DATABASE HEALTH INDEX - DASHBOARD

Area: CENTRAL WAIKATO M&O

Date: 10/10/2013

KEY: On or exceeding target

One grade, or between 0 and 15 below captured value Greater than one grade, or 15 below captured value

Performance

	Category	Measures	Result	Measure	Expected	Category	Expected
						Juliagory	Value
	Capital Projects	Major capital projects completed v RAMM (in last 6 -30 months)		· ·		-	-
		Minor capital or safety improvement projects v RAMM (in last 6 -30 months)					
		% of Network surfaced in RAMM over previous 4 – 15 months	12.2%				
	Surfacing	% Surfaces at least 50% older than expected age	18.0%			77	81
	J	% of Network with no surfacing	0.0%	Grade 1			
o.		Illogical Records inc. % (SAC with chipseal, Low and high widths, Alignment of traffic volumes v pavement use)	0.9%	Grade 1	Measure Value Category		
Asset Inventory		Proportion of Network with layer Information	54.6%	Grade 3	Grade 3		
i i	Pavement Layer	New layer length in previous 6 – 30 months	2.0%	Grade 3	Grade 2	55	77
Asse		Illogical records (Pavement Layers v Incorrect Surfacing)	15.6%	Grade 3	Grade 1		
	Road Marking	Breakdown of road markings by type	see	attached repo	ort	-	-
Carriageway		Proportion of very short (< 20m) TLs	2.8%	Grade 1	Grade 1		
Sarri	Treatment Length	Proportion of very long (> 2000m) TLs	2.6%	Grade 1	Grade 1	73	85
Ŭ	gaga.	Proportion of TLs with < 80% coverage of major surfacing	5.4%	Grade 2	Grade 1		
		% updated in last 5 years	13.7%	Grade 5	Grade 2		
		Date FWP last updated	7/10/2013	-	-		
	i ormara rronko	Proportion of network identified for treatment in next ten years (from FWP)	114.2%	Grade 1	Grade 2	68	90
	Programme	FWP v surfacings (% surfacings in last year conflicting with first 2 years of FWP excluding 2nd coats)	0.0%	Grade 1	Grade 1	00	30
		Evidence of active MIS strategy, reasons for treatments listed and detailed	4.5%	Grade 5	Grade 1		
	Carriageway Rating	Percentage rated in last year	73.3%	Grade 2	Grade 1	73	90
		% network meeting standards for roughness, rutting and texture (Roads surveyed in last year)	100.0%	Grade 1	Grade 1		
	High Speed Data	% network meeting standards for FWD (Roads surveyed in last 5years)	58.2%			86	90
	9 - 1	% network meeting standards for SCRIM (Roads surveyed in last year)	100.0%				
		Items per km for PA and SU cost groups in previous 4 – 15 months v Regional Average	70.0%				
ıta		Spread of location in previous 4 - 15 months (proportion located at carriageway start)	1.7%				
Collected Data	Maintenance	Distribution of maintenance patch sizes by Hierarchy		see attached report		60	83
ecte	Activity	Breakdown of Maintenance Cost Activities	see attached report				
S		% of Maintenance Activity where fault type is "Unknown"	41.6%				
	Miscellaneous	No. of test pits with layer data recorded	909		-		
		No. of LTPP sites recorded in RAMM	6		_	-	-
		Latest ADT Counts	31/12/2012	-	_		
		Latest ADT Estimates	24/09/2013	_	_	98	70
		% loading estimate (i.e. not default)	98.1%	Grade 1	Grade 2		"
		No. of Pavement Type "Bridge" v No. of Bridges > 50m in length in BDS	10.0%				
		No. Large Culverts v No. BDS	66.7%				
		Retaining Walls	136		Grade 2		
	Structures	Gantries (see attached report for locations)	0		_	39	85
		Barriers in RAMM (m)	43237		_		
		End Treatments in RAMM			ort		
		Culverts per km v Regional Average (Rural)	75.7%	-			
		Catchpits per km v Regional Average (Idran)	96.6%				
	Drainage	Manholes per km v Regional Average (Urban)	60.0%			65	80
	Dramage	Subsoil Drains per km v Regional Average (Rural)	88.0%			00	00
		% of Drainage (Construction Date in previous 4 – 15 months)	0.1%			73 68 73 86 60 98 98 65 69 69	
tory		Surfaced SWC per km v Regional Average (Urban)	86.4%				
Asset Inventory	Surface Water	Earth SWC per km v Regional Average (Rural)	111.4%			69	77
et Ir	Channels	Sealed SWC renewal activity (Construction Date in previous 4 – 27 months)	0.9%				•
		Signs per km v Regional Average	68.7%				
Non-Carriageway		Large Signs >4.0m² (see attached report for quantity by type)	170		-		
riage	Signs	ITS VMS	18		-	35	78
-Car	3 -	% of Signs with renewal date in last 4 - 15 months	0.0%		Grade 2		
Non		No. Frangible bases in RAMM (no posts in RAMM)	0.070		-		
		Streetlights per km v Regional Average	0.0%		Grade 2		
		Frangible Base type no.	0.070		-		
	Streetlights	Shear Base type no.	30		-	33	82
		% of Streetlight Poles with renewal date in last 4 – 15 months	0.0%		Grade 2		- <u>-</u>
		Duplicates or near duplicates plus poles with no light or bracket	0.0%				
	Footpaths &						
	Cycleways	Total length of Footpath and Cycleways (see attached tables for listings)	see :	attached repo	JI L	-	-
	Signal Controlled Intersections	Signal Controlled Intersections (see attached report for locations)	0	no.	-	-	-
	Rest Areas	Number of rest areas	35	no.	-	-	_
		Number of Weigh Stations (see attached report for locations)	8	no.	-		
	Weigh Stations	Indiffuel of Weigh Stations (see attached report for locations)	D D				-



