

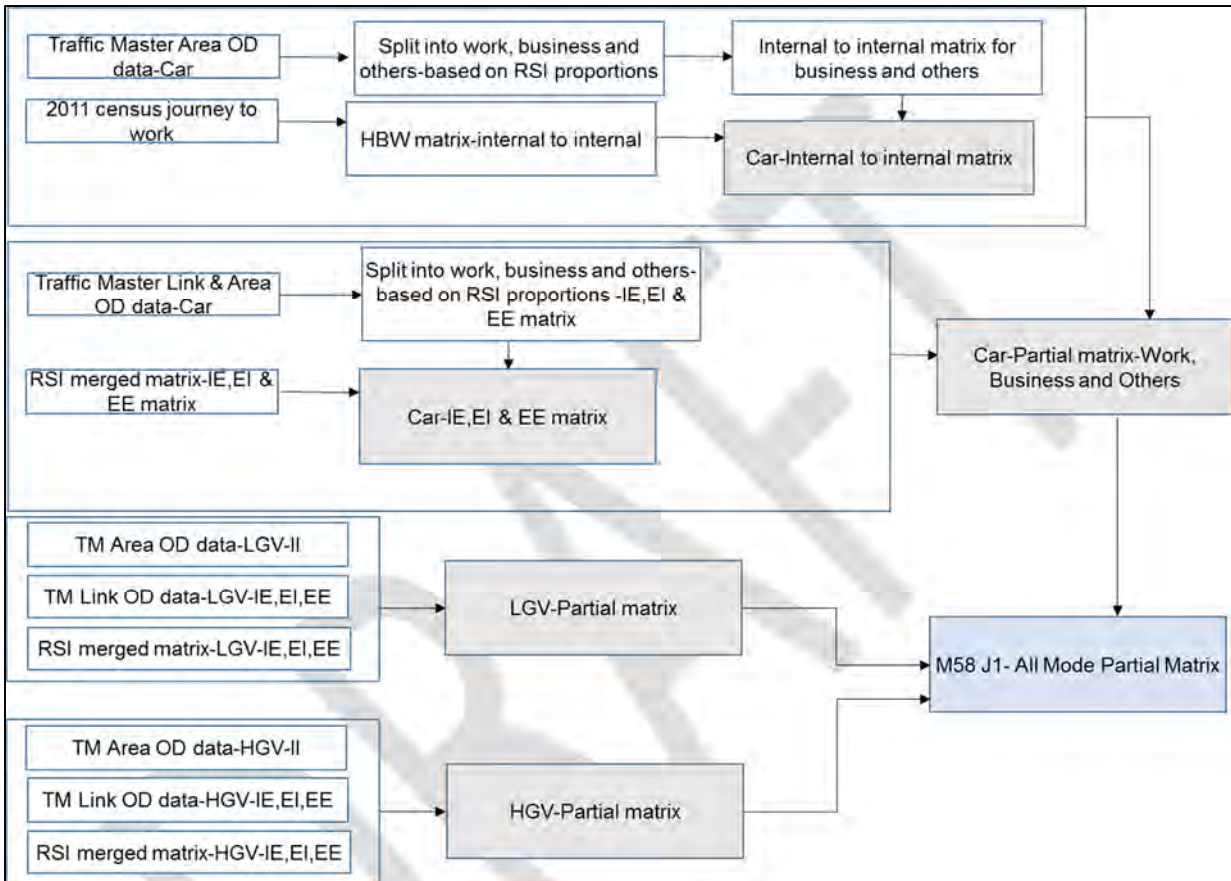
Appendices



Appendix A. Prior Matrix Development-Method1

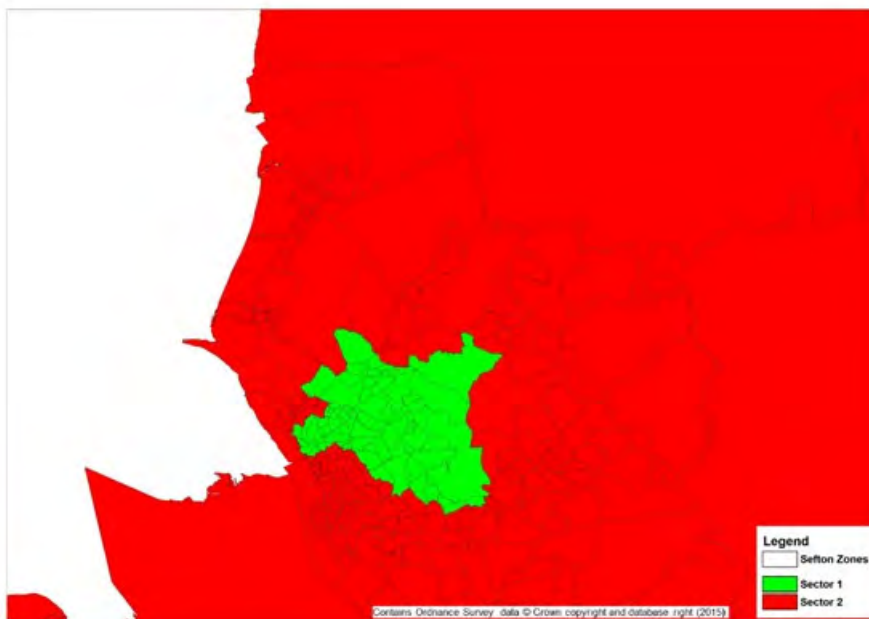
The highway matrix development process is summarised in the flow chart below (Figure A-1). The key steps are described as follows:

Figure A-1 Prior trip matrix building process



The zoning system is aggregated to a two sector system based on the inner cordon boundary. Sector 1 represents all zones within the inner cordon and sector 2 is an aggregate of all zones outside the inner cordon. Sector map used for method1 of matrix build is presented in Figure A-2 below:

Figure A-2 Sector Map



As all the RSI site locations are on the cordon of sector 1, all movements captured within this sector from RSI are not realistic and hence only movements between sectors and sector 2-2 are considered from RSI.

The procedure for merging all data sources to obtain the partial trip matrix (as per method1) is as below:

Car:

- 1) Traffic Master Area OD data – Car- business and others matrix (I-I).
- 2) Census Journey to Work- Car HBW work matrix (I-I).
- 3) Car work, business and others I-I matrix – from Step 1 & 2.
- 4) RSI merged matrix- Car- I-E, E-I & E-E matrices for work, business and others purpose.
- 5) Traffic Master Link OD matrix- Car- I-E, E-I & E-E matrices for work, business and others purpose.
- 6) Merge the matrices in Step 4 and step 5 by giving 90% weightage to step4 and 10% weightage to step5. – Car work, business and others I-E, E-E & E-E matrix.
- 7) Traffic Master Area OD data – Car (work, business & others), (I-E, E-I&E-E).
- 8) Merge matrices from step 6& step7 -90% of step6 +10% of step7 to infill the unobserved I-E, E-I & E-E movements.
- 9) Combine matrices in Step 3 & 8 to obtain – Car partial matrix for work, business and others.

LGV:

- 10) Traffic Master Area OD data – LGV (I-I).
- 11) RSI merged matrix- LGV- I-E, E-I & E-E matrices.
- 12) Traffic Master Link OD matrix- LGV- I-E, E-I & E-E matrices.
- 13) Merge the matrices in Step 11 and step 12 by giving 90% weightage to step11 and 10% weightage to step12. – LGV- I-E, E-I & E-E matrices.
- 14) Traffic Master Area OD data – LGV, (I-E, E-I&E-E).
- 15) Merge matrices from step 13& step14 -90% of step13 +10% of step14 to infill the unobserved I-E, E-I & E-E movements.
- 16) Combine matrices in Step 10 & 15 to obtain – LGV partial matrix.

HGV:

- 17) Traffic Master Area OD data – HGV (I-I).
- 18) RSI merged matrix- HGV- I-E, E-I & E-E matrices.

- 19) Traffic Master Link OD matrix- HGV- I-E, E-I & E-E matrices.
- 20) Merge the matrices in Step 18 and step 19 by giving 90% weightage to step18 and 10% weightage to step19. – HGV- I-E, E-I & E-E matrices.
- 21) Traffic Master Area OD data – HGV, (I-E, E-I&E-E).
- 22) Merge matrices from step 20& step21 -90% of step20 +10% of step21 to infill the unobserved I-E, E-I & E-E movements.
- 23) Combine matrices in Step 17 & 22 to obtain – HGV partial matrix.

Compare the partial matrices obtained in step 9, 16 & 23 with the rezoned PLTM base matrix and infill the unobserved movements with the rezoned PLTM base matrix to obtain the initial prior matrix.

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Appendix B. Link Calibration Results

AM Peak: Outer Cordon

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
KINGSWAY	Inbound	3042	2935	-107	-4%	1.9	✓	✓
BLACKBROOK ROAD	Inbound	684	695	11	2%	0.4	✓	✓
WARRINGTON ROAD	Inbound	665	635	-30	-5%	1.2	✓	✓
QUEENSWAY	Inbound	3388	3429	41	1%	0.7	✓	✓
QUEENSWAY (MERSEY TUNNEL)	Inbound	2181	2286	105	5%	2.2	✓	✓
MOSS BANK ROAD	Inbound	425	441	15	4%	0.7	✓	✓
EAST LANCASHIRE ROAD	Inbound	1810	1610	-200	-11%	4.8	✓	✓
PENNINGTON LANE	Inbound	504	521	18	4%	0.8	✓	✓
M62 between J7&J8	Inbound	4149	4172	23	1%	0.4	✓	✓
SOUTH LANE	Inbound	201	194	-7	-4%	0.5	✓	✓
WIDNES ROAD	Inbound	659	537	-122	-18%	5.0	✗	✓
MOSS BANK ROAD	Outbound	504	504	0	0%	0.0	✓	✓
EAST LANCASHIRE ROAD	Outbound	1662	1638	-24	-1%	0.6	✓	✓
PENNINGTON LANE	Outbound	425	425	0	0%	0.0	✓	✓
M62 between J7&J8	Outbound	3576	3608	32	1%	0.5	✓	✓
SOUTH LANE	Outbound	405	380	-24	-6%	1.2	✓	✓
WIDNES ROAD	Outbound	442	441	-1	0%	0.1	✓	✓
KINGSWAY	Outbound	1752	1722	-30	-2%	0.7	✓	✓
BLACKBROOK ROAD	Outbound	906	909	4	0%	0.1	✓	✓
WARRINGTON ROAD	Outbound	519	509	-10	-2%	0.4	✓	✓
QUEENSWAY	Outbound	3341	3348	8	0%	0.1	✓	✓
QUEENSWAY (MERSEY TUNNEL)	Outbound	1321	1350	29	2%	0.8	✓	✓
BIRKDALE COP	Inbound	304	301	-3	-1%	0.2	✓	✓
CAUSEWAY LANE	Inbound	408	288	-120	-29%	6.4	✗	✗
LIVERPOOL ROAD	Inbound	1202	1200	-2	0%	0.1	✓	✓
SCARISBRICK NEW ROAD	Inbound	710	712	2	0%	0.1	✓	✓

