

### DATABASE HEALTH INDEX - DASHBOARD

**Area:** OTAGO CENTRAL  
**Date:** 25/11/2013

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

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	6.1%	Grade 2	Grade 1	95	81
		% Surfaces at least 50% older than expected age	3.6%	Grade 2	Grade 2		
		% of Network with no surfacing	0.0%	Grade 1	Grade 1		
		Illogical Records inc. % (SAC with chipseal, Low and high widths, Alignment of traffic volumes v pavement use)	0.7%	Grade 1	Grade 1		
	Pavement Layer	Proportion of Network with layer Information	100.0%	Grade 1	Grade 3	68	77
		New layer length in previous 6 – 30 months	0.2%	Grade 4	Grade 2		
		Illogical records (Pavement Layers v Incorrect Surfacing)	0.0%	Grade 1	Grade 1		
	Road Marking	Breakdown of road markings by type	see attached report			-	-
Treatment Length	Proportion of very short (< 20m) TLs	3.6%	Grade 1	Grade 1	69	85	
	Proportion of very long (> 2000m) TLs	3.8%	Grade 1	Grade 1			
	Proportion of TLs with < 80% coverage of major surfacing	3.9%	Grade 1	Grade 1			
	% updated in last 5 years	0.1%	Grade 5	Grade 2			
Forward Works Programme	Date FWP last updated	21/06/2013	-	-	89	90	
	Proportion of network identified for treatment in next ten years (from FWP)	106.3%	Grade 1	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	67.6%	Grade 3	Grade 1			
Carriageway Rating	Percentage rated in last year	99.9%	Grade 1	Grade 1	100	90	
High Speed Data	% network meeting standards for roughness, rutting and texture (Roads surveyed in last year)	100.0%	Grade 1	Grade 1	68	90	
	% network meeting standards for FWD (Roads surveyed in last 5years)	2.5%	Grade 5	Grade 1			
	% network meeting standards for SCRIM (Roads surveyed in last year)	100.0%	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	73	83	
	Spread of location in previous 4 - 15 months (proportion located at carriageway start)	3.1%	Grade 1	Grade 2			
	Distribution of maintenance patch sizes by Hierarchy	see attached report					
	Breakdown of Maintenance Cost Activities	see attached report					
	% of Maintenance Activity where fault type is "Unknown"	3.4%	Grade 1	Grade 1			
Miscellaneous	No. of test pits with layer data recorded	0	no.	-	-	-	
	No. of LTPP sites recorded in RAMM	0	no.	-	-	-	
Traffic Count	Latest ADT Counts	31/12/2012	-	-	99	70	
	Latest ADT Estimates	20/11/2013	-	-			
	% loading estimate (i.e. not default)	99.4%	Grade 1	Grade 2			
Structures	No. of Pavement Type "Bridge" v No. of Bridges > 50m in length in BDS	0.0%	Grade 5	Grade 1	38	85	
	No. Large Culverts v No. BDS	75.6%	Grade 2	Grade 2			
	Retaining Walls	257	no.	-			
	Gantries (see attached report for locations)	0	no.	-			
	Barriers in RAMM (m)	74536	m	-			
	End Treatments in RAMM	see attached report					
Drainage	Culverts per km v Regional Average (Rural)	92.9%	Grade 1	Grade 2	61	80	
	Catchpits per km v Regional Average (Urban)	54.5%	Grade 3	Grade 2			
	Manholes per km v Regional Average (Urban)	100.0%	Grade 1	Grade 2			
	Subsoil Drains per km v Regional Average (Rural)	55.3%	Grade 3	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)	100.8%	Grade 1	Grade 2	67	77	
	Earth SWC per km v Regional Average (Rural)	105.6%	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	84.8%	Grade 2	Grade 2	44	78	
	Large Signs >4.0m <sup>2</sup> (see attached report for quantity by type)	44	no.	-			
	ITS VMS	6	no.	-			
	% of Signs with renewal date in last 4 - 15 months	0.2%	Grade 4	Grade 2			
	No. Frangible bases in RAMM (no posts in RAMM)	0	no.	-			
Streetlights	Streetlights per km v Regional Average	500.0%	Grade 1	Grade 2	67	82	
	Frangible Base type no.	0	no.	-			
	Shear Base type no.	71	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)	0	no.	-	-	-	
Rest Areas	Number of rest areas	0	no.	-	-	-	
Weigh Stations	Number of Weigh Stations (see attached report for locations)	1	no.	-	-	-	

