

SPARK – North East Link – Primary Package

Inspection and Test Plan (ITP)

ITP Title: Line Marking

ITP Number: NEL-CNT-SDC-2990-PQA-ITP-0072 Rev 1


LOT Number: _____

Primary Asset Location Code: _____

Discipline: Pavement Line Marking

OFFICIAL : Sensitive

Spark NELP Approval Record

Function	Position	Name	Signature	Date
Prepared By	Quality Representative	Abiola Olulana	Abiola Olulana	Digitally signed by Abiola Olulana Date: 2022.09.29 10:45:26 +10'00'
Reviewed By	Project Engineer	Elias Abdallah	Elias Abdallah	Digitally signed by Elias Abdallah Date: 2022.09.29 11:47:49 +10'00'
Approved By	Quality Manager	Greg Iro		Digitally signed by Greg Iro Date: 2022.09.29 12:01:01 +10'00'

Notes:

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 (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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ITP Title: Line Marking

References: IFC Drawings, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers the supply and application of pavement marking paint and glass beads, longitudinal lines, intersection markings and other markings on the road surface for all new installations and maintenance of pavement markings.

Standards: VicRoads 721

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0072 **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 Freq.	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	Construction Package Approval	PSDR Part F6 2 (a) to (h)	Construction Documentation shall be submitted and approved prior to commencing work at site.	R	PW	NR	HP	NR	Notice Only Sign not Req'd	IFU Construction Pkg InEight Ref: # _____ IFC Design Pkg InEight Ref: # _____	
1.2	PE	Material Conformance	VicRoads 721.A05 IFC Drawings PSDR Part B 7(q) Table B.7	Provisions of records or evidence demonstrating compliance of Raised Pavement Markers, Adhesive, Line marking and Road marking Paint, Glass Beads, Thermoplastic Pavement marking material, Cold-Applied Plastic Pavement Marking Material, Pliant Polymer Marking Tape and Bicycle Lane surfacing as specified in the specs. Unless otherwise specified, materials used for signing and pavement marking shall comply with the relevant sections of VicRoads Standard Specifications for Roadworks and Bridgeworks. Pliant polymer pavement marking tape intended for use under this Contract shall be approved by the Nominated Authority.	R	PW	HP	HP	WP	WP Notice Only Sign not Req'd	WP Release InEight Reference: # _____ Records Review	

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1.3	PE	Removal of Existing Pavement markings (If required)	VicRoads 721.A08, 721.A12	Nominated Authority to approve method procedure to remove old / redundant Line marking, Road Markings & RRPMS	R	PW	HP	HP	HP	WP Notice Only Sign not Req'd	HP Release InEight Reference: # _____	
2.0 Operations (Include Work Execution – Installation / Manufacturing Process step-by-step)												
2.1	SE	Site Preparation	VicRoads 721.A06 IFC Drawing	Surface clear of existing unsounds, obsolete or redundant pavement marking. Surface to be dry and clear of any foreign materials and debris.	V	PW	HP	WP	NR	NR Notice Only Sign not Req'd	This ITP	
2.2	SE	Removal of old/redundant Line marking, Road Marking or RRPMS (if applicable)	VicRoads 721.A08 IFC Drawing	Where required, old, redundant or damaged pavement markers shall be removed in accordance with specification and drawings and the approved method procedure.	S	Prior to Paint/ Adhesive Application	HP	HP	WP	WP Notice Only Sign not Req'd	WP Release InEight Reference: # _____	
2.3	SE	Positioning of Line marking, road marking and RRPMS	VicRoads 721.A09, 721.B05, 721.A03, IFC Drawing	Pavement marking shall be set out and positioned in accordance with the current IFC drawings.	S	Prior to Paint/ Adhesive Application	HP	WP	NR	NR Notice Only Sign not Req'd	This ITP	

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2.4	PE	Setout - Line marking, road marking and RRPMS.	VicRoads 721.B05, IFC Drawing	Inspection, verification, and acceptance of survey set out points. Submit the set out of pavement markings for permanent works for review by NA (submit survey file in accordance with timeline)	R	Prior to Paint/ Adhesive Application	HP	HP	HP	WP Notice Only Sign not Req'd	HP Release InEight Reference: #	
2.5	SE	Application of New Pavement Marking	VicRoads 721.A101, 721.B04, 721.E01, 721.E02, 721.E021, 721.E03, IFC Drawings	-The application of pavement marking shall be in accordance with specified program requirements. -All data shall be recorded in the daily diary -All pavement marking shall be within specified tolerances. -Long Life pavement marking shall be prepared and used accordance with the manufacturer's specification and applied in accordance with required specifications. -The shared use, pedestrian and bicycle lane pavement markers to be applied to specification and within tolerance. (Spec reference) -Line marking in incorrect position will be removed and replaced in accordance with sub-contractors approved methodology to suit specification	V	Prior to Paint/ Adhesive Application	HP	WP	NR	NR Notice Only Sign not Req'd	This ITP	

