

**25<sup>th</sup> ARRB  
Conference**  
Perth, Australia  
**23 – 26 September  
2012**



Program – subject to change

**Sunday 23 September 2012**

Start time	End time	Session	Location
10.00 am	5.00 pm	<p>Technical tour (departs at 10.00 am sharp)</p> <p>Provided by Main Roads Western Australia</p> 	TBA (depart from Pan Pacific hotel)
5.00 pm	6.30 pm	<p>Welcome reception &amp; registration open</p> <p>Sponsored by SIDRA SOLUTIONS</p> 	Exhibition hall (Grand River Ballroom)

**Monday 24 September 2012**

Start time	End time	Session	Location
8.00 am	9.30 am	Registration & welcoming tea and coffee	Exhibition hall (Grand River Ballroom)
9.30 am	11.00 am	<p>Opening ceremony: <i>Shaping the future: Linking research, policy and outcomes</i></p> <p><b>Keynote address</b> Mr Menno Henneveld, Managing Director, Main Roads WA</p> <p>Mr Steve Phillips, Secretary General of the Forum of European National Highway Research Laboratories (FEHRL)</p>	Plenary room (Golden Ballroom)
11.00 am	11.30 am	Morning tea	Exhibition hall (Grand River Ballroom)

11.30 am	1.00 pm	<b>Plenary session – Improve productivity or perish!</b>  <b>Plenary speakers:</b> <b>Ms Sue McCarrey</b> , Acting Director General – Department of Transport Western Australia  <b>Mr David Simon</b> , Chairman, Australian Trucking Association (ATA)  <b>Mr Paul Nordengen</b> , Research Group Leader: Network Asset Management Systems, CSIR Built Environment	<b>Plenary room (Golden Ballroom)</b>
1.00 pm	2.00 pm	Lunch	<b>Exhibition hall (Grand River Ballroom)</b>

**2.00 pm – 3.30 pm Parallel technical sessions & workshops 1**

1.1 Product certification and innovation (Room: Golden Ballroom North)	1.2 Bituminous binders (Room: Goldsworthy)	1.3 Bridge management & inspection (Room: Hamersley)	1.4 Road safety I (Room: Golden Ballroom Centre)	1.5 Road freight productivity (Room: Golden Ballroom South)
<b>Qualifying products and streamlining implementation of new technologies</b> Greta Smith USA  <b>Fit-for-purpose certification of road construction products in South Africa</b> Erik Denneman AUSTRALIA  <b>Development of a wheel-tracking performance test for rut resistance characterisation of granular materials</b> Didier Bodin AUSTRALIA  <b>Development of design guidelines for flood reconstruction works</b> Owen Arndt AUSTRALIA	<b>Ensuring the quality of SBS modified binders</b> Khar Yean Khoo AUSTRALIA  <b>Bitumen processing rheology composition and performance</b> Glynn Holleran NEW ZEALAND  <b>Study on waste polyvinyl chloride modified bitumen for paving applications</b> Girish Sharma INDIA  <b>Effect of ageing on physical and rheological properties of modified bitumen</b> Maninder Singh INDIA	<b>Level 2 Bridge inspection contracts: How to get what you really really want!</b> Rudolph Kotze AUSTRALIA  <b>The prediction of timber bridge girder strength</b> John Moore AUSTRALIA  <b>Cost effectiveness of bridge superstructure rehabilitation in urban environment</b> Oliver Lin AUSTRALIA  <b>An infrastructure information system for bridges in India using scientific monitoring</b> Jitendra Goyal INDIA	<b>The ‘Yalgoo experience’: Applying the Safe System approach in a remote setting</b> Ryan Gibson AUSTRALIA  <b>Towards zero road planning, design and construction</b> Brendan Marsh AUSTRALIA  <b>An improved methodology to compute crash modification factors: A case study of bus priority measures in Melbourne</b> Kelvin Goh AUSTRALIA  <b>Working together for a Safe System: Provision of relevant support and resources for Western Australian local governments</b> Louise Russell-Weisz AUSTRALIA	<b>Investigation of truck lane restriction on motorways</b> Peter Frauenfelder AUSTRALIA  <b>B-triples: Next generation high productivity freight vehicles</b> Anthony Germanchev AUSTRALIA  <b>Integrated cargo tracking and warehouse management system</b> Eftihia Nathanail GREECE

