

Client: Melbourne Airport (APAM)

Contract No: CP21009

Prepared By: Owen Tieu

Project: Runway 16-34 Overlay

Reviewed By: Jamal Khodr

Date: 03/08/2022

Construction Process: Unbound Pavements and Crushed Rock Working Platform

Approved By: Jamal Khodr

Date: 03/08/2022

Specifications: N/A

Structure / Component:
Lot No:
Lot Details:
Lot size/Quantity:
Date:

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 Rep.	Fulton Hogan	Other	Date	
1.0	Preliminary Activities – Permits, Documentation, Approvals, Survey Documentation												
1.1	The current revision drawings are being used including subcontractors copy.	Prior to works	Current revision drawing is being used including the subcontractors copy. Current Revision to be obtained via Principal's Representative	ACONEX	Visual Inspection	Current drawings	HP*	Fulton Hogan					
1.2	ITP and Construction procedure documentation	Prior to works	ITP and Construction procedure for unbound pavement material placement to be provided to Principal's Representative for review.		Verify	Approved Work procedure report	HP	Fulton Hogan Principal's Representative					
1.3	Material classification.	Prior to works	Proposed material source information and samples to be submitted to Principal's Representative.	VicRoads section 812	Verify	Approved rock mix design report	HP	Fulton Hogan Principal's Representative					
1.4	Production testing	Prior to works	Supply of information with respect to production testing.	VicRoads section 812	Verify	Approved production testing results	TP	Fulton Hogan Principal's Representative					
1.5	Implementation of all measures and controls.	Prior to works	All necessary measures and controls are being implemented including: PSP, EMP, TMP, SWMS and WP.	PSP,EMP, TMP, SWMS, WP	Visual inspection	Site inspection	HP*	Fulton Hogan					

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1.6	Plant and Equipment	Prior to works	Plant and Equipment used in the works are appropriate to achieve specification requirements.		Visual Inspection	Finalised ITP	HP*	Fulton Hogan				
1.7	Stockpile material on site	Prior to works	Material stockpile locations approved by the Principal's Representative.	Stockpile Map	Visual Inspection	Material receivables checklist (Dockets)	AP	Fulton Hogan				
2.0	Placement of crushed rock base and sub-base											
2.1	Commencement of construction of the base (Class 3/4/profiling) and sub base (Class 3/4/profiling).	Each lot	The underlying layer shall be clean of all foreign matter. All edges of previously placed material must be water conditioned prior to placement continuation.	VicRoads section 204	Visual inspection	Site Inspection	HP*	Fulton Hogan				
2.2	Placing Crushed rock	Each lot	<p>The maximum lot size for surface levelling is to be half the size of the working area.</p> <p>Surface tolerances per layer is as follows;</p> <ul style="list-style-type: none"> Class 3/4 Crushed Rock/profiling: +0, -10mm Crushed Rock Working Platform: +0, -10mm <p>Pavement layer thickness tolerances as follows;</p> <ul style="list-style-type: none"> Class 3/4 rock/profiling (Base): -10mm. The average thickness over every 100m shall be no less than the specified thickness. Max thickness of any base layer shall not exceed 200mm and be no less than 80mm. Class 3/4 rock/profiling (subbase): -15 mm. Max thickness of any subbase layer shall not exceed 150mm and be no less than 80mm. 	VicRoads section 304	Visual Inspection	Survey day and Visual inspection	HP*	Fulton Hogan				

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			<ul style="list-style-type: none">The combined thickness of subbase and base course shall be no less than the specified thickness by more than 15mm.																	
2.3	Compaction and Post Compaction Testing	Each Lot	<p>Full compaction of each course shall be achieved in all areas including the interfaces between successively placed lanes and sections; Compaction is achieved whilst material is within desired moisture range.</p> <p>Compaction to be completed with a 16T smooth roller.</p> <p>Compaction testing requirements and frequency as per Table 304.082.</p> <p>Table 304.082 Acceptance Limits for Scale C Standard of Compaction</p> <table><tr><th rowspan="2">Compaction Scale</th><th colspan="2">Mean Value of Density Ratio % (three tests)</th></tr><tr><th>Subbase Layers</th><th>Base Layers</th></tr><tr><td>C</td><td>Not less than 98.0</td><td>Not less than 100.0</td></tr></table> <p>Material requirements as per Tables 820.072, 820.041.</p>	Compaction Scale	Mean Value of Density Ratio % (three tests)		Subbase Layers	Base Layers	C	Not less than 98.0	Not less than 100.0	VicRoads section 304, 820	Testing	Test result certificate	TP	Fulton Hogan				
Compaction Scale	Mean Value of Density Ratio % (three tests)																			
	Subbase Layers	Base Layers																		
C	Not less than 98.0	Not less than 100.0																		

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Table 820.072 Grading Requirements for Class CC4 Crushed Concrete

Sieve Size AS (mm)	Limits of Grading - Test Value before Compaction (% Passing)					
	Nominal Size (mm)					
	50	40	30	25	20	14
75.0	100					
53.0		100				
37.5			100	100		
26.5					100	
19.0	54 - 75	64 - 90				100
9.50			48 - 70	54 - 75		
4.75					42 - 76	54 - 75
0.425	7 - 21	7 - 23	9 - 24	10 - 26	10 - 28	15 - 32
0.075	2 - 10	2 - 12	2 - 12	2 - 13	2 - 14	6 - 17

Table 820.041 Physical Properties

Test	Test Value		
	Class CC2	Class CC3	Class CC4
Liquid Limit % (max)	35	35	40
Plasticity Index (max)	6	10	20
California Bearing Ratio (%) (min) ⁽¹⁾	100	80	20
Los Angeles Abrasion Loss (max)	35	40	45
Flakiness Index	35	-	-

Nominated frequency of testing for Compaction, Post-compaction Grading and PI, once per lot (section 304.11).

Result requirements to conform to VicRoads section 304.

Proof Roll will occur once compaction has been completed, as part of the final sequence of compaction.

Proof Roll to be systematic and in a manner that covers the entire area.

Vibrating Plant travel at speed less than 4km/h and less than 6 km/h for pneumatic rollers;

Rollers operated as close as practicable to unsupported edges.

VicRoads
section 173

Visual
Inspecti
on

Visual
inspection
and
mapping
data

**WP /
HP***

Fulton Hogan
**Principal's
Representative**

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			Contractor shall provide for the Principal's Representative to be present after all test rolling. Proof rolling of the Crushed Rock Working Platform to be completed with a watercart or smooth drum.									
2.5	Identification and treatment of unsuitable areas.	Each Lot	Should any area crushed rock be disturbed or become unstable during proof rolling, the Principal's Representative should be advised immediately and proof rolling of the area ceased. Any areas of crushed rock layer that rut, yield or become unstable under the proof rolling must be investigated in the presence of the Principal's Representative.	Spec cl 3.6.3. & VicRoads Section 204	Visual Inspection	Site Inspection	HP	Fulton Hogan Principal's Representative				

Final Inspection

On behalf of Fulton Hogan it is hereby certified that the Works represented by the items of work listed have been tested in accordance with the Project Quality Plan and conform in all respects with the requirements of the Contract.

Print Name:

Position:

Signature:

Date: / /

Legend:

HP	Hold Point	Work shall not proceed past the HP until released by the Principal's Representative	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 Principal's Representative	SCP	Survey conformance point	A qualified surveyor to check product/section/structure and report
AP	Approval Point	Written or verbal approval given by the Principal's Representative			

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