



OUTCOMES AND ANALYSIS REPORT

**Roads Australia Technical Specifications and Procurement
Roadshow**

Friday 26 September 2014

PERTH

Breakout Session 1 – Technical Specifications

Breakout Session 2 – Procurement



Aims and objectives

Following the Roads Australia Board workshop and policy alignment session with road agency representatives in early 2014, it was agreed as part of the Communique and outcomes to prioritise and consider:

standardisation and harmonisation of technical specifications and procurement, where possible, including incentives, insurance and materials

The technical specifications and procurement roadshow workshops are the first step in beginning the conversation with road agencies, Austroads, ARRB, Standards Australia and RA member companies.

The aim and objectives of these workshops is to involve all relevant players within the industry to provide feedback and real life examples to consider which technical specifications could be standardised and/or harmonised to drive innovation, reduce the cost of infrastructure and work collaboratively across jurisdictions.

The series of workshops will form the basis for an end-of-year report to Austroads and state agency representatives for consideration of standardisation and harmonisation of technical specifications across jurisdictions where possible.

Roads Australia is undertaking this initiative in collaboration with all relevant players in the industry and looks forward to feedback from all parties. The outcomes and analysis report from each of the sessions will become a 'living document' for feedback.



Breakout Session 1 – Technical Specifications

Key themes identified in groups

- Roadside barriers/wire rope safety barriers/temporary barriers
- Traffic management/control at worksites
- Asphalt specifications
- Pavement specifications
- Signage
- Recycled/warm asphalt

<p>Question 1</p> <p>With regards to the key areas/themes listed in the outcomes & analysis documents from the Sydney, Brisbane & Melbourne workshops, please identify the highest priority for standardisation and/or harmonisation for the specifications listed below.</p> <p>Please number in priority order.</p> <ol style="list-style-type: none"> 1. Road barriers / temporary barriers 2. Traffic management/control at worksites 3. Asphalt specifications 4. Pavement specifications 5. Signage 6. Recycled/warm asphalt 	<p>Group 1</p> <ol style="list-style-type: none"> 1. Asphalt specifications, recycled/warm asphalt 2. Traffic management/control at work sites, road barriers/temporary barriers, signage 3. Pavement specifications
	<p>Group 2</p> <ol style="list-style-type: none"> 1. Traffic management/control at work sites, road barriers/temporary barriers, signage 2. Asphalt specifications 3. Pavement specifications 4. Recycled/warm asphalt
	<p>Group 3</p> <ol style="list-style-type: none"> 1. Traffic management/control at work sites, road barriers/temporary barriers 2. Asphalt specifications, recycled/warm asphalt 3. Pavement specifications 4. Signage
	<p>Group 4</p> <ol style="list-style-type: none"> 1. Traffic management/control at work sites, road barriers/temporary barriers 2. Asphalt specifications, recycled/warm asphalt 3. Pavement specifications 4. Signage
	<p>Group 5</p> <ol style="list-style-type: none"> 1. Asphalt specifications 2. Pavement specifications 3. Recycled/warm asphalt 4. Traffic management/control at work sites 5. Road barriers/temporary barriers 6. Signage

	<p>Group 6</p> <ol style="list-style-type: none"> 1. Traffic management/control at worksites 2. Road barriers/temporary barriers 3. Signage 4. Asphalt specifications 5. Recycled/warm asphalt 6. Pavement specifications
	<p>Group 7</p> <ol style="list-style-type: none"> 1. Traffic management/control at worksites 2. Signage 3. Asphalt specifications 4. Road barriers/temporary barriers
	<p>Group 8</p> <ol style="list-style-type: none"> 1. Traffic management/control at worksites 2. Pavement specifications 3. Signage 4. Road barriers/temporary barriers 5. Asphalt specifications 6. Recycled/warm asphalt
	<p>Group 9</p> <ol style="list-style-type: none"> 1. Asphalt and pavement specifications (including recycled/warm asphalt) 2. Road barriers/temporary barriers 3. Traffic management/control at worksites 4. Signage

