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2016 EVENTS

Wednesday 20 July 2016



**Sydney Rail Projects
Breakfast Seminar**

14 June 2016

OneSteel Mill Tour
NSW Branch Site Visit

27 June 2016

**Why Does Concrete Do The
Things It Does? (Sydney)**
National Seminar

29 June 2016

**Why Does Concrete Do The
Things It Does? (Canberra)**
National Seminar

10 August 2016

**Changes to AS 3850 -
Prefabricated Concrete
Elements (Sydney)**
National Seminar

17 August 2016

**Managing Corrosion &
Durability**

From the President

Dear ,

Are you feeling the winter chill?



Good news, the NSW concrete market is certainly heating up with upcoming State Events and National Seminars. We have concluded our Seismic Design seminar series, and our National Roadshow **"Why Does Concrete Do The Things It Does?"** presented by Professor Ken Hover from Cornell University, and Des Chalmers will be underway shortly.

Our annual breakfast seminar **"Sydney Rail Projects"** will be held at the Kirribilli Club on 20 July 2016, and registrations are currently available. We have managed to secure a list of influential engineers in the field to discuss different aspects of the projects.

Breakfast seminars are excellent events to network and listen to interesting presentations, and an effective use of time to begin the day with a professional development event!

I look forward to seeing you there,

Pedram Mojarrad
NSW Branch President

Sydney Metro (Northwest), The First Stage of Australia's Largest Public Transport Project

Sydney Metro Northwest, (formerly the North

NSW Branch Seminar

13 September 2016

**Advances in Concrete
Technology (Canberra)**

NSW Branch Seminar

14 September 2016

**Advances in Concrete
Technology (Albury)**

NSW Branch Seminar

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

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Sustainability In Concrete Structures



West Rail Link), is the first stage of the Sydney Metro project, currently Australia's largest public transport infrastructure project.



The tunneling contract was the first to be awarded among the three major contracts for the construction and operation of Sydney Metro Northwest, and it involves building 15 km twin tunnels between Bella Vista and Epping, the longest railway tunnels ever built in Australia!

In addition to that, the contract involves excavation works for five new stations at Cherrybrook, Castle Hill, Showground, Norwest and Bella Vista, as well as two service facilities. On average, the tunnels are 29 metres deep, with the deepest point at 58 metres. For the excavation works, a combination of tunnel boring machines and road header machines will be used.

Sydney Metro Northwest tunnel boring machines are about 120 m long and 7 m in diameter. Tunnel boring machines allow the concrete lining to be installed immediately as the machine advances through the tunnel.

On the other hand, road header machines are being used to build short sections of the tunnels (such as linking the new tunnels to the existing ones), as well as the cavern to allow trains to cross from one track to another. A road header needed to cut out irregular shaped tunnels, is an excavation machine uses a rotating cutter head mounted on a boom and it travels on bulldozer-style tracks. The machine is then attached to a loading device.

For Sydney Metro Northwest - safety is the highest priority. For this purpose, the construction systems will be in accordance to the performance requirements of the International Fire Engineering Guidelines and Australian standards.

For more information, visit:
<http://nwrail.transport.nsw.gov.au/The-Project/Project-Overview>

Negin Sharifi
SMEC
Vice President
NSW Branch



Event Preview

Sydney Rail Projects Breakfast Seminar

Wednesday 20 July
7.30 - 10.00 am
The Kirribilli Club,
Lavender Bay



The Institute will be hosting one of its successful breakfast seminars, where we will hear from successful women in engineering discuss two major rail projects. These projects are addressing Sydney's transport challenges - Sydney Metro and Sydney Light Rail.

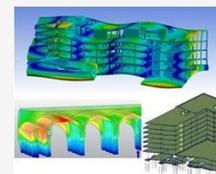
The Sydney Metro project is currently Australia's biggest public transport project, the first stage of which, the North West Rail Link, is well underway. Construction is progressing rapidly with tunnelling complete, and opening scheduled for early 2019. The first stage of the Sydney Light Rail project is also underway, connecting Circular Quay, the CBD and the south east including Moore Park and the University of NSW. This, together with the pedestrianisation of George Street between Bathurst and Hunter Street, is also set to be operational in 2019.

This is a fantastic opportunity to meet and network in pleasant surroundings before heading to work. Please join us to hear about the challenges that these projects provided, and the innovations in materials and processes which are being applied to their delivery.

For more information, please visit our [event page](#).

Event Review

Finite Element Analysis of Concrete Structures - Software and Practice



Our most recent NSW Branch Seminar took a close look at the design of concrete structures using Finite Element Analysis (FEA). The seminar had a



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great turn out, with over 60 guests attending to listen to prominent industry speakers.

A broad range of contents were discussed, including underlying Finite Element theory, leading-edge modelling software, interpretation of results, and most importantly, practical applications.

A thank you to our industry speakers, Emil Jankulovski, David Bell, Wentao Zhang and Doug Jenkins for providing interesting, insightful and intriguing presentations.

Please view the [2016 event program](#) to register for our upcoming events. These are not only professional development opportunities, but a great chance to network!

Did you know?

Sydney Steel Mill incorporates one of OneSteel's three electric arc furnaces (EAF), and is capable of producing 600-700,000 tonnes of steel per year! Whereas, the "long products" rolling mill is capable of producing more than 300,000 tonnes of finished product annually.



The Sydney Steel Mill is opening its doors for a site visit, offering a unique and interesting opportunity to see a state of the art steel manufacturing operation.

If you would like more information, or to register for our upcoming site visit, please visit the [event page](#).

Featured Sponsor

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The ADAA's mission is to foster the increased utilisation of coal combustion products, predominantly fly ash, through the promotion of the environmental, economic and practical advantages to the benefit of members, stakeholders and the community.



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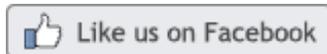
One of the ways our mission is realised is through publishing of technical documents, such as the 'Coal Combustion Products Handbook, 2nd Edition', which was awarded "Highly Commended" at the Concrete 2015 Conference.

To find out more about the Association, the Handbook and other technical documents that we produce, head to our website: <http://www.adaa.asn.au>

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

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