

## DATABASE HEALTH INDEX - DASHBOARD

KEY: On or exceeding target  
One grade, or between 0 and 15 below captured value  
Greater than one grade, or 15 below captured value

**Area:** BOP WEST M&O  
**Date:** 11/03/2014

Run with the same date parameters on 11/04/2014 after surfacing data was updated

		Performance					
Category	Measures	Result	Measure	Expected Value	Category	Expected Value	
Carriageway Asset Inventory	Capital Projects	Major capital projects completed v RAMM (in last 6 -30 months)			see attached report		-
		Minor capital or safety improvement projects v RAMM (in last 6 -30 months)			see attached report		-
	Surfacing	% of Network surfaced in RAMM in last year	8.0%	Grade 2	Grade 1	80	81
		% Surfaces at least 50% older than expected age	11.5%	Grade 3	Grade 2		
		% of Network with no surfacing	0.3%	Grade 1	Grade 1		
		Illogical Records inc. % (SAC with chipseal, Low and high widths, Alignment of traffic volumes v pavement use)	0.1%	Grade 1	Grade 1		
	Pavement Layer	Proportion of Network with layer Information	98.7%	Grade 1	Grade 3	81	77
		New layer length in previous 6 – 30 months	2.4%	Grade 3	Grade 2		
		Illogical records (Pavement Layers v Incorrect Surfacing)	1.7%	Grade 1	Grade 1		
	Road Marking	Breakdown of road markings by type	see attached report			-	-
	Treatment Length	Proportion of very short (< 20m) TLs	4.2%	Grade 1	Grade 1	73	85
		Proportion of very long (> 2000m) TLs	0.4%	Grade 1	Grade 1		
Proportion of TLs with < 80% coverage of major surfacing		18.7%	Grade 3	Grade 1			
% updated in last 5 years		35.9%	Grade 4	Grade 2			
Forward Works Programme	Date FWP last updated	21/02/2014	-	-	76	90	
	Proportion of network identified for treatment in next ten years (from FWP)	147.0%	Grade 1	Grade 2			
	FWP v surfacings (% surfacings in last year conflicting with first 2 years of FWP excluding 2nd coats)	4.5%	Grade 2	Grade 1			
	Evidence of active MIS strategy, reasons for treatments listed and detailed	52.4%	Grade 3	Grade 1			
Collected Data	Carriageway Rating	Percentage rated in last year	91.4%	Grade 1	Grade 1	91	90
	High Speed Data	% network meeting standards for roughness, rutting and texture (Roads surveyed in last year)	99.0%	Grade 1	Grade 1	76	90
		% network meeting standards for FWD (Roads surveyed in last 5 years)	30.6%	Grade 4	Grade 1		
		% network meeting standards for SCRIM (Roads surveyed in last year)	99.0%	Grade 1	Grade 1		
	Maintenance Activity	Items per km for PA and SU cost groups in previous 4 – 15 months v Regional Average	133.3%	Grade 1	Grade 2	90	83
		Spread of location in previous 4 - 15 months (proportion located at carriageway start)	0.5%	Grade 1	Grade 2		
		Distribution of maintenance patch sizes by Hierarchy	see attached report				
		Breakdown of Maintenance Cost Activities	see attached report				
	Miscellaneous	% of Maintenance Activity where fault type is "Unknown"	12.9%	Grade 2	Grade 1	-	-
		No. of test pits with layer data recorded	58	no.	-	-	-
	Traffic Count	No. of LTPP sites recorded in RAMM	0	no.	-	-	-
		Latest ADT Counts	31/12/2013	-	-	100	70
Latest ADT Estimates		28/02/2014	-	-			
% loading estimate (i.e. not default)	99.7%	Grade 1	Grade 2				
Non-Carriageway Asset Inventory	Structures	No. of Pavement Type "Bridge" v No. of Bridges > 50m in length in BDS	105.0%	Grade 1	Grade 1	50	85
		No. Large Culverts v No. BDS	0.0%	Grade 5	Grade 2		
		Retaining Walls	80	no.	-		
		Gantries (see attached report for locations)	18	no.	-		
		Barriers in RAMM (m)	57848	m	-		
		End Treatments in RAMM	see attached report				
	Drainage	Culverts per km v Regional Average (Rural)	100.0%	Grade 1	Grade 2	51	80
		Catchpits per km v Regional Average (Urban)	81.0%	Grade 2	Grade 2		
		Manholes per km v Regional Average (Urban)	0.0%	Grade 5	Grade 2		
		Subsoil Drains per km v Regional Average (Rural)	73.6%	Grade 2	Grade 2		
		% of Drainage (Construction Date in previous 4 – 15 months)	0.0%	Grade 4	Grade 2		
	Surface Water Channels	Surfaced SWC per km v Regional Average (Urban)	42.0%	Grade 3	Grade 2	46	77
Earth SWC per km v Regional Average (Rural)		95.4%	Grade 1	Grade 2			
Sealed SWC renewal activity (Construction Date in previous 4 – 27 months)		0.0%	Grade 4	Grade 2			
Signs	Signs per km v Regional Average	94.4%	Grade 1	Grade 2	47	78	
	Large Signs >4.0m <sup>2</sup> (see attached report for quantity by type)	103	no.	-			
	ITS VMS	3	no.	-			
	% of Signs with renewal date in last 4 - 15 months	0.0%	Grade 4	Grade 2			
	No. Frangible bases in RAMM	0	no.	-			
Streetlights	Streetlights per km v Regional Average	10.0%	Grade 5	Grade 2	36	82	
	Frangible Base type no.	9	no.	-			
	Shear Base type no.	214	no.	-			
	% of Streetlight Poles with renewal date in last 4 – 15 months	0.0%	Grade 4	Grade 2			
	Duplicates or near duplicates plus poles with no light or bracket	0.6%	Grade 1	Grade 1			
Footpaths & Cycleways	Total length of Footpath and Cycleways (see attached tables for listings)	see attached report			-	-	
Signal Controlled Intersections	Signal Controlled Intersections (see attached report for locations)	9	no.	-	-	-	
Rest Areas	Number of rest areas	10	no.	-	-	-	
Weigh Stations	Number of Weigh Stations (see attached report for locations)	4	no.	-	-	-	

