

Data Capture Method

The survey could be undertaken using GIS grade GPS, capable of capturing points to sub-metre accuracy or better (e.g. Trimble Pro XR). Where it is not possible to set up on the position, a GPS fix should be taken on the berm and an offset distance and bearing measured so as the co-ordinates can be corrected prior to entering in the LRMS Application software.

Quality Assurance

A number of LINZ control stations should be observed during the course of the survey to provide an independent check on the accuracy of the GPS data.

Health and Safety

All survey work must be completed in accordance with the Code of Practice for Temporary Traffic Control (CPTTM).

Output

Irrespective of the method of data capture, the results should be supplied in the form of a spreadsheet containing the information indicated below.

Field	Column Name	Data Type	Nulls Allowed	Remarks
1	Sign Type	Char (4)	no	RS, ERP, SB or RRS
2	Sign Reference Text	Char (12)	no	e.g. 262/3.00-I
3	Road ID	Integer (4)	no	
4	Survey No (empty)	Integer (5)		Generated in RAMM
5	Latest (empty)	Char (1)		Generated in RAMM
6	Region Code	Char (2)	no	TNZ Region No (1-14)
7	Network Management Area	Char (15)	no	
8	State Highway	Char (2)	no	
9	Reference Station	Char (2)	no	
10	Direction (I,D or null)	Char (1)	yes	
11	Date of Survey	ddmmyyyy	no	
12	Time of Survey	hh:mm		24 hour
13	Northing	Integer (7)	no	In terms of NZMG
14	Easting	Integer (7)	no	In terms of NZMG
15	Latitude	Integer (7)	yes	From total station survey
16	Longitude	Integer (7)	yes	From total station survey
17	Elevation	Integer (4)	no	Mean sea level
	Displacement (m)	Integer (5)	no	
17	Lane (L1, R1, L2 etc)	Char (2)	no	
18	Position Qualifier	Char (1)	no	0 = GPS fix not available 1 = GPS fix only 2 = Differential GPS
19	Accuracy	Decimal (3,1)	no	Horizontal Dilution of Precision
20	Source	Char (1)	no	S = Survey, D = Digitise
21	Notes	Char (60)	yes	

Where: RS = Reference Station
 ERP = Established Route Position
 SB = Survey Break ('Survey End' or 'Resume' Sign)
 RRS = Ramp Reference Station