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Auckland Office

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Aotea Refurbishment
Mt Albert Streetscape
Mt Eden Corrections Carpark
The tender for the new Gymnasium building at Dilworth Junior School has recently been awarded, following a competitive tender process based on a full tender Schedule of Quantities as prepared by the Auckland office. Maltbys have a long history of providing our full range of services to the Dilworth Trust Board, and this is the latest project for the Board. The new Gym has a project budget of $8.7m and works will commence in February 2018 for completion in early 2019.

The new gym building connects to the existing pool building and overlooks the playing fields. The court provides a full size basketball court with spectator seating, and the building includes changing facilities, an exercise room, kitchen, classroom, store rooms and external balcony.
The Aotea Centre refurbishment, Auckland

The tender for the internal and external refurbishment of one of Auckland and New Zealand’s major landmark buildings, the Aotea Centre, which is managed and operated by Regional Facilities Auckland, has recently been awarded. Tenders were called in September 2017 to a selected shortlist of Main Contractors, based on a full tender Schedule of Quantities as prepared by the Auckland office. Construction is due to start in February 2018, for completion in March 2019 ready for the Auckland Arts Festival.

The project is in two parts, being the external refurbishment and the internal refurbishment of the
Foyers on all levels. The external refurbishment includes recladding the fly tower, new GRP panels to replace the existing concrete balustrade panels and a new green roof to overlay the main existing roof. Internally, the foyers on all levels are being refreshed, and this work will start in October 2018 and will result in the theatre being closed for a six month period whilst the works are completed. The total project budget is $45m.
All change

Along with every other profession, quantity surveying is undergoing considerable change. This is due in no small part to the continuing introduction and use of new technologies, all of which have become an increasingly common feature of our working day.

Meanwhile, our regular quantity surveying chair Justin Sullivan is himself currently involved in another major change – namely PG2020, on which the Construction Journal will report as there are further developments – so I have gladly stepped in to pen this issue’s column.

No threat

Change is not particularly new of course, and the profession seems to be changing ever since I started work in 1975. The advent of new technology has been seen in every generation as a threat to the livelihood of chartered surveyors, with dire warnings of redundancy and unemployment.

However, the practice of quantity surveying now seems to be changing apace with the development of technology, so I have included some of my thoughts on the subject in this column.

Drone doubts

Drones are now a common sight in the construction industry, and the use of drones in surveying has been increasing in recent years. However, there are still some concerns about their use.

Advisory capacity

New technology should enhance the ability of surveyors, of whatever discipline, to do what they are best at and devote more time to it – that is, providing high-quality, well-reasoned professional advice to their clients and interested stakeholders by drawing on the accurate data gathered by whatever technology is being used. We are in danger of losing the thinking time that surveyors need to consider the options available to the client, assess the implications of their selection, and offer a thought-through strategy for dealing with them as well as a clear recommendation as to the best way forward. This is a direct result of using the technology, if devices allow us to output data, much quicker than before, clients will expect answers faster, and the chance to think about the reasoned advice may be lost. Chartered surveyors still have much to offer the construction industry and the wider economy in ensuring excellence in commercial management, whether they are dealing with a modestly valued building project or with a major infrastructure development of national importance. In all cases, control of the financial aspects is paramount, from advising on the front-end business case preparation to project work on site.

So this is not a call to ignore emerging technology, but rather to embrace it as an opportunity to give better advice to our clients.
The phrase “health and wellbeing” might bring to mind a rhyme about the doctor-dodging powers conferred by a daily apple. Yet these proverbial days are seemingly behind us, as health and wellbeing have become a frequently used term in the building industry instead. Client demand for quality office spaces, retail areas and homes that enhance human health and productivity is growing. The vision of health and wellbeing is to provide productive and comfortable environments for the building occupant over the long term; well-designed and operated environments should inspire positive lifestyle choices, resulting in healthier, more productive building users.

**Design considerations**

Human health and wellbeing can be affected by many factors, and as building designers it is outside our remit to influence the diets and fitness of occupants. But implementing health and wellbeing in buildings is an holistic concept, and will have tangible effects on areas that do lie in our scope (see Figure 1).

**Figure 1**

Health and wellbeing influences in the built environment

- Thermal comfort
- Condensation
- Ventilation
- Air quality
- Reverberation
- Acoustics
- Heating, ventilation and air conditioning
- Lighting
- Light levels
- Fixtures, fittings and furniture

Source: XC02

Demand for buildings that encourage health is increasing, and we must respond accordingly to clients’ requirements. We should shift our focus from the way that the building works to the way the user lives. Easier said than done perhaps, but we do have a tried, tested and industry-trusted tool at our disposal – namely, simulation.

