

Appendix A: Methodology and Data Sources

A METHODOLOGY AND DATA SOURCES

A.1 OVERVIEW

The project presented in this report has been evaluated against their objectives and the following criteria, where applicable, to support the evaluation:

- Environment;
- Safety;
- Economy;
- Integration;
- Accessibility & Social Inclusion;
- Costs to Government; and
- Value for Money.

As the evaluation focuses on impacts relating to the project's objectives, evaluations against all of the above criteria may not be undertaken for all projects. The evaluation is supported by the consideration of network traffic indicators, including traffic volumes, overtaking opportunities and travel times, as presented in the following section.

A.2 NETWORK TRAFFIC INDICATORS

Traffic Volumes

Comparison Between Pre and Post Opening Traffic Flows

A comparison of traffic flows pre and post opening has been undertaken to provide an indication of the impact that the project has had on traffic volumes. The amount of traffic data presented is dependent upon the complexity of the project. The comparison can also serve as a proxy for the effect that the project has had on noise and air quality.

Comparison Between Predicted and Actual Traffic Flows

A comparison of predicted and actual opening year traffic flows has been undertaken to confirm the accuracy of predictions during the project's preparation. The comparison can also serve as a proxy for whether the predicted benefits of the project are likely to be realised.

Depending on the nature of the traffic modelling undertaken to assess the project, the predicted traffic flow is either derived by:

- factoring the base year or the predicted opening year, design network flows to the actual opening year using National Road Traffic Forecast (NRTF) growth factors; or
- extrapolating from, or interpolating between, the modelled assessment year, design network flows.

The difference between the actual traffic flow and the predictions has been calculated and expressed as a percentage of the actual flow. A threshold of +/-20% is generally accepted by Transport Scotland as being a reasonable range for future year forecast traffic flow comparisons.

The amount of traffic data presented is dependent upon the complexity of the project. The comparison can also serve as a proxy for the likely impact of the project on noise and air quality.

Data Sources

Predicted Traffic Flows	Obtained/derived from the traffic/economic modelling undertaken to support the pre-tender economic assessment.
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Actual Traffic Flows	Obtained from automatic traffic counters in the vicinity of the project/study area.
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Overtaking Opportunities

Post Opening Overtaking Opportunities

Commentary on overtaking opportunities is provided for projects that have specific objectives relating to the improvement of overtaking levels. In this instance, there are no scheme objectives related to overtaking and this has therefore not been assessed.

Travel Times

Change in Travel Times

Based on the evaluation of other projects with a comparable standard of carriageway for which pre and post opening journey time data is available, supported by anecdotal evidence where available.

Comparison Between Pre and Post Opening Travel Times

A comparison between pre and post opening travel times has been carried out for projects where the change in travel times cannot be judged based on other projects of a similar nature for which an evaluation has been undertaken.

Comparison Between Predicted and Actual Travel Times

A comparison between predicted and actual opening travel times has been carried out for projects where predicted and post opening travel time information is readily available.

Data Sources

Pre-Opening Travel Times	Confirmed through pre-opening survey information collected to support the project's economic assessment.
Post Opening Travel Times	Confirmed through post opening survey information.
Predicted Travel Times	Obtained from the Stage 3 economic assessment undertaken during the project's preparation.
Stakeholder Feedback	Obtained from Road Haulage Association

Vehicle Speeds

Change in Vehicle Speeds

Based on the evaluation of other projects with a comparable standard of carriageway for which pre and post opening vehicle speed data is available, supported by anecdotal evidence where available.

Comparison Between Pre and Post Opening Vehicle Speeds

A comparison between pre and post opening vehicle speeds has been carried out for projects where the change in vehicle speeds cannot be judged based on other projects of a similar nature for which an evaluation has been undertaken.

Comparison Between Predicted and Actual Vehicle Speeds

A comparison between predicted and actual opening vehicle speeds has been carried out for projects where predicted and post opening vehicle speed information is readily available.

Data Sources

Pre-Opening Vehicle Speeds	Obtained from automatic traffic counters in the vicinity of the project/study area.
Post Opening Vehicle Speeds	Obtained from automatic traffic counters in the vicinity of the project/study area.
Predicted Travel Times	Obtained from the Stage 3 economic assessment undertaken during the project's preparation.

A.3 ENVIRONMENTAL

Mitigation Measures

A review of the environmental mitigation measures implemented during construction has been undertaken for all projects to establish whether or not the measures proposed during the project's preparation have been introduced and to provide comment on their success. The mitigation measures implemented were confirmed through site visits.

Data Sources

Proposed Mitigation Measures	Presented in the Environmental Statement produced during the project's preparation.
Implemented Mitigation Measures	Confirmed through site visit.

Noise and Air Quality

A comparison of the observed traffic flows after opening has been undertaken in the context of noise impacts. A review of air quality has not been undertaken for the project as no significant air quality impacts were expected.

A.4 SAFETY

Accidents

Comparison Between Pre and Post Opening Personal Injury Accident Numbers

A comparison of the personal injury accident numbers pre and post opening has been undertaken for all projects to provide an early indication of whether the project is operating safely.

The number of personal injury accidents for the 5 and 3 years within the vicinity of the project prior to opening has been compared with the observed number of personal injury accidents for the project in its first year of operation. The comparison shall be updated to include the observed number of accidents in the three year period after opening when the accident data is available.

It is important to realise that road infrastructure projects normally take a minimum of 5 to 7 years to plan prior to the commencement of construction. Many proposed road projects are derived from safety concerns such as fatal and serious accidents and often, these are treated in terms of Accident Investigation and Prevention work prior to planning the permanent solution. The comparison between 3 year pre and post opening accidents, therefore, only demonstrate the minimum road safety improvement derived from the project.

Where the influence of a trunk road improvement project has a significant impact on the local road network, it may be appropriate to extend the scope of the accident analysis.

Road Safety Audits

Road Safety Audit (RSA) reports have been reviewed for all projects, where available, to confirm whether there is any evidence that the project is not operating safely and where recommendations have been made for ameliorative measures, if appropriate.

Data Sources

Personal Injury Accident Numbers	Obtained from the STATS19 data collection system.
Safety Issues	Detailed within RSA reports produced following audits carried out 1 year after project opening.
Stakeholder Feedback	Obtained from Police Scotland

A.5 ECONOMY

Transport Economic Efficiency

A comparison between predicted and actual traffic flows and/or travel times has been undertaken for all projects as a proxy for whether the predicted benefits of the project are likely to be realised.

A comparison which suggests actual traffic flows are lower than predicted traffic flows, in an uncongested situation, indicates that the economic benefits of the project may have been over predicted as fewer vehicles will actually accrue journey time savings than predicted. Similarly, the economic benefits of a project may also be over predicted where actual travel times are greater (i.e. speeds lower) than predicted.

Conversely, where the comparison suggests actual traffic flows are greater than predicted traffic flows or actual travel times are less (i.e. speeds higher) than predicted, the economic benefits of the project may have been under predicted.

Commentary on the impact of the project on local economic development has been provided where anecdotal feedback is available.

Data Sources

Stakeholder Feedback	Obtained from North Lanarkshire Council, East Dunbartonshire Council, Falkirk Council, Glasgow City Council and local businesses.
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A.6 INTEGRATION

Commentary on Transport Integration and Policy Integration has been provided for projects that have specific objectives relating to the Integration criterion. In addition, anecdotal evidence from stakeholders has also been gathered, where available.

Data Sources

Government Policies	Outlined within the Scottish Executive's integrated transport policy applicable at the time of the scheme's assessment.
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A.7 ACCESSIBILITY & SOCIAL INCLUSION

Commentary on Community Accessibility has been provided for projects that have specific objectives relating to the Accessibility & Social Inclusion criterion, supported by anecdotal evidence where available.

Data Sources

Public Transport Network	Desktop Review and GIS Analysis of Network pre and post scheme
Stakeholder Feedback	Public Transport Operators, Strathclyde Partnership for Transport (SPT) and North Lanarkshire Council

A.8 COSTS TO GOVERNMENT

Investment Costs

Comparison Between Predicted and Out-turn Costs

The M80(T) Steps to Higgs project was taken forward as a Public-Private Partnership (PPP) project. A full financial evaluation was undertaken prior to the award of this PPP contract.

A.9 VALUE FOR MONEY

Initial Indications

Based on the evaluation of economic benefits and project costs outlined in sections 3.5 and 3.8 respectively, a judgement in terms of the potential impact on the projects' value for money has been made.

The value for money of a project is considered to be greater than predicted where the economic benefits have been under predicted and the project costs over predicted. Conversely, the value for money of a project is considered to be lower than predicted where the economic benefits have been over predicted and the project costs under predicted.

Where both the economic benefits and project cost have been under predicted or over predicted, a judgement has been made with regards to the likely overall impact on value for money.

Data Sources

Predicted NPV and BCR	Obtained from the pre-tender economic assessment undertaken during the project's preparation.
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A.10 ACHIEVEMENT OF OBJECTIVES

Initial Indications

The evaluation includes an indication of how the M80(T) Steps to Higgs scheme is progressing towards achieving its objectives. Where specific indicators to measure the project's performance against its objectives have not been developed, an indication of how the project is progressing towards achieving its objectives is based on the pre-opening data available, supplemented by post opening data collected as part of the evaluation.