DATABASE HEALTH INDEX DASHBOARD - PROJECTS

Area: CENTRAL WAIKATO M&O

Date: 10/10/2013

In RAMM (Y/N/P)	Project Name	SH	RS	Dir	RP		Comments	Year
Υ	Duck ponds Guardrail	1	594	L	9730	Guardrail extension		10/11
Υ	Duck ponds Guardrail	1	594	L	10310	New guardrail		10/11
N/A	Tapapa Corner cutting	5	8	R	4780	Cut Batter trimming		10/11
N/A	Mamaku sight distance improvements	5	8	R	7330	Cut Batter trimming		10/11
N/A	Palmer Mill sight distance improvements	5	111	В	8060	Cut Batter trimming		10/11
Υ	Ohaumahanga Point Retaining Wall	1	726	R	4790-4822	Timber tied back retaining structure		11/12
N	Atiamuri Realignment	1	664	В	0	Realignment of SH, construction of bridge.		12/13
Υ	Tram Road stock underpass	1	664	В	14098	Stock Underpass		12/13
N/A	Turangi Intersection upgrade	1	744	В	8680	Intersection Safety realignment		12/13
Υ	Blue Pool - Retaining wall	1	753	L	6050	9m Retaining Wall		12/13
Υ	Blue Pool - Guardrail	1	753	L	6050	61m Guardrail		12/13
N	Oturere Guardrail	1	777	L	100	82m Guardrail		12/13
Y	SH 28 entrance culvert upgrades	28	9	R	0.793, 1.150, 1.317	Mountable & Transversable Wingwalls for State Highways		12/13
Υ	Mangakino Bridge upgrade	30	76	L	3285	12m Guardrail		12/13
Υ	Mangakino Bridge upgrade	30	76	R	3285	20m Guardrail		12/13
Υ	Mangakino Bridge upgrade	30	76	L	3400	12m Guardrail		12/13
Υ	Mangakino Bridge upgrade	30	76	R	3400	20m Guardrail		12/13





