Appendix 13

COMMUNICATIONS STRATEGY AND STAKEHOLDER MATRIX

A6 to M60 Relief Road: Communications and Engagement Strategy

1 Introduction

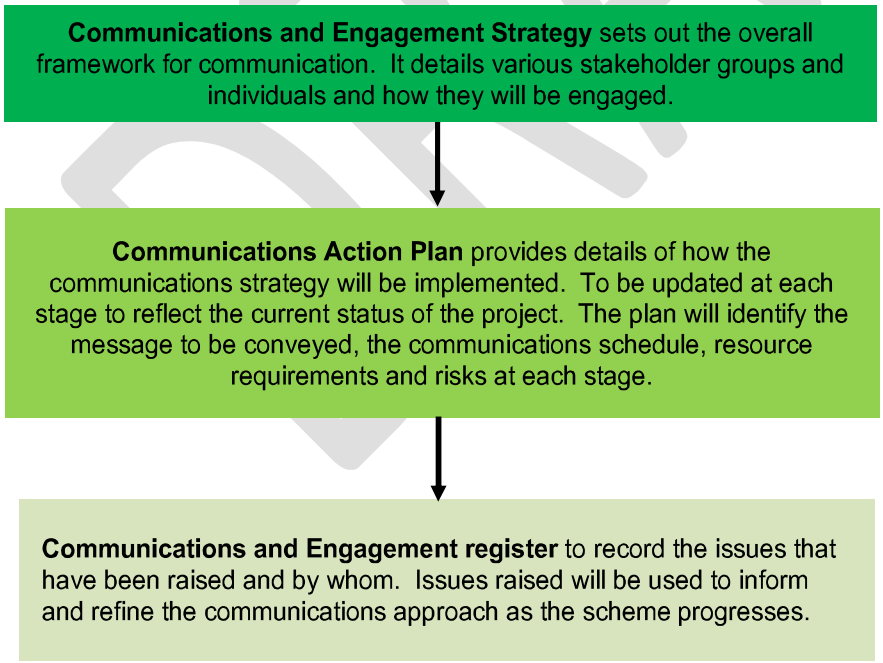
This document sets out the approach to communications for the proposed A6-M60 Relief Road. The focus of the document is to set out a communications strategy for informing affected parties of the Scheme and minimising the impact of the works. Regular ongoing meetings are being held with TfGM regarding inter-dependencies with the SEMMMS Refresh to 2040 proposals and consultation programme.

The overarching objective of the Communications Strategy will be to focus on achieving good quality consultation and an understanding of the Scheme so as to support its delivery and subsequent wider benefits to the South East Manchester area.

2 Communications and Engagement Approach

This document forms the first tier of a three staged approach to communications for the A6 - M60 Relief Road. The approach is set out in Figure 1.

Figure 1: The A6-M60 Relief Road Communications and Engagement Approach



This Communication and Engagement Strategy document includes:

- Objectives for the Communications and Engagement activities;
- Audiences for communications and engagement;

- Methods that will be used to deliver communications and engagement;
- A protocol for monitoring, reviewing and addressing issues and concerns that are received during construction works;
- Roles and responsibilities for delivery of communications and engagement;
- Analysis and reporting of communications and engagement activities and feedback;
- Communications and engagement risks; and
- Evaluation of the communications and engagement activities.

The Communications Action Plan will be guided by the strategic approach set out in this document and updated at the scheme progresses through planning and funding approval and during construction. It is important to anticipate potential issues that could arise and from whom as the project progresses to enable them to be dealt with efficiently and effectively. This will limit any negative impact on public and stakeholder perception and opinion of the scheme. The Communications Action Plans will set out in detail any potential issues that may arise will be addressed.

3 Strategy Objectives

The strategy set out here aims to engage and maintain the support of stakeholders and raise awareness of the scheme among the local community.

The suggested approach is to consider the local community and organisational stakeholders as bodies with different perceptions of and requirements from the scheme which will be reflected in the messages communicated and the methods by which they are delivered.

The local community will be the eventual direct beneficiaries of the investment with potential for experiencing short-term negative impacts from construction activities. The organisational stakeholders have some role and/ or responsibility in the delivery of the scheme.

The tailored approach basically seeks an informative approach with the local community and an involvement strategy with organisational stakeholders.

The Strategy is best divided by way of communications objectives and consultation objectives defined as follows:

<u>Communications Objectives</u>

- To raise awareness and inform stakeholders, road users and residents about the A6 to M60 Relief Road scheme;
- Promote the public consultation to ensure everyone who wants to have their say has the opportunity to do so;
- To engage all stakeholders, road users and residents with an interest in the Scheme;
- Keep local members and MPs fully briefed about the scheme;
- Keep stakeholders aware of the schemes progression and give an opportunity for feedback;

- Provide consistent, clear and regular information to those affected by the scheme, including the nature of any scheme-related impacts and when and how it will affect people of groups both during delivery and once operational;
- Address perceptions of the scheme where these are inconsistent with the scheme objectives and forecast outcomes.
- To minimise and refute ill-informed, misleading and inaccurate comments and complaints;
- Ensure that any enquiries about construction works are dealt with efficiently and effectively;
- Effectively manage and minimise disruption caused by the construction works;
- Ensure consistency of message across the Greater Manchester Combined Authority.

Consultation Objectives

- To demonstrate what the key issues are, and enable stakeholders to maintain an accurate understanding of the Scheme;
- Provide feedback to all taking part, evidencing impact of consultation outcomes on the revised Scheme;
- Conduct meaningful consultation with all stakeholders and the public and ensure all audiences have an opportunity to have their say;
- Demonstrate that the consultation can help inform decision making;
- To ensure consultation activity complies with all statutory requirements.

4 Audience

The audience has been broken down into the following series of groupings, based on their communications and engagement requirements. Further details on affected stakeholders is provided in the Stakeholder Matrix.

Local MPs and Members in directly affected areas

These stakeholders have significant influence in the local community and it is therefore vital that they are proactively engaged and provided with frequent updates at all key stages of the scheme. Customised, detailed information will continue to be directly provided to this group ahead of any activity taking place. Frequent updates will help to maintain their support for the scheme and mitigate any opposition. This group would are provided with copies of all communication materials before they are circulated to the public to ensure that they are made aware in advance of any potential questions that may arise from their constituents.

Delivery Partners

This group is responsible for delivering the scheme. It includes Stockport Council, Transport for Greater Manchester and the contractor undertaking the works. Unique to this group is the need to ensure consistent and efficient communication between members. Any communication to the wider community from the delivery partners needs to be carefully co-ordinated so that a consistent message about the scheme is conveyed.

Statutory Consultees/ Approvals

This group includes those whose consents and approvals are required to progress the scheme, such as the Environment Agency, Natural England and statutory undertakers. Members of this group therefore need to be engaged with directly and frequently throughout the delivery of the scheme and their overall support for A6 M60 relief Road is vital to its success. This group also includes Transport for Greater Manchester/ Greater Manchester Combined Authority (GMCA reporting, part funding for the project and project assurance), the Department for Transport (business case approval and part funding for the project) and SMBC in their technical approval role. It is also important that Emergency Services are consulted with in respect of Traffic Management during construction.

Priority stakeholders

This group contains individuals and groups with a known interest in the scheme. This includes members and MPs within the directly affected area, identified interest groups, bus operators whose services may be affected by works and parish/town/ community councils and residents' groups within the affected area. Also included within this group are Manchester Airport, Metrolink and neighbouring authorities. Support from this group will play an important role in ensuring the successful delivery of the scheme. Early engagement with this group will help to engender their support. Priority stakeholders should be communicated with and engaged at regular intervals throughout the lifecycle of the project.

Land owners/ tenants whose land is would be subject to Compulsory Purchase Order (CPO)/ Side Road Order (SRO)

This group comprises land owners with properties under CPO/ SRO. They require customised communication and need to be able to communicate with the client team directly. It is important that contact with this group is maintained following the purchase of land as they are likely to hold land adjacent to the scheme which may be affected by the works. Local residents having access to their properties affected as a result of the SRO will need close contact to minimise inconvenience and ensure that any emergency/24 hour access is maintained.

Directly affected residents, businesses and landowners

This group contains residents and businesses whose properties/ land and activities will be directly affected by the scheme, for example those fronting or backing onto the scheme. It also includes schools in the affected area, the impact upon which must be minimised to avoid disruption to teaching. Proactive, direct contact should be made with this group to ensure that any disruption to them is minimised. Any negative perception of the scheme from this group has the potential to spread wider to local MPs and members and the wider community via the press. Therefore, it is vital that contact with this group is careful managed to maintain their support and minimise and potential negativity. For example, efforts should be taken to avoid noisy activities taking place in the vicinity of schools during exam times.

Local community groups

This groups includes local residents and businesses, road users, cyclists, pedestrians and equestrians. It also includes local schools who may be engaged as part of the scheme's community benefits programme. It is important that support from the local community and businesses is engendered from the outset as they will be the eventual end users, and therefore beneficiaries, of the scheme. Therefore, the benefits of the scheme need to be conveyed to this group and regular communications and engagement are also required to maintain their interest. However, as this group also has the potential to experience some disruption during construction works, in particular through traffic management, therefore appropriate channels need to be made available to provide information on the impact of construction activity and carefully manage the message during this period.

Business groups

This group includes large retail areas across the project area as well as local business groups such as District Centre Partnerships and Chambers of Commerce. The businesses community is likely to have concerns about the impact of traffic management on customer and servicing access to their business. There must be close engagement with this group is undertaken to ensure that they are kept fully aware of traffic management that is required for the scheme.

Media and wider public

The media and wider public have been grouped together, as the communication with one will directly influence the other. Maintaining positive press coverage will enable a positive message to be conveyed to the public. Any significant opposition to the scheme among the wider public is likely to be picked up by the media, potentially further embedding a negative viewpoint within the local community. Positive messages need to be proactively conveyed to this group ahead of any activity taking place. The Project Team will need to be in a position to quickly react to any negative publicity by anticipating issues that may arise and have messages in place to deal with them. These will be set out in the more detailed Communications Action Plan and updated as the scheme progresses.

Community Interest Groups

Community interest groups can have significant influence within the local community. Regular contact should be made with these groups to enable their opinion to be gauged. They are also an important vehicle for enabling targeted messages about the scheme to be conveyed to specific segments of the community. Use of existing networks within this group is an important vehicle in disseminating information. Such groups include Public Rights of Way (PRoW), walking, cycling, equestrian and environmental groups.

Methods

A range of methods will continue to be used to communicate with the local community to ensure that they are appropriate to the audience and message that is being conveyed. The methods used as part of the communications strategy are summarised in Table 1.

Table 1: Stakeholder Engagement Methodology

Action	Purpose	Scope
Briefings	Ensure team, Stockport Council employees and members are briefed on the consultation and proposals, in advance of the public consultation.	Preparation of briefing documents.
Leaflet	Consultation leaflet distribution, including residential and business properties.	Mail-out of an A3 two sided leaflet. No response form to be provided. Respondents directed to the website and exhibitions to complete a response form.
Exhibitions	Presentation of details of the A6 to M60 Relief Road scheme	Appropriate number of exhibitions at convenient times and locations relative to the scheme. Response form (same as on the website) to be provided for comments.
Business Drop In Session	Engagement with businesses	In advance of the exhibitions, invite only drop in session for businesses most likely to be affected by the proposals to attend.
Local Liaison Forums	Engagement with people who live in close proximity to the proposals	In advance of the exhibitions, invite only drop in Local Liaison Forum to be held for residents most likely to be affected by the proposals to attend.
Stakeholder Event	Awareness raising for consultation	Stakeholder event (i.e. large workshop) to present the proposals to key groups and gather feedback and making use of small group discussion. Attendees to include statutory consultees, interest groups (eg cycling groups), business groups, housing associations, developers, property agents etc.

Stakeholder Meetings	Briefing of stakeholder groups	Meetings with stakeholder groups that are pre-arranged regular meetings to brief the groups on the scheme proposals, the upcoming consultation and seek initial views.
Website	A key information source for the A6 to M60 Relief Road scheme proposals	Website to provide further detailed information on the proposals. The website will be linked to the SEMMMS site. http://www.semmms.info/semmms/strategy/a6-to-m60-link/ Website to include an online response form and therefore will be the main method for responding to the consultation. Response form to have "closed" and "open response" questions in addition to relevant "about you" questions e.g. use of town centre, main mode of travel, postcode, age and gender. The website to be signposted in all consultation and promotional material.
Email	Log and respond to consultation queries	Means by which those responding to the consultation can make enquiries about the consultation.
Consultation phone line	Phoneline available for people to have direct contact with the consultation team	Phoneline available for consultees to ask questions, receive further information and confirm meeting arrangements.
Promotion and advertising	Awareness raising and promotion	Providing information on the consultation exercise and A6 to M60 Relief Road schemes proposals through press, advertising and road side traffic signs installed at strategic points on routes into the town centre.
Social Media	Awareness raising and promotion	SMBC Twitter/Facebook accounts to issue update on the consultation

A communications and engagement database will be maintained for the consultation, summarising all activities and all responses (for example, phone and email etc) received during the consultation.

A consultation report and comments log will be provided following completion of the consultation. The comments log will outline a design response to the comments received. In addition to being a

record of comments on the preferred scheme, the purpose of this log is to assist the design team in making any potential changes to the schemes.

5 Responding to enquiries made during construction

It is vital that any issues or concerns about construction activities are dealt with efficiently and effectively. To this end, a clear protocol will be required to respond to any enquiries that may be made through a variety of channels. This will developed as the scheme progresses and based on the protocols employed on the A6 to Manchester Airport Relief Road.

6 Analysis and Reporting

A monthly report summarising the communications activities and feedback from the local community will be submitted to the Project Board as appropriate.

7 Risks

Risks to the communications and engagement exercise have been identified and remedial action set out in Table 2. These represent the strategic risks to the project. The Communications and Engagement Plans will set out the specific risks at each stage.

Table 2 – Strategic Communications and Engagement Risks

Risk (Event / Result)	Likelihood H=High M=Medium L=Low	Impact H=High M=Medium L=Low	Remedial action
Lack of local knowledge about scheme or programme	M	H	Ensure effective and timely communication with all stakeholders
Negative publicity around cost and benefit of the project	M	M	Ensure media are aware of funding source, and benefits of project
Community and/or stakeholder criticism of project.	M	M	Ensure clear messages around the improvements to public transport
Local members criticise the project	M	M	Ensure members are fully briefed about the project and its benefits
Political sensitivities leading to complaints about communications	M	H	Ensure information is issued to all members at the same

and engagement exercise			time
Environmental protests on- site, either pre or post start – generates negative publicity, increased costs and delays	M	H	Ensure good contact is maintained with local and community groups, particularly in run-up to start of works.

8 Evaluation

A series of indicators to monitor the effectiveness of the communications and engagement exercise have been identified. These are as follows:

- Amount of positive and negative coverage – log of media coverage to be recorded;
- Accurate media coverage – through log of media coverage;
- Amount of positive and negative member feedback – through recording member feedback;
- Amount of complaints relating to communications 'issue' – log of all public feedback to be recorded; and
- Take-up of communications services – number of hits to website, social media followers etc.

A6 to M60 Relief Road: Stakeholder Matrix

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		Internal communication	Member briefing pack	Stakeholder letter - tailored to group	Letter and offer of meeting	Leaflet & questionnaire	One to one meeting	Presentation at existing meeting	Environmental Group	Vulnerable Road User Group	Local Liaison Forums	Exhibition	Press releases/advertising
Sub-group	Organisation												
Adjacent Local Authorities to scheme:	Manchester City Council				✓								
	Tameside				✓								
	Cheshire East Council				✓								
	Derbyshire County Council				✓								
	High Peak District Council Derbyshire				✓								
	Peak District National Park Authority				✓								
	GMCA - Greater Manchester Combined Authority				✓								
Local and National Politicians	Brinnington and Central		✓			✓							
	Bredbury and Woodley		✓			✓							
	Bredbury Green and Romiley		✓			✓							
	Offerton		✓			✓							
	Hazel Grove		✓			✓							
	Marple South		✓			✓							
	Marple		✓			✓							
	Cheadle		✓			✓							
	Stockport		✓			✓							
	SMBC Councillors		✓			✓							
	Tameside Councillors		✓	✓		✓							
	CE Councillors		✓	✓		✓							
Chambers of Commerce	Greater Manchester CoC				✓	✓		✓					
	East Midlands Chamber (Derbyshire, Nottinghamshire, Leicestershire)				✓	✓		✓					
	West Cheshire & N Wales CoC				✓	✓		✓					
Statutory Regional and Local Bodies	GMCA				✓	✓	✓						
	TfGM				✓	✓	✓						
	Transport for the North				✓	✓	✓						
	Emergency Services				✓	✓	✓						
	Natural England				✓	✓	✓						
	English Heritage				✓	✓	✓						
	Network Rail				✓	✓	✓						
	Environment Agency				✓	✓	✓						
	GMLEP				✓	✓	✓						
	Highways England				✓	✓	✓						
	Department for Transport				✓	✓	✓						
	Stepping Hill NHS Foundation Trust				✓	✓	✓						
	Director of Public Health				✓	✓	✓						
	Primary Care Trusts				✓	✓	✓						
	Statutory undertakers - telecoms, utilities				✓	✓	✓						
Business Interests (strategic)	Manchester Enterprise			✓		✓		✓					
	Marketing Manchester			✓		✓		✓					
	Stockport Economic Alliance			✓		✓		✓					
	Manchester Airport			✓		✓							
	Large employment centres/ employers			✓		✓							
Freight Organisations	FTA - Freight Traffic Association			✓		✓							
	RHA - Road Haulage Association			✓		✓							
Driver Organisations	AA			✓		✓							
	RAC			✓		✓							
	Greenflag			✓		✓							
Public Transport Operators	Stagecoach			✓		✓	✓						
	High Peak Buses			✓		✓	✓						
	Northern Trains			✓		✓	✓						
	Trans Pennine Express			✓		✓	✓						
	Arriva			✓		✓	✓						
	Taxi operators			✓		✓	✓						
Parish & Local Councils	Disley Parish Council			✓		✓		✓				✓	
	Poynton Town Council			✓		✓		✓				✓	
Residents' Groups	Allotments Stockport			✓		✓		✓				✓	✓
	Stockport Greenspace Forum			✓		✓		✓				✓	✓
	Love Heaton Norris			✓		✓		✓				✓	✓
	Bredbury & Romiley Community Association			✓		✓		✓				✓	✓
	Ladybridge Residents Association			✓		✓		✓				✓	✓
	Friends of Brabyns Park			✓		✓		✓				✓	✓
	Friends of Rose Hill Station (FoRHS)			✓		✓		✓				✓	✓
	Mill Brow Residents Association			✓		✓		✓				✓	✓
	Friends of Cromwell Avenue Park			✓		✓		✓				✓	✓
	Friends of Marple Station			✓		✓		✓				✓	✓
	Compstall Community Council			✓		✓		✓				✓	✓
	Friends of Cale Green Park			✓		✓		✓				✓	✓
	The Mellor Society			✓		✓		✓				✓	✓
	Marple, Mellor & Marple Bridge Energy Saving Strategy			✓		✓		✓				✓	✓
	Marple Civic Society			✓		✓		✓				✓	✓
	Marple Vision												
	Marple Bridge Residents Association			✓		✓		✓				✓	✓
	Hawk Green Residents Association			✓		✓		✓				✓	✓
	Friends of Our Valley			✓		✓		✓				✓	✓
	Friends of Stockport Cemeteries			✓		✓		✓				✓	✓
	Save Stockports Green Belt			✓		✓		✓				✓	✓
	High Lane Residents Association			✓		✓		✓				✓	✓
	Poynton Local Area Partnership			✓		✓		✓				✓	✓
District Centre Partnership / Local	Hazel Grove DCP			✓		✓		✓				✓	✓
	Marple DCP			✓		✓		✓				✓	✓
Business Community (local)	Bredbury Park Industrial Estate			✓		✓						✓	✓
	Large local businesses/ employers			✓		✓						✓	✓
Education	Schools and Colleges				✓	✓	✓					✓	✓
Land Owners	Landowners whose land is required			✓		✓	✓					✓	✓
Land Owners -adjacent	Landowners adjacent to the scheme - direct impact			✓		✓					✓	✓	✓
	Householders adjacent to the scheme - direct impact			✓		✓					✓	✓	✓
	Business owners adjacent to the scheme - direct impact			✓		✓					✓	✓	✓
	Tenants/leaseholders adjacent to the scheme - direct impact			✓		✓					✓	✓	✓
Other land interests	Land agents					✓	✓					✓	✓
	Developers					✓						✓	✓
Environmental interst groups	National Farmers Union			✓		✓						✓	✓
	CECA			✓		✓						✓	✓
	Country Landowners Association			✓		✓						✓	✓
	FOE			✓		✓						✓	✓
	Goyt Valley SOS												
	Greenpeace			✓		✓						✓	✓
Environmental Organisations	Butterfly Conservation Cheshire and Peak District Branch			✓		✓			✓			✓	✓
	Campaign for the Protection of Rural England			✓	✓	✓	✓		✓			✓	✓
	Dragonfly Association for Cheshire and Greater Manchester			✓		✓			✓			✓	✓
	Environment Agency, North West Regional Office			✓		✓			✓			✓	✓
	Forestry Commission England			✓		✓			✓			✓	✓
	Greater Manchester Ecological Unit			✓		✓			✓			✓	✓
	Lancashire and Greater Manchester Mammal Group			✓		✓			✓			✓	✓
	Manchester Field Club			✓		✓			✓			✓	✓
	Manchester Friends of the Earth			✓		✓			✓			✓	✓
	Manchester Geological Association			✓		✓			✓			✓	✓
	Marple Naturalists			✓		✓			✓			✓	✓
	National Trust			✓		✓			✓			✓	✓
	Natural England			✓		✓			✓			✓	✓
	North West Fungus group			✓		✓			✓			✓	✓
	North West Transport Roundtable			✓	✓	✓	✓		✓			✓	✓
	Open Spaces Society								✓			✓	
	Pennine Edge Forest			✓		✓			✓			✓	✓
	Red Rose Forest			✓		✓			✓			✓	✓
	Royal Society for Protection of Birds (RSPB) Stockport			✓		✓			✓			✓	✓
	Stockport Friends of the Earth			✓		✓			✓			✓	✓
	Stockport Greenspace Forum			✓		✓			✓			✓	✓
	Stockport Nature Network			✓		✓			✓			✓	✓
	The Open spaces society			✓		✓			✓			✓	✓
	The Pondlife Project			✓		✓			✓			✓	✓

