MARLBOROUGH DISTRICT COUNCIL

Building Control

June 2018

Building Post

Welcome

Welcome to the June edition of the Building Post. March's edition, well it just didn't happen. Leave and workload meant I just ran out of time.

What a busy and very fast moving year it has been so far. We have already issued 1479 consents for the financial year (1/07/2017-31/05/2018) so far. The number of dwellings being constructed is still very high, with 304 issued, with a total value of $110,617,128.00. For the full year I estimate a total of 1613, with a total value around $201,860,970.00. Dwellings - around 331. Not a bad year's work at all.

A biggie for us so far this year has been the determination from MBIE about Council's acceptance of automatic safety pools covers. In a nutshell, MBIE determined against the acceptance of pool covers being a means of compliance. We are addressing the issue with pool owners as I write and will continue to do so for some time yet as existing exemptions under the old "Fencing of Swimming Pools Act 1987" expire. A number of pool owners with already expired exemptions have already been contacted. You have probably seen newspaper articles already so I won't go on, except to say, if you have specific questions about pools, please contact Craig Balaam or Phil Eves on 520 7400 to discuss.

OSB Board Installation - Remember the Gaps

We live in a world of alternative solutions. There are dozens and dozens of systems out there developed to meet the requirements of the Building Code. But each system must be fixed and used as per the manufacturer's specifications. Failing to do so may jeopardise the whole system and leave you holding the can for a system failure. Make sure you read the specifications and installation instructions carefully for each product. Just a simple thing like missing the requirements to create expansion gaps between sheets can cause all sorts of issues further down the track. Don't take things for granted. Just because it worked for one product doesn't mean it will work for another. Most timber-based panel systems require some sort of clearance between the sheets.

Specifications on Site for Inspections

Following on from the previous topic, reading specifications and installation instructions. Please remember that you are required to have all of the consented documentation on site at all times. So often we call on site and the only documentation available s the consented plans. The specifications, fire reports, accessibility reports, engineer's drawings, all need to be on site. If the documentation is not on site, how are you going to be sure you haven't missed an important component? More to the point, how does your tradesperson on site know what they have to do? You would be amazed to hear how many times we are told "oh those documents are back at the office". They don't do much good there.

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Applications

CCC

EVoW

IANZ Accreditation

The purpose of the building consent authority accreditation scheme is to set out the minimum policies, procedures and systems that a building consent authority must have, and consistently and effectively implement, to perform its Building Control functions.

Objectives

The objectives of the building consent authority scheme are that:

1. all building consent authorities have:
   - appropriate, documented and implemented policies, procedures and systems
   - appropriate, documented and implemented effective quality assurance systems
   - sufficient skills and resources to undertake their statutory functions
   - employees and contractors with appropriate building control competencies and qualifications.
2. it supports:
   - territorial and regional authorities to transfer their consenting functions where they wish
   - building consent authorities to enter into outsourcing arrangements with other building consent authorities
   - building consent authorities to align nationally, across a region or a policy, procedure or system.

Once again Building Control went through its bi-annual reaccreditation audit. It started on 1 May and was all over on 4 May.

One thing that was highlighted as an issue during the audit was Council's continuing acceptance of incomplete applications. This covered all forms, including the application for the Code Compliance Certificate (CCC).

Example failings:

- Agent has signed application for CCC but not completed the form identifying who the agent is.
- Building consent application - information missing like "Year first constructed" (if it's new, say so) "intended life", "estimated value of work" (under $20,444.00, but still needs to be correct).
- Building Code clauses left out.

The regulations require Council to ensure that the received application is complete and correct. As a result of the audit findings, Building Control is going to have to toughen up here, which means if the applications are not up to standard, Building Control will now have to reject the application.

You may have received a brief email when the issue arose during our audit. This is a reminder.

Estimated Value of Work

Another issue raised during the audit by IANZ. Of the consents reviewed in the audit many had values understated. The current flat fee system has a good spread of values so there should be no real need to understate the estimated value. The biggest issue for the Building Control Group is that we have to collect the MBIE levy and BRANZ levy. From time to time MBIE audit the levies taken by the Group. If MBIE believe values have been underestimated, and therefore levies have been set too low, Council can be forced to pay the difference. Guess where that money comes from?

Another flow-on effect is that Council often gets queried by home owners when they receive their valuation. The valuation reflects the land value plus improvements that you have stated on the building consent application.

