

SPARK – North East Link – Primary Package

Inspection and Test Plan (ITP)

ITP Title: Cement Treated Crushed Rock

ITP Number: NEL-CNT-SDC-2990-PQA-ITP-0040 Rev.1


LOT Number: _____

Primary Asset Location Code: _____

Discipline: Pavement

OFFICIAL: Sensitive

Spark NELP Approval Record

Function	Position	Name	Signature	Date
Prepared By	Quality Representative	Joe Failla	Joe Failla	Digitally signed by Joe Failla Date: 2022.10.05 09:16:32 +11'00'
Reviewed By	Project Engineer	Domenic Ciccone	Domenic Ciccone	Digitally signed by Domenic Ciccone DN: C=AU, E=domenic.ciccone@sparknel-dc.com.au, O=SPARK, CN=Domenic Ciccone Date: 2022.10.05 09:42:59+11'00'
Approved By	Quality Manager	Greg Iro		Digitally signed by Greg Iro Date: 2022.10.05 09:57:10 +11'00'

Note:

1. Ensure all Records or Checklist References are attached and that each Inspection Requirement is clearly named, signed, and dated.
2. Ensure every Records or Checklist References attached are legible
3. This Inspection Test Plan may be generic – ensure the requirement is demographically clear to your scope of work
4. Verification Inspections where applicable for the IREA stated as "Witness" or "Hold" shall be formally notified for their engagement and with sufficient advance notice time (i.e. 3 days or as agreed with the Sub-IREA Representative and/or the Nominated Authority)
5. All Nominated Authority Hold Points are Witness Points for Sub-IREA
6. The Sub-IREA representative is not required to physically sign-off on ITPs

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Description: This ITP covers the placement of Cement Treated Crush Rock – Project Wide										Standards: VicRoads 306, 815, 801, 812, 304, 173, 703		
ITP No: NEL-CNT-SDC-2990-PQA-ITP-0040 Rev No: 1												
Lot No: Location: Ch: to Offset: to Layer:												
Item No.	Resp. Person	Inspection and Test Activity	Specification Reference	Acceptance Criteria	Test Method	Test Frequency	Inspection/Verification (Name, signature & date)				Records/ Documents	Field Notes / Comments
							Sub-Contractor	Spark NEL Engineer	Nominated Authority	IREA		
1.0	Preliminaries (Include all aspects of Materials, Approvals, IFC Drawings, etc. Ensure all required permits have been raised prior to commencing works)											
1.1	PE	IFC Drawings issued	IFC Drawing Number: PSDR Part 6 Section 2(h)	IFC Drawings, approved plans, technical specification issued for construction Construction of any Construction Package must not commence until at least 5 Business days after the later of when: i). the Construction Documentation has been submitted to the State, the IREA and any Returned Asset Owner (if applicable) in accordance with section 2(f) and ii). Any requirements of the IREA under section 2(g) have been complied with.	V	PW	NR	HP		NR	NR	IFC Drawings
1.2	PE	All Equipment calibrated (NATA Approved)	Quality Management Plan	Equipment calibration NATA certificates filed in InEight Document. Prior performing inspections, measuring and testing tasks, ensure equipment is calibrated, if damaged or out of calibration, the user will immediately tag it "out of service" and arrange for repairs / calibration.	I	PW	NR	WP		NR	NR	InEight Document References:
1.3	PE	Survey Set Out	Quality Management Plan IFC Drawings	Confirmation and visually inspect survey set out as per the IFC Drawing	V	PW	HP	HP		NR	NR	InEight Document References: Lot Map
1.4	PE	Material Registration	VR (2019) Section 306.04 VR (2016) Section 815.04	The cement treated crushed rock must be a current, registered mix in accordance with VicRoads Code of Practice RC500.02 and conform to specified requirements applicable to that class of product. The supplied registered mix shall not be changed unless the Nominated Authority has been advised of the change and given written approval.	I	PW	WP	HP		HP	HP	VicRoads Letter of Registration Material Test Reports / NATA approve