Data Sources

Objectives	Confirmed from reported Environmental Statements or Route Action Plan, where applicable.
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Appendix B: Evaluation Data

B EVALUATION DATA

B.1 COMPARISON BETWEEN PRE AND POST OPENING TRAFFIC FLOWS

Table B.1a: ATC Data (Strategic Network - Mainline)

ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
M8 J15 (Cathedral) - M8 J14 (Fruitmarket)						
<i>Westbound</i>						
NTC00059 - M8 Lanes	61,506	66,673	n/a	65,831	Year of Opening	61,185
NTC00060 - M80 Lanes	13,436	13,209	13,016	12,696	Year of Opening	10,159
Combined	74,942	79,882	n/a	78,527	Year of Opening	71,344
M8 J14 (Fruitmarket) - M8 J13 (Provan)						
<i>Eastbound</i>						
NTC00054 - M8 Lanes	54,561	51,531	54,685	54,364	Year of Opening	42,839
NTC00055- M80 Lanes	25,479	27,154	23,298	22,021	Year of Opening	24,645
Combined	80,040	78,685	77,983	76,385	Year of Opening	67,484
<i>Westbound</i>						
NTC00052 - M8 Lanes	45,898	n/a	n/a	55,493	Year of Opening	52,410
NTC00053 - M80 Lanes	16,602	n/a	15,891	15,283	Year of Opening	12,639
Combined	62,500	n/a	n/a	70,776	Year of Opening	65,049
<i>2-Way</i>						
	142,540	n/a	n/a	147,161	Year of Opening	132,533
M8 J13 (Provan) - East of M80 Slips						
<i>Eastbound</i>						
NTC00049	n/a	53,154	53,709	53,390	Year of Opening	41,907
<i>Westbound</i>						
NTCPC012	n/a	48,406	n/a	48,981	Year of Opening	39,831
<i>2-Way</i>						
NTC00049 & NTCPC012	n/a	101,560	n/a	102,371	Year of Opening	81,738
M80 J1 (Provan) - M80 J2 (Robroyston)						

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ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
<i>Northbound</i>						
NTC00407	27,516	26,932	24,879	23,221	Year of Opening	30,816
<i>Southbound</i>						
NTC00408	29,774	28,878	28,421	26,815	Year of Opening	30,935
<i>2-Way</i>						
NTC00407 & NTC00408	57,290	55,810	53,300	50,036	Year of Opening	61,751
M80 J2 (Robroyston) - M80 J3 (Hornshill)						
<i>Northbound</i>						
NTC00419	28,325	27,769	26,947	25,135	Year of Opening	28,845
<i>Southbound</i>						
NTC00420	26,677	26,613	26,365	23,810	Year of Opening	28,904
<i>2-Way</i>						
NTC00419 & NTC00420	55,002	54,382	53,312	48,945	Year of Opening	57,749
A80 Cumbernauld Road at Moodiesburn - Bypassed Section of A80						
<i>Northbound</i>						
JTC00150	27,199	26,564	25,780	23,876	Year of Opening	5,164
JTC00149	25,107	24,302	24,014	n/a	Year of Opening	3,645
<i>Southbound</i>						
JTC00150	26,614	26,350	25,492	23,598	Year of Opening	5,426
JTC00149	25,307	24,381	23,735	n/a	Year of Opening	3,173
<i>2-Way</i>						
JTC00150	53,813	52,914	51,272	47,474	Year of Opening	10,590
JTC00149	50,413	48,683	47,749	n/a	Year of Opening	6,818
M80 J3 (Hornshill) - M80 J4 (Mollinsburn) - Moodiesburn Bypass Section						
<i>Northbound</i>						
JTC00626	-	-	-	-	Year of Opening	21,957
<i>Southbound</i>						
JTC00627	-	-	-	-	Year of Opening	22,239
<i>2-Way</i>						
JTC00626 & JTC00627	-	-	-	-	Year of Opening	44,196

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ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
M80 J4 (Mollinsburn) - M73 Merge						
<i>Northbound</i>						
NTC00440	-	-	-	-	Year of Opening	19,327
<i>Southbound</i>						
NTC00442	-	-	-	-	Year of Opening	19,333
<i>2-Way</i>						
NTC00440 & NTC00442	-	-	-	-	Year of Opening	38,660
M73 Merge - M80 J4a (Low Wood)						
<i>Northbound</i>						
JTC00624	-	-	-	-	Year of Opening	38,522
JTC00266	39,137	38,373	36,041	n/a	Year of Opening	n/a
<i>Southbound</i>						
NTC00449	-	-	-	-	Year of Opening	37,937
JTC00266	37,050	36,537	35,129	n/a	Year of Opening	n/a
<i>2-Way</i>						
JTC00624 & NTC00449	-	-	-	-	Year of Opening	76,459
JTC00266	76,187	74,911	72,910	n/a	Year of Opening	n/a
M80 J4a (Low Wood) - M80 J5 (Auchenkilns)						
<i>Northbound</i>						
NTC00452	-	-	-	-	Year of Opening	28,571
<i>Southbound</i>						
NTC00453	-	-	-	-	Year of Opening	31,698
<i>2-Way</i>						
NTC00452 & NTC00453	-	-	-	-	Year of Opening	60,269
M80 J5 (Auchenkilns) - M80 J6 (Old Inns)						
<i>Northbound</i>						
JTC00622	-	-	-	-	Year of Opening	32,511
JTC00265	32,734	n/a	n/a	n/a	Year of Opening	n/a
<i>Southbound</i>						
NTC00464	-	-	-	-	Year of Opening	32,111

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ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
JTC00265	32,162	n/a	n/a	n/a	Year of Opening	n/a
<i>2-Way</i>						
JTC00622 & NTC00464	-	-	-	-	Year of Opening	64,622
JTC00265	64,896	n/a	n/a	n/a	Year of Opening	n/a
M80 J6 (Old Inns) - M80 J6a (Castleary)						
<i>Northbound</i>						
JTC00620	-	-	-	-	Year of Opening	34,007
JTC00264	32,391	32,421	n/a	n/a	Year of Opening	n/a
<i>Southbound</i>						
NTC00475	-	-	-	-	Year of Opening	33,237
JTC00264	33,018	32,460	n/a	n/a	Year of Opening	n/a
<i>2-Way</i>						
JTC00620 & NTC00475	-	-	-	-	Year of Opening	67,244
JTC00264	65,409	64,881	n/a	n/a	Year of Opening	n/a
M80 J6a (Castleary) - M80 J7 (Haggs)						
<i>Northbound</i>						
JTC00618	-	-	-	-	Year of Opening	34,747
JTC00263	35,895	34,641	n/a	n/a	Year of Opening	n/a
<i>Southbound</i>						
JTC00619	-	-	-	-	Year of Opening	35,079
JTC00263	35,292	34,145	n/a	n/a	Year of Opening	n/a
<i>2-Way</i>						
JTC00618 & JTC00619	-	-	-	-	Year of Opening	69,826
JTC00263	71,187	69,703	n/a	n/a	Year of Opening	n/a
M80 J7 Haggs - M80 / M876 Junction						
<i>Northbound</i>						
JTC00616	-	-	-	-	Year of Opening	34,339
<i>Southbound</i>						
JTC00617	-	-	-	-	Year of Opening	35,863

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ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
<i>2-Way</i>						
JTC00616 & JTC00617	-	-	-	-	Year of Opening	70,202
M80 North of M80 / M876 Junction						
<i>Northbound</i>						
118850	n/a	n/a	17,001	15,158	Year of Opening	n/a
JTC08331	n/a	n/a	n/a	n/a	Year of Opening	16,578
<i>Southbound</i>						
118850	n/a	n/a	17,103	15,606	Year of Opening	n/a
JTC08331	n/a	n/a	n/a	n/a	Year of Opening	16,836
<i>2-Way</i>						
118850	n/a	n/a	34,104	30,764	Year of Opening	n/a
JTC08331	n/a	n/a	n/a	n/a	Year of Opening	33,414
M876 East of M80 / M876 Junction						
<i>Eastbound</i>						
JTC08236	17,188	16,881	16,461	n/a	Year of Opening	17,633
<i>Westbound</i>						
JTC08236	16,767	16,444	15,830	n/a	Year of Opening	17,474
<i>2-Way</i>						
JTC08236	33,955	33,324	32,292	n/a	Year of Opening	35,107
M73 J1 (Daldowie) - M73 J2 (Baillieston Interchange)						
<i>Northbound</i>						
NTC00513 - from M74 North	14,838	n/a	14,383	13,817	Year of Opening	17,026
NTC00514 - from M74 South	27,835	n/a	27,079	26,263	Year of Opening	21,174
Combined	42,673	n/a	41,462	40,080	Year of Opening	38,200
<i>Southbound</i>						
NTCPC092 - to M74 North	n/a	13,656	13,961	13,475	Year of Opening	17,633
NTCPC093 - to M74 South	29,714	28,021	28,469	27,352	Year of Opening	21,453
Combined	n/a	41,677	42,430	40,827	Year of Opening	39,086

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ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
<i>2-Way</i>						
	n/a	n/a	83,892	80,907	Year of Opening	77,286
M73 J2 (Baillieston Interchange) - M73 J2a (Gartcosh)						
<i>Northbound</i>						
NTC00504	n/a	n/a	n/a	n/a	Year of Opening	n/a
<i>Southbound</i>						
NTC00503	21,417	20,584	20,467	18,974	Year of Opening	22,097
<i>2-Way</i>						
NTC00504 & NTC00503	n/a	n/a	n/a	n/a	Year of Opening	n/a
DfT 20704	46,566	45,084	44,472	43,899	Year of Opening	44,730
M73 J2a (Gartcosh) - M73 J3 (Mollinsburn)						
<i>Northbound</i>						
NTC00496	-	-	-	-	Year of Opening	17,473
<i>Southbound</i>						
NTC00497	-	-	-	-	Year of Opening	21,505
<i>2-Way</i>						
NTC00496 & NTC00497	-	-	-	-	Year of Opening	38,978
DfT 74424	39,305	43,050	42,458	41,860	Year of Opening	42,634
M8 / A8 East of Baillieston Interchange						
<i>Eastbound</i>						
NTC00966	37,830	37,806	37,563	37,198	Year of Opening	36,326
<i>Westbound</i>						
NTC00967	36,271	35,356	35,824	35,809	Year of Opening	35,275
<i>2-Way</i>						
NTC00966 & NTC00967	74,101	73,162	73,387	73,007	Year of Opening	71,601

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Table B.2a: Detailed ATC Summary (Strategic Network – Mainline)

