



**2011 STUDY TOUR**

**Introduction to the AAPA 2011 Study Tour**

AAPA 2011 Pre-CAPSA'11 Study Tour - Introduction [www.aapa.asn.au](http://www.aapa.asn.au)

**2011 Study Tour Delegates**

**David Angell**  
Regional Manager, Road Services  
Western City Council  
2 Millennium Boulevard, CARINGALE, S.A.4217  
P: +61 7 3027 1170 M: +61 422 812 849  
E: david.angell@westerncity.gov.au  
Why on tour: Interested in SA approaches to pavement design, asphalt surfacing contractors & agents, WMA, ultra thin surfacings, use of fibre, smart pavement rehabilitation, reducing carbon footprint. Particular interest relates to urban areas. Background: 25 years with State Road Queensland involving construction, professional, government research & awareness of design & analysis approaches & manual. 3 years with Western City Council managing roads & drainage infrastructure maintenance & rehabilitation. BS CIVIL, MEng (Highways) BSc.

**Robert Bussell**  
Superior Surfacing Engineer  
Department of Transport, Energy & Infrastructure  
28 Bridge Road WILLOWBERRY, South Australia 5008  
P: +61 8 2422244 M: +61 418 847 570  
E: robert.bussell@sa.gov.au  
Why on tour: Interested how South African agencies manage their urban road network in terms of specification, selection and application of treatments. keen to understand the labour costs situation. Would appreciate contact with local agencies. Background: 22 years with State Transport South Australia including last years in pavement construction and 18 months with ARPA Group. The remaining time has been involved in provision of heavy sealing advice and training.

**Trevor Diller**  
Regional Technology Manager  
Road Repair  
Engineering House, 107 Duxton Road Road, PRETORIA  
New South Africa 2148  
P: +27 11 258 1087 M: +27 82 902 515  
E: trevor.diller@road.com.au  
Why on tour: Interested in the progress being made in the use of bitumen binders to seal & repair, high modulus asphalt and warm mix asphalt technologies. Other interests are P11 & surface preparation. Also to attend my 8th CAPSA conference. Background: Over 20 years experience in the Queensland roads industry. Previously employed by M&L, Lane and Salvo in South Africa. Been in the current position for the last 12 years.

**John Emswail**  
Principal Engineer - Specialised Technology  
Technique Technical Consulting, Adelaide  
17 Leavelle Street MIDDLEBURY, SA50  
P: +61 8 8346 5053 M: +61 438 148 781  
E: john@emswail.com.au  
Why on tour: Hope to learn and share with others who are applying in South Africa, including "selection" design materials, "pavement" design & equipment used. Interested in surface preparation of new areas prior to application of various seals. Also, maintenance practices and materials. Background: Over 40 years government construction and maintenance and a particular interest in urban surfacings for most of the 30 years with M&L. Currently engaged in a specialist sealing contract in Victoria. Technical Consulting.

**Peter Evans**  
Specialist Chief Engineer (Pavements, Materials & Environmental Engineering & Technology Division)  
Department of Transport and Main Roads  
11-13 Adelaide Street BRISBANE Queensland 4000  
P: +61 7 3237 7511 M: +61 417 861 382  
E: peter.evans@trm.qld.gov.au  
Why on tour: Participating interested in use of recycled rubber and all innovative pavement types. Background: 30 years experience mostly in road/Queensland construction and maintenance infrastructure. 3 years in

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Regional Director South West Queensland until February 2011  
Now heading up Queensland's Water and Environmental Division of I&T. I've long been interested in government - Local Government Steering Committee member, trials of BTL, and trials of rubber modified bitumen in the Queensland.

**Jaco Liebenberg**  
Principal Pavement Engineer  
Road  
302 Charlotte Street BRISBANE Queensland 4000  
P: +61 7 2218 2208 M: +61 422 867 322  
E: jaco.liebenberg@trm.qld.gov.au  
Why on tour: Presenting to learn aspects of the CAPSA conference. Accompany delegates from Australian Road Authorities in South Africa and share Southern Africa experience and network with them. Background: Regional Roads Engineer - Working Region, Free State Province, 1986 to 1990. Assistant Engineer at SA Engineers and Surveyors Consultants, 2000 to 2008. Involved in number of pavement rehabilitation projects in Southern Africa. QUD Principal pavement Engineer - 2009 - 2008. Masters degree (2002) in pavements. MEng (M&E) (Eng. MSc).

**Russell Lane**  
Principal Technologist (Urban Surfacing)  
Principal Engineer, Assets and Operations Division  
Queensland Department of Transport and Main Roads  
Pillar 30, Nathan Drive, 3 University Avenue  
MIDDLEBURY Queensland 5001  
P: +61 7 3367 5262 M: +61 428 871 072  
E: russell.lane@trm.qld.gov.au  
Why on tour: Learn from South African approaches for urban surfacings open high traffic, and low volume roads for seismic maintenance. Meet with Service/State consultation contacts on exchange & share knowledge and experience. Background: 20 yrs involvement in SA 1980's/90's, 4 yrs Road Asphalt (SA) Lab & Technical Supervisor, 9 yrs (Q)WA roads & E&S projects & QC audits programs, last 5 yrs. Heavy Region Assistant Asset Preservation and Maintenance, Asset Div. LA Unit.

