

		Inspection and Test Plan – Control and Supervision of the Works		Doc ID: FH-ZU2-QU-ITP016 Rev: 0	
Principal's: Melbourne Airport (APAM)			Contract No: CP14038		Prepared By: Abdul Saad
Project: Taxiway Zulu 2.0			Reviewed By: Mukaram Mohammad		Date: 02/07/2024
Construction Process: Hot Mix Asphalt Production – Airport Mix			Approved By: Angela Julianto		Date: 11/09/2024
Specifications: AfPA Performance-Related Airport Asphalt Specification –Version 2.1 (published 9 May 2023)					
Structure / Component: Asphalt Pavement					

Lot No:	Lot Details:	Lot size/Quantity:	Date:
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Item No.	Task/Activity Description	Inspection/Test					HP/ WP/ AP/IP/ TP/SCP	Responsibility	Checked by:		
		Frequency	Acceptance Criteria	Reference Documents	Inspection / Test Method	Record of conformity			Principal's Representative	Fulton Hogan	Date
1.0	General										
1.1	Submission of ITP	Prior to commencing works	All relevant ITPs to be submitted to the Principal's Representative.	AfPA Sec 4.3 CI 14-18	Verify	Aconex Correspondence	HP	Project / Site Engineer Principal's Representative	BecaCPL-GCOR-001247		
1.2	Change in Mix Design	During the works	Any change in the constituent materials or mixture design must be immediately reported to the Principal's Representative. The Contractor must detail the proposed mixture design verification testing to ensure that the performance of the asphalt has not been adversely impacted by the change.	AfPA Sec 6.2 CI 75-77	Test Method and Results	Hold Point Release Form	HP	Project / Site Engineer Principal's Representative			
2.0	Manufacture of Asphalt										
2.1	Monitor and Control Asphalt Manufacture	During the works	The Contractor must produce asphalt to be consistent and uniform in temperature, and composition, consistent with the approved Construction Procedure.	AfPA Sec 9.1 CI 138 - 142	Plant Process Controls	Process Control Records	TP	Laboratory manager			
2.2	Conformance of manufactured asphalt	For each truck load of Asphalt	Segregated or not fully coated asphalt must not be used in the works. If required, the Principal's Representative is to be advised of steps to be taken to remedy the non-conformance.	AfPA Sec 9.1 CI 142	Visual	Delivery Docket	HP	Quality manager			
3.0	Sampling and Testing during Asphalt Production										

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3.1	Coarse Aggregate Testing	During the works at prescribed frequency	<table><tr><th>Test property</th><th>Test method</th><th>Test frequency</th></tr><tr><td>Particle size distribution (grading)</td><td>AS 1141.11.1</td><td>1 test per 500 tonnes aggregate</td></tr><tr><td>Material Finer than 0.075 mm in Aggregates (by washing)</td><td>AS 1141.11.1</td><td>1 test per 500 tonnes aggregate</td></tr><tr><td>Flakiness Index</td><td>AS 1141.15</td><td>1 test per 1000 tonnes aggregate</td></tr><tr><td>Weak particles (including clay lumps, soft and friable particles) in coarse aggregate</td><td>AS 1141.32</td><td>1 test per 1000 tonnes aggregate</td></tr><tr><td>Particle density</td><td>AS 1141.6.1 or AS 1141.6.2</td><td>1 test per 2000 tonnes aggregate</td></tr><tr><td>Water absorption</td><td>AS 1141.6.1 or AS 1141.6.2</td><td>1 test per 2000 tonnes aggregate</td></tr></table>	Test property	Test method	Test frequency	Particle size distribution (grading)	AS 1141.11.1	1 test per 500 tonnes aggregate	Material Finer than 0.075 mm in Aggregates (by washing)	AS 1141.11.1	1 test per 500 tonnes aggregate	Flakiness Index	AS 1141.15	1 test per 1000 tonnes aggregate	Weak particles (including clay lumps, soft and friable particles) in coarse aggregate	AS 1141.32	1 test per 1000 tonnes aggregate	Particle density	AS 1141.6.1 or AS 1141.6.2	1 test per 2000 tonnes aggregate	Water absorption	AS 1141.6.1 or AS 1141.6.2	1 test per 2000 tonnes aggregate	AfPA Sec 11.2.1 CI 187 - 190	Test Method and Results	NATA Test Report	TP	Laboratory Manager			
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Water absorption	AS 1141.6.1 or AS 1141.6.2	1 test per 2000 tonnes aggregate																														
3.2	Fine Aggregate Testing	During the works at prescribed frequency	<table><tr><th>Test property</th><th>Test method</th><th>Test frequency</th></tr><tr><td>Particle size distribution (grading)</td><td>AS 1141.11.1</td><td>1 test per 500 tonnes aggregate</td></tr><tr><td>Particle density</td><td>AS 1141.5</td><td>1 test per 2000 tonnes aggregate</td></tr><tr><td>Water absorption</td><td>AS 1141.5</td><td>1 test per 2000 tonnes aggregate</td></tr></table> <table><tr><th>Test property</th><th>Test method</th><th>Test frequency</th></tr><tr><td>Plasticity index</td><td>AS 1289.3.3.1</td><td>1 test per 2000 tonnes aggregate</td></tr></table>	Test property	Test method	Test frequency	Particle size distribution (grading)	AS 1141.11.1	1 test per 500 tonnes aggregate	Particle density	AS 1141.5	1 test per 2000 tonnes aggregate	Water absorption	AS 1141.5	1 test per 2000 tonnes aggregate	Test property	Test method	Test frequency	Plasticity index	AS 1289.3.3.1	1 test per 2000 tonnes aggregate	AfPA Sec 11.2.2 CI 192 - 196	Test Method and Results	NATA Test Report	TP	Laboratory Manager						
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3.3	Binder Compliance Certificate	Every Delivery to Production Plant	A test certificate to be supplied for every delivery to the asphalt mixing plant.	AfPA Sec 11.2.4.1 CI 200 - 201	Test Method and Results	NATA Test Report	TP	Laboratory Manager																								
3.4	Binder – Binder Consistency Testing or Confirmation	Every Delivery to Production Plant	For every batch of polymer modified binder production either: a. Provide written confirmation that the raw ingredients are consistent with the modified binder used to produce the asphalt mixture. b. Sample and test the binder according to Clause CI 204.	AfPA Sec 11.2.4.1 CI 202 - 206	Written Confirmation/ Test Method and Results	NATA Test Report	TP	Laboratory Manager																								