A6 to M60 Relief Road: Stakeholder Matrix

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		Internal communication	Member briefing pack	Stakeholder letter - tailored to group	Letter and offer of meeting	Leaflet & questionnaire	One to one meeting	Presentation at existing meeting	Environmental Group	Vulnerable Road User Group	Local Liaison Forums	Exhibition	Press releases/advertising
Sub-group	Organisation												
	Wildlife Trust for Lancashire, Manchester & North Merseyside			✓		✓			✓			✓	✓
	Woodland Trust			✓		✓			✓			✓	✓
Amenity Groups	Marple Civic Society			✓		✓			✓			✓	✓
	Hawk Green Residents Association			✓		✓			✓			✓	✓
	Stockport Heritage Trust			✓		✓			✓			✓	✓
	Cheadle Civic Society			✓		✓			✓			✓	✓
	Greater Manchester Archaeological Unit			✓		✓			✓			✓	✓
	The Victorian Society Manchester Group			✓		✓			✓			✓	✓
	Stockport Historical Society			✓		✓			✓			✓	✓
	South Manchester Archaeological Research Team (SMART)			✓		✓			✓			✓	✓
Transport Interest Groups	Travelling public (all modes)			✓		✓				✓		✓	✓
	British Horse Society			✓		✓				✓		✓	✓
	Byways & Bridleways Trust			✓		✓				✓		✓	✓
	CTC			✓		✓				✓		✓	✓
	CTC NW			✓		✓				✓		✓	✓
	Cycle Stockport			✓		✓				✓		✓	✓
	Cycle User Group			✓		✓				✓		✓	✓
	Cycling Project for the North West			✓		✓				✓		✓	✓
	Cycling Projects			✓		✓				✓		✓	✓
	Dark Peak Bridleway Association			✓		✓				✓		✓	✓
	Disability Stockport			✓		✓				✓		✓	✓
	Greater Manchester / High Peak Area, Ramblers Association			✓		✓				✓		✓	✓
	Greater Manchester Cycle Campaign			✓		✓				✓		✓	✓
	Living Streets			✓		✓				✓		✓	✓
	Manchester Area Ramblers Association			✓		✓				✓		✓	✓
	Manchester Local Access forum			✓		✓				✓		✓	✓
	North West Transport Roundtable			✓		✓				✓		✓	✓
	Peak and Northern Footpath Society			✓		✓				✓		✓	✓
	Stockport Cycle Group			✓		✓				✓		✓	✓
	Stockport Access Local forum			✓		✓				✓		✓	✓
	Stockport East Area Bridleways Association			✓		✓				✓		✓	✓
	Stockport Equestrian Group			✓		✓				✓		✓	✓
	Stockport Local Access Forum									✓			
	Stockport Group. Ramblers			✓		✓				✓		✓	✓
	Stockport PCT			✓		✓				✓		✓	✓
	Stockport Walking Forum			✓		✓				✓		✓	✓
	Stockport Walking Forum RA (Greater Manchester High Peak Area)			✓		✓				✓		✓	✓
	Sustrans			✓		✓				✓		✓	✓
Media	National											✓	✓
	Local											✓	✓

Appendix 14

A6 TO M60 MODEL DATA REPORT

Client **A6 to M60 Relief Road Project Board**

Project **A6 to M60 Relief Road**

Subject **HFAS Report 1908: A6 M60 Model Data Report**

This report describes the data used in preparing traffic forecasts for the appraisal of the A6 to M60 Relief Road

This Report

Originator	Michael Reese		Check /
Version	Comments	Date	Approve
V0.3	Draft reports for client and/or internal review	15/05/17	DA

Contact

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Issued	Organisation	FAO
15/05/17	WSPPB	James Shanks (v0.3)

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1. Introduction

1.1 In 2016, the A6 to M60 Project Board commissioned TfGM HFAS to develop models to inform production of a Major Scheme Business Case for the proposed A6 to M60 Relief Road.

1.2 To assist in development of the models new data on traffic patterns and volumes was collected within the identified scheme Area of Influence (AOI).

1.3 This report details the new data and existing data employed in the model build and revalidation/ recalibration. The report has nine main sections:

- Section 1 Introduction
- Section 2 The A6 M60 Model
- Section 3 Use of Mobile Phone Data
- Section 4 2001 National Census Matrices
- Section 5 Journey Time Data
- Section 6 Traffic Counts

2. The A6 to M60 Model

Overview

2.1 The A6 to M60 transport model has been developed based on the 2014 Greater Manchester SATURN model and the model developed for the A6 Manchester Airport Relief Road model.

2.2 The role of the SATURN model is to take the future year car travel demand to develop more detailed representations of the impacts of that demand, considered together with goods vehicle demand, in terms of travel times and link flows. The SATURN model also provides the inputs (at the forecast years) to the economic appraisal and environmental assessment processes.

2.3 The development of the A6 to M60 base and future year models are documented in the 'A6 to M60 Local Model and Validation Report' and the A6 to M60 Model Forecasting Note' respectively.

Key Data Inputs

2.4 Table 2.1 summarises the sources of transport data used in developing both the SATURN model to provide an understanding of existing travel patterns and problems. The following sections consider each source in more detail, including where appropriate, locations, methods of data collection, dates, durations and sample.

2.5 The volume of data used in developing the models and in understanding existing travel patterns and issues is substantial, and a number of different sources of data have been exploited. This report therefore refers to other reports where detailed information can be found, where appropriate.

Table 2.1 Summary of Key Data Sources

Data Source	How used
Manual classified and automatic traffic counts associated with RSI and at other locations	Development of A6 M60 SATURN model
2011 National Census matrices of usual mode of travel to work	Development of A6 M60 SATURN model
2015/16 TrafficMaster journey time data	A6 to M60 SATURN development, understanding JT variation through the day, where congestion occurs

3. Mobile Phone Data

3.1 Introduction

3.1.1 This section provides details of the mobile phone project. It describes the information that was collected and considers the limitations of the data.

3.2 Overview of the Data

3.2.1 The objectives of the Mobile Phone project were to obtain up-to-date information on trip making for use with the Greater Manchester Highway, Public Transport and Variable Demand Models. It was hoped that the study would provide a 'Proof-of-concept Dataset', which would provide information about trip making within the County which was as least as good as could be obtained from traditional intercept surveys, at a fraction of the cost.

3.2.2 The main points relating to the data are as follows:

- Data was collected for a four weeks period, comprising the weeks beginning Monday 13th May 2013, Monday 20th May 2013, Monday 10th June 2013 and Monday 17th June 2013
- Data was, however, only processed for 19 days, (due to data collection and storage problems), and has been averaged for weekdays, Saturdays and Sundays
- Data was collected for all movements within Greater Manchester and the surrounding area
- The weekday source data is based on a sample of over 69 million trips
- Data was anonymised, to protect privacy, with device IDs being re-set each day
- Data was zoned to a 631 zone sectoring system, (representing aggregations of transport modeling zones), comprising 503 sectors inside Greater Manchester and 128 sectors outside the County
- The start and end times of trips were aggregated to the nearest hour
- Intra-sector movements were only partially observed in the dataset and therefore have to be 'infilled' using information from pre-existing matrices or other sources.

3.3 Mode Allocation

3.3.1 Trips were allocated to 3 modes comprising:

- Highway modes, which includes cars, Light Goods Vehicles, Other Goods Vehicles, Buses/Coaches and Motor Cycles
- Rail, which includes Metrolink
- Slow modes (walk and cycle).

3.3.2 Movements were allocated to modes using information about:

- The speed of trips and trip lengths. (Devices travelling at slow speeds and making short journeys were assumed to be slow modes, other non-rail trips were classified as Highway).
- Rail/Metrolink trips were classified by identifying cell tower handover pairs that had patterns associated with groups of people on the same route travelling at nearly the same time and speed and identifying these as train lines. Devices that 'handed over' from one cell of such a pair to another were classified as train/tram trips.

3.4 Home Sectors

3.4.1 The home ends of trips were inferred based the time at which each device (mobile phone) was first 'seen':

- If the device was seen before 4pm, it was assumed that the location of the first point of observation was the home end
- If the device was not seen before 4pm, it was assumed that the location of the last point of observation was the home end.

3.5 Expansion Process

3.5.1 The mobile phone data was expanded using population data from the 2011 census. The expansion was carried out in two stages:

- Firstly, the population data was used to derive controls for the observed movements
- Next, 'person type' adjustment factors were applied, (to try to correct for any person type bias in the data), based on the characteristics of trips made by different individuals (mode or travel, time of first trip, trip length etc.)

Further details are available in MPOD Data Final Report produced by Mouchel, March 2015.

3.6 Limitations of the Data

3.6.1 Whilst OD data collected from mobile phones has some strengths compared to data collected using traditional intercept surveys, including the ability to obtain very large sample sizes with a minimum amount of disruption to traffic flows and travelers, there are a number of known limitations with the data including:

- Difficulties defining what a trip is and identifying short distance trips
- Spatial accuracy - the accuracy with which phone locations can be determined is dependent on antenna/cell tower coverage. Locations should be most accurate in areas with a high density of cell towers, typically comprising town centres and areas with high population, but will be less accurate elsewhere.
- The data only provides limited information about travel mode (highway, rail, slow modes)
- Data does not provide any information about travel purpose
- Data is relatively cheap (and it is possible to obtain very large sample sizes), but we need to be aware of/learn about its shortcomings.

4. Journey Time Data

Trafficmaster Data

4.1 Observed journey times on a number of routes in the A6 to M60 Area of Influence and Cheshire East were obtained from the Trafficmaster database. In addition to this extra routes were identified located within the Cheshire East area to assist in extending the simulation network in the existing highway scheme model

4.2 Trafficmaster is a database run by Trafficmaster PLC that holds data collected from in-vehicle GPS tracking devices and provides information about average vehicle speeds on roads across the UK for vehicles. This information has been mapped to a set of ITN (Integrated Transport Network) links and can be used to derive measures of speed and journey time.

4.3 Trafficmaster acts as prime contractor for the Department for Transport (DfT) to collect historical journey time data and the data is shared with public authorities for the purposes of:

- activities related to local transport planning; and
- traffic congestion monitoring, analysis and research.

4.4 The data are anonymised prior to supply to Local Authorities and is provided in quarter hour time bands

4.5 HFAS currently hold data for Greater Manchester and a 10 KM buffer surrounding the county (thereby including a substantial part of northern Cheshire). Data is currently available from 2015.

4.6 On receipt from DfT, the Trafficmaster data is processed by HFAS to exclude observations collected during school and national holidays, and to calculate average times for non-stopping vehicles (i.e. excluding buses and taxis) for standardized time periods.

4.7 To validate the SATURN models, the modelled times have been compared with observed times collected during 2009 for the morning peak hour 0800-0900, the evening peak hour 1700-1800 and the inter-peak period 0930-1430.

4.8 Thirty One routes (two directions each) were extracted from the Trafficmaster database for the A6 to M60 area of influence. All routes are detailed in Table 5.1 and shown in Figure 5.1. In all, the journey time routes cover approximately 590km of the highway network.

4.9 Table 5.2 provides details of observations on each of the journey time routes.

4.10 The observed journey times on each of the routes are shown in Table 5.3.

Journey Time Variability

4.11 From the Trafficmaster data supplied by the DfT it is possible to calculate journey time variability for each ITN link. However the variation on each link making up a route cannot simply be aggregated to derive the variation for the route as the journey times on each link are not independent.

4.12 To overcome this issue HFAS have developed a methodology for calculating the variability in journey time for routes using Trafficmaster data by assessing the variation in the average daily journey time.

4.13 For a given route the average journey time for each day within a specified period is calculated. This is achieved by summing the average journey time for each ITN link in the route for each day. The variability (Coefficient of Variation) of these average daily journey times is then calculated.

4.14 As a proxy for maximum and minimum journey time values, HFAS identify the 95th percentile journey time to act as the maximum and the 5th percentile journey time to act as the minimum value. These are obtained from one of the steps in the variability calculation described above. Using the 95th and 5th percentile values rather than the true maximum and minimum journey times reduces the risk of the results being influenced by factors such as extreme weather events or rogue drivers.

4.15 An approach similar to that described above has been adopted as a measure for the LTP3 Highway Reliability Indicator.

Data Uses

4.16 The Trafficmaster data has been used to validate modelled journey times.

Table 5.1 Journey Time Route Descriptions

Route No.	Description	Direction	Route Length Modelled KM
1	A6 Chapel to Heaton Moor	NW	8.7
	A6 Heaton Moor to Chapel	SE	8.7
2	A537 Knutsford to Macclesfield	E	16.4
	A537 Macclesfield to Knutsford	W	16.4
3	B5085 Knutsford to Alderley Edge	E	10.2
	B5085 Alderley Edge to Knutsford	W	10.2
4	B5087 Macclesfield to Alderley Edge	NW	6.6
	B5087 Alderley Edge to Macclesfield	SE	6.6
5	M56 Manchester Airport to West Didsbury	N	7.3
	M56 West Didsbury to Manchester Airport	S	6.8
6	B5166 Wilmslow to Northenden	N	10
	B5166 Northenden to Wilmslow	S	10
7	M56 J8 to J5	E	8.4
	M56 J5 to J8	W	8.4
8	A5102 Wilmslow to Bramhall	NE	7.6
	A5102 Bramhall to Wilmslow	SW	7.6
9	A34 Alderley Edge to East Didsbury	N	14.4
	A34 East Didsbury to Alderley Edge	S	14.3
10	A523 Prestbury to Hazel Grove	N	10.1
	A523 Hazel Grove to Prestbury	S	10
11	A555 MAELR Poynton to Manchester Airport	W	14.4
	A555 MAELR Manchester Airport to Poynton	E	14.4
12	A538 Prestbury to Hale	NW	22.1
	A538 Hale to Prestbury	SE	22.1
13	M60 J6 to J24	AC	17
	M60 J24 to J6	CW	17.2
14	Heald Green to Cheadle Heath	NE	5.2
	Cheadle Heath to Heald Green	SW	5.2
15	A5149/3 Cheadle Hulme to Hazel Grove	E	5.8
	A5143/9 Hazel Grove to Cheadle Hulme	W	5.8
16	Buxton Old Road / Higher Lane	SB	6
	Buxton Old Road / Higher Lane	NB	6
17	B5470 Chapel To Macclesfield	SB	16.5
	B5470 Macclesfield To Chapel	NB	16.5
18	B5090 / Bakestonedale Rd	WB	8.1
	B5090 / Bakestonedale Rd	EB	8.1
19	Bakestonedale Rd / Brookledge Lane / Mill Lane	WB	9.7
	Bakestonedale Rd / Brookledge Lane / Mill Lane	EB	9.7
20	B5358	NB	8.9
	B5358	SB	8.9
21	Roundy Lane / Middlewood Rd / Waterloo Rd	NB	7.3
	Roundy Lane / Middlewood Rd / Waterloo Rd	SB	7.3
22	B5465 / A626	NB	2.1
	B5465 / A626	SB	2.1
23	A626	NB	4.9
	A626	SB	4.9
24	A560	NB	3.9
	A560	SB	3.9
25	A6017	NB	3.9
	A6017	SB	3.9
26	A560 / A627	NB	6.6
	A560 / A627	SB	6.6
27	A626	NB	11.9
	A626	SB	11.9
28	A560	NB	4.9
	A560	SB	4.9
29	A627	NB	6.4
	A627	SB	6.4
30	A560	NB	7.1
	A560	SB	7.1
31	B6104	NB	5.8
	B6104	SB	5.8