**DATABASE HEALTH INDEX DASHBOARD - PROJECTS**

**Area: BOP WEST M&O**  
**Date: 11/03/2014**

In RAMM (Y/N/P)	Project Name	SH	RS	Dir	RP	Comments	Year
	<b>MSW</b>						2012/13
N	SH2 Pah Road Guardrail Improvements	2	180		4.7-50	Guardrail improvements	2012/13
N	SH2 Sth of Kauri Point Hazard Protection	2	100		13.0	Guardrail installation and removal/relocation of road side hazards (stay poles, telephone poles, powerpoles and so on)	No guardrail updated or added 2012/13
N	SH2 Tanners Point Intersection	2	100		9.7	Removal of some road side hazards (tree and power pole) and improvement to warning signs	No signs updated or added 2011/12
N	Tauriko electronic school signs	29	19	B	1.03 and 1.46	Electronic school warning signs installed on each approach to Tauriko School. These are automatically set to turn on and off at agreed times.	2011/12
N	SH2 Apata Station Road South	2	130		3.1	Left in/left out arrangement provided (new left in/our lanes, kerb and channel)and other improvements to approach including guardrails, earthworks (cut/fill, benching) and additional warning signs (chevrons)	2011/12
N	SH2 Clarke to Te Puna traffic calming	2	130		14.25 -15.15	Traffic calming and safety improvements by sight benching, pavement widening , guardrail installation , entranceway re-construction and marking a hatched median	Only Railings updated, no widening or markings, carriageway table not updated 2010/11
N	SH2 Te Matai to te Puke traffic calming	2	180		1.64-3.06	Installation of traffic calming measures to lower speed; change in pavement markings to include median, road stop lines,continuity lines, edgelines..etc	2010/11
N	SH2 Te Puna/Minden Roads	2	130		14.1-14.7	Reduction of speed limit, removal of trees, extention of lighting (constructed in conjunction with SH2 Clarke to Te Puna Traffic calming works in 2010/11)	No street lights in RAMM 2010/11
P	SH2 Wharawhara Road	2	116		4.26	Installation of right turn bay (improve visibility and upgrade signage first, RTB) - provide 70 km/h buffer zone from this intersection to start of 50 km/h zone. Project involved relocation of road side hazards, seal widening, new street lights, kerb and channel.	Carriageway not updated, signs and drainage not updated 2010/11
Y	SH36 West of Te Matai Road	36	13		14.45-14.66	Signage and electronic sign improvements (speed and temperature activated curve warning sign). High PSV surface	2010/11
Y	SH33 Paengaroa Traffic Calming Thresholds	33	17		15.2-16.3	Traffic calmimg measures intorduced to enforce speed restriction	Markings no paint date 2010/11
N	SH29 Edgeline ATP	29	21		0.65-20.95	ATP placed on edgelines	2010/11
N	SH2 Athenree Gorge North End of ATP	2	100		0-2.226	Installation of ATP to complete route	2010/11
	<b>Capital</b>						2010/11
Y	Hairini Link Advance Works (Stage II) Inc. W&C	2	152 to 157		0 to 0 respectfully	SH2A/Fraser St Intersection Upgrade- Various walking & cycling facilities for Hairni Link Advanced Works	2010/11
Y	Pyes Pa Bypass	36	0 to 4		0 to 0 respectfully		2010/11
N/A	Fairy Springs 4L Stage 2	5	45 to 47		2.05 to 0.67 respectfully	Extention of four Laning of Fairy Springs Road to the north to include a roundabout and intersection improvement. This project was part of the Tauranga direct/Twin city Transportation package.	Not in BOPWest security zone 2011/12
Y	Bethlehem Township Four laning (SH2)	2	146		1.35 to 1.65	Four laning of SH2 within Bethlehem Township between Moffat Road roundabout and a proposed new roundabout (to be constructed by Tauranga City Council) approximately 350m to the west.	Markings no paint date, no street lights in RAMM 2011/12
Y	SH2 Katikati Urban Safety Improvements	2	116		1.35 to 3.65	Package of traffic safety improvements including pedestrian signals, right turn bays, street lighting, rural urban threshold treatments.	Duplicate surface records 1370-1790 12/04/2013, markings no paint date. 2011/12
	Five Mile Gate PL					Passing lane	Unable to locate