3.30 pm	4.00 pm	<b>Afternoon tea</b>	<b>Exhibition hall (Grand River Ballroom)</b>
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**4.00 pm – 5.30 pm Parallel technical sessions & workshops 2**


2.1 Pavement design I (Room: Golden Ballroom North)	2.2 Bituminous surfacings (Room: Goldsworthy)	2.3 Bridges, abutments & barriers (Room: Mt Newman)	2.4 Road safety II (Room: Golden Ballroom Centre)	2.5 Heavy vehicle operations & technology (Room: Golden Ballroom South)	2.6 Network operations (Room: Hamersley)
<p><b>Review of mechanistic pavement design procedures to produce sustainable pavement designs</b> Ross Paul AUSTRALIA</p> <p><b>Cunningham Highway, challenges faced in responding to significant embankment failures of a national highway</b> Jacob Dunstan AUSTRALIA</p> <p><b>Design subgrade CBR for flexible pavements: comparison of predictive methods</b> Andreas Nataatmadja AUSTRALIA</p> <p><b>Design of long life flexible composite and deep strength asphalt pavements</b> Giovanni Parmeggiani AUSTRALIA</p>	<p><b>The different effects of single, tandem and tri-axles on sprayed seal wear</b> Kym Neaylon AUSTRALIA</p> <p><b>Aggregate breakdown as a cause of chip seal flushing</b> Philip Herrington NEW ZEALAND</p> <p><b>Austrroads PMB sprayed seal trials</b> Steve Patrick AUSTRALIA</p>	<p><b>Actual performance of seamless pavements in Australia</b> Steve Griffiths AUSTRALIA</p> <p><b>Risk-based approach to selecting bridge barrier performance levels</b> Hanson Ngo AUSTRALIA</p> <p><b>Observations on performance characteristics of plastic water-filled barrier-type devices</b> Bernard Hammonds AUSTRALIA</p> <p><b>Structures inspections – VicRoads experience</b> Muruga Muruganandam AUSTRALIA</p>	<p><b>Do you see what I see? – the accuracy of speed estimates by various road user groups and implications for road safety and incident investigation</b> Paul Hillier AUSTRALIA</p> <p><b>The effect of communication campaigns in promoting safer travelling culture among Malaysians during major festive season</b> Norliana Ali Haidzir MALAYSIA</p> <p><b>Comparison of younger and older drivers' glance behaviour and performance in a driving simulator</b> Joonwoo Son REPUBLIC OF KOREA</p>	<p><b>A macroscopic study of heavy vehicle traffic flow characteristics</b> William Young AUSTRALIA</p> <p><b>Improving road safety by increased truck visibility</b> Agota Berces AUSTRALIA</p> <p><b>Using the Freight Axle Mass Limits Investigation Tool (FAMLIT) to estimate the marginal cost of road wear</b> Will Hore-Lacy AUSTRALIA</p>	<p><b>Preliminary investigations into ITS-assisted merging to improve the capacity of 2+1 lanes and high-volume passing lanes</b> Lawrence Cameron NEW ZEALAND</p> <p><b>Concept towards reality: The journey (so far) of implementing managed freeways in Western Australia</b> Tom McHugh AUSTRALIA</p> <p><b>Travel behaviour of workers in Dhaka and their attitude towards road pricing</b> Jonathan Bunker AUSTRALIA</p> <p><b>Accessibility analysis at a neighbourhood level</b> Ian Espada AUSTRALIA</p>
7.00 pm	11.00 pm	25 <sup>th</sup> ARRB Conference Official Dinner			Burswood Convention Centre

