

TRANSPORT FOR GREATER MANCHESTER
HIGHWAYS FORECASTING AND ANALYTICAL SERVICES

Transport Statistics Manchester 2010

HFAS Report 1657 October 2011

SUMMARY

This report complements HFAS Reports 1654, 'Transport Statistics Greater Manchester 2010' and 1651 'Reported Road Casualty Statistics Greater Manchester 2010'. It focuses on the statistics for the City of Manchester and compares them to those for Greater Manchester where appropriate.

It includes:

- lists and diagrams of traffic flows on major road links
- summaries of traffic profiles at automatic traffic counter sites
- diagrams showing road accident locations by type of accident

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1. INTRODUCTION AND SUMMARY

- 1.1 This report has been written to complement HFAS Reports 1654, 'Transport Statistics Greater Manchester 2010' and 1651 'Reported Road Casualty Statistics Greater Manchester 2010'. Whereas those reports present statistics for Greater Manchester, this report focuses on the City of Manchester and compares it to Greater Manchester where appropriate.
- 1.2 The key points from the report are summarised below.

Key Facts

- Manchester has a population of 483,800 and covers an area of 116 square kilometres.
- There are 1,373 kilometres (km) of road consisting of 17 km trunk motorway, 3 km principal motorway, 2 km trunk A road, 112 km principal A road, 37 km B road, 84 km other classified road and 1116 km unclassified road. Any discrepancies between these figures and those listed in table 4 are due to the simplification of the network used.
- The average daily flow per kilometre is 91,000 vehicles on motorways, 23,000 on A roads and 12,300 on B roads.
- There were 1425 injury collisions in Manchester during 2010 resulting in 1962 casualties. There were 166 killed or seriously injured (KSI) casualties.
- Manchester was awarded an allocation of £3.47 million through the LTP process in 2011/12.

Traffic Flows

- The busiest motorway section was on the M56 between Junctions 3 and 4 where the 24-hour Annual Average Weekday Traffic (AAWT) flow reached an estimated 154,000 vehicles.
- The busiest non-trunk (maintained by the local authority) road was on the A57(M) Mancunian Way between Upper Brook Street and Cambridge Street where the 24-hour AAWT flow reached an estimated 83,500 vehicles.
- The road with the highest 12-hour weekday pedal cycle flow was the B5117 Oxford Road near the University of Manchester with 1602 pedal cycles between 07:00 and 19:00.
- The average 12-hour weekday pedal cycle flows on A and B roads in Manchester were 211 and 298 respectively. These are much higher than the averages for all districts of 107 pedal cycles for A and 100 pedal cycles for B roads.

Traffic Growth

- 24-hour weekday flows on motorways saw a 3% decrease in Manchester and a decrease of 2% in Greater Manchester as a whole between 2009 and 2010.
- 12-hour weekday flows on A and B roads showed a 3% decrease in Manchester and a 2% decrease in Greater Manchester as a whole.
- Since 1993, traffic flows on A and B roads in Manchester have decreased by 15% compared to a 3% decrease in Greater Manchester and a 2% increase nationally.

Annual Vehicle Kilometres

- 578 million vehicle kilometres were travelled on motorways, 977 million on A roads and 162 million on B roads.
- Motorways, A roads and B roads in Manchester carried 13% of the major road traffic in Greater Manchester on 12% of the major road network.

Traffic Composition

- Motorways: 81% cars, 11% light goods vehicles (LGVs), 8% other goods vehicles (OGVs) and 1% other vehicles.
- A roads: 82% cars, 10% LGVs, 4% OGVs and 4% other vehicles.
- B roads: 81% cars, 10% LGVs, 1% OGVs and 8% other vehicles.
- Minor roads: 85% cars, 11% LGVs, 1% OGVs and 3% other vehicles.
- Traffic composition on Manchester's major road network was broadly similar to Greater Manchester.

Rail Patronage

- The number of boarders travelling inbound to Manchester on the Styal corridor (excluding Manchester Airport) in 2010 was 1054 in the peak (07:30-09:30) and 623 in the off-peak (09:30-13:30). These figures represent increases of 11% and 27% respectively since 2009, and increases of 109% and 123% respectively since 1991.

Key Centre Monitoring

- Traffic flows have decreased substantially in the morning and off-peak between 1997 and 2011. The car parking strategy and the completion of the Inner Relief Route and have both contributed to the increase in non-car mode share for Manchester.
 - All trips in the morning peak increased by 5% between 2002 and 2011. Car trips decreased by 16% and bus trips decreased by 11% while rail trips increased by 40%. Metrolink trips increased by 8%, walking by 74% and cycle trips more than doubled.
-

- The number of vehicles crossing the cordon into Manchester city centre in 2011 was about 25,400 in the morning peak and 13,900 in the off-peak, representing decreases of 23% and 26% respectively from vehicle numbers in 1997.
- The inbound modal share in 2011 was 30% car and 70% non-car in the morning peak and 30% car and 70% non-car in the off peak.

Automatic Traffic Counts at Manchester Key Centre Cordon Sites

- Automatic Traffic Counts were last carried out in 2009.
- Morning weekday peak flows and 24-hour average weekday flows decreased by 17% and 13% respectively between the base year (2006) and 2009.

Road Traffic Casualties

- The total number of injury reported accidents in Manchester was 1425 in 2010, 47% lower than the average from the base years (1994-1998) and 17% lower than the 1707 in 2009.
- The total number of casualties in Manchester was 1962, 46% lower than the average from the base years (1994 – 1998) and 18% lower than the 2404 in 2009.
- There were 166 killed or seriously injured (KSI) in 2010 compared with an average of 294 KSI in the base years.
- The 2008-2010 three-year average used for monitoring KSI GMLTP2 targets was 38% below the average from the base years (1994 – 1998).
- The 2008-2010 three-year average for child KSI casualties was 59% below the baseline average and was 9% below the 2010 GMLTP2 target.
- Slight casualties in 2010 were 47% below the base years' average and 24% below the 2010 GMLTP2 target.

Congestion

- Average journey time rates in Manchester increased in all time periods between 2008/09 and 2009/10, with the exception of the 1000-1600 time period. Average speeds for Manchester were slower than for Greater Manchester as a whole.
- The lowest speeds in the morning peak hour (0800 – 0900) were on roads in and around the city centre. Some areas to the south and east of the city centre also had slow roads, such as Didsbury, Rusholme, Longsight and Northern Moor. Roads which seem particularly affected include the B5117 Oxford Road/Wilmslow Road and the area surrounding the junction between the A6 Stockport Road and the A6010 Dickenson Road.

2. ROAD TRAFFIC

Traffic Flows 2010

2.1 Road traffic figures and traffic growth for Manchester must be treated with caution since the sample size for a single district is smaller than for the county as a whole. Appendix 1 gives 24-hour AAWT flows and the most recent 12-hour (07:00-19:00) weekday pedal cycle flow information for all major road links in Manchester.

- The busiest motorway section was on the M56 between Junctions 3 and 4 where the 24-hour AAWT flow reached an estimated 154,000 vehicles.
- The busiest non-trunk (maintained by the local authority) road was on the A57(M) Mancunian Way between Upper Brook Street and Cambridge Street where the 24-hour AAWT flow reached an estimated 83,500 vehicles.
- The second list in Appendix 1 shows that the road with the highest 12-hour weekday pedal cycle flow was the B5117 Oxford Road near the University of Manchester with 1602 pedal cycles between 07:00 and 19:00. This was also the highest cycle flow anywhere in Greater Manchester.
- The average 12-hour weekday pedal cycle flows on A and B roads in Manchester were 211 and 298 respectively. These are much higher than the averages for all districts of 107 pedal cycles for A roads and 100 for B roads.

Motorway Traffic Growth 2009-2010

2.2 Due to insufficient reliable manual count data, motorway traffic growth has been calculated using a combination of manual counts and 24-hour average weekday ATC data supplied by the Highways Agency. ATC data is unclassified and goods vehicle estimates are based on the most recent manual counts factored to 2009 or 2010. Combined goods vehicle flow differences are thought to be more reliable than LGV and OGV differences.

2.3 Table 1 gives 24-hour annual average weekday traffic flows on the ten motorway sections in Manchester for which ATC or manual data was available in both 2009 and 2010 together with percentage changes in flow since 2009. Countywide figures based on 58 motorway sections are also given.

- The average traffic flow for the surveyed sites decreased by 3% between 2009 and 2010, compared to the traffic growth for Greater Manchester as a whole, which decreased by 2%.

Table 1 Average 24-Hour Weekday Motorway Flows in 2010 with Percentage Changes Since 2009									
		LGV	%	OGV	%	Goods	%	All Motors	%
M56	Bet Jn 3 & A5103 Princess Parkway	8600	(-0)	4600	(7)	13200	(2)	90900	(2)
	Bet Jns 1 & 2	10800	(-13)	6700	(-6)	17400	(-10)	88800	(-11)
	Bet Jns 2 & 3	6900	(-7)	5700	(-1)	12600	(-5)	63100	(-5)
	Bet Jns 3 & 4	14300	(-16)	12600	(19)	26900	(-2)	154000	(-1)
	Bet Jns 4 & 5	12900	(-14)	10200	(7)	23100	(-6)	133900	(-2)
	Bet Jns 5 & 6	12800	(1)	10700	(-8)	23500	(-3)	129100	(2)
	Bet Jns 6 & 7	10800	(-12)	9500	(-1)	20300	(-7)	111200	(-12)
	Airport Link	2300	(-3)	500	(4)	2900	(-2)	57900	(-1)
M60	Bet Jns 4 & 5	8500	(-17)	4700	(-23)	13300	(-19)	82200	(-4)
	Bet Jns 5 & 6	14700	(-14)	9600	(11)	24300	(-5)	124200	(-1)
	Bet Jns 19 & 20	12900	(-11)	7200	(-4)	20100	(-8)	92400	(-9)
	Bet Jns 20 & 21	12200	(2)	9600	(18)	21800	(9)	86600	(2)
Manchester Sample		10600	(-10)	7600	(2)	18300	(-5)	101200	(-3)
GM 58 links		13600	(-4)	11300	(4)	24900	(-1)	110400	(-2)

A and B Road Traffic Growth 2009-2010

2.4 Table 2 gives average 12-hour traffic flows in Manchester in 2010 together with percentage changes since 2009. The figures for A and B road growth are based on counts on 32 of the 154 A and B road links in Manchester.