## DATABASE HEALTH INDEX - REGIONAL AVERAGES

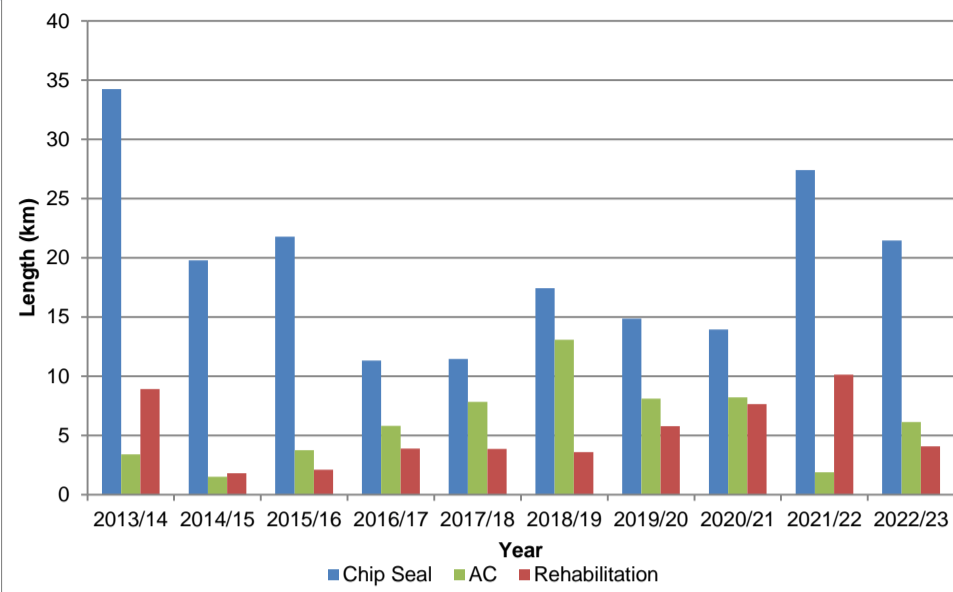
**Area:** BOP WEST M&O  
**Date:** 11/03/2014