**The role of simulation**

Modeling and simulation support building design. To improve such design with occupants in mind, there is clearly an opportunity to integrate cutting-edge building technologies into our work. Areas that could benefit from a simulation-based predictive approach could include:

- using computational fluid dynamics to assess indoor air quality
- performing analysis of discrete zones to assess the thermal comfort of individual occupants
- examining the feasibility and performance of different ventilation strategies
- managing moisture and condensation
- assessing reverberation and acoustic impacts
- measuring and designing ambient or circadian lighting.

An assortment of modelling prospects demonstrates that simulation could support healthy building design. However, questions of feasibility and practicality – such as the development of new metrics, issues of cost and resource-effectiveness – highlight that the integration of health and wellbeing simulation into our current skill set will face some challenges. Our hope is that an industry-wide interest in this area will encourage the necessary development of new metrics, as a way of supporting a better standard of living for building occupants.

**Doing WELL**

Integrated Environmental Solutions (IES), a company working in 3D building performance simulation, has already achieved WELL Building Standard credits (www.wellcertified.com) by measuring health and wellbeing through its Virtual Environment software. The Virtual Environment technology offers many outputs relevant to designing buildings for health and wellbeing, including thermal and visual comfort, indoor air quality, daylight availability, sky view, comfort indices, the percentage of people dissatisfied with a building’s interior and the mean age of air.

This technology is also designed to tackle future challenges for healthy design, and can model a range of scenarios developed by the UK Climate Impacts Programme to ensure that we as an industry are designing long-lasting, sustainable buildings.

But this is not just technology for the future. IES consultants have helped clients secure WELL credits for circadian lighting, daylight modelling and thermal comfort across half a dozen projects, including several office developments in Paris (http://bit.ly/2xk4uc7). Virtual Environment technology offers users the power to explore the WELL standard at design stage, and integrate health and wellbeing concepts into their projects.

A healthy future

Simulation is a great way to demonstrate the tangible benefits of health and wellbeing applications across an area of potential uses. But the ultimate goal is to create a productive and comfortable built environment. Simulation can certainly contribute to this, but the benefits of a well-designed building are easily negated by poor use; in contrast, they can be optimised by fitness trackers and health apps, for instance.

Simulation should become a tool to support healthy design, but most importantly, contribute to the holistic approach to wellbeing necessary for optimal human health. As our building designs advance in enabling healthy living, our old proverb may just need a rewrite. Forget the apples; it’s the engineers keeping illness at bay!

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www.iesave.com/health-wellbeing

Related competencies include Construction technology and environmental services, Sustainability
The introduction of the International Construction Measurement Standards signals a new dawn for the small business, as Justin Sullivan explains.

Little and large

The expression ‘a rising tide lifts all boats’ is often used to suggest that improvements in the general economy will benefit everyone. But it is no less relevant in our business community of quantity surveyors. With most practising in small or micro businesses – I am told more than 80% of member firms are of this size – there is an armada of small boats out there that will all benefit from the rising tide of our standards, in particular the recently introduced International Construction Measurement Standards (ICMS).

The ICMS have been designed to enable transparent and more regulated global comparisons for high-level cost classification. But why is this necessary?

Dumbfounded in Dubai

A couple of years ago, I was sitting in an architect’s office in a sweltering Dubai. Despite being a quantity surveyor myself, I had been asked this time to perform a project monitoring role, having worked for the client for many years both in the UK and overseas. We appointed the local quantity surveyor recommended by the architect as our cost consultant. He was a nice chap, who ran a small business and had worked with the architect many times. When we all met to receive the long-awaited cost plan, it was immediately apparent that the standard required for such a project was missing. The client was shocked that I pointed this out, especially as I had only looked at the front cover at this stage. But the document was so thin for a project of this size that it could never have contained the level of detail needed for the important and logical next steps, such as value engineering.

A debate ensued about how the cost plan should look, which culminated in the client asking what the global standard for a cost plan was. Both the quantity surveyor and I admitted that there was no such standard, as quantity surveyors require different things around the world. The client was dumbfounded.

It’s good to be in the ICMS

As part of my RICS role as Chair of the Quantity Surveying and Construction Professional Group Board, I have travelled in and outside the UK to speak with members about the standards. With ICMS and the International Property Measurement Standards being at the forefront of their minds, these have either already been implemented and adopted in the workplace, as in the latter case, or will be shortly – the ICMS were launched in Vancouver in July, although adoption rates are not yet known.

There has always been a mixed reception for new standards. I have often heard people ask: ‘Why do we need yet another RICS standard?’ ‘This is normally followed by silence, then the penny drops – ‘Wouldn’t it be good if we all started doing the task the same way?’ Cost reporting would be conducted in a similar manner, with everyone completing the same steps in a regulated and more sophisticated manner.