ALDER LANE	Inbound	1011	893	-118	-12%	3.8	✓	✓
SCHOOL LANE	Inbound	473	472	-1	0%	0.0	✓	✓
M58 between M58 J5 & M58/M6 J26	Inbound	2695	2656	-39	-1%	0.8	✓	✓
LIVERPOOL ROAD	Outbound	1038	1038	0	0%	0.0	✓	✓
SCARISBRICK NEW ROAD	Outbound	883	877	-5	-1%	0.2	✓	✓
ALDER LANE	Outbound	856	829	-27	-3%	0.9	✓	✓
SCHOOL LANE	Outbound	408	407	-1	0%	0.0	✓	✓
M58 between M58 J5 & M58/M6 J26	Outbound	2002	2007	5	0%	0.1	✓	✓
BIRKDALE COP	Outbound	276	256	-21	-7%	1.3	✓	✓
CAUSEWAY LANE	Outbound	288	228	-60	-21%	3.7	✓	✓
Individual Links	Inbound						89%	94%
	Outbound						100%	100%
	Both Directions						94%	97%
Screenline Total	Inbound	24512	23976	-535	-2%		✓	
	Outbound	20603	20477	-126	-1%		✓	

AM Peak: Inner Cordon

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
A565 Crosby Road North	Inbound	857	1101	244	28%	7.8	✗	✗
Seaforth	Inbound	553	509	-44	-8%	1.9	✓	✓
A59 Walton Vale	Inbound	1069	1087	17	2%	0.5	✓	✓
A5038 Bailey Drive	Inbound	1003	967	-37	-4%	1.2	✓	✓
A5090 Hawthorne Road	Inbound	461	367	-94	-20%	4.6	✓	✓
A567 Stanley Road	Inbound	223	212	-10	-5%	0.7	✓	✓
A565 Primrose Road	Inbound	1351	1373	22	2%	0.6	✓	✓
A580 Townsend Avenue	Inbound	402	385	-17	-4%	0.9	✓	✓
Utting Avenue East	Inbound	359	352	-8	-2%	0.4	✓	✓
Muirhead Avenue East	Inbound	505	222	-283	-56%	14.8	✗	✗
B5167 Stopgate Lane	Inbound	737	641	-96	-13%	3.6	✓	✓
A580 East Lancs Road	Inbound	1245	1234	-12	-1%	0.3	✓	✓
Seaforth	Outbound	486	411	-75	-15%	3.5	✓	✓

A59 Walton Vale	Outbound	1278	1163	-115	-9%	3.3	✓	✓
A5038 Bailey Drive	Outbound	1469	1436	-33	-2%	0.9	✓	✓
A5090 Hawthorne Road	Outbound	780	681	-98	-13%	3.6	✓	✓
A567 Stanley Road	Outbound	423	389	-35	-8%	1.7	✓	✓
A565 Primrose Road	Outbound	2254	2382	128	6%	2.7	✓	✓
A580 Townsend Avenue	Outbound	485	487	3	1%	0.1	✓	✓
Utting Avenue East	Outbound	501	501	0	0%	0.0	✓	✓
Muirhead Avenue East	Outbound	765	724	-41	-5%	1.5	✓	✓
B5167 Stopgate Lane	Outbound	722	590	-132	-18%	5.1	✗	✗
A580 East Lancs Road	Outbound	1857	1742	-116	-6%	2.7	✓	✓
A565 Crosby Road North	Outbound	563	692	129	23%	5.2	✗	✗
Park Wall Road	Inbound	331	307	-25	-7%	1.4	✓	✓
A5147 Southport Road	Inbound	613	618	5	1%	0.2	✓	✓
Brickwall Lane	Inbound	669	647	-22	-3%	0.9	✓	✓
Northern Perimeter Road	Inbound	898	931	33	4%	1.1	✓	✓
Edge Lane	Inbound	1027	964	-63	-6%	2.0	✓	✓
Park Wall Road	Outbound	137	111	-26	-19%	2.3	✓	✓
A5147 Southport Road	Outbound	447	436	-11	-2%	0.5	✓	✓
Brickwall Lane	Outbound	300	299	-1	0%	0.0	✓	✓
Northern Perimeter Road	Outbound	657	625	-32	-5%	1.3	✓	✓
Edge Lane	Outbound	776	707	-70	-9%	2.6	✓	✓
Blind Foot Rd	Inbound	325	322	-3	-1%	0.2	✓	✓
Carr Lane	Inbound	294	292	-2	-1%	0.1	✓	✓
A58 Prescott Bypass	Inbound	675	678	3	0%	0.1	✓	✓
A570 Rainford Rd	Inbound	573	480	-93	-16%	4.1	✓	✓
A57 Derby Road	Inbound	648	611	-37	-6%	1.5	✓	✓
Manchester Road	Inbound	459	264	-195	-42%	10.2	✗	✗
A580 East Lancs Rd	Inbound	829	751	-78	-9%	2.8	✓	✓
Gillars Lane	Inbound	324	332	8	3%	0.5	✓	✓
Seth Powell Way	Inbound	677	643	-33	-5%	1.3	✓	✓
A57 Liverpool Road	Inbound	607	606	-1	0%	0.0	✓	✓
Carr Lane	Outbound	301	276	-25	-8%	1.5	✓	✓
A58 Prescott Bypass	Outbound	787	792	5	1%	0.2	✓	✓

A570 Rainford Rd	Outbound	572	569	-3	-1%	0.1	✓	✓
A57 Derby Road	Outbound	653	648	-5	-1%	0.2	✓	✓
Manchester Road	Outbound	351	349	-2	-1%	0.1	✓	✓
A580 East Lancs Rd	Outbound	1288	1145	-143	-11%	4.1	✓	✓
Gillars Lane	Outbound	328	345	17	5%	0.9	✓	✓
Seth Powell Way	Outbound	786	782	-4	-1%	0.2	✓	✓
A57 Liverpool Road	Outbound	599	601	2	0%	0.1	✓	✓
Blind Foot Rd	Outbound	412	410	-2	0%	0.1	✓	✓
Individual Links	Inbound						89%	89%
	Outbound						93%	93%
	Both Directions						91%	91%
Screenline Total	Inbound	17715	16897	-818	-5%		✓	
	Outbound	19976	19292	-685	-3%		✓	

AM Peak: Screenline1

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
A59-Northway	NB	740	740	0	0%	0.0	✓	✓
A5147 LIVERPOOL ROAD	NB	475	448	-28	-6%	1.3	✓	✓
Lunt Lane	NB	182	166	-15	-8%	1.2	✓	✓
Edge Lane	NB	776	707	-70	-9%	2.6	✓	✓
GORSEY LANE	NB	648	638	-9	-1%	0.4	✓	✓
A5207 Lydiate Lane	NB	699	717	18	3%	0.7	✓	✓
A5207 Lydiate Lane	SB	1045	1068	23	2%	0.7	✓	✓
A59-Northway	SB	802	819	17	2%	0.6	✓	✓
A5147 LIVERPOOL ROAD	SB	664	643	-22	-3%	0.8	✓	✓
Lunt Lane	SB	535	531	-3	-1%	0.1	✓	✓
Edge Lane	SB	1027	964	-63	-6%	2.0	✓	✓
GORSEY LANE	SB	1093	988	-105	-10%	3.3	✓	✓
Individual Links	NB						100%	100%
	SB						100%	100%
	Both Directions						100%	100%
Screenline Total	NB	3520	3417	-103	-3%		✓	
	SB	5166	5012	-154	-3%		✓	

AM Peak: Screenline2

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
Park Lane	NB	319	312	-7	-2%	0.4	✓	✓
ORMSKIRK ROAD	NB	569	577	8	1%	0.3	✓	✓
WADDICAR LANE	NB	251	259	8	3%	0.5	✓	✓
VALLEY ROAD	NB	1031	1045	14	1%	0.4	✓	✓
STONEBRIDGE LANE	NB	576	467	-108	-19%	4.7	*	✓
EAST LANCASHIRE ROAD	NB	1020	1136	116	11%	3.5	✓	✓
Park Lane	SB	752	738	-14	-2%	0.5	✓	✓
ORMSKIRK ROAD	SB	903	878	-25	-3%	0.9	✓	✓
WADDICAR LANE	SB	634	551	-83	-13%	3.4	✓	✓
VALLEY ROAD	SB	1360	1330	-30	-2%	0.8	✓	✓
STONEBRIDGE LANE	SB	814	809	-5	-1%	0.2	✓	✓
EAST LANCASHIRE ROAD	SB	1101	1194	93	8%	2.8	✓	✓
Individual Links	NB						83%	100%
	SB						100%	100%
	Both Directions						92%	100%
Screenline Total	NB	3765	3796	30	1%		✓	
	SB	5563	5499	-64	-1%		✓	

AM Peak: Screenline3

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
Northern Perimeter Road	EB	898	931	33	4%	1.1	✓	✓
Glovers Lane	EB	669	516	-153	-23%	6.3	✗	✗
Park Lane West	EB	697	615	-82	-12%	3.2	✓	✓
A5036 between A5038 and A5207 (TRADS)	EB	2366	2226	-140	-6%	2.9	✓	✓
WARBRECK MOOR	EB	611	635	24	4%	1.0	✓	✓
LONGMOOR LANE	EB	666	689	24	4%	0.9	✓	✓
Northern Perimeter Road	WB	657	625	-32	-5%	1.3	✓	✓
Glovers Lane	WB	411	416	6	1%	0.3	✓	✓
Park Lane West	WB	409	524	115	28%	5.3	✗	✗
A5036 between A5038 and A5207 (TRADS)	WB	1863	1896	33	2%	0.8	✓	✓
WARBRECK MOOR	WB	893	857	-36	-4%	1.2	✓	✓
LONGMOOR LANE	WB	564	714	150	27%	5.9	✗	✗
Individual Links	EB						83%	83%
	WB						67%	67%
	Both Directions						75%	75%
Screenline Total	EB	5906	5612	-294	-5%		✓	
	WB	4797	5032	235	5%		✓	

