

## 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:** CHRISTCHURCH M&O  
**Date:** 4/12/2013

Category	Measures	Performance					
		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 over previous 4 – 15 months	5.0%	Grade 2	Grade 1	61	84
		% Surfaces at least 50% older than expected age	24.2%	Grade 4	Grade 2		
		% of Network with no surfacing	2.0%	Grade 1	Grade 1		
		Illogical Records inc. % (SAC with chipseal, Low and high widths, Alignment of traffic volumes v pavement use)	1.6%	Grade 1	Grade 1		
	Pavement Layer	Proportion of Network with layer Information	49.4%	Grade 3	Grade 3	75	77
		New layer length in previous 6 – 30 months	10.8%	Grade 1	Grade 2		
		Illogical records (Pavement Layers v Incorrect Surfacing)	12.3%	Grade 2	Grade 1		
	Road Marking	Breakdown of road markings by type	see attached report			-	-
	Treatment Length	Proportion of very short (< 20m) TLs	2.8%	Grade 1	Grade 1	72	85
		Proportion of very long (> 2000m) TLs	0.6%	Grade 1	Grade 1		
Proportion of TLs with < 80% coverage of major surfacing		26.6%	Grade 3	Grade 1			
% updated in last 5 years		47.9%	Grade 3	Grade 2			
Forward Works Programme	Date FWP last updated	2/12/2013	-	-	54	90	
	Proportion of network identified for treatment in next ten years (from FWP)	61.4%	Grade 3	Grade 2			
	FWP v surfacings (% surfacings in last year conflicting with first 2 years of FWP excluding 2nd coats)	0.0%	Grade 1	Grade 1			
	Evidence of active MIS strategy, reasons for treatments listed and detailed	0.0%	Grade 5	Grade 1			
Collected Data	Carriageway Rating	Percentage rated in last year	0.0%	Grade 5	Grade 1	0	90
	High Speed Data	% network meeting standards for roughness, rutting and texture (Roads surveyed in last year)	99.9%	Grade 1	Grade 1	96	90
		% network meeting standards for FWD (Roads surveyed in last 5years)	87.4%	Grade 2	Grade 1		
		% network meeting standards for SCRIM (Roads surveyed in last year)	99.9%	Grade 1	Grade 1		
	Maintenance Activity	Items per km for PA and SU cost groups in previous 4 – 15 months v Regional Average	33.3%	Grade 4	Grade 2	74	83
		Spread of location in previous 4 - 15 months (proportion located at carriageway start)	4.0%	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"	1.5%	Grade 1	Grade 1	-	-
		No. of test pits with layer data recorded	2	no.	-	-	-
	Traffic Count	No. of LTPP sites recorded in RAMM	0	no.	-	-	-
		Latest ADT Counts	31/12/2012	-	-	92	70
Latest ADT Estimates		2/12/2013	-	-			
% loading estimate (i.e. not default)	92.3%	Grade 1	Grade 2				
Non-Carriageway Asset Inventory	Structures	No. of Pavement Type "Bridge" v No. of Bridges > 50m in length in BDS	91.7%	Grade 1	Grade 1	71	85
		No. Large Culverts v No. BDS	50.0%	Grade 3	Grade 2		
		Retaining Walls	32	no.	-		
		Gantries (see attached report for locations)	3	no.	-		
		Barriers in RAMM (m)	31406	m	-		
		End Treatments in RAMM	see attached report				
	Drainage	Culverts per km v Regional Average (Rural)	53.3%	Grade 3	Grade 2	51	80
		Catchpits per km v Regional Average (Urban)	134.1%	Grade 1	Grade 2		
		Manholes per km v Regional Average (Urban)	250.0%	Grade 1	Grade 2		
		Subsoil Drains per km v Regional Average (Rural)	0.0%	Grade 5	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)	90.6%	Grade 1	Grade 2	67	77
		Earth SWC per km v Regional Average (Rural)	114.1%	Grade 1	Grade 2		
		Sealed SWC renewal activity (Construction Date in previous 4 – 27 months)	0.4%	Grade 4	Grade 2		
	Signs	Signs per km v Regional Average	125.8%	Grade 1	Grade 2	51	78
		Large Signs >4.0m <sup>2</sup> (see attached report for quantity by type)	157	no.	-		
		ITS VMS	3	no.	-		
		% of Signs with renewal date in last 4 - 15 months	0.1%	Grade 4	Grade 2		
		No. Frangible bases in RAMM (no posts in RAMM)	2	no.	-		
	Streetlights	Streetlights per km v Regional Average	0.0%	Grade 5	Grade 2	33	82
Frangible Base type no.		0	no.	-			
Shear Base type no.		0	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		0.0%	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)	44	no.	-	-	-	
Rest Areas	Number of rest areas	0	no.	-	-	-	
Weigh Stations	Number of Weigh Stations (see attached report for locations)	2	no.	-	-	-	

