DELIVERING NEW AGE SOLUTIONS

Conference: abstracts, papers, screen presentations, presentations for printing, and sound recordings are listed below. Click to access or download the files.

Day 1 – Monday 23 September 2013

OPENING SESSION

CONFERENCE INTRODUCTION – John Lambert, Chief Executive Officer, Australian Asphalt Pavement Association

CONFERENCE WELCOME & OVERVIEW – Sergio Cinerari, Chief Operating Officer, Downer Australia and Chairman Australian Asphalt Pavement Association

KEY ADDRESS – DELIVERING NEW AGE SOLUTIONS - Dr Keith Suter, Futurologist, Economic & Social Commentator, Author and Broadcaster

OFFICIAL OPENING AND ADDRESS – Peter Evans Deputy Chief Engineer, PM&G for the Director General, Queensland Transport & Main Roads

DELIVERING INNOVATION IN PROJECTS & PROGRAMS

KEYNOTE ADDRESS – INNOVATION DRIVES USEABLE TECHNOLOGY TO MANAGE BIG BETTER – Jim Reynolds, President, Caterpillar Paving Products, USA

AUSTROADS PAVEMENT TECHNOLOGY INTITIAVES: WORKING WITH INDUSTRY IN DELIVERING ACHIEVEMENTS AND FUTURE DIRECTIONS – Chris Harrison, General Manager Engineering & Technology, Roads & Maritime Services, Sydney and John Spathonis, Principal Manager Research & Development Queensland Transport & Main Roads

AAPA PAVEMENT RESEARCH AND TECHNOLOGY: STATE OF PLAY AND FUTURE DIRECTIONS IN LIASION WITH CLIENT ORGANISATIONS – Ian Rickards, AAPA Consultant

ENHANCING FLEXIBLE PAVEMENT DESIGN

Concurrent Session 1

Advanced Material Characterisation of Australian Mixtures for Pavement Design
Bevan Sullivan, National Technical Manager, Fulton Hogan

New Age Pavement Design Solutions Using Stone-age Technology
Jaco Liebenberg & Joe Grobler, Principal Pavement Engineers, GHD

Inter-Conversion of Laboratory Measured Dynamic Modulus Results to Field Modulus and Strain
Bevan Sullivan, National Technical Manager, Fulton Hogan

MANAGING IN AN ENVIRONMENT OF CHANGE

Concurrent Session 2

Managing Companies to Embrace Change
Jim McReynolds, President, Caterpillar Paving Products, USA and Rolf Jenny, Head of Business Development, Amman, Switzerland

Professor John Yeaman, Professor of Civil Engineering Construction, University of the Sunshine Coast

Management within Harmonisation of WHS Regulations
Shae McCartney, Partner, Clayton Utz

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Continued

Review of the Current AG/PT-233 Four Point Bending Fatigue Protocol and How its Results Relate to Other Fatigue Test Methods and Pavement Design Models

Erik Denneman, Principal Engineer Bituminous Surfacing, ARRB

Marketing Communications for Achieving Internal and External Change

John Berman, Managing Director, WAM Communications

**ENHANCING FLEXIBLE PAVEMENT DESIGN**

Concurrent Session 1

Color Coded Design Alternative Comparison System for Pavements

Dragos Andrei, Associate Professor, Civil Engineering Department, California State Polytechnic University, USA

Evaluation of Dynamic Modulus Predictive Models for Australian Asphalt Mixes

Saeed Yousefdoost et al, Swinburne University and AAPA

Effects of Asphalt Layer Thickness on the Dynamic Stress Distribution in Flexible Pavements – A Numerical Study

Behzad Ghadimi, Civil Engineering Department, Curtin University

Effects of Temperature on Fatigue Life of Asphalt Mixture

Hossein Asadi, Civil Engineering Department, Curtin University

SMA Mix Design Via Binary Packing Triangle Concepts

Hugo van Loon, Senior Asphalt Engineer, DPTI, South Australia and Mike Butcher (Consultant)

**DELIVERING SUSTAINABLE SOLUTIONS**

Concurrent Session 2

Warm Mix Asphalt for Airports

Greg White, Technical Manager Airports, Fulton Hogan

Recycle as a Resource

Steve Claude, Senior Vice President – Sales and Marketing, Astec, USA

An Evaluation of the Suitability of WMA for Australian Conditions

Erik Denneman, Principal Engineer Bituminous Surfacing, ARRB

Sustainability – Learnings from the AAPA Study Tours to the USA, Africa and Europe

