

APRIL 2014

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THE FULL MEASURE

HOME REINSTATEMENT ESTIMATES

For many of us our homes are our biggest asset and some aren't insured for the correct value. Maltbys can help give you with the correct reinstatement value.

One News recently reported that:-

TWO THIRDS OF HOME OWNERS MAY NOT BE ADEQUATELY COVERED FOR HOME INSURANCE

"A comparison between house insurance valuations has produced 'shocking' results, according to Consumer New Zealand.

two-thirds of people stick with valuations given by insurance companies but Consumer NZ's CEO Suzanne Chetwin says this puts homeowners "in danger of seriously undervaluing (their) property".

Default sums offered by the insurance companies are not based on full estimates that are now recommended be completed by registered Quantity Surveyors and the significant differences could leave a homeowner seriously out of pocket should an event arise.



Current Projects

Wellington Office

Foodstuffs—Dannevirke
N2B Jacks Point
Christchurch Schools
Wellington Zoo The Hub
Majestic Tower
MOE—New Schools
Wellington Zoo—Meet the Locals
Kiwirail Linwood Loco Depot
Queen Margaret College
Clyde Quay public Space
Bayou Apartments
Reinstatement Estimates

Auckland Office

Rotorua Police station
Nga Taiatea Wharekura
Te Wharekura O Rakaumanga
MOE Kura Redevelopments
Western Springs College
Putney Way Apartments
Redhill Primary
Whangaparaoa School
Tarawera High School
Wairoa School
Hamilton North Secondary School
Marsden Cross Trust Board
Hamilton Endeavour School
Murupara Area School
Poynton Terrace Apartments
Holy Trinity Cathedral
Waiuku Area Schools
Kelston Deaf Education Centre

Queenstown Office

H22 Residences
Carters, Frankton
Placemakers, Frankton
Remarkables Ski Field
Cophthorne Stage 2
The Landing
Residence du LAC

Christchurch Office

Ashburton Museum & Art Gallery
Hornby Retail
Rapaki Marae
Reinstatement Estimates

Kura Redevelopment Projects for the Ministry of Education:



Te Karaka Area School



Te Kura Mana Maori o Whangaparaoa

Six of the seven MOE Central Region Kura Redevelopment projects that Maltbys were engaged in the role of Engineer to Contract back in August 2012 are now completed, and the final project in the batch at Te Wairoa is due to start later in 2014 and due for completion in early 2015. A further project at Te Wharekura O Te Kaokaoroa O Patetere (in Putaruru) was also added, and this is due for completion later in 2014 also.

The Kura Redevelopments projects are:-

- Te Karaka Area School redevelopment
- TKKM o Nga Uri a Maui in Gisborne
- TKKM o Kawakawa Mai Tawhiti
- Te Kura Mana Maori o Whangaparaoa
- TKKM o Nga Iwi e Toru ki Taumarunui
- TKKM o Kahungunu o Te Wairoa

The projects involved altering and extending buildings, demolishing existing buildings, constructing new buildings, earthquake strengthening, weathertightness remediation and siteworks and site infrastructure upgrades. All were tendered traditionally, some with Schedules of Quantities and some without. Most of the projects involved several separable portions as works were completed progressively whilst maintaining school business as usual. Due to the remoteness of the two schools at Cape Runaway (Whangaparaoa) and Hicks Bay (Tawhiti) at the top of the East Cape, these projects were tendered as one contract given that they are half an hour apart by road, but 3 hours from either Tauranga or Gisborne.



Taumarunui was completed in August 2013, with the others all being completed for the start of the 2014 school year. **Whangaparaoa had it's official opening and 100 year centenary celebration on 5 January 2014 and this was attended by the Minister of Education, Hekia Parata.**