ATC Reference	AADT by Year							
	Pre-Opening (2010)				Post Opening (2012 / 2013)			
	AADT	% HGV	AM Period	PM Period	AADT	% HGV	AM Period	PM Period
M8 J15 (Cathedral) – M8 J14 (Fruitmarket)								
<i>Westbound</i>								
NTC00059 – M8 Lanes	65,831	4%	12,049	10,633	61,185	3%	12,350	11,246
NTC00060 – M80 Lanes	12,696	5%	3,251	2,794	10,159	5%	2,718	1,773
Combined	78,527	4%	15,300	13,427	71,344	4%	15,068	13,019
M8 J14 (Fruitmarket) – M8 J13 (Provan)								
<i>Eastbound</i>								
NTC00054 – M8 Lanes	54,364	4%	8,391	11,986	42,839	4%	6,436	9,783
NTC00055 – M80 Lanes	22,021	3%	3,060	5,478	24,645	3%	3,518	6,266
Combined	76,385	4%	11,451	17,464	67,484	3%	9,954	16,049
<i>Westbound</i>								
NTC00052 – M8 Lanes	55,493	4%	8,970	9,334	52,410	3%	9,940	9,810
NTC00053 – M80 Lanes	15,283	5%	4,703	3,010	12,639	6%	3,964	2,149
Combined	70,776	4%	13,673	12,344	65,049	4%	13,904	11,959
<i>2-Way</i>								
	147,161	4%	25,124	29,808	132,533	4%	23,858	28,008
M8 J13 (Provan) – East of M80 Slips								
<i>Eastbound</i>								
NTC00049	53,390	3%	8,212	11,822	41,907	3%	6,268	9,569
<i>Westbound</i>								
NTCPC012	48,981	4%	8,547	8,591	39,831	4%	7,960	7,261
<i>2-Way</i>								
NTC00049 & NTCPC012	102,371	4%	16,759	20,413	81,738	3%	14,228	16,830
M80 J1 (Provan) – M80 J2 (Robroyston)								
<i>Northbound</i>								
NTC00407	23,221	5%	3,566	5,633	30,816	3%	4,406	8,097
<i>Southbound</i>								
NTC00408	26,815	4%	6,200	4,772	30,935	4%	7,103	5,858
<i>2-Way</i>								
NTC00407 & NTC00408	50,036	5%	9,766	10,405	61,751	3%	11,509	13,955
M80 J2 (Robroyston) – M80 J3 (Hornhill)								
<i>Northbound</i>								
NTC00419	25,135	4%	3,605	6,304	28,845	3%	4,228	7,358
<i>Southbound</i>								
NTC00420	23,810	4%	5,414	4,339	28,904	3%	6,595	5,581

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		AADT by Year							
		Pre-Opening (2010)				Post Opening (2012 / 2013)			
ATC Reference		AADT	% HGV	AM Period	PM Period	AADT	% HGV	AM Period	PM Period
<i>2-Way</i>									
NTC00419 & NTC00420		48,945	4%	9,019	10,643	57,749	3%	10,823	12,939
A80 Cumbernauld Road at Moodiesburn – Bypassed Section of A80									
<i>Northbound</i>									
JTC00150		23,876	n/a	3,576	5,924	5,164	n/a	1,120	995
JTC00149 *1		24,014	n/a	3,824	5,689	3,645	n/a	481	910
<i>Southbound</i>									
JTC00150		23,598	n/a	5,170	4,502	5,426	n/a	658	1,457
JTC00149 *1		23,735	n/a	5,058	4,640	3,173	n/a	664	670
<i>2-Way</i>									
JTC00150		47,474	n/a	8,746	10,426	10,590	n/a	1,778	2,452
JTC00149 *1		47,749	n/a	8,882	10,329	6,818	n/a	1,145	1,580
M80 J3 (Hornhill) – M80 J4 (Mollinsburn) – Moodiesburn Bypass Section									
<i>Northbound</i>									
JTC00626		-	-	-	-	21,957	6%	3,573	5,278
<i>Southbound</i>									
JTC00627		-	-	-	-	22,239	7%	4,739	4,593
<i>2-Way</i>									
JTC00626 & JTC00627		-	-	-	-	44,196	7%	8,312	9,871
M80 J4 (Mollinsburn) – M73 Merge									
<i>Northbound</i>									
NTC00440		-	-	-	-	19,327	5%	3,254	4,669
<i>Southbound</i>									
NTC00442		-	-	-	-	19,333	5%	4,119	4,100
<i>2-Way</i>									
NTC00440 & NTC00442		-	-	-	-	38,660	5%	7,373	8,769
M73 Merge – M80 J4a (Low Wood)									
<i>Northbound</i>									
JTC00624		-	-	-	-	38,522	6%	6,791	8,640
JTC00266 *1		36,041	6%	6,535	8,202	n/a	n/a	n/a	n/a
<i>Southbound</i>									
NTC00449		-	-	-	-	37,937	7%	7,707	8,688
JTC00266 *1		35,129	6%	6,492	7,750	n/a	n/a	n/a	n/a
<i>2-Way</i>									
JTC00624 & JTC00449		-	-	-	-	76,459	7%	14,498	17,328
JTC00266 *1		72,910	6%	13,028	15,952	n/a	n/a	n/a	n/a
M80 J4a (Low Wood) – M80 J5 (Auchenkilns)									
<i>Northbound</i>									
NTC00452		-	-	-	-	28,571	9%	5,501	6,363

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ATC Reference	AADT by Year							
	Pre-Opening (2010)				Post Opening (2012 / 2013)			
	AADT	% HGV	AM Period	PM Period	AADT	% HGV	AM Period	PM Period
<i>Southbound</i>								
NTC00453	-	-	-	-	31,698	8%	6,467	7,376
<i>2-Way</i>								
NTC00452 & NTC00453	-	-	-	-	60,269	8%	11,968	13,739
M80 J5 (Auchenkilns) – M80 J6 (Old Inns)								
<i>Northbound</i>								
JTC00622	-	-	-	-	32,511	7%	6,332	7,219
JTC00265 *2	32,734	7%	6,452	6,915	n/a	n/a	n/a	n/a
<i>Southbound</i>								
NTC00464	-	-	-	-	32,111	8%	6,187	7,856
JTC00265 *2	32,162	6%	5,797	7,396	n/a	n/a	n/a	n/a
<i>2-Way</i>								
JTC00622 & NTC00464	-	-	-	-	64,622	8%	12,519	15,075
JTC00265 *2	64,896	6%	12,248	14,311	n/a	n/a	n/a	n/a
M80 J6 (Old Inns) – M80 J6a (Castlecary)								
<i>Northbound</i>								
JTC00620	-	-	-	-	34,007	7%	6,793	7,085
JTC00264 *3	32,421	6%	6,777	6,810	n/a	n/a	n/a	n/a
<i>Southbound</i>								
NTC00475	-	-	-	-	33,237	8%	6,302	8,477
JTC00264 *3	32,460	5%	5,889	7,701	n/a	n/a	n/a	n/a
<i>2-Way</i>								
JTC00620 & NTC00475	-	-	-	-	67,244	8%	13,095	15,562
JTC00264 *3	64,881	5%	12,666	14,510	n/a	n/a	n/a	n/a
M80 J6a (Castlecary) – M80 J7 (Haggs)								
<i>Northbound</i>								
JTC00618	-	-	-	-	34,747	7%	7,237	7,388
JTC00263 *3	34,641	6%	7,368	7,304	n/a	n/a	n/a	n/a
<i>Southbound</i>								
JTC00619	-	-	-	-	35,079	6%	6,407	8,685
JTC00263 *3	34,145	6%	6,175	8,157	n/a	n/a	n/a	n/a
<i>2-Way</i>								
JTC00618 & JTC00619	-	-	-	-	69,826	7%	13,644	16,073
JTC00263 *3	69,703	6%	13,543	15,462	n/a	n/a	n/a	n/a
M80 J7 Haggs – M80 / M876 Junction								
<i>Northbound</i>								
JTC00616	-	-	-	-	34,339	7%	5,888	8,922
<i>Southbound</i>								
JTC00617	-	-	-	-	35,863	7%	7,888	6,988

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		AADT by Year							
		Pre-Opening (2010)				Post Opening (2012 / 2013)			
ATC Reference		AADT	% HGV	AM Period	PM Period	AADT	% HGV	AM Period	PM Period
<i>2-Way</i>									
JTC00616 & JTC00617		-	-	-	-	70,202	7%	13,776	15,910
M80 North of M80 / M876 Junction									
<i>Northbound</i>									
118850*1		17,001	-	2,600	4,145	-	-	-	-
JTC08331		-	-	-	-	16,578	5%	2,470	4,350
<i>Southbound</i>									
118850*1		17,103	-	3,647	3,353	-	-	-	-
JTC08331		-	-	-	-	16,836	4%	3,682	3,285
<i>2-Way</i>									
118850*1		34,104	-	6,247	7,497	-	-	-	-
JTC08331		-	-	-	-	33,414	4%	6,152	7,635
M876 East of M80 / M876 Junction									
<i>Eastbound</i>									
JTC08236 *1		16,461	7%	4,001	3,513	17,633	7%	4,261	3,873
<i>Westbound</i>									
JTC08236 *1		15,830	7%	3,098	3,849	17,474	7%	3,507	4,588
<i>2-Way</i>									
JTC08236 *1		32,292	7%	7,099	7,362	35,107	7%	7,767	8,461
M73 J1 (Daldowie) – M73 J2 (Baillieston Interchange)									
<i>Northbound</i>									
NTC00513 – from M74 North		13,817	4%	2,929	3,161	17,026	4%	3,834	4,382
NTC00514 – from M74 South		26,263	8%	5,053	4,937	21,174	8%	4,368	4,168
Combined		40,080	7%	7,982	8,098	38,200	6%	8,202	8,550
<i>Southbound</i>									
NTCPC092 – to M74 North		13,475	4%	2,725	3,422	17,633	5%	3,955	4,948
NTCPC093 – to M74 South		27,352	7%	4,656	6,273	21,453	7%	3,655	5,098
Combined		40,827	6%	7,381	9,695	39,086	6%	7,610	10,046
<i>2-Way</i>									
		80,907	6%	15,363	17,793	77,286	6%	15,812	18,596
M73 J2 (Baillieston Interchange) – M73 J2a (Gartcosh)									
<i>Northbound</i>									
NTC00504		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Southbound</i>									
NTC00503		18,974	9%	4,069	4,300	22,097	9%	5,011	5,349
<i>2-Way</i>									
NTC00504 & NTC00503		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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ATC Reference	AADT by Year							
	Pre-Opening (2010)				Post Opening (2012 / 2013)			
	AADT	% HGV	AM Period	PM Period	AADT	% HGV	AM Period	PM Period
DfT 20704	-	-	-	-	-	-	-	-
M73 J2a (Gartcosh) – M73 J3 (Mollinsburn)								
<i>Northbound</i>								
NTC00496	-	-	-	-	17,473	10%	3,652	4,105
<i>Southbound</i>								
NTC00497	-	-	-	-	21,505	10%	4,719	5,284
<i>2-Way</i>								
NTC00496 & NTC00497	-	-	-	-	38,978	10%	8,371	9,389
DfT 74424	-	-	-	-	-	-	-	-
M8 / A8 East of Baillieston Interchange								
<i>Eastbound</i>								
NTC00966	37,198	5%	6,513	8,296	36,326	5%	6,483	8,219
<i>Westbound</i>								
NTC00967	35,809	6%	6,773	7,551	35,275	6%	6,952	7,726
<i>2-Way</i>								
NTC00966 & NTC00967	73,007	5%	13,286	15,847	71,601	6%	13,435	15,945

