

In This Issue

- From the President
- Concrete Performance in Fire
- Preview - Pushing the Boundaries in Concrete Technology
- Seminar Review - Cracking in Concrete
- Did You Know? - Our Durability Committee has been hard at work
- Featured Sponsors - Parchem Construction Supplies - The Reinforced Earth Company - Ability Building Colours

2014 EVENTS

17 September

PUSHING THE BOUNDARIES IN CONCRETE TECHNOLOGY



NSW Branch Mini Conference - Wednesday 17th September 2014

CONCRETE INSTITUTE
of AUSTRALIA

Pushing the Boundaries in Concrete Technology

15 October

Precast & Tilt-up

November (TBA)

OneSteel Sydney Steel Mill Site Visit

11 November

Durability of Concrete Structures

Full day seminar

From the President

Dear Member,

Concrete is certainly an interesting material. Recent seminars on 'Fire in Concrete Structures' and 'Cracking in Concrete' have highlighted the diversity of the material and the challenges of understanding its behaviour. These have been well attended and we hope that this will continue next month at our mini-conference on 'Pushing the Boundaries in Concrete Technology'.



Speakers have been finalised and two finalists for the U30 competition will battle it out with their vision for concrete. Who will fire our imagination most and walk away with the \$1,000 prize? See more details in this newsletter and make sure that you join us for what is sure to be an interesting and challenging event.

Malcolm Boyd
NSW Branch President

10 December
**Major Projects - Case
Studies**

**[Click here for the latest
information on events.](#)**

2014 NSW Branch Sponsors



Concrete Performance in Fire

One of the advantages that concrete has over other building materials is its inherent fire-



resistance, however, concrete structures must still be designed for fire effects and the behaviour of concrete structures in fire can be complex. Temperature rise causes a decrease in the strength and modulus of elasticity for both concrete and its steel reinforcement as well as the expansion of structural components and loss of structural integrity through cracking and spalling of concrete material.

The recent NSW Branch seminar - *Fire in Concrete Structures* - looked at issues relating to designing for fire resistance, some recent research, as well as case studies on the assessment of fire damaged structures. This seminar was well attended with over 70 delegates and a similar seminar will be held by our Victorian Branch next month.

The theme is set to continue in the **September** issue of the *Concrete in Australia* magazine which will contain a feature on **Concrete Performance in Fire**. Five technical papers will be published including papers on the effectiveness of polypropylene fibres in mitigating heat-induced spalling and the behavioural differences between high-strength and normal-strength concrete under fire conditions.

Published quarterly the *Concrete in Australia* magazine continues to provide Institute Members with a valuable source of technical papers, industry news, project reviews, product pieces, industry and individual perspectives and discussions and updates on Institute activities.

As well as receiving hard copies of each issue Members are able to access and download issues going back to 2008 via the **Concrete in Australia** page of the CIA



GRACE
Construction Products



Website.

Mark Sedhom
CIA - Technical Services Manager

Preview - Pushing the Boundaries in Concrete Technology

17 September 2014
Ryde-Eastwood
Leagues Club, West
Ryde



The NSW Branch Mini Conference is fast approaching and we are all excited about this new event in our program. The program for this half day event is now set and in addition to our Key Note Address by **Dr James Aldred** (AECOM & UNSW) we are pleased to have four quality speakers presenting their papers:

- **Dr Warren South** (CCAA) - "Evolving Cement Composition"
- **Nilotpol Kar** (BASF) - "Current and Future Trends in Admixture Technologies"
- **Dr Daniel Dias-da-Costa** (USYD) - "Advanced Computational Techniques for Simulation and Monitoring of Concrete Structures"
- **Amin Noushini** (UNSW) - "Geopolymer: The Green Concrete"

We are also very excited about our competition for those under 30 years of age and looking forward to giving away the **\$1000 prize**.

As always we would not be able to put these kind events on without the support of our annual sponsors and in particular our event sponsors. We would like to thank **Sika Australia** for their support as our Platinum Event Sponsor as well as **ITW Constructions Systems ANZ** and **BASF**



Ash Development Association of Australia



SUBSIDIARY OF AUSTRALIAN OXIDES PTY LTD
FINE COLOURS & PRODUCTS FOR CONSTRUCTION

[CLICK HERE](#)
For Sponsors weblinks



[Australia](#) for their support as our Gold Event Sponsors.

We hope you will join us for what should prove to be a great event.

[Click here for more information and to register.](#)

Ian Parker
NSW Branch Vice President

Platinum Event Sponsor



Gold Event Sponsors



The Chemical Company

Seminar Review - Cracking in Concrete

13 August 2014
Ryde-Eastwood Leagues Club, West Ryde



The NSW Branch seminar on *Cracking in Concrete* was very well attended with over 90 delegates hearing from five very knowledgeable speakers. With presentations ranging from the practical hands on views of specialist concrete repair contractors, specialist concrete



REINFORCED EARTH



material technologists, consultant engineers through to the latest university research projects, all bases were covered.

