



Cement & Concrete Association of New Zealand

ANNUAL REPORT

July 2004 – June 2005





Chairman's Comments



The initiatives undertaken by the Board and CCANZ within the past year have been significant in reflecting our commitment to industry growth. These initiatives have followed the course set in the Integrated Business Plan for

2004-05, in which the Board affirmed its commitment to the growth of the Association and to developing strategic relationships with the industry, while acknowledging the challenges facing the concrete industry because of legislative changes.

While there is room for further growth of concrete products in construction, our existing markets have already seen successful expansion. CCANZ has worked hard to establish great working relationships with all elements of the concrete industry, which has helped unite them in working towards a common goal.

Communication with the industry has been a significant aspect in ensuring all industry associations are informed and receive current technical advice and support, and CCANZ can be proud of the work they have done in this area over the past year.

CCANZ has also actively worked to evaluate the consequences of the Building Act and Building Code for the industry. Throughout 2004/05, CCANZ has acted as the voice for the industry in putting forward a collective view, in the form of submissions, to Government agencies, particularly the Department of Building and Housing.

This has been vital in ensuring that the Government is aware of the industry and the extent to which concrete is a key part of the building and construction process. The industry has also been instrumental in keeping New Zealand construction up to world standards with more economical, environmentally aware and safer building developments.

CCANZ has also done sound work over the past year to develop New Zealand Standards, particularly on NZS 3101, the new concrete structures standard.

The Board commends all those involved with CCANZ for their work and dedication over the past year and for their continued efforts to provide outstanding results for the association and the industry. Their work has provided CCANZ with the opportunity to become one of the leading influencers in the construction industry, and their outstanding support for the concrete industry and its facets play an important part in improving the proportion of concrete used in the building sector.

We welcome the arrival of CCANZ's new CEO Patrick McGuire to the team. We look forward to his leadership and note that he brings a wealth of knowledge, and project and consulting engineering experience to the association, along with substantial relationships with relevant bodies within the concrete industry.

I have enjoyed watching CCANZ grow and the recognition it's achieved over the past year and I look forward to continuing to realize this vision in 2005/06.

Rex Williams
CHAIRMAN

Chief Executive's Foreword



From my experience in the Australasian cement and concrete industry, I was aware of the important role CCANZ played on a national and international level, and also some of the interesting challenges that the Association will be facing in the future. CCANZ's reputation as an efficient, effective and well-managed organisation, and also the ever-changing dynamics of the industry, were major factors in taking the role of CEO.

After 11 years of running an Australasian "product-based" industry association, I was ready to take the next step in my career, expand on my current skills and face new challenges. The position at CCANZ combined all of these elements and it was any easy decision to move from Sydney to Wellington, in terms of work and lifestyle.

Since taking up the position in July, I have been impressed with what I have seen. CCANZ holds a strong position and presence within our industry, which continues to be strengthened by the support from members within the industry, the Board and also the energy and commitment of our staff.

The industry has faced many changes over the past year, particularly in dealing with the new provisions and implementation of the 2004 Building Act. These changes to building legislation have had important implications for our industry and CCANZ has been a major player in ensuring that they play a significant

role in putting forward a collective voice for our industry.

This will continue over the coming years, as CCANZ will endeavor to strengthen and build on the position we have developed in the industry. The Board has just signed off on the 2005/06 Integrated Business Plan and I'm looking forward to implementing our objectives.

Although cyclic in nature, our industry is going to continue to grow and mature, and I see the development and implementation of the new Building Regulations as a strong challenge facing the Association. We will be focusing on further supporting the industry in this review process and continuing to pursue our goal of being the integrated and leading voice in our sector. This will require us to work towards establishing new strategic relationships, while ensuring that we strengthen our existing ones.

CCANZ will also be looking to address other industry issues including standardisation, environmental risks and the overall sustainability of our industry. We also aim to further educate and build on the skills of those in our industry by providing continued research and training to the sector.

The New Zealand building and construction industry is in a state of continuing change, and I see this as a strength that will provide CCANZ with many opportunities in the years ahead. I look forward to getting to know you all in the years to come.

Patrick V McGuire
CHIEF EXECUTIVE



Industry Leadership

The building and construction sector is going through a period of transformation that will result in extensive changes to the industry. The leadership of CCANZ and the knowledge contained within the organisation is proving fundamental in developing strategic responses to this changing environment and ensuring the competitive position of concrete is maintained and improved.

