INSPECTION & TEST PLAN

	Contract Name:				Rev:	Originator	Date	Approved	Date
ITP - Concrete Repair	Tangiteroria Bridge No 118 Strengthening	Hold Point (H)	Verify (V)		0	Cameron	17/09/2024		
		Submit (S)	Review (R)		1				
		Approve(A)	Witness (W)						
			Surveillance (SU)						

TASK	SPECIFICATION REFERENCE	TEST REQUIRED	INSPECTION BY	TASK TIMING OR TASK FREQUENCY	ACCEPTANCE CRITERIA	UCCL Signature	Engineer/ Client Signature	UCCL	Engineer/Client	DATE	COMMENTS
Materials											
Crack Injection Epoxy Resin	8.3.3	Delivery Dockets	UCCL, Beca		Dormant cracks up to 2mm width – Sikadur52 or Sikadur Injectokit-LV (Sika) Dormant cracks between 2mm and 5mm width – Sikadur52 Active cracks - MC-injekt2300 (MC-Bauchemie)			V	W		
Grout	8.4.4	Delivery Dockets	UCCL, Beca		Dormant cracks up to 10mm width – Sika Grout 215 (Sika), or in the following instances: - Where a crack repair is started with Sika Grout 215 and the crack reduces to no less than 2mm. - Conversely, a crack repair is started with Sika Grout 215 and the crack widens to no greater than 15mm. Dormant cracks greater than 10mm width – Sika Grout 212 (Sika), or where a crack repair is started with Sika Grout 212 and the crack reduces to no less than 6mm. Mortar Repairs shall be Sika Monotop 352 Micro-concrete repairs shall use Sika Monotop-428R			V	W		
Bonding Agent	8.5.4	Delivery Dockets	UCCL, Beca		All exposed concrete surfaces shall be prepared with Sika Monotop 910N			V	W		
Anodes	8.5.6	Delivery Dockets	UCCL, Beca		Anodes shall be Sika FerroGard-510 patch with a zinc content of 62g and shall be embedded with Sika FerroGard-500 Crete			V	W		
Concrete Coating	8.6.1	Delivery Dockets	UCCL, Beca		Concrete coating products shall be Sikagard-706 Thixo or Emer-stop Crème			V	W		
Installation and Testing											
Cleaning of concrete cracks	8.3.1 & 8.4.1	Visual Inspection	UCCL, Beca		Prior to epoxy, concrete surfaces shall be cleaned to reveal cracks and other defects. The bond surface is to be clean, dry, sound and free of contaminates to keep the injection system under pressure.						
Crack Treatment (Cracks <5mm)	8.3.2 & 8.3.3	Visual Inspection/ photos	UCCL, Beca		Crack treatment shall follow the PDS sheet for Sikadur injecto LV kit or Sikadur 52.						
Crack Treatment (Cracks >5mm)	8.4.3 & 8.4.4	Visual Inspection/ photos	UCCL, Beca		Formwork shall be constructed to prevent leakage of grout (sika 215). Bleed tubes shall be incorporated as necessary to avoid air entrapment. Grout shall be mixed following the manufacturers instructions and a grout pump shall be used to install the grout.						
Cleaning of concrete spalls	8.5.2, 8.5.3, 8.5.4, 8.5.5	Visual Inspection/ photos	UCCL, Beca		All damaged concrete shall be broken out with care as not to damage reinforcing. All edges shall be saw cut 10mm deep. Concrete shall be clean, dry, sound and free of contaminants. Reinforcing shall be clean and free of corrosion. Sika Monotop-910N shall be applied prior to grouting.						

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Spall Repair	8.5.7	Visual Inspection/ photos	UCCL, Beca		Where concrete cover is less than 30mm cover shall be made to be 40mm. Repairs exceeding 20L shall be completed using micro concrete. The surface shall be made good on completion						
Anodes	8.5.6	Visual Inspection/ photos	UCCL, Beca		Anodes shall be provided for all repairs of a volume greater than 20L. Anodes shall be positioned at a maximum 400mm centres, with an anode located within 100mm of each end of the repair. Anodes shall be installed as per manufactures guidelines. Anodes shall be installed into drilled holes of the parent concrete and shall be wired directly to cleaned reinforcing.						
Concrete Coating	8.6.1, 8.6.2,				Concrete coating shall be in accordance with the manufactures PDS. Consumption of product and site conditions shall be recorded. Trial applications shall be undertaken as per 8.6.2 of the specification to determine the number of coats required for the structure.						
Crack injection proving cores	8.7.1				50mm diameter by 300mm deep proving cores shall be taken after the first 5m of crack injection is complete. Cores shall be examined by the engineer.						
Concrete Coating proving cores	8.7.3										
Concrete Spalls testing	8.7.2										
Making good all core locations	8.7.1				All core locations shall be repaired as per the concrete spalls procedure.						
Post Construction											
As builts and Redline Markup		Asbuilt file	UCCL	Following completion of construction	As built drawings, redline markups			S	A		