## Tuesday 25 September 2012

Start time	End time	Session	Location
8.00 am	9.00 am	Registration & welcoming tea and coffee	Exhibition hall (Grand River Ballroom)
9.00 am	10.30 am	<p><b>Plenary session – Balancing sustainability, road safety, network performance and community expectations</b></p> <p><i>Plenary speakers:</i>  <b>Mr Lars Nilsson</b>, Environmental Director, Swedish Transport Administration</p> <p><b>Mr Neil Aplin</b>, Director, Aplinquill (recently retired Project Director, Council of Australian Government (COAG) Road Reform Plan)</p> <p><b>Dr David Cosgrove</b>, Principal Research Scientist, Bureau of Infrastructure, Transport and Regional Economics (BITRE).</p>	Plenary room (Golden Ballroom)
10.30 am	11.00 am	Morning tea	Exhibition hall (Grand River Ballroom)

### 11.00 am – 12.30 pm Parallel technical sessions & workshops 3

*3.7 The Sprayed Sealing Alliance workshop will be held at the Good Earth hotel parallel to these sessions*


3.1 Productivity initiatives in the freight and heavy vehicle space workshop (Room: Mt Newman)	3.2 Strategic planning & intelligent transport systems (Room: Golden Ballroom North)	3.3 Road safety engineering I (Room: Golden Ballroom South)	3.4 Asset management I (Room: Golden Ballroom Centre)	3.5 Cementitious materials (Room: Hamersley)	3.6 Economics & sustainability (Room: Goldsworthy)
<p>The management of heavy vehicle operations is an increasingly complex issue for road asset owners. As the freight task increases, our reliance on the use of more efficient heavy vehicles is set to increase in order to deliver the productivity improvements desired by both government and the community. But what does that mean for the management and maintenance of the of the road network? How will the community react to the use of longer and heavier trucks? This workshop is designed to outline the issues and discuss new approaches to the design and delivery of a more productive transport system.</p>	<p><b>Trip generation characteristics of two large format retail sites in Auckland</b>            Roger C M Dunn            NEW ZEALAND</p> <p><b>A modified car-following model for traffic safety studies</b>            Ashish Bhaskar            AUSTRALIA</p> <p><b>Data requirements and graph data structures for a multi-modal, multi-objective trip planner</b>            Bradley Casey            AUSTRALIA</p>	<p><b>Road engineering based methods to reduce rural speeds</b>            Blair Turner            AUSTRALIA</p> <p>Session sponsored by:  </p> <p><b>Evaluation of the National Black Spot program</b>            Mark Harvey            AUSTRALIA</p> <p><b>Pedestrian countdown timers – Two Australian trial methods and results</b>            Michael Levasseur            AUSTRALIA</p> <p><b>ANRAM – a case study of integrating asset management into road safety</b>            Madeleine Bekavac            AUSTRALIA</p>	<p><b>A bridge too far? New technology meets the daily grind</b>            Graham Lantzke            AUSTRALIA</p> <p><b>Successful delivery of a new road management system for WA local government</b>            Norbert Michel            AUSTRALIA</p> <p><b>Ground Penetrating Radar (GPR) – a tool for pavement evaluation an design</b>            Khai Tung Wong            AUSTRALIA</p> <p><b>Network level road investigation trial using Australia made traffic speed 3D ground penetrating radar (GPR) technology</b>            Wayne Muller            AUSTRALIA</p>	<p><b>Assessment of concrete durability using a single parameter with a high level precision – the VPV test</b>            Fred Andrews-Phaedonos            AUSTRALIA</p> <p><b>Low calcium fly ash geopolymers – a promising sustainable alternative for rigid concrete road furniture</b>            Didar Singh Cheema            AUSTRALIA</p> <p><b>Assessing analytical method in carbonation of cement treated base material</b>            Alireza Rezagholilou            AUSTRALIA</p>	<p><b>Risk-based economic evaluation of pavement construction options</b>            Caleb Giblett            NEW ZEALAND</p> <p><b>Sustainable infrastructure operations: A review of assessment schemes and decision support</b>            Arun Kumar            AUSTRALIA</p> <p><b>The Australian low carbon transport forum: identifying the greenhouse gas abatement potential of the Australian transport sector</b>            Caroline Evans            AUSTRALIA</p> <p><b>Road program evaluation: assessing the bigger picture</b></p>