Notes: 1 – 2009 Data
2 – 2007 Data
3 – 2008 Data

Table B.2b: Detailed ATC Summary (Strategic Network - Junctions)

ATC Reference	AADT by Year							
	Pre-Opening (2010)				Post Opening (2012 / 2013)			
	AADT	% HGV	AM Period	PM Period	AADT	% HGV	AM Period	PM Period
M8 J13 (Provan) - M8 to M80 Slips								
<i>Eastbound</i>								
NTCPC013 - M8 to M80	23,696	5%	3,300	5,907	26,660	4%	3,791	6,812
<i>Westbound</i>								
NTCPC114 - M80 to M8	22,583	5%	5,226	3,929	25,637	4%	5,932	4,781
M80 J4 (Mollinsburn) on / off-slips								
<i>Northbound</i>								
NTC00441 (on-slip)	-	-	-	-	3,055	4%	505	819
<i>Southbound</i>								
NTC00443 (off-slip)	-	-	-	-	3,081	3%	795	582
M80 J4a (Low Wood) on / off-slips								
<i>Northbound</i>								
NTC00451 (off-slip)	-	-	-	-	10,415	10%	1,885	2,759
<i>Southbound</i>								
NTC00454 (on-slip)	-	-	-	-	7,011	4%	1,522	1,430
M80 J5 (Auchenkilns) on / off-slips								
<i>Northbound</i>								
(off-slip)	-	-	-	-	n/a	n/a	n/a	n/a
NTC00459 (on-slip)	-	-	-	-	3,345	n/a	802	616
<i>Southbound</i>								
NTC00460 (off-slip)	-	-	-	-	3,903	n/a	690	1,074
NTC00456 (on-slip)	-	-	-	-	3,505	3%	938	631
M80 J6 (Old Inns) on / off-slips								
<i>Northbound</i>								
NTC00470 (off-slip)	-	-	-	-	3,935	5%	627	927
NTC00471 (on-slip)	-	-	-	-	5,785	6%	1,329	1,217
<i>Southbound</i>								
NTC00473 (off-slip)	-	-	-	-	5,461	5%	941	1,461
NTC00468 (on-slip)	-	-	-	-	3,858	5%	866	841
M80 J6a (Castle Cary) on / off-slips								
<i>Northbound</i>								

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ATC Reference	AADT by Year							
	Pre-Opening (2010)				Post Opening (2012 / 2013)			
	AADT	% HGV	AM Period	PM Period	AADT	% HGV	AM Period	PM Period
NTC00478 (on-slip)	-	-	-	-	888	3%	238	202
<i>Southbound</i>								
NTC00480 (off-slip)	-	-	-	-	886	4%	187	220
M80 J7 (Haggs) on / off-slips								
<i>Northbound</i>								
NTC00484 (off-slip)	-	-	-	-	3,400	7%	353	1,035
NTC00483 (on-slip)	-	-	-	-	2,911	4%	884	497
<i>Southbound</i>								
NTC00486 (off-slip)	-	-	-	-	2,942	4%	413	918
NTC00481 (on-slip)	-	-	-	-	3,590	3%	895	668
M73 J3 (Mollinsburn) on / off-slips								
<i>Northbound</i>								
NTC00495 (off-slip)	-	-	-	-	3,796	5%	847	1,000
NTC00493 (on-slip)	-	-	-	-	n/a	n/a	n/a	n/a
<i>Southbound</i>								
NTC00488 (off-slip)	-	-	-	-	2,363	n/a	517	547
NTC00489 (on-slip)	-	-	-	-	1,942	3%	346	476

Notes: 1 – 2009 Data
2 – 2007 Data
3 – 2008 Data

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Table B.3: ATC Data (Local Road Network)

ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
A8011 Glasgow Road, Cumbernauld						
ATC08234	21,674	20,032	20,584	21,008	Year of Opening	n/a
A73(T) North of Airdrie - South of Auchenkilns Interchange						
136700	16,069	15,667	15,243	14,462	Year of Opening	14,526
Westfield Road, Balloch						
ATCNT003	5,131	4,970	4,822	5,666	Year of Opening	n/a
Eastfield Road, Balloch						
ATCNT002	11,580	n/a	n/a	n/a	Year of Opening	9,790
B816 Castlecary						
ATCNT001	n/a	7,461	6,520	7,096	Year of Opening	n/a
A803 (West of Kirkintilloch)						
ATC08217	18,205	17,976	18,030	18,568	Year of Opening	16,807
A803 (Springburn)						
JTC10013	23,291	22,228	23,049	20,683	Year of Opening	n/a
B757 (South of Kirkintilloch)						
ATC08230	5,416	5,326	6,450	5,459	Year of Opening	n/a
Lenzie Road (South of Kirkintilloch)						
ATC08264	9,405	8,885	8,273	n/a	Year of Opening	n/a
B802 Croy						
ATC08233	9,400	9,224	9,507	9,306	Year of Opening	9,767
B8048 (East of Kirkintilloch)						
ATC08219	11,322	10,876	10,790	10,847	Year of Opening	n/a
JTC10075	10,238	9,767	9,337	8,855	Year of Opening	n/a
B812 (West of Kirkintilloch)						
ATC08223	6,920	n/a	6,424	6,213	Year of Opening	5,616
ATC08229	6,578	6,429	6,459	6,906	Year of Opening	n/a
A806 (North of M80 J3 Hornshil)						
DfT 80507	8,904	8,762	8,698	8,580	Year of Opening	8,720

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Table B.4a: North Lanarkshire Council Traffic Data

ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
Site NL1 (Counter 3060) - B802 Condorrat Rd, Cumbernauld						
Northbound	563	623	n/a	638	Year of Opening	647
Southbound	762	800	n/a	812	Year of Opening	804
2-Way Flow	1,325	1,423	n/a	1,450	Year of Opening	1,451
Site NL2 (Counter 1220) - B8048 Drumgrew Bridge, Blackwood						
Eastbound	5,518	5,133	n/a	5,284	Year of Opening	4,655
Westbound	6,047	5,691	n/a	5,682	Year of Opening	5,137
2-Way Flow	11,565	10,824	n/a	10,966	Year of Opening	9,792

Table B.4b: Falkirk Council Traffic Data

ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
Site FC1 (ATC 26) - Banknock (Falkirk Council Boundary)						
2-Way Flow	n/a	n/a	7,633	7,019	Year of Opening	6,508
Site FC2 (ATC 43) - Stirling Rd (Park)						
2-Way Flow	n/a	n/a	11,837	8,121	Year of Opening	11,331
Site FC3 (ATC 47) - A803 Glasgow Rd (Dennyloanhead)						
2-Way Flow	n/a	n/a	11,585	9,444	Year of Opening	8,894
Site FC4 (ATC 49) - A872 at Stirling Council Boundary						
2-Way Flow	n/a	n/a	7,593	6,913	Year of Opening	6,504
Site FC5 (ATC 50) – A883 Denny Cemetery						
2-Way Flow	n/a	n/a	9,796	9,341	Year of Opening	9,296
Site FC6 (ATC 51) - A9 at Torwood						
2-Way Flow	n/a	n/a	9,178	7,581	Year of Opening	9,219
Site FC7 (ATC 52) - A9 Stirling Rd, Larbert South of North Broomage						
2-Way Flow	n/a	n/a	9,297	9,412	Year of Opening	11,366
Site FC8 (ATC 74) - Two Bridges (Camelon)						
2-Way Flow	n/a	n/a	16,493	16,759	Year of Opening	17,589
Site FC9 (ATC 76) - Bogton Farm						
2-Way Flow	n/a	n/a	11,163	10,403	Year of Opening	11,307

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Table B.4c: East Dunbartonshire Council Traffic Data