John Lambert CEO and Rob Vos, Queensland Executive Officer, AAPA

High RAP Recycling

Ton Eijkenboom, CTO, Van Weezenbeek Specialties BV, The Netherlands

**Day 2 – Tuesday 24 September 2013**

**DELIVERING NEW AGE FLEXIBLE PAVEMENT DESIGN**

Keynote Address – Correlation of Field and Laboratory Works Underpinning the US MEPD Design Parameters

Professor David Timm, Brasfield & Gorrie Professor, Department of Civil Engineering, Auburn University, USA

Keynote Address – Fatigue Characterisation of Asphalt Mixtures for Designing Long Life Pavements

Professor Andre Molenaar, Emeritus Professor, Delft University of Technology, Netherlands

Keynote Address – Delivering New Age Flexible Pavement Design – the South African Experience

Professor Kim Jenkins, Professor of Civil Engineering, SANRAL Chair in Pavement Engineering, Stellenbosch University, Republic of South Africa

Keynote Address – Developments with Rejuvenators – Applications & Testing Methods

Martin van de Ven, Associate Professor, Department Structural Engineering, Road and Railway Engineering Road Engineering, Delft University of Technology, The Netherlands

Pending paper

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### Day 2 – Tuesday 24 September 2013  continued

#### DELIVERING BETTER CONSTRUCTION PRACTICES
Concurrent Session 1

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<tr>
<td>Temperature Segregation During Mixing &amp; Laying of Asphalt Mixtures</td>
<td>Professor Andre Molenaar et al, Delft University of Technology</td>
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<td>Overlay Testing &amp; Surface Mixes</td>
<td>Glynn Holleran et al, Technical Divisional Manager Auckland, Fulton Hogan, New Zealand</td>
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<td>Selection and Maintenance of Materials Transfer Vehicles for Asphalt Paving</td>
<td>Bill Hood, V.P. Sales &amp; Marketing, Weiler, USA</td>
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<tr>
<td>And Now Australia Sets the Global Standard for Sustainable Road Construction</td>
<td>Rolf Jenny, Head of Business Development, Amman, Switzerland</td>
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#### DELIVERING SOLUTIONS IN THE FIELD
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<tr>
<td>Rehabilitation of Runways, Taxiways and Associated Airside Infrastructure at the East London Airport</td>
<td>Simon Tetley et al, GIBB (Pty) Ltd and Airports Company, Republic of South Africa</td>
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<td>Effect of December 2010 - January 2011 Storm &amp; Flood Event on Brisbane City Council’s Road Network</td>
<td>Inga Condric, Principal Engineer and Greg Stephenson, Senior Engineer, Brisbane City Council</td>
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<td>Delivering high quality Premium Airport Runway Pavements</td>
<td>Andy Boyd, General Manager, Boral Asphalt NSW</td>
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<td>Asphalt Surfacing of the Philip Island Raceway</td>
<td>Stuart Billing, General Manager Victoria, Downer and Martin Kinski, Victorian Construction Manager, Downer</td>
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#### DELIVERING PREMIUM ASPHALT SOLUTIONS
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<tr>
<td>How Does One Introduce Pavement Design Innovations In Australia?</td>
<td>Vincent Conserva, Manager Australia and NZ, Kraton</td>
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<tr>
<td>Development of Deformation Resistant Asphalt for Ports and Container Terminals</td>
<td>Melvin &amp; Jansz, Boral Asphalt</td>
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<tr>
<td>Differentiate the Effects of Asbuton Modification to the Binder in a Base Course Mixture</td>
<td>Professor Andree Molenaar et al, Delft University of Technology</td>
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<td>High Modulus Asphalt Mix (EME) for Heavy Duty Applications and Preliminary Laboratory Test Results in Australia</td>
<td>Laszlo Petho, Principal Researcher, ARRB Group LTD, Australia</td>
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#### DELIVERING SOLUTIONS IN THE FIELD
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<tr>
<td>Peninsula Link Melbourne – High Performance Alliance Contract</td>
<td>Tim Oudenryn, General Manager, Boral Asphalt Victoria</td>
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<td>Use of EME – Case Studies within Indian Ocean Area</td>
<td>Xavier Guyot, Road Technical Manager, Colas, Réunion, Indian Ocean</td>
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<td>Use of BTB in Pavement Rehabilitation</td>
<td>Ian van Wijk et al, Aurecon, Harrison Group, Boral</td>
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<td>Precision Paving Using 3D Technology</td>
<td>Troy Rigby, Australasian SITECH Manager, Heavy Civil Construction Division, Trimble</td>
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# BITUMINOUS SURFACING – NEW DIRECTIONS