Regional Averages							
Asset	Region	Hierarchy					Regional Average
		High Volume	National Strategic	Regional Strategic	Regional Connector	Regional Distributor	
Maintenance Costs (no. of pavement and surfacing faults per km)	<b>Regional Average for route type</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>5</b>	5
	Napier	4	2	4	-	3	
	Gisborne	-	-	7	5	9	
	East Waikato	4	-	4	5	4	
	BOP West	3	-	4	9	8	
	BOP East	-	-	7	5	5	
Culverts (Rural) (no. per km)	<b>Regional Average for route type</b>	<b>8</b>	<b>7</b>	<b>9</b>	<b>8</b>	<b>9</b>	9
	Napier	4	7	9	-	7	
	Gisborne	-	-	8	11	9	
	East Waikato	7	-	7	8	11	
	BOP West	9	-	8	6	11	
	BOP East	-	-	9	8	7	
Catchpit (Urban) (no. per km)	<b>Regional Average for route type</b>	<b>9</b>	<b>12</b>	<b>15</b>	<b>10</b>	<b>8</b>	10
	Napier	10	12	11	-	9	
	Gisborne	-	-	0	6	5	
	East Waikato	6	-	21	14	7	
	BOP West	9	-	8	6	11	
	BOP East	-	-	16	7	6	
Manholes (urban) (no. per km)	<b>Regional Average for route type</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	1
	Napier	0	0	2	-	1	
	Gisborne	-	-	0	1	0	
	East Waikato	0	-	0	1	1	
	BOP West	0	-	0	0	0	
	BOP East	-	-	0	0	0	
Subsoil Drain (Rural) (m per km)	<b>Regional Average for route type</b>	<b>10</b>	<b>34</b>	<b>136</b>	<b>27</b>	<b>43</b>	61
	Napier	107	34	223	-	14	
	Gisborne	-	-	151	93	148	
	East Waikato	0	-	0	4	2	
	BOP West	0	-	0	0	159	
	BOP East	-	-	8	34	3	
Surfaced SWC (Urban) (m per km)	<b>Regional Average for route type</b>	<b>1389</b>	<b>1447</b>	<b>1620</b>	<b>1175</b>	<b>923</b>	1137
	Napier	1488	1447	1815	-	1623	
	Gisborne	-	-	0	426	784	
	East Waikato	745	-	1538	1224	914	
	BOP West	718	-	1427	0	0	
	BOP East	-	-	1637	1237	520	
Earth SWC (Rural) (m per km)	<b>Regional Average for route type</b>	<b>991</b>	<b>523</b>	<b>751</b>	<b>1315</b>	<b>1131</b>	1050
	Napier	313	523	448	-	718	
	Gisborne	-	-	1087	1403	1328	
	East Waikato	1307	-	1174	1379	1200	
	BOP West	830	-	1160	642	1362	
	BOP East	-	-	1379	1283	1117	
Signs (no. per km)	<b>Regional Average for route type</b>	<b>22</b>	<b>14</b>	<b>18</b>	<b>16</b>	<b>15</b>	16
	Napier	26	14	16	-	15	
	Gisborne	-	-	19	20	15	
	East Waikato	12	-	21	17	18	
	BOP West	22	-	23	12	10	
	BOP East	-	-	18	15	12	
Streetlights (no. per km)	<b>Regional Average for route type</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	2
	Napier	17	2	1	-	2	
	Gisborne	-	-	0	1	2	
	East Waikato	2	-	4	3	2	
	BOP West	0	-	0	0	1	
	BOP East	-	-	0	0	0	

## DATABASE HEALTH INDEX DASHBOARD - REPORTS

Area: **BOP WEST M&O**  
Date: **11/03/2014**

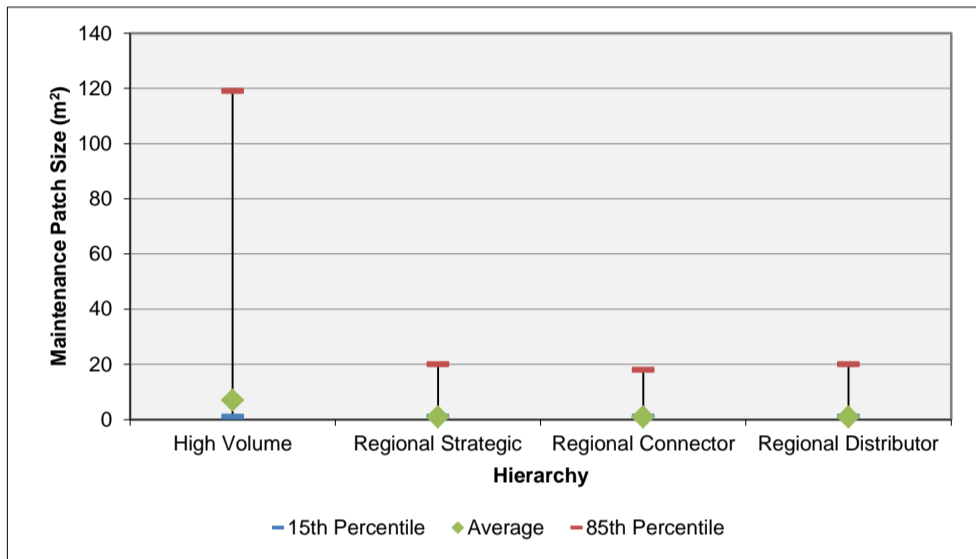
**Breakdown of 10 Year FWP by Treatment Type**