After four years, the Association Principals' Workshops (APWs) have become a cohesive force in unifying the industry's strategic vision. Comprised of Precast New Zealand, the New Zealand Concrete Society, the New Zealand Concrete Masonry Association and the Ready Mixed Concrete Association, the APW forum meeting in April 2005 provided the basis of the CCANZ Integrated Business Plan for 2005-2006. The success of the APW forum is due to CCANZ staff's active involvement in the sector associations. This commitment is evident in CCANZ staff acting as Executive Officers on behalf of the respective councils of the New Zealand Concrete Masonry Association and the Ready Mixed Concrete Association.

And, significantly, CCANZ has become the leading voice of the concrete industry with respect to external organisations such as the Building Industry Authority (BIA)/ Department of Building and Housing (DBH), Institution of Professional Engineers (IPENZ), Standards New Zealand (SNZ) and naturally, central and local government. CCANZ has been able to use this position to good advantage this year. Involvement with the Construction Industry Council and good access to ministers and government officials, have allowed CCANZ to submit and present collective industry views on issues within the sector.

Government Relations

On 30 June 2004, the Ministry of Economic

Development, Department of Internal Affairs and the Ministry of Social Development transferred their building and housing-related functions to the Ministry of Housing.

The Ministry of Housing was then renamed the Department of Building and Housing on 1 November 2004. The transfer also included the functions of the Building Industry Authority, who produced the Building Code, a fundamental document for the building industry.

Building Act 2004

The Building Act 2004 replaced the Building Act 1991, which was repealed on 31 March 2005. The majority of the provisions relating to building controls came into force on the 31 March 2005, but some of the provisions became effective on 30 November 2004, while others will be implemented over the next three to five years. These include the review of the Building Code, the introduction of building practitioner licensing and the registration and accreditation of Building Consent Authorities.

Building Code

The New Zealand Building Code contains mandatory rules about building consents, inspections and performance standards, which all building work must meet. The code covers aspects such as fire safety, access, moisture control, durability, services and facilities.

The changes to the Building Act and Code will have a strong influence on the use of cement and concrete within New Zealand's built environment, and CCANZ believes it is vital that our industry comments on these changes. As the lead industry representative to both local and central government, CCANZ invested significant resources in the past 12 months to respond to changes related to the new legislative and regulatory environment. The list of submissions below can be viewed on our website at www.cca.org.nz:

- Contaminated Land Management Guidelines No. 4. (August 2004)

- Airborne and Impact Sound. (*August 2004*)
- Licensing of Building Practitioners. (*November 2004*)
- Proposed Changes to the Acceptable Solution for Energy Efficiency, H1/AS1. (*January 2005*)
- Assessing Alternative Solutions. (*January 2005*)
- Proposed Changes to the B1 Approved Document Structure. (*January 2005*)
- Resource Management and Electricity Legislation Amendment Bill. (*February 2005*)
- Proposed Changes to The Approved Documents for Fire Safety Clauses of the Building Code. (*February 2005*)
- Categorisation of Buildings for the Licensing of Building Practitioners. (*April 2005*)
- Restricted Building Work. (*April 2005*)

Education and Training

Seminars

Continuing Professional Development (CPD) is a vital element in ensuring industry experts, such as architects and engineers, continue to develop their knowledge, skills and professional development. Formal seminars continue to be successful in providing the up-to-date educational material needed to ensure this is achieved. CCANZ Staff were involved with the delivery of two national seminar series during the period, which are outlined in the table below. The combined attendance at these seminars exceeded 400 people.

Seminar Delivered By	Seminar Title	Date
Precast New Zealand/CCANZ	Precast Concrete Handbook Seminar	August 2004
CCANZ	Waikato Structural Group	September 2004
CCANZ	NZIHT Pavement Diploma	September 2004
CCANZ	Nationwide Structural Groups	October 2004
CCANZ/Precast New Zealand	Precast Concrete Design Seminar (Wellington, Christchurch, Auckland)	May 2005

Concrete Technicians' Course

Three courses were held during the year; the first in Christchurch in November 2004, followed by one in Auckland in April 2005 and a further course in Christchurch in July 2005. Forty-three attendees completed this well-established NZQA-accredited course, which carries credits towards the National Certificate in Concrete Production qualification.