- All motor traffic flows showed a 3% decrease in Manchester and a 2% decrease in Greater Manchester as a whole.

Table 2 Average 12-Hour Weekday A and B Traffic Flows in 2010 with Percentage Changes Since 2009									
	No. of Sites	Cars	(%)	LGV	(%)	OGV	(%)	All Motors	(%)
Manchester	32	20771	(-4)	2450	(-2)	861	(8)	24730	(-3)
Greater Manchester	176	17105	(-2)	2378	(-4)	856	(2)	20728	(-2)

Traffic Growth Since 1993

2.5 Table 3 and Figure 1 illustrate local and national traffic growth since 1993. Traffic growth for Manchester and Greater Manchester is based on 12-hour average weekday flows on a sample of A and B links throughout Manchester and Greater Manchester. National growth is based on average 24-hour daily traffic flow data for major urban A roads published in Table 2.1 Road Statistics 2010: Traffic, Speeds and Congestion DfT.

- The completion of the M60 in October 2000 reduced traffic on inner radial routes resulting in lower traffic flows on Manchester’s roads.
- Since 1993 traffic has decreased by 15% on A and B roads in Manchester, decreased by 3% in Greater Manchester and grown by 2% nationally.

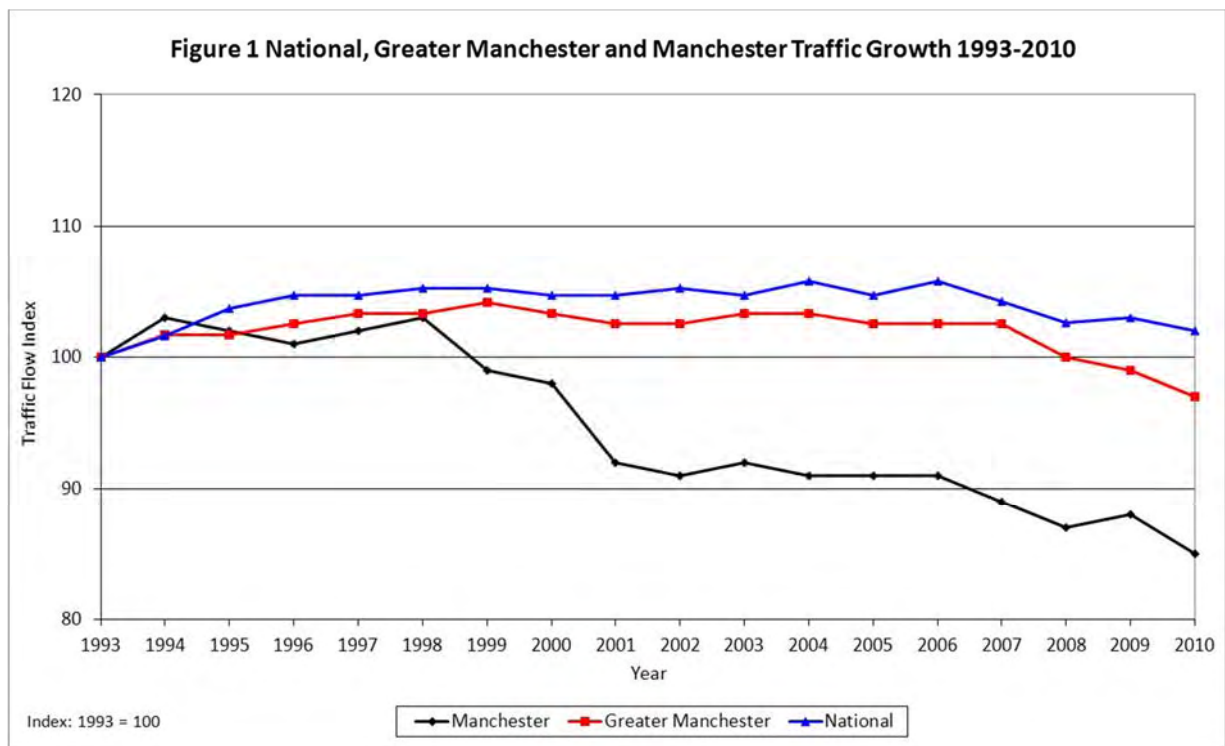


Table 3 National, Greater Manchester and Manchester Traffic Growth 1993- 2010			
	Manchester	Greater Manchester	National
1993	100	100	100
1994	103	102	102
1995	102	102	104
1996	101	102	105
1997	102	103	105
1998	103	103	105
1999	99	104	105
2000	98	103	105
2001	92	102	105
2002	91	102	105
2003	92	103	105
2004	91	103	106
2005	91	102	105
2006	91	102	106
2007	89	102	104
2008	87	100	103
2009	88	99	103
2010	85	97	102
Index: 1993 = 100			

Notes: Traffic growth for Manchester and Greater Manchester has been based on 12-hour average weekday flows on a sample of A and B road links throughout Manchester and Greater Manchester. 1993 – 2010 National growth is based on average 24-hour daily traffic flow data for major urban A Roads published in Table 2.1 Road Traffic Statistics 2010: Traffic, Speeds and Congestion DfT.

Annual Vehicle Kilometres 2010

2.6 Table 4 shows annual vehicle kilometres on major roads in Manchester and Greater Manchester in 2010:

- Motorways made up 10% of Manchester's major road network and carried 34% of major road traffic. These figures are lower than for the county as a whole where motorways made up 12% of the major road network and carried 45% of major road traffic.
- Motorways carried 46% of all goods traffic on major roads in Manchester. This is much lower than for Greater Manchester as a whole where motorways carried 62% of all major road goods traffic.
- A roads (including the A57(M)) made up 68% of Manchester's network and carried 57% of the traffic. These figures are higher than for Greater Manchester as a whole where A roads formed 61% of the major road network and carried 44% of the traffic.
- B roads made up 21% of Manchester's major road network and carried 9% of the traffic. In contrast, B roads formed 27% of Greater Manchester's network and carried 11% of the traffic.
- Motorways, A roads and B roads in Manchester carried 13% of the traffic on major roads in Greater Manchester on 12% of the major road network.

Table 4 Vehicle Kilometres in 2010								
	Road Type	Length (km)	Vehicle Kilometres (millions)					Av. Daily Flow per km
			Cars	LGV	OGV	All Goods	All Motors	
Manchester	Motorway	17	469	61	44	105	578	91000
	A Roads	116	846	80	25	105	977	23000
	B Roads	36	141	13	2	15	162	12300
	All Roads	170	1456	154	71	226	1717	27700
Greater Manchester	Motorway	171	4392	727	629	1355	5787	92600
	A Roads	863	4874	520	169	689	5666	18000
	B Roads	375	1260	125	23	149	1438	10500
	All Roads	1409	10526	1372	821	2193	12891	25100

Notes: Figures may not sum due to rounding. Road lengths are based on the link lengths of a model road network and may differ slightly from other sources, eg Greater Manchester Network Information System (GMNIS) and as quoted by DfT form R199b.

Traffic Composition 2010

2.7 Table 5 shows the percentage composition of traffic in Manchester in 2010 compared to Greater Manchester as a whole.

- Traffic composition on Manchester's major road network was broadly similar to Greater Manchester.
- Buses make up notably more of the traffic on A and B roads than the countywide average.
- Pedal cycles formed a higher proportion of the total traffic in Manchester compared to Greater Manchester as a whole. They also make up much more of the traffic on B roads than the countywide average.
- The proportion of OGV1 vehicles is higher in Manchester compared to the county as a whole, particularly on B Road and minor roads.
- There is a higher proportion of cars on Manchester's motorways compared to Greater Manchester as a whole

Table 5 Percentage Composition of Traffic in Manchester and Greater Manchester 2010 (0700-1900)		Cars	LGV	OGV1		OGV2		Buses and Coaches	M/C	P/C
Manchester	Motorways	80.6	10.5	4.4	(55)	3.7	(45)	0.5	0.3	0.0
	A Roads	82.3	10.3	2.7	(72)	1.1	(28)	2.1	0.6	0.8
	B Roads	80.9	9.6	1.1	(88)	0.2	(12)	4.6	0.5	3.1
	Minor Roads	85.0	10.5	1.0	(82)	0.2	(18)	1.3	0.3	1.5
Greater Manchester	Motorways	76.8	12.3	5.3	(51)	5.0	(49)	0.3	0.4	0.0
	A Roads	81.7	11.4	2.9	(68)	1.3	(32)	1.4	0.6	0.6
	B Roads	82.8	11.4	1.4	(75)	0.5	(25)	2.1	0.6	1.1
	Minor Roads	83.7	11.2	1.5	(77)	0.4	(23)	1.7	0.4	1.1

Notes: LGV = Commercial Vehicles with 2 axles and up to 6 wheels without a side bar.
 OGV1 = Medium Goods Vehicles with 2 axles and up to 6 wheels with a side bar and Rigid Heavy Goods Vehicles with 3 axles.
 OGV2 = All Articulated Heavy Goods Vehicles and Rigid Heavy Goods Vehicles with 4 or more axles.

Figures in parentheses are the percentage split between OGV1 and OGV2.

Figures may not sum due to rounding.

3. PUBLIC TRANSPORT

Rail and Metrolink Patronage

3.1 Tables 6 and 7 compare rail patronage in the Styal corridor and Greater Manchester as a whole in the years 1991 and 1998-2010. Figures for the Styal line, excluding Manchester Airport, and Greater Manchester are based on boarders of trains inbound towards Manchester. Figures for the Styal line, including the Airport, include all boarders at Manchester Airport.

- If Manchester Airport is excluded, there was an 11% increase in peak patronage on the Styal line between 2009 and 2010. This compares with a 4% decrease on the Greater Manchester rail network as a whole in the same period.
- In the off-peak period, Styal line (excluding Manchester Airport) patronage has increased by 27% between 2009 and 2010. For the same period, Greater Manchester as a whole has increased by 3%.

