

Supplement

**Traffic and Road Use Management
Volume 1 – Guide to Traffic Management**

Part 3: Traffic Studies and Analysis (2013)

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2 Traffic studies and surveys

2.5 Traffic surveys

2.5.3 Travel time, queuing and delay surveys (Appendix C)

2.5.3-1 Travel time on large projects

1 *Travel time surveys on large projects*

This supplement is also to be read and used in conjunction with the Transport and Main Roads Technical Specification MRTS02. It provides guidelines to practitioners for conducting travel time surveys on large roadwork projects.

2 *Travel time data methodologies*

The preferred methodologies for travel time surveys to be applied on the department's projects are:

- Floating car method – GPS technology GPS accuracy ± 5 m Track log 1-second intervals
- Path Trace Method – Bluetooth technology

3 *Data records*

All data files shall be recorded as follows:

Table 3 – Travel time recording format

Main UBD name	Main dir. of travel	Time period AM, PM, off	Date in brackets	Run No. ¹	Example
Gateway	N	AM	(2013May30)	#58	Gateway N AM (2013May30) #58

Note ¹ – The run number will be per run for Floating Car method or per 15-minute aggregate data for Path Trace method.

3.1 Locations

- Start location for the route
- End location for the route
- Intermediate waypoints along the route at key route choice locations
 - centre of interchanges for motorways
 - centre of intersections for unsignalised, roundabouts or traffic signals on other roads
- Advance start location where queues extend along the route prior to the works site.

3.2 Times

- AM travel time surveys – between 7:00 am and 8:30 am
- PM travel time surveys – between 3:00 pm and 5:30 pm
- Off-peak travel time surveys – all other times

3.3 Other requirements

Floating car method

- start times to vary randomly throughout the defined period
- runs to continue throughout the entire defined peak periods

The Administrator will define the locations for advance start, start, end and waypoints. The same points will be used at all stages of the project.

The data to be collected for each run shall be recorded as follows:

- Floating Car Method – per run
- Path Trace Method – data collected for each vehicle and aggregated in 15-minute periods

The data can be presented in a format similar to the following example. Alternative formats may be used so long as the data is consistently presented throughout the duration of the project.

Table 3.3 – Format for recording floating car or path trace method

Location	Chainage (m)	Time (s)	Segment		Segment Free flow		Segment
			Travel time (s)	Ave speed (km/h)	Travel time (s)	Ave speed (km/h)	Delay (min)
Start	0	0					
WP1	1550	1:55	1:55	48.5	1:10	79.7	1:10
WP2	3040	4:05	2:10	41.3	1:08	78.9	1:08
Etc.	...						
End	4300	5:45	1:40	45.4	0:57	79.6	0:57
Total	4300	5:45	5:45	44.9	3:15	79.4	2:30

4 Auditing and record keeping

Auditing of surveys and other surveys may be undertaken by the Administrator or an independent party. Updated spreadsheets with all travel time information shall be provided to the Administrator weekly.

Raw GPS files should be available for auditing on request by the Administrator.