**DATABASE HEALTH INDEX DASHBOARD - PROJECTS**Area: **CHRISTCHURCH M&O**Date: **4/12/2013**

In RAMM (Y/N/P)	Project Name	SH	RS	Dir	RP	Comments	Year
N	Woodend to Pineacres Centreline Trials	1	317		0-2.78	Central median treatment	10/11
N	Sharlands Road	1	381		10.16	Installing a soak pit	10/11
P	SH73 Pound Road Roundabout	73	5		2.2	Upgrade from stop to roundabout	10/11
P	SH74 Travis Road / Burwood Rd Intersection Upgrade	74	0		9.86	Upgrade from roundabout to traffic signal	10/11
P	SH73A Main South Rd / Chappie Place Improvement	73A	0	D	3.294	Upgrade from give way to traffic signal	10/11
N	Symes Road Right Turn Bay	73A	0		1.65-1.85	Extending the right turn bay.	10/11
N	SH74 Marshlands Road Intersection Upgrade	74	0		7.64	Upgrade from roundabout to traffic signal	11/12
N	Lyttelton roundabout	74	26		0	improve existing traffic islands at the roundabout	11/12
N	Norwood Road RTB, Norwood	1	365		14.72-14.79	Install southbound RTB on the highway	12/13
N	SH1 Rakaia River Bridge	1	381		18.8-19.7	Treatments will address delineation including wide edgeline, additional reflector strips to side panels, and wide centreline.	12/13
N	Racecourse Road Intersection	73	1	I	2.269-2.77	Intersection improvements with a merge area and a U-turn facility constructed within the raised median.	12/13
N	Yaldhurst Speed Thresholds	73	14		2.057-2.834	Install threshold signs and delineation on western approach to the township.	12/13
N/A	Wainoni Rd Intersection	74	0		12.42-12.48	Right turn signal upgrade.	12/13
N/A	Linwood Ave	74	0		18.37-18.57	Right turn signal upgrade.	12/13
N	Colombo Street Intersection	76	3		3.01-3.51	Traffic signal upgrade including mast arm replacements and geometric kerb improvements.	12/13
Y	SH1 Main South Road Bus Lanes	1 /73A	0		1.68-3.34	Provision of bus lanes	12/13
P	SH76 Halswell Junction Road	1	347		1.45	Upgrade of CCC road to temporary state highway	12/13
Y	SH76 Christchurch Southern Motorway	76	11			New motorway	

