

# The New Zealand LIFT FAX

The New Zealand Lift Fax is produced bi-monthly for the NZ lift industry. Just send your email address to LEC to subscribe.



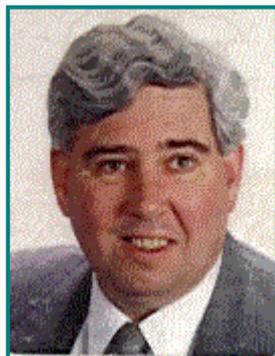
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## WHAT'S GOING UP or DOWN THIS MONTH

### 100 YEARS OF SERVICE TO BE BROKEN:

Bert Watson 68c, Noel Montgomery 66 and Louie Smolar 65 are the 100 year backbone of service to Otis in New Zealand that is soon to be broken when the most senior of the gentlemen of the industry; Bert, retires early in the New-Year. With approximately 32 years of service in Wellington, Christchurch, and a few years overseas, Bert I understand spent some of his time learning his trade at Scott Island; the NZ Antarctic Base, before beginning with Otis in Wellington some 35 years ago. These men have experienced an era of change in this industry, and so I encourage them to put their experience on paper when they get the chance so that we don't lose their story that can never be experienced again.

### INFRASTRUCTURE ANALYSIS Ltd:

Lyll Senior, better known for his lift Consultancy services as Lift Solutions Ltd, has set up a separate company; **Infrastructure Analysis Ltd** to address the need for a dedicated on site lift system data analysis solution. Lyll engaged software and hardware engineers to produce a unit suitable for easy connection and recording of any lift data, and has now reached a stage where he was able to kindly demonstrate the advantages of his units to the market.

The unit is Bob's lunch box in size with an onboard status readout, so there

## EDITORIAL

### THE PRESSURE OF CHANGE:

This month's article on page 2 reflects the pressure on TA's brought about by our conservative nature when it comes to adopting change, and how the Department of Building & Housing seems hell bent on using this to distance itself from the grass roots building industry in case it is seen as a collaborator in "the problem," and taint its gigantic Building Act overhaul and accreditation program that could fizzle into just another unnecessary, inefficient bureaucratic overhead cost. Leaky buildings has suited the Professionals cause to reinstate their position in the building governance hierarchy following their initial conservativeness toward the Building Act, and now with much waving of professional certificates and promotion on accreditation of everyone else in the industry, fading hope of a partnership in any solution is likely. The 1991 Building Act was a step out of many peoples comfort zone, as Performance evaluation requires up-to-date front line experience that cannot be easily canned into a 'One Stop Shop' of general qualifications. Inexperienced interpreting of old codes undermines the whole philosophy of the Building Act unless used with discretion, as it was shown to be as; "the problem to be resolved", in pre Building Act days that became the impetus for seeking this more dynamic solution. The legislated solution identifies what needs to be achieved in; "**the performance code**"; who administer; "**the process**" to ensure the process remains consistent and is suitably documented; the TA, and who is competent to confirm; "**the solution**"; the industries or professions involved in design.

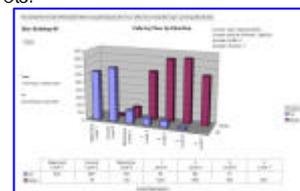
It is when the performance code is dismissed; the administrators portray themselves as the solution experts, and the experienced designer or industry expert is dismissed as non-conformist, that we end up with where we seem to be heading today.

If we are interested in real solutions, there needs to be partnerships; protection of privilege and vested interests does not make for good governance in an egalitarian world, they only perpetuate divisiveness and difference as we see everyday on our global television. Ed.

is no need to be connected to a computer to set up, adjust or interrogate recorded data on site.

Up to 64 optically isolated non-polarity sensitive I/O channels can be logged per input module and date stamped at a scanning rate of 10/sec. The modules can be serially daisy chained to log up to 1024 inputs.

All data is recorded on compact flash cards for ease of transfer to computer, leaving the unit on site to continue recording while data is downloaded and categorised for the specific job using secure supplied PC software, and where data can be analysed using XL for everything from intermittent faults to response times and number of trips etc.



I understand some of the lift companies have acquired units and LEC is keen to employ the unit as soon as a client needs accurate analysis of their lift system.

If you too are interested but need to know more, just call Lyll on:- **021 472 400** and I'm sure he will fill you in on all additional details.

### WHEN IS AN EXPERT NOT AN EXPERT?

#### *When he is deemed to be part of the design team!*

It makes you wonder, whether or not the following is now the TA criteria for Consent assessment?