Table 6 Manchester Bound Rail Boarders Comparison – Styal Corridor and Greater Manchester 1991 & 1998-2010 Peak Period 07:30-09:30											
Line	1991	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Styal Excl. Airport	505	550	460	616	709	802	807	884	966	953	1054
Index	100	109	91	122	140	159	160	175	191	189	209
Styal Incl. Airport	505	806	682	898	1138	1100	1262	1291	1401	1483	1508
Index	100	160	135	178	225	218	250	256	277	294	299
Greater Manchester	9808	11290	10222	11454	12399	13286	13422	14400	14635	14173	13544
Index	100	115	104	117	126	135	137	147	149	145	138

Table 7 Manchester Bound Rail Boarders Comparison – Styal Corridor and Greater Manchester 1991 & 1998-2010 Off-Peak Period 09:30-13:30											
Line	1991	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Styal Excl.											
Airport	280	265	244	332	320	380	430	383	423	492	623
Index	100	95	87	119	114	136	153	137	151	176	209
Styal Incl.											
Airport	280	863	779	1010	1180	1190	1360	1231	1249	1691	1864
Index	100	308	278	361	421	425	486	440	446	604	299
Greater Manchester	4536	6392	5599	7095	6959	7558	8631	9243	9650	9719	10047
Index	100	141	123	156	153	167	190	204	213	214	221

Notes:

Greater Manchester figures for 1991 are based on full counts at every station in each corridor. Styal line figures for 1991, 1999, 2002, 2005 and 2008 are also based on full counts each year. All other figures are estimates based on all available counts each year.

Industrial Action:

There was sustained industrial action in 2002 by employees of First North Western and Arriva. While the surveys avoided all strike days, the work to rule by First North Western staff in particular may have had an effect on passenger numbers.

- 3.2 Tables 8 and 9 show passengers at Manchester rail and Metrolink stations boarding and alighting inbound trains/trams to Manchester City Centre in the morning peak (07:30-09:30) and off-peak (09:30-13:30) respectively. All stations in Manchester are shown together with patronage details where available.

Table 8 Numbers of Passengers Boarding and Alighting Manchester Bound Trains/Trams in Manchester District 1991 & 1998-2010 Peak (07:30-09:30)												
Station		1991	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ardwick	B	1	-	-	-	-	-	-	-	0	-	-
	A	-	-	-	-	-	-	-	-	5	-	-
Ashburys	B	12	-	7	-	-	-	-	-	0	-	-
	A	-	-	69	-	-	-	-	-	5	-	-
Belle Vue	B	7	-	4	-	-	2	-	-	1	-	-
	A	-	-	3	-	-	1	-	-	2	-	-
Bowker Vale*	B	91	292	272	212	293	265	273	267	315	157	240
	A	-	16	11	17	18	16	8	13	20	17	24
Burnage	B	86	79	64	84	107	104	98	131	122	132	166
	A	-	3	9	1	1	1	6	0	0	2	2
Cornbrook***	B	N/A	7	6	2	7	28	55	75	84	56	74
	A	N/A	224	203	222	185	209	220	189	190	182	249
Crumpsall*	B	178	292	234	249	228	239	287	250	335	161	323
	A	-	51	60	53	58	56	57	60	57	37	73
Dean Lane	B	22	15	-	-	27	-	-	11	18	-	-
	A	-	1	-	-	2	-	-	0	2	-	-
East Didsbury	B	77	-	59	-	-	119	-	-	153	-	-
	A	-	-	14	-	-	33	-	-	46	-	-
Gorton	B	69	29	30	44	33	53	58	58	71	60	67
	A	-	12	8	10	8	8	10	15	9	6	13
Levenshulme	B	198	99	101	135	137	172	156	209	209	163	234
	A	-	13	8	10	12	7	13	18	19	16	25
Mcr Airport**	B	-	256	222	282	429	298	455	407	435	530	454
	A	-	373	326	353	565	381	433	544	441	502	438
Mauldeth Road	B	102	44	57	91	113	117	154	161	179	159	205
	A	-	2	3	5	3	5	1	4	3	4	4
Moston	B	38	23	-	-	37	-	-	28	21	30	28
	A	-	2	-	-	0	-	-	1	3	6	11
Ryder Brow	B	-	-	10	-	-	11	-	-	18	-	-
	A	-	-	0	-	-	0	-	-	1	-	-
Woodlands Road*	B	18	68	68	73	74	68	59	71	126	49	100
	A	-	15	15	23	18	19	9	14	23	9	18

Notes: B = Boarders A = Alighters

* These stations are Metrolink stations from 1992.

** Manchester Airport figures are all boarders and alighters at the Airport and include passengers to and from Wilmslow and Crewe in 1998-2007

*** Cornbrook station opened in Dec. 1999 with the Eccles Metrolink extension. Street access available only from Sept. 2005.

Table 9 Numbers of Passengers Boarding and Alighting Manchester Bound Trains in Manchester District 1991 & 1998-2010 Off-Peak (09:30-13:30)												
Station		1991	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ardwick	B	0	-	-	-	-	-	-	-	0	-	-
	A	-	-	-	-	-	-	-	-	0	-	-
Ashburys	B	9	-	9	-	-	-	-	-	0	-	-
	A	-	-	9	-	-	-	-	-	0	-	-
Belle Vue	B	9	-	2	-	-	2	-	-	3	-	-
	A	-	-	1	-	-	1	-	-	0	-	-
Bowker Vale*	B	50	165	155	165	170	178	165	184	204	189	174
	A	-	56	68	46	40	75	42	45	103	66	69
Burnage	B	48	23	34	39	26	45	56	53	48	68	50
	A	-	3	5	4	4	2	4	5	1	6	4
Cornbrook***	B	N/A	17	9	13	17	41	73	70	122	56	80
	A	N/A	161	151	132	172	172	202	187	209	185	192
Crumpsall*	B	144	290	253	277	335	324	380	371	354	274	321
	A	-	54	65	50	72	102	76	62	95	80	75
Dean Lane	B	18	21	-	-	13	-	-	25	24	-	-
	A	-	1	-	-	0	-	-	1	1	-	-
East Didsbury	B	43	-	31	-	-	36	-	-	51	-	-
	A	-	-	6	-	-	9	-	-	16	-	-
Gorton	B	55	32	22	29	21	24	35	41	46	69	56
	A	-	2	6	8	7	5	5	10	4	9	9
Levenshulme	B	220	69	56	93	88	99	95	84	139	135	149
	A	-	24	9	20	7	9	10	13	14	13	20
Mcr Airport**	B	-	598	535	678	860	810	930	848	826	1199	1241
	A	-	520	360	601	620	799	708	920	816	907	896
Mauldeth Road	B	87	45	27	62	71	113	115	113	121	140	214
	A	-	6	5	6	5	3	5	3	5	4	3
Moston	B	29	19	-	-	15	-	-	39	33	53	64
	A	-	3	-	-	2	-	-	5	4	2	5
Ryder Brow	B	-	-	9	-	-	9	-	-	20	-	-
	A	-	-	0	-	-	0	-	-	0	-	-
Woodlands Road*	B	13	114	157	90	76	111	100	86	138	87	120
	A	-	26	22	17	33	29	24	24	29	18	32

Notes: B = Boarders A = Alighters

* These stations are Metrolink stations from 1992.

** Manchester Airport figures are all boarders and alighters at the Airport and include passengers to and from Wilmslow and Crewe in 1998-2007

*** Cornbrook station opened in Dec. 1999 with the Eccles Metrolink extension. Street access available only from Sept. 2005.

3.3 Table 10 shows all passengers boarding and alighting trains inbound and outbound from Manchester City Centre for the most recent year for which data has been collected.

Table 10 Numbers of Passengers Boarding and Alighting Trains in Manchester District (2010)											
Station	Year of Count	AM Peak 07:30-09:29					Off - Peak 09:30-13:29				
		Inbound		Outbound		AM Peak Total	Inbound		Outbound		Off Peak Total
		B	A	B	A		B	A	B	A	
Ardwick	2008	0	5	0	0	5	0	0	0	0	0
Ashburys	2008	0	5	2	13	20	0	0	12	8	20
Belle Vue	2008	1	2	1	1	5	3	0	1	3	7
Bowker Vale*	2010	240	24	189	18	471	174	69	100	52	395
Burnage	2010	166	2	37	11	216	50	4	5	15	74
Cornbrook***	2010	74	249	333	59	715	80	192	210	78	560
Crumpsall*	2010	323	73	205	78	679	321	75	116	150	662
Dean Lane	2008	18	2	5	14	39	24	1	7	4	36
East Didsbury	2008	153	46	37	88	324	51	16	20	40	127
Gorton	2010	67	13	5	4	89	56	9	6	16	87
Levenshulme	2010	234	25	49	29	337	149	20	35	60	264
Manchester Airport**	2010	0	438	454	0	892	0	896	1241	0	2137
Mauldeth Road	2010	205	4	38	11	258	214	3	10	47	274
Moston	2010	28	11	2	12	53	64	5	5	20	94
Ryder Brow	2008	18	1	2	0	21	20	0	0	6	26
Woodlands Road*	2010	100	18	96	36	250	120	32	58	55	265

Notes: B = Boarders A = Alighters

* These stations are Metrolink stations

** Manchester Airport patronage refers to patronage to and from Manchester Airport

*** Cornbrook patronage includes passengers interchanging between Eccles and Altrincham lines. A survey of passengers entering and leaving Cornbrook station was undertaken in November 2007. 148 people entered Cornbrook station in the peak and 59 left. 93 people entered in the off-peak and 57 left. Assuming they all either boarded or alighters a tram it can be estimated that approximately two thirds of the patronage in the peak and three-quarters in the off-peak were interchanging. Approximately half of the people who started their Metrolink journey at Cornbrook travelled towards Manchester in the peak. This rose to three-quarters in the off-peak

4. KEY CENTRE MONITORING

- 4.1 Traffic and rail counts were first conducted on a cordon around Manchester in 1997. After that, Manchester was surveyed in 1999, 2002, 2005, 2006, 2009, 2010 and 2011 to monitor progress towards key objectives in the Greater Manchester Local Transport Plan (GMLTP) and its successor GMLTP2. Pedestrian surveys were added to the programme in 2002.
- 4.2 Tables providing details of road traffic and modal share trends are presented in this report.
- 4.3 CPS (Continuous Passenger Sampling) data has been used to estimate bus trips from 1997 to 2005. In 2006 and 2009, counts of bus passengers crossing the cordon have been conducted and these will now continue annually.
- 4.4 It should be noted that the historic trend for bus patronage is based on CPS data which has been adjusted according to the difference between the manual bus survey results in 2006 and an estimate based on CPS data. CPS data was not designed to provide an accurate picture of bus patronage at such a local level. Neither does it provide the same measure of through passengers as the manual surveys, nor include school or coach passengers.
- 4.5 Metrolink passengers entering the key centre are estimated using counts from the annual rail and Metrolink monitoring programme, which is carried out in the November previous to the manual surveys.