AM Peak: Screenline4

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
A5147 MAIRSCOUGH LANE	NB	452	436	-16	-4%	0.8	✓	✓
A565	NB	740	740	0	0%	0.0	✓	✓
A506 CUNSCOUGH LANE	NB	260	256	-4	-2%	0.3	✓	✓
Bank Lane	NB	638	621	-17	-3%	0.7	✓	✓
VALLEY ROAD	NB	1138	1127	-11	-1%	0.3	✓	✓
M58 J1-3	NB	1680	1652	-28	-2%	0.7	✓	✓
A5147 MAIRSCOUGH LANE	SB	621	618	-2	0%	0.1	✓	✓
A565	SB	802	819	17	2%	0.6	✓	✓
A506 CUNSCOUGH LANE	SB	320	325	5	2%	0.3	✓	✓
Bank Lane	SB	485	483	-2	0%	0.1	✓	✓
VALLEY ROAD	SB	1165	1174	9	1%	0.3	✓	✓
M58 J1-3	SB	1673	1633	-40	-2%	1.0	✓	✓
Individual Links	NB						100%	100%
	SB						100%	100%
	Both Directions						100%	100%
Screenline Total	NB	4908	4833	-75	-2%		✓	
	SB	5066	5052	-14	0%		✓	

Inter Peak: Outer Cordon

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
KINGSWAY	Inbound	1190	1190	0	0%	0.0	✓	✓
BLACKBROOK ROAD	Inbound	760	764	4	1%	0.1	✓	✓
WARRINGTON ROAD	Inbound	432	433	1	0%	0.0	✓	✓
QUEENSWAY	Inbound	2562	2565	4	0%	0.1	✓	✓
QUEENSWAY (MERSEY TUNNEL)	Inbound	800	798	-2	0%	0.1	✓	✓
MOSS BANK ROAD	Inbound	348	348	0	0%	0.0	✓	✓
EAST LANCASHIRE ROAD	Inbound	1215	1208	-7	-1%	0.2	✓	✓
PENNINGTON LANE	Inbound	357	357	0	0%	0.0	✓	✓
M62 between J7&J8	Inbound	3056	3058	2	0%	0.0	✓	✓
SOUTH LANE	Inbound	177	177	0	0%	0.0	✓	✓
WIDNES ROAD	Inbound	492	493	1	0%	0.1	✓	✓
MOSS BANK ROAD	Outbound	357	357	0	0%	0.0	✓	✓
EAST LANCASHIRE ROAD	Outbound	1122	1115	-7	-1%	0.2	✓	✓
PENNINGTON LANE	Outbound	348	348	0	0%	0.0	✓	✓
M62 between J7&J8	Outbound	3175	3180	5	0%	0.1	✓	✓
SOUTH LANE	Outbound	214	199	-15	-7%	1.1	✓	✓
WIDNES ROAD	Outbound	528	514	-14	-3%	0.6	✓	✓
KINGSWAY	Outbound	1276	1277	1	0%	0.0	✓	✓
BLACKBROOK ROAD	Outbound	752	752	0	0%	0.0	✓	✓
WARRINGTON ROAD	Outbound	411	404	-7	-2%	0.3	✓	✓
QUEENSWAY	Outbound	2392	2405	13	1%	0.3	✓	✓
QUEENSWAY (MERSEY TUNNEL)	Outbound	740	740	0	0%	0.0	✓	✓
BIRKDALE COP	Inbound	197	197	0	0%	0.0	✓	✓
CAUSEWAY LANE	Inbound	387	368	-19	-5%	1.0	✓	✓
LIVERPOOL ROAD	Inbound	976	976	1	0%	0.0	✓	✓
SCARISBRICK NEW ROAD	Inbound	812	812	0	0%	0.0	✓	✓
ALDER LANE	Inbound	627	625	-2	0%	0.1	✓	✓
SCHOOL LANE	Inbound	333	307	-26	-8%	1.4	✓	✓
M58 between M58 J5 & M58/M6 J26	Inbound	1456	1461	5	0%	0.1	✓	✓
LIVERPOOL ROAD	Outbound	989	988	-1	0%	0.0	✓	✓
SCARISBRICK NEW ROAD	Outbound	836	836	0	0%	0.0	✓	✓
ALDER LANE	Outbound	630	630	0	0%	0.0	✓	✓
SCHOOL LANE	Outbound	332	311	-21	-6%	1.2	✓	✓
M58 between M58 J5 & M58/M6 J26	Outbound	1544	1550	6	0%	0.2	✓	✓
BIRKDALE COP	Outbound	175	169	-6	-3%	0.4	✓	✓

CAUSEWAY LANE	Outbound	389	329	-61	-16%	3.2	✓	✓
Individual Links	Inbound						100%	100%
	Outbound						100%	100%
	Both Directions						100%	100%
Screenline Total	Inbound	16177	16138	-39	0%		✓	
	Outbound	16211	16105	-106	-1%		✓	

Inter Peak: Inner Cordon

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
A565 Crosby Road North	Inbound	540	530	-10	-2%	0.4	✓	✓
Seaforth	Inbound	432	432	0	0%	0.0	✓	✓
A59 Walton Vale	Inbound	1162	1155	-6	-1%	0.2	✓	✓
A5038 Bailey Drive	Inbound	814	823	9	1%	0.3	✓	✓
A5090 Hawthorne Road	Inbound	637	545	-92	-14%	3.8	✓	✓
A567 Stanley Road	Inbound	307	293	-14	-5%	0.8	✓	✓
A565 Primrose Road	Inbound	1271	1292	21	2%	0.6	✓	✓
A580 Townsend Avenue	Inbound	345	376	31	9%	1.6	✓	✓
Utting Avenue East	Inbound	358	357	-1	0%	0.1	✓	✓
Muirhead Avenue East	Inbound	552	352	-199	-36%	9.4	x	x
B5167 Stopgate Lane	Inbound	642	630	-12	-2%	0.5	✓	✓
A580 East Lancs Road	Inbound	1065	1060	-5	0%	0.1	✓	✓
Seaforth	Outbound	540	382	-158	-29%	7.3	x	x
A59 Walton Vale	Outbound	1172	1035	-137	-12%	4.1	✓	✓
A5038 Bailey Drive	Outbound	761	769	9	1%	0.3	✓	✓
A5090 Hawthorne Road	Outbound	602	587	-15	-2%	0.6	✓	✓
A567 Stanley Road	Outbound	311	303	-8	-3%	0.5	✓	✓
A565 Primrose Road	Outbound	1097	1158	61	6%	1.8	✓	✓
A580 Townsend Avenue	Outbound	305	332	27	9%	1.5	✓	✓
Utting Avenue East	Outbound	299	299	0	0%	0.0	✓	✓
Muirhead Avenue East	Outbound	537	342	-195	-36%	9.3	x	x
B5167 Stopgate Lane	Outbound	748	749	1	0%	0.0	✓	✓
A580 East Lancs Road	Outbound	1100	1076	-24	-2%	0.7	✓	✓
A565 Crosby Road North	Outbound	585	588	3	0%	0.1	✓	✓
Park Wall Road	Inbound	101	86	-16	-16%	1.6	✓	✓
A5147 Southport Road	Inbound	299	300	2	1%	0.1	✓	✓
Brickwall Lane	Inbound	361	350	-10	-3%	0.6	✓	✓

Northern Perimeter Road	Inbound	628	599	-28	-5%	1.1	✓	✓	
Edge Lane	Inbound	521	522	1	0%	0.0	✓	✓	
Park Wall Road	Outbound	115	107	-8	-7%	0.8	✓	✓	
A5147 Southport Road	Outbound	347	348	1	0%	0.1	✓	✓	
Brickwall Lane	Outbound	302	302	0	0%	0.0	✓	✓	
Northern Perimeter Road	Outbound	635	614	-21	-3%	0.8	✓	✓	
Edge Lane	Outbound	596	592	-4	-1%	0.2	✓	✓	
Blind Foot Rd	Inbound	177	176	0	0%	0.0	✓	✓	
Carr Lane	Inbound	331	330	-1	0%	0.0	✓	✓	
A58 Prescott Bypass	Inbound	444	444	0	0%	0.0	✓	✓	
A570 Rainford Rd	Inbound	364	363	-1	0%	0.0	✓	✓	
A57 Derby Road	Inbound	440	441	1	0%	0.0	✓	✓	
Manchester Road	Inbound	300	236	-64	-21%	3.9	✓	✓	
A580 East Lancs Rd	Inbound	757	753	-4	0%	0.1	✓	✓	
Gillars Lane	Inbound	165	175	9	6%	0.7	✓	✓	
Seth Powell Way	Inbound	415	393	-22	-5%	1.1	✓	✓	
A57 Liverpool Road	Inbound	445	443	-1	0%	0.1	✓	✓	
Carr Lane	Outbound	304	305	1	0%	0.1	✓	✓	
A58 Prescott Bypass	Outbound	411	413	2	0%	0.1	✓	✓	
A570 Rainford Rd	Outbound	424	428	4	1%	0.2	✓	✓	
A57 Derby Road	Outbound	389	390	2	0%	0.1	✓	✓	
Manchester Road	Outbound	324	268	-56	-17%	3.2	✓	✓	
A580 East Lancs Rd	Outbound	752	739	-13	-2%	0.5	✓	✓	
Gillars Lane	Outbound	206	199	-6	-3%	0.5	✓	✓	
Seth Powell Way	Outbound	459	425	-34	-7%	1.6	✓	✓	
A57 Liverpool Road	Outbound	431	431	1	0%	0.0	✓	✓	
Blind Foot Rd	Outbound	160	160	0	0%	0.0	✓	✓	
Individual Links	Inbound							96%	96%
	Outbound							93%	93%
	Both Directions							94%	94%
Screenline Total	Inbound	13875	13459	-415	-3%		✓		
	Outbound	13910	13343	-567	-4%		✓		

