PAPAKURA DISTRICT COUNCIL

SPECIFICATION FOR RAMM UPDATING OF ROADS

1. SCOPE

This specification sets out the general requirements for consultants specialising in, and being fully conversant with Road Assessment and Maintenance Management (RAMM) procedures and requirements.

The coverage being:

(a) the existing dedicated roads (either in whole, part thereof, or specified) under the control of the Papakura District Council

or (b) developers roads awaiting dedication through the Council's planning procedures

or (c) following physical works by Contractors on Council's roads.

2. RAMM REQUIREMENTS

The tasks indicated below shall be carried out in compliance with the latest edition of the Transfund New Zealand "RAMM : Road Condition Rating & Roughness Manual. The RAMM Consultant shall prepare new inventory data as hard copy in a form suitable for inputting into the RAMM database. The RAMM Consultant shall supply documentary evidence that the collection of the inventory data has been carried out satisfactorily by experienced RAMM Certified persons and in accordance with the quality plan. This person at a minimum shall hold a current RAMM Condition Rating Certificate or similar, and be familiar with the RAMM Inventory Collection process. The Contractor, on the consultant's behalf, shall submit supporting documentation showing the RAMM person is suitably qualified. The inventory data required is that to complete all fields in the following tables: -

- carriageway
- shoulders and surface water channels
- drainage
- berms and footpaths
- pavement structure and surfacing
- traffic facilities
- features

3. QUALITY ASSURANCE

The consultant shall have a quality plan to ensure proper internal procedures and control checks are used by the staff throughout the project. The consultant shall be responsible for checking the quality assurance requirements of the Contractor and ensuring that all matters of quality assurance and quality control for all aspects of the contract are observed.

4. HEALTH AND SAFETY ACT

When working on roads all reasonable care must be taken by staff for their own safety by use of high visibility coloured clothing and other suitable equipment as may be necessary. For the safety of the general public as well as staff, appropriate Transit approved signs are required to cover the area of work. All vehicles shall be equipped with amber flashing lights.

5. HEALTH AND SAFETY PLAN

Consultants are required to complete the Consultant Safety Pre-Qualification Form at the time of tender.

6. GENERAL INFORMATION

Any available current information required by the Consultant will be supplied by Opus International Consultants on behalf of the Client. This will be applicable to Consultants acting for developers or contractors.

7. NEW WORKS INFORMATION

RAMMS information following completion of physical works is required from:

(a) Developers - prior to approval of the Certificate of Completion (224c).

(b) Contractors - prior to approval of the certificate of completion.

8. APPENDIX

Standard Forms for RAMM Data Collection

(a) Road Carriageway, Drainage, and Shoulders
(b) Surface Water Channels (SWC), and Footpaths
(c) Pavement Structure, and Pavement Surfacing
(d) Traffic Markings, and Traffic Signs
(e) Berm, Crossings, Features, and Guardrails
(f) Street Light Inventory Management

STREET LIGHT INVENTORY MANAGEMENT

Road Name _____ Client _____
Road ID _____ Date _____
Start Displace _____ Surveyed By _____
End Displace _____ Entered _____

Pole Information

Displacement _____ LH Boundary _____
Side _____ Material _____
Offset _____ Shape _____
Owner LA PB TC Make _____
Purpose L E F S Pole No. _____

House Number Features

	Flat No.	A/B/C etc	House No.	Feature
This Side				
Opposite				

Dimensions

Level _____
Use Height _____

Intersects With Road

Road ID _____
Road Name _____
Start Displace _____
End Displace _____
Displacement _____
Side _____

Bracket Information

Type _____ _____
Angle _____ _____
Height _____ _____

Light Information

Supply Point	UG	OH	UG	OH	UG	OH
Make						
Model						
Comments						

STREET LIGHT INVENTORY MANAGEMENT

Road Name _____ Client _____
Road ID _____ Date _____
Start Displace _____ Surveyed By _____
End Displace _____ Entered _____

Pole Information

Displacement _____ LH Boundary _____
Side _____ Material _____
Offset _____ Shape _____
Owner LA PB TC Make _____
Purpose L E F S Pole No. _____

House Number Features

	Flat No.	A/B/C etc	House No.	Feature
This Side				
Opposite				

Dimensions

Level _____
Use Height _____

Intersects With Road

Road ID _____
Road Name _____
Start Displace _____
End Displace _____
Displacement _____
Side _____