## DATABASE HEALTH INDEX - REGIONAL AVERAGES

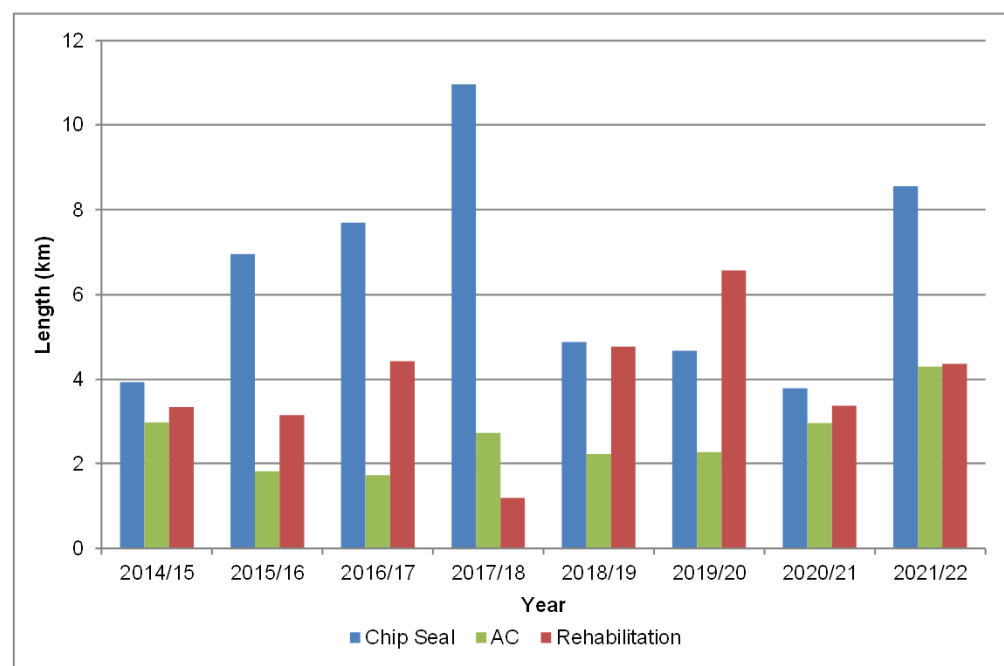
**Area:** CHRISTCHURCH M&O  
**Date:** 4/12/2013

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>3</b>	<b>3</b>	<b>5</b>	<b>1</b>	<b>2</b>	3
	Nth Canterbury	-	2	2	2	2	
	Sth Canterbury	-	2	-	1	1	
	Christchurch	1	1	1	1	-	
	Coastal Otago	-	7	8	1	3	
	Wellington	4	1	5	-	5	
Culverts (Rural) (no. per km)	<b>Regional Average for route type</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>5</b>	4
	Nth Canterbury	-	4	3	5	4	
	Sth Canterbury	-	4	-	4	4	
	Christchurch	1	1	3	3	-	
	Coastal Otago	-	6	5	2	6	
	Wellington	3	2	8	-	8	
Catchpit (Urban) (no. per km)	<b>Regional Average for route type</b>	<b>12</b>	<b>10</b>	<b>9</b>	<b>10</b>	<b>8</b>	10
	Nth Canterbury	-	6	4	4	4	
	Sth Canterbury	-	10	-	8	9	
	Christchurch	10	9	22	14	-	
	Coastal Otago	-	13	11	2	8	
	Wellington	14	13	10	-	15	
Manholes (urban) (no. per km)	<b>Regional Average for route type</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	1
	Nth Canterbury	-	0	0	0	0	
	Sth Canterbury	-	0	-	0	0	
	Christchurch	0	0	10	0	-	
	Coastal Otago	-	0	0	0	0	
	Wellington	5	0	4	-	0	
Subsoil Drain (Rural) (m per km)	<b>Regional Average for route type</b>	<b>16</b>	<b>48</b>	<b>90</b>	<b>12</b>	<b>33</b>	41
	Nth Canterbury	-	40	12	37	21	
	Sth Canterbury	-	37	-	7	2	
	Christchurch	0	0	0	0	-	
	Coastal Otago	-	106	194	2	46	
	Wellington	22	6	43	-	201	
Surfaced SWC (Urban) (m per km)	<b>Regional Average for route type</b>	<b>1493</b>	<b>1376</b>	<b>1283</b>	<b>1402</b>	<b>1118</b>	1356
	Nth Canterbury	-	1277	527	705	488	
	Sth Canterbury	-	1603	-	1469	1562	
	Christchurch	1461	975	969	1629	-	
	Coastal Otago	-	1695	1437	428	1025	
	Wellington	1546	1561	1697	-	1215	
Earth SWC (Rural) (m per km)	<b>Regional Average for route type</b>	<b>489</b>	<b>1114</b>	<b>1167</b>	<b>673</b>	<b>1424</b>	1105
	Nth Canterbury	-	805	1142	959	1002	
	Sth Canterbury	-	1642	-	644	1470	
	Christchurch	545	825	1334	1224	-	
	Coastal Otago	-	1453	1173	352	1607	
	Wellington	467	75	1178	-	992	
Signs (no. per km)	<b>Regional Average for route type</b>	<b>22</b>	<b>15</b>	<b>18</b>	<b>11</b>	<b>12</b>	15
	Nth Canterbury	-	10	13	16	14	
	Sth Canterbury	-	15	-	8	10	
	Christchurch	19	20	17	27	-	
	Coastal Otago	-	19	16	8	11	
	Wellington	23	19	28	-	30	
Streetlights (no. per km)	<b>Regional Average for route type</b>	<b>8</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	2
	Nth Canterbury	-	0	0	0	0	
	Sth Canterbury	-	4	-	1	1	
	Christchurch	0	0	0	0	-	
	Coastal Otago	-	0	0	0	0	
	Wellington	13	8	6	-	2	