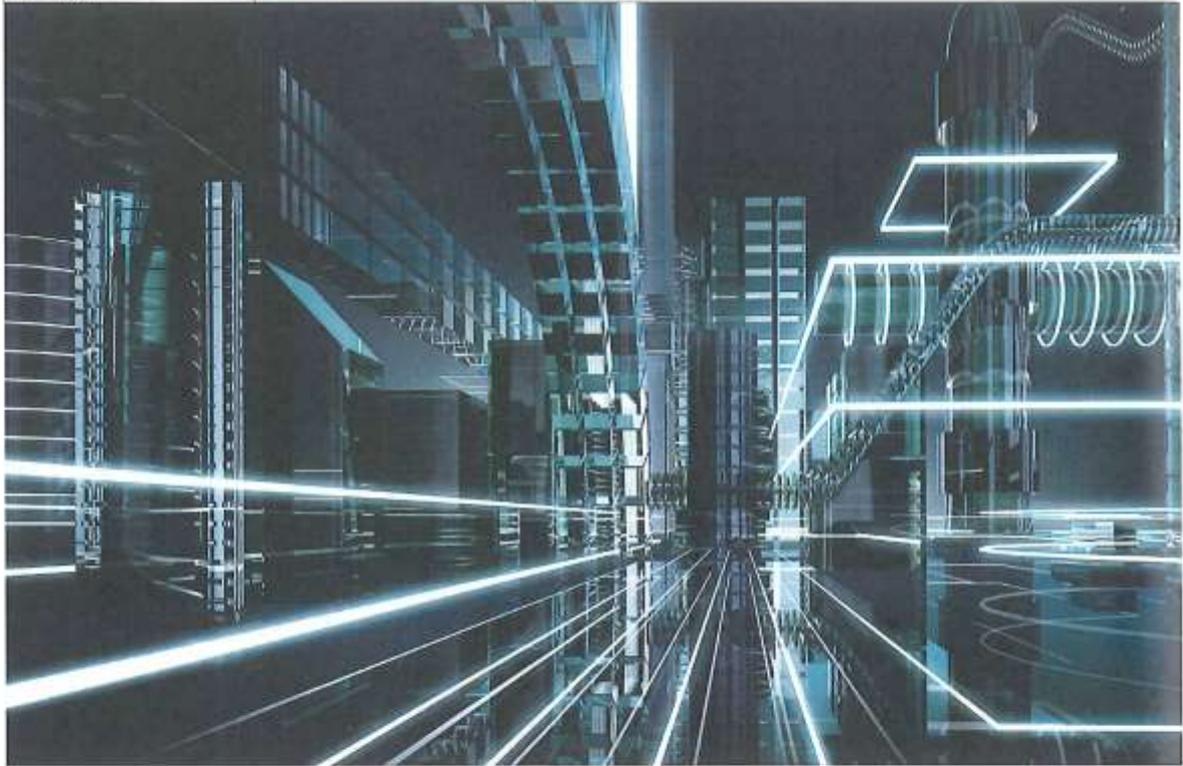
TKKM o Nga Uri a Maui in Gisborne



TKKM o Nga Iwi e Toru ki Taumarunui

RICS CONSTRUCTION
JOURNAL

BIM



What's IT all about?

RICS is implementing building information modelling (BIM) at its London head office. In this fourth article following the project, **Les Pickford** speaks to BIM software vendors about the IT environment issues that users should consider

One of the first challenges that RICS found on its BIM project at Parliament Square was to ensure it has the hardware capable of running the model. This is an important consideration not only for the initial project set-up but also so it can continue to enhance the model once it is operating.

"Initially, we could install the software but could not load the model," says Paul Burrows, a Solutions Architect with the RICS Building Cost Information Service (BCIS). "After some investigation, I found that it was because the amount of RAM memory on my machine was too low. As an experiment, I bought and installed 8Gb of RAM at a cost of just £75." He is now able to access, view and navigate his way around the model.

However, Burrows warns against thinking that resolving any hardware issues is a quick and easy thing to do. "I had a relatively new machine with a 64-bit operating system so all I had to do was upgrade the RAM. But if I had a five-year-old machine with a 32-bit operating system I might have had to replace the whole thing."

There was a key learning point from this exercise, he adds. "The cost of implementation could be hugely variable because it depends on your current infrastructure, hardware and software. If you're lucky, it might cost you next to nothing, as in my case. But the machine next to me might need something completely different." He explains that the important thing is to fully understand the hardware you currently have and to compare this with what is needed to run the chosen software.

Expert advice

RICS' own IT challenges has led it to look at various solutions and speak to software vendors to get their opinions. The complexity of the IT requirements and the related costs are a common worry for users new to BIM but this may not be as challenging as many people think.

"Construction is facing a number of technological challenges with the introduction of BIM," says Steve Brunning, Managing Director of Rapid5D. "Technology has, historically, been used to duplicate paper processes on computers. But the growing need to work collaboratively – and the demand to move from 2D silo-based to an integrated business process of 3D, 4D, 5D and beyond – requires a new breed of software and businesses have an important decision to make about how

Selecting BIM

Tim Chapman, President at Constructivity, summarises the four main areas to consider when selecting a BIM IT set-up and the main factors that should affect their choice

Topology type

Server-based system

All user interaction is performed from a web browser without requiring any special plugins or downloads.

- low maintenance (no desktop software to maintain)
- typically takes more time to access or update data, particularly with slower internet connections. Advances in web technologies, such as HTML5, reduce this disadvantage.