**DATABASE HEALTH INDEX DASHBOARD - PROJECTS**Area: **OTAGO CENTRAL**Date: **25/11/2013**

In RAMM (Y/N/P)	Project Name	SH	RS	Dir	RP		Comments	Year
Y	VMS - Deadmans Point	8	271	Decr	21.13	VMS - Type A		08/09
Y	VMS - Hawea	6	866	Incr	14.31	VMS - Type D		09/10
Y	PW O177/15 - CO Safety Barriers	6	942	Incr	9.70 to 9.82	W-Sectn		10/11
Y	PW O177/15 - CO Safety Barriers	6	942	Incr	9.90 to 10.00	W-Sectn		10/11
Y	PW O177/15 - CO Safety Barriers	6	956	Incr	7.29 to 7.41	W-Sectn		10/11
Y	PW O177/15 - CO Safety Barriers	6	956	Incr	7.54 to 7.62	W-Sectn		10/11
Y	PW O177/15 - CO Safety Barriers	6	956	Incr	8.7 to 8.95	W-Sectn		10/11
Y	Weather Station - Shotover	6	983	n/a	8.31	NZTA/Met Svc Weather Stn		10/11
N	Signalised Crossing - Ross St	6	996	Both	0.47	Incl. sensor cables in pavement etc	No Markings or features updated	10/11
N	Signalised Crossing - McBride St	6	996	Both	1.02	Incl. sensor cables in pavement etc	No Markings or features updated	10/11
N	PW O177/13 - RTB in conjunction with Rehab	6	996	Incr	10.66	Lakeside Estates RTB	No Markings updated	10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	1.42 to 2.03	WRSF		10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	1.6 to 1.66	WRSF		10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	2.29 to 2.52	WRSF		10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	2.975 to 3.315	WRSF		10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	3.65 to 4.095	WRSF		10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	3.9 to 3.96	WRSF		10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	4.625 to 4.775	WRSF		10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	6.61 to 6.82	WRSF		10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	8.02 to 8.27	WRSF		10/11
Y	PW O177/15 - CO Safety Barriers	6	1024	Decr	9.37 to 9.57	WRSF		10/11
Y	Weather Station - Cluden Hill	8	247	n/a	8.01	NZTA/Met Svc Weather Stn		10/11
Y	PW O177/12 - Centennial Avenue	8	310	Both	17 to 18	Safety Improvements & Resurfacing	Drainage and channels no constructed date, markings no paint date, signs missing install date	10/11
Y	Weather Station - Millers Flat	8	381	n/a	2.5	NZTA/Met Svc Weather Stn		10/11
Y	Weather Station - Wedderburn	85	92	n/a	2.45	NZTA/Met Svc Weather Stn		10/11
Y	Weather Station - Chatto Ck	85	134	n/a	11.59	NZTA/Met Svc Weather Stn		10/11
Y	PW O177/23 - McNulty Rd LTL	6	942	Incr	2.11	McNulty Rd Left-turn-lane		11/12
Y	EWS - Kawarau Gorge	6	942	Incr	12.6	PW-41 Car Skidding		11/12
P	PW O177/23 - Roaring Meg RTB	6	942	Incr	14.25	Lookout - Right turn Bay	No Markings updated	11/12
Y	EWS - Kawarau Gorge	6	956	Decr	1.3	PW-41 Car Skidding		11/12
Y	SH6 Remarkables VMS	6	996	Incr	4.3	VMS - Type A		11/12
P	Peninsula Road Realignment	6	996	Both	2.2 to 2.8	Capital Project	Historical surfacings need removed date, no markings or retaining wall	11/12
Y	EWS - Lindis	8	217	Incr	7.11	PW-41 Car Skidding		11/12
Y	EWS - Lindis	8	217	Decr	8.52	PW-41 Car Skidding		11/12
Y	VMS - Tarras	8	247	Decr	17.31	VMS - Type C		11/12
N	PW O177/23 - Mt Iron LTL	84	0	Decr	0	Mt iron Left-turn-lane		11/12
N	Ballantyne Rd Pedestrian Refuge	84	0	Both	2.46	Central Island & Drop crossings		11/12