Building Control completely understands that some companies can and do produce a cheaper option. As a rough guide starting point $1500m^2$ is very cheap, 2-2500m^2 is more usual, and then anything from $3000m^2$ and up is more consistent with bespoke designed houses.

Building Control will be requesting evidence of value from applicants or their agents if it suspects that the estimated value of work is understated.

Deviation from the Approved Plans

Amendment or Variation

I'm sure most of you out there have had a customer that has wanted to make major changes to the design when the job is well underway. The customer is paying for it so why not!

But please remember the effect of the Building Act 2004 which states that the completed work must meet the conditions of the Building Code AND the consented documents. To achieve this you will need to act immediately and get the proposed changes to us here at Council. First off, just ring us and find out if the change will need a full amendment or whether Council can deal with the change as a minor variation (amendment). A full amendment is just like any new building consent application. It requires the same attention to detail and must show full compliance. Building Control will do its best to expedite the amendment as quickly as it can, but be aware that until the amended consent is issued, the proposed changes are un-consented. In a nutshell, if you continue to build the amended design prior to the amendment being issued, you are breaching the Building Act. As the contractor performing this work you are personally risking all sorts of repercussions as listed below:

1. Your work is unconsented.
2. The changes may not meet the requirements of the Building Code. It's had no assessment by Building Control.
3. You may have to deconstruct what you have built and change to the issued amendment.
4. You will most likely get a "Stop Work" or even worse a "Notice to Fix".
5. Working without a consent you could get an infringement notice or a complaint could go off to the Licensed Building Practioners Board.
6. Your insurance policy covering the job may be void as the work being undertaking is unconsented.
7. There's a whole heap of risk.

If there are amendments being considered, please talk to us early, don't just wait for the next inspection and hope you get away with it. Designers, encourage your clients to put the thought in at the beginning of the project. I know that's hard, I've been there many times myself in the past, but luckily that work was under the 1991 Act which was a little less restrictive.

Control Joints for Concrete Blocks and Masonry Cladding

Acceptable Solutions

From time to time we find site "Control Joint" issues with masonry block construction, veneers and brick veneer. To fix non-compliant systems can be very expensive, time consuming and aesthetically displeasing to the client.

As per most systems there are many options to meet the Building Code requirements.

You can go to the Acceptable Solutions

B1 calls in NZS4229:2013 (concrete masonry buildings not requiring specific engineering design) and NZS4230:2004 (design of reinforced concrete masonry structures). Section 12 of NZS4229 deals specifically with "Shrinkage Control Joints".

E2 refers you to the manufacturer's specifications for each individual masonry veneer system. These are system specific and you should not assume what is right for one system is right for another. Always refer back to the manufacturer's specifications. These will be in the approved documents.

Specific Design

Calculations and design by a Chartered Professional Engineer (CPEng) - if a CPEng provides a design that specifies where the required control joints are to be positioned, that's where you put them. Don't alter the design without consulting the CPEng first. They will take care of the necessary amendments to their design and documentation. Not following the CPEng directions means you are becoming the designer and, in most cases, you are not qualified to do that.

Avoid the Pitfalls

Services Through Pod/Ribraft Floors

What are the pitfalls and when to ask for a Council inspection

There have been some questions raised recently about where services can run in Pod/Ribraft floors and at what stage Council should be called for an inspection.

The main issue in answering this question is that there is no black and white response, as it all depends on the system being used and the design of the services.

The first thing to understand is that different Pod systems have different requirements for services. Correct positioning of services within Pods or under the system are system specific. Some of the main designs here in Marlborough are Maxraft, Firth Ribraft, HFC and Smart Alliances. Some designs do not allow the service pipes to run horizontally through the Pods, and this includes through the 100mm Rib (e.g. the waste pipes have to be laid under the Pod floor in the hardfill). Other designs such as Firth Ribraft allow the waste pipes to pass through the middle third of the Pod.

In most cases the Council "drains under slab" inspection is getting called once the Pods and mesh are in place. The issue here is that this is too late to be able to inspect the waste pipes and drains for systems that require the waste in the hardfill, and it is quite hard to identify at times if the correct gradients have been used. When it is discovered that the waste pipes do not have sufficient gradient on them to comply, it is then a mission to rectify this with the DPM, Pods and reinforcing in place.