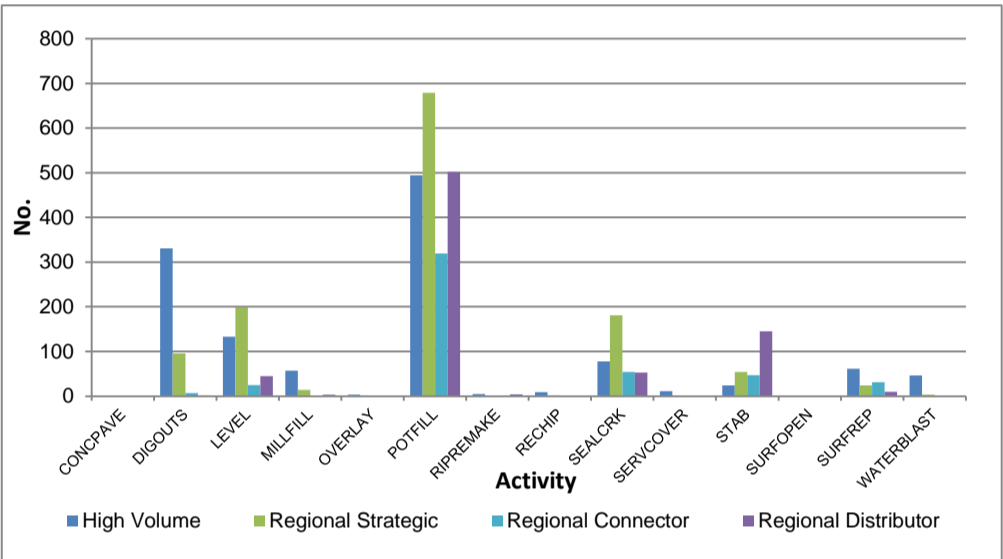
**Signalised Intersections in RAMM**

Road Name	No.
002-0151-D	5
002-0151-I	6
002-0152-R3	2
002-0155-R1	2
002-0155-R5	2
002-0157-D	4
002-0157-I	4
029-0013-D	12
029-0013-I	8
029-0013-W	14
02A-0000/01.28	2
02A-0000/03.53-D	1
<b>Total</b>	<b>62</b>

**Distribution of maintenance patch sizes by Hierarchy**



**Breakdown of Maintenance Cost Activities last 3 years**



**Large Signs >4.0m²**

Sign Type	No.
Advance direction (Map) - "T" or cross roads	6
Advance direction (Stack) - "T" intersection	3
Intersection Direction - "T"	3
Advance Direction (Cross Roads)	1
Advance direction (Map) - Roundabout	30
Advance direction (Stack) - Cross roads	7
Advance direction (Stack) - Skew intersection	4
Advanced lane direction [Arrow]	7
Advanced lane direction [Message]	6
Chevron Board	1
Chevron Board - Advisory speed 65km/h	2
Confirmation Destination	5
Curve - 15 to 90 degrees	1
Curve Advisory Speed 85km/h	1
DESTINATION (Stack)	2
EXIT	1
Intersection Direction	2
Intersection Direction - with route marker	2
Intersection Direction [Arrow]	1
Overhead Lane Use Arrows	2
Place Name	2
ROAD INFORMATION	10
Speed Limit	2
Threshold Sign - Place Name + Speed Limit	2
<b>Total</b>	<b>103</b>

**End Treatments in RAMM**

End Treatment Type	No.
Advance direction (Map) - "T" or cross roads	65
Armorwire Terminal End	2
Breakaway Cable Terminal Unit	2
Buried in Back Slope	1
Breakaway Cable Terminal (Bull Nose)	135
Bridge Plate/Bridge Connector	116
Cable End	3
ET2000	30
Fishtail/Butterfly End	7
Fleet 350	44
Great System Crash Units	7
M23 Compliant	33
Not Applicable	52
Steel Drum Crash Cushion	2
SKT 350	76
Steel Wire Rope End Anchor Block	2
Terminal end	97
TR Attenuating Crash Cushion	2
<b>Total</b>	<b>676</b>