N	PW O177/23 - St Gerards Ped X-ing	85	148	Both	15.68	Pedestrian Crossing		11/12
N	PW O177/23: Ped Refuge - Battery Hill	6A	0	Both	2.36	Central Island & Drop crossings		11/12
N	Millenium Pedestrian Refuge	6A	0	Both	5.77	Central Island & Drop crossings		11/12
N	PW O177/23 - Sargood Rd LTL	8B	0	Incr	2.36	Sargood Rd Left-turn-lane		11/12
Y	Speedlimit Change - Shortcut Rd	6	938	Both	2.87	PN2-80	Markings paint date missing	12/13
Y	SH6/8B Separated LTL (Impr existing)	6	938	Incr	3.67 to 3.86	Improvements to existing	Markings paint date missing	12/13
P	Speedlimit Change - Ripponburn	6	942	Both	0.3	PN2-80	No Markings updated	12/13
Y	Speedlimit Change - Crown Range	6	978	Both	4.56	RS1-80		12/13
Y	Speedlimit Change - Rapley Close	6	983	Incr	0.23	RS1-80 (Repeater)		12/13
Y	Speedlimit Change - McDonnell Rd	6	983	Both	1.26	RS1-80		12/13
N/A	SH6 Humphrey St Splitter Island	6	996	Incr	1.15	Island on Side Street	Islands not entered in RAMM	12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Decr	0.39	TS1		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Decr	2.08	TS1		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Decr	4.2	TS1		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Decr	8.98	G-CD1		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Incr	9.98	PW22		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Decr	10.475	PW22		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Decr	0.214 to 0.294	W-Sectn		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Incr	0.226 to 0.306	W-Sectn		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Decr	0.36 to 1.19	WRSF		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	217	Decr	1.395 to 1.47	WRSF		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	233	Decr	1.3	G-CD1		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	247	Incr	7.97	IG16		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	247	Decr	8.41	G-CD1		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	247	Decr	17.44	G-CD1		12/13
Y	PW O177/27 - Lindis Pass Safety Impr	8	247	Incr	18.21	G-CD1		12/13
P	Speedlimit Change - Nth of Deadmans Pt	8	271	Both	20.87	PN2-80	No Markings updated	12/13
P	Speedlimit Change - Sth of Deadmans Pt	8	297	Both	0.47	PN2-80	No Markings updated	12/13
P	Reids Hill Slow Vehicle Bay Impr	8	343	Decr	0.85 to 1.38	Improvements to existing	No Markings updated	12/13
Y	Speedlimit Change - Nth of Millers Flat	8	381	Both	3.21	RS1-80		12/13
Y	Speedlimit Change - Sth of Millers Flat	8	381	Both	4.02	RS1-80		12/13
Y	Speedlimit Change - Nth of Lauder	85	120	Both	9.79	RS1-80		12/13
Y	Speedlimit Change - Sth of Lauder	85	120	Both	10.6	RS1-80		12/13
P	Speedlimit Change - Nth of Omakau	85	134	Both	3.92	PN2-50	Signs updated, Carriageway needs updating.	12/13
Y	Speedlimit Change - Omakau	85	134	Both	4.39	RS1-50 (Repeater)		12/13
Y	Speedlimit Change - Omakau	85	134	Both	4.97	RS1-50 (Repeater)		12/13
P	Speedlimit Change - Sth of Omakau	85	134	Both	5.48-5.62	PN2-50	Signs updated, Carriageway needs updating.	12/13
N	Speedlimit Change - East of Alexandra	85	148	Both	14.28	RS1-70		12/13
N	Speedlimit Change - Samson St Alexandra	85	148	Both	14.84	RS1-50		12/13
P	SH8 Aronui Rd RTB	8	328	Incr	1.86 to 1.97	New RTB	No Markings updated	13/14

