

		Inspection and Test Plan – Control and Supervision of the Works		Doc ID: FH-ZU2-QU-ITP015 Rev: 0	
Principal's: Melbourne Airport (APAM)			Contract No: CP14038		Prepared By: Abdul Saad
Project: Taxiway Zulu 2.0			Reviewed By: Faiyaaz Ahmed		Date: 02/09/2024
Construction Process: High Early Strength Lean Concrete			Approved By: Angela Julianto		Date: 04/09/2024
Specifications: ZULU-BECA-001-SPC-00002 - Revision C04 (07 June 2024)					
Structure / Component: High Early Strength Lean Concrete					

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	Preliminary Activities										
1.1	Check for correct documentation	Prior to commencing works	Current revision of drawings, technical specifications, permits as required for excavation and any other construction documentation is being utilised by Fulton Hogan and subcontractors. Current revisions of these documents to be obtained via Aconex or ACC.	Current Revisions in Aconex, ACC	Verify	This ITP signed	HP*	Project / Site Engineer			
1.2	Implementation of all measures and controls	Prior to commencing works	All necessary measures and controls are being implemented, that is: PSP, EMP, TMP, SWMS & WMS	PSP, EMP, TMP, SWMS, WMS	Visual Inspection	This ITP signed	HP*	Project / Site Engineer Site Supervisor			
1.3	Plant & Equipment Check	Prior to commencing works	Plant and equipment items used in the Works shall be appropriate for the intended purpose and shall be maintained in good and serviceable condition at all times during which they are operating.	Beca Spec 002 13.3	Verify	This ITP signed	HP*	Project / Site Engineer Site Supervisor			
2.0	Production and Construction Trials										
2.1	Mix Design	Prior to works	Theoretical mix design and preliminary trial mix results to be submitted to the Principal's Representative for review and acceptance prior to full trial mixing.	Beca Spec 002 13.5.1	Verify	This ITP Signed / test reports	HP	Project / Site Engineer Principal's Representative			

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2.2	Mix Design Report	Prior to works	The theoretical mix design and preliminary trial mix results to be submitted not less than seven (7) working days prior to full trial mixing.	Beca Spec 002 13.5.2	Verify	This ITP Signed / test reports	HP	Project / Site Engineer Principal's Representative			
2.3	Mixer Uniformity Test	Prior to works	Mixer uniformity tests shall be undertaken on the fully operational mixing plant at least seven (7) days prior to undertaking production trial and submitted to the Principal's Representative.	Beca Spec 002 13.6.1	Verify	This ITP Signed	WP	Project / Site Engineer Principal's Representative			
2.4	Production Trial	Prior to works	A production trial must be completed as per the requirements in the specification. The results and control procedures to be presented for review and approval by the Principal's Representative.	Beca Spec 002 13.6.1	Verify	This ITP Signed	HP	Project / Site Engineer Principal's Representative			
2.5	Compliance	Prior to works	Provide evidence to Principal's Representative of concrete supplier demonstrating compliance to AS 1379 or is a third party accredited to AS 1379.	Beca Spec 002 13.7	Verify	This ITP signed / evidence documents	HP	Project / Site Engineer Principal's Representative			
3.0	Pre-Placement Activities										
3.3	Surface preparation	Prior to works	The surface must be clean and inspected by the Principal's Representative prior to placing.	Beca Spec 002 13.8.1.5	Verify	This ITP signed	HP	Project / Site Engineer Principal's Representative			
3.4	Weather Conditions	Prior to commencing works	HESLC shall not be placed when the shade temperature is below 5°C or above 35°C.	Beca Spec 002 13.15	Verify	This ITP signed	HP*	Project / Site Engineer Site Supervisor			

