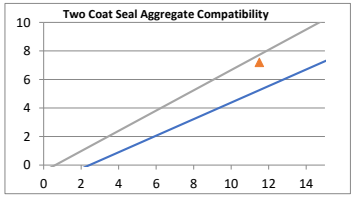
Inspection and Test Plan - Chipsealing

Site Location:		**Sealing Date:**	
Contract:			
ITP Prepared By:		**ITP Approved By:**	
Date:		**Date:**	

Activity Description	Verification Activity	Methods or Reference	Frequency	Acceptance Criteria	Hold / Witness Point	Records	Responsible Person	Completed?
Chipseal Surfacing								
HOLD POINT: A mandatory verification point beyond which work cannot proceed without approval by the Client/Engineer. The work cannot proceed until one of these parties is able to verify acceptance and releases the Hold by means of approval.				Witness Point: An identified point in the process where the designated authority, typically the Contract Management team, Client / Engineer or Consultant or 3rd Party Inspector may review, witness, inspect method or process of work. The activities, however, may proceed provided the activity is documented and evidence gathered.				
Design								
Treatment Selection	Physical / Site video/photographic record	Asset Team - Base Preservation	Annually Pre-reseal	Documented approval from at time of Tender -Team/Client	**Mandatory HOLD POINT - Client Approval**	Approved Seal Designs	Sealing Contract Manager / Engineer	
Chipseal Design	Peer review by Authorised Seal Design Approver	Chipsealing in NZ	One per design prior to commencing onsite	Design meets requirements of P17	**Mandatory HOLD POINT - Seal Design peer Reviwer - Client Approval**	Peer Reviewed Seal Designs	Sealing Contract Manager / Engineer	
Materials Testing								
Size (Grades 2-5) & Shape (Grades 2-4)	Lab Test	NZTA M/6	1/500m3	Size (ald mm) G2 9.5-12.0 G3 7.5-10.0 G4 5.5-8.0 G5 Report	**Witness Point**	IANZ Lab Reports	Sealing Contract Manager / Engineer	
				Shape AGD/ALD Ratio G2,3,4 = 2.25 max G2,3,4 = min 98% with 2+ broken faces				
Cleanliness (Grades 2-6)	Lab Test	NZTA M/6	1/500m3	Cleanness value G2 = 89 G3 = 87 G4 = 85 G5 & G6 Report only	**Witness Point**			
Compatibility (Multi Layered seals)	Comparison Of Chip ALD	Chipsealing in New Zealand NZTA (NZTA 2005)	**11.5** **7.2**		**Witness Point**	IANZ Lab Reports	Sealing Contract Manager / Engineer	
Bitumen Distributor	IANZ Lab E/2 Results	Code of Compliance	Annual	Speed Test(+-3% over 100m), Dipstick Test (+-50L over 2000L), Matt Test (app rate within 0.10L/m2, longitudinal within 10%, thirds within 5%, transverse within 20%)	**Mandatory HOLD POINT - Client - Engineer Witness**	RNZ E2 Certificate	Sealing Contract Manager / Engineer	
Emulsion/PME Testing	Lab Testing	Manufacture Specification	Per Emulsion/Bitumen Production Batch	Bitumen Content, ITM 11-01, Viscosity, ITM 10-02, PH ITM-08-02	**Witness Point**	IANZ Lab Reports	Road Science	
Crushing Resistance	Lab Testing	NZS 4407:3.10	1/10000m3	< 10% passing 2.36mm sieve at 230kN	**Hold Point**	IANZ Lab Reports	Sealing Contract Manager / Engineer	
Weather Quality Index	Lab Testing	NZS 4407:3.11	1/10000m3	AA or BA	**Hold Point**	IANZ Lab Reports		
Surface Inspection								
Surface Texture - Measurement	Sandcircle Measurement	NZTA T/3	At time of Seal Inspection	Texture evaluation for each site complete to validate design texture assumption, where differs application altered to meet on-site texture	**Witness Point**	Sandcircle Data	Sealing Contract Manager / Engineer	
	ARRB Hawkeye or					Hawkeye Data		
	NZTA HSD					High Speed Data		

