

Braemar Hospital green to go

By Kevin Kevany

Singer's Hamilton team, under Grant Morris, is in the final stages, along with lead construction contractor, Mainzeal, of the successful construction of a new private hospital for the Braemar Charitable Trust, which provide private medical services to the Waikato.

The new hospital marks a 50 percent increase in the size of the existing Braemar Hospital to meet the increasing needs of patients from the region, and as far afield as Taranaki and Bay of Plenty.

Moreover, it will initially have a "green star rating" of about 4.5, but has been designed such that it can achieve the maximum five stars, by adding further green initiatives, "with minimal cost and fuss". Green Star NZ is a voluntary environmental rating system for buildings whose objectives include the recognition of environmental leadership and the reduction

of environmental impacts. Environmentally Sustainable Design (ESD) has been incorporated into the new hospital wherever possible.

"Mainzeal were the successful tenderers for the main construction contract. They have a wealth of experience in projects of a similar size and also in the highly specialised health sector, with all the challenges that provides – and are a pleasure to work with. They're on top of their game," says Grant.

Singer won the tender to provide electrical services, everything from linking up the power to the site, and including installation of the transformer and main switchboard, 14 sub main boards, a 250 KVA generator, 2 x 40 KVA UPS power systems and installing some 1,800 lights, including specialised sealed medical lamps. Plus a good deal of specialist work associated with a medical care facility.



Singer's site supervisor, Olly Ryan, makes some final adjustments to a switchboard.

Singer project manager, Paul Manson, has been with the project from the get-go in the last quarter of 2007.

"We have had a team of 12, seven tradesmen – including James Marshall, the Waikato Apprentice of the Year – and five apprentices, under Olly Ryan, a top supervisor, dealing with the exacting challenges of the latest in medical equipment, operating theatre environments and interacting with the providers of some of the most sophisticated equipment, like the DOR recording and transmission system, which enables specialists to call up colleagues "live", anywhere in the world for additional input, before, during and after an operation," Paul says.

Allan Scott, Mainzeal's project manager, shares Manson's regard for the leadership skills of Olly Ryan.

"Olly has been exceptional, and so has the site-team under him. He really knows what he is doing. In fact, Singer has impressed me as an outfit. We hadn't worked with them before, and I was quite apprehensive. As far as I was concerned they were the second-best electrical services providers in the region for a specialist job like this. My opinion has changed though with the work they have done, and I would willingly work with them in the future," the vastly experienced Scott notes.

"That's not to say we didn't have problems. But, generally, they were very good."

Allan has worked under the pressure of knowing that the existing Braemar Hospital had booked the movers for the Easter Weekend – "which gives us more than a target to

reach: it's an absolute deadline. Full-stop."

Mainzeal have picked up the challenge of "greening" the construction of the hospital, too – not a simple process.

"We have a detailed and constantly updated plan which we work to, and WasteCare has stayed in touch throughout. Aside from the hospital being designed to make maximum use of materials like recyclable aluminium, we have separated rubbish into different skips.

"For example, all packaging has been recycled – and that's a good thing, because we had 30 pallets of sealed light fittings alone," says Allan.

"When we started out with this, there was no local processor of polystyrene, but that has been remedied now. And Winstones, for example, take back all the off-cuts of GIB board.

"But the main task has been educational, and we have got there with the sub-contractors too."

Allan is also pleased with the local employment opportunities the project has created, both for labour and specialist contractors.

"It has been a boon to many in tough times," he adds.

With approximately a month to go, the site has an air of total control and commitment, with site offices being moved to accommodate the surfacing of the carpark, while the interiors for six sophisticated operating theatres – the hospital will have more than 100 specialists attached – and the 40 private suites, X-Ray, casualty, catering and laundries, are given the final touches.

Mainzeal's Scott again: "The theatres, in particular, have been



Paul Manson (left), Singer project manager; Grant Morris, manager of Singer Hamilton and Allan Scott, Mainzeal project manager on site at Braemar Hospital.

very technical and extremely challenging. We are having to source specialist products from basically two highly specialised suppliers, with a lot of demands on them. So we have heard all the excuses under the sun; but we simply have had to be flexible and get on with maintaining our overall schedule – which we have."

One of the particular technical tests for the Singer team was "at the top end of the medical chart" – ensuring that any theatre to be used for cardiac work had any piece of metal in the room earthed to a special junction box in the room. That goes for metal windows, doors, all lighting; anything with metal in it, Grant notes.

Paul gives the more technical description: "We're talking about 'body-protection' in these susceptible areas. So we have a 10 milliamp circuit, highly sensitive, to ensure there is less than 0.1 ohms resistance from any metal which might lead to de-fibrillation in a patient.

"So far, all of our work in these areas has been approved by outside inspectors, and I don't foresee that changing as we head to the close," Paul adds.

Grant draws attention to some of the lighting and smoke extraction (needed when bone is cut during an operation) and red, green and blue LED lighting needed at

different times in surgery.

Singer also took responsibility for powering and controlling all the medical gas in the hospital, pressure switch controls in theatres and linked alarm panels at nursing stations. Specialist switchboards had to be designed for purpose and then manufactured.

Both Grant and Paul are impressed with the professionalism of the Mainzeal leadership and the designers of the hospital – "basics" like adequate ceiling space for the cabling and lighting make for a desired "clean" finish.

"This is a quality job, well thought-out, which we are proud to be associated with."

The last word is from Dr Rob Cameron, chairman, Braemar Hospital: "Medical and technological advancements have increased our ability to treat disease and injury. This has led to a greater expectation as to what should be achieved by the health sector.

"Private healthcare offers choice and flexibility. It also offers access to some of the best specialists in a timely manner without the restrictions of a waiting list. At Braemar patients can be assured of a quality service at competitive rates ... and the very latest modern medical technology."

Singer
ELECTRICAL INSTALLATION & MAINTENANCE

WWW.SINGER.CO.NZ



16 Edinburgh St
Newton
Auckland

PO Box 816
Auckland

0800 474 643