DATABASE HEALTH INDEX - REGIONAL AVERAGES

Area: CENTRAL WAIKATO M&O

Date: 10/10/2013

Regional Averages

		Hierarchy					
Asset	Region	High Volume	National Strategic	Regional Strategic	Regional Connector	Regional Distributor	Regional Average
ASSOL	Regional Average for route type	3	8	3	3	3	
	West Waikato	4	-	2	2	3	-
Maintenance Costs	East Waikato	4	-	4	5	4	-
Culverts (Rural)	Central Waikato	3	6	1	3	1	3
surfacing faults per km)	BOP West	6	-	6	8	8	-
	PSMC 006	-		2	1	1	-
	Regional Average for route type	6	8	7	8	8	
	West Waikato	3	-	6	9	8	=
Culverte (Pural)	East Waikato	7	-	7	8	11	=
(no. per km)	Central Waikato	7	7	5	4	5	7
(- -	BOP West	12	-	9	6	13	-
	PSMC 006	-	_	8	7	7	=
	Regional Average for route type	14	13	12	13	7	
	West Waikato	13	-	9	16	8	-
Catchpit (Urban) (no. per km)	East Waikato	6	-	21	14	7	=
	Central Waikato	18	13	2	18	6	12
(BOP West	8	-	13	0	0	-
	PSMC 006	-	_	10	5	9	-
	Regional Average for route type	0	0	2	1	2	
	West Waikato	1	-	1	0	0	-
Manholes (urban)	East Waikato	0	_	0	1	1	1
(no. per km)	Central Waikato	0	0	0	3	0	
(BOP West	0	-	0	0	0	
	PSMC 006	-		3	1	11	=
	Regional Average for route type	26	3	21	14	11	
	West Waikato	50	-	0	23	0	-
Subsoil Drain (Rural)	East Waikato	0	-	0	1	1	-
(m per km)	Central Waikato	5	33	0	19	9	16
(po)	BOP West	0	-	0	0	0	-
	PSMC 006	-	-	69	38	40	-
	Regional Average for route type	1502	1782	1401	1189	924	
	West Waikato	1551	-	1317	1411	808	-
Surfaced SWC (Urban)		745	-	1538	1224	914	-
(m per km)	Central Waikato	1506	1674	202	1489	1003	1281
()	BOP West	1155	-	1243	0	0	-
	PSMC 006	-	_	1488	584	1138	-
	Regional Average for route type	588	1092	1063	1292	1329	
	West Waikato	329	-	21	1269	1606	=
Earth SWC (Rural)	East Waikato	1307	-	1174	1379	1200	-
(m per km)	Central Waikato	854	1121	1194	1621	1184	1120
(- /	BOP West	1207	-	1259	642	1671	
	PSMC 006	-		973	1238	1700	1
	Regional Average for route type	16	18	18	17	14	
	West Waikato	15		28	20	13	1
Signs	East Waikato	12	-	21	17	18	1
(no. per km)	Central Waikato	16	16	7	10	8	16
· · · · /	BOP West	20	-	21	12	8	†
	PSMC 006	-		20	19	19	†
	Regional Average for route type	6	0	3	3	1	
	West Waikato	10	-	8	4	4	-
Streetlights	East Waikato	2	-	4	3	2	
(no. per km)	Central Waikato	0	0	0	0	0	2
(. , 2)	BOP West	0	-	0	0	0	-
	PSMC 006	-	-	4	1	0	-
	1 Omo 000			-7		U	