## DATABASE HEALTH INDEX - REGIONAL AVERAGES

**Area:** OTAGO CENTRAL  
**Date:** 25/11/2013

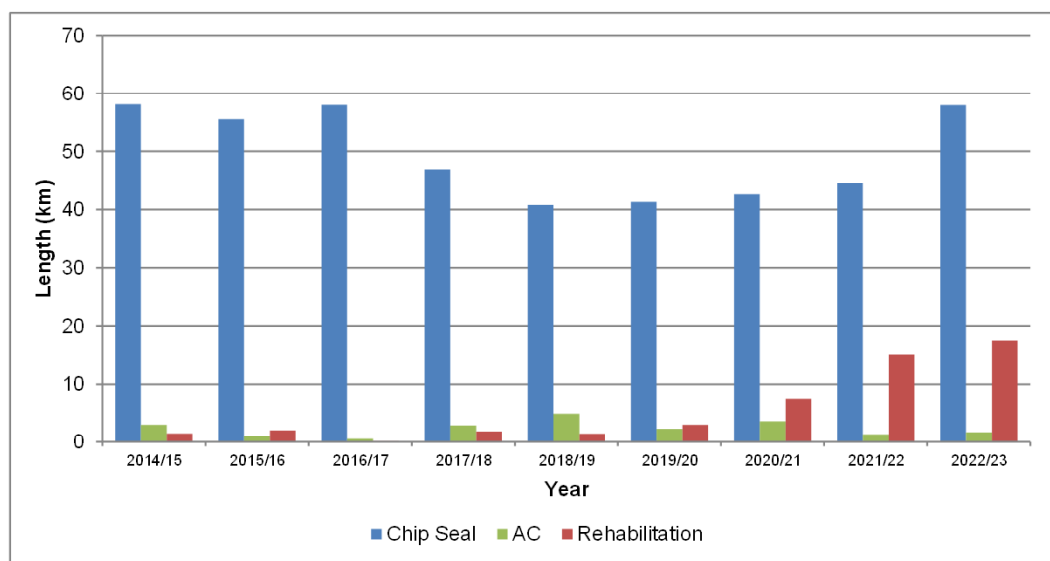
Regional Averages							
Asset	Region	Hierarchy					Regional Average
		High Volume	National Strategic	Regional Strategic	Regional Connector	Regional Distributor	
Maintenance Costs (no. of pavement and surfacing faults per km)	<b>Regional Average for route type</b>	-	4	3	1	2	2
	Sth Canterbury	-	2	-	1	1	
	Otago Central	-	-	1	0	1	
	Coastal Otago	-	7	8	1	3	
	Southland	-	-	2	2	2	
Culverts (Rural) (no. per km)	<b>Regional Average for route type</b>	-	5	5	4	5	5
	Sth Canterbury	-	4	-	4	4	
	Otago Central	-	-	5	4	4	
	Coastal Otago	-	6	5	2	6	
	Southland	-	-	4	6	6	
Catchpit (Urban) (no. per km)	<b>Regional Average for route type</b>	-	11	13	11	9	11
	Sth Canterbury	-	10	-	8	9	
	Otago Central	-	-	9	9	0	
	Coastal Otago	-	13	11	2	8	
	Southland	-	-	17	12	17	
Manholes (urban) (no. per km)	<b>Regional Average for route type</b>	-	0	0	0	0	0
	Sth Canterbury	-	0	-	0	0	
	Otago Central	-	-	0	0	0	
	Coastal Otago	-	0	0	0	0	
	Southland	-	-	0	0	0	
Subsoil Drain (Rural) (m per km)	<b>Regional Average for route type</b>	-	69	52	15	27	34
	Sth Canterbury	-	37	-	7	2	
	Otago Central	-	-	9	23	20	
	Coastal Otago	-	106	194	2	46	
	Southland	-	-	9	20	24	
Surfaced SWC (Urban) (m per km)	<b>Regional Average for route type</b>	-	1645	1554	1457	1307	1495
	Sth Canterbury	-	1603	-	1469	1562	
	Otago Central	-	-	1374	1352	1626	
	Coastal Otago	-	1695	1437	428	1025	
	Southland	-	-	1702	1548	1299	
Earth SWC (Rural) (m per km)	<b>Regional Average for route type</b>	-	1553	1347	1040	1535	1373
	Sth Canterbury	-	1642	-	644	1470	
	Otago Central	-	-	1305	1262	1575	
	Coastal Otago	-	1453	1173	352	1607	
	Southland	-	-	1819	1814	1461	
Signs (no. per km)	<b>Regional Average for route type</b>	-	17	14	9	10	12
	Sth Canterbury	-	15	-	8	10	
	Otago Central	-	-	12	8	8	
	Coastal Otago	-	19	16	8	11	
	Southland	-	-	15	13	11	
Streetlights (no. per km)	<b>Regional Average for route type</b>	-	2	1	0	0	1
	Sth Canterbury	-	4	-	1	1	
	Otago Central	-	-	3	1	1	
	Coastal Otago	-	0	0	0	0	
	Southland	-	-	2	0	0	