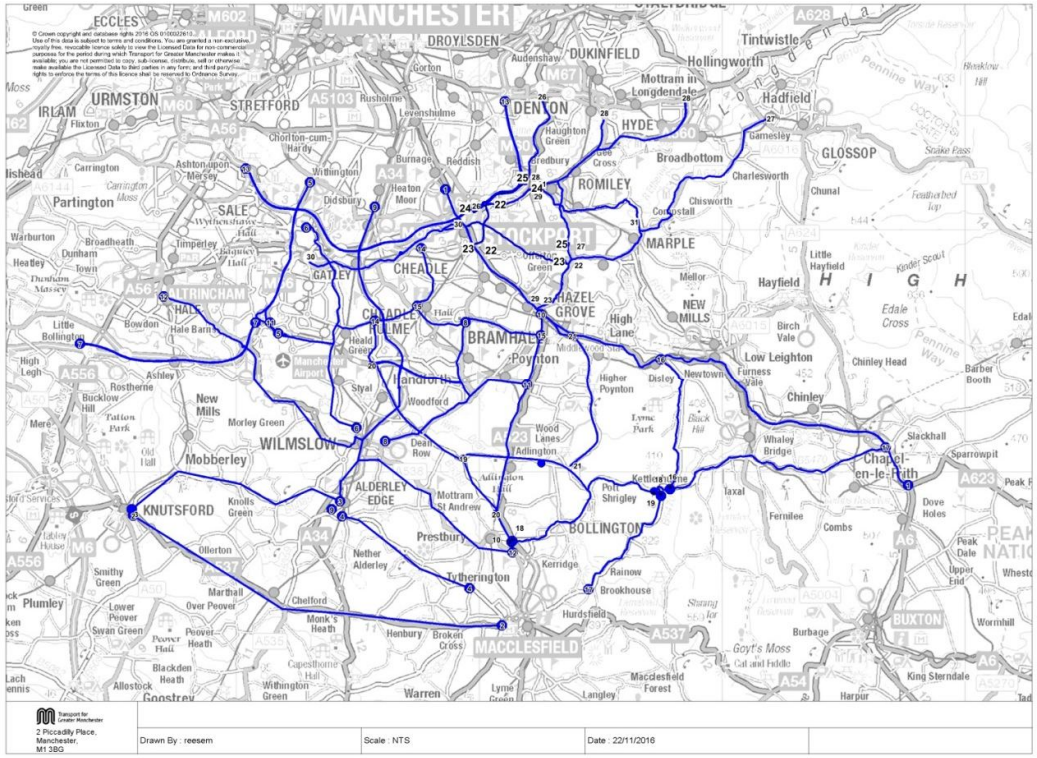

Figure 5.1 Journey Time Routes

Table 5.2	Observed Journey Times: Number of Links and Average Observations by Period			
Route	No of Links	Average No' of Hourly Observations per Link		
		AM	Inter Peak	PM
1	251	1228	1204	806
	248	1006	1104	1037
2	91	951	787	695
	93	1044	842	753
3	86	625	600	634
	81	521	587	492
4	33	641	393	249
	34	447	395	413
5	30	5366	4287	3197
	31	4108	4753	5778
6	96	550	318	292
	95	271	319	586
7	15	7984	6324	5065
	15	6615	6337	6537
8	72	1011	800	991
	72	927	767	773
9	82	2749	2531	1747
	76	2128	2439	2626
10	79	499	826	576
	79	665	827	584
11	116	828	748	614
	109	740	727	761
12	193	1321	1222	1154
	194	1277	1221	1369
13	45	7485	7154	5733
	48	7289	7023	5115
14	69	652	528	364
	72	499	485	467
15	71	577	712	711
	71	722	713	644
16	23	231	105	192
	24	230	125	221
17	92	239	168	152
	92	141	179	253
18	49	181	207	138
	49	218	202	214
19	31	241	213	149
	31	188	248	235
20	72	745	593	536
	71	650	584	629
21	36	117	82	148
	36	165	86	118
22	30	870	1373	862

	32	1471	1197	861
23	78	493	589	400
	80	592	536	486
24	51	964	1189	957
	46	1340	1014	726
25	41	619	585	793
	44	1006	563	585
26	98	508	566	688
	89	614	501	632
27	87	604	498	574
	88	525	540	414
28	43	221	223	240
	41	265	224	211
29	50	425	526	537
	52	555	547	483
30	124	750	843	708
	126	775	887	626
31	72	522	534	488
	72	566	596	817

Table 5.3 Observed Journey Times by Route (Minutes)

Route Number	Direction	Observed Time AM	Observed Time Inter Peak	Observed Time PM
1	NB	54.4	41.3	46.0
	SB	43.9	39.5	49.0
2	E	25.3	19.5	22.2
	W	23.6	18.9	21.3
3	E	14.6	13.4	13.9
	W	15.0	13.5	15.9
4	NW	7.8	7.5	7.5
	SE	7.2	7.3	7.2
5	N	13.1	5.6	10.0
	S	5.9	5.3	6.2
6	N	17.4	15.5	19.6
	S	18.1	15.2	18.4
7	E	8.9	5.2	10.3
	W	5.2	4.7	5.7
8	NE	12.2	11.6	15.1
	SW	16.4	12.1	13.9
9	N	27.0	16.9	28.7
	S	26.0	17.4	22.9
10	N	17.1	15.1	18.9
	S	23.9	14.3	15.3
11	W	25.5	20.5	22.2
	E	24.0	21.4	33.3
12	NW	38.4	31.9	34.9
	SE	40.9	33.0	40.6
13	AC	12.5	10.4	20.8
	CW	22.8	10.8	15.3
14	NE	13.0	9.9	13.8
	SW	14.9	9.7	14.8
15	E	10.8	10.2	13.6
	W	18.9	10.2	12.4
16	SB	7.6	7.7	7.7
	NB	7.9	7.8	8.4
17	SB	22.2	20.8	21.6
	NB	22.0	21.0	21.5
18	WB	12.3	11.9	11.9
	EB	12.2	12.0	12.1
19	WB	15.4	12.5	13.1
	EB	12.4	12.4	12.6
20	NB	13.2	12.0	12.6
	SB	15.1	12.3	15.8
21	NB	13.1	12.4	13.1
	SB	12.5	11.6	12.2
22	NB	5.5	4.6	6.3
	SB	7.9	5.2	7.8
23	NB	20.1	12.2	14.4

	SB	11.6	11.6	19.5
24	NB	7.1	7.4	9.0
	SB	8.8	7.1	8.1
25	NB	7.8	7.2	8.6
	SB	12.9	6.5	9.6
26	NB	14.8	12.9	18.1
	SB	23.9	14.3	14.7
27	NB	19.3	18.0	18.6
	SB	24.0	18.0	18.3
28	NB	7.0	6.9	7.1
	SB	6.6	6.7	7.1
29	NB	13.6	12.0	17.7
	SB	20.0	12.4	14.7
30	NB	23.0	15.6	26.3
	SB	28.4	17.6	26.8
31	NB	16.6	10.3	10.1
	SB	11.8	10.1	13.6

5. Traffic Counts

Sources of Count Data

5.1 Traffic count data was obtained from three sources:

- HFAS's GMCOUNTS database;
- Cheshire East Council;
- the Highways Agency's Traffic Flow Data System (TRADS) counts database

Data for Greater Manchester - GMCOUNTS Database

5.2 HFAS undertakes manual classified traffic counts (MCCs) on links and at junctions on behalf of Greater Manchester's District Councils and other clients, including the DfT. All counts are stored on Greater Manchester's map-based traffic counts database and enquiry system, GMCOUNTS.

5.3 A significant proportion of the link counts are for monitoring long-term trends. These include National Road Traffic Census counts, which are supplied by the DfT. Other counts are collected for scheme monitoring and appraisal. The link counts are mainly 12-hour continuous, undertaken between 07:00 and 19:00. Most turning counts are discontinuous short-period counts, which usually cover the peak periods (07:30-09:30 and 16:00-18:00) and a 2-hour period in the inter-peak (usually 10:00-12:00, or 12:00-14:00).

5.4 In addition to the MCCs, GMCOUNTS also holds data from automatic traffic counters (ATCs). ATC's consist of "ad hoc" and fixed sites. The ad hoc sites are generally established for scheme appraisal and monitoring purposes and are usually short-term in nature, counters being in place for a two-week period. The fixed ATC sites are spread throughout Greater Manchester and provide continuous monitoring of traffic from year to year. The data from these sites are generally used to monitor long term trends in traffic flow.

5.5 A number of counts were undertaken by HFAS specifically for the A6 to M60 study. For example manual counts were done and ATC installed to provide expansion factors for trips observed at each roadside interview survey site (phases A & B).

5.6 The GM counts sites that provided data that were used in the matrix estimation process are listed in Table A1.1 of Appendix 1.

Data for Cheshire East

5.7 Count data for the northern part of Cheshire East was provided by that local authority and processed/reviewed by Mott MacDonald. The data consisted of counts were collected in the Cheshire East area in 2013 and 2014 and some infill counts undertaken in 2016.

5.8 The Cheshire count sites used are listed in Appendix 2.

Data for Highways Agency Roads

5.9 The TRADS database provides online access to the ATC data collected by the Highways Agency on motorways and trunk roads. The database holds data for some 15,000 sites of which around 9,000 are currently active.

5.10 The TRADS counts sites that provided data that were used in the matrix estimation process are listed in Table A3.1 of Appendix 3. A further set of TRADS counts were retained as an independent counts set in the model validation process, that is, these count data were not used to modify the demand matrices; the TRADS sites that provided these data are shown in Table A3.2 of Appendix 3.

Locations of the Count Sites

5.11 To provide reassurance that the validation of the base year model was acceptable over a wider area counts on cordons and screenlines across Greater Manchester were included in the validation process. For the purposes of this report only cordons and screenlines within the A6 M60 Area of influence have been reported but results for other cordons and screenlines within Greater Manchester are available on request from HFAS.

5.12 Figures 6.1 and 6.2 show the locations of the survey sites that were used to obtain counts for use in development of the A6 to M60 SATURN model. Figure 6.1 shows new count locations and cordons and screenlines that were used in the matrix estimation process; that is, counts from these sites were used to modify the demand matrices so that they better reflected observed travel patterns. Figure 6.1 shows all sites used in matrix estimation and Figure 6.2 shows sites that provided independent counts that were not used in matrix estimation; these counts were therefore available as an independent check on model validation.

Age of Data

5.13 All the counts used regardless of data source were conducted post 2013.

Adjustment of Data to Common Time Period & Year

5.14 Details of the traffic count conversion factors are contained in the attached tables. Two sets of factors are used:

5.15 Seasonal factors, (Tables A4.1 – A4.3, Appendix 4), which are used to correct for periodic fluctuations in traffic flows within years.

5.16 Yearly factors, (Tables A4.4 – A4.6, Appendix 4), which are used to correct for long-term, year-on-year changes in traffic flows.

5.17 Separate factors are available for the AM peak hour, 0800-0900, the PM peak hour 1700-1800 and an average inter-peak hour for the time period 1000-1600.

5.18 The traffic count factors are used to convert counted flows to the 'average' conditions represented by the traffic model. The factors are applied in two stages:

- First, the seasonal factors are used to convert the counts from their day and month of survey to the average weekday represented by the traffic model; and
- Next, the yearly factors are used to convert the counts from their year of survey to the base year represented by the traffic model.

5.19 The seasonal factors have been derived from Automatic Traffic Counter (ATC) data at sites in the A6 M60 area. These factors are not classified, and are assumed to apply equally to car, Light Goods Vehicle (LGV) and Other Goods Vehicle (OGV) flows, for all road types.

5.20 The yearly count factors are calculated from manual traffic counts at sites within Greater Manchester. The yearly factors are available in the form of count indices, with the traffic growth from one year to another being calculated by dividing the index for the target year by the index for the base (counted) year.

5.21 Separate year-to-year indices are available for car, LGV, OGV and all vehicle flows, for motorways, A roads and other roads. An example calculation has been provided in Appendix 4.

The Observed Peak Hours

5.22 GMCOUNTS holds historical details of manual and ATC surveys. Manual Classified Counts (MCC) are historically more prominent within the database than any other type of count. HFAS have found through experience that MCC are more reliable and accurate on congested roads across the county.

5.23 To establish the peak hours for the A6 M60 SATURN models, HFAS conducted an analysis of 102 MCC near the line of the proposed A6 M60 scheme. Sixty-eight of the counts were in Greater Manchester and 34 were in Cheshire.

5.24 The data were processed to show total hourly flows at 15-minute intervals in Greater Manchester and in Cheshire separately, and for all the counts considered together. The analysis concluded that the A6 M60 modelling should be based on 0800-0900 and 1700-1800 peak hours.

Observed Traffic Flows

5.25 The morning peak hour, inter peak hour and evening peak hour flows as observed on roads within the A6 M60 'area of influence' are listed in Appendix 10.

Data Uses

5.26 The traffic counts have been used to:

- establish the morning and evening peak hours in the model 'area of influence' of the scheme
- provide data for the model validation;
- expand the origin-destination data revealed by the roadside interviews;

- contribute to the development of factors to annualise scheme benefits in economic appraisal; and
- assess how observed network speeds (Trafficmaster speed data) vary with traffic volume.

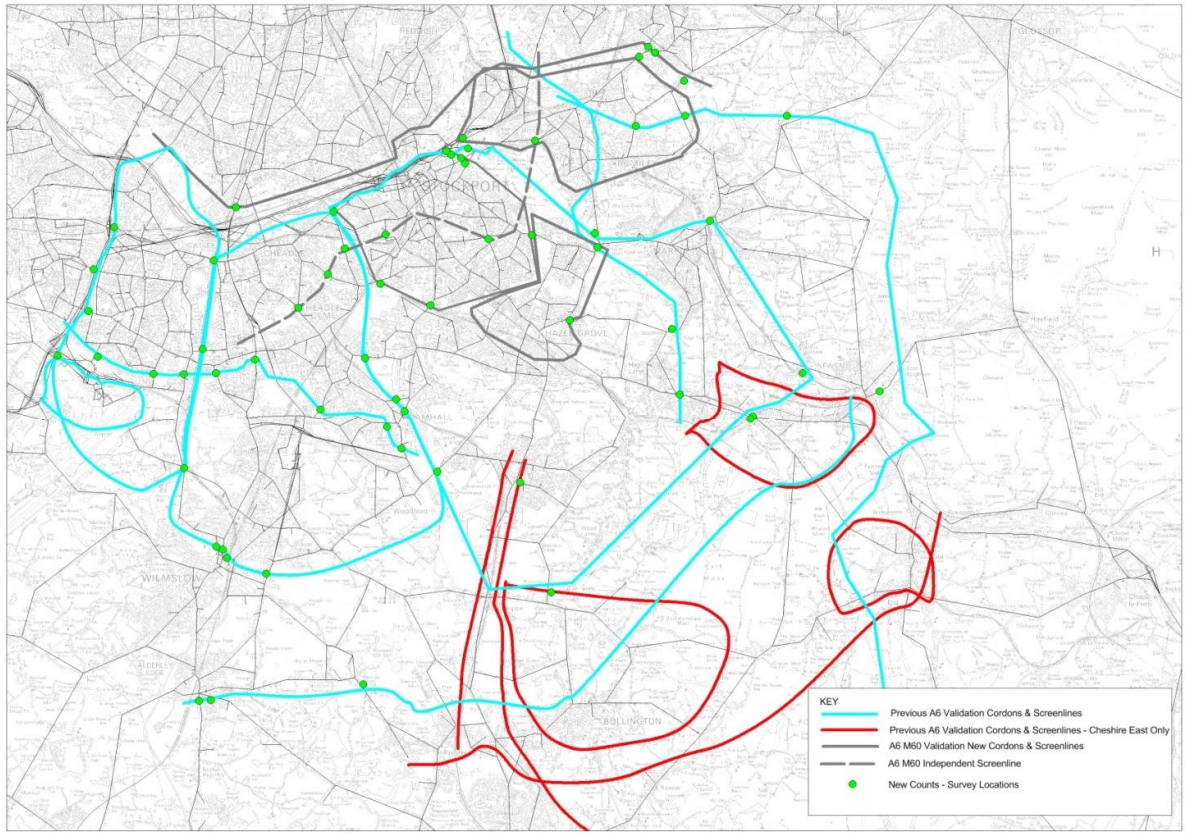

Figure 6.1 Location of New Counts and Cordons and Screenlines used in Matrix estimation