Road Traffic - Inbound

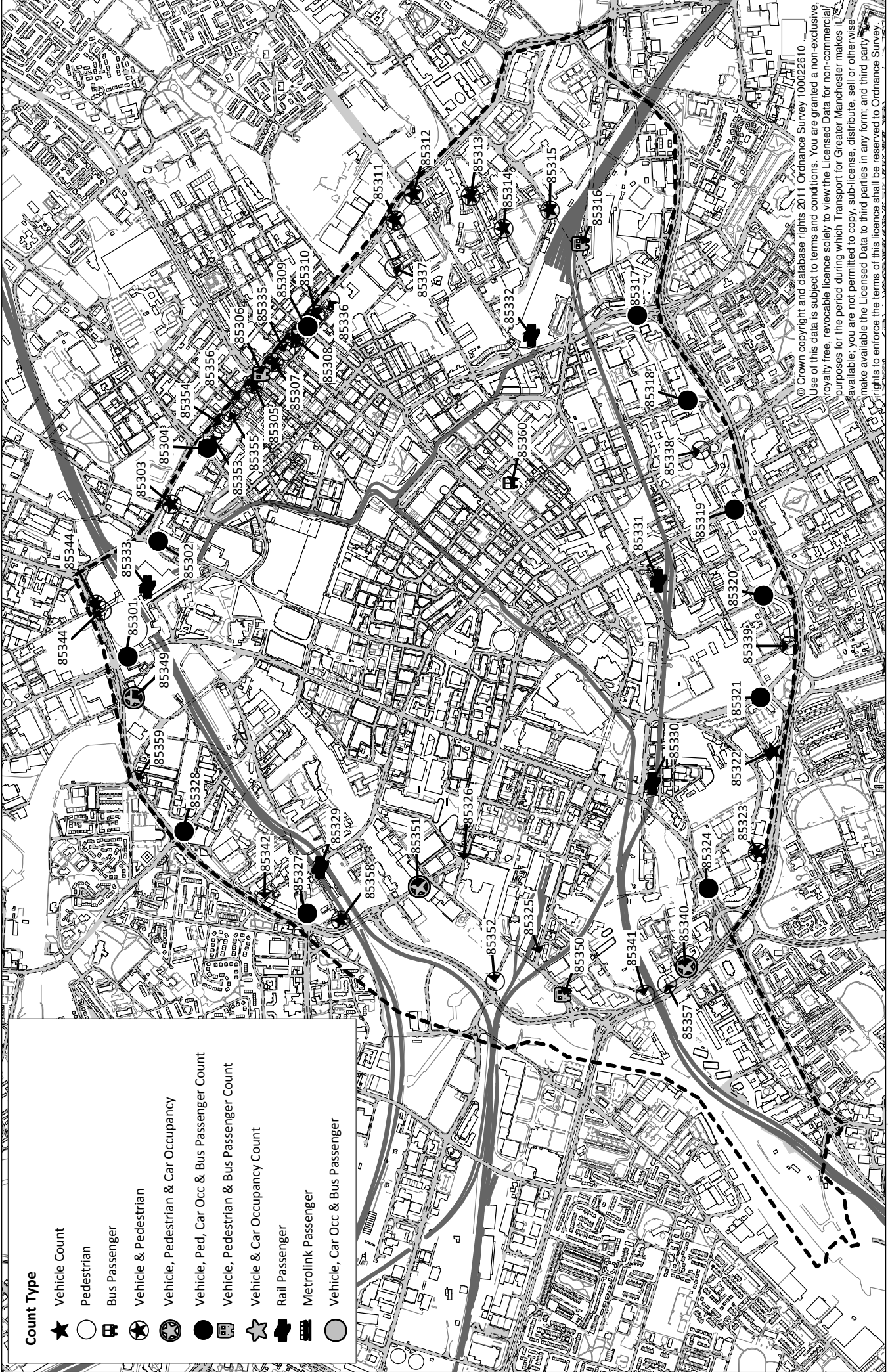
- 4.6 All vehicles crossing a cordon into Manchester Key Centre were counted in the two time periods 07:30-09:30 and 10:00-12:00 on a typical weekday in March 2011
- 4.7 Tables 11 and 12 give manual traffic counts at each individual site on the cordon for each time period. Figure 2 shows the locations of these count sites and the Key Centre boundary.

Table 11 Road Traffic Entering Manchester Key Centre in March 2011 (07:30-09:30)										
Road Number and Site Description	Dir To	Site No	Date	Cars	LGV	OGV	Bus + Coach	Motor Cycles	Pedal Cycles	All Vehs
A56 Gt Ducie St	S	85301	10/03	1487	166	26	22	25	52	1778
A6042 Corporation St	SW	85302	01/03	666	66	14	45	7	39	837
U Dantzie St	SW	85303	01/03	124	6	3	0	2	10	145
A664 Shudehill	SW	85304	01/03	688	56	21	116	10	32	923
U Tib St	SW	85305	01/03	191	20	8	0	1	4	224
U Oldham St	SW	85306	01/03	29	7	0	139	0	27	202
U Spear St	SW	85307	01/03	4	0	0	0	0	0	4
U Little Lever St	SW	85308	01/03	1	1	0	0	0	0	2
A62 Newton St	SW	85309	01/03	921	89	11	5	16	19	1061
U Dean St	SW	85310	-	-	-	-	-	-	-	-
C Ducie St	SW	85311	01/03	499	32	5	3	3	5	547
C Store St	SW	85312	02/03	591	49	9	4	2	15	670
U Chapeltown St	SW	85313	02/03	35	7	0	0	0	0	42
U Baird St	SW	85314	-	-	-	-	-	-	-	-
U Travis St	SW	85315	02/03	674	90	13	19	12	19	827
B6469 Fairfield St	W	85316	02/03	612	79	13	23	11	28	766
A6 London Rd	N	85317	02/03	1389	104	10	79	20	47	1649
U Sackville St	NW	85318	02/03	998	65	12	11	16	127	1229
A34 Oxford Rd	NW	85319	02/03	1112	87	23	283	26	322	1853
C Cambridge St	NW	85320	03/03	1388	69	8	39	8	39	1551
A5103 Medlock St	NW	85321	03/03	1483	85	8	20	9	57	1662
U Garwood St	NW	85322	03/03	39	1	2	0	1	0	43
U Melbourne St	N	85323	03/03	55	3	1	0	0	14	73
A56 Chester Rd	NE	85324	03/03	2487	165	37	17	12	121	2839
A6 Chapel St	E	85327	10/03	1465	110	24	87	20	38	1744
A6041 Blackfriars Rd	SE	85328	10/03	1001	50	12	30	6	16	1115
U Blantyre St	NE	85340	03/03	9	0	0	0	0	1	10
U Men Arena Entrance	S	85344	10/03	379	7	3	0	3	0	392
B6182 New Bridge St	SW	85349	10/03	252	15	0	0	0	3	270
A6143 Water St	NE	85350	03/03	756	46	12	12	5	16	847
A34 New Quay St	SE	85351	10/03	1577	107	23	2	30	26	1765
U Gore St	E	85358	10/03	191	9	0	0	2	1	203
Cyclists on other routes									112	112
Total				21103	1591	298	956	247	1190	25385
% Composition				83.1	6.3	1.2	3.8	1.0	4.7	100.0

Notes: Percentages may not sum to 100 due to rounding

Table 12 Road Traffic Entering Manchester Key Centre in March 2011 (09:30-13:30)										
Road Number and Site Description	Dir To	Site No	Date	Cars	LGV	OGV	Bus + Coach	Motor Cycles	Pedal Cycles	All Vehs
A56 Gt Ducie St	S	85301	10/03	900	141	37	22	8	13	1121
A6042 Corporation St	SW	85302	01/03	330	44	17	36	0	16	443
U Dantzie St	SW	85303	01/03	38	8	1	0	0	0	47
A664 Shudehill	SW	85304	01/03	521	76	19	119	2	15	752
U Tib St	SW	85305	01/03	154	38	9	0	1	8	210
U Oldham St	SW	85306	01/03	24	5	0	128	0	14	171
U Spear St	SW	85307	01/03	3	0	0	0	0	0	3
U Little Lever St	SW	85308	01/03	2	0	0	0	0	1	3
A62 Newton St	SW	85309	01/03	604	110	10	6	2	2	734
U Dean St	SW	85310	-	-	-	-	-	-	-	-
C Ducie St	SW	85311	01/03	182	38	5	2	1	4	232
C Store St	SW	85312	02/03	130	28	4	1	0	3	166
U Chapeltown St	SW	85313	02/03	20	8	2	0	0	4	34
U Baird St	SW	85314	-	-	-	-	-	-	-	-
U Travis St	SW	85315	02/03	278	87	14	15	1	6	401
B6469 Fairfield St	W	85316	02/03	408	71	15	22	3	9	528
A6 London Rd	N	85317	02/03	726	105	12	120	4	15	982
U Sackville St	NW	85318	02/03	570	96	16	5	6	38	731
A34 Oxford Rd	NW	85319	02/03	823	84	27	256	12	95	1297
C Cambridge St	NW	85320	03/03	509	72	14	37	4	6	642
A5103 Medlock St	NW	85321	03/03	977	114	12	30	7	15	1155
U Garwood St	NW	85322	03/03	7	2	2	0	0	0	11
U Melbourne St	N	85323	03/03	8	0	0	0	0	1	9
A56 Chester Rd	NE	85324	03/03	880	165	25	10	5	20	1105
A6 Chapel St	E	85327	10/03	852	121	16	98	3	9	1099
A6041 Blackfriars Rd	SE	85328	10/03	310	48	11	32	0	5	406
U Blantyre St	NE	85340	03/03	3	1	1	0	0	1	6
U Men Arena Entrance	S	85344	10/03	91	4	1	0	0	0	96
B6182 New Bridge St	SW	85349	10/03	61	15	2	1	0	2	81
A6143 Water St	NE	85350	03/03	370	74	12	14	1	7	478
A34 New Quay St	SE	85351	10/03	673	110	18	7	4	12	824
U Gore St	E	85358	10/03	46	7	0	0	1	8	62
Cyclists on other routes									39	39
Total				10500	1672	302	961	65	368	13868
% Composition				75.7	12.1	2.2	6.9	0.5	2.7	100.0

Notes: Percentages may not sum to 100 due to rounding



4.8 Table 13 gives traffic entering Manchester Key Centre in 1997, 1999, 2002, 2005, 2006, 2009, 2010 and 2011 together with indices of change between 1997 and 2011.