ATC Reference				AADT by Year		
	2007	2008	2009	2010	2011	July 12 - June 13
Site ED1 - Colston Rd, Bishopbriggs (between Springburn Rd and Ashgill Rd)						
Eastbound	5,984	6,065	n/a	5,494	Year of Opening	5,405
Westbound	6,624	6,703	n/a	4,784	Year of Opening	4,120
2-Way Flow	12,609	12,767	n/a	10,278	Year of Opening	9,525
Site ED2 - Balgrayhill Rd, Glasgow (between Auchinairn Rd and Stobhill Rd)						
Northbound	6,342	6,399	n/a	10,451	Year of Opening	5,090
Southbound	6,340	6,432	n/a	5,597	Year of Opening	5,995
2-Way Flow	12,682	12,831	n/a	16,048	Year of Opening	11,085
Site ED3 - Northgate Rd, Glasgow (South of Auchinairn Rd)						
Northbound	2,280	2,329	n/a	1,774	Year of Opening	2,021
Southbound	2,867	2,931	n/a	2,409	Year of Opening	2,117
2-Way Flow	5,147	5,260	n/a	4,183	Year of Opening	4,138
Site ED4 - B765 Hillhead Rd, Bishopbriggs (between Supermarket and Standburn Rd)						
Northbound	6,153	6,268	n/a	5,048	Year of Opening	5,299
Southbound	6,081	6,190	n/a	5,329	Year of Opening	5,397
2-Way Flow	12,235	12,458	n/a	10,377	Year of Opening	10,696
Site ED5 - B757 Auchinloch Rd, Lenzie (between Hospital entrance and Gadloch Ave)						
Northbound	n/a	6,717	n/a	5,591	Year of Opening	3,378
Southbound	n/a	6,583	n/a	4,264	Year of Opening	3,379
2-Way Flow	n/a	13,300	n/a	9,855	Year of Opening	6,757
Site ED6 - B819 Lindsaybeg Rd, Lenzie (East of Blacklands Place)						
Eastbound	2,661	2,700	n/a	2,559	Year of Opening	2,420
Westbound	2,581	2,638	n/a	2,668	Year of Opening	2,320
2-Way Flow	5,242	5,338	n/a	5,227	Year of Opening	4,740
Site ED7 - B8048 Kirkintilloch Rd (West of Drumgrew Bridge)						
Eastbound	5,661	n/a	n/a	4,891	Year of Opening	3,898
Westbound	5,797	n/a	n/a	5,229	Year of Opening	3,947
2-Way Flow	11,458	n/a	n/a	10,121	Year of Opening	7,845
Site ED8 - A803 Kilsyth Rd (between Broomhill Depot and the B8023)						
Eastbound	4,661	4,883	n/a	4,501	Year of Opening	3,335
Westbound	4,819	4,665	n/a	4,529	Year of Opening	3,393
2-Way Flow	9,479	9,547	n/a	9,030	Year of Opening	6,729
Site ED9 - Standburn Rd Bishopbriggs (between Auchinairn Rd and Wallacewell Rd)						

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ATC Reference				AADT by Year		
	2007	2008	2009	2010	2011	July 12 - June 13
Northbound	1,553	1,565	n/a	n/a	Year of Opening	1,365
Southbound	1,201	1,214	n/a	n/a	Year of Opening	907
2-Way Flow	2,753	2,779	n/a	n/a	Year of Opening	2,272
Site ED10 - Bishopbriggs Relief Rd (between Greenacres R/b and Wallacewell R/b)						
Northbound	2,992	2,970	n/a	4,241	Year of Opening	4,019
Southbound	3,048	3,115	n/a	5,715	Year of Opening	4,131
2-Way Flow	6,040	6,085	n/a	9,955	Year of Opening	8,150

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Table B.4d: Glasgow City Council Traffic Data

ATC Reference	AADT by Year					
	2007	2008	2009	2010	2011	July 12 - June 13
Site GC1 (CB6) - A803 Springburn Rd / Colston Rd						
Southbound	n/a	8,991	9,235	8,230	Year of Opening	8,313
Northbound	n/a	7,857	8,902	n/a	Year of Opening	8,139
2-Way Flow	n/a	16,848	18,138	n/a	Year of Opening	16,452
Site GC2 (CB7) - Robroyston Rd, South-West of Saughs R/b						
Eastbound	n/a	4,935	4,680	4,650	Year of Opening	4,744
Westbound	n/a	4,744	4,359	4,264	Year of Opening	4,555
2-Way Flow	n/a	9,679	9,038	8,914	Year of Opening	9,299
Site GC3 (CB9) - A80 Cumbernauld Rd, West of Avenue End Rd						
Eastbound	n/a	5,597	6,019	5,846	Year of Opening	5,972
Westbound	n/a	6,827	6,739	6,461	Year of Opening	5,050
2-Way Flow	n/a	11,704	12,038	11,691	Year of Opening	11,022
Site GC4 (MC8) - A803 Springburn Rd / Fountainwell Rd						
Northbound	n/a	n/a	n/a	19,048	Year of Opening	18,970
Southbound	n/a	n/a	n/a	18,679	Year of Opening	18,934
2-Way Flow	n/a	n/a	n/a	37,726	Year of Opening	37,903
Site GC5 (MC11) - A80 Cumbernauld Rd / A8 Edinburgh Rd						
Northbound Eastbound /	n/a	n/a	9,902	8,950	Year of Opening	8,715
Southbound Westbound /	n/a	n/a	9,841	8,118	Year of Opening	8,468
2-Way Flow	n/a	n/a	19,742	17,068	Year of Opening	17,184
Site GC6 (MC9) - Royston Rd						
Southbound	n/a	n/a	6,658	5,555	Year of Opening	5,195
Northbound	n/a	n/a	7,437	5,351	Year of Opening	5,830
2-Way Flow	n/a	n/a	14,096	10,906	Year of Opening	11,025