Client-based system

All user interaction is performed from a dedicated application on a PC, and updates are manually sent via email, FTP, online storage (e.g. DropBox) or otherwise accessing a server outside of client applications.

- reduces or eliminates cost of maintaining server systems
- lower productivity due to additional manual steps, which increase the possibility of losing information or users not working with the latest information. While becoming less common, this may still be the reality at remote construction sites with limited or cost-prohibitive network access.

Client-server based system

All user interaction is performed from a dedicated application typically on a PC (although increasingly common on tablets or phones) with data stored on the server.

- increased user productivity as client-side applications typically enable immediate and deeper access to information, with data cached on the client, while automatically synchronising data on a server for efficient communication with others
- the need to install and maintain such applications; however, this can be circumvented by app stores and software that automatically updates.

Hybrid system

Enables a combination of server/client/client-server based scenarios, each potentially providing the same or different levels of information access.

For offices more involved in detailed design work, and as model sizes increase (files sizes 100MB+), a client-server based system is imperative for productivity. For those less involved with building detail (who may only need to view data), a server-based system can be adequate.

Hosting method

Topologies may be differentiated by who manages the service.

Cloud-based hosting

Managed by a central service provider.

- dedicated maintenance, reducing the need for in-house IT staff
- slower data access (compared to a server in the same office), additional costs for hosting, and potential risk of lost access, lost data or security breaches. This may be mitigated by the strength and reliability of the hosting company.

In-house hosting

Managed by a company's internal IT organisation.

- faster data access within an office. As broadband speeds increase (>100Mbps) this advantage reduces
- increased cost for IT management and increased risk of data loss and security breaches.

Combined hosting

This may provide benefits of both approaches, where cloud-based systems provide extra assurance of reliability and data backup, while dedicated servers at offices provide productivity benefits (provided that the servers synchronise data effectively).

For offices more involved in detailed design work, having internal IT experience (or being large enough to carry dedicated IT staff) means in-house hosting is more likely to be cost-effective. For smaller companies (and with software costs being equal), cloud-based hosting may be more beneficial.

Data delivery

User productivity is driven by how applications synchronise data. This can be categorised as:

Heavy

This implies that the client application (or client web browser) downloads a copy of the BIM data. It enables higher productivity once data is downloaded, but takes an initial productivity hit when downloading data for the first time on a device (or on subsequent times if all data must be resent).

As detailed building models can easily approach hundreds of megabytes, downloading an entire project every time it is accessed, or each time it is updated, can mean lost time and extra bandwidth costs when using data plans on mobile networks. Software systems that can deliver incremental updates (sending only what is changed) can substantially reduce the time sending/receiving.

Lightweight

This implies that the client downloads a view of BIM data (which may be just rendered images). This approach eliminates any initial access delay but lowers overall productivity because data must be rendered remotely. This may be preferable for those who need to look up information quickly (e.g. a contractor reviewing a detail or specification sheet) but do not need to interact with it.

Hardware

The sizing of hardware elements falls into three main areas.

Workstations

Sizing requirements depend a lot on the efficiency of the software application:

- most mid-level PC workstations (e.g. Windows 8, dual core, 6GB RAM, 1TB hard drive, 1080p video screen resolution, costing around £600) are more than adequate for working with 'average' commercial building models (100MB file size)
- lower-end PCs (£300) are suitable for non-design data
- for larger building models (1GB), CPU RAM and video memory are usually the limiting productivity constraints and should be increased proportionally

- higher-resolution screens (2160p) may increase productivity at the expense of substantially higher hardware cost.

Servers

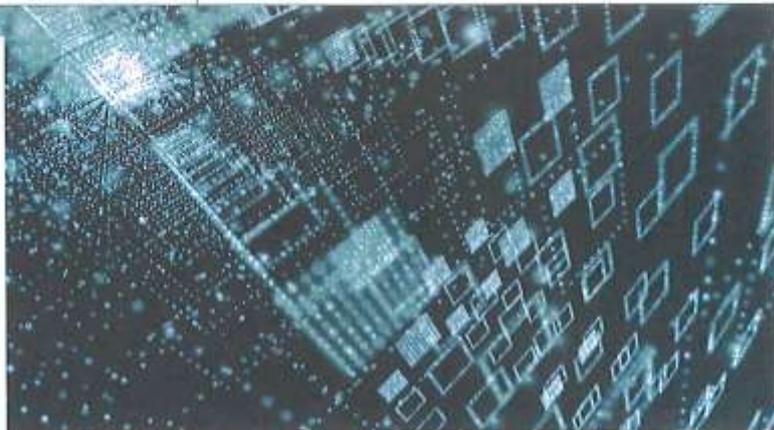
Sizing is highly dependent on the design of the server software:

- for servers that send BIM data to clients, RAM is critical. Where each concurrent project is cached in memory (to optimise response times), a rule of thumb may be 1GB per concurrent project; however, this can vary substantially depending on the software
- while servers often do not include accelerated video cards, those used for BIM software that render images/video remotely may require dedicated graphics cards for off-screen rendering that can be delivered to client software
- required hard drive space is a function of the number of concurrent projects, their size, the number of revisions, and how the underlying software system stores them. While this is also highly specific to the particular software used, average use may be 500GB per project, particularly when dealing with document attachments associated with product information
- a cost model for sizing servers may roughly map to RAM requirements per concurrent project (£600) and CPU/GPU (processing and graphics) requirements per concurrent user (£60). Again, these figures will substantially vary according to the design of the software running and the size of the projects.

Networks

For sizing networks, a speed of 10MBps is more than adequate for those working with design data on average-sized projects (100MB):

- as project sizes increase, bandwidth should increase proportionally to maintain productivity
- for locations where network speeds are significantly below that (e.g. 1MBps), such as at remote sites without network infrastructure, users will experience substantial delays with server-based workflows and would benefit from dedicated client software that caches data locally.



- these solutions are deployed. It's not straightforward and the right choice will depend on the particular requirements."

However, James Hunter, Technical Lead for Rapid5D, suggests that the hardware required is not really new technology. "Anyone who is currently working with 3D models and has equipment that can cope with these, whether stand alone and/or over the internet, should be able to engage with BIM."

The key to choosing the correct hardware configuration is selecting the right software for your BIM needs and making sure it has the right business functionality, e.g. the ability to produce cost plans, bills of quantities, programmes, resource diagrams, production control charts, 4D simulation videos, etc.

"Your specified solution will have minimum hardware requirements based on someone who is particularly patient and not under pressure," says Hunter. "This means the bare minimum. Most vendors also produce a recommended specification but many users have found that an even higher specification will result in increased efficiencies."

Unfortunately, higher specifications and faster processing can mean increased costs. "The key is whether or not the cost is justifiable," explains Hunter. "I've seen some examples where five engineers were losing a total of 40 hours a week because they were watching egg timers on their PC. So while a £2,000 laptop might seem expensive it could quickly pay for itself through increased productivity."

Hunter says the biggest potential downfall for users is the speed of access to data. "So think about your data burden and how your chosen solution deals with that. Whether it's an internal LAN or coming across the internet, the biggest issue is to get the data backwards and forwards as quickly as possible.

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The cost of implementation could be hugely variable because it depends on your current infrastructure, hardware and software

Paul Burrows, BCIS

"This is the main issue that affects productivity," Hunter adds. "Poor productivity causes frustration, which leads to people not wanting to move forward with BIM because they don't see the solution as right for them."

Hunter says that construction businesses have, historically, been able to invest in relatively low specification hardware to run construction projects and this does not have to change if the cloud is the chosen deployment method. "However, the infrastructure of the business then becomes critical; if there is insufficient internet bandwidth, or firewall issues, the cloud may not be the best choice. Some customers working on remote sites with limited connectivity have chosen to purchase powerful laptops so they can run a model standalone. The choice for each individual business will be different – cloud vs power PC/laptop or perhaps a mixture of both." ●

Les Pickford is a freelance writer and former Editor of the RICS Construction Journal
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NEW / OLD FACES

Ashleigh Hopkin

Hi, my name is Ashleigh Hopkin. Six months ago I arrived in NZ from the UK and immediately started working for Maltbys.

My interest include surfing, skiing and travelling. Living in NZ has been an amazing experience and working for Maltbys has been a true pleasure.

Sadly after six months with the wonderful Maltbys' team my time has come to go back to the UK to continue my studies at University for a Bachelor of Quantity Surveying and Commercial Management. I wish Maltbys a great and successful future, and would like to thank them for all the opportunities they have given me.

Thanks everyone, I will miss you all!!!

P.S I will be back.



Katie Buist

Hi, I'm Katie – I started working at Maltbys, Wellington office last September as part time Administrator and PA to David Morriss. Most of my career has been as a legal secretary and I worked for nine years at a law firm local to where my husband and I live, in Raumati Beach.

However, looking for a change I gave up my fulltime job to become a fulltime student and last year completed an 18 month Diploma in Health Sciences (Therapeutic Massage), which I practice at my home.