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			VR Code of Practice RC500.02 VR 801, 815 VR 812.04	Mixes registered as "Conditional" shall not be used unless the Superintendent has been advised of any mix registration conditions and approved the mix for use.								
1.5	PE	Use of alternative binder	VR 306.09	If the Contractor proposes to use an alternative cementitious binder to those included in Table 306.091, laboratory test results shall be produced to the Nominated Authority showing that the binder satisfies the required working time determined in accordance with the VicRoads Test Method. In addition, the cementitious treated material using the alternative binder shall meet specified strength requirements of 500MPa.	R	PW	NR	HP	HP	WP	InEight Document References:	
1.6	SE	Verify Layer Compaction and Surface Level	VR 304 Table 304.061 VR 304.062 IFC Drawings	Previous layer completed. Documentation available and complying. 1 Testing rolling 2 Compaction testing 3. Level conformance - See tables below Lot no. _____ Lot no. _____ Lot no. _____	V	PW + PL	NR	WP	NR	NR	Signed ITP	
2.0	Operations (Include Work Execution – Installation / Manufacturing Process step-by-step)											
2.1	SE	Material Placement	VR306.05, 306.09 Table 306.091 VR 306.11 IFC Drawings	Place, trimmed to level and fully compacted within max. allowable working time refer to table VR 306.091. Ensure that width of the pavement course has been constructed as per requirement 306.03(a) where the width of pavement measured on each side of the	V	PL	NR	WP	NR	NR	Material Delivery Dockets Quarry Batch Records	

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							Sub-Contractor	Spark NEL Engineer	Nominated Authority	IREA		
			VR 306.03(a)	centreline or design line shall not deviate by more than 50 mm from the designed offset. Moisture content within +0.5% and -1.0% from the Optimum Moisture Content from the Modified optimum moisture content.								
2.2	SE	Transverse and Longitudinal Jointing	VR 306.08 IFC Drawings	The layout of the joints shall conform to the following requirements: a). material shall be spread in such a manner as to minimise the number of joints b). in any layer, transverse joints in adjoining paver runs shall be offset by not less than 2m c). transverse joints shall be offset from one layer to the next by not less than 2m. d). longitudinal joints shall be offset from one layer to the next by not less than 150mm. e). longitudinal joints shall be located within 300mm of the planned position of traffic lane lines or within 300mm of the centre of a traffic lane.	V	PL	NR	WP	NR	NR	Signed ITP	
2.3	SE	Proof Rolling (If required)	VR 306.091 VR 306.10 VR 173.03	<ul style="list-style-type: none"> ▫ If test rolling is chosen to be carried out, then it must be done within the maximum allowable working time for the type of CTCR and time of year as specified in Table 306.091 ▫ Ensure test roll area is prepared for test roll and is in accordance with test roll procedure prior application. ▫ Ensure no visible deflection or springing. ▫ The extent of test rolling and a requirement to provide not less than 24 hours' notice of the location and commencement time for the test rolling to the Superintendent / Nominated Authority. 	I	X1- refer to procedure	NR	HP	HP	WP	Test Roll Record	
2.4	SE	Post compaction density testing	VR 815.141 VR 306.09	Maximum lot size <5000m ² - Test frequency compliance to specification table VicRoads 815.141 Scale A:	I	Scale A: 6 tests / lot	NR	WP	NR	NR	NATA Test Report	

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							Sub-Contractor	Spark NEL Engineer	Nominated Authority	IREA		
			VR 173.04 Design Package	Characteristic value of density ratio $\geq 96\%$ modified Standard lot 6 tests per lot. Lot size > 500m ² , 6 tests per lot Lot size < 500m ² , 3 tests per lot. At 2% greater than a (6-lot Std) 96.0% (6-Lot Std) 98.0% (3-Lot Std) Minimum compacted thickness on a single layer shall not be less than 100mm and the maximum compacted thickness shall not be more than 200mm.		Scale B: 3 tests / lot						
2.5	SE	Curing and protection of compacted layers (Pavement Design Modulus of 500MPa or not specified)	VR 306.11(a)	1 Surface of each compacted layer shall be kept moist for a period of seven days unless covered at an earlier stage. 2 Construction or other traffic shall not use a compacted layer within 24 hours of placement without the approval of the Nominated Authority. 3 Subbase shall be kept in good order and condition and free from contamination. 4 Water can only be added for the purposes of curing to the cementitious treated material.	V	PL	NR	WP	NR	NR	Signed ITP	
2.6	SE	Curing and protection of compacted layers (Pavement Design Modulus of 3500MPa or not specified) — If Applicable-	VR 306.11(c)	(HP) Requests by the Contractor to vary the rates of application shall be submitted in writing to the Superintendent for review. (HP) The Contractor's Environmental Management plan shall include procedures to minimise all risks of damage to the environment associated with priming and primer sealing.	V	PL		WP	HP	WP	Signed ITP (If Applicable)	
2.7	SE	Survey Conformity with Drawings	VR 306.03 (a)(b)(c) Table VR 306.031	Surface level of the pavement courses shall be measured in accordance with Table 306.031 & 306.032 Each level measurement shall be taken at random locations over the area of the lot in accordance with	V	PL	NR	WP	NR	NR	InEight Survey Report References:	