## DATABASE HEALTH INDEX DASHBOARD - REPORTS

**Area:** CHRISTCHURCH M&O  
**Date:** 4/12/2013

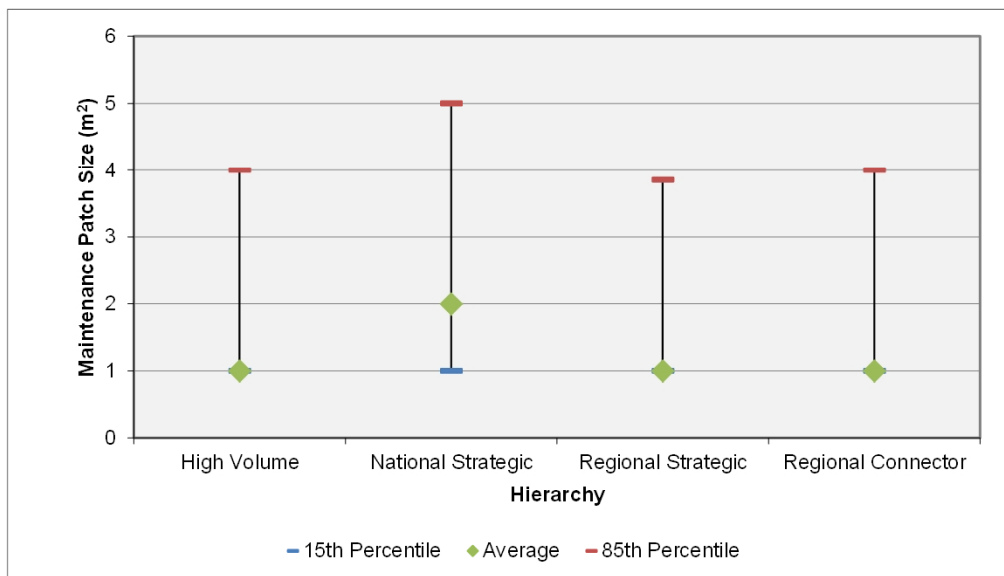
### Breakdown of 10 Year FWP by Treatment Type