Graduate Engineers/Architects

CCANZ is developing a new series of Concrete in Practice Modules designed specifically for young graduates in consultancy and architecture practices. A large amount of work has gone into the development of the project this year, with the intention of producing a series later in the year. Graduate packages with CCANZ publications were sent out to recent graduates in May 2005 in preparation for this.

University Fellows

The University Fellowship Programme, which has been funded by CCANZ for more than a decade, is drawing to a close with the Canterbury University Fellowship ending in early 2006. CCANZ, in conjunction with its University partners, is examining new approaches to ensure the vital links to the next generation of professionals are maintained and strengthened.

Information Services

Impartial technical support, both within industry and to designers and specifiers, forms



a significant part of CCANZ's role and underpins the credibility of our association. This popular service led to close to 700 enquiries being handled within the past financial year, of which 30% were initiated through our website. This service is used predominantly by construction professionals, but some enquiries are also received from the general public.

Growth

Along with the construction industry, the concrete sector has experienced strong and continuous growth over the past few years. One key area CCANZ has continued to promote is Concrete Roads. The Concrete Roads project has been in progress for the last three years, and has predominantly involved a collaborative approach with Transit New Zealand senior officials to develop an evaluation method for the rigid pavement roading option.

In 2004 CCANZ prepared a technical report (TR12) "Economic Benefits of Concrete Roads," that encapsulated the work carried out on live projects in the Auckland region and the lessons learned. The report was presented to roading engineers and other interested parties in a bid to promote and encourage the use of concrete road pavements in the future. Although concrete road pavements are in widespread use globally, their use for roads in New Zealand is somewhat limited.

Historically, New Zealand engineers have been discouraged in their use of concrete, or constrained to use the cheapest first-cost options when developing the national road network. While minimising the first cost is important, it is now vital to consider the long-term user and maintenance benefits of the various alternative pavement types available.

New Zealand's increasing population and traffic densities, combined with new funding models for roading infrastructure, have seen the national road network mature over the past

five years. With growing pavement costs, a more sophisticated approach is required to ensure economic efficiency in pavement design is implemented and achieved. In doing so, concrete rigid pavements will become an undeniably attractive option in the near future.

Strategic Research

CCANZ was established to provide technical and advisory support to the industry and maintain concrete's competitive position in the construction market. To maintain this position, concrete's attributes need to be continuously highlighted and promoted. CCANZ therefore emphasizes researching the performance of current applications, evaluating future trends and developing effective new technologies and solutions to achieve this. One such project is standards review.

NZS 3101 Standard Review

The existing concrete design standard (NZS 3101) is currently being reviewed and the committee is now in the final process of proofreading and resolving editorial issues. Publication of the standard is expected in the fourth quarter of this year.

The new draft standard (DZ3101) has been written with the end-user in mind and should be an easier document for designers to navigate. It has also been written in chapters that focus on building elements rather than on forces. This means that there are chapters on the design of beam, columns, walls, diaphragms, rather than simply being based on actions, such as shear and bending. One issue addressed in the draft standard is the design of thin concrete panels, typically used in warehouse type structures. CCANZ recently published an interim information bulletin (IB 82) on this topic, which draws on the information contained within DZ3101, and provides guidance on the issue of the design for fire, face loads, and in-plane loads. The IB currently has an interim status pending the publication of DZ3101.

Concrete in Practice

The development of content for this standard is well underway and the project is due to begin in September 2005.

Health and Safety

As a peak industry organisation CCANZ recognises the poor safety record of the wider construction industry in which we work and, led by the Board, has committed itself to focus, in all its activities, on optimising the promotion of Health and Safety initiatives. To this end a page dedicated to Hazard Identification and Personal Safety has been established on the CCANZ website.

CCANZ has also committed itself to the development, by the Construction Industry Council, of a health and safety strategy specifically for construction industry participants (both individuals and companies) to focus on and direct attention to areas which will contribute to continuing reductions in workplace deaths and injuries.

Standards - Amendments

CCANZ personnel have been involved with the review, comments or amendments of the following Standards:

- NZS 3101: Concrete Structures Standard.
- NZS 4541: Automatic Fire Sprinkler Systems.
- NZS 4230: Design of Reinforced Concrete Masonry Structures.
- AS/NZS 4600: Cold-formed Steel Structures.
- AS/NZS 1170: Structural Design Actions.