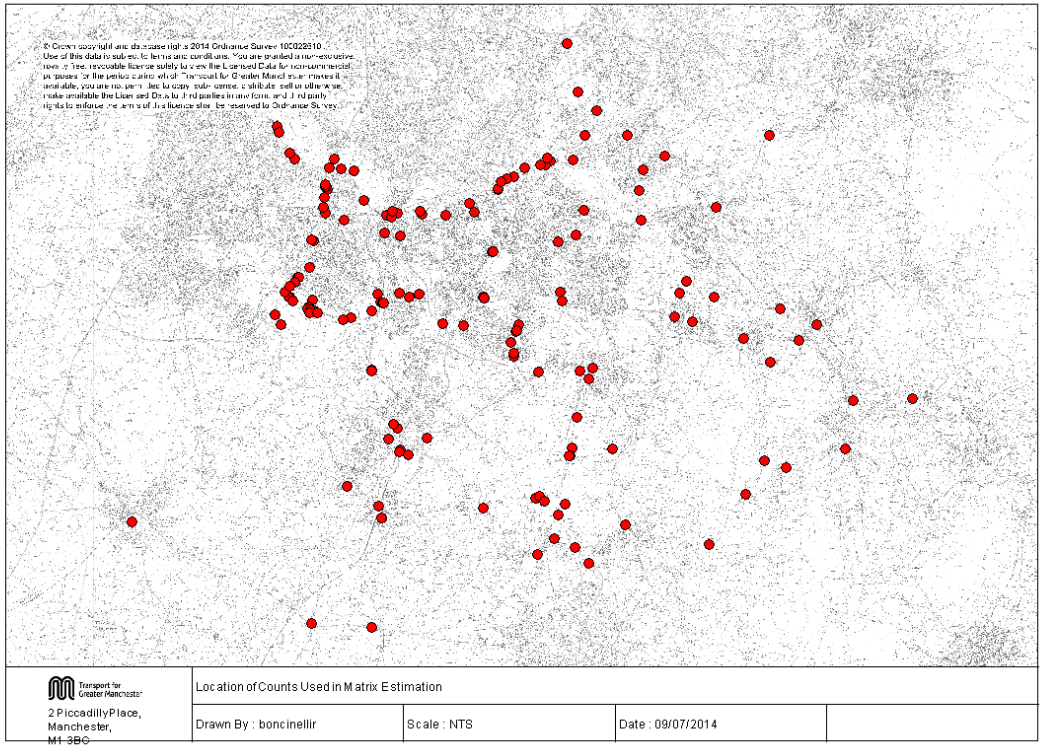

Figure 6.2 Matrix Estimation Counts

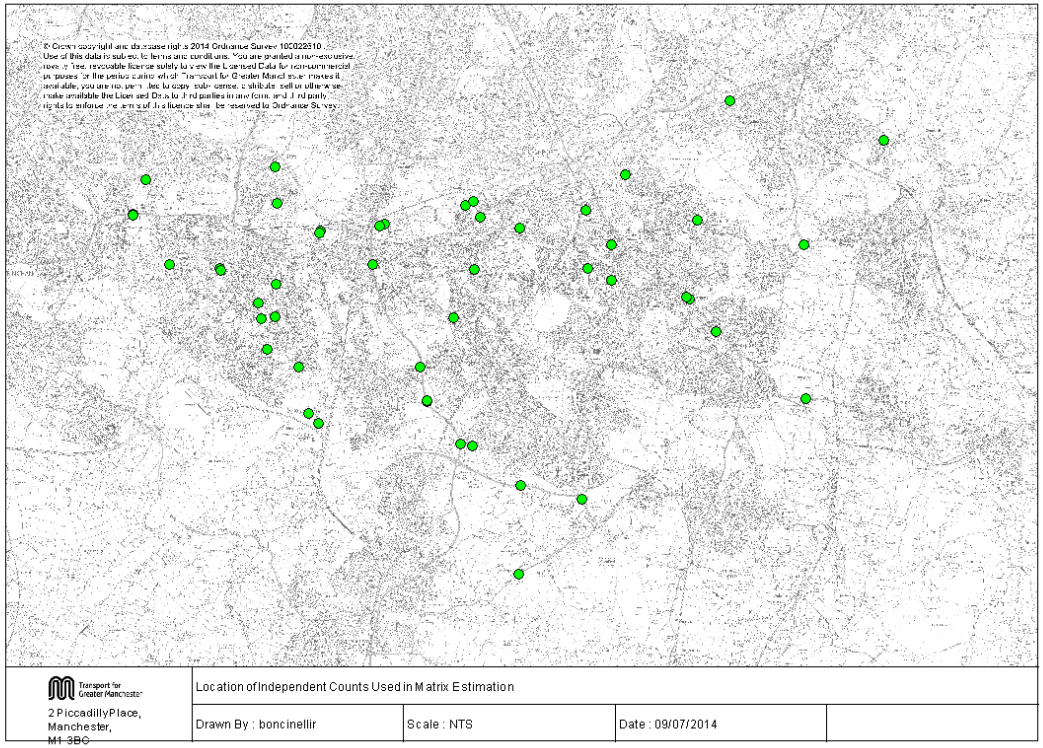

Figure 6.2 Independent Counts

Appendix 1 ME Counts

1337	2905	A34 Upper Brook St	48020	384624	397078
13296	13295	A34 Wilmslow Bypass	210	385035	380625
13295	13296	A34 Wilmslow Bypass	220	385007	380551
15341	13902	A34 Wilmslow Road	0	384245	378603
13902	15341	A34 Wilmslow Road	0	384245	378603
13007	3574	A49 Preston Rd	28446	355512	412000
3574	13007	A49 Preston Rd	28446	355512	412000
10325	10329	A50 Toft Road	0	375335	378035
10329	10325	A50 Toft Road	0	375335	378035
9038	9033	A5004 BUXTON RD	0	401379	382413
9045	10401	A5004 BUXTON RD	0	401104	380640
9033	9038	A5004 BUXTON RD	0	401379	382413
10401	9045	A5004 BUXTON RD	0	401104	380640
9046	9045	A5004 BUXTON RD	0	401104	380640
9045	9046	A5004 BUXTON RD	0	401104	380640
1391	1361	A5014 STRETFORD RD	28684	381903	396240
1361	1391	A5014 STRETFORD RD	28684	381903	396240
3525	3644	A5063 TRAFFORD RD	38050	381240	396650
1374	1400	A5063 TRAFFORD RD	38050	381240	396650
1730	1283	A5066 GT CLOWES ST	0	382712	400522
1283	1730	A5066 GT CLOWES ST	0	382712	400522
5344	7903	A5066 ORDSALL LN	99999	381482	396846
7903	5344	A5066 ORDSALL LN	99999	381482	396846
1339	5075	A5067 CAMBRIDGE ST	99999	384098	397000
5075	1339	A5067 CAMBRIDGE ST	99999	384098	397000
4733	3962	A5067 CHORLTON RD	0	382997	397289
3962	4733	A5067 CHORLTON RD	0	382997	397289
4969	12851	A5081 PARK WAY	0	377572	395752
2963	4971	A5081 PARK WAY	0	377572	395752
5303	3570	A5081 PARK WAY	27755	378037	396470
3609	5304	A5081 PARK WAY	27755	378039	396470
13236	13235	A5102 Adlington Road at	0	385974	381058
13235	13236	A5102 Adlington Road at	0	385974	381058
6819	4657	A5102 Bramhall Lane Sout	110	389204	384881
4657	6819	A5102 Bramhall Lane Sout	120	389227	384927
15326	13254	A5102 Wilmslow Rd	27762	388000	382080
13254	15326	A5102 Wilmslow Rd	27762	388000	382080
15538	13828	A5102 Woodford Rd	47762	389114	383989
13828	15538	A5102 Woodford Rd	47762	389120	384100
5065	8566	A5103 MEDLOCK ST	0	383718	397115

8566	5065	A5103 MEDLOCK ST	0	383718	397115
2858	2857	A5103 NB A5103 TMU site	30014	382299	389752
2857	2844	A5103 NB A5103 TMU site	30014	382326	390193
2354	2844	A5103 NB A5103 TMU site	30014	382318	390195
4344	1329	A5103 Princess Rd	37809	382989	391910
1329	4344	A5103 Princess Rd	37809	383012	391914
4484	1427	A5103 Princess Rd	80940	383830	395000
1427	4484	A5103 Princess Rd	80940	383830	395000
3640	5069	A5103 PRINCESS RD	99999	383707	397027
5068	3641	A5103 PRINCESS RD	99999	383707	397027
2855	2856	A5103 SB A5103 TMU site	30014	382333	390118
2855	2218	A5103 SB A5103 TMU site	30014	382351	390126
2843	2847	A5103 SB A5103 TMU site	30014	382633	391142
2843	3039	A5103 SB A5103 TMU site	30014	382644	391136
2859	5120	A5103 SB A5103 TMU site	30014	382254	389367
8824	5651	A5143 Jacksons Lane Haze	79071	390879	385995
5651	8824	A5143 Jacksons Lane Haze	79071	390879	385995
4189	8907	A5145 DIDSBURY RD	58034	388000	390450
8907	4189	A5145 DIDSBURY RD	58034	388000	390450
1447	6245	A5145 EDGE LN	0	380952	393984
14241	1412	A5145 Edge Ln	17698	379957	394345
6245	1447	A5145 EDGE LN	0	380952	393984
1412	14241	A5145 Edge Ln	17698	379975	394331
3848	1873	A5145 HOLLYWOOD WAY	0	388558	390041
1873	3848	A5145 HOLLYWOOD WAY	99999	388536	390071
3769	4062	A5145 Kingsway	38053	379500	394440
4062	3769	A5145 Kingsway	38053	379500	394440
2967	1678	A5145 TRAVIS BROW	1216	388868	390424
1678	2967	A5145 TRAVIS BROW	1216	388868	390424
13839	15532	A5149 Chester Rd	7714	390000	383450
15532	13839	A5149 Chester Rd	7714	390000	383450
2167	13839	A5149 Chester Rd	7714	390000	383450
13839	2167	A5149 Chester Rd	7714	390000	383450
13211	13205	A5149 CHESTER RD	0	391962	383586
13205	13211	A5149 CHESTER RD	0	391962	383586
1406	1404	A5181 PARK RD	99999	379213	394676
1404	1406	A5181 PARK RD	99999	379213	394676
1469	7131	A5184 PLYMOUTH GR	0	386525	395914
7131	1469	A5184 PLYMOUTH GR	0	386525	395914
15313	13221	A523 LONDON RD	99999	391215	380688
13221	15313	A523 LONDON RD	99999	391215	380688
13229	13228	A523 LONDON RD	0	390734	378269

13228	13229	A523 LONDON RD	0	390734	378269
15294	2188	A523 MACCLESFIELD RD	27267	392473	385252
2188	15294	A523 MACCLESFIELD RD	27267	392473	385252
26373	10361	A523 THE SILK RD	0	391841	376528
10361	26373	A523 THE SILK RD	0	391841	376528
10331	13337	A535 HOLMES CHAPEL RD	0	381826	374349
13337	10331	A535 HOLMES CHAPEL RD	0	381826	374349
13336	13337	A537 Chelford Road	0	384001	374197
13337	13336	A537 Chelford Road	0	384001	374197
13307	13804	A538 HEYBRIDGE LN	0	390579	377412
13804	13307	A538 HEYBRIDGE LN	0	390579	377412
13298	13843	A538 Prestbury Link Road	0	385302	380455
13843	13298	A538 Prestbury Link Road	0	385302	380455
9063	9062	A538 PRESTBURY LN	0	390579	377412
9062	9063	A538 PRESTBURY LN	0	390579	377412
13850	13304	A538 WILMSLOW RD	0	388016	378527
13304	13850	A538 WILMSLOW RD	0	388016	378527
3885	3017	A555 MAELR	99522	386200	384542
3019	3933	A555 MAELR	99522	386200	384542
5316	7592	A56 BRIDGEWATER WAY	99999	381548	396420
7592	2159	A56 BRIDGEWATER WAY	99999	381548	396420
3953	9011	A56 BURY NEW RD	0	381009	404475
9011	3953	A56 BURY NEW RD	0	381009	404475
1546	1288	A56 BURY NEW RD	0	382984	400625
1288	1546	A56 BURY NEW RD	0	382984	400625
8105	1410	A56 CHESTER RD	0	379710	394409
1410	8105	A56 CHESTER RD	0	379710	394409
3957	14088	A56 CHESTER RD	85324	383124	397362
2909	3957	A56 CHESTER RD	0	382997	397289
4486	8642	A56 Chester Rd	99516	382585	397080
8642	4486	A56 Chester Rd	99516	382585	397080
4077	2349	A56 CROSS ST	0	378903	392753
2349	4077	A56 CROSS ST	0	378903	392753
4417	2045	A56 MANCHESTER RD	36576	380653	408059
2045	4417	A56 MANCHESTER RD	36576	380653	408059
1312	3274	A56 Victoria St	36577	383850	398968
3274	1312	A56 Victoria St	36577	383850	398968
5121	4373	A560 Altrincham Road	351	382317	389176
4373	5121	A560 Altrincham Road	352	382317	389176
4166	4787	A560 GATLEY RD	0	384468	388472
4787	4166	A560 GATLEY RD	0	384468	388472
4656	8909	A560 GT PORTWOOD ST	1220	390082	390908

8909	4656	A560 GT PORTWOOD ST	1220	390082	390908
4174	15260	A560 HYDE RD	0	393219	391982
15260	4174	A560 HYDE RD	0	393219	391982
2422	8118	A560 SHAFTESBURY AVE	0	378985	388470
8118	2422	A560 SHAFTESBURY AVE	0	378985	388470
4169	14008	A560 Stockport Road	10	387507	389533
14008	4169	A560 Stockport Road	20	387514	389537
6918	3887	A57 CADISHEAD WAY	0	371875	392680
3887	6918	A57 CADISHEAD WAY	0	371875	392680
12996	6918	A57 CADISHEAD WAY	0	370391	391324
6918	12996	A57 CADISHEAD WAY	0	370391	391324
1201	3328	A57 Hyde Rd	56582	386950	396580
3328	1201	A57 Hyde Rd	56582	386950	396580
7851	12804	A57 LIVERPOOL RD	0	375701	397916
12804	7851	A57 LIVERPOOL RD	0	375701	397916
5652	3761	A57 MANCHESTER RD	0	391055	395584
3761	5653	A57 MANCHESTER RD	0	391055	395584
7897	4574	A57 Regent Rd	36585	381942	397890
4574	7897	A57 Regent Rd	36585	381971	397869
3983	3513	A571 WIGAN RD	0	354399	401887
3513	3983	A571 WIGAN RD	0	354399	401887
8253	4784	A572 Manchester Rd	57317	369440	400000
4784	8253	A572 Manchester Rd	57317	369440	400000
3554	3542	A572 Newton Rd	7287	360992	396246
3542	3554	A572 Newton Rd	7287	360992	396244
5181	7912	A572 WORSLEY RD	0	374715	400469
7912	5181	A572 WORSLEY RD	0	374715	400469
8250	3549	A573 Warrington Rd	27310	360000	403245
3549	8250	A573 Warrington Rd	27310	360000	403245
1751	1437	A575 Bolton Rd	74677	373530	406700
1437	1751	A575 Bolton Rd	74677	373530	406700
3835	3866	A576 CENTENARY WAY	99999	378523	398064
3866	3835	A576 CENTENARY WAY	99999	378529	398119
3796	1740	A576 Middleton Rd	27313	384016	404413
1740	3796	A576 Middleton Rd	27313	383996	404404
2133	8206	A577 Tyldesley Rd	74722	368000	402750
8206	2133	A577 Tyldesley Rd	74722	368000	402750
6290	3365	A577 WIGAN RD	0	361475	404426
3365	6290	A577 WIGAN RD	0	361475	404426
2497	2080	A579 BURY RD	0	373128	409385
2080	2497	A579 BURY RD	0	373128	409385
2124	2123	A579 ST HELENS RD	99999	369026	406131

2123	2124	A579 ST HELENS RD	99999	369026	406131
12993	3541	A579 WINWICK LN	74023	362190	396200
3541	12993	A579 WINWICK LN	74023	362190	396200
3556	2240	A58 BOLTON RD	0	358364	399721
2240	3556	A58 BOLTON RD	0	358364	399721
1815	7654	A58 CROMPTON WAY	26583	371976	411421
7654	1815	A58 CROMPTON WAY	26583	371976	411421
2520	8239	A58 Liverpool Rd	48025	357128	399019
8239	2520	A58 Liverpool Rd	48025	357128	399019
3821	3857	A58 ROCHDALE RD	16556	381022	410798
3857	3821	A58 ROCHDALE RD	16556	381035	410782
5107	7711	A58 SNYDALE WAY North	0	367626	406667
7711	5107	A58 SNYDALE WAY North	0	367626	406667
2747	7280	A580 East Lancs Rd	7301	375982	401736
1569	2734	A580 East Lancs Rd	7301	375996	401703
2582	2990	A580 East Lancs Rd	7300	369978	400152
14082	2260	A580 East Lancs Rd	57252	359769	397208
2990	2582	A580 East Lancs Rd	7300	369983	400145
2260	2810	A580 East Lancs Rd	57252	359800	397189
8883	1947	A6 BUXTON RD	0	395585	385236
1947	8883	A6 BUXTON RD	0	395585	385236
9036	12965	A6 BUXTON RD	0	399424	384580
12965	9036	A6 BUXTON RD	0	399424	384580
4795	2441	A6 BUXTON RD	0	390727	388137
2441	4795	A6 BUXTON RD	0	390727	388137
9037	9036	A6 BUXTON RD	0	399424	384580
9036	9037	A6 BUXTON RD	0	399424	384580
15279	1611	A6 BUXTON RD W	88002	397420	384650
1611	15279	A6 BUXTON RD W	88002	397420	384650
9040	10403	A6 CHAPEL BYPASS	0	401379	382413
10403	9040	A6 CHAPEL BYPASS	0	401379	382413
1356	1357	A6 CHAPEL ST	0	383172	398559
1357	1356	A6 CHAPEL ST	0	383172	398559
2607	3056	A6 DOWNING ST	99999	384909	397344
3056	2607	A6 DOWNING ST	99999	384909	397344
3839	3319	A6 LONDON RD	0	384836	397490
3319	3839	A6 LONDON RD	0	384836	397490
4779	7279	A6 Manchester Rd	16151	375000	402987
7279	4779	A6 Manchester Rd	16151	375000	402987
2111	2112	A6 MANCHESTER RD	0	365374	407183
2112	2111	A6 MANCHESTER RD	0	365374	407183
2764	6746	A6 Salford Rd	73081	370400	405050

6746	2764	A6 Salford Rd	73081	370400	405050
1469	12926	A6 STOCKPORT RD	0	386525	395914
12926	1469	A6 STOCKPORT RD	0	386525	395914
12945	7894	A6 the Crescent	56160	382000	398670
7894	12945	A6 the Crescent	56160	382000	398670
5935	3679	A6 WELLINGTON RD N	85701	389130	390488
3679	5935	A6 WELLINGTON RD N	86701	389121	390493
15521	2523	A6(T) BUXTON RD	0	394916	385417
2523	15521	A6(T) BUXTON RD	0	394916	385417
1461	1454	A6010 Dickenson Rd	28246	386000	395230
1454	1461	A6010 Dickenson Rd	28246	386000	395230
3825	1476	A6010 Pottery Ln	99014	387193	397000
1476	3825	A6010 Pottery Ln	99014	387203	397000
1456	8707	A6010 WILBRAHAM RD	0	385584	394001
1449	1453	A6010 WILBRAHAM RD	0	384703	394127
8707	1456	A6010 WILBRAHAM RD	0	385584	394001
1453	1449	A6010 WILBRAHAM RD	0	384703	394127
1456	14159	A6010 WILMSLOW RD	0	385584	394001
14159	1456	A6010 WILMSLOW RD	0	385584	394001
12966	12965	A6015 ALBION RD	0	399424	384580
12965	12966	A6015 ALBION RD	0	399424	384580
9078	12966	A6015 CHURCH RD	0	400075	385140
12966	9078	A6015 CHURCH RD	0	400075	385140
8526	1925	A6017 ASHTON RD	99999	392113	392870
1925	8526	A6017 ASHTON RD	99999	392113	392870
8491	1689	A6017 GUIDE LN	0	392535	397467
1689	8491	A6017 GUIDE LN	0	392535	397467
7053	4033	A6018 MOTTRAM RD	0	397814	397088
4033	7053	A6018 MOTTRAM RD	0	397814	397088
3629	5413	A6041 BLACKFRIARS RD	0	383269	398925
5413	3629	A6041 BLACKFRIARS RD	0	383269	398925
1309	3257	A6042 CORPORATION ST	0	384169	399037
3257	1309	A6042 CORPORATION ST	0	384169	399037
4730	2814	A6045 MANCHESTER RD	0	385680	408809
2814	4730	A6045 MANCHESTER RD	0	385680	408809
6176	4923	A6046 Hollin Ln	37847	386500	408030
4923	6176	A6046 Hollin Ln	37847	386500	408030
4266	14213	A6053 CHURCH ST	17709	375000	407364
14213	4266	A6053 CHURCH ST	17709	375000	407364
1772	4493	A6104 VICTORIA AVE	0	386057	404103
4493	1772	A6104 VICTORIA AVE	0	386057	404103
6013	5840	A6143 WATER ST	0	382742	397760

5840	6013	A6143 WATER ST	0	382742	397760
8058	4087	A6144 MANCHESTER RD	0	373587	392873
4087	8058	A6144 MANCHESTER RD	0	373587	392873
1620	1623	A6144 MARSLAND RD	0	378492	391220
1623	1620	A6144 MARSLAND RD	0	378492	391220
1240	1238	A62 LEVER ST	70155	384620	398500
1300	1297	A62 Newton St	8563	384671	398413
1297	1300	A62 Newton St	8563	384671	398413
1615	8401	A62 OLDHAM RD	0	389245	401301
8401	1615	A62 OLDHAM RD	0	389245	401301
2916	1520	A62 OLDHAM RD	99999	386038	399870
1520	2916	A62 OLDHAM RD	99999	386038	399870
15514	2219	A626 BRABYNS BROW	88004	396426	389392
2219	15514	A626 BRABYNS BROW	88004	396426	389392
1219	7076	A626 Glossop Rd	7370	398334	392000
7076	1219	A626 Glossop Rd	7370	398334	392000
4179	1914	A626 MARPLE RD	99999	391637	389271
1914	4179	A626 MARPLE RD	99999	391637	389271
5022	3624	A626 ST MARYS WAY	1307	390273	390909
3624	5022	A626 ST MARYS WAY	1307	390273	390909
6257	1681	A626 TIVIOT WAY	0	389406	391363
1681	6257	A626 TIVIOT WAY	0	389406	391363
5216	8306	A627 CHADDERTON WAY	0	391746	405694
8306	5216	A627 CHADDERTON WAY	0	391746	405694
15274	15273	A627 DOOLEY LN	88005	393721	388934
15273	15274	A627 DOOLEY LN	88005	393721	388934
7067	8489	A627 Duckinfield Rd	27386	394218	396000
8489	7067	A627 Duckinfield Rd	27386	394218	396000
5236	3593	A627 KING ST	0	392420	404590
3593	5236	A627 KING ST	0	392420	404590
2925	2465	A627 MIDDLETON RD	0	392247	405019
2465	2925	A627 MIDDLETON RD	0	392247	405019
1700	6370	A627 OLDHAM RD	0	393521	399316
6370	1700	A627 OLDHAM RD	0	393521	399316
15508	15507	A627 Otterspool Rd	37434	393661	390000
15507	15508	A627 Otterspool Rd	37434	393661	390000
5290	5200	A627(M) EB A627(M) T/10/	1974	388882	408618
4929	2767	A627(M) Jn 20 - Slattock	36074	389497	409058
4926	6260	A627(M) NB A627(M) MIDAS	6290	389141	410936
2769	5199	A627(M) NB A627(M) MIDAS	6293	389508	408428
2772	2769	A627(M) NB A627(M) MIDAS	6296	389886	407506
6259	4927	A627(M) SB A627(M) MIDAS	6291	389153	410941