- Step 1. Reject all independent industry experienced by deeming the submitter as deemed part of the design team.*
- Step 2. Apply an acceptable solution.*
- Step 3. Point to some vague part of the Act that mentions a Compliance document such as Clause 119.*
- Step 4. Get department managers to all concur with the above.*
- Step 5. Suggest the applicant goes to the DBH for a determination.*

If so, this may be where the bottlenecks begin and where inefficiency in process causes so much frustration to submitters for solution approval.

The Building Act is a Performance based Act implemented to simplify the process of compliance and to remove the obsolescence of single solution codes that stagnate the minute they are written in this continually changing technological society. The 1991 Act was implemented to specifically address this issue and make the process more efficient, but in the hands of some TA's, old ways of applying their lack of expertise to the solution, instead of being expert in the process once again raises its inefficient head.



Admittedly past prescriptive codes & standards retain a store of past knowledge and are great guidelines; in fact some were adopted under the act as acceptable solutions to enable the Consent submitter an easy path through the bureaucratic process.

But what they were not intended for was to defeat the purpose of a performance Act by allowing Territorial Authorities to fall back on them as their personal yardsticks of pseudo expertise for evaluation of any Consent submission.

A case in point is the NZ lift Standard NZS 4332:1997 that back in 1989 as the Power Lift Rules set disabled access lift car minimum sizes as 1.4m<sup>2</sup>. Now no technical assessment has since been carried out, but at that time 1.4m<sup>2</sup> was the standard size preferred by the lift manufacturers, and so it entered the codes.

Since then world wide evaluation has been carried out with a 1.1m x 1.4m disabled access minimum today in world production, along with ISO DIS 4190, US-A17, and Australian standards AS 1735 adopting this preferred size. But still in NZ the now obsolete standard contains 1.4m<sup>2</sup> along side the disabled access standard NZS 4121.

And so when a lift design size of 1.1m x 1.4m is presented to the local TA, unnecessary hold-ups are inevitable. Firstly NZS 4121 is applied and justified by NZS 4332, until it is explained that NZS 4121 is not compulsory. Next a past determination is trawled up to confirm a 1.1m wide lift design was rejected at the local airport terminal in Queenstown, and so the solution is rejected again, all the time with expert advice being given to the contrary.

This clearly confirms as to why the Territorial Authority should be about the administrative process of Consent, not see themselves as the solution expert. They seem to mix-up their Council building inspection services with their TA Consent responsibilities of ensuring good process.

If the council has concern over independent expertise, it should be proactive in assessing the expert, not being a pseudo expert in just interpreting prescriptive solutions; otherwise we haven't learnt from the past.

Of similar interest is the use of Determinations by TA's. Where there has been a dispute, under the Building Act a determination is used to resolve it, and like Acceptable Solutions they are great guidelines for industry experts who are up with the play, but should not be applied verbatim by TA's against every future solution, as they are a single determination based on specific circumstances set in a single point in time, and may also have become dated.

Because they are unchallengeable does not mean they are all right, they are not law, just the best resolution on its day on which the TA must act.

Remember Clause 18.

***Building work is not required to achieve performance criteria additional to or more restrictive than the building code.***

And last but not least, this is not a comment of disrespect on all the efforts the TA's put in under difficult circumstances where submitters provide little support documentation or effort in their submission, but hopefully the points raised promote discussion, consideration and even response if need be, as long as in the end working together will result in a more efficient process; respect for all parties, with an aim to grow together and not stagnate through the use of solutions that perform. Ed.



### KONE INC. WILL NO LONGER MANUFACTURE HYDROS:

As part of its environmental commitment, KONE Inc. has announced that it will no longer manufacture hydraulic elevator systems. The company made the announcement on November 7 at the 2007 U.S. Green Building Council's Greenbuild Expo. According to KONE, the oil used in hydraulic systems can leak into the earth, which can contaminate the ground. The company will market its EcoSpace™ machine-room-less elevator systems in applications in which it formerly offered a hydraulic system.

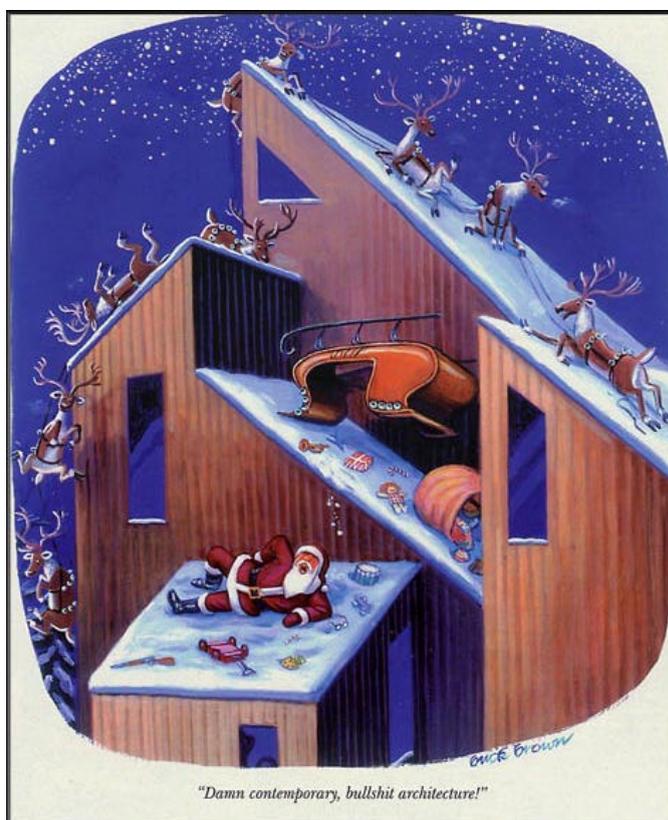
### RECORD RESULTS FOR INTERLIFT 07:

VFA Interlift, sponsors of Interlift Augsburg 2007, reports the highest figures ever for the biennial exposition, held on October 16-19 at Augsburg's Messezentrum. In addition to a record number of exhibitors and space occupied, this year's event boasted approximately 18,500 visitors (up from 17,679 in 2005) representing over 60 countries, with nearly 500 participating companies. The Interlift-Forum, which consisted of a series of short lectures and discussion after each, registered over 1,000 attendees. The organizer is making even larger plans for its 2009 event, for which it intends a new exhibition hall. Construction on it was announced October 16, and the sponsor's expectations are that the added space will lead reluctant companies to expand or begin exhibiting.

### SPACE-ELEVATOR COMPETITION RESULTS:

Technology challenges to work toward building a space elevator to transport supplies from the Earth's surface to space without expending or using expensive fuel or batteries took place on October 17-22 in Salt Lake City. The Spaceward Foundation hosted the competition that required teams to attempt to build a robotic climber and vertical tether that could one day comprise a workable space elevator. The National Aeronautics and Space Administration sponsored the competition and provided prize money that has accumulated to some US\$1 million over the past three years. No winners have been seen thus far at any of the annual events. Eight teams participated in the contest this year, and the Spaceward Foundation is hopeful due to the improved performances when compared to previous events.

**OTISLINE® RECOGNIZED WITH AWARD:** Otis Elevator Co. recently announced that its OTISLINE call center had been recognized by the Chinese government. The company was presented an award for operating the most efficient and effective call center in China among similarly sized companies. The recognition came during an Asia Pacific call center summit in Beijing. The call center is Otis' 24-hour-a-day response line that serves as an initial contact for customers and is used to dispatch mechanics to service elevators. According to the company, OTISLINE representatives in Beijing answer customers' calls an average of 60% faster than the standard set by the China Ministry of Information Industry.



**KONE THIRD QUARTER INTERIM REPORT:** Strong growth in orders received and profit were highlights of the third-quarter interim report recently issued by KONE Corp. The company reported orders received growth for the period including January-September was 15%, while net sales grew by 13%. Operating income for the period was EUR170.4 million (US\$243.1 million), compared to EUR236.7 million (US\$337.6 million) for the same period last year. Operating income excludes a EUR142-million (US\$202.5-million) fine levied by the European Commission (ELEVATOR WORLD, April 2007).

**FINALLY A 2<sup>nd</sup> LIFT FOR OTAGO MEDICAL SCHOOL:**



This story began in 1903 and came to a close with the completion of the installation of an Otis Gen2 lift into the now historic 6

level Otago Medical School building in Dunedin in August 2007, and through the application of the latest Motor-roomless lift technology, it was able to serve all floors including the roof without virtually any noticeable change to the existing building.



It was 1903 when Architect Edward Anscimbe and Associates was first commissioned to design the brick and concrete building to become known as the **Lindo Ferguson Building** for the school, and true to today, for many reasons it seems, to achieve the best at the medical school, you need to be patient.

Now the reason I say this is because the first redesign began in 1905, then 1907, 1911, and 1913, and of course as we all know, along came the 1<sup>st</sup> World War, and yes, labour and funding issues intruded before redesign in 1919, 1921 and finally 1924 before a stone was turned. It took around 4 years until 1927 to when the doors were finally opened.



Looking Up Unused Lift Shaft

The final design was for two lifts, one goods lift for the transportation of 'bodies' from the Basement to the 2<sup>nd</sup> floor dissection room in the main wing, and a passenger lift for the west wing. It so transpired that two lift shafts were constructed but once

again finances stepped in and the non-ambulant took precedence over the able, so only the goods lift was installed.



Office in top of Shaft

It took until 1964 some 37 year later that the following was drafted to the school.