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4.0	Placing Concrete										
4.1	Place, Spread and Compact Concrete	After completion of works	Compaction of HESLC shall commence immediately after placing and shall be by internal vibration.	Beca Spec 002 13.10	Verify	This ITP signed	IP	Project / Site Engineer			
4.2	Slump	1 test every 2 trucks	100mm +/- 20mm	Beca Spec 002	AS 1012.3.1	NATA Test Certificate	TP	Project / Site Engineer Laboratory Technician			
4.3	Temperature	1 test every 2 trucks	Minimum 10°C Maximum 30°C	Beca Spec 002 13.15	AS 1012.3.1	NATA Test Certificate	TP	Project / Site Engineer Laboratory Technician			
4.4	Density of Cylinders	6 cylinders per Lot (same cylinders used for compressive strength)	Results for information only. To be used to determine density of cores.	Beca Spec 002 13.17.3.6	AS	NATA Test Certificate	TP	Project / Site Engineer Laboratory Technician			
4.4	Compressive Strength (7-day)	4 cylinders per Lot (same cylinders used for Density)	Mean of the 4 cylinders to be minimum 10MPa and maximum 15MPa.	Beca Spec 002 13.5.1 13.17.3.6	AS 1012.1 AS 1012.8 AS 1012.9	NATA Test Certificate	TP	Project / Site Engineer Principal's Representative			

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4.5	Compressive Strength (28-day)	2 cylinders per Lot (same cylinders used for Density)	Each sample to be minimum 20MPa.	Beca Spec 002 13.17.3.6	AS 1012.1 AS 1012.8 AS 1012.9	NATA Test Certificate	TP	Project / Site Engineer Principal's Representative			
5.0	Post-Placement										
5.1	Construction Joints	Each Concrete Pour	At the end of the day's works, the HESLC to be feathered out and cut back before work restarts to give a straight, vertical face for full depth of layer. Edges of construction joints shall be painted or sprayed with bituminous emulsion.	Beca Spec 002 13.11.1	Verify	This ITP Signed	IP	Project / Site Engineer			
5.2	Saw Cut Joints	Each Concrete Pour	HESLC to be sawcut into maximum slab spacing of 5m x 5m. Where pavement width is less than 5m the spacing shall be reduced to obtain slab dimension ratio of maximum 1:1.25. Sawcut to be approximately one third of the layer depth.	Beca Spec 002 13.11.2	Verify	This ITP Signed	IP	Project / Site Engineer			
5.3	Layer Thickness	Each Concrete Pour	Finished surface of the HESLC to be picked up by a surveyor to determine the thickness of the layer.	Beca Spec 002 13.17.3.4	Verify	Survey Report	HP	Project / Site Engineer Principal's Representative			

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5.4	Core Analysis – Density	Refer to markup in notes section Aconex: BecaCPL-GCOR-001038	Cores shall be 120mm diameter. Calculate the field density by comparing the density of individual cores with the average density of four (4) compressive strength cylinders taken. Field density to be not less than 98%. If the density is less than 98% then a Hold Point to be raised for the nonconforming Lot.	Beca Spec 002 13.10.1 13.17.3.6	AS 1012.12	NATA Test Certificate	HP	Project / Site Engineer Principal's Representative			
5.5	Testing Records	During works	Within three (3) weeks of completion of the Works, the Contractor shall supply two (2) copies of a report detailing the results of all quality control and testing undertaken.	Beca Spec 002 13.17.4	Verify	This ITP Signed	HP	Project / Site Engineer Principal's Representative			
5.6	Protection of Layer	Prior to placing subsequent layer	The Contractor shall protect the HESLC from damage until surface layers are placed. The layer shall not be covered by any further pavement layers under it has been accepted by the Principal's Representative.	Beca Spec 002 13.16	Verify	This ITP signed	HP	Project / Site Engineer Principal's Representative			
5.7	Removal and Replacement of Defective Pavement Areas	After completion of works	If required, defective pavement areas shall be removed and replaced as specified herein with pavements of thickness and quality required by the specifications.	Beca Spec 002 13.13	Verify	This ITP signed	HP	Project / Site Engineer Principal's Representative			

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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