2770	2771	A627(M) SB A627(M) MIDAS	6297	389896	407516
2768	4932	A627(M) Slattocks - Jn 2	36074	389472	409055
5289	5291	A627(M) WB A627(M) T/10/	1975	388882	408618
14253	1511	A635 Ashton Old Rd	27403	386000	397614
1511	14253	A635 Ashton Old Rd	27403	386000	397614
13084	7018	A635 HOLMFIRTH RD	73667	401840	405200
7018	13084	A635 HOLMFIRTH RD	73667	401840	405200
1708	8457	A635 MANCHESTER RD	0	391346	397868
8457	1708	A635 MANCHESTER RD	0	391346	397868
2456	7048	A635 Wakefield Rd	99011	397260	400000
7048	2456	A635 Wakefield Rd	99011	397260	400000
12990	8275	A640 HUDDERSFIELD RD	27416	400000	412182
8275	12990	A640 HUDDERSFIELD RD	27416	400000	412182
2533	1213	A640 NEWHEY RD	27444	393479	411533
1213	2533	A640 NEWHEY RD	27444	393479	411533
1509	2325	A662 ASHTON NEW RD	0	387148	398337
2325	1509	A662 ASHTON NEW RD	0	387148	398337
4769	8456	A662 DROYLSDEN RD	0	391328	397976
8456	4769	A662 DROYLSDEN RD	0	391328	397976
8621	1533	A663 Broadway	27445	388843	402006
1533	8621	A663 Broadway	27445	388829	402009
4473	7492	A664 Manchester Rd	27446	388470	410000
7492	4473	A664 Manchester Rd	27446	388470	410000
1772	3321	A664 ROCHDALE RD	0	386006	403341
3321	1772	A664 ROCHDALE RD	0	386006	403341
2946	12942	A664 ROCHDALE RD	0	385576	400586
12942	2946	A664 ROCHDALE RD	0	385576	400586
8546	1302	A664 SHUDE HILL	0	384440	398870
1302	8546	A664 SHUDEHILL	85304	384426	398843
7387	2383	A665 BURY OLD RD	17934	382383	404000
2383	7387	A665 BURY OLD RD	17934	382383	404000
2335	8597	A665 CHEETHAM HILL RD	99999	384415	400337
8597	2335	A665 CHEETHAM HILL RD	99999	384415	400337
1478	4518	A665 Devonshire St N	27449	385770	397000
4518	1478	A665 Devonshire St N	27449	385770	397000
3804	2487	A665 PILKINGTON WAY	58340	378370	407320
2487	3804	A665 PILKINGTON WAY	58340	378370	407320
2812	2699	A666 MANCHESTER RD	37500	377680	403414
2699	2812	A666 MANCHESTER RD	37500	377672	403404
6423	4268	A666 Manchester Rd	73086	375432	404721
4268	6423	A666 Manchester Rd	73086	375429	404714
2638	2639	A666 St Peter's Way	57453	374557	405898

2656	2657	A666 St Peter's Way	57453	374570	405916
2407	4267	A667 STONECLOUGH RD	0	374766	405113
4267	2407	A667 STONECLOUGH RD	0	374766	405113
8428	7041	A670 Mossley Rd	17387	395515	400000
7041	8428	A670 Mossley Rd	17387	395515	400000
4848	4453	A671 OLDHAM RD	0	390575	410842
4453	4848	A671 OLDHAM RD	0	390575	410842
8305	2095	A671 ROCHDALE RD	0	392157	405434
2095	8305	A671 ROCHDALE RD	0	392157	405434
7731	3216	A673 Chorley New Rd	17392	366000	409574
3216	7731	A673 Chorley New Rd	17392	366000	409574
1784	9012	A675 Belmont Rd	77892	371000	412498
9012	1784	A675 Belmont Rd	77892	371000	412498
7799	4249	A676 FOLDS RD	17394	372588	410000
4249	7799	A676 FOLDS RD	17394	372588	410000
13904	15337	A999 HOLLIN LINK	0	384902	381402
15337	13904	A999 HOLLIN LINK	0	384902	381402
15336	13287	A999 MANCHESTER RD	0	384902	381402
13287	15336	A999 MANCHESTER RD	0	384902	381402
8752	20288	Avro Way	20002	380715	385155
20288	8752	Avro Way	20002	380715	385155
13465	13494	B5085/6 Knutsford Road	0	383113	379290
13494	13465	B5085/6 Knutsford Road	0	383113	379290
13470	13486	B5087 MACCLESFIELD RD	0	384345	378148
13486	13470	B5087 MACCLESFIELD RD	0	384345	378148
10361	10464	B5090 BOLLINGTON RD	0	391841	376528
10464	10361	B5090 BOLLINGTON RD	0	391841	376528
10363	10361	B5090 TYTHERINGTON LN	0	391841	376528
10361	10363	B5090 TYTHERINGTON LN	0	391841	376528
9095	9056	B5090 WELLINGTON RD	0	393143	377909
9056	9095	B5090 WELLINGTON RD	0	393143	377909
13231	10464	B5091 FLASH LN	0	391319	377100
10464	13231	B5091 FLASH LN	0	391319	377100
13307	13231	B5091 LONDON RD	0	391319	377100
13231	13307	B5091 LONDON RD	0	391319	377100
13333	2164	B5094 MOSS LN	0	389020	384518
2164	13333	B5094 MOSS LN	0	389020	384518
5932	8796	B5095 MANCHESTER RD	99999	385802	389119
8796	5932	B5095 MANCHESTER RD	99999	385802	389119
2904	1338	B5117 OXFORD RD	0	384459	396878
1338	2904	B5117 OXFORD RD	0	384459	396878
1788	1797	B5159 WARBURTON BRIDGE R	81113	369826	389680

1797	1788	B5159 WARBURTON BRIDGE R	81113	369826	389680
1626	7975	B5165 STOCKPORT RD	82101	379000	389041
7975	1626	B5165 STOCKPORT RD	82101	379000	389041
1206	4064	B5166 School Road	94651	378878	392032
4064	1206	B5166 School Road	94651	378878	392032
8757	2889	B5166 STYAL RD	83012	383985	385658
2889	8757	B5166 STYAL RD	83012	383985	385658
13275	13276	B5166 Styal Road	510	383976	383500
13276	13275	B5166 Styal Road	520	384003	383460
5945	4369	B5167 PALATINE RD	99999	383354	390711
4369	5945	B5167 PALATINE RD	99999	383354	390711
2218	4761	B5167 Palatine Road	370	382373	390026
4761	2218	B5167 Palatine Road	380	382373	390026
12992	2311	B5207 KENYON LN	81301	363076	396200
2311	12992	B5207 KENYON LN	81301	363076	396200
8020	1540	B5211 BARTON DOCK RD	0	377920	396210
1540	8020	B5211 BARTON DOCK RD	0	377920	396210
5177	4590	B5211 BARTON RD	0	374715	400469
4590	5177	B5211 BARTON RD	0	374715	400469
8053	1783	B5211 REDCLYFFE RD	81109	376653	397550
1783	8053	B5211 REDCLYFFE RD	81109	376653	397550
7699	1609	B5211 REDCLYFFE RD	0	376898	397105
1609	7699	B5211 REDCLYFFE RD	0	376898	397105
8119	1609	B5214 ASHBURTON RD W	0	376898	397105
1609	8119	B5214 ASHBURTON RD W	0	376898	397105
4956	14114	B5214 TRAFFORD BOULEVARD	0	376398	396466
7605	4959	B5214 TRAFFORD BOULEVARD	0	376398	396466
14251	8693	B5217 MANCHESTER RD	81013	381903	394831
8694	4750	B5217 MANCHESTER RD	0	381621	394327
8693	14251	B5217 MANCHESTER RD	81013	381903	394831
4750	8694	B5217 MANCHESTER RD	0	381621	394327
8017	1389	B5217 SEYMOUR GRO	81112	381920	395310
1389	8017	B5217 SEYMOUR GRO	81112	381920	395310
4744	8014	B5217 Seymour Grove	93102	381760	396020
8014	4744	B5217 Seymour Grove	93102	381760	396020
1445	8665	B5218 Upper Chorlton Rd	94649	382190	395044
8665	1445	B5218 Upper Chorlton Rd	94649	382190	395044
2111	3756	B5236 CHURCH ST	99999	365355	406831
3756	2111	B5236 CHURCH ST	99999	365355	406831
6302	6453	B5238 WIGAN RD	81307	360334	407203
6453	6302	B5238 WIGAN RD	81307	360334	407203
3560	3408	B5239 RED ROCK LN	83306	357910	409871

3408	3560	B5239 RED ROCK LN	83306	357910	409871
4579	1907	B5320 LIVERPOOL RD	0	371189	392556
1907	4579	B5320 LIVERPOOL RD	0	371189	392556
9064	13228	B5358 BONIS HALL LN	0	390734	378269
13228	9064	B5358 BONIS HALL LN	0	390734	378269
13230	15324	B5358 Lees Lane	170	390062	378935
15324	13230	B5358 Lees Lane	180	390244	378768
4163	2427	B5358 WILMSLOW RD	0	385687	386249
2427	4163	B5358 WILMSLOW RD	0	385687	386249
3355	3458	B5375 MILES LN	83303	353089	409030
3458	3355	B5375 MILES LN	83303	353089	409030
4083	2439	B5465 Edgeley Road	30	387696	389194
2439	4083	B5465 Edgeley Road	40	387712	389189
9088	9044	B5470 CHAPEL RD	0	401104	380640
9044	9088	B5470 CHAPEL RD	0	401104	380640
9044	10401	B5470 CHAPEL RD	0	401104	380640
10401	9044	B5470 CHAPEL RD	0	401104	380640
9050	9051	B5470 Macclesfield Rd	2007	398947	379993
9051	9050	B5470 Macclesfield Rd	2007	398947	379993
9097	13602	B5470 PIKE RD	0	396177	377192
13602	9097	B5470 PIKE RD	0	396177	377192
9066	9065	B6062	71400	403510	382460
9065	9066	B6062	71400	403510	382460
2591	3608	B6101 HAGUEBAR RD	88003	398729	385699
3608	2591	B6101 HAGUEBAR RD	88003	398729	385699
3608	2177	B6101 Strines Rd	93107	396410	388180
2177	3608	B6101 Strines Rd	93107	396410	388180
2663	8911	B6104 CARRINGTON RD	1229	390434	391041
8911	2663	B6104 CARRINGTON RD	1229	390434	391041
8873	3784	B6104 Stockport Road Rom	79069	393774	390749
3784	8873	B6104 Stockport Road Rom	79069	393774	390749
3390	1929	B6104 Stockport Road Wes	94579	391243	391098
1929	3390	B6104 Stockport Road Wes	94579	391243	391098
13009	2616	B6138 TURVIN ST	81606	397535	418163
2616	13009	B6138 TURVIN ST	81606	397535	418163
14054	1859	B6167 LANCASHIRE HILL	85702	389511	390796
1859	14054	B6167 LANCASHIRE HILL	86702	389511	390796
6361	1691	B6169 SHEPLEY RD	81807	392977	396792
1691	6361	B6169 SHEPLEY RD	81807	392977	396792
2379	1933	B6170 ASHTON RD	0	394924	396622
1933	2379	B6170 ASHTON RD	0	394924	396622
6360	8435	B6175 HUDDERSFIELD RD	99999	397474	399076

8435	6360	B6175 HUDDERSFIELD RD	99999	397474	399076
1550	7109	B6180 WATERLOO RD	81012	383735	400288
7109	1550	B6180 WATERLOO RD	81012	383735	400288
3583	1566	B6182 NEW BRIDGE ST	85349	383687	399055
2299	7947	B6186 FREDERICK RD	0	381502	399113
7947	2299	B6186 FREDERICK RD	0	381502	399113
5643	3146	B6194 QUEEN S RD	0	394900	400419
3146	5643	B6194 QUEEN S RD	0	394900	400419
6956	7499	B6194 Rochdale Rd	97223	392555	409830
7499	6956	B6194 Rochdale Rd	97223	392555	409830
1747	2489	B6199 Plodder Lane	94841	370980	405916
2489	1747	B6199 Plodder Lane	94841	370980	405916
2124	1753	B6199 Plodder Ln	96998	369213	406013
1753	2124	B6199 Plodder Ln	96998	369213	406013
7827	1765	B6209 RADCLIFFE RD	82405	373853	408288
1765	7827	B6209 RADCLIFFE RD	82405	373853	408288
7400	2243	B6219 HEYWOOD ST	84001	381163	410584
2243	7400	B6219 HEYWOOD ST	84001	381163	410584
2241	1758	B6221 WASH LN	82507	381336	411000
1758	2241	B6221 WASH LN	82507	381336	411000
2241	2242	B6222 BELL LN	81506	381258	411208
2242	2241	B6222 BELL LN	81506	381258	411208
7250	2265	B6226 CHORLEY OLD RD	81403	366113	411231
2265	7250	B6226 CHORLEY OLD RD	81403	366113	411231
1688	8493	B6390 AUDENSHAW RD	83804	391430	397179
8493	1688	B6390 AUDENSHAW RD	83804	391430	397179
1734	1537	B6393 LIGHTBOWNE RD	0	387424	401481
1537	1734	B6393 LIGHTBOWNE RD	0	387424	401481
8562	2296	B6469 FAIRFIELD ST	83007	385300	397687
2296	8562	B6469 FAIRFIELD ST	83007	385300	397687
2559	3915	B6472 DARWEN RD	83410	371454	413972
3915	2559	B6472 DARWEN RD	83410	371454	413972
5229	8348	B6477 MANCHESTER ST	0	392153	404879
8348	5229	B6477 MANCHESTER ST	0	392153	404879
4140	2467	B6477 YORKSHIRE ST	0	393159	405059
2467	4140	B6477 YORKSHIRE ST	0	393159	405059
13208	15311	C Dickens Lane		391846	383200
15311	13208	C Dickens Lane		391846	383200
13866	4207	C Adswood Road	50	388345	387777
4207	13866	C Adswood Road	60	388388	387774
7243	3513	C ASHTON RD	0	354399	401887
3513	7243	C ASHTON RD	0	354399	401887

3107	6627	C ASHTON RD E	0	390451	401353
6627	3107	C ASHTON RD E	0	390451	401353
1517	1502	C BRADFORD RD	99999	386584	399297
1502	1517	C BRADFORD RD	99999	386584	399297
3902	2073	C BRADFORD RD	0	372199	407049
2073	3902	C BRADFORD RD	0	372199	407049
8826	6821	C Bramhall Moor Ln	96018	390800	386309
6821	8826	C Bramhall Moor Ln	96018	390800	386309
2570	2773	C Bury Road	94895	380051	418668
2773	2570	C Bury Road	94895	380051	418668
1486	14108	C CHAPMAN ST	0	388867	396294
14108	1486	C CHAPMAN ST	0	388867	396294
8613	1541	C CHARLESTOWN RD	0	385860	402763
1541	8613	C CHARLESTOWN RD	0	385860	402763
3807	7412	C CHURCH ST W	99999	378692	407127
7412	3807	C CHURCH ST W	99999	378692	407127
7132	7131	C CLARENCE RD	99999	386410	395888
7131	7132	C CLARENCE RD	99999	386410	395888
3238	8594	C COLLYHURST RD	99999	385064	400117
8594	3238	C COLLYHURST RD	99999	385064	400117
3893	8405	C CUTLER HILL RD	87477	391252	401367
8405	3893	C CUTLER HILL RD	87477	391252	401367
2308	1404	C DERBYSHIRE LN	0	379186	394899
1404	2308	C DERBYSHIRE LN	0	379186	394899
1899	1900	C DIALSTONE LN	0	391378	388380
1900	1899	C DIALSTONE LN	0	391378	388380
7164	7145	C DOBBINETTS LN	0	380463	387836
7145	7164	C DOBBINETTS LN	0	380463	387836
1293	3269	C DUCIE ST	85311	385099	398281
8345	1976	C EGERTON ST	0	392783	405228
1976	8345	C EGERTON ST	0	392783	405228
1490	1552	C ELIZABETH ST	99999	384326	400144
1552	1490	C ELIZABETH ST	99999	384326	400144
4215	4216	C Finney Lane	490	384389	385942
4216	4215	C Finney Lane	500	384427	385943
4216	2889	C FINNEY LN	99999	384330	385957
13709	13833	C FINNEY LN	83909	385337	386149
2889	4216	C FINNEY LN	99999	384330	385957
13833	13709	C FINNEY LN	83909	385337	386149
1825	7145	C FLOATS RD	0	380463	387836
7145	1825	C FLOATS RD	0	380463	387836
2300	7208	C GERALD RD	99999	381933	400018

7208	2300	C GERALD RD	99999	381933	400018
15534	8811	C Gill Bent Rd	93658	387290	385120
8811	15534	C Gill Bent Rd	93658	387290	385120
7995	2349	C GLEBELANDS RD	0	378903	392753
2349	7995	C GLEBELANDS RD	0	378903	392753
2612	7915	C Greenleach Ln	93650	374980	401650
7915	2612	C Greenleach Ln	93650	374980	401650
1383	1384	C GT STONE RD	0	380751	395536
1384	1383	C GT STONE RD	0	380751	395536
3144	2378	C HENRIETTA ST	99999	393993	399370
8304	2960	C Henshaw St	85402	392474	405295
2960	8304	C HENSHAW ST	86402	392475	405306
2394	2359	C HEYWOOD RD	0	381892	404514
2359	2394	C HEYWOOD RD	0	381892	404514
2423	1846	C Hollyhedge Road	340	381897	388154
1846	2423	C Hollyhedge Road	330	381817	388190
4853	8651	C Hr Ardwick	96008	385563	397262
8651	4853	C Hr Ardwick	96008	385563	397262
8638	1537	C KENYON LN	0	387424	401481
1537	8638	C KENYON LN	0	387424	401481
1364	7942	C LISSADEL ST	99999	381643	399601
7942	1364	C LISSADEL ST	99999	381643	399601
1233	7896	C Liverpool St	90345	381647	398346
7896	1233	C Liverpool St	90345	381647	398346
3150	3151	C Longworth Rd	96999	370719	415002
3151	3150	C Longworth Rd	96999	370719	415002
8398	3600	C Lord Lane	93689	389680	400550
3600	8398	C Lord Lane	93689	389680	400550
3857	7407	C LORD ST	85211	380945	410589
1549	1570	C LWR BROUGHTON RD	0	382346	399921
1570	1549	C LWR BROUGHTON RD	0	382346	399921
8956	1904	C Manor Road	70	388027	386129
1904	8956	C Manor Road	80	388055	386118
2380	1705	C Market St	93660	390750	398620
1705	2380	C Market St	93660	390750	398620
3566	3601	C Moor End Rd	96786	398556	388515
3601	3566	C Moor End Rd	96786	398556	388515
4310	8637	C Moston Lane	94415	386824	401924
8637	4310	C Moston Lane	94415	386824	401924
8475	7052	C Mottram Old Road	94625	397686	397531
7052	8475	C Mottram Old Road	94625	397686	397531
7392	3509	C PILSWORTH RD	0	381583	408753