				<b>Influence of recycled fine material on hardened pavement quality concrete</b> G.D.Ransinchung INDIA	Wayne Davies AUSTRALIA
				<b>Evaluation of the use of steel slag in rigid pavements</b> Sanaz Kazemzadehazad IRAN	

12.30 pm	1.30 pm	Lunch			<b>Exhibition hall (Grand River Ballroom)</b>
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**1.30 pm – 3.00 pm Parallel technical sessions & workshops 4**  
**4. 7 The Sprayed Sealing Alliance workshop will be held at the Good Earth hotel parallel to these sessions**

4.1 Pavement materials (Room: Hamersley)	4.2 Microsimulation & advanced modelling I (Room: Golden Ballroom North)	4.3 Traffic signals & intersections (Room: Golden Ballroom South)	4.4 Asset management II (Room: Golden Ballroom Centre)	4.5 BUT WILL IT WORK? Choosing and evaluating road safety treatments workshop (Room: Mt Newman)	4.6 Condition data collection, management & analysis (Room: Goldsworthy)
<p><b>A new procedure to lime stabilising pavement subgrades for Queensland Department of Transport and Main Roads</b> Paul Wilson AUSTRALIA</p> <p><b>Foamed bitumen stabilisation in New Zealand: A performance review and comparison with current Australian and South African philosophy</b> Allen Browne NEW ZEALAND</p> <p><b>Laboratory investigation on use of pond ash - plastic waste composite in stone matrix asphalt</b> Pramod Kumar Jain INDIA</p>	<p><b>Effect of turning angle on collective panic egress: experimental evidences and pedestrian crowd simulation</b> Kelvin Goh AUSTRALIA</p> <p><b>Extent of traffic shockwave velocity propagations induced by u-turn facility on highway segments</b> Raha Abd. Rahman MALAYSIA</p> <p><b>Effect of land use change on traffic peak hour factor</b> Motsepe Herbert Phahlane SOUTH AFRICA</p>	<p><b>The application of SmartRoads in reviewing traffic signal operation in Melbourne</b> Anthony Fitts AUSTRALIA</p> <p><b>Issues in performance assessment of sign-controlled intersections</b> Rahmi Akcelik AUSTRALIA</p> <p><b>SCATSIM/VISSIM interface as a platform for performance evaluation of signalised intersections</b> Zarko Andjic AUSTRALIA</p> <p><b>The use of genetic algorithms to identify traffic conditions for optimised arterial performance</b> David Johnston AUSTRALIA</p>	<p><b>Work effects due to pavement year or seal year changes</b> David Kennedy AUSTRALIA</p> <p><b>Review of vehicle operating costs and road roughness: Past, current and future</b> Fiona Tan AUSTRALIA</p> <p><b>A review of the application of economic evaluation practices to maintenance and other asset management expenditures</b> Thorolf Thoreson AUSTRALIA</p> <p><b>The development of a heavy vehicle roughness band index (HVRBI)</b> Ulysses Ai AUSTRALIA</p>	<p>Progressing towards a road system that matches the Safe System vision requires accurate knowledge of the effectiveness of road safety treatments. A lack of reliable information has been an impediment to more effective road safety programs. A number of new documents on assessing effectiveness and evaluation of road safety treatments (published by Austroads and the OECD International Transport Forum) go some way to addressing this situation. This workshop will introduce the reports and explain how they can be applied in practice. Discussion at the workshop will focus on undertaking proper evaluations in the current economic climate, transferability of Crash Modification Factors, coordinating activities to address knowledge gaps and future challenges. It is expected that the outcome of the discussion will provide guidance for future</p>	<p><b>Multi-point rut algorithm using LRMS data</b> James Erskine AUSTRALIA</p> <p><b>Cracking – a tale of four systems</b> Roland Leschinski AUSTRALIA</p> <p><b>Application of wavelet theory to find correlation between readings of two deflection measuring devices</b> Justin Weligamage AUSTRALIA</p> <p><b>Risks and benefits in changing crack collection methods</b> Hui Chen AUSTRALIA</p>