Figure B.1a: SRTDb ATC Location Plan – Strategic Network, Mainline

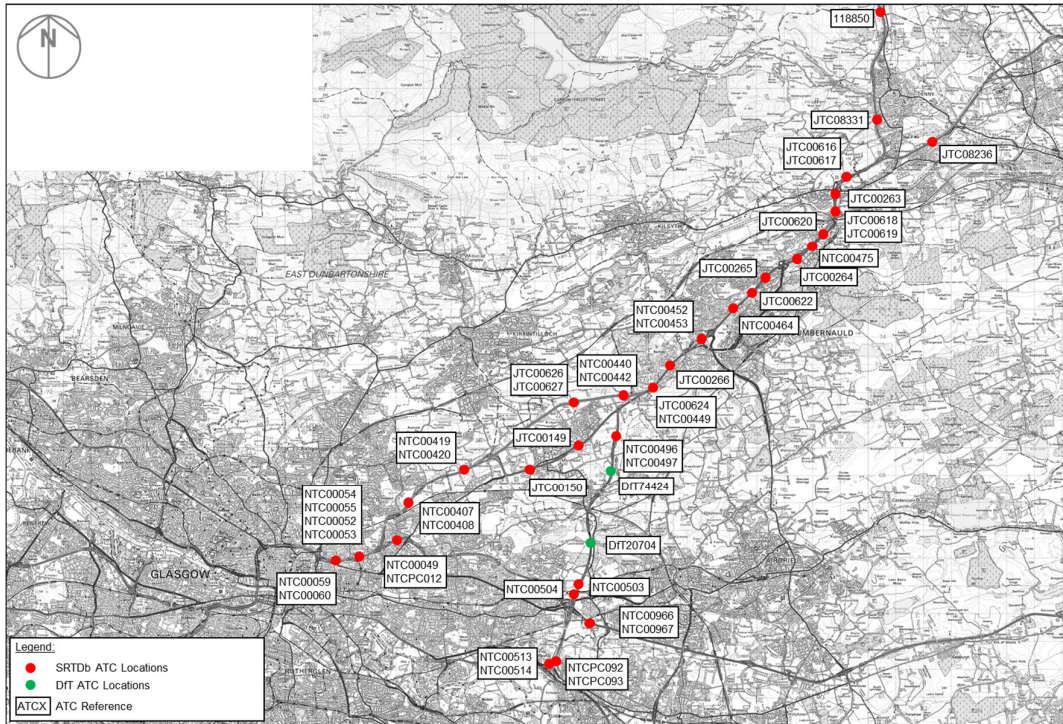


Figure B.1b: SRTDb ATC Location Plan – Strategic Network, Junctions

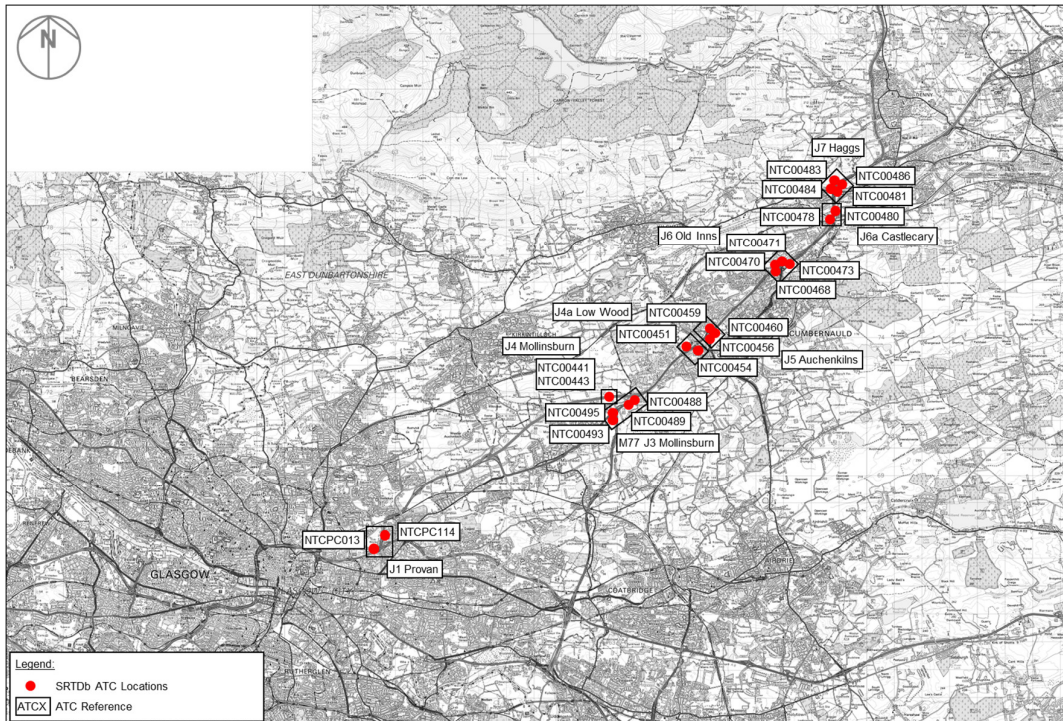


Figure B.2a: Comparison of Pre and Post Opening AM Peak Period Traffic Flows

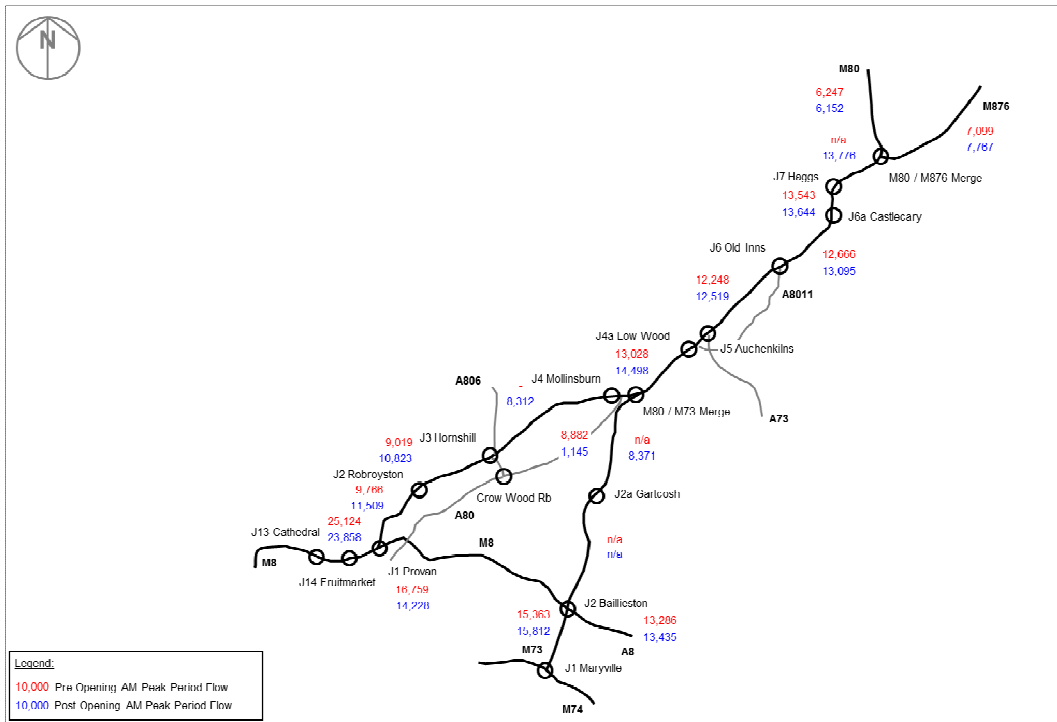
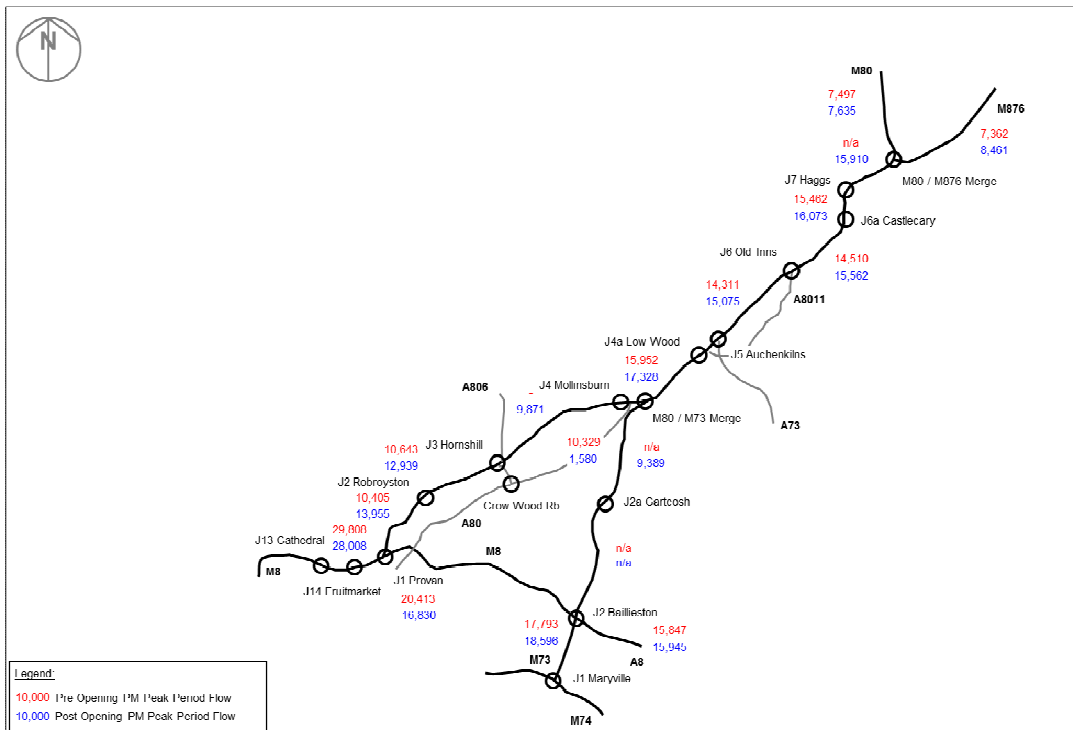


Figure B.2b: Comparison of Pre and Post Opening PM Peak Period Traffic Flows



B.2 COMPARISON BETWEEN PRE AND POST OPENING JOURNEY TIMES

Table B.5a: Travel Time Data - Route 1 - A80 / M80

Direction	Average Journey Time		Time Savings (mins / secs)	% Saving
	Observed Pre Opening (2005 – 2007)	Observed Post Opening (2013)		
AM Peak				
Northbound	15 mins 35 secs	14 mins 06 secs	1 mins 29 secs	10%
Southbound	18 mins 41 secs	13 mins 39 secs	5 mins 02 secs	27%
Inter Peak				
Northbound	14 mins 59 secs	11 mins 39 secs	3 mins 20 secs	22%
Southbound	15 mins 38 secs	11 mins 28 secs	4 mins 10 secs	27%
PM Peak				
Northbound	16 mins 05 secs	12 mins 44 secs	3 mins 21 secs	21%
Southbound	16 mins 05 secs	13 mins 05 secs	3 mins	19%

Table B.5b: Travel Time Data - Route 2 – Westfield Rd / Eastfield Rd

Direction	Average Journey Time		Time Savings (mins / secs)	% Saving
	Observed Pre- Opening (2005 - 2007)	Observed Post Opening (2013)		
AM Peak				
Northbound	16 mins 59 secs	17 mins 42 secs	+43 secs	-4%
Southbound	19 mins 0 secs	18 mins 31 secs	29 secs	3%
Inter Peak				
Northbound	N/A	16 mins 53 secs	-	-
Southbound	N/A	16 mins 59 secs	-	-
PM Peak				
Northbound	17 mins 48 secs	19 mins 00 secs	+1 min 12 secs	-7%
Southbound	18 mins 51 secs	18 mins 13 secs	38 secs	3%

Table B.5c: Travel Time Data - Route 3 - A8011 Cumbernauld / Mollinsburn

Direction	Average Journey Time		Time Savings (mins / secs)	% Saving
	Observed Pre-Opening (2005 - 2007)	Observed Post Opening (2013)		
AM Peak				
Northbound	12 mins 20 secs	13 mins 04 secs	+44 secs	-6%
Southbound	12 mins 10 secs	12 mins 33 secs	+23 secs	-3%
Inter Peak				
Northbound	N/A	12 mins 36 secs	-	-
Southbound	N/A	12 mins 08 secs	-	-
PM Peak				
Northbound	12 mins 24 secs	13 mins 03 secs	+39 secs	-5%
Southbound	11 mins 0 secs	12 mins 09 secs	+1 min 9 secs	-10%

Table B.6a: Detailed Travel Time Data (AM Peak Period) - Route 1 - A80 / M80

Route Section	Observed Pre-Opening (2005 - 2007)		Observed Post Opening (2013)		Time Savings (mins / secs)	
	Nb	Sb	Nb	Sb	Nb	Sb
M80(T) J2 to M73(T) Merge	5 mins 43 secs	8 mins 50 secs	5 mins 20 secs	6 mins 48 secs	23 secs	2 mins 2 secs
M73(T) Merge to M80(T) J4a Low Wood	3 mins 20 secs	3 mins 36 secs	1 min 35 secs	1 min 10 secs	1 min 45 secs	2 mins 26 secs
M80(T) J4a Low Wood to M80(T) J5 Auchenkilns	37 secs	35 secs	42 secs	31 secs	-5 secs	4 secs
M80(T) J5 Auchenkilns to M80(T) J6 Old Inns	2 mins 40 secs	2 mins 50 secs	3 mins 27 secs	2 mins 22 secs	-47 secs	28 secs
M80(T) J6 Old Inns to M80(T) J6a Castlecary	2 mins 19 secs	2 mins 9 secs	2 mins 17 secs	2 mins	2 secs	9 secs
M80(T) J6a Castlecary to M80(T) J7 Haggs	56 secs	41 secs	46 secs	46 secs	10 secs	-5 secs

Table B.6b: Detailed Travel Time Data (IP Period) - Route 1 - A80 / M80

Route Section	Observed Pre-Opening (2005 - 2007)		Observed Post Opening (2013)		Time Savings (mins / secs)	
	Nb	Sb	Nb	Sb	Nb	Sb
M80(T) J2 to M73(T) Merge	6 mins 10 secs	7 mins 41 secs	5 mins 10 secs	5 mins 19 secs	1 min	2 mins 22 secs
M73(T) Merge to M80(T) J4a Low Wood	3 mins 16 secs	2 mins 20 secs	1 min 14 secs	1 min 4 secs	2 mins 2 secs	1 min 16 secs
M80(T) J4a Low Wood to M80(T) J5 Auchenkilns	35 secs	20 secs	30 secs	29 secs	5 secs	-9 secs
M80(T) J5 Auchenkilns to M80(T) J6 Old Inns	2 mins 30 secs	2 mins 27 secs	2 mins 22 secs	2 mins 7 secs	8 secs	20 secs
M80(T) J6 Old Inns to M80(T) J6a Castlecary	1 min 45 secs	2 mins 13 secs	1 min 41 secs	1 min 46 secs	4 secs	27 secs
M80(T) J6a Castlecary to M80(T) J7 Haggs	43 secs	38 secs	42 secs	42 secs	1 sec	-4 secs