Inter Peak: Screenline1

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
A59-Northway	NB	585	585	-1	0%	0.0	✓	✓
A5147 LIVERPOOL ROAD	NB	362	362	0	0%	0.0	✓	✓
Lunt Lane	NB	114	125	11	9%	1.0	✓	✓
Edge Lane	NB	596	592	-4	-1%	0.2	✓	✓
GORSEY LANE	NB	566	593	27	5%	1.1	✓	✓
A5207 Lydiate Lane	NB	634	634	0	0%	0.0	✓	✓
A5207 Lydiate Lane	SB	621	622	0	0%	0.0	✓	✓
A59-Northway	SB	557	557	0	0%	0.0	✓	✓
A5147 LIVERPOOL ROAD	SB	372	374	1	0%	0.1	✓	✓
Lunt Lane	SB	114	128	14	13%	1.3	✓	✓
Edge Lane	SB	521	522	1	0%	0.0	✓	✓
GORSEY LANE	SB	601	590	-11	-2%	0.5	✓	✓
Individual Links	NB						100%	100%
	SB						100%	100%
	Both Directions						100%	100%
Screenline Total	NB	2858	2890	32	1%		✓	
	SB	2787	2793	6	0%		✓	

Inter Peak: Screenline2

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
Park Lane	NB	431	433	2	0%	0.1	✓	✓
ORMSKIRK ROAD	NB	768	767	-1	0%	0.0	✓	✓
WADDICAR LANE	NB	273	273	0	0%	0.0	✓	✓
VALLEY ROAD	NB	780	775	-5	-1%	0.2	✓	✓
STONEBRIDGE LANE	NB	429	382	-47	-11%	2.3	✓	✓
EAST LANCASHIRE ROAD	NB	767	888	121	16%	4.2	*	✓
Park Lane	SB	468	469	1	0%	0.1	✓	✓
ORMSKIRK ROAD	SB	864	854	-11	-1%	0.4	✓	✓
WADDICAR LANE	SB	249	239	-10	-4%	0.6	✓	✓
VALLEY ROAD	SB	841	841	0	0%	0.0	✓	✓
STONEBRIDGE LANE	SB	588	549	-39	-7%	1.7	✓	✓
EAST LANCASHIRE ROAD	SB	753	812	59	8%	2.1	✓	✓

Individual Links	NB						83%	100%
	SB						100%	100%
	Both Directions						92%	100%
Screenline Total	NB	3448	3518	70	2%		✓	
	SB	3764	3764	0	0%		✓	

Inter Peak: Screenline3

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
Northern Perimeter Road	EB	628	599	-28	-5%	1.1	✓	✓
Glovers Lane	EB	382	386	4	1%	0.2	✓	✓
Park Lane West	EB	472	475	3	1%	0.1	✓	✓
A5036 between A5038 and A5207 (TRADS)	EB	1436	1443	7	0%	0.2	✓	✓
WARBRECK MOOR	EB	722	718	-4	0%	0.1	✓	✓
LONGMOOR LANE	EB	545	490	-54	-10%	2.4	✓	✓
Northern Perimeter Road	WB	635	614	-21	-3%	0.8	✓	✓
Glovers Lane	WB	431	447	16	4%	0.8	✓	✓
Park Lane West	WB	477	481	4	1%	0.2	✓	✓
A5036 between A5038 and A5207 (TRADS)	WB	1464	1469	6	0%	0.2	✓	✓
WARBRECK MOOR	WB	699	694	-5	-1%	0.2	✓	✓
LONGMOOR LANE	WB	538	579	41	8%	1.7	✓	✓
Individual Links	EB						100%	100%
	WB						100%	100%
	Both Directions						100%	100%
Screenline Total	EB	4184	4112	-72	-2%		✓	
	WB	4243	4284	41	1%		✓	

Inter Peak: Screenline4

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
A5147 MAIRSCOUGH LANE	NB	355	348	-7	-2%	0.3	✓	✓
A565	NB	585	585	-1	0%	0.0	✓	✓
A506 CUNSCOUGH LANE	NB	183	183	0	0%	0.0	✓	✓
Bank Lane	NB	369	370	1	0%	0.1	✓	✓
VALLEY ROAD	NB	857	857	0	0%	0.0	✓	✓

M58 J1-3	NB	881	887	5	1%	0.2	✓	✓
A5147 MAIRSCOUGH LANE	SB	305	300	-5	-2%	0.3	✓	✓
A565	SB	557	557	0	0%	0.0	✓	✓
A506 CUNSCOUGH LANE	SB	176	176	0	0%	0.0	✓	✓
Bank Lane	SB	349	347	-2	-1%	0.1	✓	✓
VALLEY ROAD	SB	897	898	1	0%	0.0	✓	✓
M58 J1-3	SB	932	933	1	0%	0.0	✓	✓
Individual Links	NB						100%	100%
	SB						100%	100%
	Both Directions						100%	100%
Screenline Total	NB	3230	3229	-1	0%		✓	
	SB	3216	3210	-6	0%		✓	

PM Peak: Outer Cordon

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
KINGSWAY	Inbound	1641	1632	-9	-1%	0.2	✓	✓
BLACKBROOK ROAD	Inbound	1022	1029	7	1%	0.2	✓	✓
WARRINGTON ROAD	Inbound	509	523	14	3%	0.6	✓	✓
QUEENSWAY	Inbound	3514	3505	-9	0%	0.2	✓	✓
QUEENSWAY (MERSEY TUNNEL)	Inbound	1305	1314	9	1%	0.2	✓	✓
MOSS BANK ROAD	Inbound	494	447	-47	-9%	2.1	✓	✓
EAST LANCASHIRE ROAD	Inbound	1849	1748	-101	-5%	2.4	✓	✓
PENNINGTON LANE	Inbound	361	398	37	10%	1.9	✓	✓
M62 between J7&J8	Inbound	4535	4545	10	0%	0.2	✓	✓
SOUTH LANE	Inbound	315	315	0	0%	0.0	✓	✓
WIDNES ROAD	Inbound	455	438	-17	-4%	0.8	✓	✓
MOSS BANK ROAD	Outbound	361	341	-20	-5%	1.1	✓	✓
EAST LANCASHIRE ROAD	Outbound	1769	1651	-118	-7%	2.9	✓	✓
PENNINGTON LANE	Outbound	494	449	-44	-9%	2.0	✓	✓
M62 between J7&J8	Outbound	4090	4092	2	0%	0.0	✓	✓
SOUTH LANE	Outbound	232	222	-9	-4%	0.6	✓	✓
WIDNES ROAD	Outbound	656	653	-3	0%	0.1	✓	✓
KINGSWAY	Outbound	2952	2712	-240	-8%	4.5	✓	✓
BLACKBROOK ROAD	Outbound	868	886	18	2%	0.6	✓	✓
WARRINGTON ROAD	Outbound	577	543	-34	-6%	1.4	✓	✓
QUEENSWAY	Outbound	3280	3311	31	1%	0.5	✓	✓

QUEENSWAY (MERSEY TUNNEL)	Outbound	1813	1955	142	8%	3.3	✓	✓
BIRKDALE COP	Inbound	298	292	-7	-2%	0.4	✓	✓
CAUSEWAY LANE	Inbound	433	384	-50	-11%	2.5	✓	✓
LIVERPOOL ROAD	Inbound	1003	1001	-2	0%	0.1	✓	✓
SCARISBRICK NEW ROAD	Inbound	775	785	11	1%	0.4	✓	✓
ALDER LANE	Inbound	892	851	-41	-5%	1.4	✓	✓
SCHOOL LANE	Inbound	493	472	-21	-4%	1.0	✓	✓
M58 between M58 J5 & M58/M6 J26	Inbound	2391	2454	63	3%	1.3	✓	✓
LIVERPOOL ROAD	Outbound	1178	1185	8	1%	0.2	✓	✓
SCARISBRICK NEW ROAD	Outbound	862	867	5	1%	0.2	✓	✓
ALDER LANE	Outbound	839	811	-28	-3%	1.0	✓	✓
SCHOOL LANE	Outbound	384	366	-18	-5%	0.9	✓	✓
M58 between M58 J5 & M58/M6 J26	Outbound	2051	2046	-5	0%	0.1	✓	✓
BIRKDALE COP	Outbound	238	227	-12	-5%	0.8	✓	✓
CAUSEWAY LANE	Outbound	455	376	-79	-17%	3.9	✓	✓
Individual Links	Inbound						100%	100%
	Outbound						100%	100%
	Both Directions						100%	100%
Screenline Total	Inbound	22285	22133	-152	-1%		✓	
	Outbound	23097	22692	-405	-2%		✓	

PM Peak: Inner Cordon

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	DMRB	
							Flow	GEH
A565 Crosby Road North	Inbound	534	546	12	2%	0.5	✓	✓
Seaforth	Inbound	386	211	-175	-45%	10.1	✗	✗
A59 Walton Vale	Inbound	1220	1195	-25	-2%	0.7	✓	✓
A5038 Bailey Drive	Inbound	1393	1394	1	0%	0.0	✓	✓
A5090 Hawthorne Road	Inbound	790	696	-94	-12%	3.4	✓	✓
A567 Stanley Road	Inbound	422	404	-18	-4%	0.9	✓	✓
A565 Primrose Road	Inbound	2367	2448	81	3%	1.6	✓	✓
A580 Townsend Avenue	Inbound	517	520	3	1%	0.1	✓	✓
Utting Avenue East	Inbound	455	455	0	0%	0.0	✓	✓
Muirhead Avenue East	Inbound	751	715	-36	-5%	1.3	✓	✓
B5167 Stopgate Lane	Inbound	517	392	-125	-24%	5.9	✗	✗
A580 East Lancs Road	Inbound	1438	1438	0	0%	0.0	✓	✓
Seaforth	Outbound	513	382	-131	-26%	6.2	✗	✗