- Results show reductions of 23% and 26% in the morning peak and off-peak respectively for all vehicle flows between 1997 and 2011.

	Year	Cars	LGV	OGV	Bus	Motor Cycle	Pedal Cycle	All
07:30-09:30	1997	27989	2004	815	1079	281	704	32872
	1999	29194	2255	730	1053	276	645	34153
	2002	25980	2201	469	985	290	509	30434
	2005	27139	2079	561	1000	277	562	31618
	2006	24968	2136	450	1019	231	470	29274
	2009	21968	1675	510	997	274	1102	26526
	2010	21408	1657	280	973	248	1143	25709
	2011	21103	1591	298	956	247	1190	25385
	2011/1997	0.75	0.79	0.37	0.89	0.88	1.69	0.77
10:00-12:00	1997	14312	2008	973	973	208	285	18759
	1999	14242	2137	842	1096	148	232	18697
	2002	13303	1999	615	1023	138	184	17262
	2005	12526	2067	607	1101	85	234	16620
	2006	13057	2085	500	1083	75	139	16939
	2009	11978	1812	556	1075	101	466	15988
	2010	10912	1661	316	1008	53	321	14271
	2011	10500	1672	302	961	65	368	13868
	2011/1997	0.73	0.83	0.31	0.99	0.31	1.29	0.74

Car Occupancy - Inbound

4.9 Car occupancy surveys were conducted at 15 sites on the Manchester Key Centre cordon in 2011. Table 14 shows the observed occupancy rates by period and site for inbound vehicles. Table 15 compares 2011 inbound occupancy rates with figures for 2002, 2005, 2006, 2009 and 2010.

- The average occupancy rates were 1.27 in the morning peak and 1.39 in the off-peak.
- Car occupancy rates have decreased in both time periods between 2010 and 2011.

Table 14 Manchester Key Centre Inbound Car Occupancy Rates 2011		
Site	07:30-09:30	
	% Driver only	Ave Occupancy
85301A56 Great Ducie St	72	1.33
85302 A6042 Corporation St	67	1.37
85304 A664 Shudehill	67	1.39
85309 A62 Newton St	70	1.35
85317 A6 London Rd	72	1.31
85318 Sackville St	76	1.28
85319 A34 Oxford Rd	74	1.31
85320 Cambridge St	79	1.23
85321 A5103 Medlock St	82	1.21
85324 A56 Chester Rd	76	1.26
85327 A6 Chapel St	82	1.22
85328 A6041 Blackfriars Rd	79	1.23
85340 Blantyre St	67	1.33
85349 B6183 New Bridge St	82	1.18
85351 A34 Quay St	84	1.16
All sites	76	1.27
Site	10:00-12:00	
	% Driver only	Ave Occupancy
85301 A56 Great Ducie St	67	1.40
85302 A6042 Corporation St	60	1.46
85304 A664 Shudehill	51	1.55
85309 A62 Newton St	63	1.45
85317 A6 London Rd	63	1.42
85318 Sackville St	61	1.50
85319 A34 Oxford Rd	61	1.50
85320 Cambridge St	72	1.34
85321 A5103 Medlock St	72	1.33
85324 A56 Chester Rd	70	1.36
85327 A6 Chapel St	69	1.40
85328 A6041 Blackfriars Rd	84	1.18
85340 Blantyre St	100	1.00
85349 B6183 New Bridge St	88	1.14
85351 A34 Quay St	88	1.16
All sites	68	1.39

Table 15 Comparison of Manchester Key Centre Car Occupancy Rates 2002, 2005, 2006, 2009, 2010 and 2011		
Year	07:30-09:30	
	% Driver Only	Ave Occupancy
2002	79	1.23
2005	82	1.20
2006	73	1.32
2009	80	1.23
2010	75	1.28
2011	76	1.27
Year	10:00-12:00	
	% Driver Only	Ave Occupancy
2002	73	1.32
2005	76	1.29
2006	66	1.42
2009	75	1.29
2010	66	1.41
2011	68	1.39

Rail Patronage - Inbound

4.10 The number of people entering Manchester Key Centre by rail and Metrolink was surveyed in March 2011. Table 16 presents the results for rail along with those of previous surveys in 1997, 1999, 2002, 2005, 2006, 2009 and 2010.

- The number of people entering Manchester by train in 2011 was 141% and 222% higher than in 1997 in the morning and off-peak time periods respectively.

Table 16 Rail Passengers Entering Manchester Key Centre 1997, 1999, 2002, 2005, 2006, 2009, 2010 and 2011		
Year	07:30 – 09:30	10:00 – 12:00
1997	9699	3618
1999	13419	5144
2002	16612	6287
2005	16743	6429
2006	17950	6938
2009	20753	10012
2010	21638	9343
2011	23330	11651
2011/1997	2.41	3.22

Metrolink Patronage - Inbound

4.11 Table 17 shows Metrolink passengers entering Manchester Key Centre in 2011 along with the results of previous surveys in 1997,1999, 2002, 2005, 2006, 2009 and 2010.

- The number of people entering Manchester by Metrolink increased by 16% in the morning peak and by 6% in the off-peak between 1997 and 2011.

Table 17 Metrolink Passengers Entering Manchester Key Centre 1997, 1999, 2002, 2005, 2006, 2009, 2010 and 2011		
Year	07:30 – 09:30	10:00 – 12:00
1997	5875	2549
1999	6319	2737
2002	6301	2408
2005	6556	2451
2006	6048	2801
2009	6716	3450
2010	6448	2947
2011	6832	2695
2011/1997	1.16	1.06

Walk Trips - Inbound

4.12 The number of pedestrians entering Manchester Key Centre was counted in 2011. Table 18 shows the pedestrian flows by time period and site.

Table 18 Pedestrians Entering Manchester Key Centre 2011			
Site no	Location	07:30-09:30	10:00-12:00
85301	Gt Ducie St	691	315
85344	M.E.N.Arena	185	64
85302	Corporation St	678	144
85303	Dantzic St	440	114
85304	Shudehill	789	279
85334	Oak, Co-Op, Eagle, Hr Oswald Sts	139	43
85305	Tib St	160	139
85306	Oldham St	272	161
85307	Spear St	12	5
85335	Lever St	125	81
85308	Little Lever St	30	5
85309	Newton St	206	130
85310	Dean St	20	3
85336	Port St	189	128
85337	Laystall St	52	34
85311	Ducie St	67	15
85312	Store St	70	27
85313	Chapelton St	98	21
85314	Baird St	-	-
85315	Travis St	208	66
85316	Fairfield St	112	64
85317	London Rd	247	172
85318	Sackville St	391	283
85338	Princess St	132	89
85319	Oxford Rd	852	1494
85320	Cambridge St	44	41
85339	Newcastle St	50	36
85321	A5103 Medlock St	246	113
85323	Crown St-Melbourne St	85	27
85324	A56 Chester Rd	533	163
85340	Blantyre St	18	3
85357	Egerton St Towpath	300	66
85341	New Elm Rd Cycle Path	4	0
85350	Water Street	253	64
85352	Princess Bridge	156	41
85351	New Quay St	572	169
85358	Gore St	35	40
85327	Chapel St	175	168
85342	Bloom St	231	92
85328	Blackfriars Rd	242	117
85359	Trinity Way	75	37
85349	New Bridge St	23	10
	Cordon Total	9207	5063

Note: Baird Street was not counted in 2011 due to Metrolink works.

4.13 Table 19 shows changes in the total number of pedestrians entering Manchester Key Centre in 2002, 2005, 2006, 2009, 2010 and 2011.

- Pedestrians crossing the cordon around Manchester Key Centre decreased in both time periods.

Year	07:30 – 09:30	10:00 – 12:00
2002	5653	3174
2005	6143	3891
2006	7485	3528
2009	8877	5320
2010	9599	5583
2011	9207	5063
2011/2002	1.74	1.69

Summary of Trends in Modal Share - Inbound

4.14 Table 20 gives the modal split of car and non-car trips crossing the cordon into Manchester key centre in 2002, 2005 2006, 2009, 2010 and 2011 along with a ratio of change between 2002 and 2011.

- Car trips have decreased and non-car trips increased in both the morning peak and off-peak between 2002 and 2011.

Time Period	Year	Car	Bus	Rail	Met	Cycle	Walk	Total	% Car	% Non-Car
07:30-09:30	2002	31955	25254	16612	6301	509	5279	85910	37	63
	2005	32567	24696	16743	6556	562	5723	86847	37	63
	2006	32958	25071	17950	6048	470	7485	89982	37	63
	2009	27021	24615	20753	6716	1102	8877	89084	30	70
	2010	27402	23418	21638	6448	1143	9599	89648	31	69
	2011	26801	22438	23330	6832	1190	9207	89798	30	70
	2010/2002	0.84	0.89	1.40	1.08	2.34	1.74	1.05		
10:00-12:00	2002	17560	11415	6287	2408	184	3000	40854	43	57
	2005	16159	11655	6429	2451	234	3713	40641	40	60
	2006	18541	13079	6938	2801	139	3528	45026	41	59
	2009	15452	15379	10012	3450	466	5320	50079	31	69
	2010	15386	13851	9343	2947	321	5583	47431	32	68
	2011	14595	14809	11651	2695	368	5063	49181	30	70
	2010/2002	0.83	1.30	1.09	1.12	2.00	1.69	1.20		

24-Hour Traffic Profiles into Manchester Key Centre

- 4.15 Key Centre ATC surveys were last carried out in March 2010. Data for March 2007 to March 2010 is shown below.
- 4.16 For GMLTP2, the DfT required automatic traffic counts on busy roads (more than 2,000 vehicles per day) approaching key centres in Greater Manchester. Ideally the counts should be just outside the areas where key centre parking occurs. However, it was agreed with the DfT, that in Greater Manchester, these counts could be undertaken on the existing key centre cordons for consistency with, and to complement and add value to the other key centre monitoring. The counts were continuous over a two-week period annually. The indicator for the DfT (LTP6) covered the morning peak period (07:00-10:00). Table 21 provides a comparison of the results of the surveys conducted between March 2007 and March 2010 for this time period and for a 24-hour average weekday. A list of the sites that met the DfT counting requirement, a summary of all sites and individual profiles for each site are provided in Appendix 3 of this report.
- Morning weekday peak flows and 24-hour average weekday flows decreased by 17% and 13% respectively between March 2007 and March 2010.
 - There appeared to have been much re-routing around the centre due to redevelopment and utility works.