It was also very pleasing to see a large number of delegates stay on after the presentations to have a drink and a chat about concrete (and non-concrete) related topics. This opportunity to network with like minded professionals is one of the attractions of attending NSW Branch seminars. In this age of electronic communication we often lose sight of the value of face to face contact and this is something the NSW Branch strongly encourages.

We would like to thank all those who attended for helping us to put on this successful event and we would especially like to thank our presenters, Michael van Koevorden, Henk van den Heuval, Greg Zambesi, David Mahaffey and Gianluca Ranzi for all their time and effort in preparing and delivering the presentations.

**John Nichols
Seminar Convenor**

Did You Know?

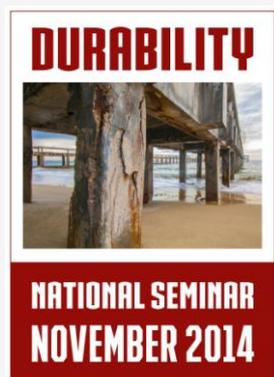
Our Durability Committee has been hard at work

The Concrete Institute of Australia first introduced the "Durable Concrete Structures"

Recommended

Practice publication in

1990 as an initial response to concerns about the poor durability performance of some concrete structures. A specific Durability Committee was formed in late 2008 to review "Durable Concrete Structures", involving some of Australia's leading durability experts. The result will be a series of Recommended Practices (Z7 series) looking at a number of



GRACE

Construction Products



BASF

The Chemical Company



**Ash Development
Association of
Australia**

Ancon[®]

BUILDING PRODUCTS

ABILITY BUILDING COLOURS

SUBSIDIARY OF AUSTRALIAN OXIDES PTY LTD
FINE COLOURS & PRODUCTS FOR CONSTRUCTION

durability issues.

Hardcopies of completed Z7/01 "Durability - Planning" and Z7/04 "Durability - Good Practice Through Design, Concrete Supply and Construction" Recommended Practice handbooks will be given to delegates at our upcoming National Seminar Series as part of the ticket price. This is the only way you will be able to access these documents until they are officially launched in 2015

[Click here for more information.](#)

Featured Sponsors

**Parchem
Construction
Supplies**



Parchem Construction Supplies specialises in the supply and manufacture of concrete construction products, with a specific focus on the durability and corrosion protection of reinforced concrete infrastructure.

With trusted brands such as Fosroc, Galvashield & SewperCoat, Parchem has a corrosion solution for all civil, commercial and industrial projects. Our range includes:

- concrete repair materials - **Renderoc** Range of products
- corrosion protection solutions - **Galvashield** range of galvanic anodes
- Protective Concrete Coatings - Silanes, anti-carbonation and epoxy coatings
- Calcium aluminate mortars for sewer rehabilitation - **SewperCoat**
- Range of high performance epoxy coatings and lining systems - **Nitocote/Nitomortar** range

PH: 1300 737 787

www.parchem.com.au

Quick Links...

[CIA Website](#)
[Events & Seminars](#)
[Resource Centre](#)
[About Us](#)
[CIA Contacts](#)

NSW Branch Newsletter

Editorial Committee

Roy Butcher

Technical Services
Manager - Engineered
Material Solutions

Zoe Schmidt

National Technical Manager -
Sika Australia

Tiere Morgan

NSW Membership Services
Officer - Concrete Institute of
Australia

[Click here to view
previous issues](#)

The Reinforced Earth Company



The Reinforced Earth Company supplies engineered solutions to civil engineers for the construction of infrastructure in the civil, mining and energy sectors. We design, manufacture and supply **Reinforced Earth®** walls, **TechSpan®** tunnels and other precast concrete products to suit your specific requirements for retaining walls, bridge abutments, cut and cover rail and road tunnels, culverts, portals, ore reclaim tunnels and much more. We are experienced and reliable; our solutions are proven and offer cost and time saving advantages.

Visit our Website: www.reco.com.au
Email: recoaustralia@reco.com.au or
contact your Reinforced Earth Company
representative on: **02 9910 9910** to
discuss your project today.

Ability Building Colours



Ability Building Colours specialises in the milling and blending of **abilox®** and **duro®** fine colouring pigments.

These easy mixing powder colours are used to permanently through-colour cast-in-place pre-mixed and site mixed concrete, masonry brick and rendering mortars, gypsum plasters, asphalt, polymer resins, used in paints and other composite products and materials required to be lastingly coloured in the building and construction industries.

We also produce a **Family** of Long Lasting Paints, beneficial **admixtures** in powder form for cement based materials plus

Duro-Seel Clear a superlative curing compound single coating for freshly placed concretes and mortars that ensures that these reach their maximum potential in their long lasting nature without cracking.

PH: 1800 337 324

www.abilityproducts.com.au

If you have any questions about NSW Branch activities or the Concrete Institute in general please contact...

Tiere Morgan

NSW Membership Services Officer
Concrete Institute of Australia

Email - **nsw@concreteinstitute.com.au**

Phone - 02 9955 1744