A59 Walton Vale	Outbound	1220	995	-225	-18%	6.8	x	x
A5038 Bailey Drive	Outbound	984	943	-41	-4%	1.3	✓	✓
A5090 Hawthorne Road	Outbound	580	575	-4	-1%	0.2	✓	✓
A567 Stanley Road	Outbound	277	270	-7	-2%	0.4	✓	✓
A565 Primrose Road	Outbound	1143	1186	43	4%	1.3	✓	✓
A580 Townsend Avenue	Outbound	434	446	12	3%	0.6	✓	✓
Utting Avenue East	Outbound	304	305	1	0%	0.0	✓	✓
Muirhead Avenue East	Outbound	619	373	-246	-40%	11.0	x	x
B5167 Stopgate Lane	Outbound	809	750	-59	-7%	2.1	✓	✓
A580 East Lancs Road	Outbound	1338	1287	-51	-4%	1.4	✓	✓
A565 Crosby Road North	Outbound	870	1170	300	34%	9.4	x	x
Park Wall Road	Inbound	108	97	-10	-9%	1.0	✓	✓
A5147 Southport Road	Inbound	446	442	-4	-1%	0.2	✓	✓
Brickwall Lane	Inbound	411	417	6	1%	0.3	✓	✓
Northern Perimeter Road	Inbound	605	633	28	5%	1.1	✓	✓
Edge Lane	Inbound	563	541	-22	-4%	0.9	✓	✓
Park Wall Road	Outbound	366	363	-3	-1%	0.2	✓	✓
A5147 Southport Road	Outbound	626	622	-4	-1%	0.2	✓	✓
Brickwall Lane	Outbound	493	506	12	3%	0.6	✓	✓
Northern Perimeter Road	Outbound	931	886	-46	-5%	1.5	✓	✓
Edge Lane	Outbound	1088	981	-107	-10%	3.3	✓	✓
Blind Foot Rd	Inbound	399	393	-6	-1%	0.3	✓	✓
Carr Lane	Inbound	411	429	18	4%	0.9	✓	✓
A58 Prescott Bypass	Inbound	815	808	-7	-1%	0.3	✓	✓
A570 Rainford Rd	Inbound	623	637	14	2%	0.6	✓	✓
A57 Derby Road	Inbound	467	499	32	7%	1.5	✓	✓
Manchester Road	Inbound	417	296	-121	-29%	6.4	x	x
A580 East Lancs Rd	Inbound	1073	1042	-31	-3%	1.0	✓	✓
Gillars Lane	Inbound	293	390	97	33%	5.2	✓	x
Seth Powell Way	Inbound	639	641	2	0%	0.1	✓	✓
A57 Liverpool Road	Inbound	578	575	-3	0%	0.1	✓	✓
Carr Lane	Outbound	373	381	9	2%	0.4	✓	✓
A58 Prescott Bypass	Outbound	563	558	-5	-1%	0.2	✓	✓
A570 Rainford Rd	Outbound	721	653	-68	-9%	2.6	✓	✓
A57 Derby Road	Outbound	475	480	5	1%	0.2	✓	✓
Manchester Road	Outbound	420	340	-80	-19%	4.1	✓	✓
A580 East Lancs Rd	Outbound	817	840	23	3%	0.8	✓	✓
Gillars Lane	Outbound	345	304	-41	-12%	2.3	✓	✓
Seth Powell Way	Outbound	765	750	-16	-2%	0.6	✓	✓

A57 Liverpool Road	Outbound	618	616	-2	0%	0.1	✓	✓
Blind Foot Rd	Outbound	222	221	-1	0%	0.0	✓	✓
Individual Links	Inbound						89%	85%
	Outbound						85%	85%
	Both Directions						87%	85%
Screenline Total	Inbound	18638	18256	-382	-2%		✓	
	Outbound	17915	17183	-732	-4%		✓	

PM Peak: Screenline1

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
A59-Northway	NB	866	862	-4	0%	0.1	✓	✓
A5147 LIVERPOOL ROAD	NB	577	556	-21	-4%	0.9	✓	✓
Lunt Lane	NB	405	454	48	12%	2.3	✓	✓
Edge Lane	NB	1088	981	-107	-10%	3.3	✓	✓
GORSEY LANE	NB	935	886	-49	-5%	1.6	✓	✓
A5207 Lydiat Lane	NB	971	970	-1	0%	0.0	✓	✓
A5207 Lydiat Lane	SB	626	647	21	3%	0.8	✓	✓
A59-Northway	SB	687	687	-1	0%	0.0	✓	✓
A5147 LIVERPOOL ROAD	SB	509	486	-23	-4%	1.0	✓	✓
Lunt Lane	SB	150	143	-7	-5%	0.6	✓	✓
Edge Lane	SB	563	541	-22	-4%	0.9	✓	✓
GORSEY LANE	SB	631	609	-22	-3%	0.9	✓	✓
Individual Links	NB						100%	100%
	SB						100%	100%
	Both Directions						100%	100%
Screenline Total	NB	4843	4708	-134	-3%		✓	
	SB	3166	3113	-53	-2%		✓	

PM Peak: Screenline2

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
Park Lane	NB	612	573	-39	-6%	1.6	✓	✓
ORMSKIRK ROAD	NB	752	758	7	1%	0.2	✓	✓
WADDICAR LANE	NB	573	564	-9	-2%	0.4	✓	✓
VALLEY ROAD	NB	1114	1089	-25	-2%	0.8	✓	✓
STONEBRIDGE LANE	NB	591	530	-61	-10%	2.6	✓	✓
EAST LANCASHIRE ROAD	NB	1195	1219	24	2%	0.7	✓	✓
Park Lane	SB	410	397	-13	-3%	0.6	✓	✓
ORMSKIRK ROAD	SB	940	885	-55	-6%	1.8	✓	✓
WADDICAR LANE	SB	322	330	8	2%	0.4	✓	✓
VALLEY ROAD	SB	1216	1219	3	0%	0.1	✓	✓
STONEBRIDGE LANE	SB	851	764	-87	-10%	3.1	✓	✓
EAST LANCASHIRE ROAD	SB	1082	1100	18	2%	0.5	✓	✓
Individual Links	NB						100%	100%
	SB						100%	100%
	Both Directions						100%	100%
Screenline Total	NB	4838	4735	-103	-2%		✓	
	SB	4820	4693	-126	-3%		✓	

PM Peak: Screenline3

Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
Northern Perimeter Road	EB	605	633	28	5%	1.1	✓	✓
Glovers Lane	EB	396	387	-10	-2%	0.5	✓	✓
Park Lane West	EB	432	553	120	28%	5.4	✗	✗
A5036 between A5038 and A5207 (TRADS)	EB	1742	1703	-39	-2%	0.9	✓	✓
WARBRECK MOOR	EB	768	773	6	1%	0.2	✓	✓
LONGMOOR LANE	EB	580	540	-40	-7%	1.7	✓	✓
Northern Perimeter Road	WB	931	886	-46	-5%	1.5	✓	✓
Glovers Lane	WB	668	664	-5	-1%	0.2	✓	✓
Park Lane West	WB	698	662	-36	-5%	1.4	✓	✓
A5036 between A5038 and A5207 (TRADS)	WB	2075	1904	-171	-8%	3.8	✓	✓
WARBRECK MOOR	WB	721	716	-5	-1%	0.2	✓	✓

LONGMOOR LANE	WB	590	547	-42	-7%	1.8	✓	✓
Individual Links	EB						83%	83%
	WB						100%	100%
	Both Directions						92%	92%
Screenline Total	EB	4523	4588	65	1%		✓	
	WB	5683	5379	-305	-5%		*	

PM Peak: Screenline4

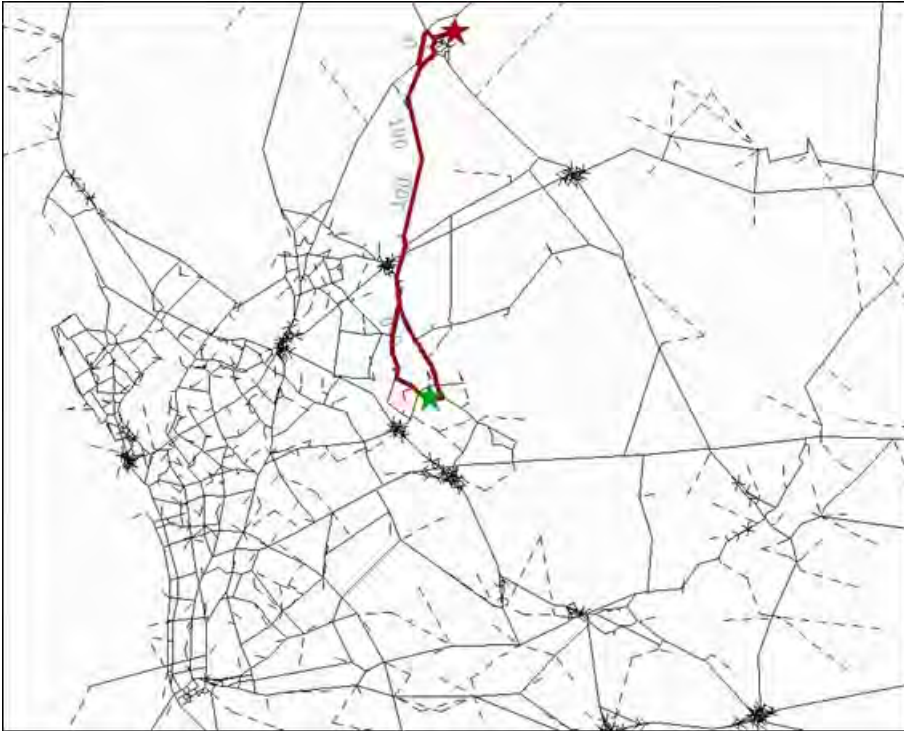
Location	Direction	Count (Total)	Model (Total)	Difference	% Difference	GEH	WebTAG	
							Flow	GEH
A5147 MAIRSCOUGH LANE	NB	633	622	-11	-2%	0.4	✓	✓
A565	NB	866	862	-4	0%	0.1	✓	✓
A506 CUNSCOUGH LANE	NB	331	332	1	0%	0.1	✓	✓
Bank Lane	NB	625	623	-2	0%	0.1	✓	✓
VALLEY ROAD	NB	1260	1264	4	0%	0.1	✓	✓
M58 J1-3	NB	1441	1442	1	0%	0.0	✓	✓
A5147 MAIRSCOUGH LANE	SB	451	442	-9	-2%	0.4	✓	✓
A565	SB	687	687	-1	0%	0.0	✓	✓
A506 CUNSCOUGH LANE	SB	230	226	-4	-2%	0.2	✓	✓
Bank Lane	SB	548	547	-1	0%	0.1	✓	✓
VALLEY ROAD	SB	1157	1168	11	1%	0.3	✓	✓
M58 J1-3	SB	1791	1818	27	1%	0.6	✓	✓
Individual Links	NB						100%	100%
	SB						100%	100%
	Both Directions						100%	100%
Screenline Total	NB	5155	5144	-11	0%		✓	
	SB	4864	4888	24	0%		✓	