Site	0700-1000 Ave Weekday					24-Hour Ave Weekday				
	Base 2007	2008	2009	2010	% Diff 10/ Base	Base 2007	2008	2009	2010	% Diff 10/ Base
Sackville St	1396	1267	1303	1458	4	6085	5725	5373	5398	-11
Cambridge St *	1886	1842	1585	1758	-7	5849	5696	5262	5811	-1
A5103 Medlock St	3466	3402	3148	2826	-18	12026	11858	10983	10437	-13
A6143 Water St	1417	1302	1407	1221	-14	4329	4297	4149	3957	-9
A56 Great Ducie St	2671	2387	2533	1972	-26	10572	9513	10013	9130	-14
A6042 Corporation St	1155	1352	1236	1207	4	4906	5393	4939	4667	-5
A664 Shudehill	1544	1187	1348	1214	-21	6808	5406	6733	5706	-16
A62 Newton St	1549	1913	1726	1514	-2	6713	8966	8402	7182	7
Ducie St	900	549	322	776	-14	2820	1473	1005	2478	-12
Store St	664	863	142	915	38	2241	2574	745	2877	28
Travis St	1739	1520	1320	462	-73	6628	5862	5342	3413	-49
B6469 Fairfield St	1109	971	1093	1022	-8	5524	4965	5321	5280	-4
A6 London Rd	2519	2356	2197	2039	-19	9908	9194	8907	8655	-13
A34 Oxford Rd**	2715	2754	2286	2345	-14	13610	13646	12388	13370	-2
A56 Bridgewater Viaduct	2769	2789	2686	1763	-36	11352	11340	10915	8131	-28
A34 Irwell St	2582	2580	2364	2177	-16	8180	7546	7291	6137	-25
A6 Chapel St	2683	2995	2722	2686	0	10015	10913	10787	9066	-9
A6041 Blackfriars Rd	2014	1684	1699	1363	-32	5194	4326	4367	3613	-30
B6183 New Bridge St	Closed	257	354	318	-	Closed	584	772	734	-
TOTAL	34778	33970	31472	29035	-17	132760	129277	123695	116042	-13

* 2009 Data for this site is for the period 01/01/09 to 01/03/09

** 2010 Data for this site is for September 2009 (latest available data)

5. ROAD CASUALTIES AND ACCIDENTS

- 5.1 There were 1425 reported collisions in Manchester during 2010, 47% lower than the base years (1994-1998) and 17% lower than 2009. There were 1962 casualties in Manchester during 2010, 46% lower than the base years (1994-1998) and 18% lower than 2009. There were 166 killed or seriously injured (KSI) casualties in 2009 compared with an average of 294 KSI in the base years.
- 5.2 Local targets for 2010 have been set as part of the second Local Transport Plan (GMLTP2). These are a 50% reduction for KSI casualties, a 55% reduction for child KSI accidents and a 30% reduction in slight casualties relative to the base years average. Unlike the first Local Transport Plan (GMLTP), the annual figures for the KSI and Child KSI are represented by a three-year average. Thus the average of 2008, 2009 and 2010 represents 2009. The targets are all more rigorous than the national targets which are for a 40% reduction in KSI casualties, a 50% reduction in child KSI casualties and a 10% reduction in slight casualties per vehicle kilometre.
- 5.3 Table 22 shows the base, the annual average trend and GMLTP2 targets for KSI and child KSI casualty groups. Table 23 shows the base, the annual trend and target for slight casualties.
- The three-year average number of KSI casualties for 2009 was 38% below the base.
 - The three-year average for 2009 for child KSI casualties was 59% below the base, falling below the 2010 GMLTP2 target.
 - Slight casualties in 2009 were 47% below the baseline average and 24% below the 2010 GMLTP2 target.

	<u>Base</u> ave 1994 to 1998	<u>2000</u> ave 1999 to 2001	<u>2001</u> ave 2000 to 2002	<u>2002</u> ave 2001 to 2003	<u>2003</u> ave 2002 to 2004	<u>2004</u> ave 2003 to 2005	<u>2005</u> ave 2004 to 2006	<u>2006</u> ave 2005 to 2007	<u>2007</u> ave 2006 to 2008	<u>2008</u> ave 2007 to 2009	<u>2009</u> ave 2008 to 2010	<u>Target</u> ave 2009 to 2011
KSI	294	273	275	277	273	278	265	244	212	195	181	147
Child KSI	71	59	56	55	50	47	40	37	32	31	29	32

Table 23 Base, Yearly Trend and Target for Slight GMLTP2 Casualty Target Groups												
	Base ave 1994 to 1998	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Target 2010
Slight	3358	3471	3493	3228	3156	2889	2604	2436	2238	2217	1796	2350

- 5.4 Tables 24 to 26 show the breakdown of casualties by type and age. Tables 27 and 28 show how collisions vary by day of week and month, and by driving conditions.
- 5.5 Figures 3 to 5 show graphically the number of casualties in each of these three target groups from 1985 onwards. Figure 6 shows how the trend in all casualties in Manchester compares to the Greater Manchester average.
- 5.6 Finally, Figures 7 and 8 show the trends over the last five years by casualty type for all casualties and child casualties respectively.
- 5.7 Computer plots of collision locations in Manchester are given in Appendix 4 for the following categories of accident:
- all by severity
 - KSI sub-divided into child and adult
 - pedestrian sub-divided into child and adult
 - pedal cycle sub-divided into child and adult

Table 24 Manchester Casualty Data 1994-2010													
	Ave 94-98	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
All Casualties													
Fatal	29	23	18	28	15	37	20	23	24	15	11	13	11
Serious	266	236	258	255	252	244	250	261	216	192	179	174	155
Slight	3358	3442	3637	3471	3493	3228	3156	2889	2604	2436	2238	2217	1796
All	3652	3701	3913	3754	3760	3509	3426	3173	2844	2643	2428	2404	1962
KSI	294	259	276	283	267	281	270	284	240	207	190	187	166
Pop 000s	430.4	431.1	439.5	392.7	422.3	432.5	432.5	437.0	441.2	452.0	458.1	473.2	483.8
KSI Rate per 100000 Pop	68	60	63	72	63	65	62	65	54	46	41	40	35
Child Casualties													
Child KSI	71	59	60	59	50	57	42	42	36	33	28	32	27
Child (All)	542	535	505	514	446	475	405	366	341	285	257	287	236
Child Pop 000s	103.1	101.6	100.0	83.3	85.0	85.2	85.2	84.6	83.3	82.8	83.2	84.0	85.3
KSI Rate per 100000 Pop	69	58	60	71	59	67	49	50	43	40	34	38	32
Casualty Type													
TWPV	108	112	145	145	173	147	153	139	134	116	138	106	93
Car Occupant	2229	2451	2515	2315	2480	2247	2220	1912	1805	1694	1439	1497	1156
Pedestrian	749	651	672	726	674	662	591	618	509	432	450	397	334
Pedal Cycle	288	226	260	249	207	195	242	241	227	215	239	245	261
Other	278	261	321	319	226	258	220	263	169	186	162	159	118
All	3652	3701	3913	3754	3760	3509	3426	3173	2844	2643	2428	2404	1962

Note: The table uses figures provided by the Office for National Statistics for mid-year estimates of populations.

Table 25 Manchester Casualty Data 1989 - 2010										
	Ave 1989- 93	Ave 1994- 98	Ave 1999- 2003	2004	2005	2006	2007	2008	2009	2010
All Casualties										
Manchester Casualties	3727	3652	3727	3426	3173	2844	2643	2428	2404	1962
Manchester KSI Casualties	413	294	273	270	284	240	207	190	187	166
Greater Manchester Casualties	16479	16708	15671	13543	12805	11795	10702	9881	9303	7587
Casualty Type										
TWPV Rider	190	101	134	144	131	115	114	132	103	90
TWPV Pillion	13	7	11	9	8	19	2	6	3	3
Car Driver	1146	1366	1478	1361	1185	1050	1014	865	891	697
Car Passenger	786	864	923	859	727	755	680	574	606	459
Pedestrian	988	749	677	591	618	509	432	450	397	334
Cyclist (Rider Only)	347	283	225	241	236	222	210	234	243	261
PCV Passenger	122	126	144	104	136	78	120	82	96	53
Total Other Driver	85	107	99	87	92	72	49	53	47	52
Total Other Passenger	49	49	36	30	40	24	22	32	18	13
Child Casualties by Type										
Driver/Rider	85	75	65	60	57	55	32	25	32	38
Passenger	175	191	197	161	139	141	122	108	144	108
Pedestrian	366	276	233	184	170	145	131	124	111	90
All Classes	627	542	495	405	366	341	285	257	287	236
Child Casualties by Age										
0 – 4	118	85	76	55	45	39	38	45	57	35
5 – 9 - pupil to/from school	27	24	16	14	8	5	7	2	1	0
- pupil not to/from school	203	157	142	96	88	96	69	83	63	64
10 – 15 - pupil to/from school	60	65	68	58	50	25	27	6	10	5
- pupil not to/from school	218	211	193	182	175	176	144	121	156	132
Drink Drive Casualties by Severity										
Fatal	1	1	0	0	1	0	2	0	0	0
Serious	12	9	7	16	15	9	8	9	5	4
Slight	90	97	98	86	103	86	77	35	44	44
Total	102	107	106	102	119	95	87	44	49	48

Table 26 Manchester Casualty Data by Age Group 1989 - 2010											
		Ave 1989- 93	Ave 1994- 98	Ave 1999- 2003	2004	2005	2006	2007	2008	2009	2010
Pedestrian Casualties											
Under 16	Male	223	168	141	108	95	82	73	73	75	51
	Female	144	107	93	76	75	63	58	51	36	39
16 – 59	Male	306	234	230	213	254	200	162	175	153	130
	Female	179	147	144	145	154	115	100	119	100	81
Over 59	Male	63	48	38	23	20	31	19	13	21	18
	Female	74	44	31	26	20	18	20	19	12	15
Total		988	749	677	591	618	509	432	450	397	334
Cyclists (Rider Only)											
Under 16	Male	70	59	47	45	42	38	28	18	27	31
	Female	11	12	13	7	9	9	4	5	5	6
16 – 59	Male	188	159	130	139	138	135	133	161	160	181
	Female	64	45	25	40	38	32	42	47	47	39
Over 59	Male	11	6	9	7	7	5	1	2	3	3
	Female	2	2	1	3	2	3	2	1	1	1
Total		347	283	225	241	236	222	210	234	243	261
TWPV Riders											
Under 20	Male	27	8	20	40	32	24	18	24	12	18
	Female	2	0	1	0	0	1	1	1	1	1
20 – 29	Male	82	35	36	33	28	30	31	45	33	27
	Female	9	3	3	3	2	4	2	5	6	1
Over 29	Male	64	52	68	66	65	53	56	50	49	38
	Female	7	3	5	2	3	3	6	7	2	5
Total		190	101	134	144	131*	115	114	132	103	90
Car Drivers											
Under 20	Male	62	51	48	41	32	39	39	30	35	12
	Female	33	31	28	26	29	27	13	24	19	15
20 – 29	Male	244	266	266	219	213	172	176	152	129	108
	Female	203	239	200	192	165	160	144	133	137	98
Over 29	Male	362	464	557	534	441	368	386	319	348	299
	Female	243	315	379	349	305	284	256	207	223	165
Total		114	1366	1478	1361	1185	1050	1014	865	891	697

