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**SPECIAL  
POINTS OF  
INTEREST:**

- REAAA Road-show
- NZTA T10
- NZ Chapter AGM
- Technical Committees
- Membership Options

**REAAA**<sup>®</sup>  
Driving Progress

ROAD ENGINEERING ASSOCIATION OF ASIA & AUSTRALASIA (NZ)

## **REAAA NZ CHAPTER ROADSHOW**

### **NOVEMBER 2011**

**For roading engineers, consultants, contractors,  
local authorities and suppliers**

*Hear speakers on research and new developments  
Exchange views      Share experiences  
Networking opportunities      CPD hours for members of IPENZ!*

### **DELIVERING MAJOR PROJECTS**

- ⇒ Indian Experience
- ⇒ Newmarket Viaduct
- ⇒ Waterview Project
- ⇒ Wellington Tunnels Retrofit
- ⇒ Caversham Project and more...
- ⇒ Young Presenter Competition entry details on website [www.reaaa.co.nz](http://www.reaaa.co.nz)
- ⇒ Local Topics

**Auckland ~ 2 November**

**Taupo ~ 3 November**

**Wellington ~ 4 November**

**Dunedin ~ 7 November**

**Christchurch ~ 8 November**

Click here for registration form and details [www.reaaa.co.nz](http://www.reaaa.co.nz)

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## MANAGING SKID RESISTANCE AND NZTA T10

The re-write of the New Zealand Transport Agency's Skid Resistance Management Specification (T10) last year has generated considerable discussion within the industry. Among a number of changes that were introduced, two in particular have focused attention:-

- **Implementation of the NZTA Curve Risk Analysis policy.**
- **Improving the methodology for aggregate selection and assessment of aggregate performance.**

### **Curve Risk Analysis**

Recent research into crash data has highlighted that a significant number of serious and fatal crashes are occurring on rural curves with radii between 250m and 400m radius. This is different to the previous risk profile which assigned the majority of curve risk to those with a radius less than 250m.

The new methodology envisages all rural curves with a radius of 400m or less being analysed and assigned a risk rating and default investigation skid level from a crash prediction model based on difference between approach and curve speed, curve length, gradient and traffic volume. The NZTA acknowledges that a generic model does not currently exist, and most networks have not previously developed such a model. In the short term, the NZTA is addressing this by calculating average crash rates for each site category in T10.

One of the main implications of this change is that the percentage of the overall State Highway network that now needs to be managed to a high skid level ( $IL=0.55$ ) has increased to around 6.6% (previously this was  $<0.2\%$ ). There is unlikely to be an increase in funding for managing skid resistance at this time, so a robust prioritisation methodology is being developed to ensure that the available funding targets the highest risks in each network.

### **Methodology for Selecting Aggregates**

As performance data was analysed from around the country, it became clear that PSV was not a reliable indicator of long term performance with respect to polishing. A number of commonly used aggregate sources appear to have very poor field performance in high stress areas. Finding aggregate sources that are both available economically and allow chip seals to reach their full service life in high stress areas without polishing, is paramount.

*The new T10 has two methods for selecting aggregate;*

- *The Aggregate Performance Method – the preferred method to assess the on-road performance of proposed aggregates, preferably on a regional basis with cross regional collaboration.*
- *The PSV method – as previously used but with the addition of a range of polishing stress factors to provide higher likelihood of adequate resistance to polishing.*

## **MANAGING SKID RESISTANCE AND NZTA T10 continued.....**

The NZTA is putting together a draft “performance” table to show which aggregates nationally have demonstrated good performance under high stress. Contractors and consultants will probably also need to consider the implications of using different chip sources for reseal contracts to achieve good performance in high stress areas. From a quarry owner’s perspective, the implications are fairly obvious.