Bracket Information

Type _____ _____
Angle _____ _____
Height _____ _____

Light Information

Supply Point	UG	OH	UG	OH	UG	OH
Make						
Model						
Comments						

Client		*Surveyed by*		*Entered By*	
Project No.		*Date Surveyed*		*Date Entered*	

Carriageway Information Opus K13: 2002

Road ID.		Road Name	
Start Displacement		Start Name	
End Displacement		End Name	
Local Area			

Miscellaneous				**Carriageway**	
Class		Length	m	Owner	Crown Private TLA
Urban/Rural	U R	Width	m	Other Areas m2	
Hierarchy		R Width	m	Intersection Area m^2	
Pavement Type	C T U S	Irregular	I R	Bus Bay Area m^2	
Pavement Use (1-7)		No. Lanes		Island Area m^2	

Estimated Traffic Volume (vpd) (to be entered in the traffic volume table)

Extra Areas Working Out Space

Extra Area		Islands	
Bus Bays		Intersections	

Drainage

CP1 CP2 CP3 CUL DAM DWELL FLUME OTHER SCOUR SIDE SoakPit SPILL SUB SUMP WEIR

CULVERT INLET/OUTLET CP DC FL G GD HC HT MH N OT RC RH SB Y

Road ID.								
Type (see above)								
Date Constructed								
Carr'way Start Displ.								
Displacement of Feature								
Offset								
Side	L R E	L R E	L R E	L R E	L R E	L R E	L R E	L R E
Length								
Height/Diameter								
Culvert Intake	Y N G	Y N G	Y N G	Y N G	Y N G	Y N G	Y N G	Y N G
Culvert Outlet	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Material								
Culvert Type								
Culvert Width								

Shoulders

Road ID.								
Side	L R	L R	L R	L R	L R	L R	L R	L R
Start Displacement								
End Displacement								
Length								
Type								
Width								

Surface Water Channels — Opus K13: 2002

DA *Dish Channel (Asphalt),* ***DC*** *Dish Channel (Conc),* ***DP*** *Dish Channel (Half Pipe),* ***DS*** *Dish Channel (Sealed),* ***KC*** *Kerb only (Conc),*

KCC *Kerb & Channel (Conc),* ***KCS*** *Kerb & Channel (Stone),* ***KDC*** *Kerb & Dished Channel (Conc),* ***KS*** *Kerb only (Stone),*

MKC *Mountable Kerb only (Conc),* ***MKCC*** *Mountable Kerb & Channel (Conc),* ***OTHER*** *Other type not listed (comments section please)*

SLTC *Slot Channel (Conc),* ***SWLD*** *Surface Water Channel (Deep >300mm),* ***SWCS*** *Surface Water Channel (Shallow <300mm)*

Road ID.								
Side	L R	L R	L R	L R	L R	L R	L R	L R
Start Displacement								
End Displacement								
Length								
Distance to Seal								
Type (see above)								
Date								

Verge - Footpaths

B *Boundary,* ***E*** *Accessway (Ends away from road - must include details in Joins to Road section),* ***K*** *Kerb,* ***L*** *Loop footpath,*

J *Accessway (Joins another road - must include details in Joins to Road section),* ***M*** *Middle,* ***R*** *Remote from Road*

Road ID.								
Position	B M K	B M K	B M K	B M K	B M K	B M K	B M K	B M K
	E J L R	E J L R	E J L R	E J L R	E J L R	E J L R	E J L R	E J L R
Side	L R	L R	L R	L R	L R	L R	L R	L R
Start Displacement								
End Displacement								
Length								
Width								
Step Length								
Extra Area								
Purpose	F C B	F C B	F C B	F C B	F C B	F C B	F C B	F C B
Use (1 - 5)								
Local Name								
Start Name								
End Name								
Footpath Surfacings (F1)								
Surface Start	0	0	0	0	0	0	0	0
Surface End								
Date								
Material								
Depth								
Size/Grade								
Joins to Road								
Road ID.								
Carriageway Start								
Carriageway End								
Start Displacement								
Side	L R	L R	L R	L R	L R	L R	L R	L R

Pavement Layer and Rehabilitation

Opus K13: 2002

Road No.		Road Name	
Start Displacement		Start Name	
End Displacement		End Name	

Layer One (Basecourse)		Offset (m)		Material	
Type	L S	Width (m)		Depth	
Date		Rehab In		Source	
Layer Two		Offset (m)		Material	
Type	L S	Width (m)		Depth	
Date		Rehab In		Source	
Layer Three		Offset (m)		Material	
Type	L S	Width (m)		Depth	
Date		Rehab In		Source	
Subgrade Layer		Offset (m)			
Type	L S	Width (m)		Material	
Date		Rehab In		CBR %	
Rehabiliation Details (F1)		Width (m)		Type	R S
Start		Offset		Agent	
End		Depth		Quantity	