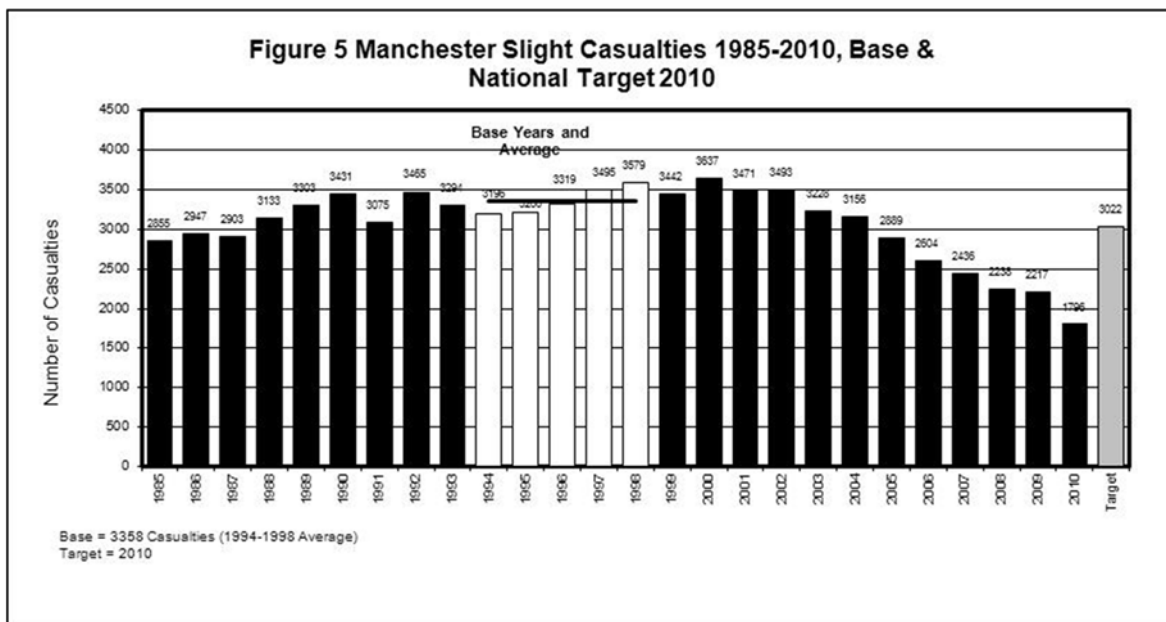
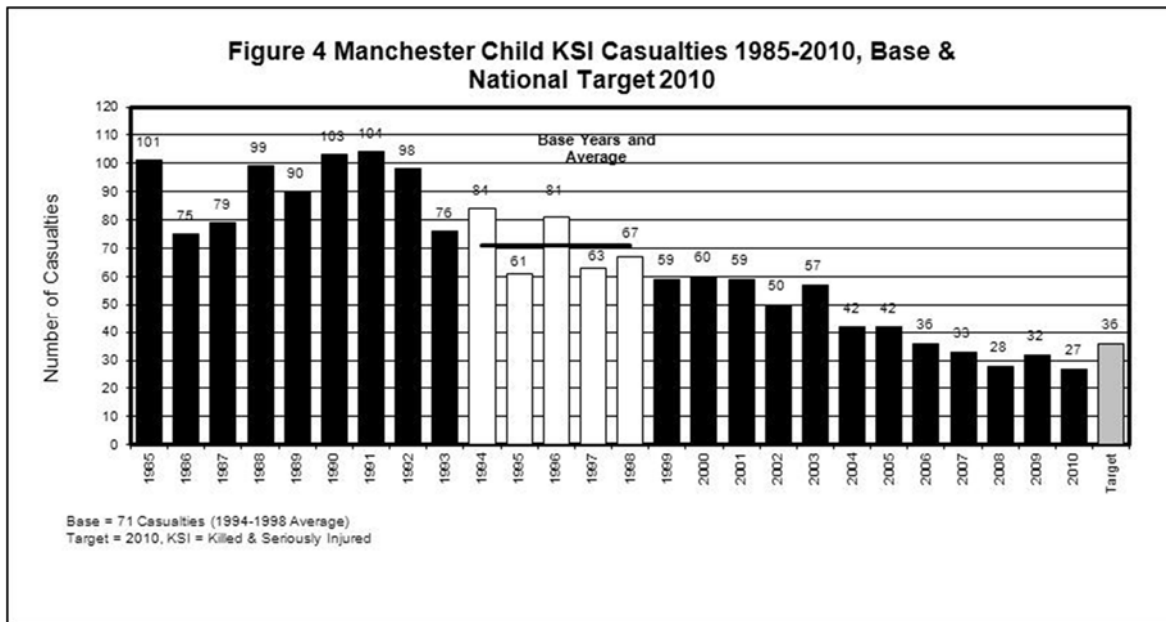
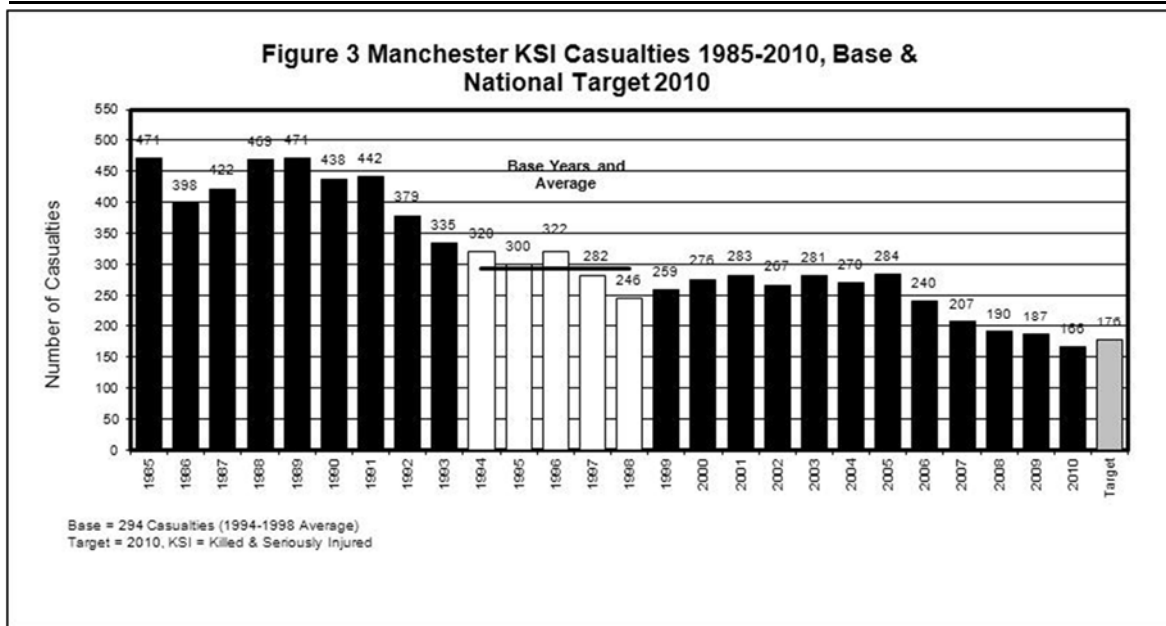
Notes: Average 1989-93, average 1994-98 and average 1999-2003 totals may not sum due to rounding.