The performance of bituminous mixes using Indonesian natural asphalt Furqon Affandi INDONESIA					research in this area and also seek ways to facilitate dialogue and coordinate activities.	
3.00 pm	3.30 pm	Afternoon tea			Exhibition hall (Grand River Ballroom)	
3.30 pm – 5.00 pm Parallel technical sessions & workshops 5						
5.1 Lighting & noise (Room: Goldsworthy)	5.2 Trip generation, modelling & predictions (Room: Golden Ballroom North)	5.3 Road safety engineering II (Room: Golden Ballroom South)  Session sponsored by:  RAC members are happier	5.4 Pavement management (Room: Golden Ballroom Centre)	5.5 Asphalt (Room: Hamersley)	5.6 Current, emerging and future asset management practice workshop (Room: Mt Newman)	
A new road lighting guideline for railway crossings in New South Wales Ganesh Vengadasalam AUSTRALIA	A new approach for trip generation estimation for use in traffic impact assessments Jonathan Bunker AUSTRALIA	A revised technical foundation for cross-section for rural roads in QLD Owen Arndt AUSTRALIA	The impacts of hotter climate on the cracking of concrete pavements Rudi van Staden AUSTRALIA	Analysis of the stiffness variability in asphalt layers using the Monte Carlo simulation Laszlo Petho AUSTRALIA	This workshop should be of interest to all levels of road asset management practitioners, that is, from strategic analysts to annual work program managers. The workshop aims to make them aware of current best practice, emerging practices and technologies and the future challenges, including the impact of heavy vehicles, road safety, climate change, reduction in Green House Gas (GHG) emissions, rolling resistance and overall risk management on asset management. Many of the future challenges are covered by a related Plenary Session, whereas the implications of the Safe System will be covered in a separate workshop. The workshop is also an opportunity for all participants to have an input to the identification of future research and development needs.	
The effects of vertical speed control devices on vehicle speed and noise emission Basil David Daniel NEW ZEALAND	A continuum flow model for Perth's freeways Graham Jacoby AUSTRALIA	Crash test outcomes for three generic barrier types Bernard Hammonds AUSTRALIA	Collaborative contracting – how the Foveaux Alliance contract enabled Southland District during the global financial crisis David Connell NEW ZEALAND	Effect of geogrid reinforcement on critical responses of bituminous pavements Satish Pandey INDIA		
The effects of improved vehicle technology on the design of acceleration and deceleration lanes at freeway entry and exit ramps Jason Keys AUSTRALIA	Upstream and downstream detection to improve congested network operation David Chin AUSTRALIA	Main Roads roadside hazard rating Jan Karpinski AUSTRALIA	Concrete pavement maintenance on National Route 3, South Africa Anna-Carin Brink AUSTRALIA	The linear visco-elastic behaviour of asphalt mixture under dynamic loading conditions Mahyar Arabani IRAN		
Victorian freeway lighting and its underlying principle Tapash Saha AUSTRALIA	Bus and car travel time on urban networks integrating bluetooth and bus vehicle identification data Ashish Bhaskar AUSTRALIA		Evaluation of the Accelerated Road Rehabilitation Program (ARRP) Clifford Naude AUSTRALIA			
6.00 pm	9.00 pm	25 <sup>th</sup> ARRB Conference Interchange Networking Function			Royal Perth Yacht Club	