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			Table VR 306.032	the VicRoads Test Method and the number of measurements taken within each lot as specified in Table 306.031								
3.0	Post Operations (Include Inspection and Testing)											
3.1	PE	Red-Line	VR 703.15 IFC Drawings	<ul style="list-style-type: none"> Ensure Redline survey is compared within the required tolerance to Design specification. Ensure all locations and work area highlighted as per Construction Lot in Work Lot Map. 	V	PL	NR	WP	NR	NR	Red-Line Mark-Up Drawings	
3.2	PE	Final Inspection Site Walk	CQMP	Ensure at the end of each work conducted that Quality Control conduct an Inspection walk with Engineer to identify potential defects.	I	PL	NR	WP	HP	WP	<ul style="list-style-type: none"> [] Surveillance Report [] Punch List Report 	
3.3	PE	RFI's, DRFI's & DCN's	CQMP DMP	<ul style="list-style-type: none"> Ensure all Design Change(s) are noted within the scope of the Construction Lot. Link all relevant RFI's included only to the specific Construction Lot. Ensure RFI's are closed out prior to Construction Lot close out. 	V	PL	NR	WP	NR	NR	[] RFI's InEight Reference Form #	
4.0	Quality											
4.1	QSR	Identification and control of non-conforming products or services (if applicable)	CQMP	Review and confirm closure of NCR's and associated RFI's prior to closing of construction lot	R	PL	NR	HP	NR	NR	NCR closed with related documentation	
4.2	QSR	Check all quality records for lot closure	CQMP	All applicable quality records are complete	R	PL	NR	HP	NR	NR	Compiled documents (all data reports and records)	

Legend:

Webuild Source Doc# MSF28-2
Spark PMS Source Doc# MSF28-2-NEL Rev 3

UNCONTROLLED WHEN PRINTED

Spark InEight ITP Number
NEL-CNT-SDC-2990-PQA-ITP-0040 Rev.1
6 OF 7

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Responsibility				Method	Inspection / Verification		Test Frequency			Other		
SS: Site Supervisor SE: Site Engineer PE: Project Engineer SPE: Senior Project Engineer GE: Geotechnical Engineer PS: Project Surveyor NA: Nominated Authority IREA: Independent Reviewer (Observer) EMR: Environmental Management Rep. (Release of HP)			PSM: Project Systems Manager QSR: Quality Site Rep. STR: Structural Engineer SSR: Site Safety Rep.	V: Verify I: Inspection R: Review T: Test	HP: Hold Point WP: Witness Point NR: Not Required		PW: Prior to Works PL: Per Lot F: Full or 100% Inspection or Testing X1: Inspect or Test at Specified Frequency X2: Random Inspection or Test			QP: Quality Plan RFI: Request for Information NCR: Non-Conformance VC: Verification Checklist XXXX: Sequential Number from Doc Control		
DDD – Types: B – Building, C – Civil, G – General, M – Mechanical & Electrical, I – Motorway Operations System (ITS), S – Structure, O – Tolling, T – Tunnel, U – Urban Design & Landscape												
Supplier/Subcontractor: (If applicable)	Name			Signature and Date		Spark-NELPP REP	Name			Signature and Date		

Lot closure comments:

Spark NELPP QA Rep:

Name _____ Signature: _____ Date: _____