Appendix C. Route Choice Validation

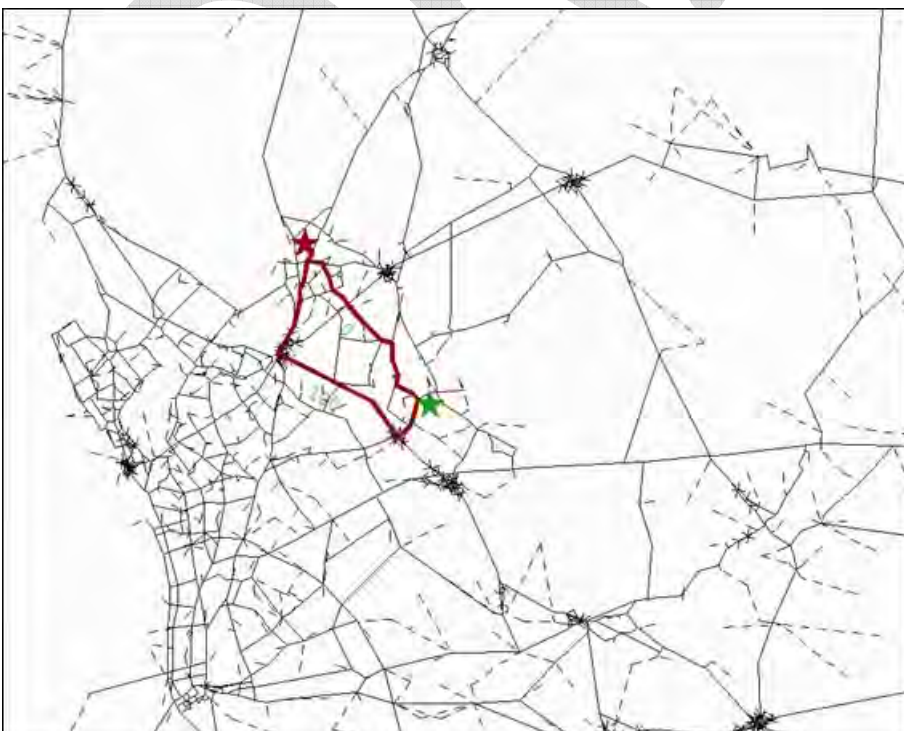
Note: Numbers, where visible, refer to the proportion of vehicles between the two zones using each link

