Fulton Hogan	Inspection and Test Plan – Pavement Marking and Raised Pavement Marking	Doc ID: R145-PMW-ITP
Client: Iluka Resources Limited	**Prepared By: Simon Welsh**	**Date: 15/10/2024**
Project: Public Roads Upgrade	**Reviewed By: Joshua Kliemnt**	**Date: 11/11//2024**
Construction Process: Pavement Marking and Raised Pavement Marking	**Approved By: Simon Jaworksi**	**Date: 11/11//2024**
Specifications: ETS100, 101, 102		
Structure / Component:		

Item No.	Task/Activity Description	Inspection/Test					Type	Responsibility	Checked/Verified by (initial/Date)			
		Frequency	Acceptance Criteria	Reference Documents	Inspection / Test Method	Record of conformity			TfNSW	Fulton Hogan	PV	Date
1	Preliminary											
2	Underlying lot conformance (if applicable) Lot No: ……..	Each lot	Underlying lots conform to applicable specifications	Previous Lot Record		Lot conformance	R	Site Engineer				
3	Check if traffic controls are in place	Per Area	▪ Road Occupancy License Obtained if required; ▪ Pedestrian and vehicular public traffic control planning measures established	G10.2.4		Approved TCP	IP	Site Engineer				
4	Painting Contractor Certification	Per Contractor	▪ Works carried out by organisation that is accredited to the “Painting Contractors Certification Program”.	R145.1.4		Certification	IP	Site Engineer				
5	Verify type of marking material as shown in drawings ☐Waterborne paint ☐thermoplastic paint ☐Others ……	Per Lot	▪ On concrete surfaces in the main carriageway and all local road – waterborne paint ▪ Asphalt surface on the main carriageway – thermoplastic paint ▪ Type as per relevant design drawings & R145 appendices ▪ provide the TfNSW representative a list of material proposed for use and limitation to be used	R145.1.4 R145.2.1 AS 4049.3 AS 4049.2 3359 3360		Verification Checklist	IP	Site Engineer				
6	Verify the reflective glass beads conform to specs requirements	Per Material	(APAS) Specification APS0042 Clause 6.2 “Heavy metal content”. Obtain evidence of compliance.	R145.2.4		Verification Checklist	IP	Site Engineer				
7	Verify conformance of raised pavement markers & Adhesive	Per Material	▪ Use only retroreflective raised pavement markers prequalified by the TfNSW. Prequalified retroreflective raised pavement markers are listed in ATD 2015/01 ▪ For new installation and complete replacement	R142.2.1 3354.7		Verification Test Certificate	IP	Site Engineer				

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			works, all markers must be identifiable for at least twelve months after the initial installation. ▪ For the adhesive provide a certificate of compliance verifying that the product complies with the specification, together with the results of the relevant tests.									
8	Sampling and Testing Plan	Per Contractor	Submit to PV contractors proposed sampling plan for assessing the pavement marking	R145.5		Sampling Plan	IP					
9	Application											
10	Prepare the Surface for marking	Per Lot	▪ The area to be marked is dry free of dirt, gravel, flaking and other loose foreign material ▪ The area around making area is also clean to avoid tracking into the marking area ▪ Curing compound on marking areas of concrete pavements is removed by grinding or blasting. ▪ Surface is compatible to the new line marking materials.	R145.3.1		Verification Checklist	IP	Site Engineer				
11	Set out the works for installation of pavement markings / raised markers	Per Lot	Notification made to the Project Verifier that the setting out to pavement markings and markers have been done in according with the design drawings	R145.3.4		Hold Point	HP	Site Engineer		PV		
12	Supervise the application of pavement marking / markers	Per Lot	▪ Paints and markers installed as per manufacturer's recommendations ▪ The same materials used with those nominated in the certifications ▪ All longitudinal lines have been applied by the nominated machine unless approved by Independent Verifier ▪ Markings are straight or with smooth, even curves where intended ▪ Edges are clean sharp cut off ▪ Markings uniform in appearance, texture, width & thickness & free from unbeaded areas ▪ Beads uniformly applied onto the material immediately after it has been applied to the pavement & while the material is still molten	R145.3.2.2 R145.3.4 R145.3.6 R145.4 R142.3 R142.4		Verification Checklist	IP	Site Engineer				

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			▪ Retention of bead material is achieved ▪ Markings are neat & free from traffic damage or other defects ▪ Arrows/markings painted at correct direction ▪ Marking protected from traffic until hardened ▪ Makers installed at the designated locations									
13	Field test of the paint performance.	As Per Sampling Plan	▪ Thickness of non-profile marking≤6mm ▪ Dry Retroreflectivity: min.250 mcd/lux/m2 up to 20 days after opening to traffic. ▪ Wet Retroreflectivity: min.80 mcd/lux/m2 ▪ Skid resistance: min. 40BPN ▪ Colour change: min.3 ▪ Luminance factor: ≥S 2500-N ▪ Wear: ≤70%	R145.4 R145.5 AS 4049.5		Test Report	TP	Site Engineer				

Legend:

HP	Hold Point	Work shall not proceed past the HP until released by the Project Verifier	**IP**	Inspection point	Formal Inspection to be done and recorded
HP*	FH Hold Point	Work shall not proceed past the HP* until released by Fulton Hogan	**TP**	Test Point	Product compliance test to be undertaken and recorded/reported
WP	Witness Point	An inspection which must be witnessed by the Project Verifier	**SCP**	Survey conformance point	A qualified surveyor to check product/section/structure and report
AP	Approval Point	Written or verbal approval given by the Project Verifier	**SC**	Survey Check	
R	Review				

Notes