Avoiding the pitfalls

The first step to help things run smoothly on site is with good design. Know what system you are using and design to it. The most common situation Council is finding is issues with the kitchen sink waste (although other wastes are sometimes also an issue). The issue here is that this waste is normally isolated and has a long run to reach the nearest gully dish. In a G13 system, if you have a 40mm waste pipe at the minimum gradient of 1:40, then you only have around 2.4m of horizontal in a Pod before you can no longer achieve the waste pipe running through the middle third.

An issue with running the wastes under the slab in the hardfill is that if the run distances are long, then you cannot achieve the correct gully height of 600mm max from the top of the water seal to the top of the gully dish (G13/AS2:3.3.1h) and it may put the drains too deep to make the lateral connection at the road. Also a consideration for short runs is that some Pod systems require a depth of at least 150mm between their system and the top of the waste pipe underneath it.

In many situations, a design using ASNZS 3500 may avoid most of the issues with waste and drain pipes that are under the slab as the waste pipes are directly connected to the drain with only one ORG gully required in the design.

On site, if you are a plumber, builder or drainlayer, be aware of what system the design is using as this will influence how you run the services and at what stage the Council inspection will be required.

If the system requires the wastes to run through the hardfill, then call for the "drains under slab" inspection before the Pods are placed, then Council can see the pipes. If the system is run through the Pods, call for the Council inspection once the Pods and reinforcing are in place, but before the concrete is placed.

For the systems that have wastes and drains, run both in the hardfill and in the Pods. Do not call two inspections, instead call for the Council inspection once the Pods and reinforcing are in place. The inspector on site will determine if a PS3 is required for the waste pipe that cannot be seen depending on what is visible on site.

Council will be requesting a PS3 for the wastes and drains in a Pod/Raft floor design as part of the certificates requested on the field sheet when a consent is processed. The inspector on site will determine if this is still required after they have undertaken the inspection. It is also worth mentioning that the engineer's inspections of Pod/Raft systems, in most cases, do not include the services in the slab. This is why Council is undertaking this inspection.

Flexible joints in the waste and drain pipes from Pod floors

There are three main factors that determine if the flexible joints are required:

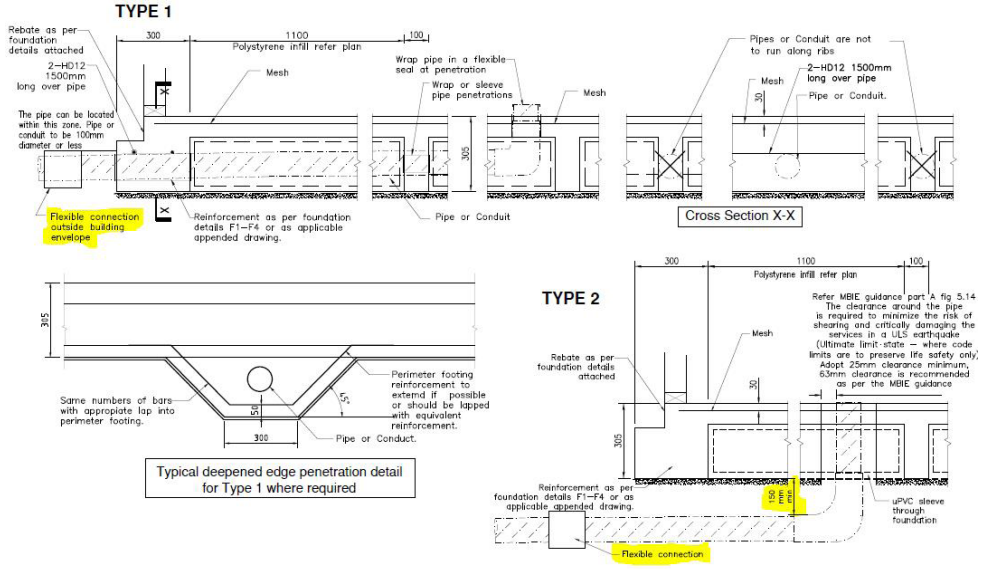
1. The design of the slab, specifically if it is a Pod system.
2. What seismic zone the site is in.
3. If an ASNZS 3500 system or a G13 design has been used.

Services Through Pod/Ribraft Floors continued...