	<p>Group 10</p> <ol style="list-style-type: none"> 1. Traffic management/control at worksites 2. Road barriers/temporary barriers 3. Pavement Specifications 4. Asphalt specifications 5. Signage 6. Recycled/warm asphalt
	<p>Group 11</p> <ol style="list-style-type: none"> 1. Traffic management/control at worksites 2. Road barriers/temporary barriers 3. Pavement Specifications 4. Signage 5. Asphalt specifications 6. Recycled/warm asphalt
<p>Question 2</p> <p>In relation to Question 1 (above), please provide a clear example/s where duplication and/or over prescription (of the identified technical specification) could be eliminated? Please be specific.</p>	<p>Group 1</p> <ul style="list-style-type: none"> • Materials specifications for concrete are as per Australian standards, asphalt has local standards • Over prescription in relation to road temperature and moisture in asphalt, results severe programme restrictions • Over prescribed plant e.g. bit sprayer, irrespective of job size. Must be minimum 10,000 litres. • National specification/harmonisation should be a priority. <p>Group 2</p> <ul style="list-style-type: none"> • With road signage/markings: every state should be using the same standards • Definition of road barriers/temporary barriers <p>Group 3</p> <ul style="list-style-type: none"> • SWTC – minimum pavement thickness, different pavement specifications for alliances, PPPs, D&Cs, Construct-only, ECIs, allow designers & contractors to challenge them • Bridge specifications – super teqs and steel vs. t-offs

	<p>Group 4</p> <ul style="list-style-type: none"> • Minimum pavement thicknesses specified in the SWTC can be too restrictive, especially for a D&C contract • 50mm of wearing source specified on a D&C road contract which is needed to be removed 2 years later • WA may be missing out on cost savings opportunities with structures due to the reluctance to adopt different bridge types – super tees vs. t-offs.
	<p>Group 5</p> <ul style="list-style-type: none"> • Standard specs need to have regional properties requirements • Regional harmonisation • Collaborative improvement processes
	<p>Group 6</p> <ul style="list-style-type: none"> • SWTC's/Specifications are over prescriptive pm MRWA projects and/or have conflicting requirements • Often asking for a higher standard of pavement than is required – should be left to designer to determine standard of pavement for specific locations
	<p>Group 7</p> <ul style="list-style-type: none"> • Traffic Management code of conduct for WA is onerous and duplicates Australia standard, need standardisation of ITS, not enough automation in delivery of mobile works, Truck-mounted alternators specifications not clear with national guidelines • Asphalt and pavement - temperature requirements for laying asphalt – onerous and overly prescriptive, could adopt winter standard, specification excludes local material • For all specifications there are no clear method for carrying out trials
	<p>Group 8</p> <ul style="list-style-type: none"> • Asphalt specifications – very prescriptive, laying temperatures very high minimum temperature in WA, obsession with dry-back in WA, bitumen grades not consistent across Australia, asphalt specifications quite different in Northern NSW to Southern QLD, what about local councils and their specifications? • Recycled asphalt – very low %RAP allowed

	<p>Group 9</p> <ul style="list-style-type: none"> • WA needs to consider asphalt specification from around the world • Bitumen, poly modifiers • Permeability, durability, air void content, bitumen content • Seals , joint preparation <p>Group 10</p> <ul style="list-style-type: none"> • Overly prescriptive in pavement standards. More thinking in performance criteria rather than specifying pavement thickness • Traffic management – the MWRA specification only meets Aust. standard when it could exceed it. The guidance note does not distinguish between road conditions e.g. highways and other roads – MWRA overly prescriptive. Seen better in east coast standards.
<p>Question 3</p> <p>Can you provide an example/s of where proven technology/materials from international jurisdictions has taken a lengthy amount of time in the approvals process? And provide suggestions to fast track the process.</p>	<p>Group 1</p> <ul style="list-style-type: none"> • Stone mastic asphalt • Warm mix asphalt • EME 2 high strength asphalt • R.A.P. in wearing course • Could be performance-based with greater risk to the contractor <p>Group 2</p> <ul style="list-style-type: none"> • Traffic barriers • Crush barriers being used in on estate should be able to be used in other states which will contribute to money savings • Restriction of international innovation materials due to time approvals <p>Group 3</p> <ul style="list-style-type: none"> • Use of C600 binders <p>Group 4</p> <ul style="list-style-type: none"> • Use of C600 binder in pavements has been used on east coast for a while but only recently accepted here <p>Group 5</p> <ul style="list-style-type: none"> • Warm mix and spec 510 air voids acceptance – 8 years