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Pre Seal Survey	Downer Survey or MS Forms Pre Reseal Inspection	Downer Survey or MS Forms Pre Reseal Inspection	At time of Seal Inspection	Record & any noted issues / Client	**Witness Point**	Lucidity	Sealing Contract Manager / Engineer	
Construction Compliance testing			24 hours in advance of seal construction commencement	Confirmation from renewals manager all testing has met requirements	**Hold Point**	Email Confirmation	Sealing Contract Manager / Engineer	
Seal Construction								
Go/No Go Survey	Visual, Zeus, Iris	Downer Survey Sealing Go / No Go, Road Science Zeus app & Downer Iris app	Prior to sealing on each site	Pass on Go / No Go, Marginal & discussion with Contract Manager or written approval from Rehab Manager	**Witness Point**	Lucidity	Supervisor / Foreperson / QA	
Pavement Markings/RRPMs	Tagging of existing Pavement Markings, Removal of RRPMs	Pavement Marking Set Out Sheet, CBP	Prior to sealing on each site	All raised pavement markers to be removed (1st & 2nd Coat Seal surfaces excluded) and existing line marking "tagged". Check for any new markings required	**Witness Point**	None	Foreperson / QA	
Road Furniture & Sumps protected	Visual Inspection	Crew Breifing Plan / Visual	Prior to sealing on each site	Protect all road furniture in accordance with Crew Breifing Plan. Fabric & protect all sumps.	**Witness Point**	None	Foreperson	
Surface Condition/Temp	Physical / Visual Inspection	Visual / NZTA T/3	Prior to sealing on each site	Surface area shall be dry and free from any loose chip, dust, dirt, vegetation. Temperature recorded on site prior to sealing commencing	**Witness Point**	None	Foreperson / QA	
Stockpiles	Visual Inspection	CBP	Each Stockpile	Correct Source, Grade and quantity. Uniquely Identified.	**Witness Point**	Sealing Data Docket	Foreperson	
Spraying	Paper Start and Finish all runs	Spray Runs	All Runs	Mark out start / Finish	**Witness Point**		Sealing Contract Engineer / QA	
Sealing	Longitudinal Joints out side of wheel tracks	Spray Runs	All Runs	Mark out lane lines by construction team	**Witness Point**		Sealing Contract Engineer / QA	
Binder Application Rate	Tank Level dips prior to and after spray run	Dipstick	At Beginning of the day After 1st spray run of site After last spray run of site At end of tank prior to loading	Quantities used to be within the desired tolerance of design Spray Rate	**Mandatory HOLD POINT**	Spray Sheets	QA	
Chip Spread Rate	Visual	Crew Briefing Plan/Visual	On going whilst seal being constructed	Chip is applied in accordance with the appropriate coverage as specified in the Crew Briefing Plan	**Witness Point**	Data Docket	QA/Foreperson	
Removal of Surplus Chip	Physical / Visual	Front Mounted Broom / Suction Truck, Downer Survey or MS Forms Post Seal Inspection	At conclusion of positive traffication within 48 hours	All sump and road furniture protection removed. Meets requirements of P/17 Table 2.	**Witness Point**	Post Seal Inspection	Sealing Contract Engineer / QA	
Post Seal Construction								

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Post Seal Traffic Management	Physical / Visual	As per TMP	Full length and width of carriageway	Minimum of 48 hours under normal traffic flow. If rain forecast within 48 hours, traffication recommences until clear weather window of at least 48 hours	**Hold Point**	Zeus or suitable recorded weather data	Sealing Contract Manager / Engineer	
Post Seal Inspection	On Site Visual	Lucidity Post Seal Inpsection	After sealing is complete	Engineers requirements. Any defects identified, repairs programmed and costs estimated	**Witness Point**	Post Seal Inpsection	Sealing Contract Engineer / Manager / QA	
Asbuilts and RAMM data	RAMM Update Sheet	RAMM Database	After sealing is complete	RAMM update sheet 100% complete and accurate, note data provided for RAMM update to be uploaded by others. As Built Drawing Complete.	**Witness Point**	As built information / RAMM Update Sheet	Sealing Contract Manager/ QA/QE	

Quality Record Close Out: _____ Date: _____

(digital signature)

_____

(name)