## DATABASE HEALTH INDEX DASHBOARD - REPORTS

Area: **OTAGO CENTRAL**

Date: **25/11/2013**

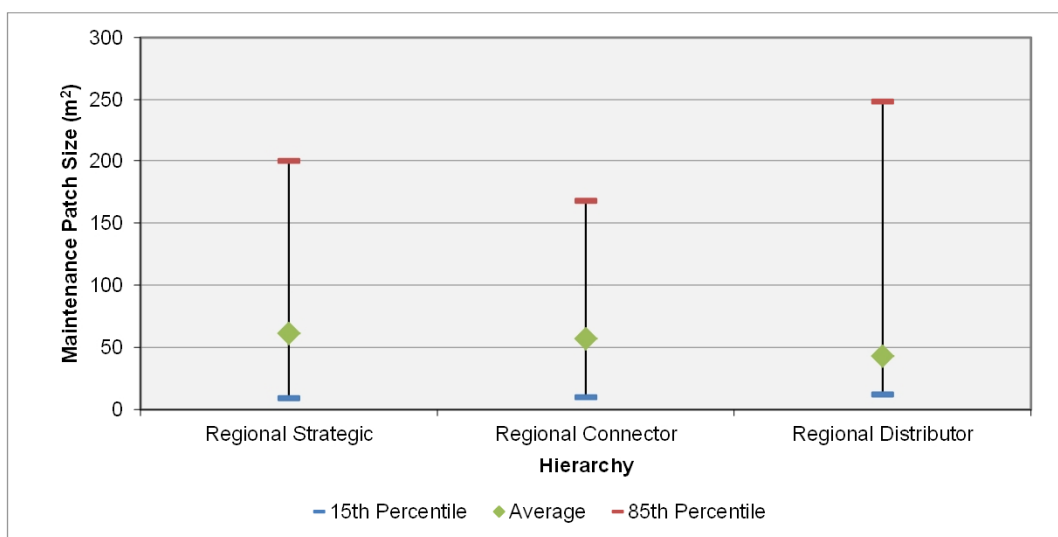
### Breakdown of 10 Year FWP by Treatment Type



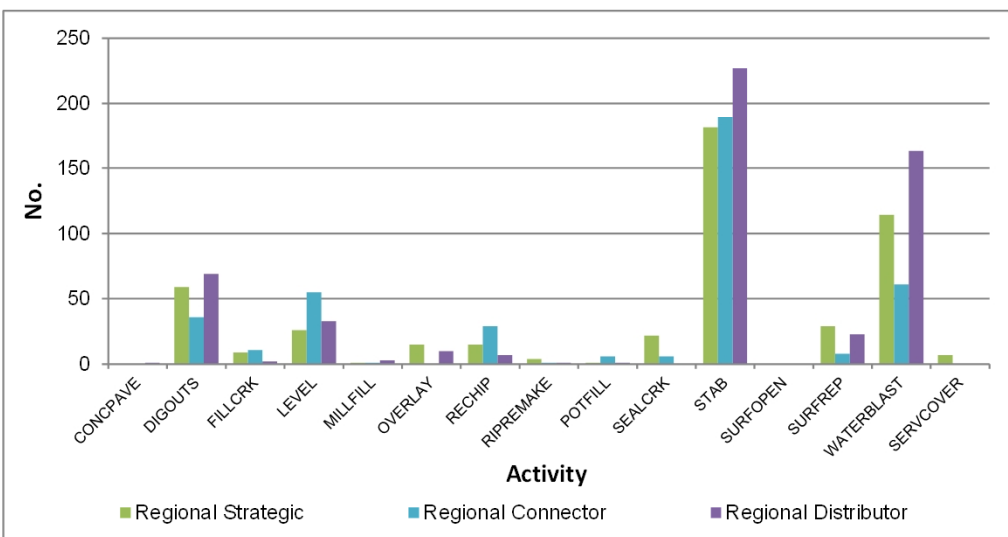
### Signalised Intersections in RAMM

None

### 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	3
Feature "____"m ON left/right	4
Confirmation Destination	5
Four services [Arrow]	1
Major tourist attractions - special information	1
ROAD INFORMATION	4
Speed Limit 70km/h with PN-1	8
Speed Limit 80km/h with PN-1	16
Welcome To .....	2
<b>Total</b>	<b>44</b>

### End Treatments in RAMM

End Treatment Type	No.
Armorflex X 350	75
Breakaway Cable Terminal Unit	300
Bridge Plate/Bridge Connector	8
Brifen Terminal	4
Buried in Back Slope	2
ET2000	76
Fishtail/Butterfly end	3
Fleet 350	7
SKT 350	4
Steel Wire Rope End Anchor Block	177
Texas Twist	36
Unknown	15
<b>Total</b>	<b>707</b>

### Breakdown of road markings by type

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)
Paint	153065
Raised Pavement Marker	1
Reflectorised Paint	58907
Unknown	38250

### Weigh Stations

Road Name	Location	Side
008-0328	12265	Left
<b>Total</b>	<b>1</b>	

### Footpath and CycleWays

None

### Gantries

None



## DATABASE HEALTH INDEX - PARAMETERS

Measures		Description	Data Source	Grading	Greater than	Less than	NZTA Target Grade
<b>Pavement and Footpath 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