	<p>Group 6</p> <ul style="list-style-type: none"> • ITS systems, hard shoulder running • Integral bridges (joint-less/no bearings) • Weathering steel for bridges • Steel from overseas? • Use of overseas design standards (euro codes) to realise material/quantity savings • Composite materials in structures • PVC culverts • More demonstration projects
	<p>Group 7</p> <ul style="list-style-type: none"> • ITS • Road space booking • Managed motorways • Traffic management • Average speed cameras • Traffic management cones – too light, too small • Have a fast track approval process
	<p>Group 8</p> <ul style="list-style-type: none"> • Road barriers – no standards across Australia, 14 types in use, imported ones delayed (Austroads), Pavement specifications innovation allowed?
	<p>Group 9</p> <ul style="list-style-type: none"> • Seal removal • Recognition that air void/density is the key to minimising permeability • Treating deep lift in the mindset of granular pavement
	<p>Group 10</p> <ul style="list-style-type: none"> • Street lighting – LEDs and poles with crash worthiness (Gateway experience) • Barriers – looking at products already approved by another Road Authority • National accreditation for products (e.g. SA accepted a barrier prior approved by Vic Roads) • Generally experience delays with manufactured/proprietary systems/long delays to approval
	<p>Group 11</p> <ul style="list-style-type: none"> • Barriers – Armazon, T-block, iron • Truck mounted barrier – CEA

<p>Question 4</p> <p>Where has it been difficult to innovate or get approval for new and/or recycled materials? Please provide suggestions to overcome any current barriers.</p>	<p>Group 1</p> <ul style="list-style-type: none"> • Suggestion to overcome barriers: 1. Specification harmonisation – take on board eastern states and international knowledge and practices. 2. Current AAPA research shows bitumen asphalt are the same all over Australia NB. WA is not different.
	<p>Group 2</p> <ul style="list-style-type: none"> • Bitumen – need to start doing trials to get approvals
	<p>Group 3</p> <ul style="list-style-type: none"> • Use of recycled asphalt profilings – fill material and environmental issues with it, plastic pipes
	<p>Group 4</p> <ul style="list-style-type: none"> • Use of recycled asphalt profilings in pavement
	<p>Group 5</p> <ul style="list-style-type: none"> • Crushed recycled concrete – asbestos risk • Bitumen/emulsion stabilisation – acceptance and use in some regions/but unified specification • Appropriate asphalt standards
	<p>Group 6</p> <ul style="list-style-type: none"> • Allocate funding, research/investigate international practice • Acceptance of risk during demonstration projects
	<p>Group 7</p> <ul style="list-style-type: none"> • Any changes to asphalt (could allow more RAP) • Use of temporary road barriers • LED lighting • Could look at building at contractors risk (i.e. PPP)
	<p>Group 8</p> <ul style="list-style-type: none"> • % recycled materials too low to offset cost • Warm asphalt has been a long journey • Trial after trial but no definitive outcome – local only for each state takes a long time and unnecessary when already proven elsewhere – do national • Performance of recycled materials
	<p>Group 9</p> <ul style="list-style-type: none"> • Increasing RAP content

