Contents

2 Message From The President
3 Telecom/ACENZ Future Leader Award
4 President’s Award
5 Community Award

GOLD AWARDS
6 Auckland Museum Grand Atrium Project
9 Kate Valley Landfill
11 New Rewa River Bridge
12 Taupora Geothermal Heat Plant

SILVER AWARDS
13 Aviemore Dam Seismic Safety Evaluation & Upgrade
15 Army Bay Sewage Treatment Plant Upgrade
16 Lighter Quay Development
17 Tane Whakaetiendo- Forensic Maori Mental Health Unit
18 Taupo Race Track
19 Upper Harbour Bridge Duplication & Causeway Widening

AWARD OF MERIT
21 Central Motorway Junction Core Area Upgrading
22 Corner 50 Estate
26 Environment House (Building Services)
27 Mangere Wastewater Treatment Plant Dissolved Oxygen Control
29 Mercer To Longswamp Expressway
30 Project Black Point, Stage 1
31 Te Maunga Wastewater Treatment Plant Bioreactor Upgrade
32 Tirau Sewage Treatment Plant Upgrade
35 Waitakere Civic Centre (Structural Engineering)

OTHER ENTRIES
36 Weavers Pit Rehabilitation
38 Auckland Regional Women’s Corrections Facility
39 Environmental Prediction System
40 Fanshawe St And Wellesley St Geometric Improvement & Pavement Rehabilitation Projects
41 Hamilton City Council Alliance Partnership
42 Hawke’s Bay Regional Council Building (Building Services)
43 Keith Hay Park Footbridge
44 Millerton Track Realignment
45 Nelson Wastewater Pipeline
46 Ngari Gorge Road Strengthening
47 Nuwara Eliya Remaining Towns Water Supply & Sanitation
48 SH1 Pimmerton To Paremoremo Upgrade
49 Sir Neil Waters Theatres Complex
50 TravelWise Workplaces Process
51 Waikanae Borehole Project
MESSAGE FROM THE PRESIDENT

Innovation, complexity, and client satisfaction in the outcome, are just some of the criteria used to evaluate the entries in ACENZ's INNOVATE NZ Awards.

This year's entries are representative of the diverse range of professional engineering and related services that ACENZ member firms offer. The traditional civil, structural, and services disciplines are still strongly evident, however many more specialist fields of expertise are now routinely encountered. Many of these have come about through technological and societal changes that have included an increased focus on more energy efficient sustainable solutions.

As technology and society continue to evolve it may be expected that the specific services available through ACENZ members will respond accordingly. However irrespective of the direction this evolution takes, the underlying commitment of ACENZ members to their clients and their projects will remain strong. It is this commitment and drive to deliver better outcomes for their clients that are the hallmark of ACENZ members' "trusted advisor" role in projects.

The projects outlined on the following pages demonstrate this commitment and highlight the value that ACENZ members can add to all aspects of a project.

Thank you to all those who submitted entries and congratulations to those who have received awards. Your achievements are celebrated by your peers.

Andrew Read

President

ABOUT ACENZ

The Association of Consulting Engineers New Zealand is the business association for engineers and related professionals. Established in 1959 as a consulting division of what is now the Institution of Professional Engineers New Zealand, it has been a separate entity since 1970. It serves 176 Corporate Members, which, in turn, employ some 8500 people in a variety of professional and technician roles. These firms range in size from one-person specialist consultants, to multidiscipline firms employing over 1000 people, or more if overseas offices are included.

ACENZ offers many services to members at all levels of their business experience. Newly established firms can take advantage of the experience of others, and more established or large firms find that the group representation of a business association can be invaluable in presenting a united voice.