The ICMS were created by a Standard Setting Committee (SSC) comprising chartered surveyors from all over the world and from various business groups. There was no concentration of larger firms among their number – if anything, it was the smaller firms that were more involved. The focus of the SSC was on devising international cost classification standards that would do the job perfectly, rather than simply aiming to keep everybody happy.

Many of the major players in quantity surveying worldwide have said they will support and adopt ICMS. However, does this then give them an advantage over...
Being 'international' does not mean being somewhere else – global standards affect everyone

the smaller practices? I don’t think so. The smaller practice by definition has fewer projects, fewer clients and inevitably less in the way of red tape, politics and standardised systems. The smaller practitioner should be able to adapt quicker to a new reporting system, which is basically what ICMS offer.

Setting common standards
At the macro level, research into global cost standards by RICS’ Building Cost Information Service (BCIS) in 2008 noted a lack of common classifications and a complete absence of standards in certain countries, findings borne out by the SSC. More recently various studies, including those from respected bodies such as the McKinsey Global Institute and the World Economic Forum, have noted that potential productivity and efficiency improvements in construction are hampered by the lack of standards in cost management and reporting.

At a governmental level, the need to attract private finance, particularly in infrastructure, is well recorded, and standards that enable transparency, cost prediction and minimising risk for projects are necessary to inform investors and governments’ decisions.

Similarly, among businesses, global construction clients and consultancies need to compare costs across sectors. Many clients now have vast programmes of work, and consultants prepare and issue worldwide cost research that would benefit from reference to common standards. The larger players that have agreed to adopt ICMS also have extended supply chains that include micro, small and medium-sized enterprises, where harmonised standards can greatly help the flow and interpretation of construction cost data.

The ‘I’ in “international”
Change is always a challenge. The profession should, however, see the opportunity here. Quantity surveyors are the natural data managers in the construction industry and the advent of new technologies such as building information modelling (BIM) will only make this role more important. With increasing global and mobile opportunities, there is scope to unify the financial management of construction across buildings and civil engineering, which can only increase the demand for and status of the profession.

Remember that being “international” does not mean being somewhere else. We see large takeovers of British consultants by overseas players and substantial foreign direct investment in the UK. So global standards affect everyone. Professionals also thrive on debate. Silence and ambivalence are not options if the profession is to progress.

The RICS position
ICMS were developed by a collaborative coalition of global professional bodies. They are not RICS standards as such, although we are a member of that coalition. Since the standards aim to improve the global performance of the profession and unify terminologies, the coalition agreed to make the ICMS free for all, as standards that can be used by all in the industry. RICS intends to issue a user guide for ICMS and follow up with a global professional statement in cost planning and estimating based on ICMS. This planned professional statement will regulate members on a global basis.

At a UK level, the RICS New Rules of Measurement (NRM) 1 and 3 will also be adapted to incorporate ICMS, though NRM 2 will remain largely unaffected. RICS will support these changes by providing mapping between existing standards and the NRM, and many software vendors are already incorporating ICMS into their products. BCIS is also reviewing new products associated with ICMS and the impact the new standards will have on their existing data. As such a global data hierarchy will be created for the cost management profession, linking data at an overarching benchmarking level with more granular national, measurement systems.

Applicability and adoption
Those who are heavily involved in ICMS suggest that it will take several years, as a ballpark figure, to achieve widespread adoption of the standards. However, many leading cost consultancies and clients have already begun to use ICMS and formally declared their support including Arcadis, Arup, Gleeds, RLB and Turner and Townsend. Many SMEs and micro businesses are part of the extended supply chains connected with large practices, and therefore adoption and understanding of ICMS is a natural progression for a professional in an organisation of any size.

Software vendors are also beginning to incorporate ICMS into their products. As BIM and technology continue to progress and affect quantity surveyors, standards are necessary to refine and analyse the increasing amounts of data.

While many of the larger cost consultancy firms can see the immediate benefits in using and reporting with ICMS, it will in time be of considerable use to SMEs and micro-businesses that are also part of the same construction industry or surveying profession. Published project cost data based on the ICMS classification will be available to firms of all sizes, which will then be able to report and advise their clients more accurately in a commonly formatted manner.

This will serve to instil greater confidence in the client organisation which should bring benefits to the smaller firm following the trickle-down principle. ICMS will be mandatory for members once they are incorporated into the RICS professional statement, which we plan to publish next year. The complete text of ICMS will appear in that statement – accordingly, firms of all sizes will soon need to know what ICMS are all about and how they work, and I suggest that you become an early adopter and get ahead of others. I believe that ICMS are good news for all cost consultancy firms, large or small – so why not adopt them sooner rather than later?