## DATABASE HEALTH INDEX DASHBOARD - REPORTS

**Area:** BOP WEST M&O

**Date:** 11/03/2014

Breakdown of road markings by type	Weigh Stations
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Please note that NZTA does not require recording of standard centerline and edgeline lengths and therefore these quantities may not include some or all of these items

Marking Material	length (m)
Long Life Flat	63720
Paint	278830
Raised Pavement Marker	175368
Reflectorised Paint	514294
Thermoplastic Audible	125152
Unknown	66270

Road Name	Location	Side
002-0130	15345	L
002-0157/01.69	2714	R
002-0180/01.32	9014	R
002-0180/01.32	8877	L
<b>Total</b>		<b>4</b>

Footpath and CycleWays	Gantries
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None

Road Name	Location	
002-0146	1126	
002-0146/01.76	1861	
002-0146/02.84-D	4334	
002-0146/02.84-D	4569	
002-0146/02.84-I	4333	
002-0146/02.84-I	4566	
002-0151-D	580	
002-0151-D	1249	
002-0151-D	3833	
002-0151-D	4134	
002-0151-D	4435	
002-0151-D	4949	
002-0151-I	3800	
002-0151-I	4102	
002-0155-R2	307	
002-0155-R6	80	
002-0155-R7	846	
02A-0000-D	897	
<b>Total</b>		<b>18</b>

**DATABASE HEALTH INDEX - PARAMETERS**

Measures		Description	Data Source	Grading	Greater than	Less than	NZTA Target Grade
<b>Pavement Inventory</b>							
Capital Projects	Major capital projects completed v RAMM (in last 6 -30 months)	Proportion of major capital projects completed within in 6 - 30 months that have been captured in RAMM	NZTA Regional Office, RAMM	N/A	N/A	N/A	N/A
	Minor capital or safety improvement projects v RAMM (in last 6 -30 months)	Proportion of minor capital or safety improvement projects completed within in 6 - 30 months that have been captured in RAMM	NZTA Regional Office, RAMM	N/A	N/A	N/A	N/A
Surfacing	% of Network surfaced in RAMM over previous 4 – 15 months	Total length of Network with surface date in the last year / total length of network	RAMM surface_structure, carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	8% 5% 2%	8% 5% 2%	Grade 1
	% Surfaces 50% older than expected age	Total length of Network with surface date > 50% older than expected age / total length of network	RAMM surface_structure, carr_way	Grade 1 Grade 2 Grade 3 Grade 4	3% 7% 15%	3% 7% 15%	Grade 2
	% of Network with no surfacing	Total length of Network with no surface material / total length of network	RAMM treatment_length, carr_way	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
	Illogical records (SAC with chipseal, Low and high widths, Alignment of traffic volumes v pavement use)	No. Records with inconsistencies / No carriageway sections	RAMM carr_way, c_surface, traffic_loading, traffic_loading_dtl	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
Pavement Layer	Proportion with layer information	Total length of Network with layer material / total length of network	RAMM treatment_length, carr_way	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 3
	New Layer length in 6 – 30 months	Total length of Network with layer date between 6-30 months old / total length of network	RAMM pave_structure, carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 3% 1%	5% 3% 1%	Grade 2
	Illogical records (Pavement layers v Incorrect Surfacing)	Total No. illogical Records / total No treatment lengths	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
Road Marking	Breakdown of road markings by type	Total road marking length by type	RAMM carr_way, markings	N/A	N/A	N/A	N/A
Treatment Length	Proportion of very short < 20m TLs	Total length of Network with length < 20m / total length of network	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
	Proportion of very long > 2000m TLs	Total length of Network with length > 2000m / total length of network	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
	Proportion of TLs with < 80% coverage of major surfacing	Total length of Network with < 80% coverage of major surfacings / total length of network	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
	% updated in last 5 years	Total No treatment lengths updated in last 5 years / total No TL's	RAMM carr_way, treatment_length	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
Forward Works Programme	Date FWP Last Updated	Date FWP last updated	RAMM treatment_length, fw_cell_treatment, fw_programme_cell, fw_programme_hdr, fw_treatment	N/A	N/A	N/A	N/A
	Proportion of network identified for treatment in next ten years (date last updated)	Length of network identified for treatment in the 10 year FWP / total network length	RAMM treatment_length, fw_cell_treatment, fw_programme_cell, fw_programme_hdr, fw_treatment	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	FWP v surfacings (% surfacings in last year conflicting with first 2 years of FWP exc 2nd coats)	Total length of Network with surfacings with dates in last year with a treatment scheduled in first 2 years of FWP (excl 2nd coats) / total length in first 2 years of FWP	RAMM treatment_length, fw_cell_treatment, fw_programme_cell, fw_programme_hdr, fw_treatment	Grade 1 Grade 2 Grade 3 Grade 4	2% 5% 8%	2% 5% 8%	Grade 1
	Evidence of active MIS strategy, reasons for treatments listed and detailed	Total length of Network with MIS strategy present / Total Network Length	RAMM treatment_length, fw_cell_treatment, fw_programme_cell, fw_programme_hdr, fw_treatment	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
<b>Collected Data</b>							
Carriageway Rating	Percentage rated in last year	Total network length rated in the last year / total network length	RAMM carr_way, treatment_length, rating	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
High Speed Data	% network meeting standards for roughness, rutting and texture (Roads surveyed in last year)	Total length of network with roughness, rutting and texture surveyed in the last year / total network length	RAMM carr_way, treatment_length, hsd_rough, hsd_rutting, hsd_texture	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
	% network meeting standards for FWD (Roads surveyed in last 5 years)	Total length of network with FWD surveyed in the last 5 years / total network length	RAMM carr_way, treatment_length, falling_weight	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
	% network meeting standards for SCRIM (Roads surveyed in last year)	Total length of network with SCRIM surveyed in the last year / total network length	RAMM carr_way, treatment_length, skid_resistance	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1