The main reason for my change in career was that I could no longer sustain working full time because my husband and I run a residential alcohol and drug rehab. Five years ago we started a Charitable Trust called Recovery198, providing a medium to long-term residential programme at our home, meeting the needs of people who desire to recover from addiction to alcohol and drugs and other forms of addictive behavior – my husband has a Psychology degree and is a Counsellor. We refer to Recovery198 as Therapeutic Family - sharing meals, and social times together in a relaxed incorporative manner. Our property is in a semi rural setting and as part of the healing ambience of 198 is realising partial sustainable self sufficiency, with a commitment to organic gardening and lifestyle. If you would like, you can view our website: www.recovery198.co.nz.

Its great working at Maltbys – **the people/staff are friendly and supportive and I'm enjoying getting to know everyone and developing my knowledge of the work.**

NEW ADDITIONS

Tristan McCamish

Tristan Luke McCamish. Born at 7: 55am 10/10/13 weighing 3.465kg. Arrived exactly on time without too much fuss unlike his older sister. An easygoing smiley little boy who doesn't always understand what 'night-time' is. Just starting to commando crawl round the house so he can get his mitts on everything. Destined to be a professional tennis player, F1 driver or doctor (yea-right).



Coen Taggart

Coen Thomas Allan Taggart born 19:41 22/04, 9.3lbs which is 4.2kgs. Five days late and in a bit of a hurry after all that waiting. Big sister Ella is so proud of her brother.

MALTBYS

SOCIAL EVENTS

Wellington's End of Financial Year Lunch



The end of the Financial year comes as a relief to everyone.

After the stress of all the hard work, the Wellington team decided to go out and relax by having lunch at **St John's Bar & Restaurant on Wellington's Waterfront** on 4 April.

They had a great time with lots of reflection on the interesting year that had been, as well as time to relax, laugh and let go of built up stress.

Brian from our Christchurch office was in the area and so was able to join the team over a delicious meal.

Great food, great people, great social time!

Queenstown Christmas Party

The Queenstown office combined with Lewis Bradford Engineers and McAuliffe Stevens Architects for the 17th year in succession to celebrate Christmas, initially descending upon the Queenstown Bowling Club to display our abilities in the Mixed Pairs format.

We then retired to the salubrious surroundings of Jervis Steak House for a well-earned three courser and ample refreshments.

A lovely way to end the calendar year with friends and family.



Arthur Gabriel Annual Fishing Competition

March 2014 the moon and tides should give us good fishing . We ventured with our same skipper and same boat as last year.

The winner of the Arthur Gabriel Memorial Trophy for 2014 is Luke Sutton who caught a beautiful snapper which no-one could match. Well done Luke.

Arthur managed to catch a shark and not just a little one, one that was never going to come onto our boat. This was **Ashleigh's first time ever to catch a fish and she really enjoyed the day as did we all. With lots of Kawhai speeding around we had our fair share of tangled lines and even pulling two or more fish on one line. There were plenty of fish to go around and great day had by all. everyone went home**



Luke's winning snapper

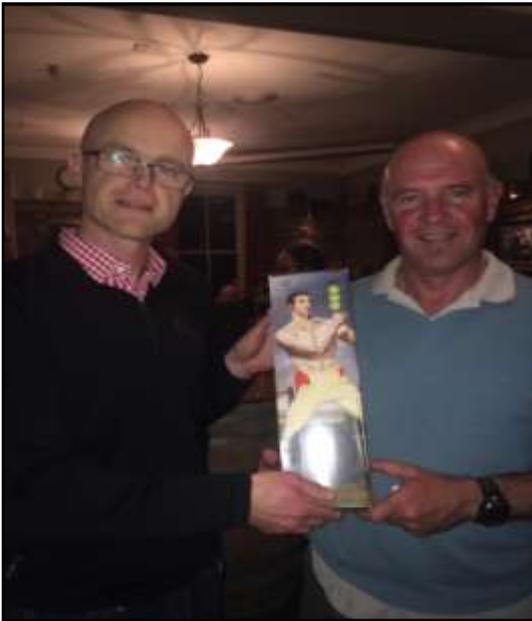


Ashleigh's first ever fish



NZIQS National Golf Day

The National NZIQS Golf Day was held on 2nd May around the country. To win the trophy you had to be a current member of the NZIQS. The results were collated and our own Queenstown Director Jeff Turner was the overall winner, however both Anne & Huw featured in the Auckland based competition.



Auckland Golf Day

With the ending of daylight savings almost upon us, we ventured to Takapuna for 9 holes of golf. Again we had a beautiful day with the sun not as intensive as has been. Work commitments meant that only three of us went this year, but Anne's friend Karen joined us for a great game of golf.

