing, pitch, camber and overhang.
- Roof bracing layout.
- Dead load specifying both the type of roof cladding and ceiling loading for which the trusses are designed.
- Live load specifying the wind exposure (low, medium, high and very high).
- Live load specifying the snow load.
- Uplift and downward reaction loadings for truss reference numbers.
- Truss fixing requirements at supports points.
- Trusses having an uplift reaction greater than 4.7 kN on the top plate/stud connection (3/Z nails) shall have top plate to stud fixings specified as part of the design.

- Girder, hip and other truss types forming point loads onto stud framing, beams or lintels, shall have their supports and fixings from the truss bearing point to the foundations specified by the fabricator as part of the truss design information. These should be detailed on the truss plan layout.
- Gable end trusses, giving lateral support to brick veneer and lighter weight claddings, shall have vertical strutting designed to accommodate all lateral loadings.

Note: Trusses having a loaded dimension of greater than 6.0 m (12.0 m total span) are to be subject to specific design by a CP Registered Engineer. Specific design shall include supports and fixings in the load path from bearing points on the wall framing, down to and including the foundations.

Trusses on-site information should include:

- The name of the fabricator responsible for the design of the trusses shall be permanently marked on the main members of the roof layout. Jack trusses on hip ends and other similar minor trusses may be excluded from fabricator marking.
- All trusses must be marked with an identifying truss number corresponding with the truss design layout.
- The truss layout referencing truss number locations shall be provided to the installer on-site. This shall also include all truss number fixing requirements along with structural support and fixing requirements to be provided in the load path of all girder, hip and other truss types forming point loads onto support framing.

Beam-lintel or flooring system

- The producer statement from the fabricator of the beam-lintel or flooring system shall specify the company having developed the design software from which the design is sourced.
- The producer statement from the fabricator of the beam-lintel or flooring system shall be signed, along with accompanying printed text, to enable identification of the person having responsibility on behalf of the company for the correct input of design data.
- Species and grade of timber to be used for the members.
- Copies of tables used from the fabricators technical information with markings identifying the selection process used in determining the appropriate member sizing.

7.5 Services Plans

The Building Code requires that sanitary fixtures and sanitary appliances are provided with a safe and adequate water supply, and an adequate plumbing and drainage system.

At the time of the building consent application, the building consent authority will require certain information on the water supply, foul water and surface water (stormwater) disposal systems. It will require documentation showing connection to a potable water supply and means of disposal of both foul water and stormwater. These can be either by connection to a local council or network utility operator's system, or where not available, details of on-site supply and disposal proposed.

Precisely locating where water supply, waste or foul water disposal systems will be laid may not be apparent when you apply for a building consent. However, you must provide the location and specification of all fixtures and fittings, together with a diagrammatic layout of foul and surface water (stormwater) drainage. Schematic layouts of water supply are not normally necessary, unless specific information is needed to confirm compliance with the Building Code.

Any variation from the originally approved consent information relating to fixtures and fittings, diagrammatic layout of foul and surface water (stormwater) drainage will require a subsequent staged consent application submitted to the building consent authority for approval before undertaking the work.

7.6 Variations and Amendments

When applying to amend a building consent, the application should include details of what was originally approved and how it will be changed. It must also demonstrate that the new proposal complies with the Building Code and will not affect other building works' compliance with the Building Code.

All variations to a building project that relate to the Building Code must be notified to the building consent authority for approval prior to progressing with the work. The nature of the change will influence the process that needs to be followed to have the variation approved and recorded. In all but instances of minor changes, variations from the originally approved consent drawings will require a subsequent staged consent application submitted for consideration. Application for an amendment must be made and approved before progressing with the work.

If changes go unrecorded or not approved by the building consent authority, it may issue a Notice to Fix for the variation and may also refuse to issue the Code Compliance Certificate at the completion of the project.

7.7 Solid-Liquid Fuelled Heating Appliances

Where solid or liquid fuel heaters are proposed as part of the building work, the plans and specifications need to identify the:

- Appliance by brand and model.
- Proposed location of the appliance and smoke alarms.
- Manufacturer's installation details specifying the unit's clearances along with the flue/liner systems clearances to surrounding combustible material.
- Location, flashing and installation details.

- Height of the top of the flue relative to ridge lines and windows.
- In the case of liquid fuel heating units the size, location, isolating and safety devices included in the fuel supply line.