C.1. AM Peak

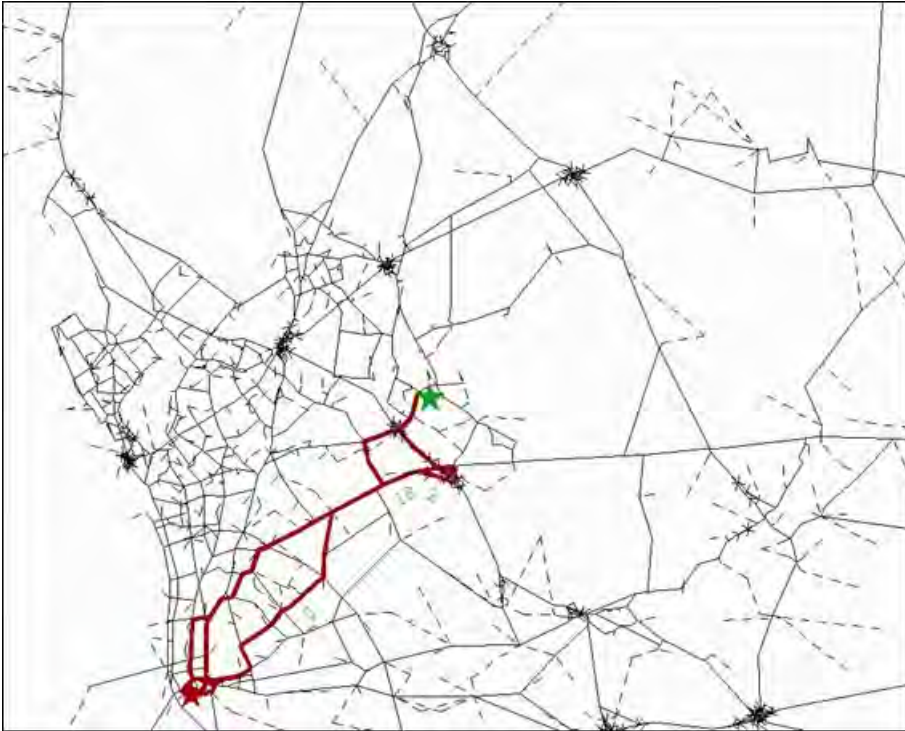
Kirkby – Ormskirk



Kirkby – Maghull



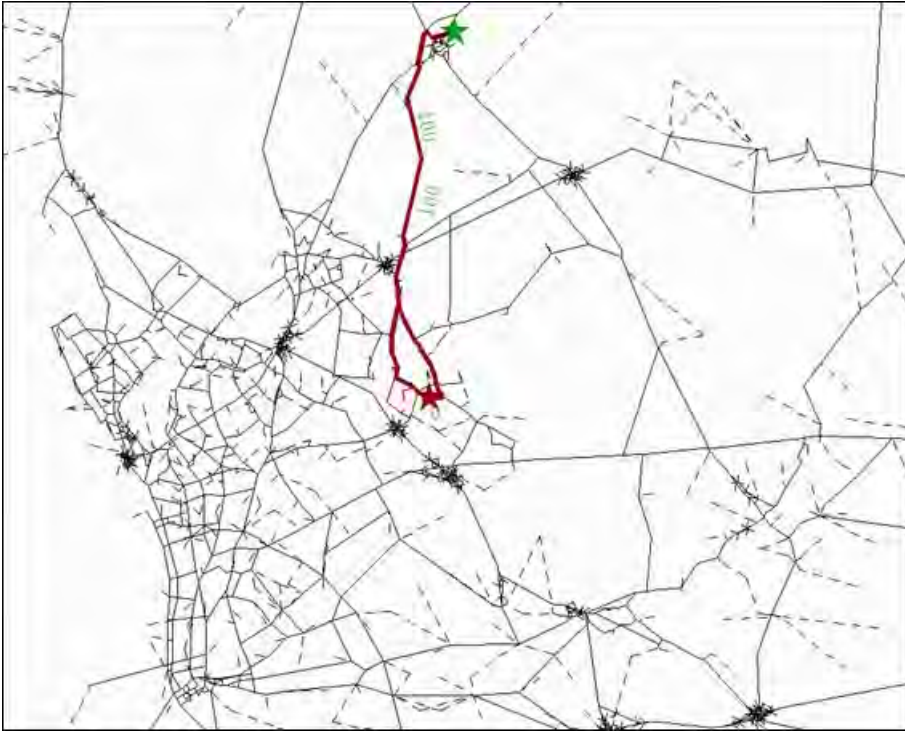
Kirkby – Liverpool



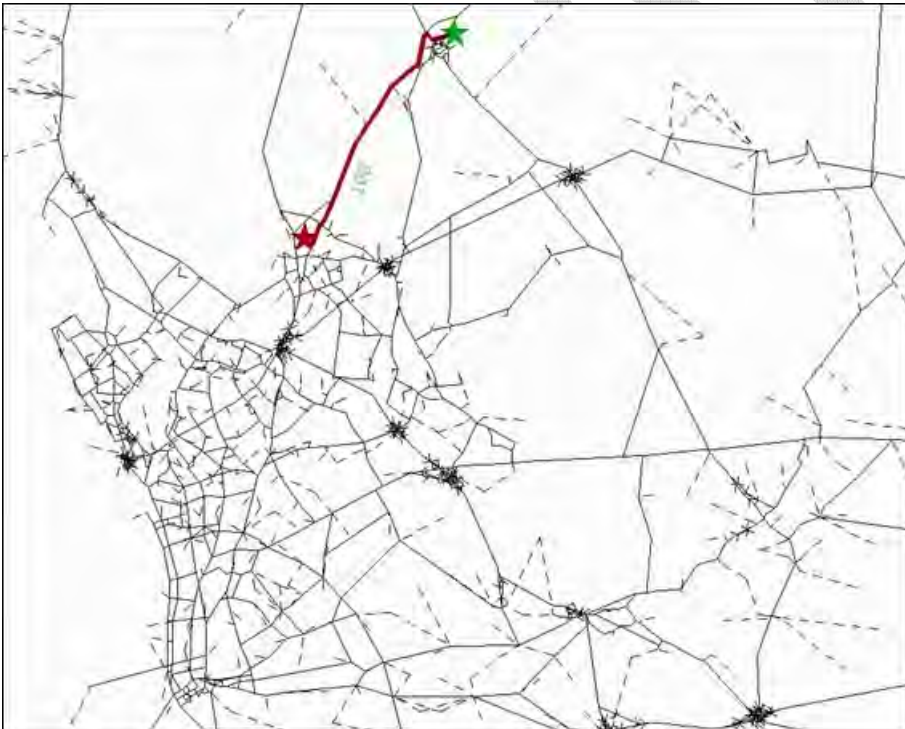
Kirkby – Manchester



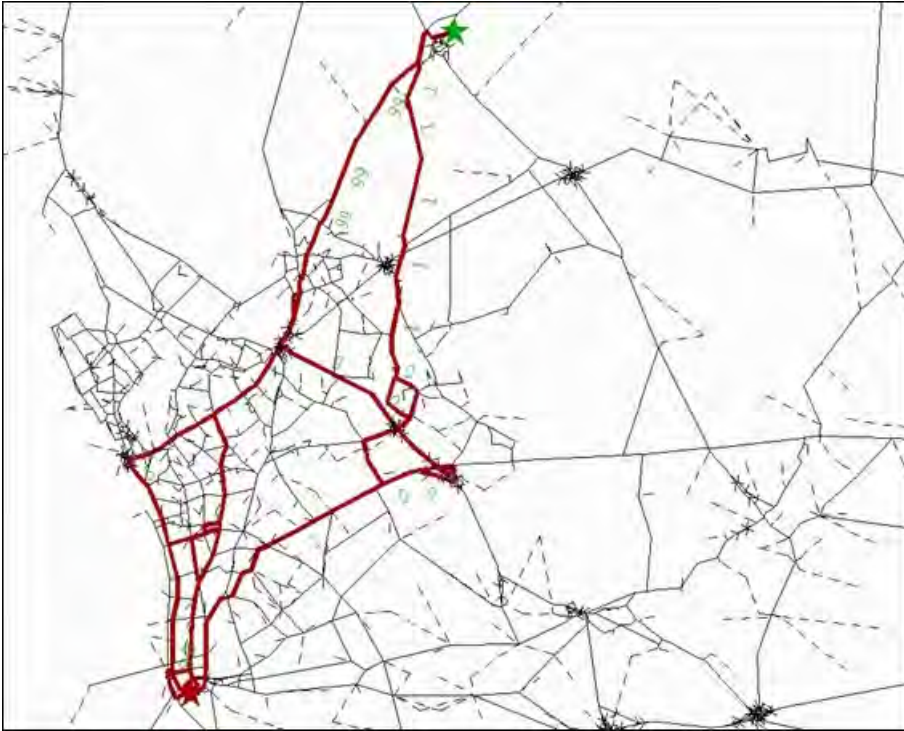
Ormskirk – Kirkby



Ormskirk – Maghull



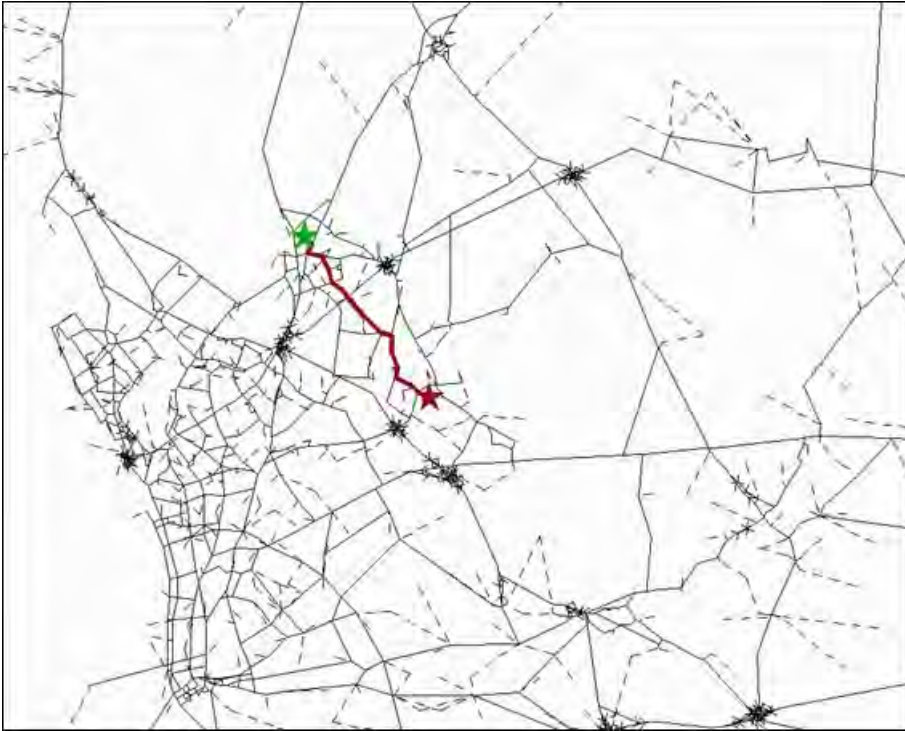
Ormskirk – Liverpool



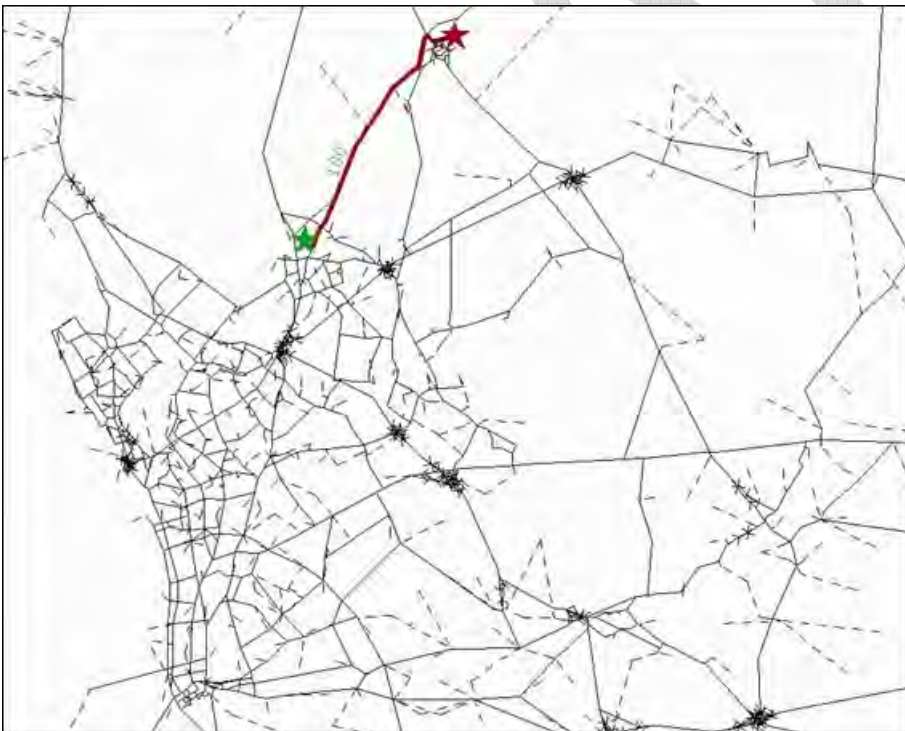
Ormskirk – Manchester



Maghull – Kirkby



Maghull – Ormskirk



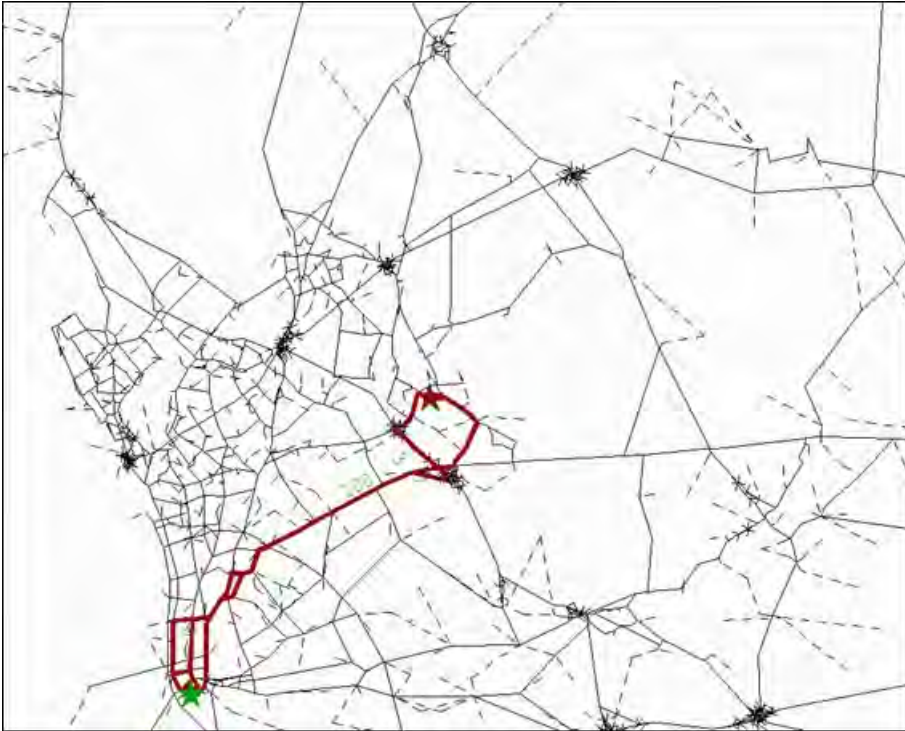
Maghull – Liverpool



