

<b>Client</b>	Transport for New South Wales	<b>INSPECTION AND TEST PLAN FOR: R53 Concreting General</b>	<b>Work Area:</b>
<b>Contract No.#</b>			
<b>Contract</b>			<b>Inspection and Test Plan Number / Lot No:</b>
<b>Workplace Name</b>	A183 - New Dubbo Bridge		ITC-04 R53 Concrete for General Works

Legend:		W = Witness		H = Hold		S = Surveillance		ACPL = Abergeldie		S/C = Subcontractor	
Activity No.#	Description	Document Reference / Applicable Standard	Acceptance Criteria	Frequency/ Process Held	Inspection – Sign & Date				Verifying Records		
					S/C	ACPL	Client	Date			
1. Material Compliance											
1.1	Submission of Nominated Mixes	R53 CI 2.4.3	Where the nominated mix(es) has had production assessment carried out in accordance with AS 1379 Clause 6.3, submit the production assessment report complying with AS 1379 Clause 6.4.2. Include a statement from each material supplier certifying that the constituent materials meet the requirement of this Specification.	Once / 5 working days prior to commencement of production of mix		H	H			Mix Design Report	
2. Construction											
2.1	Notification of Concrete Placing and Finishing	R53 CI 3.3.1	At least 2 working days prior to the placing of concrete, provide notice of:  - Expected completion time of fixing of the formwork and reinforcement (if applicable) and; - Expected commencement date and time of placement of concrete	Once / At least 2 working days prior to each placement		H	H			HP Submission	
2.2	Concrete and Air Temperature / Rain	R53 CI 3.3.2  R53 CI 3.3.3	Do not place concrete in the works if its temperature at the point of discharge is less than 10C and more than 32C.  Do not place concrete if the measured air temperature is below 5C or above 35C.  Do not place concrete during rain or when rain appears imminent.	Once / prior to concrete placement		S	S			Project Quality Plan  Pour Record Sheet	
2.3	Placing and Compacting	R53 CI 3.3.4	Place concrete in such manner that: (a) limit segregation or loss of materials; (b) limit premature stiffening; (c) produce a dense homogeneous product which is monolithic between joints and edges; (d) provide the specified thickness and surface finish.  Carry out vibration in a regular and systematic manner to ensure that all the concrete is thoroughly compacted.  Where internal vibrators are used, they must have a minimum diameter of 50 mm with an operating frequency between 130 Hz and 200 Hz.	During Placement		S	S			Visual Inspection	

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2.4	<b>Unformed Surface Finish</b>	R53 CI 3.3.6	Finish unformed concrete surfaces in such manner that: (a) achieve the specified dimensions, grade and surface texture; (b) avoid plastic or drying shrinkage cracks.	During Construction		S	S		Visual Inspection
2.5	<b>Joints</b>	R53 CI 3.3.9	Roughen the surface of concrete at construction joints to expose the coarse aggregate. Wash clean the roughened surfaces and projecting reinforcement, and remove all excess water and loose material prior to placing the adjoining concrete.	During Construction		S	S		Visual Inspection
2.6	<b>Curing</b>	R53 CI 3.4	<p>Apply curing compound to unform surfaces immediately after the surface is firm and free of bleed water</p> <p>Apply curing compound at the rate specified by the manufacturer</p> <p>Apply two coats hen necessary to ensure complete and uniform coverage. The time between the first and second coat must be in accordance with the manufacturer's recommendation.</p> <p>During application, implement measures to prevent the curing compound drifting away from the target concrete surface and deposited on adjacent surfaces.</p> <p>Maintain the curing membrane intact until at least seven days have elapsed after concrete placement</p>	During Construction		S	S		Project Quality Plan
2.7	<b>Mortar, Grout and Sprayed Concrete</b>	R53 CI 3.6	Notify principal prior to placing of mortar, grout and sprayed concrete.	Prior to placing Mortar, grout or sprayed concrete		W	W		Visual Inspection

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3. Conformity									
3.1	Sampling and Testing (Concrete)	R53 CI 4.1.1	<p><b>Slump:</b></p> <p>Perform slump tests on each strength sample</p> <p><b>Strength:</b></p> <p>Each grade at a plant shall be sampled at a frequency of at least one sample per 100 m3 of that grade produced except that, for Grade 20 concrete when 15 or more samples per month are obtained, the frequency may be reduced.</p>	Prior to Placement		S	S		Slump Results  Strength Results
3.2	Cracking	R53 CI 4.2	At the end of the curing period, the concrete surface must have no unplanned cracks of width greater than 0.2 mm, measured at the concrete surface after completion of 21 days drying. Where such cracks exist, identify them as nonconformities.	Once / Prior to Lot Closure		S	S		Crack Map
3.3	Dimensions and Levels	R53 CI 4.3	<p>Dimensions and levels of surfaces constructed using fixed forms must be as shown on the Drawings or in the relevant Specification, and within the tolerances stated in AS 3610.1, unless specified otherwise on the Drawings or in the relevant Specification.</p> <p>Dimensions and levels of unformed exposed surfaces, and surfaces constructed by slipforming or extrusion, must be as shown on the Drawings, and within the tolerances specified in the relevant Specification.</p>	Once / Prior to Lot Closure		S	S		Survey Report

<b>REVIEW BY PROJECT MANAGER</b>									
Any non-conformances?		<input type="checkbox"/> YES	<input type="checkbox"/> NO	Nos:		Closed Out		<input type="checkbox"/> YES	<input type="checkbox"/> NO
All work has been satisfactorily completed.			<input type="checkbox"/> YES		<input type="checkbox"/> NO				
Name				Signature		Date			