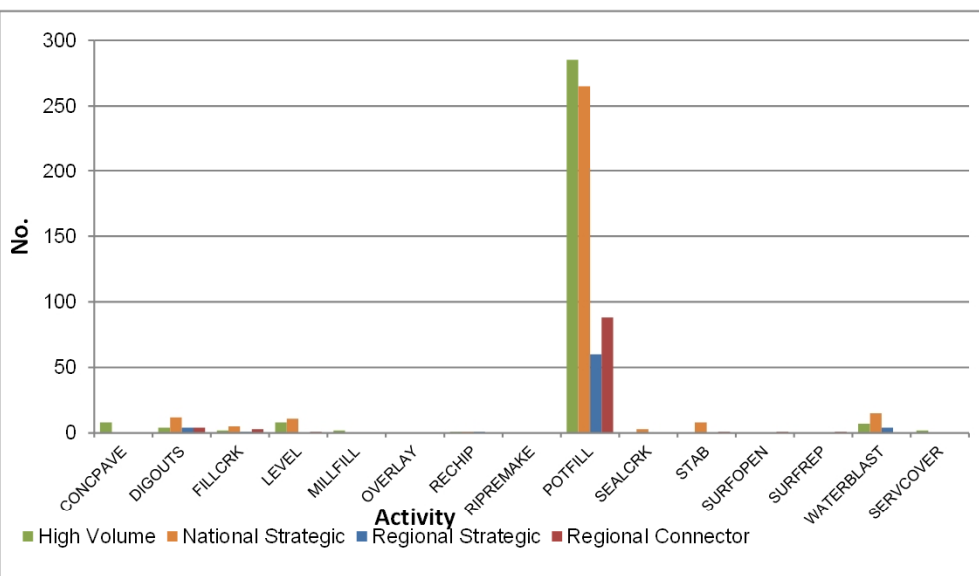
### Signalised Intersections in RAMM

Road Name	No.
073-0001/00.73-D	4
076-0003/00.98-I	2
076-0003/02.19-I	4
074-0000/11.84	2
076-0009-R1	1
01S-0365	1
074-0000-D	4
74A-0000	1
076-0003/02.19-D	5
073-0001/00.73-I	5
074-0000-I	5
075-0000/00.36	1
073-0000-D	2
076-0003/00.98-D	2
076-0009-R2	1
073-0001	1
074-0000/15.35	1
073-0000-I	2
<b>Total</b>	<b>44</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	8
Intersection Direction - "T"	2
Two services "_____"m ON left/right	1
ADVANCE DIRECTION (Cross Roads)	2
ADVANCE DIRECTION (Skew Intersection)	2
Advance Direction (Cross Roads)	4
Advance Direction (T Intersect head of T ahead)	4
Advance Exit	8
Advance Exit (Overhead)	3
Advance direction (Map) - Roundabout	21
Advance direction (Stack) - Cross roads	20
Advance direction (Stack) - Skew intersection	1
Advanced lane direction [Arrow]	15
Advanced lane direction [Message]	11
Chevron Board	1
Confirmation Destination	18
DESTINATION (Stack)	1
Intersection Direction	3
Intersection Direction [Arrow] and St. name sign	1
Intersection Direction - Urban	1
Intersection Direction - route marker with St.name sign	1
Intersection Direction - with route marker	3
ROAD INFORMATION	1
Speed Limit 100km/h	8
Speed Limit 60km/h with PN-1	2
Speed Limit 70km/h	4
Speed Limit 70km/h with PN-1	6

### End Treatments in RAMM

End Treatment Type	No.
Armorflex X 350	58
Armorwire Terminal End	14
Buried in Back Slope	2
Breakaway Cable Terminal (Bull Nose)	82
Bridge Plate/Bridge Connector	117
Buried in Back Slope	2
Cable end	4
CAT 350	13
Fishtail/Butterfly end	4
Fleat 350	10
M23 Compliant	8
Not Applicable	108
TAU II	2
Terminal end	32
Trailing End Anchor Units	25
<b>Total</b>	<b>481</b>

**Large Signs >4.0m<sup>2</sup>      End Treatments in RAMM**

Sign Type	No.
Speed Limit 80km/h with PN-1	4
Welcome To .....	1
<b>Total</b>	<b>157</b>

End Treatment Type	No.
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**Breakdown of road markings by type      Weigh Stations**

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)
Epoxy resin (for coloured surfacings)	691
Long Life Flat	22,599
Paint	41,634
Raised Pavement Marker	22,477
Reflectorised Paint	247,739
Thermoplastic - cold	23,261
Thermoplastic Audible	220
Unknown	522,662

Road Name	Location	Side
01S-0317	2319	Left
01S-0327/03.05-I	3340	Left
<b>Total</b>	<b>2</b>	

**Footpath and CycleWays      Gantries**

None

Road Name	Location
073-0001/00.73-D	1300
073-0001/00.73-D	2058
73A-0000/01.20-I	1920
<b>Total</b>	<b>3</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 between 4-15 months old / 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% 6%	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 >= 3.4m <sup>2</sup> vs Total No. culverts in BDS	RAMM carr_way, drainage, 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