The joint Australian and New Zealand Standard AS/NZS 2918:2001 Domestic Solid Fuel Burning Appliances Installation and AS 1691 Domestic Oil Fired Appliances-Installation are cited by C/AS1 as an Acceptable Solutions for installing domestic solid or liquid fuelled appliances.

Note:

Building consent is not required for gas fired heating units. However, where a gas fired appliance is included in the consent application documents, a copy of the certification from the Craftsman Gasfitter engaged to install the unit must be provided as part of the supporting information provided to the Building Consent Authority with the Application for Code Compliance Certificate.

The Resource Management Act 1991 sets out requirements for fireplace emissions. Information on appliances that have been tested to meet emission requirements is available on www.mfe.govt.nz/laws/standards/woodburners.

7.8 The Fencing of Swimming Pools Act 1987

Where building work includes construction of external spa or swimming pool (as defined by the Fencing of Swimming Pools Act 1987), the pool must be fenced to comply with the requirements of Fencing of Swimming Pools Act 1987. Fencing and pool construction details establishing compliance will need to be included with the consent documentation.

Any new pool, as defined in the Fencing of Swimming Pools Act 1987, must comply with that Act. Where a property already has a pool, it also must be fenced to comply with the Act.

7.9 Manufacturers' Data

You should provide relevant technical literature sufficient to show proposed building products comply with the Building Code.

The building consent authority may request that you provide specific technical data from the product manufacturer, accompanied by an independent appraisal or verification that the product will meet the performance requirements of the Building Code. Marketing information is not generally suitable for this purpose.

The literature needs to give instructions to the designer, builders and home owners on how to design, install and maintain the product. Also detail the investigation undertaken (tests, calculations and other research) along with who performed them in demonstrating the product's suitability. This literature should also specify the quality assurance measures in place that ensure ongoing consistency of production.

Technical literature needs to be submitted with an Application for a Building Consent as part of the plans and specifications of the proposed work. This needs to give the Building Consent Authority enough information to be able to make an informed decision as to whether the product is suitable for its intended use. This can often be assisted by providing a supporting view by an independent expert or testing body.

7.10 Appraisals, Technical Statements, Codes of Practice, Warranties and Guarantees

A building consent authority may accept numerous ways of verifying a product, material, or system's performance. These could include:

- Appraisals from specialist testing bodies.
- Test reports.
- Technical statements and opinions.
- Calculations (supported by producer statements) by designers and/or manufacturers or installers.
- Codes of Practice from industry bodies.

The building consent authority may request copies of warranties and guarantees (under contract, or offered by product manufacturers) provided by accredited or licensed installers and manufacturers. This is in addition to specialist technical publications and the technical data provided by product manufacturers.

Note: There is a useful guide to using the product assurance framework to demonstrate Building Code compliance available from the Ministry of Business, Innovation and Employment (MBIE) titled "A Guide to Manufacturers and Suppliers of Building Products" from the links after the index page.

7.11 Lodging a complaint against a Practitioner

Where the public has performance concerns about a practitioner they should lodge a formal complaint with the relevant occupational or professional authority. This could include the following:

- Licensed building practitioner - <http://www.business.govt.nz/lbp>
- Electrical worker - <http://www.ewrb.govt.nz/>
- Plumber, gasfitter and drainlayer - <http://www.pgdb.co.nz/>
- Registered architect - <https://www.nzrab.org.nz/>
- Chartered professional engineer - <http://www.ipenz.org.nz>
- Engineering associate - <http://www.engineering-associates.org.nz/>

7.12 Written contract for residential building work \$30K or more

You must have a written contract for residential building work costing \$30,000 or more (including GST) from 1 January 2015. Also if asked, your contractor must provide you with information about his or her skills, qualifications, licensing status and insurance or guarantees they provide in a disclosure statement before you sign a contract.

Your contractor must also give you information about any ongoing maintenance requirements and warranties once the building work is completed. There is an automatic 12 month defect repair period when contractors have to fix any defects you have told them about and there are also new ways to take action where warranties under the Building Act have not been met.

If your contractor is not performing, you can lodge a complaint as in 7.11 above with the Building Practitioners Board and/or to their trade or professional association if they are a member. You can take a dispute to the Disputes Tribunal if your claim is up to \$15,000 (or \$20,000 if both parties agree). If your claim is for more than this or you need to enforce a Disputes Tribunal decision, you can take the District Court path for which legal advice should be sought.

It is recommended that a Project Information Memorandum (PIM) is obtained to assist with the planning of more significant building projects prior to developing the drawings and supporting documentation of the building consent application, however, it is not mandatory to do so.