Depending on which manufacturer has designed the Pod floor system will determine if the flexible joints are required. As mentioned above, Pod/Raft floors are system specific, and specify where and how the drains are to pass through or under the system. If the plumber or drainlayer is not aware of what system they are laying their pipes through or under, then they may miss the requirements for flexible joints.

Here is an example of a Pod floor design (HFC) that specifies flexible joints:

Pipe Penetration Details for High Seismic Zones
Refer to MBIE Guideline Section A Figure S14 and S15
and Building Code Clause G13



Three things to note in this example:

1. Both designs require flexible joints outside the slab.
2. The type 1 design requires an edge thickening under the pipe.
3. The type 2 design has a minimum of 150mm under the Pod to the top of the pipe.

Seismic zone are best described in this regard through the examples given in the Canterbury area as one of three foundation technical categories (TC1, TC2 and TC3) that reflect both the liquefaction experienced to date and future performance expectations.

In TC1-2 areas, flexible joints may be achieved through rubber ring joints, however this is also site dependent in the design. TC3 areas are recommended to have joints that are as flexible as possible.

Flexible connections should be considered between the straight lengths of pipe and located outside the building footprint. Some manufacturers specify that their rubber joints can be used under the slab. Good trade practice would say that this joint should be accessible in case of failure or levelling operations and therefore outside of the slab.

The drain and waste system design also plays a part in the requirement for flexible joints.

In AS/NZS 3500, if the drains run through a below ground external wall, then two flexible joints are required within 800mm of the external face of the wall.

On site

Council finds the most common situation on site is where a Pod/Raft system is used that requires flexible joints in its system design and this is not done at the drainage inspection. If you are a drainlayer connecting to wastes in a Pod/Raft floor design, you need to know what system the Pod floor is and if flexible joints are specified or required. If in doubt, put them in.

High Seismic Zones

Quality of Information

The Importance of Compliance Schedules - What MBIE Wants

by Tony Adamson

Note: The article below resulted from our discussions with IANZ and MBIE at our recent IANZ accreditation process.

Council has recently been instructed by the Ministry of Business, Innovation and Employment (MBIE) to increase the level and quality of information contained in Compliance Cchedules (CS), about Specified Systems (SS) which are installed in commercial and industrial buildings.

SS are specific life safety features, i.e. fire sprinklers, fire alarms, automatic doors, backflow preventers, to name a few, which are set out in the Building (Specified Systems) Regulations 2005. The SS must be listed on a CS, which in turn establish the requirement for annual Building Warrants of Fitness (BWoF).

The Building Act 2004 requires that whenever a Specified System is installed, altered, replaced or removed, it be done under the control of a building consent. However, there are cases where minor alterations can be carried out to SS without a consent, however, Building Control must be consulted in each case **prior to the work being carried out**.

MBIE want CSs to describe each SS in detail, the Performance Standard, or document, used for its design, and the Maintenance, Inspection and Reporting (MIR) procedures to be used.

Typical details required may include type, make, model, serial number, together with coverage area and location of the system's elements or components. Locating the system is expected to be on dedicated 'Specified Systems Plan(s)'. A detailed information sheet of what the SS Plan(s) could include will be created shortly by Council. This sheet will be included with all future consents for commercial/industrial buildings and be available for engineers, architects, designers, IQPs, building managers, tenants and owners on Council's website.

It is a requirement of the Building Act that a building consent for commercial/industrial buildings will include a list of SS installed, or to be installed, in the building, together with their performance standard or document. Council will be expecting that information to be provided before a consent is issued. At the time of issue of the Code Compliance Certificate (CCC), or prior Certificate of Public Use (CPU), all other details of the systems must be supplied. MBIE has advised Council that if this information is not supplied Council should not issue the CPU or CCC.

Be prepared for Building Control to expect good details at both building consent and CCC/CPU stages and to be vigorous in its pursuit of the necessary information.

As the Building Act requires buildings containing SSs to have a CS leading to the supply of annual BWoFs, if a building becomes in general use it is incumbent on the owner of the building to have a CS and BWoF. If the building does not have a CCC, or does not need a CPU, but is in general use and includes SSs then expect Council to pursue the supply of the SS information, if necessary by use of a Notice to Fix.

MBIE and Council would like to emphasise the importance of obtaining and keeping a current BWoF as it is a serious life safety issue. The supply of the BWoF is a means of ensuring the building remains safe for use and assists in mitigating the consequences under health and safety investigations.