## Wednesday 26 September 2012

Start time	End time	Session	Location		
8.00 am	9.00 am	Registration & welcoming tea and coffee	Exhibition hall (Grand River Ballroom & Foyer)		
9.00 am	10.30 am	<p><b>Australasian Transport Research Forum (ATRF) opening &amp; keynote address</b></p>  <p><b>Keynote speakers:</b>  <b>Ms Sue McCarrey</b>, Acting Director General – Department of Transport Western Australia  <b>Ms Dorte Ekelund</b>, Executive Director, Major Cities Unit, Infrastructure Australia  <b>Mr Peter Cock</b>, Chief Operating Officer, Perth Airport</p>	Plenary room (Golden Ballroom)  (ARRB delegates welcome)		
10.30 am	11.00 am	Morning tea	Exhibition hall (Grand River Ballroom & Foyer)		
<b>11.00 am – 12.30 pm Parallel technical sessions &amp; workshops 6</b>					
<b>6.1</b> Low volume roads (Room: Golden Ballroom South)	<b>6.2</b> Microsimulation & advanced modelling II (Room: Golden Ballroom Centre)	<b>6.3</b> Asset management and safe systems workshop (Room: Mt Newman)	<b>ATRF session:</b> Financing transport infrastructure (Room: Hamersley)	<b>ATRF session:</b> Transport infrastructure (Room: Goldsworthy)	<b>ATRF session:</b> Transport networks (Room: Golden Ballroom North)
<p><b>Performance of pavements constructed with expansive clay</b> Shamim Anwar AUSTRALIA</p> <p><b>Mechanical behaviours of base course materials in Western Australia</b> Suphat Chummuneerat AUSTRALIA</p> <p><b>Optimum design of sustainable sealed low volume roads using the Dynamic Cone Penetrometer (DCP)</b> Philip Paige-Green SOUTH AFRICA</p> <p><b>Development of design guideline for rural low volume roads in Malaysia</b> Sufiyan Zakaria MALAYSIA</p>	<p><b>Investigating efficiency at level crossings: simulation of road and rail signalling improvements</b> Matthew Hall AUSTRALIA</p> <p><b>A review of traffic growth rate calculations</b> Simon Kenworthy-Groen AUSTRALIA</p> <p><b>Hybrid modelling with integrated adaptive SCATS signals</b> Antony Johnstone AUSTRALIA</p> <p><b>Dissecting the basic fuel consumption equation into its components to improve adaptability to changing vehicle characteristics</b> Bob Lloyd AUSTRALIA</p>	<p>The workshop will summarise the outcomes of the recent Austroads project, AT1692 – Asset Management within a Safe Road System Framework. The workshop will provide a chance for participants to discuss opportunities and barriers in balancing maintenance vs. safety objectives.</p> <p>The workshop will also provide a forum for Asset Managers and Road Safety practitioners to come together, with the goal of creating greater understanding of the impact that each discipline has on the other.</p>	<p><b>Developing a train crowding economic costing model and estimating passenger overcrowding cost of Sydney CityRail network</b> Baojin Wang Julieta Legaspi AUSTRALIA</p> <p><b>Application of above average crash costs in road infrastructure cost benefit analysis: a case study example</b> Mark Best AUSTRALIA</p> <p><b>Modelling the impact of a freight charge on Sydney container traffic</b> Neil Douglas Matthew Jones NEW ZEALAND</p>	<p><b>1966 and all that: a tale of transport policy and integration in Western Australia</b> Ian Ker AUSTRALIA</p> <p><b>Towards an “intelligent” national road use management strategy</b> Murray Hollis AUSTRALIA</p> <p><b>Planning for effective project pipelines</b> Peter Bannister AUSTRALIA</p>	<p><b>Understanding large transport network performance subject to unexpected traffic demand</b> Hassan Sabzehali Majid Sarvi Iradj Ouveisy AUSTRALIA</p> <p><b>The spatial interactions between public transport demand and land use characteristics in the Sydney greater metropolitan area</b> Chi-Hong Tsai Corinne Mulley Geoffrey Clifton AUSTRALIA</p> <p><b>Evaluating the impact of bus network planning changes in Sydney, Australia</b> Corinne Mulley Chinh Ho AUSTRALIA</p>

12.30 pm	1.15 pm	Lunch	Exhibition hall (Grand River Ballroom & Foyer)
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1.15 pm - 2.45 pm Parallel technical sessions & workshops 7