Obtaining a Project Information Memorandum (PIM) early in the process may reveal useful information that helps the designer during the design stage. Compliance with other requirements (such as bylaws or a district plan) may be critical to the design of the project, even though they are not part of the building consent process. Therefore, you should consider these requirements as part of your project design and management.

Form 2 PIM/Consent Application is used for either, or both, if you choose to request a PIM be issued in tandem with the building consent. The form asks for details about the property, the owners, who will be undertaking various parts of the work and a brief description of the proposed work.

You can find much of the property information from a rates demand, lease agreement, copy of the certificate of title, or from local council records. Seeking information from local council records, separately or as part of an application for a project information memorandum (PIM) may incur charges.

The description of the work proposed should be clear and precise. For example:

- 'Addition of lounge, kitchen alterations and new conservatory' rather than 'Additions and alterations'.
- 'New 100 m² dwelling with two-car garaging, associated earthworks and retaining walls' rather than 'New dwelling'.

The building consent authority will need to undertake inspections while the building is being built to determine the work meets the consented documents and the Building Code.

The following are the more common inspections undertaken by building consent authorities:

- Pre-pour (before concrete is poured, for example, for piles, footings, slabs, in situ walls or blockwork infill).
- Tanking/waterproofing (before back-filling retaining walls, covering membranes on decks or laying tiles in wet areas such as showers).
- Pre-clad (before wrapping the building in building paper or building wrap and installing the cladding).
- Post-clad (before applying coatings to fibre cement or polystyrene systems possibly including inspections during the plastering).
- On completion of the cladding systems.
- Half-high brick (where veneer is used).
- Pre-line (with insulation installed but before installing internal linings. This inspection may include checking the plumbing installation under pressure test).
- Post-line (checking bracing element fixings before plastering and decorating).
- Drainage (before filling in trenches and covering the in-ground pipework).
- Final inspection including building, plumbing and drainage work (once the work described in the building consent is completed).

This list is not exhaustive. Different building consent authorities may have different inspection requirements, depending on the size and complexity of each project.

Confirm from the issued building consent the specified inspections. If these are not notified and undertaken by the building consent authority it may prevent them from being in a position where the Code Compliance Certificate can be issued at the completion of the project.

It is not the role of the building consent authority to control the quality of the building work beyond ensuring it complies with the Building Code, or to act as a clerk of works (site supervisor or foreman) on the project.

When requesting an inspection, give the building consent authority as much notice as possible. Provide information about the type of inspection required, a contact name and phone number, building consent number, and clear property address information. If the property is isolated or hard to find, please also give appropriate directions.

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Building Inspection Requirements

Where it is possible for the owner or builder to be on-site, a copy of the approved building consent documentation and other approvals is appreciated. Ensure the site is safe, and where possible ensure that a person with adequate knowledge of the project is available on-site to answer any questions.

The building control officer will verify that the construction on-site is in accordance with the consented documents. Inspection notes will be taken to be record with the consent information and verification of the inspection outcome will be provided.

When work is not in accordance with the consented documents or does not meet the Building Code, verbal advice may be given and noted on the inspection records or an Inspection Outcome Notice may be issued. In cases of more significant issues a Notice to Fix may be issued identifying the problems and may not allow work to until a suitable remedy is presented to the building consent authority for consideration. Depending on the circumstances the remedy may need an amendment to the building consent. Refer to Section 3.6 for minor and major amendments.

10.1 Resource Management and Other Non-Building Act Requirements

It is possible to obtain a building consent where the work complies with the Building Code, but does not comply with other requirements such as a district plan or the Resource Management Act 1991. Although a building consent may have been issued, building work is not able to proceed until all Resource Management issues have been resolved.

The Building Act also provides for the building consent authority to withhold the Code Compliance Certificate if outstanding building consent fees, additional inspection charges or development contributions have not been paid.

Additional residential units on one Certificate of Title (ie multi-unit developments) and new or additional non-residential buildings may be subject to development contributions. If a contribution is not imposed earlier, the applicant will be advised of the amount and be invoiced when the building consent is issued.

During the planning and design phase of the project, you should contact your territorial authority and discuss any relevant rules and resource consent or other requirements. Pay particular attention to site coverage, building height and other bulk and location requirements. It may be possible to alter the design to ensure it complies with the Resource Management Act 1991. The earlier you are aware of such information the better. Other matters you can discuss with the territorial authority include approvals for connections to local council services (stormwater, sewer).