Pavement Surfacing

Road ID				
Start Displacement				
End Displacement				
Start Name				
End Name				
Date				
Life Cycle				
Width				
Offset				
Material				
Depth				
Size/Grade				
Source				
Cutter Type & pph				
Adhesion Type & pph				
Additive Type & pph				
Binder Type				
Res App Rate				

Traffic Markings						Opus K13: 2002		
Road ID.								
Start Displacement								
End Displacement								
Type								
Material								
Length								
Side	L C R	L C R	L C R	L C R	L C R	L C R	L C R	L C R
Offset								
Traffic Signs								
Road ID.								
Sign ID								
Class								
Type								
Displacement								
Side	C L R U	C L R U	C L R U	C L R U	C L R U	C L R U	C L R U	C L R U
Offset								
Owner	LA	LA	LA	LA	LA	LA	LA	LA
Legend Text								
Reverse Text								
No. Supports								
Sign Dimensions								
Width (mm)								
Height (mm)								
From Ground								
Angle								
Direction	L N R	L N R	L N R	L N R	L N R	L N R	L N R	L N R
Legend Material	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi
	Dg Un	Dg Un	Dg Un	Dg Un	Dg Un	Dg Un	Dg Un	Dg Un
Legend Colour	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu
	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up
	Wh Ye	Wh Ye	Wh Ye	Wh Ye	Wh Ye	Wh Ye	Wh Ye	Wh Ye
Background Material	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi	Nr Eg Hi
	Dg Un	Dg Un	Dg Un	Dg Un	Dg Un	Dg Un	Dg Un	Dg Un
Background Colour	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu	Bk Br Bu
	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up	Gr Re Up
	Wh Ye	Wh Ye	Wh Ye	Wh Ye	Wh Ye	Wh Ye	Wh Ye	Wh Ye
Substrate	Al Ti Pl	Al Ti Pl	Al Ti Pl	Al Ti Pl	Al Ti Pl	Al Ti Pl	Al Ti Pl	Al Ti Pl
	St Un	St Un	St Un	St Un	St Un	St Un	St Un	St Un
Frame	F N U	F N U	F N U	F N U	F N U	F N U	F N U	F N U
Intersects with Road								
Road ID.								
Start Displacement								
Displacement								
Side	C L R U	C L R U	C L R U	C L R U	C L R U	C L R U	C L R U	C L R U

Verge – Crossings								Opus K13: 2002
***BK** Beveled Kerb, **B** Bridge, **HD** Heavy Duty, **SL** Slot*								
Road ID.								
Carriageway Start								
Side	L B R	L B R	L B R	L B R	L B R	L B R	L B R	L B R
Type								
Verge - Berm								
***C** Cover, **F** Flowers, **FC** Flowers/Cover, **FS** Flowers/Shrubs, **FSC** Flowers/Shrubs/Cover, **G** Grass, **GC** Grass/Cover,*								
***GF** Grass/Flowers, **GFS** Grass/Flowers/Shrubs, **GFSC** Grass/Flowers/Shrubs/Cover, **GS** Grass/Shrubs, **S** Shrubs, **SC** Shrubs/Cover*								
Road ID.								
Carriageway Start								
Side	L B R	L B R	L B R	L B R	L B R	L B R	L B R	L B R
Start Displacement								
End Displacement								
Length								
Width								
Type	B L	B L	B L	B L	B L	B L	B L	B L
Plants								
Trees								
Features								
Road ID.								
Displacement								
Offset (from CL)								
Side	L C R	L C R	L C R	L C R	L C R	L C R	L C R	L C R
	B NA	B NA	B NA	B NA	B NA	B NA	B NA	B NA
Feature Type								
Traffic Guardrails								
***Rail Start & Rail End B** Bull nose, **C** Cable end, **F** Fishtail/Butterfly end, **T** Terminal end, **U** Unknown*								
Road ID.								
Start Displacement								
End Displacement								
Type								
Length								
Side	L R	L R	L R	L R	L R	L R	L R	L R
Offset								
Width								
Shape	C S T	C S T	C S T	C S T	C S T	C S T	C S T	C S T
Rail Start								
Rail End								
Joins to Road								
Road ID.								
Displacement								
Side	L R	L R	L R	L R	L R	L R	L R	L R