	<p>Group 10</p> <ul style="list-style-type: none"> • Use of glass (crushed) trial for Gateway • Ferriate - does not meet specification • Need to take some of the risk of an alternative material to drive innovation (shared risk with contractor - and savings) • Use evidence of success in other jurisdictions • Experience of MRWA project team being keen to adopt but knocked back in MRWA approvals process • Crushed concrete in pavements <p>Group 11</p> <ul style="list-style-type: none"> • Pavements : Spec. or SWTC stop, 501 innovations, alliances CEA – warm asphalt, such as composite pavements
<p>Question 5</p> <p>Do you think that asphalt specifications could be standardised across jurisdictions?</p> <p>And if so, why?</p>	<p>Group 1</p> <ul style="list-style-type: none"> • Yes. Is currently being worked on by industry and will result in wider construction envelopes and better value for money <p>Group 2</p> <ul style="list-style-type: none"> • No, it shouldn't be standardised due to diversity of climate and the difference on materials. <p>Group 3</p> <ul style="list-style-type: none"> • To an extent, but needs to recognise the different environmental conditions - moisture content % <p>Group 4</p> <ul style="list-style-type: none"> • Can be but it is difficult due to the different conditions. May provide cost efficiencies due to different supply options. <p>Group 5</p> <ul style="list-style-type: none"> • Yes, there is benefit but must recognise the difference. <p>Group 6</p> <ul style="list-style-type: none"> • Yes, within boundaries of taking local climatic considerations into account <p>Group 7</p> <ul style="list-style-type: none"> • Yes, too allow greater periods of laying. Greater access to interventional best practice. <p>Group 8</p> <ul style="list-style-type: none"> • Yes, been done elsewhere in the world • National suppliers of products/raw materials and producers national <p>Group 9</p> <ul style="list-style-type: none"> • Yes, but need to consider supply of raw materials and environment

	<p>Group 10</p> <ul style="list-style-type: none"> • No – too much variation in climates, materials, manufacturers, project environments (think lift) • Laying of asphalt could be standardised – workmanship is a common factor in failures <p>Group 11</p> <ul style="list-style-type: none"> • Certainly could be considered • Local material may influence • Bituminous product ,ay also influence • Supply of product from Singapore
<p>Question 6</p> <p>Do you think performance based specifications would provide better Value for Money?</p>	<p>Group 1</p> <ul style="list-style-type: none"> • Yes, are being worked on <p>Group 2</p> <ul style="list-style-type: none"> • In terms of asphalt and pavements specifications – yes, it will provide VfM • The way contracts are procured would provide the value for money <p>Group 3</p> <ul style="list-style-type: none"> • Yes, but need to retain control • Meet the functional requirements <p>Group 4</p> <ul style="list-style-type: none"> • Yes, but they need to be <p>Group 6</p> <p>Yes, depends on length of defects correction period/liability period</p> <p>Group 7</p> <p>Yes. This would allow contractors to incorporate whilst still achieving the same results.</p> <p>Group 8</p> <ul style="list-style-type: none"> • Network owner to not change performance criteria i.e. set in stone at start of project but lasts for a very long time <p>Group 9</p> <ul style="list-style-type: none"> • Workmanship discussion <p>Group 10</p> <ul style="list-style-type: none"> • Depends on whole of life requirements and commercial appetite, particularly with 7 year DLP in D&C projects • Yes, if there is a fair distribution of risk • In D&C contracts would adopt innovation (e.g. modified materials) but constrained by prescriptive SWTC rather than a solution which would deliver VfM