**DATABASE HEALTH INDEX - PARAMETERS**

	Measures	Description	Data Source	Grading	Greater than	Less than	NZTA Target Grade
Maintenance Costs	Items per km for PA and SU cost groups in previous 4 – 15 months vs Regional Average	Total number of pavement and surfacing activity in last 4-15 months/Total Carriageway Length vs Regional Average	RAMM carr_way, mc_cost	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Spread of location in previous 4 - 15 months (proportion located at carriageway start)	Total number of pavement and surfacing activity in last 4-15 months at carriageway start / Total pavement and surfacing activity	RAMM carr_way, mc_cost	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 2
	Distribution of maintenance patch sizes by Hierarchy	Distribution of maintenance patch sizes by State Highway Classification	RAMM carr_way, mc_cost	N/A	N/A	N/A	N/A
	Breakdown of Maintenance Cost Activities	Breakdown of maintenance cost activities by type for the last 3 years by State Highway Classification	RAMM carr_way, mc_cost	N/A	N/A	N/A	N/A
	% of Maintenance Activity where fault type is "Unknown"	Percentage of maintenance cost activity recorded as unknown for the last 3 years.	RAMM carr_way, mc_cost	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
Miscellaneous	No. Test Pits with layer data recorded	Total number of test pit records	RAMM carr_way, pave_test_pit_hdr	N/A	N/A	N/A	N/A
	No. of LTPP Sites recorded in RAMM	Total number of LTPP Sites	RAMM carr_way, ud_ltp	N/A	N/A	N/A	N/A
Traffic Count	Latest ADT Counts	Latest date of counts	RAMM traffic_loading	N/A	N/A	N/A	N/A
	Latest ADT Estimates	Latest date of Estimates	RAMM traffic_loading	N/A	N/A	N/A	N/A
	% loading estimate (i.e. not default)	Total no. loading estimates in last year / total no carriageway sections	RAMM carriageway, traffic_loading, carr_way, traffic_loading_dtl	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
<b>Non-Carriageway Asset Inventory</b>							
Structures	No. Pavement Type "Bridge" v No. Bridges > 50m in length in BDS	Total No. Bridge pavement type in RAMM vs Total No. Bridges >50m in length in BDS that carry the State Highway	RAMM carr_way, BDS	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 1
	No. Large Culverts v No. BDS	Total No. Culverts with an area >= 3.4m2 ("LR-BSN" sign_type with legend "CULVERT" LHS Only) vs Total No. culverts in BDS	RAMM sign, BDS	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Retaining Walls	Total No. Retaining Walls	RAMM carr_way, retaining_wall	N/A	N/A	N/A	N/A
	Gantries	Total No. Gantries	RAMM carr_way, minor_structure	N/A	N/A	N/A	N/A
	Barriers in RAMM(m)	Total Length Barriers (excludes SR, HR, OTHER, GREAT)	RAMM carr_way, railings	N/A	N/A	N/A	N/A
Drainage	Culverts per km v Regional Average (Rural)	Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Catchpits per km v Regional Average (Urban)	Total No. of catchpits per km Urban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Manholes per km v Regional Average (Urban)	Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Subsoil Drains per km v benchmark Regional Average (Rural)	Length of subsoil drains per km Rural vs regional average per km	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	% of Drainage (Construction Date in previous 4 – 15 months)	Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of drainage structures	RAMM carr_way, drainage	Grade 1 Grade 2 Grade 3 Grade 4	4% 2% 1%	4% 2% 1%	Grade 2
Surface Water Channels	Surfaced SWC per km v Regional Average (Urban)	Length of surfaced SWC per km Urban vs regional average per km	RAMM carr_way, sw_channel	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Earth SWC per km v Regional Average (Rural)	Length of Earth SWC per km Rural vs regional average per km	RAMM carr_way, sw_channel	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Sealed SWC Renewal Activity (Construction Date in previous 4 – 27 months)	Length of surfaced SWC renewed or replaced in last 4-15 months / total length of surfaced SWC	RAMM carr_way, sw_channel	Grade 1 Grade 2 Grade 3 Grade 4	4% 2% 1%	4% 2% 1%	Grade 2