Communications

CCANZ's communication strategy involves the use of hard copy, electronic media and our website.

'concrete'

CCANZ's quarterly hard copy publication is distributed to approximately 4,600 recipients. It covers notable New Zealand projects, international news, technical items and news from industry associations.

'grey matters'

A monthly e-newsletter providing a one page onscreen update on current issues, events and projects is distributed to approximately 1,700 recipients. Both 'concrete' and 'grey matters' can be downloaded from our website – www.cca.org.nz.

Website

Updated on a regular basis, the website contains a wide range of information on concrete applications, including guides, technical reports and information bulletins. This media continues to grow in popularity averaging 6,700 hits per month, and over the last two years hits on the website have risen by approximately 25-30% per annum. The industry guide is one of the most-visited parts of the website, and there is a steady volume of downloads of our free publications.

Publications

CCANZ is seen as the leading source of authoritative information on cement and concrete and as such undertook a project to revise its publications. It is envisioned that this work will continue over the next few years. The following is a list of Information Bulletins, which were produced or revised this year:

- IB 09:** Removing Stains from Concrete.
- IB 18:** Architectural Surface Finishes.
- IB 44:** Efflorescence in Concrete.
- IB 45:** Non-Ferrous Metals.
- IB 46:** Vibration of Concrete.
- IB 48:** Site Sampling.
- IB 49:** Slump Test.
- IB 50:** Spread Test.
- IB 51:** Taking Test Cylinders.



- IB 52:** Yield Gravimetric Tests.
- IB 53:** Air Content Test.
- IB 57:** Concrete at Home.
- IB 66:** Masonry Grouting Methods.
- IB 79:** Bending and Rebending Bars.
- IB 81:** Alkali Content of Concrete Mix Water.
- IB 82:** Slender Concrete Walls (Interim).
- IB 83:** Chloride Content of Fresh Concrete.

The following Technical Reports were updated or written during the period:

- TR 12 – Economic Benefits of Concrete Road Pavements.

CCANZ was involved in writing the following publications for other organisations/associations:

- Kerb and Channel Machine Placed Concrete (for the NZRMCA).
- Residential Floor Slabs (in conjunction with NZRSM, NZRMCA, BRANZ).

Funding

The research, activities, and support CCANZ provides for the concrete industry are largely made possible through the financial contribution of three primary funders; Holcim (New Zealand) Limited, Golden Bay Cement and Pacific Steel (see table below).

Prior to 1988, CCANZ (known then as the New Zealand Concrete Research Association [NZCRA]), was jointly funded by the Government and the cement industry on a 50/50 basis. The Board was made up of five cement members and three Government members. In 1988, Government funding ceased, and the cement industry has been the primary funder of CCANZ.

CCANZ now works more broadly across all industries within the concrete sector, and this has led to the expansion of representatives on the CCANZ Board over the past few years. Board representation now includes the ready mixed, precast and masonry industries, and the New Zealand Concrete Society.

The activity CCANZ engages in across industries is growing and the extent and success of the organisation's work is increasingly recognised. CCANZ Board representation has been broadened and a new funding structure is now being considered by the industry in respect to this work, to allow CCANZ to develop and progress the industry further in the next financial year.

Staff Changes and News

In November 2004, CEO David Gray resigned. Patrick McGuire, formerly of the Concrete Pipe Association of Australasia, took up the position of CEO in early July 2005.

Dene Cook, project manager at CCANZ, was elected a Fellow of The Institution of Professional Engineers New Zealand (IPENZ) for his contribution to the advancement of engineering practice. The award specifically recognised his contribution to development of standards for concrete construction.

Mr Cook is a leading structural engineer who has played a key role in the preparation and delivery of submissions on structural issues, as well as chairing the NZS 3101 Concrete Structures Standard Technical Committee. Receiving a Fellowship carries substantial prestige. It is not a reward for long service or for advancement in seniority, but rather recognition by IPENZ of the contribution of outstanding individuals.

Primary Funder	Contribution 2004-2005	CCANZ Board Representatives
Holcim (New Zealand) Limited	\$750,000	Rex Williams and Paul Commons
Golden Bay Cement	\$750,000	Ross Harper and Andrew Moss
Pacific Steel	\$100,000	Alan Pearson