Table B.6c: Detailed Travel Time Data (PM Peak Period) - Route 1 - A80 / M80

Route Section	Observed Pre-Opening (2005 - 2007)		Observed Post Opening (2013)		Time Savings (mins / secs)	
	Nb	Sb	Nb	Sb	Nb	Sb
M80(T) J2 to M73(T) Merge	6 mins 50 secs	7 mins 23 secs	5 mins 30 secs	5 mins 34 secs	1 min 20 secs	1 min 49 secs
M73(T) Merge to M80(T) J4a Low Wood	3 mins 32 secs	2 mins 27 secs	1 min 19 secs	1 min 9 secs	2 mins 13 secs	1 min 18 secs
M80(T) J4a Low Wood to M80(T) J5 Auchenkilns	37 secs	20 secs	33 secs	34 secs	4 secs	-14 secs
M80(T) J5 Auchenkilns to M80(T) J6 Old Inns	2 mins 30 secs	2 mins 33 secs	2 mins 35 secs	2 mins 32 secs	-5 secs	1 sec
M80(T) J6 Old Inns to M80(T) J6a Castlecary	1 min 50 secs	2 mins 36 secs	2 mins	2 mins 18 secs	-10 secs	18 secs
M80(T) J6a Castlecary to M80(T) J7 Haggs	47 secs	46 secs	47 secs	1 min	0 secs	-14 secs

Table B.7: Travel Time Reliability

Direction	Observed Pre-Opening Journey Times (2005 – 2007)				Observed Post Opening Journey Times (2013)			
	Min	Max	Range	SD	Min	Max	Range	SD
AM Peak								
Northbound	13m 14s	25m 12s	11m 58s	3m 7s	10m 47s	19m 51s	9m 4s	3m 1s
Southbound	13m 51s	37m 16s	23m 25s	4m 38s	10m 35s	19m 25s	8m 50s	2m 32s
Inter Peak								
Northbound	14m 4s	15m 35s	1m 31s	26s	10m 22s	12m 30s	2m 8s	33s
Southbound	15m 4s	16m 29s	1m 25s	28s	10m 32s	12m 4s	1m 32s	25s
PM Peak								
Northbound	14m 9s	22m 23s	8m 14s	1m 25s	11m 20s	15m 29s	4m 9s	54s
Southbound	14m 31s	23m 19s	8m 48s	1m 21s	11m 52s	14m 23s	2m 31s	38s

Figure B.3: SRTDb ATC Location Plan – Local Road Network

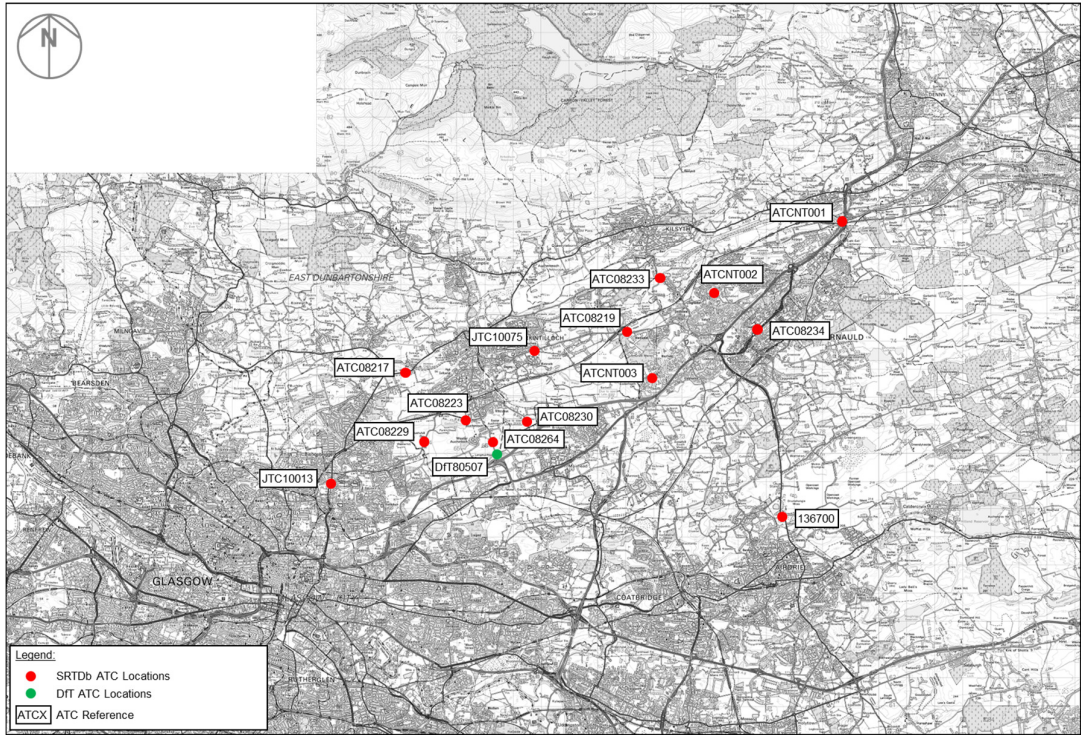
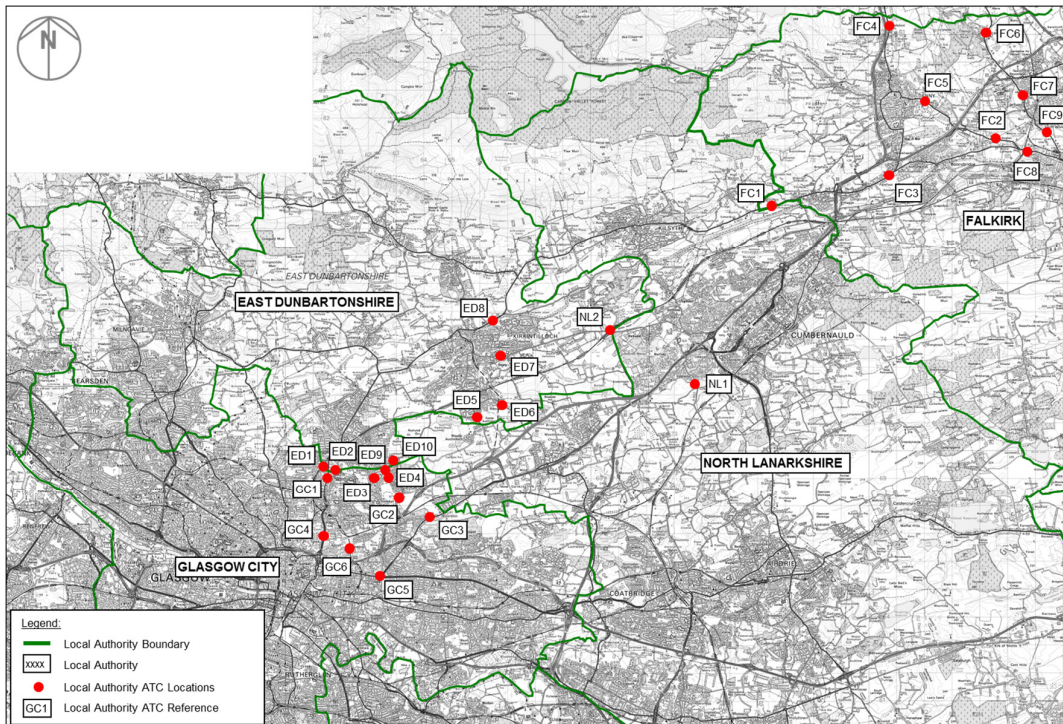


Figure B.4: Local Authority Area Boundaries and ATC Locations



B.3 COMPARISON BETWEEN PRE AND POST OPENING VEHICLE SPEEDS

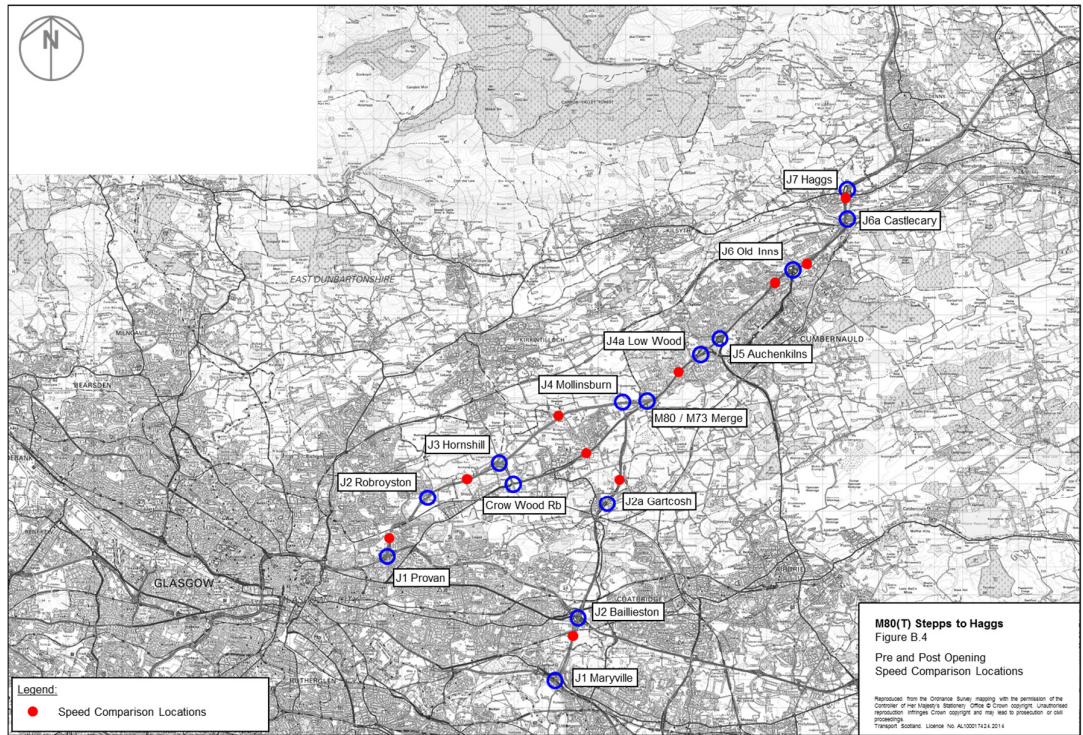
Table B.8a: Assessment of Mean Vehicle Speeds (mph) – May 2008 / 2013