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2.6	SE	Placing and Application of Raised Pavement Markers	721.A07, Table 721.A101, 721.A05, IFC Drawings,	-Markers shall be placed in accordance with manufacturer specification. -Adhesives on exposed surface of marker shall be removed. -A marker placed in incorrect position shall be removed and replaced by a new marker. -Wherever possible markers shall be placed clear of longitudinal or transverse joints and clear of surface cracks or positions where markers have been removed and the surface is damaged. -All pavement markings shall be within specified tolerances. -The Contractor shall comply with the tolerance as shown in Table 721.A101 -Spot check during placement with occur.	V	PL	HP	WP	NR	NR Notice Only Sign not Req'd	This ITP	
2.7	PE	Submission of Job Completion Report	VicRoads 721.A12, 721.A05, 721.A10, 721.A14, 721.D02, 721.E02	A submission of job completion report setting out completed works and associated documentation. Asbuilt drawing will be submitted for final handover.	V & R	PL	HP	HP	WP	WP Notice Only Sign not Req'd	WP Release InEight Reference: # _____ Job Completion Report	
2.8	PE	Acceptance of Retro-reflectivity	VicRoads 721.A13,	Retro-reflectivity testing to be conducted between 3-5 weeks of		X1	HP	HP	WP	WP	WP Release InEight Reference:	

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		3-5 weeks post final coat	721.A12 Table 721.A131	completion of the final coat using VR RC424.01 as listed in section 175. A retroreflective report to be submitted determining the retroreflective for each test lot. Measurements shall be forwarded to the Nominated Authority no later than five days from when the measurements were taken.	T					Notice Only Sign not Req'd	# _____ Retro-reflectivity Report (3-5 weeks after completion)	
2.9	PE	Acceptance of Retro-reflectivity 5-6 months post final coat	VicRoads 721.A13, 721.A12 Table 721.A131	Pavement Marking shall comply with specified requirements. A second Retro-reflectivity testing to be conducted 5-6 month after completion of the final coat using VR RC424.01 as listed in section 175. A retroreflective report to be submitted determining the retroreflective for each test lot. Measurements shall be forwarded to the Nominated Authority no later than five days from when the measurements were taken.	T	X1	HP	HP	WP	WP Notice Only Sign not Req'd	WP Release InEight Reference: # _____ Retro-reflectivity Report (5-6 months after completion)	
2.10	PE	Acceptance of Colour	VicRoads 721.A14	White markings - the colour match test for white materials shall be based on luminance factor and conducted in accordance with AS 4049.4, using Field Method 2 of AS 4049.4 Appendix H4.3 as listed in Section 175. Yellow markings – the colour match test for non-white (yellow) materials	T	X1	HP	HP	WP	WP Notice Only Sign not Req'd	WP Release InEight Reference: # _____ Test Report	

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				shall be conducted in accordance with AS 4049.4 using Field Method 2 of AS 4049.4 Appendix H4.3, using the reference swatch sample NCS S 1070 Y20R. Measurements shall be forwarded to the Nominated Authority upon request no later than five days from when the measurements were taken.								
3.0	Post Operations (Include Inspection and Testing)											
3.1	PE	Verification and lot records Complete	CQMP Section 8.2.6.2	Ensure completed work checklists, inspection and test results and contractor conformance records are progressively and permanently saved and stored as soon as possible after they are received. Completed construction lot records are transferred to the project Quality Team for final record verification prior to being closed	V	PL	HP	HP	NR	NR Notice Only Sign not Req'd	This ITP Lot record	
3.2	PE	NCR Close out (if applicable)	CQMP Section 8.3	All NCR's presented for closure	R	PL	HP	HP	HP	WP Notice Only Sign not req	HP Release InEight Reference: # _____ NCR InEight Reference: # _____	

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							Sub- Contractor	Spark NEL Engineer	Nominated Authority	IREA		
											NCR Module	
4.0	Quality											
4.1	QSR	Identification and control of non-conforming products or services (if applicable)	CQMP Section 8.3	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 Section 8.3	All applicable quality records are complete	R	PL	NR	HP	NR	NR	Compiled documents (all data reports and records)	

Legend:					
Responsibility		Method	Inspection / Verification	Test Frequency	Other
SS: Site Supervisor	PSM: Project Systems Manager	V: Verify	HP: Hold Point	PW: Prior to Works	QP: Quality Plan
SE: Site Engineer	QSR: Quality Site Rep.	I: Inspection	WP: Witness Point	PL: Per Lot	RFI: Request for Information
PE: Project Engineer	STR: Structural Engineer	R: Review	NR: Not Required	F: Full or 100% Inspection or Testing	NCR: Non-Conformance
SPE: Senior Project Engineer	SSR: Site Safety Rep.	T: Test		X1: Inspect or Test at Specified Frequency	VC: Verification Checklist
GE: Geotechnical Engineer	EMR: Environmental Management Rep.	S: Survey		X2: Random Inspection or Test	XXXX: Sequential Number from Doc Control
PS: Project Surveyor	NA: Nominated Authority (Release of HP)				
	IREA: Independent Reviewer (Observer)				
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:	Name	Signature and Date	Spark-NELPP REP	Name	Signature and Date

INSPECTION AND TEST PLAN (ITP)



(If applicable)

Lot closure comments:

Spark NELPP QA Rep:

Name _____ Signature: _____ Date: _____