7.1 Road safety III (Room: Golden Ballroom South)	7.2 Getting the best out of Managed Freeways workshop (Room: Mt Newman)	7.3 Subgrades (Room: Golden Ballroom Centre)	ATRF session: Transport modelling (Room: Hamersley)	ATRF session: Urban transport & mobility (Room: Goldsworthy)	ATRF session: Transport logistics (Room: Golden Ballroom North)
<p><b>Aspects of engineering approaches to reduce speeds and speed related crashes on rural highways of Bangladesh</b> Md. Mazharul Hoque BANGLADESH</p> <p><b>Star rating road designs performance indicators for roads in India</b> Luke Rogers AUSTRALIA</p> <p><b>Risk based prioritisation of remedial works identified through road safety audit</b> John Hughes AUSTRALIA</p>	<p>How do we ensure we get the best out of Managed Freeways?</p> <p>As Managed Freeways solutions are developed across Australia we need to build on lessons learned to ensure we achieve the best outcomes. This session will bring together public and private sector perspectives on best practice approaches to implementation, from concept development and design through to operations and maintenance. The session will cover:</p> <ul style="list-style-type: none"> <li>• latest national / international research and applicability</li> <li>• lessons learned from Melbourne, New Zealand and UK</li> <li>• new challenges / opportunities</li> <li>• public / private sector perspectives</li> <li>• research / practitioner perspectives</li> <li>• understanding outcomes.</li> </ul>	<p><b>On the swelling potential of remolded clays compared with undisturbed clays</b> Moshe Livneh ISRAEL</p> <p><b>Salinity in unbound granular road pavements (new)</b> Ryan de Carteret AUSTRALIA</p> <p><b>Trafficability assessment of salt crystaliser pavements in Western Australia</b> Srijib Chakrabarti AUSTRALIA</p>	<p><b>Pivoting in travel demand models</b> Andrew Daly James Fox Bhanui Patruni Frank Milthorpe AUSTRALIA</p> <p><b>Stated preference survey experiment design for transit-oriented development modelling</b> Li Meng Michael A P Taylor Nicholas Holyoak AUSTRALIA</p> <p><b>Assessing the uncertainty in micro-simulation model outputs</b> Sicong Zhu Luis Ferreira AUSTRALIA/TBA</p>	<p><b>Fifty years of public transport planning in Canberra</b> Paul Mees AUSTRALIA</p> <p><b>Public transport use in Australia's capital cities: modelling and forecasting</b> Afzal Hossain David Gargett AUSTRALIA</p> <p><b>Integrated urban transport and distributed systems for urban mobility: a convergence of ideas in sustainable transport?</b> Leigh Glover AUSTRALIA</p>	<p><b>Light freight vehicles – understanding their role in urban logistics</b> John Campbell John Dudgeon Ian Gould Ronnie Paulus AUSTRALIA</p> <p><b>Recent trends of New Zealand's international freight transport</b> Haobo Wang Joanne Leung NEW ZEALAND</p> <p><b>An analysis of container handling at Australian ports</b> Anatoli Lightfoot Godfrey Lubulwa Adam Malarz AUSTRALIA/T</p>

All delegates to move to the main plenary room

3.00 pm	4.30 pm	<p><b>Special Plenary session – Shaping cities: The role of transport planning in the future</b></p> <p><b>Dr Fred Affleck</b>, Chairman, Freight and Logistics Council of Western Australia</p> <p><b>Mr Gary Prattley</b>, Chairman, Western Australian Planning Commission</p> <p><b>Ms Lisa Scaffidi</b>, The Right Honourable The Lord Mayor, City of Perth</p>	Plenary room (Golden Ballroom)
4.30 pm	5.00 pm	ARRB Conference closing ceremony	Plenary room (Golden Ballroom)



The ATRF will continue on to Friday 28 September 2012  
Visit [www.arrb.com.au/ATRF2012](http://www.arrb.com.au/ATRF2012) for further information