DATABASE HEALTH INDEX DASHBOARD - REPORTS

Area: CENTRAL WAIKATO M&O

Date: 10/10/2013

Breakdown of 10 Year FWP by Treatment Type

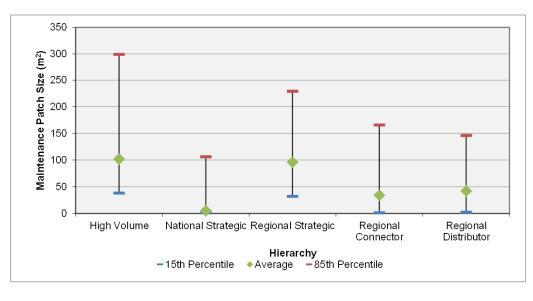
Signalised Intersections in RAMM

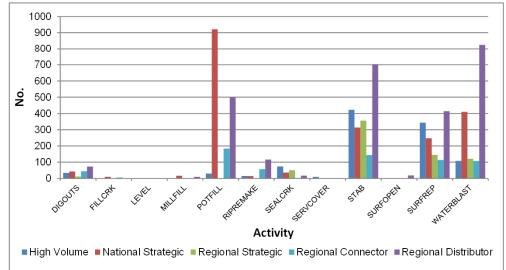
None



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	36
Advance direction (Stack) - "T" intersection	13
Feature " "m ON left/right	2
Feature TURN left/right ""m	2
Four services " "m ON left/right	1
Intersection Direction - "T"	5
Stop Ahead " " m	2
TOURIST DRIVE TURN side " "m	1
Advance direction (Map) - Roundabout	2
Advance direction (Stack) - Cross roads	4
Advance direction (Stack) - Skew intersection	1
Advanced lane direction [Message]	2
CONFIRMATORY DESTINATION	1
Chevron Board	4
Chevron Board - Advisory speed 25km/h	4
Chevron Board - Advisory speed 35km/h	2
Chevron Board - Advisory speed 45km/h	2
Chevron Board - Advisory speed 65km/h	3
Chevron Board - Advisory speed 75km/h	4
Chevron Board - Advisory speed 85km/h	1
Chevron Board - T Intersections	2
Confirmation Destination	6
ELECTRONIC WARNING - VARIABLE	2
Information (Miscellaneous Sign) - User Defined	1
Intersection Direction	1
Intersection Direction - Urban	1
Intersection Direction - with route marker	1
Major tourist attractions - special information	1
Position sign - One line description with chevron	3
ROAD INFORMATION	14
Speed Limit 70km/h with PN-1	8
Speed Limit 80km/h with PN-1	2
Threshold Sign - Place Name + Speed Limit	4
Warning (Miscellaneous Sign) - User defined	16
Welcome To	16

Total

170

End	Treatmen	ıts in	RAMI

End Treatment Type		No.
Armorflex X 350		173
Armorwire Terminal End	4	
Breakaway Cable Terminal (Bull Nose)	74	
Breakaway Cable Terminal Unit	74	
Bridge Plate/Bridge Connector	75	
Brifen Terminal		0
Buried in Back Slope		22
Cable Safety System - CSP		3
Cable end		2
Eccentric Loader Terminal (Round dru	m type)	4
ET2000		29
Fishtail/Butterfly end		7
Fleat 350		160
M23 Compliant		14
Not Applicable		78
Quad Guard		1
Regent		8
SKT 350		25
Steel Wire Rope End Anchor Block		0
Terminal end		6
Texas Twist		3
Trailing End Anchor Units		2
Unknown		1
	Total	765





DATABASE HEALTH INDEX DASHBOARD - REPORTS

Area: CENTRAL WAIKATO M&O

Date: 10/10/2013

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)
Cold Applied Plastic	85542
Long Life Flat	17155
Long Life Profile	7091
Paint	535996
Raised Pavement Marker	672713
Reflectorised Paint	2037720
Thermoplastic - cold	28553
Thermoplastic Audible	5772
Unknown	75833
Footmath and Ovalalitava	

Road Name	Location	Side
005-0000	4382	L
01N-0625	846	R
01N-0638	1784	R
01N-0638	7092	R
01N-0638	19193	R
01N-0706	5995	R
01N-0753	1235	R
027-0085	4617	L
	Total	8