	<ul style="list-style-type: none"> • Performance-based specifications – drives innovation by enabling contractors to bring smarts to the table – reducing costs.
<p>Question 7</p> <p>Other comments/suggestions for inclusion</p>	<p>Group 11</p> <ul style="list-style-type: none"> • To give VfM the specification need to have contract specific parameters, but allow flexibility • We need to sort out asphalt specification before we start have to look at – warm asphalt
	<p>Group 1</p> <ul style="list-style-type: none"> • Less MRWA reliance on materials • Engineering branch – be more open to interstate and international research <p>Remove the 'we are different in WA'</p>
	<p>Group 2</p> <ul style="list-style-type: none"> • Ambitious project for standardisation • Steering and implementation group should be implemented • Commercial mechanisms for technical performance e.g. 7 year bonding is not the best mechanism for performance
	<p>Group 6</p> <ul style="list-style-type: none"> • State government providing guidelines for more targeted research and demonstration projects
	<p>Group 7</p> <ul style="list-style-type: none"> • Greater inclusion of ITS, Managed Motorways, etc. • There is a traditional focus on the asset management over network operation, particularly in specifications
	<p>Group 8</p> <ul style="list-style-type: none"> • How to deliver national consistency? • Austroads as champion to drive/regulate national standards • Probity issues with new ways • Greater collaboration between network owner/operator and industry – partnership model • Develop path to deliver steps/timing
<p>Group 9</p> <ul style="list-style-type: none"> • Vision for ITS • Asphalt • Noise walls, design life • Outcome matrix (KPI's) • Recycled building waste (testing criteria) • Uniformity of testing standards example (content for bitumen) 	

	<p>Group 10</p> <ul style="list-style-type: none">• If 'new technology' is proven in other jurisdictions including overseas then this should be taken into consideration <p>Group 11</p> <ul style="list-style-type: none">• Traffic management• Single body overseeing auditing, licencing, policing, fining and accessing• Review how traffic management is priced on contracts - have a provisional sum
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Breakout Session 2 - Procurement

Key themes

- Too many/late addenda
- Tender briefings are thorough, but only useful if new information is provided
- Open, honest and specific feedback is very useful
- Generally feedback after close of tender is well done and helpful, though more feedback from smaller project tenders could be offered
- Standard of documentation is superior to other industry sectors, however, it is not always provided at the beginning of the process
- Assessment and award period in some cases is too long
- More transparency as to the evaluation criteria and weighting
- Better upfront planning
- Better use of website to manage tender company's frequently submitted information – such as relevant experience, management and personnel information

<p>Question 1</p> <p>Please provide an example/s of the where you think the briefing/interactive process UP TO the close of tender/ROI has and has not worked well. Please identify the State.</p>	<ul style="list-style-type: none"> • Generally okay in WA • Reid Highway Duplication D&C (WA) - multiple addenda and scope changing right up to the end – risk increase – will inflame price. • Tender briefings are often a waste of time. Nothing new is introduced, information provided is very sterile, yet these are compulsory. Should only be held if explaining requirements in more details and add to the RFP documents. • Compulsory briefings for simple jobs where no new info or specific info provided, time wasted and cost dependent on location • Realistic tender period • Industry briefings and consultation leading up to the EOI & RFP for the ISAs were very thorough allowing industry to prepare and respond to the unusual contract model. The early meetings allowed industry to offer input to MRWA to finally shape the contract model and scope. • In the D&C process when the outcome after all proponents have met with MRWA is an addendum which changes aspects of the SWTC which leads to design changes – leading to additional tender costs and time implications. It happens when a proponent’s design has required the change but this only reflects their requirements to the detriment of another proponent. • The Main Roads WA document management system (accessed via MRWA website) is clumsy, slow and cumbersome. Sorry, I know it’s a state government requirements – but it drives us nuts!
<p>Question 2</p> <p>Please provide an example/s of the where you think the briefing/feedback process AFTER the close of tender or ROI including (where appropriate) the tender debrief has and has not worked well? Please identify the State.</p>	<ul style="list-style-type: none"> • WA debriefs are well done, but additional information rather than less would be of benefit. How else can the industry improve if information is withheld? • No comment, but to add to the conversation - missed comment on asset maintenance side - e.g. specification for maintenance as approved to construction. There are significant differences for maintenance having to be done under traffic or quickly to re-open a road. Different circumstances and different needs – maybe something for Ra to work on? • Debrief for smaller projects not always happening – if it happens, prices are not disclosed – you are not able to gauge the quality of your tender. ‘West Coast Duplication’ No tender debrief. • Information provided is very sterile and vanilla, whilst any feedback is good – there is a lot more valuable information that could be provided – this is after the fact and therefore cannot affect outcomes. At the end of the day – quality feedback will lead to higher quality submissions in future – value to the State. • Generally no feedback, a range of prices and contracts would assist demands of the market • Feedback provided after ISAs was detailed providing useful learnings for future tenders