You need to give special consideration to the requirements of other Acts when building:

- On steep slopes.
- On waterfront or river-side locations.
- Close to adjoining properties.
- Close to the front boundary with the street.
- Over territorial authority services or network utility operators' systems.
- Under overhead transmission lines.
- Close to airports or ports.
- Driveways close to street corners.
- Driveways off busy main roads.
- Where no drive-on access is available.
- On sites requiring trees to be cleared.
- In heritage or character precincts.
- In or on land that may be contaminated.
- In or on land subject to a natural hazard (you should identify these on the site or location plan if you know about them before applying for your building consent).

10 Project Planning

You may find it useful to apply for a Project Information Memorandum (PIM) before developing full detailed drawings. The PIM gives early notice of special requirements, including any development contributions applicable for the proposed project. The PIM can provide other useful information that will help you comply with the Building Code.

10.2 Product Manufacturers' Information

Information provided by manufacturers, their agents or importers is often intended for marketing purposes. Such information may not necessarily be sufficient to satisfy the building consent authority that the product meets specific requirements of the Building Code.

Product Manufacturers:

Further guidance for product manufacturers on the recommended form and content of information on branded products is set out in AS/NZS 1388 Guidelines for Technical Information for Building and Construction Products.

Note: There is a useful guide to using the product assurance framework to demonstrate Building Code compliance available from the Ministry of Business, Innovation and Employment (MBIE) titled "A Guide to Manufacturers and Suppliers of Building Products" from the links after the index page.

Building Act 2004

The Building Act 2004 is the Act of Parliament that governs building work in New Zealand.

Building Consent

Building consents give approval to undertake building work. When a building consent is issued, the work must be undertaken in accordance with that consent.

Building Consent Authority

The Building Act 2004 introduced a new entity to undertake building consent and inspection functions called a building consent authority. It can be either part of a territorial authority (local council) or regional authority, or be a private company. All building consent authorities will need to be registered and accredited to perform building control functions. In addition, they will be subject to regular external independent accreditation audits to help ensure they can adequately undertake their building control functions to certain standards.

For more information see the Ministry of Business, Innovation and Employment (MBIE)'s website (www.building.govt.nz).

Development Contribution Fee

Territorial authorities can charge a development contribution fee to those applying for a building consent. These fees help the territorial authority develop the infrastructure to support new developments in the area.

Licensed Building Practitioner

From 30 November 2007, licence classes will be introduced for people working in certain areas of design and building work. To get a licence, people will have to show that they meet the national standard for the licence class they apply for.

People can apply to become licensed and have their name listed on a public register. Members of the public can view this register and use it to choose competent building and design practitioners who have demonstrated they meet the national standards.

From 30 November 2009 onwards, certain types of work will need to be undertaken or supervised by licensed building practitioners.

New Zealand Building Code

The New Zealand Building Code contains 35 technical clauses and sets minimum performance standards that buildings must comply with. The Building Code Compliance documents can be downloaded from the Ministry of Business, Innovation and Employment (MBIE)'s website (www.building.govt.nz).

New Zealand Standards

Standards New Zealand provide a variety of Standards for the building industry, covering issues such as construction, testing, advice and manufacturing. These can be obtained from Standards New Zealand (www.standards.co.nz).

Notice to Fix

This is a legal notice issued by a building consent authority when it has identified breaches of the Building Act, such as carrying out building work not in accordance with a building consent. Failing to comply with a Notice to Fix is an offence under the Building Act, and can incur an initial fine up to \$200,000, plus \$20,000 for every day or part day during which the offence continues.

Plans and Drawings

The Standard NZMP 4212:1998 Glossary of Building Terms, published by Standards New Zealand, defines a 'plan' as:

The top view or horizontal section of an object as projected in orthographic projection. Anything drawn or represented on a horizontal plane, as a map or as the horizontal section of a building.

NZMP separately defines a 'drawing' as:

- (1) (Working) Drawings to scale or dimensioned for the purpose of guiding and controlling the making of parts of the work as distinct from a pictorial presentation showing only the general form of the work.
- (2) (Detail) A large scale drawing to give information which cannot be shown on small scale drawings or adequately described in the specification.

Project Information Memorandum (PIM)

A Project Information Memorandum is issued by a territorial authority. It details any information the territorial authority has that may affect your proposed project, so it is a useful document to get before completing design work.

Territorial Authority

Territorial authorities are commonly known as local councils. They undertake the building control functions required by the Building Act 2004.