Footpath and CycleWays Gantries

None





DATABASE HEALTH INDEX - PARAMETERS

	Measures	Description	Data Source	Grading	Greater than	Less than	NZTA Target Grade
Pavement and Fo	otpath Inventory						
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 catpured in RAMM	NZTA Regional Office, RAMM	N/A	N/A	N/A	N/A
oup.tai i rojouto	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 catpured in RAMM	NZTA Regional Office, RAMM	N/A	N/A	N/A	N/A
	% 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
Surfacing	% 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
Surfacility	% 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
	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
Pavement Layer	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
	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
Treatment Length	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
	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
Forward Works Programme	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
riogramme	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
Collected Data	İ				000/		
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
	% 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
High Speed Data	% 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
	Items per km for PA and SU cost	Total number of pavement and surfacing		Grade 1 Grade 2	90% 70%	90%	
	groups in previous 4 – 15 months vs	activity in last 4-15 months/Total Carriageway	RAMM carr_way, mc_cost	Grade 3	40%	70%	Grade 2
	Regional Average	Length vs Regional Average		Grade 4 Grade 5	20%	40% 20%	
	Spread of location in previous 4 - 15	Total number of pavement and surfacing		Grade 1		5%	
	months (proportion located at	activity in last 4-15 months at carriageway	RAMM carr_way, mc_cost	Grade 2 Grade 3	5% 15%	15% 40%	Grade 2
	carriageway start)	start / Total pavement and surfacing activity		Grade 3 Grade 4	40%	40%	
Maintenance	Distribution of maintanana natah	Dietaile, stiere of manifestation and a state of manifestation of the state of the					
Costs	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
		3 1, 1111					
	Breakdown of Maintenance Cost	Breakdown of maintenance cost actvities by					
	Activities	type for the last 3 years by State Highway Classification	RAMM carr_way, mc_cost	N/A	N/A	N/A	N/A
		0.000001		Grade 1		5%	
	% of Maintenance Activity where	Percentage of maintenance cost activity	RAMM carr_way, mc_cost	Grade 2	5%	15%	Grade 1
	fault type is "Unknown"	recorded as unknown for the last 3 years.	To tivilivi cari_way, mo_coct	Grade 3 Grade 4	15% 40%	40%	Grade 1
				Orage 4	4070		
	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
Miscellaneous	recorded						
viiscellarieous	No. of LTPP Sites recorded in						
	RAMM	Total number of LTPP Sites	RAMM carr_way, ud_ltpp	N/A	N/A	N/A	N/A
	Latest ADT Counts	Latest date of counts	RAMM traffic_loading	N/A	N/A	N/A	N/A
Traffic Count	Latest ADT Estimates	Latest date of Estimates	RAMM traffic_loading	N/A	N/A	N/A	N/A
Journ	Latest / D 1 Latinates	Latest adio of Laminates	. 5 thin damo_roading	. 1// 1	13//3	19/7	19/7
				Crade 1	90%		
		Total no. loading estimates in last year / total	RAMM carriageway, traffic_loading,	Grade 1 Grade 2	70%	90%	
	% loading estimate (i.e. not default)	no carriageway sections	carr_way, traffic_loading_dtl	Grade 3	40% 20%	70% 40%	Grade 2
				Grade 4 Grade 5	20%	20%	
Non-Carriageway	Asset Inventory			Grade 1	90%	l	
	No. Pavement Type "Bridge" v No.	Total No. Bridge pavement type in RAMM vs		Grade 2	70%	90%	
	Bridges > 50m in length in BDS	Total No. Bridges >50m in length in BDS that	RAMM carr_way, BDS	Grade 3	40%	70%	Grade 1
		carry the State Highway		Grade 4 Grade 5	20%	40% 20%	
				Grade 1	90%		
	No. Large Culverts v No. BDS	Total No. Culverts with an area >= 3.4m² vs	RAMM carr way, drainage, BDS	Grade 2 Grade 3	70% 40%	90% 70%	Grade 2
		Total No. culverts in BDS		Grade 4	20%	40%	
				Grade 5		20%	
Structures							
	Retaining Walls	Total No. Retaining Walls	RAMM carr_way, retaining_wall	N/A	N/A	N/A	N/A
						1071	
						1071	
						1471	
	Gantries	Total No. Gantries	RAMM carr_way, minor_structure	N/A	N/A	N/A	N/A
	Gantries	Total No. Gantries	RAMM carr_way, minor_structure	N/A	N/A		N/A
	Gantries		RAMM carr_way, minor_structure	N/A	N/A		N/A
	Gantries Barriers in RAMM(m)	Total Length Barriers (excludes SR, HR,	RAMM carr_way, minor_structure RAMM carr_way, railings	N/A N/A	N/A N/A		N/A N/A
					N/A	N/A	
	Barriers in RAMM(m)	Total Length Barriers (excludes SR, HR, OTHER, GREAT)		N/A Grade 1	N/A 90%	N/A N/A	
	Barriers in RAMM(m) Culverts per km v Regional Average	Total Length Barriers (excludes SR, HR,		N/A	N/A	N/A	
	Barriers in RAMM(m)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes	RAMM carr_way, railings	N/A Grade 1 Grade 2 Grade 3 Grade 4	N/A 90% 70%	N/A N/A 90% 70% 40%	N/A
	Barriers in RAMM(m) Culverts per km v Regional Average	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average	RAMM carr_way, railings	N/A Grade 1 Grade 2 Grade 3	N/A 90% 70% 40%	N/A N/A 90% 70%	N/A
	Barriers in RAMM(m) Culverts per km v Regional Average	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes	RAMM carr_way, railings RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2	N/A 90% 70% 40% 20% 90% 70%	N/A N/A 90% 70% 40% 20%	N/A Grade 2
	Barriers in RAMM(m) Culverts per km v Regional Average (Rural)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km	RAMM carr_way, railings	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1	N/A 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20%	N/A
	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional	RAMM carr_way, railings RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 4 Grade 5	N/A 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20%	N/A Grade 2
non in a co	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4	N/A 90% 70% 40% 20% 90% 70% 40%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2
Drainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional	RAMM carr_way, railings RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 3 Grade 3 Grade 3 Grade 3	N/A 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2
Drainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 2 Grade 3 Grade 4	N/A 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 40% 40%	N/A Grade 2 Grade 2
Drainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 1 Grade 3 Grade 1 Grade 3 Grade 4 Grade 5 Grade 1	N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2
Drainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90%	N/A Grade 2 Grade 2 Grade 2
Drainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 1 Grade 3 Grade 1 Grade 3 Grade 4 Grade 5 Grade 1	N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2
Orainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5	90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2 Grade 2
Orainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5	90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2 Grade 2
Orainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5 Grade 3	90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 40% 40% 40% 40% 40%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 94% 20%	N/A Grade 2 Grade 2 Grade 2
Orainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5	90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2 Grade 2
Orainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural) % of Drainage (Construction Date in previous 4 – 15 months)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of drainage structures	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 40% 20% 90% 10%	N/A Grade 2 Grade 2 Grade 2 Grade 2
Drainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 1 Grade 2 Grade 3 Grade 4 Grade 2 Grade 3 Grade 4	90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2 Grade 2
Orainage	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural) % of Drainage (Construction Date in previous 4 – 15 months) Surfaced SWC per km v Regional	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of drainage structures Length of surfaced SWC per km Urban vs	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 4 Grade 5	90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 4% 2% 1% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 40% 20% 90% 10%	N/A Grade 2 Grade 2 Grade 2 Grade 2
Drainage Surface Water	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural) % of Drainage (Construction Date in previous 4 – 15 months) Surfaced SWC per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of drainage structures Length of surfaced SWC per km Urban vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 3 Grade 4 Grade 5 Grade 3 Grade 4 Grade 5	N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 90% 70% 90% 90% 90% 90% 90% 90% 90%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2 Grade 2 Grade 2
Surface Water	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural) % of Drainage (Construction Date in previous 4 – 15 months) Surfaced SWC per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of drainage structures Length of surfaced SWC per km Urban vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage RAMM carr_way, drainage	N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3	90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 4% 2% 1% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 40% 40% 20%	N/A Grade 2 Grade 2 Grade 2 Grade 2
Surface Water	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural) % of Drainage (Construction Date in previous 4 – 15 months) Surfaced SWC per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of drainage structures Length of surfaced SWC per km Urban vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 4% 20% 4% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2 Grade 2 Grade 2 Grade 2	
Surface Water	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural) % of Drainage (Construction Date in previous 4 – 15 months) Surfaced SWC per km v Regional Average (Urban) Earth SWC per km v Regional Average (Rural)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of drainage structures Length of surfaced SWC per km Urban vs regional average per km Length of Earth SWC per kmRural vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 4% 2% 1% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 4% 20% 4% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2 Grade 2 Grade 2 Grade 2	
Orainage Surface Water Channels	Barriers in RAMM(m) Culverts per km v Regional Average (Rural) Catchpits per km v Regional Average (Urban) Manholes per km v Regional Average (Urban) Subsoil Drains per km v benchmark Regional Average (Rural) % of Drainage (Construction Date in previous 4 – 15 months) Surfaced SWC per km v Regional Average (Urban)	Total Length Barriers (excludes SR, HR, OTHER, GREAT) Total No. of culverts per km Rural (Includes CUL, SDCUL, OFCUL) vs regional average per km Total No. of catchpits per kmUrban (includes CP1,CP2,CP3,SUMP,GRID, SP) vs regional average per km Total No. of manholes per km Urban (includes MHOLE, DCHM) vs regional average per km Length of subsoil drains per km Rural vs regional average per km Total No. of drainage structures renewed or replaced in last 4-15 months / total no. of drainage structures Length of surfaced SWC per km Urban vs regional average per km	RAMM carr_way, railings RAMM carr_way, drainage N/A Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20%	N/A N/A 90% 70% 40% 20% 90% 70% 40% 20% 90% 70% 40% 20% 4% 20% 4% 20% 90% 70% 40% 20%	N/A Grade 2 Grade 2 Grade 2 Grade 2 Grade 2	





DATABASE HEALTH INDEX - PARAMETERS

	Measures	Description	Data Source	Grading	Greater than	Less than	NZTA Target Grade
	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 ²	Total No. of large signs with a sign face greater than 4.0m ²	RAMM carr_way, signs	N/A	N/A	N/A	N/A
Signs	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 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
Streetlights	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