	<ul style="list-style-type: none"> • Debrief process has improved significantly in last 3 years. The formal report provided greatly assists proponents as to where their EOI/RFP was strongly average or weak. It allows proponents to benchmark against others to improve future submissions to MRWA. • It is my personal experience that feedback is honest, well-considered and given the best intent to improve the procurement process – for MRWA and industry.
<p>Question 3</p> <p>In the last 12 months how would you rate the level and standard of tender documentation used in each State? Please be specific and list examples.</p> <p>Rating out of 10 0 = poor 10 = excellent</p>	<ul style="list-style-type: none"> • Typically, Main Road tender documentation in comparison to other industry sectors is far superior. • Where the process sometimes fails is in the subsequent issuance of tender addendum commentaries loses a bit with document control. • D&C contracts are overly restrictive and ambiguous in documents once reduced by principal's determination. • Northlink = rating 6. • Muchea Wubin = rating 6. Scope and deliverables not well-defined = rating 1 - 2. • D&C – pretty good, but over prescriptive in some areas. • Design – okay, but detail is scarce leading to a wide variety of submissions. • Panels – way too much information required and way too long to assess – many can take 6 months! • D&C contract documentation = 5, the documentation is so huge, it is impossible for one person to understand all the issues. Also there is multi-issues of addendums often with late change of scope. It would be helpful if the background material was collated in a logical order with non-relevant information either noted or left out. • It depends on the individual project. For instance, Great Eastern Highway - Bullabulling to Coolgardie was poor – but this is symbolic of it being fast-tracked to market (due to funding considerations). • It would be appreciated if full information was available from tender release. The late release of information (which is dated a couple of years before) is frustrating and leads to further tender costs – particularly in D&C bids where it influences design.
<p>Question 4</p> <p>Do you feel the assessment and award of contracts could be streamlined and/or fast tracked? Please be specific and list examples.</p>	<ul style="list-style-type: none"> • Yes, recently we had a period of 10 weeks between close of tender to award with no interim advice as to where the process was at. Lately the period from close of tender to award seems to be taking an inordinate amount of time independent of type of contract CO, D&D or an Alliance. • The award process takes too long leaving industry in doubt about winners or losers. You need to know quickly to plan the company workload. In case of ISAs, award was too prolonged with critical details being missed through the procurement process. • Yes.

	<ul style="list-style-type: none"> • Assessment and award of contracts is done fairly well by MRWA. The probity process, in particular, works well and gives 'comfort' as to the fairness of the process. • I would like to see the introduction of evaluation presentations by proponents in D&C bids post submission. Maybe not all of them but maybe the top two after the desktop review. I think the desktop assessment only does not give MRWA the best outcome in understanding issues that proponents have identified and where some future risks may lie. • Yes, often very long, ties up resources, cost to industry which needs to be recovered, quicker turnarounds would be greatly appreciated. • There is no need for the industry to repeat the same information for every tender. It would be simple to provide the companies relevant experience, management information and personnel in a simple register. Companies can then simply up to date as required. • Tenderers then supply methodology and price.
<p>Other comments/suggestions</p>	<ul style="list-style-type: none"> • Scrap panels. Streamline procurement instead. It will lead to stronger design industry, more diversity leading to more competition = better value for the state. • Why not post the tender results on the web! Also, why so little information on the results. Ranges of attributes and ranges of price would be help all of industry. Also, one evaluation method does not fit all. Look around the world and adopt a number of evaluation methods to match the project. • RTA put out bidding guidelines as to responding to questions. This could be adopted by MRWA which would greatly assist smaller and new entrant contractors.