*"The present lift in the Lindo Ferguson Block of the Medical School is inadequate for its main function of transferring bodies from the basement of the building to the second floor and visa-versa where they are used for dissecting by medical students. On occasions between 30 and 40 of these bodies are in use. The minimum requirement is to be able to wheel them into the lift laid out horizontally on a trolley, but at present this is impossible because the lift is too small. It is necessary to man or woman-handle them at the loading stage and prop them up in the lift. The same procedure is reversed for unloading.*

*In addition the lift is antiquated and near the end of its unnatural life: is hand operated by rope; and recently has been causing concern with frequent breakdowns. It is also open to view and does not comply with Marine Department safety standards".*



Outside Disused Lift Shaft

Perhaps the rope frayed, but £16,000 later the letter achieved its desired effect and the lift was replaced by Otis/Waygood with a much more suitable design that to date has lasted some 43 years without a reported loss of a cadaver, nor another draft written. It was said; "the dissecting room technicians

don't know how lucky they are". Although on the other hand, I suppose their work gives them enough reminder!

The able pressed on with the stairs, up and down, down and up until the 1991 Building Act was written, and so history once again repeats itself. In 1994 the draft to the powers to be once again is written to read.

*"The building does not meet disabled access requirements of the Building Code or lifting of heavy objects requirements of the health and Safety in Employment Act."*

Cupboard in Ground Floor of Lift Shaft



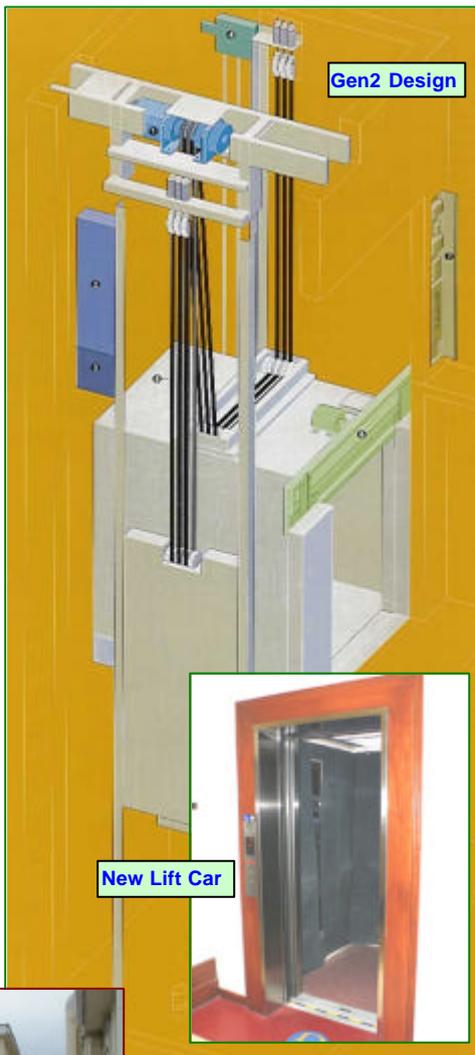


**FINALLY THE 2<sup>nd</sup> LIFT DESIGN IS APPROVED:**

With funding delays to start, the design inched forward in 1998, only to be further delayed until 2002 when the concept plans were prepared.

The order to prepare a specification was given in November 2002, followed by Tender issue on 8<sup>th</sup> January 2003 for a six level lift, with a letter of acceptance to proceed issued to the successful tenderer Otis in September 2003 for a sum of \$92,500.

And in keeping with the traditions of the Otago Medical School historical record, from the first Architects concept that acknowledged the need for a passenger lift, to the order for the passenger lift specification until the handover, saw some 104 years transpire. But as the wise would say: *"The question is not how long it took to build but the quality of the result achieved."*



New Lift Car



Old Machine Space



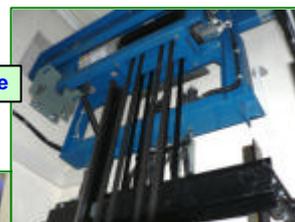
New Roof Level

And in this instance, from the extra effort reflected in the finished product, the answer is in the pride of those who partook in the journey.

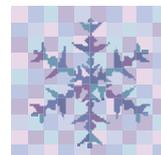
Design and Project Management:  
**The Otago University Property Services Department.**



Completed Lift Shaft



Gen2 Belt Drive



Top of Lift Car



Old Lift Pit



New Lift Pit



New Ground Floor

Sadly I cannot name all involved, but for the record those with key responsibilities were:

- Department Head: Barry MacKay.
- Engineer: Dave Lyttleton
- Facilities Manager: Bruce McLennan.
- Structure Contractor: Matt Harris - Naylor Love.
- Installation Supervisor: Kelvin Irvine
- Lift Contractor: Otis Elevator Pty Ltd
- Installer: Adrain Smeehuyzen
- Lift Consultant: Lifteye Consultancy



New Roof Level