**Eyn Neelgen**  
National Technical Leader  
Sustainable Infrastructure Science  
and Services Unit  
108 Burnson Highway WILLOWBERRY 5007  
Adelaide SA 5001  
P: +61 8 8991 1284 M: +61 436 047 175  
E: Eyn.Neelgen@trm.qld.gov.au  
Why on tour: See interests are all aspects of ground sealing and sealing systems. keen interested in forming a Southern Hemisphere Sealed Road Alliance. based in the interest shown after the 1st and 2nd International Sealed Road Conference. 17 years involved making experience with Department of Transport, South Australia, followed by 9 years experience in ground sealing research in ARPA Group. Was Chairman of the Queensland Sealed Road Alliance. based in the interest shown after the 1st and 2nd International Sealed Road Conference.

**Rob Vise**  
Government Specialist  
Assistant Regional Pavements Rehabilitation  
M&L Technology Division, 11 Emerald Road, MIDDLEBURY Queensland 4000  
P: +61 7 3237 5262 M: +61 412 514 481  
E: robert.vise@trm.qld.gov.au  
Why on tour: Learn about the status of the key issues in South Africa, about the local practitioners and share knowledge and contacts. Have worked on WMA type product implementation. Background: 22 years at State Transport Roads, 12 years National Director Sealed, last 22 years in ARPA in Queensland. MSc (Eng. Civil), Ph.D. (Eng. Civil), MEng (Civil).

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**Itinerary**

- 3<sup>rd</sup> to 19<sup>th</sup> September 2011
- Tour group 9 Australian roads people
  - o Researchers / State & LG Road Officials / Consultants
  - o Industry representatives / Asphalt suppliers
  - o Wide range of experience
  - o Skilled including professional engineers & technologists
- Five legs
  - o Cape Town / Pretoria / Durban / CAPSA'11 / KNP
- Four key issues

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**Key Issues**

- A. Surface Treatments
  - o Sprayed seals | Slurry seals | Surface rejuvenation
- B. Binders
  - o use of bitumen rubber in sprayed seals and asphalt wearing courses, availability and specification requirements including quality control measure to ensure compliance.
- C. Improving pavement performance
  - o modelling, accelerated testing, design methods & models, foam bitumen stabilisation and bitumen treated base experience and transfer of high modulus asphalt technology to RSA
- D. Sustainability
  - o recycling, warm mix asphalt, efforts to reduce carbon footprint, carbon calculators and impacts for road asset management

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**Comparisons**

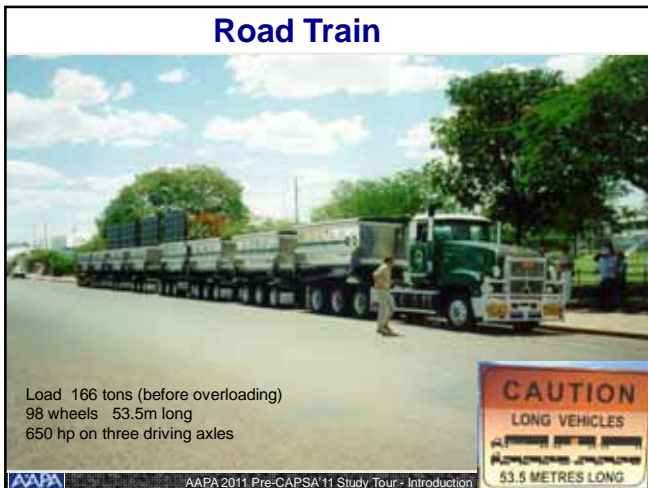
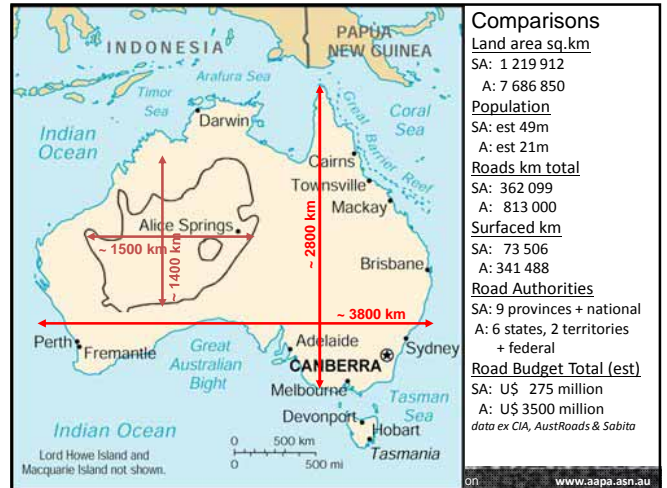
*In Africa, man is still part of the food chain*

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### Statistics

	South Africa	Australia	ratio
Land area (km <sup>2</sup> )	1 219 090	7 741 220	X 0.15
Population (June 2010 est)	49 004 031	21 766 711	X 2.2
Unemployment	24.9%	5.2%	-----
GDP US\$ purchasing power (b)	\$524	\$882	X 0.6
GDP / person	\$10 700	\$41 100	X 0.25
GDP growth rate (2009)	+2.8%	+2.7%	-----
Roads total length (km)	606 978	812 972	X 0.75
Roads paved (km)	153 719	341 448	X 0.45
Asphalt (million tonnes/annum)	4.5	9.5	X 0.47
Asphalt (tonnes/person)	0.09	0.4	X 0.22

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### COMPARISONS SUMMARY

Both:	Southern Hemisphere Different to Europe & North America
Similar:	traffic, climate, technology same suppliers
Different:	funding, socio-political dynamic "commercialised" agencies opportunities to innovate SAT, Educational Chair, RPF
Potentials:	tyre pressure, user demands higher education, sharing technology & experience
Sport:	rugby, cricket, professionalism

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