Chilean Needle Grass - The Master Hitchhiker

by Jono Underwood, Biosecurity Coordinator

In Marlborough, or even nationally, you may have seen press about one of Marlborough's most invasive weeds - Chilean needle grass (CNG). It is an invasive tussock forming grass with sharp penetrating seeds that hails from South America. It made its way to New Zealand, first being detected in Marlborough in the 1930s. Like a typical invasive weed, the "lag-phase" can be long and arguably awareness of biosecurity risks during early years were likely absent.

The trouble with a "lag-phase" like this, which is common for invasive weeds, is that new infestations resulting from movement of stock or soil that contains seed could take many years to eventuate. By that time, infestations can be very difficult, if not impossible, to completely remove from that new location.

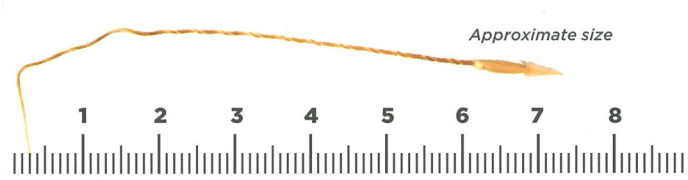
What the Council Biosecurity Team is promoting and, where needed, enforcing, is a "clean on departure" standard for machinery leaving properties with a known history of CNG being present. This is where there is a cross-over with the construction industry in that a construction project on affected properties where "clean on departure" is not adopted will carry a high risk of transporting CNG off a given property.

Here are some basic steps you could take to not help invasive hitchhikers getting around our region:

- Talk with the property owner about biosecurity risks on the property.
- Feel free to use the Council Biosecurity Pest Plants Smart Map to check where pests like CNG have been found.
- Implement a "clean on departure" standard for the project.
- Become familiar with the risk/pest and what other site practises can minimise risk.
- Even better, adopt that standard across the board and use it to your advantage!

If you have any questions about how to manage spread risks, feel free to contact the Council Biosecurity Team - biosecurity@marlborough.govt.nz.

Check out locations of Chilean needle grass on Council's website: Smart Maps



Clean on Departure

Refer to Schedule 1

Unconsented Work - Sorry, a bit of a grizzle

Never has it been easier to get information confirming whether you need a building consent or not. Very few people today don't have access to a computer or smart phone which gives you immediate access to Council's website, or if you want, you can go directly to the MBIE website. Either way, with the click of a mouse or a wave of your finger you can access Schedule 1, Exempt Work. The guidance document is especially helpful as it provides examples of when you do or do not require a building consent. Exempt work covers building work, some plumbing and drainage work, some works designed by chartered professional engineers and emergency works.

More and more Building Control is discovering work that has been carried out without the required building consent. Sometimes it may be years after the fact, the issue being highlighted in a builder's report for sale and purchase process, or even an insurance claim. However, some we are coming across are soon after work has been completed. This causes all sorts of issues for those involved, not to mention the extra work for Building Control, mainly in the form of applications for Certificates of Acceptance (COA). In most cases it's not Council driving the requirement for a COA, it's the lawyers or other interested parties. COAs can take double, if not even more time than that of a standard building consent. We pick up COA applications in the queue just like building consents. If we are spending extra time processing COAs, then we are not working on building consents. Effectively, through the actions of those who choose to do work without a building consent, your consent is taking longer to pick up and process.

Because of the increasing negative effect that unconsented work is having on the Building Control Group's workload, Council is going to take a harder stance on unconsented work. An example of this is, we recently laid a complaint to the Licensed Building Practioners Board as a result of discovering unconsented work. The complaint was upheld by the Board and the LBP is now dealing with the consequences. Council will also be issuing infringement notices to all persons carrying out unconsented work. If the work is major Council will consider taking the matter further into the legal environment.

You may think this is pretty harsh, but if you sat where I do and saw the amount of work, stress and money spent by individual property owners trying to sort out unconsented work (usually in a time restricted situation) you would see that the very quick decision not to get a consent creates a whole heap of issues for everyone concerned.

Please, if in doubt, ask us or refer to Schedule 1.
Schedule 1 exemptions

**Building Control flat fees and related fees,
as advised last year,
will be increased approximately 5%.
Submissions close 17 June.
Final fees are yet to be set by Full Council.**

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