3509	7392	C PILSWORTH RD	0	381583	408753
8687	2315	C PLATT LN	99999	384365	394517
2315	8687	C PLATT LN	99999	384365	394517
8399	14176	C PROPPS HALL DR	0	388868	400709
14176	8399	C PROPPS HALL DR	0	388868	400709
3329	3328	C REDGATE LN	99999	386923	396273
3328	3329	C REDGATE LN	99999	386923	396273
6158	6372	C RICHMOND ST	0	392882	399285
6372	6158	C RICHMOND ST	0	392882	399285
15539	15540	C ROBIN S LN	0	389297	385139
15540	15539	C ROBIN S LN	0	389297	385139
7075	8872	C Sandy Ln	93656	394560	391230
8872	7075	C Sandy Ln	93656	394560	391230
6651	7208	C SEAFORD RD	99999	381962	400046
7208	6651	C SEAFORD RD	99999	381962	400046
4003	3559	C SEFTON RD	0	352888	404311
3559	4003	C SEFTON RD	0	352888	404311
5130	3339	C Simonsway	310	381738	387192
3339	5130	C Simonsway	310	381738	387192
2232	7407	C SPRING ST	85213	380715	410603
1735	8622	C ST MARY S RD	0	388367	402350
8622	1735	C ST MARY S RD	0	388367	402350
2365	8492	C STAMFORD RD	82812	391955	397045
8492	2365	C STAMFORD RD	82812	391955	397045
1292	1291	C STORE ST	0	385201	398246
1291	1292	C STORE ST	0	385201	398246
7153	13881	C Thorley Lane	290	381047	386144
13881	7153	C Thorley Lane	300	380991	386136
3825	8655	C WENLOCK WAY	99999	387151	396970
8655	3825	C WENLOCK WAY	99999	387151	396970
8392	3399	C WESTMINSTER RD	99999	390733	401647
3399	8392	C WESTMINSTER RD	99999	390733	401647
2478	7455	C WHITTLE LN	0	385116	407627
7455	2478	C WHITTLE LN	0	385116	407627
7092	1943	C Windlehurst Rd	93654	395096	386300
1943	7092	C Windlehurst Rd	93654	395096	386300
3134	3224	C WINDMILL LN	1224	391242	394787
3224	3134	C WINDMILL LN	1224	391242	394787
1442	8666	C WITHINGTON RD	0	383024	394099
8666	1442	C WITHINGTON RD	0	383024	394099
3626	3628	C WYBERSLEY RD	99999	396358	386140
3628	3626	C WYBERSLEY RD	99999	396358	386140

1663	1453	C YEW TREE RD	0	384703	394127
1453	1663	C YEW TREE RD	0	384703	394127
13213	13212	Clifford Rd	71400	391500	383460
13212	13213	Clifford Rd	71400	391500	383460
2869	2866	M56 EB M56 MIDAS Site at	6010	381023	386538
2870	2869	M56 EB M56 T/10/1632 JUN	1632	380493	385506
12841	2865	M56 EB M56 T/10/1637 JUN	1637	381334	386851
12842	2876	M56 EB M56 T/10/3364 JUN	3364	383012	388905
2873	12490	M56 Jn 6 to Jn 7	73269	379678	384603
5718	2872	M56 Jn 7 to Jn 6	73269	379673	384622
3900	2911	M56 NB M56 T/10/1635 JUN	1635	381310	386097
2877	2878	M56 NB M56 T/10/1921 Lin	1921	384909	389163
3899	5151	M56 T1 offslip	540	381934	385650
12802	12801	M56 T1 onslip	550	381768	385692
12800	12801	M56 T1 onslip	550	381768	385692
3899	5140	M56 T2 offslip	530	381706	385780
5143	3900	M56 T2 onslip	560	381680	385711
2867	2910	M56 WB M56 MIDAS Site at	6008	381228	386690
2867	5926	M56 WB M56 MIDAS Site at	6011	380864	386304
5926	2871	M56 WB M56 T/10/1633 JUN	1633	380509	385504
2864	2867	M56 WB M56 T/10/1636 JUN	1636	381347	386837
2881	2882	M56 WB M56 T/10/1918 Lin	1918	384705	389050
2884	12845	M56 WB M56 T/10/3365 JUN	3365	383012	388905
2859	2860	M56 WB M56 TMU site 8520	30014	382238	389369
3521	3522	M6 NB M6 T/10/1900 JUNC	1900	353545	406824
2492	5272	M6 NB M6 TMU site 9045/1	30014	353760	404154
2534	2509	M6 NB M6 TMU site 9047/1	30014	356501	400221
3515	3516	M6 SB M6 T/10/1901 JUNC	1901	353579	406833
3516	5277	M6 SB M6 TMU site 9044/1	30014	353844	404257
2506	2514	M6 SB M6 TMU site 9048/1	30014	356503	400321
12826	12827	M60 AC M60 MIDAS Site at	6260	383478	405386
5675	5662	M60 AC M60 MIDAS Site at	6268	389964	402892
5676	1703	M60 AC M60 MIDAS Site at	6272	390736	402402
4952	1245	M60 AC M60 MIDAS Site at	6135	375373	397683
1244	4948	M60 AC M60 MIDAS Site at	6139	375245	398002
4946	4948	M60 AC M60 MIDAS Site at	6142	375155	398428
4947	1244	M60 AC M60 MIDAS Site at	6143	375172	398413
2676	4946	M60 AC M60 MIDAS Site at	6149	375144	398894
1252	1253	M60 AC M60 MIDAS Site at	6117	377601	395693
4974	1253	M60 AC M60 MIDAS Site at	6118	377633	395643
1252	4969	M60 AC M60 MIDAS Site at	6120	377528	395896
1249	1252	M60 AC M60 MIDAS Site at	6123	376843	396287

4962	1249	M60 AC M60 MIDAS Site at	6126	376508	396448
1248	1249	M60 AC M60 MIDAS Site at	6129	376244	396541
1248	4955	M60 AC M60 MIDAS Site at	6130	376238	396557
2694	2692	M60 AC M60 MIDAS Site at	6156	374606	400394
5178	2692	M60 AC M60 MIDAS Site at	6157	374641	400384
2694	5180	M60 AC M60 MIDAS Site at	6160	374864	400806
2731	2732	M60 AC M60 MIDAS Site at	6163	375652	402277
2731	2730	M60 AC M60 MIDAS Site at	6167	376164	402999
2710	2708	M60 AC M60 MIDAS Site at	6174	380805	404652
2710	4942	M60 AC M60 MIDAS Site at	6179	381165	404885
1245	1248	M60 AC M60 MIDAS Site at	6132	375775	396787
2708	2701	M60 AC M60 MIDAS Site at	6170	378715	403670
3936	5161	M60 AC M60 MIDAS Site at	6280	391041	395312
2849	2852	M60 AC M60 MIDAS Site at	6404	384516	389114
2842	2845	M60 AC M60 MIDAS Site at	6020	382896	390757
2839	2842	M60 AC M60 MIDAS Site at	6023	381049	391332
2838	2839	M60 AC M60 MIDAS Site at	6024	380556	392307
3929	12820	M60 AC M60 MIDAS Site at	6033	391691	391965
2962	2966	M60 AC M60 MIDAS Site at	6038	388675	390310
2879	2880	M60 AC M60 T/10/1915 JUN	1915	385750	389250
2849	2851	M60 AC M60 T/10/1922 Lin	1922	384750	389250
2958	3929	M60 AC M60 T/10/3348 JUN	3348	390624	391436
5680	5676	M60 AC M60 T/10/3352 JUN	3352	391400	400900
12821	3936	M60 AC M60 T/10/3356 JUN	3356	391425	393555
2845	2849	M60 AC M60 T/10/3359 JUN	3359	383700	389631
2880	4989	M60 Cheadle Spur	450	386669	389086
4988	2885	M60 Cheadle Spur	460	386669	389086
2935	3283	M60 CW M60 MIDAS Site at	6259	383716	405331
5673	3918	M60 CW M60 MIDAS Site at	6267	389009	403499
5685	5654	M60 CW M60 MIDAS Site at	6279	391043	395881
3927	3930	M60 CW M60 MIDAS Site at	6032	391826	392220
2854	2850	M60 CW M60 MIDAS Site at	6405	384681	389084
1247	4953	M60 CW M60 MIDAS Site at	6133	375327	397646
2682	2686	M60 CW M60 MIDAS Site at	6148	375114	398970
1255	4975	M60 CW M60 MIDAS Site at	6114	377577	395640
4978	1254	M60 CW M60 MIDAS Site at	6119	377488	395857
1254	1251	M60 CW M60 MIDAS Site at	6122	376835	396268
1251	4963	M60 CW M60 MIDAS Site at	6124	376552	396376
14118	12847	M60 CW M60 MIDAS Site at	6127	376220	396515
1251	1250	M60 CW M60 MIDAS Site at	6128	376211	396538
12813	2700	M60 CW M60 MIDAS Site at	6406	377122	403196
12815	2691	M60 CW M60 MIDAS Site at	6150	374704	399746

2691	5184	M60 CW M60 MIDAS Site at	6152	374539	400129
5183	2693	M60 CW M60 MIDAS Site at	6154	374567	400422
2697	2696	M60 CW M60 MIDAS Site at	6164	375734	402634
2695	2696	M60 CW M60 MIDAS Site at	6166	376199	403042
2707	2709	M60 CW M60 MIDAS Site at	6173	380776	404660
2709	2713	M60 CW M60 MIDAS Site at	6180	382102	405553
2713	4910	M60 CW M60 MIDAS Site at	6183	382644	405856
5669	12824	M60 CW M60 MIDAS Site at	6263	385740	404929
2700	2707	M60 CW M60 MIDAS Site at	6171	378856	403749
2846	2841	M60 CW M60 MIDAS Site at	6021	382462	390809
13031	2840	M60 CW M60 MIDAS Site at	6022	381225	391119
2840	2837	M60 CW M60 MIDAS Site at	6025	380631	392072
3932	2956	M60 CW M60 MIDAS Site at	6034	390317	391146
2885	2886	M60 CW M60 T/10/1914 JUN	1914	385750	389250
2853	2850	M60 CW M60 T/10/1917 Lin	1917	384710	389024
12817	2882	M60 CW M60 T/10/1919 M60	1919	384697	389066
9997	3927	M60 CW M60 T/10/3357 JUN	3357	391425	393555
2850	2846	M60 CW M60 T/10/3358 JUN	3358	383700	389631
3117	1255	M60 CW M60 T/10/3370 JUN	3370	377526	394806
2699	2700	M60 EB M60 T/10/1650 JUN	1650	377829	403418
4941	2709	M60 EB M60 T/10/1654 JUN	1654	381080	404884
2966	2958	M60 Jn 1 to Jn 27	48011	389592	390852
2701	2702	M60 JN 16 OFF SLIP	0	377766	403305
2956	2965	M60 Jn 27 to Jn 1	48011	389598	390838
5684	5682	M60 NB M60 T/10/3341 JUN	3341	390877	396711
5675	12858	M60 NB M60 T/10/3343 JUN	3343	389857	403007
5683	5685	M60 SB M60 T/10/3340 JUN	3340	390877	396711
4945	2708	M60 WB M60 T/10/1652 JUN	1652	380760	404608
2673	2687	M602 EB M602 MIDAS Site	6227	374895	398945
1203	1879	M602 EB M602 TMU site 85	30014	379527	398608
2678	2688	M602 Jn 1 to Jn 2	16050	377671	398858
2689	2679	M602 Jn 2 to Jn 1	16050	377710	398840
2679	2680	M602 WB M602 MIDAS Site	6231	375321	399134
2005	1347	M602 WB M602 MIDAS Site	6409	380018	398492
2746	2730	M61 AC M61 MIDAS Site at	6221	376109	403394
2743	2747	M61 EB M61 MIDAS Site at	6207	375782	402776
2744	2743	M61 EB M61 MIDAS Site at	6209	374718	404089
2742	2743	M61 EB M61 MIDAS Site at	6214	374593	404071
2741	2744	M61 EB M61 MIDAS Site at	6216	373967	404593
2742	2745	M61 EB M61 MIDAS Site at	6225	374977	403918
2749	2741	M61 EB M61 MIDAS Site at	6218	373157	404758
2754	2759	M61 Jn 5 to Jn 6	36049	364644	408213

2760	2755	M61 Jn 6 to Jn 5	36049	364653	408229
2741	12829	M61 NB M61 MIDAS Site at	6215	374005	404608
2729	2737	M61 NB M61 T/10/1645 JUN	1645	376090	403235
2752	2754	M61 NB M61 TMU site 8540	30014	367735	406597
2752	5109	M61 NB M61 TMU site 8540	30014	367726	406573
2759	2762	M61 NB M61 TMU site 9037	30014	364136	408620
2759	5088	M61 NB M61 TMU site 9037	30014	364120	408604
2746	12812	M61 SB M61 T/10/1646 JUN	1646	376182	403334
2755	2753	M61 SB M61 TMU site 8539	30014	367479	406773
2755	5106	M61 SB M61 TMU site 8539	30014	367488	406791
2751	2749	M61 SB M61 TMU site 8542	30014	370109	405535
2751	5101	M61 SB M61 TMU site 8542	30014	370113	405552
2761	2760	M61 SB M61 TMU site 9036	30014	363801	408985
2761	5079	M61 SB M61 TMU site 9036	30014	363816	408998
2734	3403	M61 WB M61 MIDAS Site at	6206	375824	402890
2735	2736	M61 WB M61 MIDAS Site at	6210	374651	403920
2736	2748	M61 WB M61 MIDAS Site at	6281	372329	404969
2676	2677	M62 AC M62 MIDAS Site at	6108	375029	399331
2674	12814	M62 EB M62 MIDAS Site at	6107	374917	399089
12855	2715	M62 EB M62 MIDAS Site at	6187	382973	406048
2715	2717	M62 EB M62 MIDAS Site at	6190	384084	407329
2717	4925	M62 EB M62 MIDAS Site at	6192	386113	408694
4921	2719	M62 EB M62 MIDAS Site at	6196	386544	409041
2719	2721	M62 EB M62 MIDAS Site at	6200	386879	409306
2673	2674	M62 EB M62 MIDAS Site at	6228	374813	398925
2723	2725	M62 EB M62 MIDAS Site at	6282	391622	410930
2726	12988	M62 Jn 21 to Jn 22	26054	394222	413175
12998	2728	M62 Jn 22 to Jn 21	26054	394253	413214
2683	2684	M62 WB M62 MIDAS Site at	6102	374731	398814
2677	2685	M62 WB M62 MIDAS Site at	6104	374957	398936
2716	2714	M62 WB M62 MIDAS Site at	6188	383093	406118
2716	12806	M62 WB M62 MIDAS Site at	6189	383065	406067
2720	2718	M62 WB M62 MIDAS Site at	6194	386520	408959
2722	2720	M62 WB M62 MIDAS Site at	6201	388198	409760
2724	2722	M62 WB M62 MIDAS Site at	6204	389368	409939
2684	13006	M62 WB M62 MIDAS Site at	6337	369015	393688
2727	2724	M62 WB M62 MIDAS Site at	6283	391744	410986
3000	3002	M66 NB M66 T/10/1946 JUN	1946	382018	409865
12832	2999	M66 NB M66 T/10/3350 JUN	3350	382200	407600
3013	3986	M66 NB M66 TMU site 8502	30014	380370	415028
3005	3013	M66 NB M66 TMU site 8503	30014	381609	412896
3003	3001	M66 SB M66 T/10/1947 JUN	1947	382018	409865

2998	9996	M66 SB M66 T/10/3351 JUN	3351	382200	407600
3987	3012	M66 SB M66 TMU site 8501	30014	379846	417067
3012	3004	M66 SB M66 TMU site 8504	30014	381321	413930
5163	3209	M67 EB M67 MIDAS Site at	6040	391717	395536
3245	3247	M67 EB M67 MIDAS Site at	6045	394329	395296
3248	5171	M67 EB M67 MIDAS Site at	6046	397276	395458
3209	3245	M67 EB M67 MIDAS Site at	6042	392515	395751
3243	3244	M67 WB M67 MIDAS Site at	6044	394171	395382
5172	3242	M67 WB M67 MIDAS Site at	6047	397338	395423
3244	3210	M67 WB M67 MIDAS Site at	6043	392541	395741
3210	5164	M67 WB M67 T/10/1676 JUN	1676	391512	395518
12800	14258	Outwood Lane	20005	382030	385560
14258	12800	Outwood Lane	20005	382030	385560
3708	13883	Ringway Road	20004	382960	385320
13883	3708	Ringway Road	20004	382960	385320
8751	13759	Sydney Avenue	20001	381130	386005
13759	8751	Sydney Avenue	20001	381130	386005
13905	13240	U A538 MANCHESTER RD	0	384602	381012
13240	13905	U A538 MANCHESTER RD	0	384602	381012
8689	1438	U ALEXANDRA RD S	0	383335	395408
1438	8689	U ALEXANDRA RD S	0	383335	395408
2617	2619	U ASHTON RD	87476	391421	401083
2619	2617	U ASHTON RD	87476	391421	401083
7148	7147	U BAILEY LN	99999	381848	386025
7147	7148	U BAILEY LN	99999	381848	386025
13604	9055	U BAKESTONEDALE RD	0	397477	378998
9055	13604	U BAKESTONEDALE RD	0	397477	378998
13602	9093	U BLAZE HILL	0	396177	377192
9093	13602	U BLAZE HILL	0	396177	377192
13223	13226	U Brookledge Ln	2002	391160	380417
13226	13223	U Brookledge Ln	2002	391160	380417
13222	15314	U Brookledge Ln	2002	391160	380417
15314	13222	U Brookledge Ln	2002	391160	380417
13867	13700	U BROWN LN	0	384200	386243
13700	13867	U BROWN LN	0	384200	386243
9063	9091	U BUTLEY LANES	99999	389920	378860
9091	9063	U BUTLEY LANES	99999	389920	378860
9030	9031	U BUXTON OLD RD	0	398392	383774
9031	9030	U BUXTON OLD RD	0	398392	383774
5072	3387	U CAMBRIDGE ST	0	384034	397118
3387	5072	U CAMBRIDGE ST	0	384034	397118
2501	3145	U CURZON RD	0	394673	399695