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3.5	Binder – Point of Production Testing	Every Production Batch	Every production batch of binder must be sampled at the point of production and tested by the Contractor, for: a. Viscosity at 165°C according to ATM-111. b. Torsional recovery at 25°C, 30 s according to ATM-122. c. Softening point according to AG: PT/T131.	AfPA sec 11.2.4.1 CI 207 - 208	Test Method and Results	NATA Test Report	TP	Laboratory Manager			
3.6	Binder – Addition Production Testing	Every Ten modified production batches	Additional production testing must be performed at least once every ten modified binder production batches, or once every 250 tonnes of modified binder production, whichever is more often.	AfPA sec 11.2.4.1 CI 209 - 212	Test Method and Results	NATA Test Report	TP	Laboratory Manager			

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3.7	Binder – Point of Delivery Sampling	Prior to the commencement of asphalt production	Binder must be sampled for each delivery vessel/tank, not more than four hours prior to the commencement of asphalt production or transfer of binder to the asphalt product plant binder storage tank. A minimum of two samples, each not less than 0.5 L in volume, must be obtained in accordance with ATM-101.	AfPA Sec 11.2.4.5 Cl. 213 - 219	Test Method and Results	Sampling Process Control Charts	WP	Laboratory Manager													
3.8	Point of Delivery Binder Testing	Before each production shift	The point of delivery sample, to be retained for point of delivery testing, must be tested by the Contractor, prior to the commencement of asphalt production for the work period, for: a. Viscosity at 165°C according to ATM-111. b. Torsional recovery at 25°C, 30 s according to ATM-122. c. Softening point according to AG:PT/T131.	AfPA Sec 11.2.4.6 Cl 220 - 221, Sec 12.2.4. Cl 275	Test Method and Results	NATA Test Report	HP	Laboratory Manager													
3.9	Point of Delivery Binder Testing	If binder test results nonconforming	If required, the Contractor must prepare and submit a disposition regarding the binder point of delivery test result for approval by the Principal's Representative.	AfPA Sec 12.2.4.6 Cl 220	Test Method and Results	NATA Test Report	HP	Laboratory Manager													
3.10	Tack Coat Testing	Every Delivery to Site	A test certificate which demonstrates that the tack coat complies with AS 1160 or approved modified tack coat production properties, must be supplied for every delivery to site	AfPA Sec 11.2.5 Cl 222	Test Method and Results	NATA Test Report	TP	Laboratory Manager													
3.11	Asphalt Production Testing	During each production shift as prescribed by Table 16	<table><tr><td>Tonnes of Asphalt in the Lot</td><td>Number of test sets</td></tr><tr><td>Not greater than 300 tonnes</td><td>2</td></tr><tr><td>300 to 600 tonnes</td><td>3</td></tr><tr><td>600 to 1,000 tonnes</td><td>4</td></tr><tr><td>Greater than 1,000 tonnes</td><td>5</td></tr></table>	Tonnes of Asphalt in the Lot	Number of test sets	Not greater than 300 tonnes	2	300 to 600 tonnes	3	600 to 1,000 tonnes	4	Greater than 1,000 tonnes	5	AfPA Sec 11.3 Cl. 222 - 223	Test Method and Results	NATA Test Report	TP	Laboratory Manager			
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3.12	Shift Usage Calculations	For each Production Shift	For each production Lot calculate; bitumen usage, mass of asphalt produced & average bitumen content	AfPA Sec 11.3 Cl. 231	Test Method and Results	Lot Usage Record Sheet	TP	Quality Manager			

Final Inspection
 The signature below verifies that this ITP has been completed in accordance with the Fulton Hogan's Quality \System Procedures and verifies lot compliance with specifications.

Print Name:

Position:

Signature:

Date: / /

Legend:

HP	Hold Point	Work shall not proceed past the HP until released by the Superintendent	IP	Inspection point	Formal Inspection to be done and recorded
HP*	Fulton Hogan 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 Superintendent	SCP	Survey conformance point	A qualified surveyor to check product/section/structure and report
AP	Approval Point	Written or verbal approval given by the Superintendent			

Notes