ACENZ runs a webpage with information on the activities of the association, documents available for engaging a consultant, and a directory of members. This can be found on www.acenz.org.nz The INNOVATE NZ winners are featured on the Awards page.
COMMUNITY AWARD 2007

A special acknowledgement is made to Solid Energy and Maunsell Ltd for Weavers Pit Rehabilitation, which was selected by the judges during the process as showing an exceptional commitment by the community affected by the project, in ensuring it is a success. As is described in more detail on page 36, the community has welcomed this project to rehabilitate an open cast coal mine at Huntly and contributed by planting and construction of facilities for use in numerous recreational and educational purposes. Solid Energy's initiative in undertaking the project, and Maunsell's assistance in making it happen, have been a great asset to Huntly.

JUDGING THE AWARDS

ACENZ would like to acknowledge the effort and input of the panel of judges who have assessed these projects and recommended the awards. These people are selected for their broad experience in the consulting engineering industry and their specialist knowledge in one discipline. Although some are retired members who offer a service back to the association, others are currently working in the industry in their own practices. They all volunteer their time and expertise. The judges read information presented on each project, interview the client and other members of the project team, and visit the site where possible. For international projects, an ACENZ expert close by may visit the project, or the judges rely on a telephone interview with the client.

Once all projects have been assessed, the judging team meets and weighs up each element of the judging criteria before making a team decision. The projects entered are not compared to choose a "best for 2007" but are judged against the standards of the time. Awards are not made lightly. If there are no projects achieving the ACENZ Gold standard, no award will be made.

For 2007, ACENZ thanks Convener of Judges, Adam Thornton for inspiring his team. Others taking part this year were:

- David Bridges
- George Butcher
- Alistair Cattanach
- Andrew Charleson
- Win Clark
- Steve Gentry
- Allan Leahy
- Alec McCulloch
- Bob Nelligan
- Peter Riley
- Ernst Sansom
- Ken Shores
- Murray Spicer
- Gavin Still

and specialist judges: Gerry Coates, Brett Harries, Ray Hedgland, Steve Reid and David Voss.
The impressive Kate Valley Landfill project in North Canterbury, is the result of more than ten years of planning and, in the words of the client, "represents one of the finest solutions to a major regional infrastructure problem ever devised in New Zealand."

The landfill provides some 12 million tonnes of waste disposal capacity for the region. The landfill was an essential replacement for the major Christchurch landfill and smaller disposal sites throughout the region. The project was implemented by Canterbury Waste Services for Transwaste Canterbury.

Tonkin & Taylor took the role of principal engineering advisor throughout the project, from site selection, through the resource consent process, to detailed design and construction.

The project received considerable opposition from the community and both the site and the concept design were subject to the closest of scrutiny through the consent process, and the highest standards of design and engineering were required by the Environment Court. Tonkin & Taylor's performance was excellent at all stages.

In landfill engineering terms, the site was challenging and required comprehensive design solutions to address containment, stability, seismic loadings, soil balance and site infrastructure demands.

Key features of the landfill design included a multi-layer soil/geocomposite liner design, complex base grade design, and the detailed geometric design of waste storage and landfill access roads. In addition, two dams (for sediment control and for water supply) were constructed: each involving a significant design challenge.

The advanced containment and site-specific, seismic-responsive design of the liner system, which was required by the Environment Court, puts Kate Valley on a par with the best facilities of its type anywhere in the world. As there were no New Zealand guidelines for the construction of such a liner, Tonkin & Taylor sought an independent international peer review to verify their design.

The project has resulted in region-wide environmental enhancement through the consequent closure of more than 50 old style dumps. The project has also provided some of the most extensive environmental mitigation ever seen in New Zealand, with major local and regional benefit.

The project construction Alliance (composed of the client and three contracting firms) and Tonkin & Taylor, together delivered the finished facility on time, on budget, and to rigid quality specifications. At all stages Tonkin & Taylor kept the client informed and they continue to provide a significant Input as the "Trusted Advisor."

The first waste was placed in the facility in June 2005. Overall, the project represents a very low impact solution to an environmental issue which has attracted unprecedented public scrutiny prior to construction. Since construction it has attracted interest of another sort, with regular tours of the plant.

PHOTOS (top to bottom) 1) The completed landfill receives waste transferred from around Canterbury. 2) Laying the geosynthetic lining. 3) Silt control dam, commissioning of spillway...