## DATABASE HEALTH INDEX - PARAMETERS

	Measures	Description	Data Source	Grading	Greater than	Less than	NZTA Target Grade
Signs	Signs per km v Regional Average	Total No. of signs per km vs regional average per km	RAMM carr_way, signs	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Large Signs >4.0m <sup>2</sup>	Total No. of large signs with a sign face greater than 4.0m <sup>2</sup>	RAMM carr_way, signs	N/A	N/A	N/A	N/A
	ITS VMS	Total No. of ITS Assets (3VMS, 3MVMS, 3VMSS, 3VSS) and its_state = "In Service"	RAMM carr_way, ud_its	N/A	N/A	N/A	N/A
	% of Signs with renewal date in previous 4 – 15 months	Total No. of signs renewed or replaced in last 4-15 months / total number of signs	RAMM carr_way, signs	Grade 1 Grade 2 Grade 3 Grade 4	6% 4% 2%	6% 4% 2%	Grade 2
	No. Frangible bases in RAMM	Total No of signs with frangible bases, type includes (SJ and BP)	RAMM signs, sign_to_post_join, sign_post	N/A	N/A	N/A	N/A
Streetlights	Streetlights per km v benchmark	Total No. of street lights per km vs regional average per km	RAMM carr_way, sl_pole	Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20%	90% 70% 40% 20%	Grade 2
	Frangible Base type no.	Total No. of street lights with frangible bases	RAMM carr_way, sl_pole	N/A	N/A	N/A	N/A
	Shear Base type no.	Total No. of street lights with shear bases	RAMM carr_way, sl_pole	N/A	N/A	N/A	N/A
	% of Street lights with renewal date in previous 4 – 15 months	Total No. of street lights renewed or replaced in last 4-15 months / total number of street lights	RAMM carr_way, sl_pole	Grade 1 Grade 2 Grade 3 Grade 4	6% 4% 2%	6% 4% 2%	Grade 2
	Duplicates or near duplicates plus poles with no light or bracket	Total No. Poles with no brackets attached, total No. brackets with no light attached, total No. poles with duplicate road_id, location, offset_side, offset	RAMM carr_way, sl_pole, sl_bracket, sl_light	Grade 1 Grade 2 Grade 3 Grade 4	5% 15% 40%	5% 15% 40%	Grade 1
Footpath & Cycleways	Total Length of footpath and cycleways (see attached tables for listing)	Total length of footpath and cycleways	RAMM carr_way, features	N/A	N/A	N/A	N/A
Signal Controlled intersections	No. Signal Controlled Intersections (see attached report for loactions)	Number of signal Controlled Intersections (SIGINT)	RAMM carr_way, features	N/A	N/A	N/A	N/A
Rest Areas	Number of rest areas	Total No of rest areas	RAMM carr_way, features	N/A	N/A	N/A	N/A
Weigh Station	No. Weigh stations	Number of weighs Stations (WSTAT)	RAMM carr_way, minor_structure	N/A	N/A	N/A	N/A