	AM Period (08:00 – 10:00)		IP Period (12:00 – 14:00)		PM Period (16:00 – 18:00)	
	N/B	S/B	N/B	S/B	N/B	S/B
M80 J1 (Provan) - M80 J2 (Robroyston)						
Pre-Opening	60	58	59	59	57	57
Post Opening	56	42	55	49	54	50
M80 J2 (Robroyston) - M80 J3 (Hornhill)						
Pre-Opening	50	59	48	60	46	61
Post Opening	62	56	60	59	59	60
M80 J3 (Hornhill) - M80 J4 (Mollinsburn) - Moodiesburn Bypass Section						
Pre-Opening	N/A	N/A	N/A	N/A	N/A	N/A
Post Opening	65	66	65	66	64	67
M73 Merge - M80 J4a (Low Wood)						
Pre-Opening	60	58	59	59	57	57
Post Opening	61	65	63	64	60	64
M80 J5 (Auchenkilns) - M80 J6 (Old Inns)						
Pre-Opening	58	64	58	62	59	60
Post Opening	57	61	61	61	58	57
M80 J6 (Old Inns) - M80 J6a (Castlecary)						
Pre-Opening	60	60	61	57	61	52
Post Opening	59	62	63	61	61	57
M80 J6a (Castlecary) - M80 J7 (Haggs)						
Pre-Opening	59	64	60	64	60	59
Post Opening	63	60	62	62	56	60
M73 J2a (Gartcosh) - M73 J3 (Mollinsburn)						
Pre-Opening	66	66	67	65	66	66
Post Opening	62	62	63	62	63	61
M73 J1 (Daldowie) - M73 J2 (Baillieston Interchange)						
Pre-Opening	62	66	62	66	63	65
Post Opening	62	56	63	62	61	52
A80 Cumbernauld Road at Moodiesburn						
Pre-Opening	36	37	34	39	27	39
Post Opening	41	41	40	41	40	41

Table B.8b: Assessment of Mean Vehicle Speeds (mph) – October 2008 / 2012

	AM Period (08:00 – 10:00)		IP Period (12:00 – 14:00)		PM Period (16:00 – 18:00)	
	N/B	S/B	N/B	S/B	N/B	S/B
M80 J1 (Provan) - M80 J2 (Robroyston)						
Pre-Opening	54	51	57	57	50	53
Post Opening	56	42	55	49	54	50
M80 J2 (Robroyston) - M80 J3 (Hornhill)						
Pre-Opening	49	56	48	58	44	58
Post Opening	62	54	61	59	58	60
M80 J3 (Hornhill) - M80 J4 (Mollinsburn) - Moodiesburn Bypass Section						
Pre-Opening	N/A	N/A	N/A	N/A	N/A	N/A
Post Opening	64	66	65	66	63	66
M73 Merge - M80 J4a (Low Wood)						
Pre-Opening	54	51	57	57	50	53
Post Opening	56	64	63	64	61	64
M80 J5 (Auchenkilns) - M80 J6 (Old Inns)						
Pre-Opening	49	62	60	64	57	55
Post Opening	54	62	63	63	61	58
M80 J6 (Old Inns) - M80 J6a (Castlecary)						
Pre-Opening	53	56	61	55	59	44
Post Opening	58	60	63	61	61	58
M80 J6a (Castlecary) - M80 J7 (Haggs)						
Pre-Opening	54	63	60	63	57	63
Post Opening	61	57	61	62	57	61
M73 J2a (Gartcosh) - M73 J3 (Mollinsburn)						
Pre-Opening	N/A	N/A	N/A	N/A	N/A	N/A
Post Opening	60	61	63	61	63	62
M73 J1 (Daldowie) - M73 J2 (Baillieston Interchange)						
Pre-Opening	62	64	62	64	62	64
Post Opening	59	57	61	61	59	53
A80 Cumbernauld Road at Moodiesburn						
Pre-Opening	36	36	34	39	27	39
Post Opening	41	41	41	41	40	41

Figure B.5: Comparison of Pre and Post Opening Vehicle Speed Locations



B.4 COMPARISON BETWEEN PRE AND POST OPENING ACCIDENT DATA

Table B.9a: 5 Year Pre-Opening Accident Data Summary

Period	Fatal	Serious	Slight	Total
5 Years Before (August 2003 – August 2008)				
Trunk Routes (including A80)				
A80(T) Blackhill to Stepps	2	2	42	46
A80(T) Stepps to Mollinsburn	1	9	61	71
A80(T) Mollinsburn to Old Inns	2	7	68	77
A80(T) Old Inns to Haggs	1	6	22	29
M80(T) Haggs to Dennyloanhead	2	1	11	14
M80(T) Dennyloanhead to Stirling Services	1	4	7	12
M876(T) Haggs to Larbert	0	0	8	8
M8(T) Royston to M80 Junction	0	2	34	36
M73(T) Mollinsburn to Marnoch	0	0	15	15
Total – Trunk Routes	9	31	268	308
Other Local Routes				
B802 A80 to Kilsyth	0	5	36	41
Westfield/Eastfield Rd Link	0	11	51	62
A8011 through Cumbernauld	3	8	31	42
A73 Rigghead to A80	0	2	13	15
A806 Stepps to Kirkintilloch	0	4	12	16
A80 Riddrie to Stepps	0	3	45	48
A803 Bishopbriggs to Haggs	3	21	112	136
A803 Haggs to Falkirk	0	6	26	32
A883 Denny to Carmuir	0	8	28	36
A872 Dennyloanhead to Stirling Services	0	3	19	22
Total – Local Routes	6	71	373	450
Total - Wider Study Area*	30	277	1549	1856

*Total study area' includes all defined zones plus all routes within wider zone i.e. B/C and unclassified routes

Table B.9b: 3 Year Pre Opening Accident Data Summary

Period	Fatal	Serious	Slight	Total
3 Years Before (August 2005 – August 2008)				
Trunk Routes (including A80)				
A80(T) Blackhill to Stepps	1	1	30	32
A80(T) Stepps to Mollinsburn	1	6	33	40
A80(T) Mollinsburn to Old Inns	2	5	36	43
A80(T) Old Inns to Haggs	1	4	12	17
M80(T) Haggs to Dennyloanhead	2	0	7	9
M80(T) Dennyloanhead to Stirling Services	0	2	4	6
M876(T) Haggs to Larbert	0	0	6	6
M8(T) Royston to M80 Junction	0	1	21	22
M73(T) Mollinsburn to Marnoch	0	0	5	5
Total – Trunk Routes	7	19	154	180
Other Local Routes				
B802 A80 to Kilsyth	0	3	22	25
Westfield/Eastfield Rd Link	0	7	22	29
A8011 through Cumbernauld	2	8	20	30
A73 Rigghead to A80	0	1	3	4
A806 Stepps to Kirkintilloch	0	2	5	7
A80 Riddrie to Stepps	0	1	26	27
A803 Bishopbriggs to Haggs	3	14	65	82
A803 Haggs to Falkirk	0	2	15	17
A883 Denny to Carmuir	0	2	17	19
A872 Dennyloanhead to Stirling Services	0	1	11	12
Total – Local Routes	5	41	206	252
Total - Wider Study Area*	18	163	867	1048

*'Total study area' includes all defined zones plus all routes within wider zone i.e. B/C and unclassified routes

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Table B.9c: 1 Year Post Opening Accident Data Summary

Period	Fatal	Serious	Slight	Total
1 Year After (July 2012 – June 2013)				
Trunk Routes (including upgraded M80)				
M80(T) Blackhill to Stepps	0	1	6	7
Bypassed A80 Stepps to Mollinsburn	0	0	0	0
M80(T) Hornshill to Mollinsburn (Mollinsburn Bypass Section)	0	0	0	0
M80(T) Mollinsburn to Old Inns	0	1	13	14
M80(T) Old Inns to Haggs	0	0	3	3
M80(T) Haggs to Dennyloanhead	0	0	9	9
M80(T) Dennyloanhead to Stirling Services	0	1	4	5
M876(T) Haggs to Larbert	0	0	1	1
M8(T) Royston to M80 Junction	0	0	2	2
M73(T) Mollinsburn to Marnoch	0	1	2	3
Total – Trunk Routes	0	4	40	44
Other Local Routes				
B802 A80 to Kilsyth	0	1	2	3
Westfield/Eastfield Rd Link	0	0	4	4
A8011 through Cumbernauld	1	1	1	3
A73 Rigghead to A80	0	1	3	4
A806 Stepps to Kirkintilloch	0	2	4	6
A80 Riddrie to Stepps	0	0	4	4
A803 Bishopbriggs to Haggs	2	2	16	20
A803 Haggs to Falkirk	0	5	8	13
A883 Denny to Carmuir	0	3	9	12
A872 Dennyloanhead to Stirling Services	0	1	14	15
Total – Local Routes	3	16	65	84
Total - Wider Study Area*	4	42	223	269

*Total study area' includes all defined zones plus all routes within wider zone i.e. B/C and unclassified routes