While some of these issues may appear daunting, the aim is to deliver the best overall safety benefit for each dollar spent on surfacing. The curve re-focus recognises new knowledge about where the risks really lie and the aggregate selection changes respond to observed field performance. The NZTA is confident that it can work with industry to a better outcome. Given the above discussion, it is clear that T10/2010 is a work in progress, and should be treated as a guideline to managing skid resistance at present, rather than being mandatory. The NZTA intends to implement another round of regional industry workshops to further discuss the above issues. For details of these, and to provide feedback, contact us on [dave.whitehead@nzta.govt.nz](mailto:dave.whitehead@nzta.govt.nz)

Meanwhile, the downloadable specification and more detailed information can be found at the following web link:-

[www.nzta.govt.nz/resources/skid-resistance-investigation-treatment-selection/index.html](http://www.nzta.govt.nz/resources/skid-resistance-investigation-treatment-selection/index.html)

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## **NZ Chapter AGM and Lunchtime Forum .**

The Chapter’s Annual General Meeting was held on 29 March 2011 at West Plaza Hotel Wellington and was combined with a lunchtime forum and two excellent presentations on the Christchurch earthquakes by Onno Mulder, City Care and Mark Gordon, AECOM.

The officers and Committee members confirmed at the AGM were:

Richard Steel - Beca Infrastructure as Chairperson, Brendan Bisley - AECOM as Treasurer and Dave Bates – NZ Transport Agency, Glenn Campbell – Whitestone Contracting Ltd, Chris Gregory - GHD Ltd, Ewan Hunter - Opus International Consultants, Shaun Magee - Downer, Rob Napier - AECOM, Chris Scott - CityCare Ltd, Tim, Talbot- Fulton Hogan and Allan Tuck – Higgins as committee members.

The AGM was completed in less than 20 minutes and with more than 50 attendees the focus of the lunchtime session was networking and some lively discussion around the two presentations; copies of which are located on the Chapter website [www.reaaa.co.nz](http://www.reaaa.co.nz)

Given the clear interest in preparedness for natural disasters the Committee has selected a relevant NZTA research paper for our annual REAAA Roadshow – “Benchmarking the readiness of road controlling authorities to meet their obligations under the Civil Defence and Emergency Management Act”. The Committee is investigating opportunities to host regional forums to stimulate discussion on preparedness in the context of Engineering Lifelines, and will host a future forum on the NZTA’s Safer Journeys and Higher Productivity Vehicles strategies.

## REAAA TECHNICAL COMMITTEES

As reported in the last REAAA NZ Chapter newsletter the REAAA Governing Council has recently established eight technical sub-committees with leadership of each sub-committee assigned to an owner country as shown in the following table.

Topic / Sub-Committee	Owner	Topic / Sub-Committee	Owner
TC-1: Network Management	Korea	TC-5: Road Safety	Indonesia
TC-2: Foundations & Pavements	Japan	TC-6: Green Technologies	Singapore
TC-3: Road Furniture	Philippines	TC-7: Public-Private Partnerships	Malaysia
TC-4: Asset Management	Australia	TC-8: Structures & Bridges	New Zealand

The "Owner" country has nominated a Chairperson for the Technical Committee for which they have responsibility. As the New Zealand Chapter is the owner of the Structures and Bridges committee the nominated chairperson of this committee is Mr Barry Wright, New Zealand Transport Agency.

It is intended that the technical committee members will be actively involved in the topic area so as to play a 'technical' role in guiding the activities of the Committee. Each nominated committee member has an alternate as this helps spread the load and widen the interest and participation within the Chapter. The following is a list of the nominated committee members from New Zealand for each of the technical committees nominated to date.

### **TC-1 Network Management**

Mr Tony Porter, Opus International Consultants

### **TC-2 Pavements**

Mr David Alabaster, NZ Transport Agency

Mr Bruce Chappell, Auckland Motorway Alliance

### **TC-3 Road Furniture**

No representative from NZ

### **TC-4 Asset Management**

Mr David Darwin, NZ Transport Agency

### **TC-5 Road Safety**

Mr Colin Brodie, NZ Transport Agency

Mr Andrew Stevens, Auckland Motorway Alliance

### **TC-6 Green Technologies**

Mr Carl Reller, NZ Transport Agency

Mr Simon Bannock, Beca

### **TC-7 Public Private Partnerships**

No representative from NZ

### **TC-8 Structures and Bridges**

Mr Barry Wright, NZ Transport Agency

Mr Geoff Brown, Beca

## **92<sup>nd</sup> Meeting of REAAA Governing Council and Heads of Road Authority Workshop**

The 92<sup>nd</sup> meeting of the REAAA Governing Council was held in Taipei on 14 April. A copy of the minutes from the meeting is available through the Chapter's secretary and the minutes include good coverage of the establishment of the Technical Committees and their progress to date.