3145	2501	U CURZON RD	0	394673	399695
1310	5705	U DANTZIC ST	0	384269	398967
5705	1310	U DANTZIC ST	0	384269	398967
2967	5008	U GEORGES RD	0	388684	390414
5008	2967	U GEORGES RD	0	388684	390414
3706	8574	U GREY MARE LN	0	387240	397745
8574	3706	U GREY MARE LN	0	387240	397745
9035	9030	U Higher Ln	2004	398153	380240
9030	9035	U Higher Ln	2004	398153	380240
7558	1980	U HOBSON ST	0	392577	404831
9092	9057	U Holehouse Ln	2006	390987	378650
9057	9092	U Holehouse Ln	2006	390987	378650
9058	9092	U Holehouse Ln	2006	390987	378650
9092	9058	U Holehouse Ln	2006	390987	378650
13803	13305	U MACCLESFIELD RD	0	389967	376858
13305	13803	U MACCLESFIELD RD	0	389967	376858
6674	7972	U Mainwood Road	94677	379218	388438
7972	6674	U Mainwood Road	94677	379218	388438
13806	13222	U MILL LN	0	391113	380420
13222	13806	U MILL LN	0	391113	380420
1613	8674	U NEW BANK ST	99999	386731	395905
8674	1613	U NEW BANK ST	99999	386731	395905
1217	2288	U OLDHAM ST	0	384653	398684
13205	13860	U PARK LN	0	391962	383586
13860	13205	U PARK LN	0	391962	383586
8556	7282	U PORT ST	86336	384856	398473
7898	6613	U Robert Hall Street	94551	382013	397495
6613	7898	U Robert Hall Street	94551	382013	397495
13226	13219	U ROUNDY LN	99999	392699	380655
13219	13226	U ROUNDY LN	99999	392699	380655
5111	1296	U SACKVILLE ST	85318	384567	397424
1827	3340	U SHADOWMOSS RD	0	383244	385381
3340	1827	U SHADOWMOSS RD	0	383244	385381
13709	13701	U ST ANN S RD N	0	384998	386288
13701	13709	U ST ANN S RD N	0	384998	386288
13217	13209	U STREET LN	99999	391397	381799
13209	13217	U STREET LN	99999	391397	381799
3261	5423	U TIB ST	85305	384615	398700
8561	3323	U TRAVIS ST	85315	385129	397825
3323	8561	U TRAVIS ST	86315	385150	397840
2972	6374	U TURNER LN	99999	393802	399405
6374	2972	U TURNER LN	99999	393802	399405

5102	2765	U WATERGATE LN	0	370325	405456
2765	5102	U WATERGATE LN	0	370325	405456
2466	1975	U WATERLOO ST	0	392925	404937
1975	2466	U WATERLOO ST	0	392925	404937
8610	3321	U WHITE MOSS RD	0	386006	403341
3321	8610	U WHITE MOSS RD	0	386006	403341
6305	7092	U WINDLEHURST RD	0	395369	386702
7092	6305	U WINDLEHURST RD	0	395369	386702
13248	13286	U/C Chancel Lane	0	384779	381557
13286	13248	U/C Chancel Lane	0	384779	381557
5142	3897	World Way	20003	381740	385560
3897	5142	World Way	20003	381740	385560

A3.2 Independent Counts Used in A6 M60					
Anode	**Bnode**	**Location**	**Site No'**	**X' OSGR**	**Y' OSGR**
3874	3877	A34 Kingsway	70043	386145	385580
3881	4078	A34 KINGSWAY	0	386829	384710
3889	3874	A34 Kingsway	70043	386151	385603
4078	3881	A34 KINGSWAY	0	386829	384710
1894	4186	A5102 Bramhall Ln	37807	389889	388050
4186	1894	A5102 Bramhall Ln	37807	389889	388050
13813	13254	A5102 Wilmslow Rd	27762	388000	382080
13254	13813	A5102 Wilmslow Rd	27762	388000	382080
15537	3046	A5102 Woodford Rd	99520	389293	383600
3046	15537	A5102 Woodford Rd	99520	389293	383600
4191	7087	A5149 CHEADLE RD	0	386679	387293
7087	4191	A5149 CHEADLE RD	0	386679	387293
2464	3882	A555 MAELR	99521	388042	383874
3876	2464	A555 MAELR	99521	388042	383874
1632	3794	A560 Altrincham Rd	27294	380175	389388
3794	1632	A560 Altrincham Rd	27294	380175	389376
13706	2430	A560 GATLEY RD	0	385030	388365
2430	13706	A560 GATLEY RD	0	385030	388365
1878	8922	A560 STOCKPORT RD	0	387230	389328
8922	1878	A560 STOCKPORT RD	0	387230	389328
1863	8878	A560 Stockport Rd W	27296	392300	391704
8878	1863	A560 Stockport Rd W	27296	392300	391702
13200	7095	A6 BUXTON RD	0	393837	385638
14010	1897	A6 BUXTON RD	0	391417	387711
15284	1897	A6 Buxton Rd	3000	391474	387663
1897	14010	A6 BUXTON RD	0	391417	387711

7095	13200	A6 BUXTON RD	0	393837	385638
4160	4646	A6 London Rd	99018	392020	387000
4646	4160	A6 London Rd	99018	392020	387000
1914	6815	A626 MARPLE RD	99999	391637	389271
6815	1914	A626 MARPLE RD	99999	391637	389271
3423	3620	A626 ST MARY S WAY	0	390172	390194
3620	3423	A626 ST MARY S WAY	0	390172	390194
15272	7295	A626 STOCKPORT RD	0	393797	388759
7295	15272	A626 STOCKPORT RD	0	393797	388759
15536	3881	B5094 STANLEY RD	0	387064	384671
3881	15536	B5094 STANLEY RD	0	387064	384671
13284	2888	B5166 STYAL RD	84015	383934	385137
2888	13284	B5166 STYAL RD	84015	383934	385137
4371	5945	B5167 Palatine Road	94408	383057	390353
5945	4371	B5167 Palatine Road	94408	383057	390353
1948	4190	B5465 EDGELEY RD	83904	388020	389111
4190	1948	B5465 EDGELEY RD	83904	388020	389111
2875	14132	B5465 SHAW HEATH	84007	389372	389472
2446	8870	B6104 COMPSTALL RD	99999	395422	390887
8870	2446	B6104 COMPSTALL RD	99999	395422	390887
3044	8764	C BROWNLEY RD	0	383059	387300
8764	3044	C BROWNLEY RD	0	383059	387300
1884	1887	C CALE GREEN	0	389891	388765
1887	1884	C CALE GREEN	0	389891	388765
13831	2427	C ETCHELLS RD	83907	386000	386272
2427	13831	C ETCHELLS RD	83907	386000	386272
1894	8940	C GARNER S LN	99999	389409	388291
8940	1894	C GARNER S LN	99999	389409	388291
3888	6687	C HOLLYHEDGE RD	0	380906	388358
4511	6094	C HOLLYHEDGE RD	0	383069	387975
6094	4511	C HOLLYHEDGE RD	0	383069	387975
6096	8769	C HOLLYHEDGE RD	0	383069	387975
6687	3888	C HOLLYHEDGE RD	0	380906	388358
8769	6096	C HOLLYHEDGE RD	0	383069	387975
3338	8774	C Longley Lane	94451	383088	389620
8774	3338	C Longley Lane	94451	383088	389620
1631	8741	C MOOR RD	0	380436	390082
8741	1631	C MOOR RD	0	380436	390082
13884	2888	C Ringway Road	94417	383736	385334
2888	13884	C Ringway Road	94417	383736	385334
3798	4320	C ROWLANDSWAY	0	382784	387267
4320	3798	C ROWLANDSWAY	0	382784	387267

2432	6703	C RUDDPARK RD	0	382903	386646
6703	2432	C RUDDPARK RD	0	382903	386646
2426	6702	C SIMONSWAY	0	383532	386278
6702	2426	C SIMONSWAY	0	383532	386278
2876	2877	M56 EB M56 MIDAS Site at	6000	383982	389050
2865	2862	M56 NB M56 T/10/3313 JUN	B 331	381935	388287
12844	2864	M56 SB M56 T/10/3312 JUN	B 331	381942	388239
2882	2884	M56 WB M56 MIDAS Site at	6001	383957	389018
13101	2879	M60 AC M60 MIDAS Site at	6402	385281	389193
2880	12818	M60 AC M60 MIDAS Site at	6017	386929	389577
2886	12816	M60 CW M60 MIDAS Site at	6403	385171	389148
2964	2885	M60 CW M60 MIDAS Site at	6016	387092	389647
4212	13820	U Councillor Lane	58	387112	388276
13820	4212	U Councillor Lane	30	387112	388276
7285	8768	U Woodhouse Lane	94453	382720	387582
8768	7285	U Woodhouse Lane	94453	382720	387582

Appendix 2: Cheshire East Count Sites Used in A6MARR8

Table A2.1 Cheshire East Count Sites Used in A6 M60

Anode	Bnode	Location	Site No'	X' OSGR	Y' OSGR
13248	13286	U/C Chancel Lane	0	384779	381557
13236	13235	A5102 Adlington Road at v	0	385974	381058
13286	13248	U/C Chancel Lane	0	384779	381557
13235	13236	A5102 Adlington Road at v	0	385974	381058
13465	13494	B5085/6 Knutsford Road	0	383113	379290
13298	13843	A538 Prestbury Link Road	0	385302	380455
13491	13902	A34 Wilmslow Road	0	384245	378603
13494	13465	B5085/6 Knutsford Road	0	383113	379290
13843	13298	A538 Prestbury Link Road	0	385302	380455
13902	13491	A34 Wilmslow Road	0	384245	378603
10325	1329	A50 Toft Road	0	375335	378035
13336	13337	A537 Chelford Road	0	384001	374197
10464	1465	B5090 Wellington Road	0	392757	377504
10329	1325	A50 Toft Road	0	375335	378035
13337	13336	A537 Chelford Road	0	384001	374197
10465	1464	B5090 Wellington Road	0	392757	377504
9030	9031	U BUXTON OLD RD	0	398392	383774
9038	9033	A5004 BUXTON RD	0	401379	382413
9088	9044	B5470 CHAPEL RD	0	401104	380640
9045	10401	A5004 BUXTON RD	0	401104	380640
9051	9050	B5470 Macclesfield Rd	2007	398947	379993
9031	9030	U BUXTON OLD RD	0	398392	383774
9033	9038	A5004 BUXTON RD	0	401379	382413
9044	9088	B5470 CHAPEL RD	0	401104	380640
10401	9045	A5004 BUXTON RD	0	401104	380640
9050	9051	B5470 Macclesfield Rd	2007	398947	379993
9031	9030	U BUXTON OLD RD	0	398392	383774
9035	9030	U Higher Ln	2004	398153	380240
15521	2523	A6(T) BUXTON RD	0	394916	385417
7092	1943	C Windlehurst Rd	93654	395096	386300
3626	3628	C WYBERSLEY RD	99999	396358	386140
12966	12965	A6015 ALBION RD	0	399424	384580
9037	9036	A6 BUXTON RD	0	399424	384580
9030	9031	U BUXTON OLD RD	0	398392	383774
9030	9035	U Higher Ln	2004	398153	380240
2523	15521	A6(T) BUXTON RD	0	394916	385417
1943	7092	C Windlehurst Rd	93654	395096	386300
3628	3626	C WYBERSLEY RD	99999	396358	386140
12965	12966	A6015 ALBION RD	0	399424	384580
9036	9037	A6 BUXTON RD	0	399424	384580
13604	9055	U BAKESTONEDALE RD	0	397477	378998

13602	9093	U BLAZE HILL	0	396177	377192
9095	9056	B5090 WELLINGTON RD	0	393143	377909
9092	9057	U Holehouse Ln	2006	390987	378650
13223	13226	U Brookledge Ln	2002	391160	380417
13219	13226	U ROUNDY LN	99999	392699	380655
9055	13604	U BAKESTONEDALE RD	0	397477	378998
9093	13602	U BLAZE HILL	0	396177	377192
9056	9095	B5090 PALMERSTON ST	0	393143	377909
9057	9092	U Holehouse Ln	2006	390987	378650
13226	13223	U Brookledge Ln	2002	391160	380417
13226	13219	U ROUNDY LN	99999	392699	380655
13205	13860	U PARK LN	0	391962	383586
13217	13209	U STREET LN	99999	391397	381799
13222	15314	U Brookledge Ln	2002	391160	380417
9058	9092	U Holehouse Ln	2006	390987	378650
13231	10464	B5091 FLASH LN	0	391319	377100
10361	10464	B5090 BOLLINGTON RD	0	391841	376528
15311	13208	C Dickens Lane		391846	383200
13860	13205	U PARK LN	0	391962	383586
13209	13217	U STREET LN	99999	391397	381799
15314	13222	U Brookledge Ln	2002	391160	380417
10464	13231	B5091 FLASH LN	0	391319	377100
10464	10361	B5090 BOLLINGTON RD	0	391841	376528
9092	9058	U Holehouse Ln	2006	390987	378650
13208	15311	C Dickens Lane	0	391846	383200
13211	13205	A5149 CHESTER RD	0	391962	383586
13806	13222	U MILL LN	0	391113	380420
9064	13228	B5358 BONIS HALL LN	0	390734	378269
9063	9062	A538 PRESTBURY LN	0	390579	377412
13212	13213	Clifford Rd	71400	391500	383460
13205	13211	A5149 CHESTER RD	0	391962	383586
13222	13806	U MILL LN	0	391113	380420
13228	9064	B5358 BONIS HALL LN	0	390734	378269
9062	9063	A538 PRESTBURY LN	0	390579	377412
13213	13212	Clifford Rd	71400	391500	383460
13803	13305	U MACCLESFIELD RD	0	389967	376858
13307	13804	A538 HEYBRIDGE LN	0	390579	377412
13307	13231	B5091 LONDON RD	0	391319	377100
10363	10361	B5090 TYTHERINGTON LN	0	391841	376528
26373	10361	A523 THE SILK RD	0	391841	376528
9097	13602	B5470 PIKE RD	0	396177	377192
9046	9045	A5004 BUXTON RD	0	401104	380640
9044	10401	B5470 CHAPEL RD	0	401104	380640
9040	10403	A6 CHAPEL BYPASS	0	401379	382413
9066	9065	B6062	71400	403510	382460
13305	13803	U MACCLESFIELD RD	0	389967	376858
13804	13307	A538 HEYBRIDGE LN	0	390579	377412

13231	13307	B5091 LONDON RD	0	391319	377100
10361	10363	B5090 TYTHERINGTON LN	0	391841	376528
10361	26373	A523 THE SILK RD	0	391841	376528
13602	9097	B5470 PIKE RD	0	396177	377192
9045	9046	A5004 BUXTON RD	0	401104	380640
10401	9044	B5470 CHAPEL RD	0	401104	380640
10403	9040	A6 CHAPEL BYPASS	0	401379	382413
9065	9066	B6062	71400	403510	382460

Appendix 3: Highways Agency TRADS Sites Used in A6 M60

Table A3.1 TRADS Count Sites Used in Matrix Estimation

Anode	Bnode	Location	Site No'	X' OSGR	Y' OSGR
3521	3522	6 T/10/1900 JUNC 26-27 NB	1900	353545	406824
3515	3516	6 T/10/1901 JUNC 26-27 SB	1901	353579	406833
3516	5277	6 TMU site 9044/1 on M6SB	30014	353844	404257
2492	5272	6 TMU site 9045/1 on M6NB	30014	353760	404154
2534	2509	6 TMU site 9047/1 on M6NB	30014	356501	400221
2506	2514	6 TMU site 9048/1 on M6SB	30014	356503	400321
2843	3039	B A5103 TMU site 8516/1SB	30014	382644	391136
2843	2847	B A5103 TMU site 8516/2SB	30014	382633	391142
2855	2218	B A5103 TMU site 8518/1SB	30014	382351	390126
2855	2856	B A5103 TMU site 8518/2SB	30014	382333	390118
2354	2844	B A5103 TMU site 8519/1NB	30014	382318	390195
2857	2844	B A5103 TMU site 8519/2NB	30014	382326	390193
2859	5120	B A5103 TMU site 8520/1SB	30014	382254	389367
2858	2857	B A5103 TMU site 8547/1NB	30014	382299	389752
5290	5200	EB A627(M) T/10/1974 AEB	1974	388882	408618
2869	2866	M56 MIDAS Site at M56/8EB	6010	381023	386538
2867	2910	M56 MIDAS Site at M56/8WB	6008	381228	386690
2867	5926	M56 MIDAS Site at M56/8WB	6011	380864	386304
2870	2869	M56 T/10/1632 JUNC 5-6 EB	1632	380493	385506
5926	2871	M56 T/10/1633 JUNC 5-6 WB	1633	380509	385504
3900	2911	M56 T/10/1635 JUNC 5 AINB	1635	381310	386097
2864	2867	M56 T/10/1636 JUNC 4-5 WB	1636	381347	386837
12841	2865	M56 T/10/1637 JUNC 4-5 EB	1637	381334	386851
2881	2882	M56 T/10/1918 Link roadWB	1918	384705	389050
2877	2878	M56 T/10/1921 Link roadNB	1921	384909	389163
12842	2876	M56 T/10/3364 JUNC 2-3 EB	3364	383012	388905
2884	12845	M56 T/10/3365 JUNC 2-3 WB	3365	383012	388905
2859	2860	M56 TMU site 8520/2 on WB	30014	382238	389369
2842	2845	M60 MIDAS Site at M60/9AC	6020	382896	390757
2839	2842	M60 MIDAS Site at M60/9AC	6023	381049	391332
2838	2839	M60 MIDAS Site at M60/9AC	6024	380556	392307
3929	12820	M60 MIDAS Site at M60/9AC	6033	391691	391965
2962	2966	M60 MIDAS Site at M60/9AC	6038	388675	390310
1252	1253	M60 MIDAS Site at M60/9AC	6117	377601	395693
4974	1253	M60 MIDAS Site at M60/9AC	6118	377633	395643
1252	4969	M60 MIDAS Site at M60/9AC	6120	377528	395896
1249	1252	M60 MIDAS Site at M60/9AC	6123	376843	396287
4962	1249	M60 MIDAS Site at M60/9AC	6126	376508	396448
1248	1249	M60 MIDAS Site at M60/9AC	6129	376244	396541
1248	4955	M60 MIDAS Site at M60/9AC	6130	376238	396557
1245	1248	M60 MIDAS Site at M60/9AC	6132	375775	396787
4952	1245	M60 MIDAS Site at M60/9AC	6135	375373	397683

1244	4948	M60 MIDAS Site at M60/9AC	6139	375245	398002
4946	4948	M60 MIDAS Site at M60/9AC	6142	375155	398428
4947	1244	M60 MIDAS Site at M60/9AC	6143	375172	398413
2676	4946	M60 MIDAS Site at M60/9AC	6149	375144	398894
2694	2692	M60 MIDAS Site at M60/9AC	6156	374606	400394
5178	2692	M60 MIDAS Site at M60/9AC	6157	374641	400384
2694	5180	M60 MIDAS Site at M60/9AC	6160	374864	400806
2731	2732	M60 MIDAS Site at M60/9AC	6163	375652	402277
2731	2730	M60 MIDAS Site at M60/9AC	6167	376164	402999
2708	2701	M60 MIDAS Site at M60/9AC	6170	378715	403670
2710	2708	M60 MIDAS Site at M60/9AC	6174	380805	404652
2710	4942	M60 MIDAS Site at M60/9AC	6179	381165	404885
12826	12827	M60 MIDAS Site at M60/9AC	6260	383478	405386
5675	5662	M60 MIDAS Site at M60/9AC	6268	389964	402892
5676	1703	M60 MIDAS Site at M60/9AC	6272	390736	402402
3936	5161	M60 MIDAS Site at M60/9AC	6280	391041	395312
2849	2852	M60 MIDAS Site at M60/9AC	6404	384516	389114
2846	2841	M60 MIDAS Site at M60/9CW	6021	382462	390809
13031	2840	M60 MIDAS Site at M60/9CW	6022	381225	391119
2840	2837	M60 MIDAS Site at M60/9CW	6025	380631	392072
3927	3930	M60 MIDAS Site at M60/9CW	6032	391826	392220
3932	2956	M60 MIDAS Site at M60/9CW	6034	390317	391146
1255	4975	M60 MIDAS Site at M60/9CW	6114	377577	395640
4978	1254	M60 MIDAS Site at M60/9CW	6119	377488	395857
1254	1251	M60 MIDAS Site at M60/9CW	6122	376835	396268
1251	4963	M60 MIDAS Site at M60/9CW	6124	376552	396376
14118	12847	M60 MIDAS Site at M60/9CW	6127	376220	396515
1251	1250	M60 MIDAS Site at M60/9CW	6128	376211	396538
1247	4953	M60 MIDAS Site at M60/9CW	6133	375327	397646
2682	2686	M60 MIDAS Site at M60/9CW	6148	375114	398970
12815	2691	M60 MIDAS Site at M60/9CW	6150	374704	399746
2691	5184	M60 MIDAS Site at M60/9CW	6152	374539	400129
5183	2693	M60 MIDAS Site at M60/9CW	6154	374567	400422
2697	2696	M60 MIDAS Site at M60/9CW	6164	375734	402634
2695	2696	M60 MIDAS Site at M60/9CW	6166	376199	403042
2700	2707	M60 MIDAS Site at M60/9CW	6171	378856	403749
2707	2709	M60 MIDAS Site at M60/9CW	6173	380776	404660
2709	2713	M60 MIDAS Site at M60/9CW	6180	382102	405553
2713	4910	M60 MIDAS Site at M60/9CW	6183	382644	405856
2935	3283	M60 MIDAS Site at M60/9CW	6259	383716	405331
5669	12824	M60 MIDAS Site at M60/9CW	6263	385740	404929
5673	3918	M60 MIDAS Site at M60/9CW	6267	389009	403499
5685	5654	M60 MIDAS Site at M60/9CW	6279	391043	395881
2854	2850	M60 MIDAS Site at M60/9CW	6405	384681	389084
12813	2700	M60 MIDAS Site at M60/9CW	6406	377122	403196
2699	2700	M60 T/10/1650 JUNC 16 :EB	1650	377829	403418
2699	2700	M60 T/10/1650 JUNC 16 :EB	1650	377829	403418