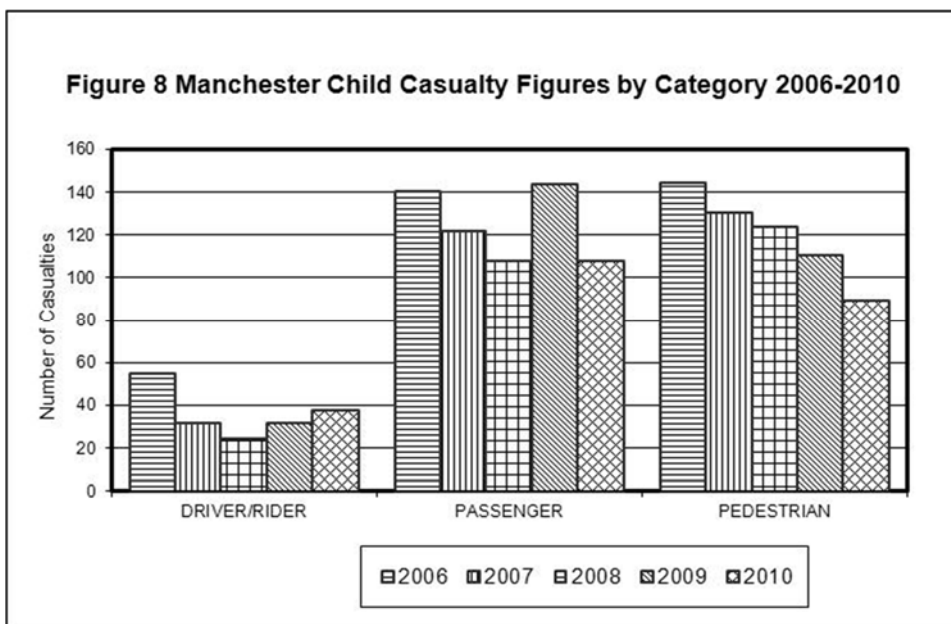
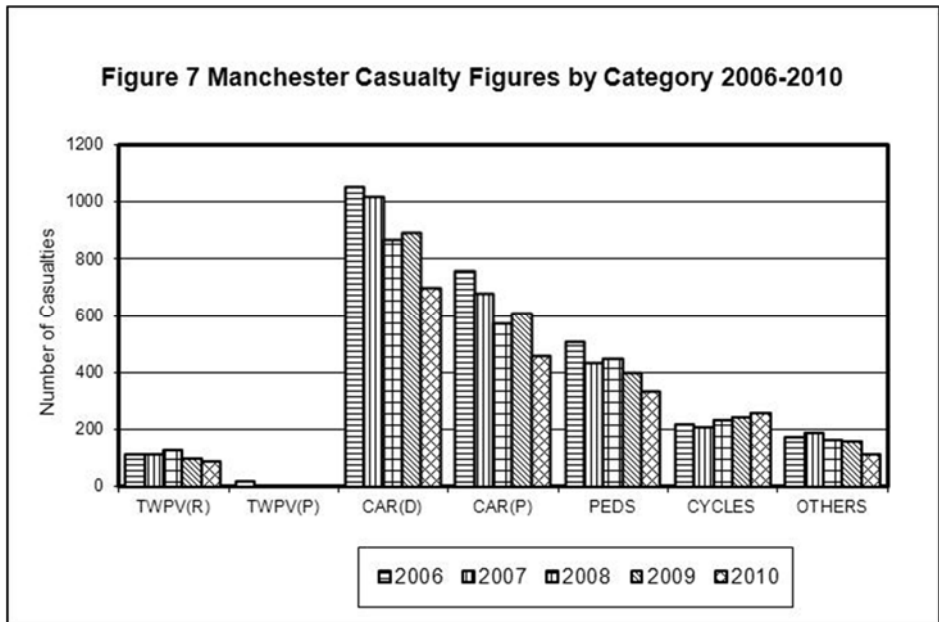
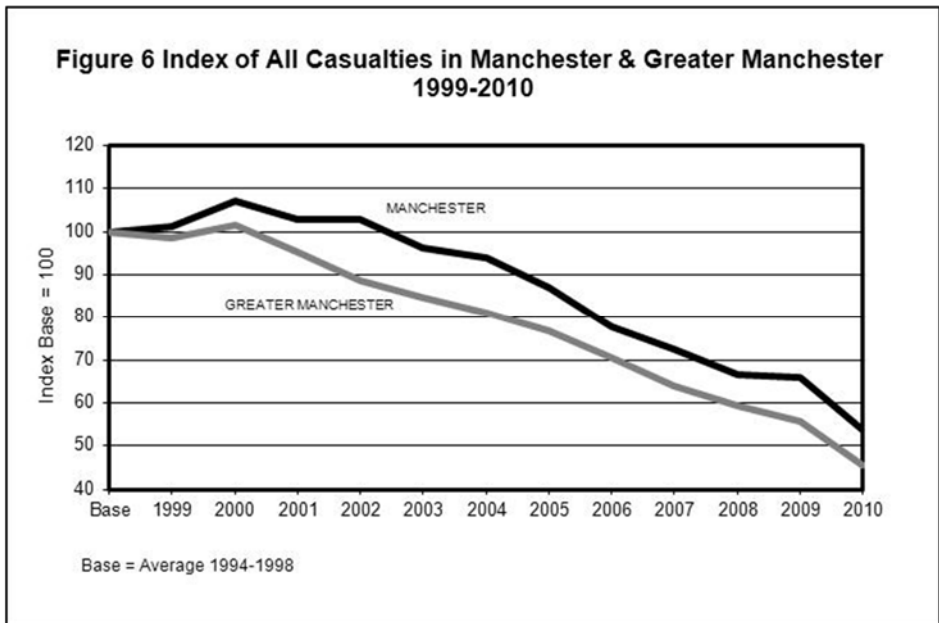
* - There is a slightly injured male motorcyclist whose age was not stated

Table 27 Manchester Injury Accident Data 1989-2010										
	Ave 1989- 93	Ave 1994- 98	Ave 1999- 2003	2004	2005	2006	2007	2008	2009	2010
Total Accidents	2925	2664	2598	2419	2336	2019	1832	1756	1707	1425
Total KSI Accidents	385	273	245	239	261	221	195	183	175	162
Accidents by Month										
January	230	222	213	230	198	143	167	147	148	83
February	224	207	201	190	167	122	104	135	105	108
March	237	223	189	171	168	154	157	132	146	138
April	228	208	201	200	200	149	151	150	126	104
May	238	207	226	207	204	186	154	158	170	116
June	254	208	196	173	199	171	161	149	161	149
July	236	214	203	185	180	172	141	132	120	108
August	215	197	204	189	186	167	150	130	151	104
September	251	220	223	215	218	161	166	140	138	145
October	277	259	249	238	204	209	165	186	154	151
November	289	248	249	219	230	201	170	146	165	126
December	245	250	244	202	182	184	146	151	123	93
Accidents by Day of Week										
Sunday	308	289	287	272	289	234	212	191	167	173
Monday	417	376	377	333	316	309	289	245	242	179
Tuesday	409	400	379	386	359	275	258	280	292	228
Wednesday	426	398	389	321	321	295	290	270	265	202
Thursday	458	409	382	344	331	303	279	262	240	232
Friday	496	430	422	419	414	318	278	265	284	242
Saturday	412	363	362	344	306	285	226	243	217	169

Table 28 Manchester Injury Accident Data by Conditions 1989-2010										
	Ave 1989- 93	Ave 1994- 98	Ave 1999- 2003	2004	2005	2006	2007	2008	2009	2010
Accidents by Road Surface										
Dry	1826	1646	1540	1459	1561	1323	1210	1140	1152	991
Wet/Damp	1053	980	1017	916	740	686	591	589	514	366
Snow	5	10	3	6	4	2	3	4	16	23
Frost/Ice	39	27	31	28	25	8	26	22	23	45
Flood	1	1	2	4	2	0	2	1	2	0
Oil or Diesel	0	0	5	5	0	0	0	0	0	0
Mud	0	0	1	1	4	0	0	0	0	0
Wet/Damp Accidents by Road Class										
Motorway	22	19	22	25	18	24	25	23	9	13
A (M)	5	6	11	8	7	7	7	6	12	0
A	531	474	465	447	367	333	273	281	236	165
B	120	121	128	97	85	65	67	59	59	42
C	135	127	139	106	88	111	140	126	122	79
U	240	233	251	233	175	146	79	94	76	67
Total	1053	980	1017	916	740	686	591	589	514	366
Accidents by Light/Dark										
M'way Dark	12	16	19	15	16	16	20	15	13	11
A (M) Dark	6	5	7	14	5	6	6	5	8	3
A- Dark	421	418	400	406	380	329	278	270	266	181
B- Dark	110	111	120	94	96	63	73	62	76	45
C- Dark	101	95	92	84	81	88	113	111	105	75
U- Dark	215	197	202	208	178	156	99	97	90	88
Total	865	841	840	821	756	658	589	560	558	403
M'way Light	27	35	27	30	30	44	27	32	19	15
A (M)- Light	8	13	18	18	14	11	8	7	19	10
A- Light	928	814	751	727	756	600	593	533	506	460
B- Light	235	197	194	157	168	139	135	117	124	125
C- Light	256	222	228	209	173	196	280	268	263	198
U- Light	605	542	541	457	439	371	200	239	218	214
Total	2060	1823	1758	1598	1580	1361	1243	1196	1149	1022
No. of Vehicles Per Accident										
1	1092	817	759	666	711	586	495	491	451	368
2	1585	1595	1601	1533	1418	1238	1172	1109	1099	930
3 or more	248	252	239	220	207	195	165	156	157	127
No. of Casualties Per Accident										
1	2391	2044	1900	1788	1796	1498	1333	1346	1266	1097
2	368	407	453	422	362	340	321	267	299	200
3 or more	165	213	246	209	178	181	178	143	142	128

Notes: Average 1989-93, average 1994-98 and average 1999-2003 totals may not sum due to rounding.
 "Oil/Diesel" and Mud moved from 'Road Surface Condition' to 'Special Conditions at Site' on 1/4/2006





6. CONGESTION

- 6.1 The journey time data presented below has been calculated using data collected from in-vehicle GPS tracking devices from which average vehicle speeds and journey times can be derived. This report presents journey time rates in minutes per mile and speeds in miles per hour.
- 6.2 The journey time rates are the sum of the average link times divided by the sum of the link lengths for the set of links and time period under consideration. The link times are the average of observations for the 12-month period running from September to August. All journey time rates are for an average weekday excluding school holidays and bank holidays.
- 6.3 Tables 29 and 30 show respectively average journey time rates and speeds for A and B roads, for 2004/05, 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10. For comparison, the 2009/10 journey time rates and speeds for Greater Manchester are also shown.
- 6.4 Figure 9 illustrates the change in average journey time rates in Manchester over the last four years for various time periods. Figure 10 illustrates average journey time rates by quarter-hour time period for the last three years and Figure 11 illustrates average journey times by quarter hour time period during 2009/10 for Manchester and Greater Manchester. Maps showing average speeds can be found in Appendix 4.
- Average journey time rates in Manchester increased in all time periods between 2008/09 and 2009/10, with the exception of the 1000-1600 period. Average journey time rates for Manchester were longer than for Greater Manchester as a whole, indicating that average speeds were slower.

Table 29 Manchester and Greater Manchester Average Journey Time Rates (Minutes /Mile)						
Manchester						
Year	0700 - 1000	0800 - 0900	1000 - 1600	1700 - 1800	1600 - 1900	0700 - 1900
2004/05	4.12	4.57	3.82	4.64	4.37	4.11
2005/06	4.20	4.68	3.97	4.85	4.66	4.25
2006/07	4.15	4.67	3.93	4.91	4.64	4.21
2007/08	4.09	4.59	3.95	4.78	4.56	4.18
2008/09	4.13	4.63	3.96	4.92	4.63	4.19
2009/10	4.22	4.68	3.91	4.96	4.69	4.24
Greater Manchester						
2009/10	3.37	3.81	3.11	3.75	3.53	3.30

Table 30 Manchester and Greater Manchester Average Speeds (MPH)						
Manchester						
Year	0700 - 1000	0800 - 0900	1000 - 1600	1700 - 1800	1600 - 1900	0700 - 1900
2004/05	15	13	16	13	14	15
2005/06	14	13	15	12	13	14
2006/07	14	13	15	12	13	14
2007/08	15	13	15	13	13	14
2008/09	15	13	15	12	13	14
2009/10	14	13	15	12	13	14
Greater Manchester						
2008/09	18	16	19	16	17	18