There were two items that will be of general interest to members. The REAAA Journal which is published periodically has in the past relied on technical papers submitted by members from throughout the region for content. In recent years fewer and fewer papers have been submitted and the Council adopted a recommendation to encourage the Technical Committees to use the Journal as a means through which to publish outputs and draw attention to initiatives and innovations occurring in each of the technical areas.

Following the Council meeting a Heads of Road Authority (HORA) workshop with the theme "Road Safety: Make it Happen" was led by the Malaysian Institute of Road Safety. A key outcome from the workshop was agreement to compile a compendium of information from member countries largely based on case studies of road safety initiatives and strategies covering a range of road environments and traffic mixes. Colin Brodie (NZTA) is compiling the contribution from New Zealand.

The next Council meeting will be held in Jakarta 14-17 November and the corresponding HORA meeting will have the theme "Energy Saving for Roads" and the opportunity exists for the NZ Chapter to highlight some of the initiatives being implemented in New Zealand.

The opportunity exists for the NZ Chapter to host the Governing Council and HORA meetings in October/November 2012 and the Committee will consider this opportunity in more detail before the end of the year. We last hosted the Governing Council in March 2006. It presents an excellent opportunity to strengthen regional relationships at a national road authority level and to showcase New Zealand's road engineering capability through technical tours, sponsorships and the like.

If anyone has questions or would like further information on any of the above please contact Richard Steel (DDI +64 9 300 9110 or Mobile +64 21 537 349).

## REAAA NZ CHAPTER MEMBERSHIP

REAAA (Road Engineering Association Asia Australasia) is an international fellowship of members interested in the science and practice of road engineering. Currently there are more than 1,200 members from 27 countries with over 100 members in the New Zealand Chapter.

### Key objectives of the association are:

- To promote and advance the science and practice of road engineering and related professions.
- To educate and seek to improve, extend and elevate the technical and general knowledge of persons concerned with road engineering.

### Chapter activities in New Zealand include:

- Regional seminars/forums
- Annual Roadshow
- Low Volume Roads Conference
- Site visits to projects of interest
- Regular newsletters on current developments and practices
- Network opportunities with other members in NZ and overseas

The REAAA NZ Chapter committee would like to welcome its new members for 2011 especially the corporate members Blacktop Construction, Manawatu District Council, CPG New Zealand Ltd and Waitaki District Council. Membership is open to individuals & companies, with three levels of membership. Institutional, Corporate and Individual.

Institutional membership has named employees, of which can be changed at any time, who receive the chapter's newsletters and invitations plus allows any employee of an institutional member to attend the Chapter's roadshow at the REAAA member's reduced cost as well as attending the biannual Low Volume Roads Workshop at the member rate. In our quarterly newsletter we print an article from one of our institutional members and we also have a link to our institutional members from the NZ chapter's website.

Corporate membership is aimed at smaller companies or authorities and has named employees, of which can be changed at any time, who receive the chapter's newsletters and invitations. This membership also allows any employee of an corporate member to attend the Chapter's roadshow at the REAAA member's reduced cost as well as attending the biannual Low Volume Roads Workshop at the member rate.

An individual member receives the chapter's quarterly newsletter, the REAAA Journal from the parent body in Malaysia and any invitations/ correspondence from the Chapter plus a reduced member attendance fee to the Chapter's annual roadshow and the biannual Low Volume Roads Workshop. Please note this is only for the named member, transfer of an individual membership for these two conferences is not accepted.

For any further information regarding membership please contact the Secretary as per below.

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