Day 3 – Tuesday 25 September 2013

## Keynote Address – Delivering Spray Sealing Benefits
Gerrie van Zyl, Director, Mycube Asset Management Systems, Republic of South Africa

## The Austroads/AAPA PMB Sprayed Seal Field Trials – One Year On
Kym Neaylon, Robert Urquhart, Steve Patrick, ARRB

## Semi-Open Graded Bitumen Rubber Mixes – South African Experience
Ian van Wijk, Technical Director Roads-Transport, Aurecon and Pablo Balmaceda, Associate Director Water-Pavements, AECOM

## 20 years of Performance Based Reseal Contracts in New Zealand; The Results
Chris Olsen, Chief Executive Officer, Roading New Zealand

## DELIVERING BETTER REHABILITATION
Concurrent Session 1

Milling for Smoothness – Achieving Excellent Surface Texture While Maintaining Production
*Eric Baker*, Marketing Manager, Roadtec, USA

Microsurfacing Suspended Fibre Technology “SFT”
*Paul Price*, National Microsurfacing Manager, Downer Infrastructure

Pushing the Limits for High Performance Thin Asphalt Surfacing
*Ryan Jansz*, National Pavement Manager, Boral Asphalt

Development of Durable Microsurfacing for High Traffic in Thailand
*Micel Lenfant*, Product & Research Manager, Tipco Asphalt, Thailand

## SOUTHERN HEMISPHERE SPRAYED SEALING ALLIANCE (SHSSA) - WORKSHOP
Concurrent Session 2

Chair: *Robert Busuttil*, Principal Trainer and Technical Advisor AAPA

### Workshop Topics:
- Aggregate spreading processes – Discussion Leader – *John Esnouf*, VicRoads
- Binders – Discussion Leader – *Kym Neaylon*, National Technical Leader – Surfacings, Pavements and Surfacings, ARRB Group (Kym is also the convenor of the SHSSA)
- Assessing when a surface is fit for sealing – *Gerrie Van Zyl*, Director, Mycube Asset Management Systems
- Emulsion Sealing – *Jeff Waters*, Surfacing Engineer, Fulton Hogan
- Conclusions and recommendations – *Kym Neaylon* (Convenor SHSSA) & *Robert Busuttil*, Principal Trainer and Technical Advisor AAPA

*full session report pending*
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<td><strong>Key Findings and Outcomes from the Asphalt Harmonisation Project</strong></td>
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<td>Peter Evans, DTMR, Deputy Chief Engineer, Pavements, Materials &amp; Geotechnical, Engineering &amp; Technology, Department of Transport and Main Roads, Queensland and Andrew Cramp, Managing Director, Centra Australia</td>
<td>Development of a Low Temperature Crumb Rubber Binder for Spray Sealing</td>
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<td><strong>Asset Management is Changing the Way Organisations Operate</strong></td>
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<td>Mark Jordan, Manager, Asset Management Team, Leighton Contractors</td>
<td>Dr Alexandru Let, Senior Development Engineer, Boral Asphalt</td>
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<td><strong>Based Network Maintenance Contract – An Analysis from North Auckland</strong></td>
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<td>John Hallett, Technical Director Roading, Beca, New Zealand</td>
<td>Emulsion Sprayed Sealing in New Zealand</td>
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<td><strong>Update to the Australian Standard for Bitumen (AS2008)</strong></td>
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<td>Kym Neaylon, National Technical Leader Surfacings, ARRB</td>
<td>Binder Adhesion Testing Using The Bitumen Bond Strength Test: State Of The Art, Kim Jenkins, Professor of Civil Engineering, SANRAL Chair in Pavement Engineering, Stellenbosch University, Republic of South Africa and Martin van de Ven, Associate Professor Department Structural Engineering, Road and Railway Engineering, Road Engineering, Delft University of Technology, The Netherlands</td>
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**CONFERENCE CLOSING PRESENTATION – John Lambert CEO, AAPA**