Acknowledgements
Thanks to Alan Muse, Global Director of Built Environment Professional Groups at RICS and Steven Thompson, Associate Director of Built Environment at RICS, for their assistance in supplementing and collating this standards information.

Justin Sullivan is Chair of the RICS Quantity Surveying and Construction Professional Group Board and a member of RICS’ Governing Council. QuantitySurveying.com

NOVEMBER/DECEMBER 2017
Hi, my name is Yi Zhou, and you may call me Lily. I came to this wonderful country around two years ago and I was welcomed by a lovely kiwi family. Aside from that, I had a chance to explore Auckland and I fell in love with the city immediately. I started out as an intern for a few months, and was recently employed after completing my studies at Otago Polytechnic. It’s my pleasure to work with highly experienced seniors daily because it helps me improve my professional skills in quantity surveying. I love the chemistry here, which also motivates me to become a better vision of myself everyday. I am a big fan of classical music and I have been playing the piano since I was 5 years old. My favorite thing to do in my spare time would be reading a book and socializing with friends. I love doing yoga a lot because it also helps me prepare for the next day very well. I appreciate everyone in the office and am looking forward to many years ahead of me working at Maltbys.

Hi there. I am Pieter Van Heerden. I have recently joined Maltbys after relocating with my fiancé from South Africa. She is a town planner working in Council. I studied Quantity Surveying at the University of Pretoria after which I have had the opportunity to work for several quantity surveyor companies that have worked on projects like H&M. Auckland in itself has only treated us well with great [and crazy] weather and an amazing outdoor living experience that we have come to love and enjoy. Some of our hobbies are fishing, running and cycling. It is nice being part of a young team that works independently but have some good team spirit. I have found the NZ ways of the industry a good challenge and have already learnt a lot. I am looking forward to what lies ahead.
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Wellington Office Team Building Golf Day

Wellington office QSs had a team building day – they split into 3 teams of 2: Geoff and Jacques, Bernard and Braam, Matty and Joseph – exercising their golfing skills, though not all have a great handicap.

Bernard and Braam flew out of the gates and were comfortably in front until the newest member of the office, Joey Cranshaw was put on the spot and made a controversial call which dented the leaders momentum. Disgruntled from that moment onwards holes began to appear in their game. It was about this point that Geoffrey remembered how to play golf. He and Jacques (who was wearing dress shoes on the golf course) hit their straps and finished even par for the last five holes resulting in a 2 shot win and a free lunch from the boss. Cheers Dave.
Friday 16 September, Wellington office wore their rugby team colours/shirts in support of the upcoming All Blacks -v- Springboks test match that weekend. Our two new South African Q5s were slightly outnumbered 2-6 in the office but did not deter them championing their team.

For the whole month of September, staff from all three of the Maltbys offices took up the challenge of walking more than 10,000 steps everyday to fundraise for children with Cerebral Palsey. Gary from the Auckland office walked the most steps for the cause, walking a tremendous amount of 490,678 steps in the whole month of September! In total the Maltbys office managed to raise $571 for the cause.
The Maltbys scholarship recipient for this year was Tommy Hou, who is planning on pursuing a Bachelor of Engineering at the University of Auckland this year. Congratulations Tommy, and we wish you all the best for your academic future.
Lily’s Graduation

Lily graduated from Otago Polytechnic earlier in the month, and to congratulate her the Maltbys office celebrated with cake! Congratulations on your achievement Lily!

Wellington Office Day at the Races

This year we went to Trentham for Christmas at the Races 2017.

We had a mini marquee on the lawn nestled amongst the trees in a little marquee village they called Reindeer on Parade; near us was where the horses are paraded for a preview before the race. It was a short walk to the track to watch the race or stay in the ‘village’ where there was a screen showing the races.

We pooled our betting and had one win out of the all the races we bet on. A fun process picking a horse, either by its name influenced a little by its history.

There was a delicious festive buffet lunch with wines and beers.

One of the highlights was being Supreme Winner of the best dressed competition. As part of the celebration we each wore an Opposuit – Batman suit, Braveheart, Flaminguy, Comic Boom, Off the Wall, Pac-Man and Testival! A standout, colourful bunch that certainly drew attention and interest.

Well done to Jaques who got an individual prize of “Best Dressed Stallion” - wearing Braveheart suit.
This year, Maltbys Auckland Office held their annual Christmas Dinner at Vivace Restaurant on High Street. Fantastic ambience, food and company a great night had by all.
This year, Maltbys headed out to Wero White Water Park, the largest artificial river and water course in New Zealand.
Auckland Office Children’s Christmas BBQ