4945	2708	M60 T/10/1652 JUNC 17 :WB	1652	380760	404608
4941	2709	M60 T/10/1654 JUNC 17 :EB	1654	381080	404884
2885	2886	M60 T/10/1914 JUNC 2-3 CW	1914	385750	389250
2879	2880	M60 T/10/1915 JUNC 2-3 AC	1915	385750	389250
2853	2850	M60 T/10/1917 Link roadCW	1917	384710	389024
12817	2882	M60 T/10/1919 M60 junctCW	1919	384697	389066
2849	2851	M60 T/10/1922 Link roadAC	1922	384750	389250
5683	5685	M60 T/10/3340 JUNC 23-2SB	3340	390877	396711
5684	5682	M60 T/10/3341 JUNC 23-2NB	3341	390877	396711
5675	12858	M60 T/10/3343 JUNC 21 TNB	3343	389857	403007
2958	3929	M60 T/10/3348 JUNC 26-2AC	3348	390624	391436
5680	5676	M60 T/10/3352 JUNC 22-2AC	3352	391400	400900
12821	3936	M60 T/10/3356 JUNC 24-2AC	3356	391425	393555
9997	3927	M60 T/10/3357 JUNC 24-2CW	3357	391425	393555
2850	2846	M60 T/10/3358 JUNC 4-5 CW	3358	383700	389631
2845	2849	M60 T/10/3359 JUNC 4-5 AC	3359	383700	389631
3117	1255	M60 T/10/3370 JUNC 8-9 CW	3370	377526	394806
2673	2687	M602 MIDAS Site at M60EB	6227	374895	398945
2679	2680	M602 MIDAS Site at M60WB	6231	375321	399134
2005	1347	M602 MIDAS Site at M60WB	6409	380018	398492
1203	1879	M602 TMU site 8545/1 oEB3	30014	379527	398608
2743	2747	M61 MIDAS Site at M61/2EB	6207	375782	402776
2744	2743	M61 MIDAS Site at M61/2EB	6209	374718	404089
2742	2743	M61 MIDAS Site at M61/2EB	6214	374593	404071
2741	2744	M61 MIDAS Site at M61/2EB	6216	373967	404593
2749	2741	M61 MIDAS Site at M61/2EB	6218	373157	404758
2741	12829	M61 MIDAS Site at M61/2NB	6215	374005	404608
2734	3403	M61 MIDAS Site at M61/2WB	6206	375824	402890
2735	2736	M61 MIDAS Site at M61/2WB	6210	374651	403920
2736	2748	M61 MIDAS Site at M61/2WB	6281	372329	404969
2746	2730	M61 MIDAS Site at M61/5AC	6221	376109	403394
2742	2745	M61 MIDAS Site at M61/5EB	6225	374977	403918
2729	2737	M61 T/10/1645 JUNC 1 :FNB	1645	376090	403235
2746	12812	M61 T/10/1646 JUNC 1 :TSB	1646	376182	403334
2755	5106	M61 TMU site 8539/1 on SB	30014	367488	406791
2755	2753	M61 TMU site 8539/2 on SB	30014	367479	406773
2752	5109	M61 TMU site 8540/1 on NB	30014	367726	406573
2752	2754	M61 TMU site 8540/2 on NB	30014	367735	406597
2751	5101	M61 TMU site 8542/1 on SB	30014	370113	405552
2751	2749	M61 TMU site 8542/2 on SB	30014	370109	405535
2761	5079	M61 TMU site 9036/1 on SB	30014	363816	408998
2761	2760	M61 TMU site 9036/2 on SB	30014	363801	408985
2759	5088	M61 TMU site 9037/1 on NB	30014	364120	408604
2759	2762	M61 TMU site 9037/2 on NB	30014	364136	408620
2676	2677	M62 MIDAS Site at M62/1AC	6108	375029	399331
2674	12814	M62 MIDAS Site at M62/1EB	6107	374917	399089
12855	2715	M62 MIDAS Site at M62/1EB	6187	382973	406048

2715	2717	M62 MIDAS Site at M62/1EB	6190	384084	407329
2717	4925	M62 MIDAS Site at M62/1EB	6192	386113	408694
4921	2719	M62 MIDAS Site at M62/1EB	6196	386544	409041
2719	2721	M62 MIDAS Site at M62/1EB	6200	386879	409306
2673	2674	M62 MIDAS Site at M62/1EB	6228	374813	398925
2723	2725	M62 MIDAS Site at M62/1EB	6282	391622	410930
2683	2684	M62 MIDAS Site at M62/1WB	6102	374731	398814
2677	2685	M62 MIDAS Site at M62/1WB	6104	374957	398936
2716	2714	M62 MIDAS Site at M62/1WB	6188	383093	406118
2716	12806	M62 MIDAS Site at M62/1WB	6189	383065	406067
2720	2718	M62 MIDAS Site at M62/1WB	6194	386520	408959
2722	2720	M62 MIDAS Site at M62/1WB	6201	388198	409760
2724	2722	M62 MIDAS Site at M62/1WB	6204	389368	409939
2727	2724	M62 MIDAS Site at M62/1WB	6283	391744	410986
2684	13006	M62 MIDAS Site at M62/1WB	6337	369015	393688
3000	3002	M66 T/10/1946 JUNCTION NB	1946	382018	409865
3003	3001	M66 T/10/1947 JUNCTION SB	1947	382018	409865
12832	2999	M66 T/10/3350 JUNC 3-4 NB	3350	382200	407600
2998	9996	M66 T/10/3351 JUNC 3-4 SB	3351	382200	407600
3987	3012	M66 TMU site 8501/1 on SB	30014	379846	417067
3987	3012	M66 TMU site 8501/1 on SB	30014	379846	417067
3013	3986	M66 TMU site 8502/1 on NB	30014	380370	415028
3013	3986	M66 TMU site 8502/1 on NB	30014	380370	415028
3005	3013	M66 TMU site 8503/1 on NB	30014	381609	412896
3012	3004	M66 TMU site 8504/1 on SB	30014	381321	413930
5163	3209	M67 MIDAS Site at M67/8EB	6040	391717	395536
3209	3245	M67 MIDAS Site at M67/8EB	6042	392515	395751
3245	3247	M67 MIDAS Site at M67/8EB	6045	394329	395296
3248	5171	M67 MIDAS Site at M67/8EB	6046	397276	395458
3244	3210	M67 MIDAS Site at M67/8WB	6043	392541	395741
3243	3244	M67 MIDAS Site at M67/8WB	6044	394171	395382
5172	3242	M67 MIDAS Site at M67/8WB	6047	397338	395423
3210	5164	M67 T/10/1676 JUNC 0-1 WB	1676	391512	395518
4926	6260	NB A627(M) MIDAS Site NB	6290	389141	410936
2769	5199	NB A627(M) MIDAS Site NB	6293	389508	408428
2772	2769	NB A627(M) MIDAS Site NB	6296	389886	407506
6259	4927	SB A627(M) MIDAS Site SB	6291	389153	410941
2770	2771	SB A627(M) MIDAS Site SB	6297	389896	407516
5289	5291	WB A627(M) T/10/1975 AWB	1975	388882	408618

Table A3.2 TRADS Count Sites Used in Independent Count Set

Anode	Bnode	Location	Site No'	X' OSGR	Y' OSGR
2876	2877	M56 MIDAS Site at M56/8EB	6000	383982	389050
2882	2884	M56 MIDAS Site at M56/8WB	6001	383957	389018
12844	2864	M56 T/10/3312 JUNC 3-4 SB	3312	381942	388239
2865	2862	M56 T/10/3313 JUNC 3-4 NB	3313	381935	388287
2880	12818	M60 MIDAS Site at M60/9AC	6017	386929	389577
13101	2879	M60 MIDAS Site at M60/9AC	6402	385281	389193
2964	2885	M60 MIDAS Site at M60/9CW	6016	387092	389647
2886	12816	M60 MIDAS Site at M60/9CW	6403	385171	389148

Appendix 4: Adjustment of Count Data to Common Time Period & Year

Example Calculation - Suppose that the counted AM peak hour car flow on Monday 1st January 2007 was 1000 vehicles per hour and that the count was carried out on an A road. The estimated 2009 October average weekday flow would be: 1000*1.01460*(0.931/0.950) =99

Table A4.1 0800-0900 Separate Weekday, Separate Month to 0800-0900 October Average Weekday Traffic Count Conversion Factors

Day/Month	Monday	Tuesday	Wednesday	Thursday	Friday
January	1.01519	1.03014	1.03199	1.01498	1.04094
February	1.00685	1.01168	1.02167	0.99619	1.06038
March	0.9993	0.98082	0.98679	0.99747	1.05403
April	0.99458	1.00253	1.00564	1.02281	1.06486
May	0.98238	0.98938	0.97145	0.96839	1.02661
June	0.99823	0.98688	0.97919	0.98111	1.03127
July	0.99486	0.99087	0.98072	0.97795	1.04072
August	1.05978	1.03218	1.03065	1.03079	1.10995
September	1.01239	1.01506	0.99203	0.97446	1.03623
October	1.00317	0.99558	0.98168	0.97738	1.02681
November	1.00143	1.00111	1.00634	1.00037	1.05195
December	1.05192	1.03887	1.02766	1.02587	1.10061

Table A4.2 1000-1600 Separate Weekday, Separate Month to 1000-1600 October Average Weekday Traffic Count Conversion Factors

Day/Month	Monday	Tuesday	Wednesday	Thursday	Friday
January	1.10094	1.09177	1.07522	1.05726	0.96755
February	1.06862	1.06555	1.0368	1.03252	0.9216
March	1.06195	1.05751	1.03397	1.01355	0.91622
April	1.03244	1.02476	1.01619	0.96825	0.8995
May	1.05408	1.04099	1.02792	1.00282	0.90516
June	1.03708	1.03706	1.01626	1.00115	0.88743
July	1.03336	1.02545	1.00622	0.99016	0.88949
August	1.0231	1.03246	1.0025	0.99907	0.89389
September	1.05256	1.04445	1.02004	1.0041	0.90101
October	1.04371	1.04251	1.01843	1.01249	0.89792
November	1.04194	1.03955	1.00898	1.00345	0.89769
December	1.02348	1.00918	0.99197	0.99469	0.91295

Table A4.3 1700-1800 Separate Weekday, Separate Month to 1700-1800 October Average Weekday Traffic Count Conversion Factors

Day/Month	Monday	Tuesday	Wednesday	Thursday	Friday
January	1.04001	1.04271	1.02197	1.03258	1.08025
February	1.03096	0.99714	1.00208	0.99802	1.06188
March	0.99558	0.97925	0.97566	0.96956	1.0343
April	0.98342	0.98064	0.98136	0.96542	1.00812
May	1.00026	0.96718	0.95985	0.95751	1.01945
June	0.99977	0.97344	0.96413	0.98318	1.0058
July	0.99828	0.97441	0.97049	0.96594	1.00934
August	1.00418	1.00067	0.99376	0.98634	1.06153
September	1.01187	0.96853	0.97651	0.97792	1.03221
October	1.01726	0.98864	0.9797	0.98224	1.01598
November	1.03605	1.01347	1.02786	1.01641	1.0505
December	1.06763	1.03653	1.017	1.05277	1.12717

Table A4.4 0800-0900 Year-to-Year Traffic Growth Indices by Road Type and Vehicle Type

	Motorways				A Roads				Other Roads			
Year	Car	LGV	OGV	All	Car	LGV	OGV	All	Car	LGV	OGV	All
1998	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1999	1.06	1.05	1.05	1.06	1.02	0.98	0.98	1.02	1.02	1.00	1.00	1.02
2000	1.028	1.092	1.03	1.03	1.02	1.019	1.00	1.02	1.01	1.01	0.93	1.01
2001	1.10	1.168	1.05	1.10	1	0.978	0.95	1.00	1.01	0.949	0.90	1.00
2002	1.144	1.227	1.05	1.14	0.98	0.959	0.931	0.98	1.01	0.997	0.902	1.01
2003	1.098	1.215	1.018	1.10	0.98	0.988	0.949	0.98	1.02	0.997	0.866	1.02
2004	1.109	1.312	1.1	1.12	0.96	1.007	0.987	0.97	0.979	1.027	0.927	0.99
2005	1.165	1.272	1.111	1.165	0.96	1.017	0.928	0.97	0.979	1.027	0.899	0.989
2006	1.142	1.425	1.033	1.154	0.941	1.058	0.928	0.96	0.989	1.047	0.863	0.999
2007	1.073	1.411	1.053	1.107	0.95	1.037	0.9	0.96	0.969	1.037	0.794	0.979
2008	1.084	1.256	1.19	1.107	0.931	1.016	0.9	0.941	0.959	1.026	0.794	0.969
2009	1.062	1.168	1.059	1.074	0.931	0.996	0.774	0.941	0.959	0.985	0.699	0.96
2010	1.083	1.133	1.134	1.096	0.931	0.946	0.821	0.932	0.94	0.956	0.664	0.94
2011	1.083	1.359	0.884	1.096	0.903	0.965	0.656	0.904	0.931	0.965	0.664	0.931
2012	1.073	1.359	0.867	1.085	0.885	0.984	0.637	0.895	0.922	0.965	0.571	0.922
2013	1.073	1.359	0.867	1.085	0.885	0.984	0.637	0.895	0.922	0.965	0.571	0.922
2014	1.073	1.359	0.867	1.085	0.885	0.984	0.637	0.895	0.922	0.965	0.571	0.922

Table A4.5 1000-1600 Year-to-Year Traffic Growth Indices by Road Type and Vehicle Type

	Motorways				A Roads				Other Roads			
Year	Car	LGV	OGV	All	Car	LGV	OGV	All	Car	LGV	OGV	All
1998	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1999	1.06	1.01	1.01	1.04	1.02	0.99	0.99	1.02	1.01	1.01	1.01	1.01
2000	1.06	1.04	1.01	1.05	0.99	1.00	0.99	1.00	1.01	1.04	0.96	1.01
2001	1.07	1.03	0.98	1.05	0.99	0.97	0.94	0.99	1.03	1.01	0.90	1.02
2002	1.11	1.09	0.98	1.09	1.00	0.96	0.88	0.99	1.04	1.01	0.85	1.02
2003	1.16	1.124	0.98	1.13	1.01	0.97	0.875	1.00	1.04	1.029	0.831	1.02
2004	1.22	1.226	1.029	1.19	1.01	1.009	0.918	1.01	1.04	1.06	0.931	1.03
2005	1.22	1.189	0.936	1.17	1.00	1.009	0.845	1.00	1.03	1.06	0.884	1.02
2006	1.20	1.225	0.927	1.17	0.99	1.029	0.82	0.99	1.03	1.071	0.813	1.02
2007	1.24	1.298	0.917	1.20	1.00	1.06	0.779	0.99	1.03	1.092	0.732	1.01
2008	1.18	1.142	1.009	1.16	1.00	1.028	0.763	0.98	1.02	1.081	0.695	1.00
2009	1.26	1.097	0.939	1.19	0.999	1.028	0.671	0.97	1.02	1.049	0.626	0.99
2010	1.235	1.042	0.967	1.179	0.969	0.966	0.685	0.941	1.01	1.028	0.601	0.98
2011	1.26	1.292	0.773	1.202	0.94	1.005	0.548	0.912	1.00	1.028	0.583	0.97
2012	1.26	1.292	0.742	1.202	0.94	1.025	0.531	0.912	0.98	1.038	0.525	0.951
2013	1.26	1.292	0.742	1.202	0.94	1.025	0.531	0.912	0.98	1.038	0.525	0.951
2014	1.26	1.292	0.742	1.202	0.94	1.025	0.531	0.912	0.98	1.038	0.525	0.951

Table A4.6 1700-1800 Year-to-Year Traffic Growth Indices by Road Type and Vehicle Type

	Motorways				A Roads				Other Roads			
Year	Car	LGV	OGV	All	Car	LGV	OGV	All	Car	LGV	OGV	All
1998	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1999	1.02	1.00	1.00	1.00	0.99	0.96	0.96	0.96	1.00	0.97	0.97	0.97
2000	1.03	0.96	0.95	0.95	1.01	0.99	0.99	0.99	0.99	0.98	0.90	0.90
2001	1.11	1.03	0.97	0.97	1.00	0.95	0.85	0.85	1.00	0.97	0.90	0.90
2002	1.15	1.08	0.97	0.97	1.01	0.94	0.77	0.77	0.98	0.98	0.83	0.83
2003	1.18	1.09	0.96	0.96	1.02	0.92	0.74	0.74	0.97	0.92	0.62	0.62
2004	1.216	1.10	0.94	0.94	1.01	0.93	0.79	0.79	0.98	0.93	0.83	0.83
2005	1.228	1.12	0.89	0.89	0.979	0.90	0.62	0.62	0.96	0.95	0.76	0.76
2006	1.203	1.13	0.875	0.88	0.999	0.93	0.646	0.65	0.951	0.94	0.685	0.69
2007	1.239	1.21	0.84	0.84	0.989	0.94	0.549	0.55	0.96	1.01	0.685	0.69
2008	1.215	1.225	1.059	1.059	0.969	0.929	0.604	0.604	0.941	0.985	0.535	0.535
2009	1.215	1.127	0.921	0.921	0.979	0.911	0.483	0.483	0.922	0.965	0.465	0.465
2010	1.239	1.127	0.921	0.976	0.979	0.911	0.483	0.493	0.959	0.965	0.465	0.544
2011	1.276	1.127	0.921	0.742	0.949	0.911	0.483	0.379	0.93	0.965	0.465	0.62
2012	1.276	1.00	1.00	0.705	0.949	1.00	1.00	0.353	0.93	1.00	1.00	0.54
2013	1.276	1.00	1.00	0.705	0.949	0.96	0.96	0.353	0.93	0.97	0.97	0.54
2014	1.276	0.96	0.95	0.705	0.949	0.99	0.99	0.353	0.93	0.98	0.90	0.54