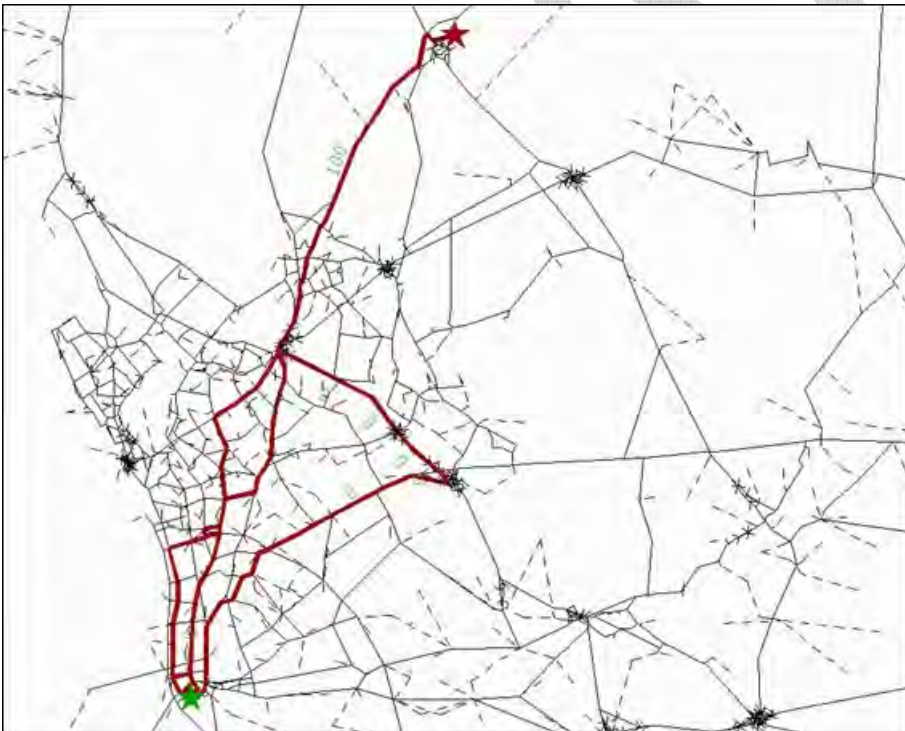
Maghull – Manchester



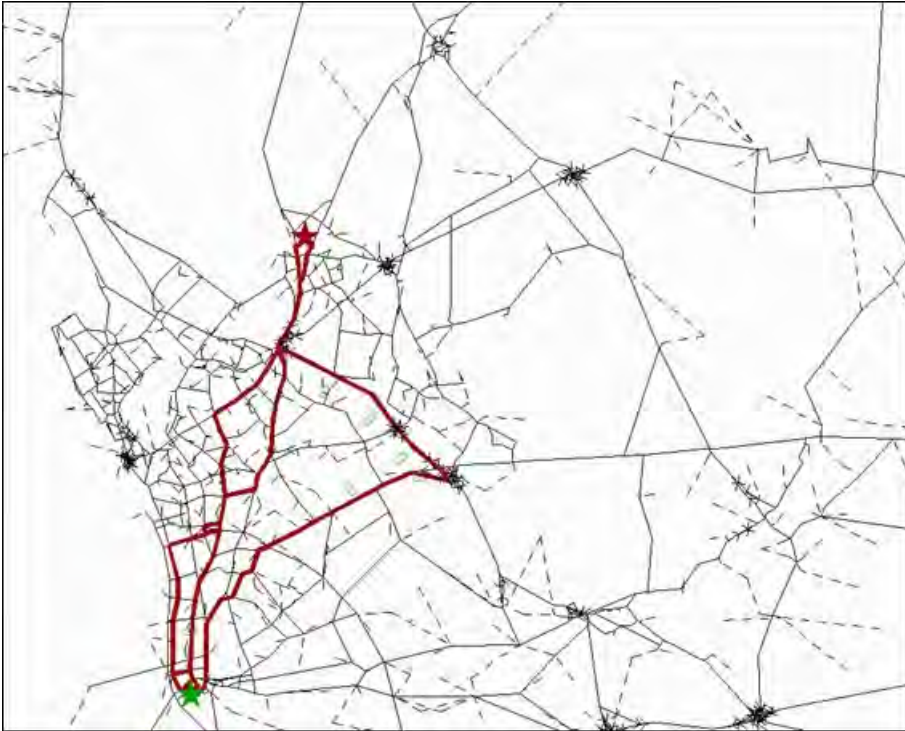
Liverpool – Kirkby



Liverpool – Ormskirk



Liverpool – Maghull



Manchester – Kirkby



Manchester – Ormskirk



Manchester – Maghull



C.2. Inter-peak

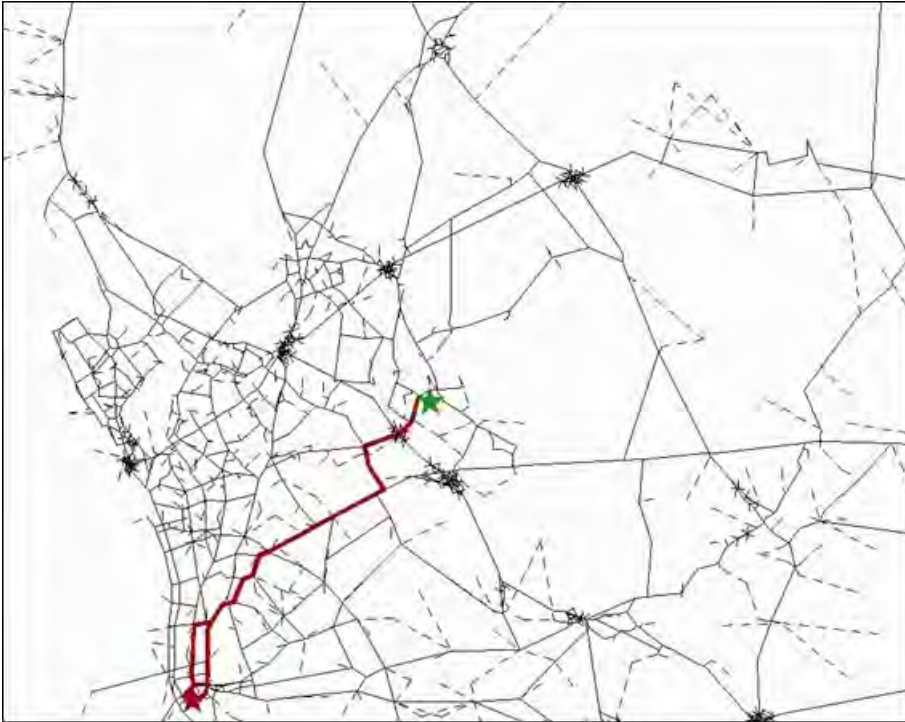
Kirkby – Ormskirk



Kirkby – Maghull



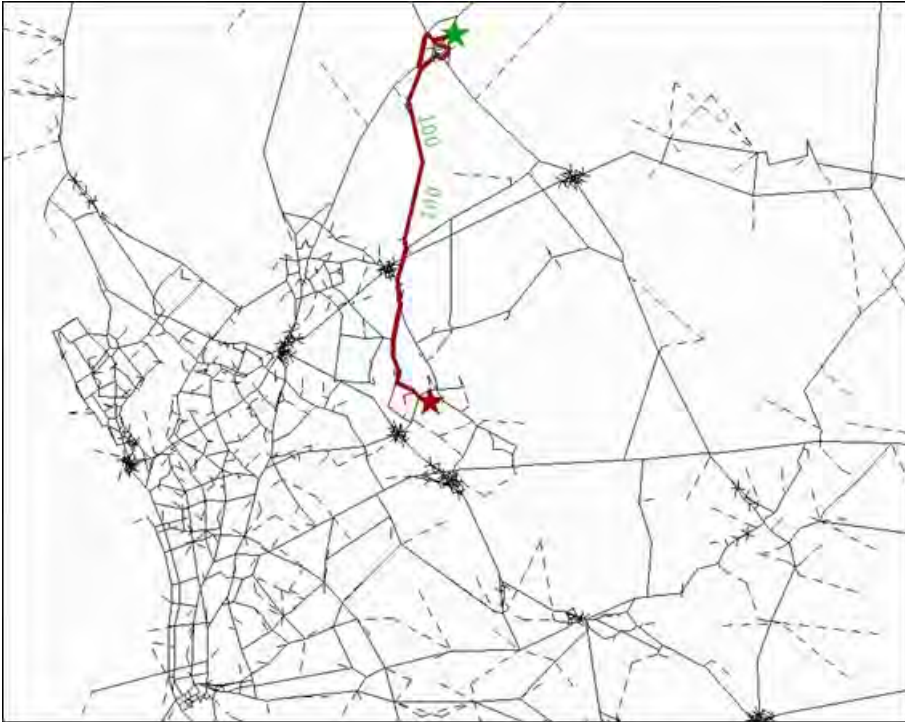
Kirkby – Liverpool



Kirkby – Manchester



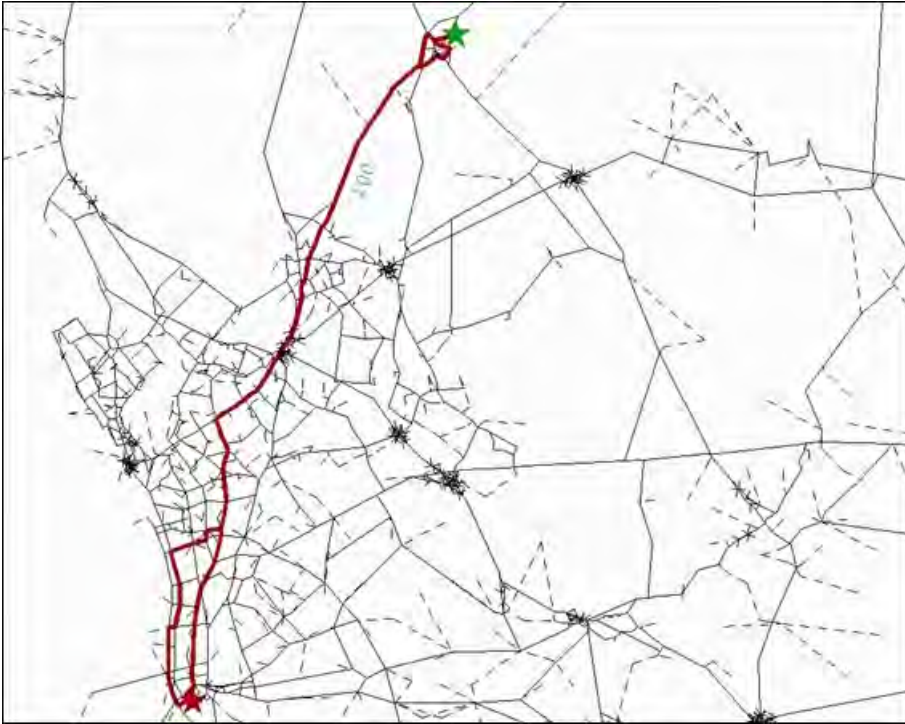
Ormskirk – Kirkby



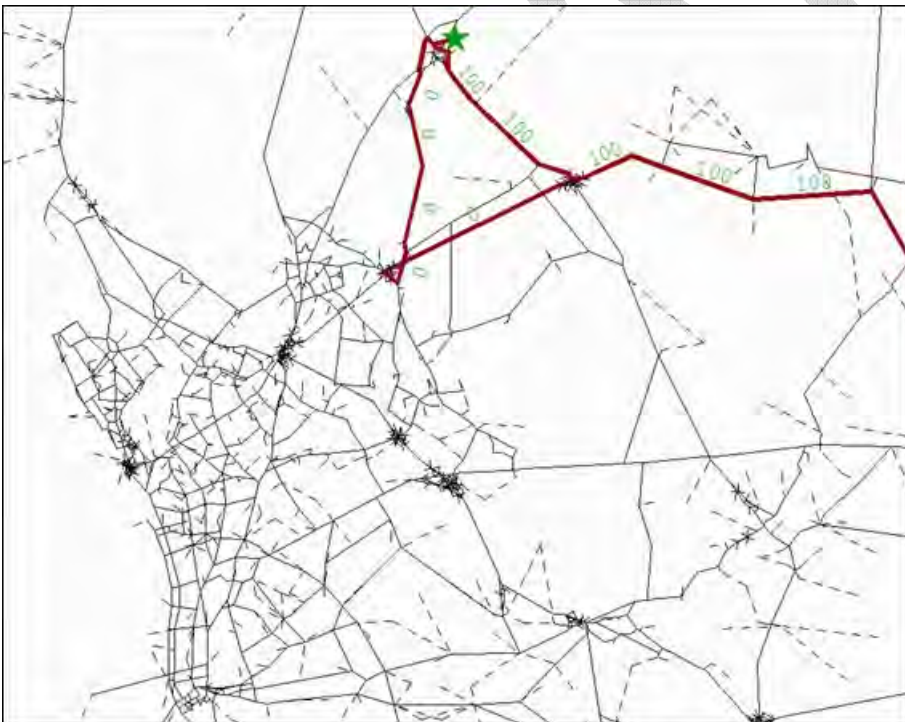
Ormskirk – Maghull



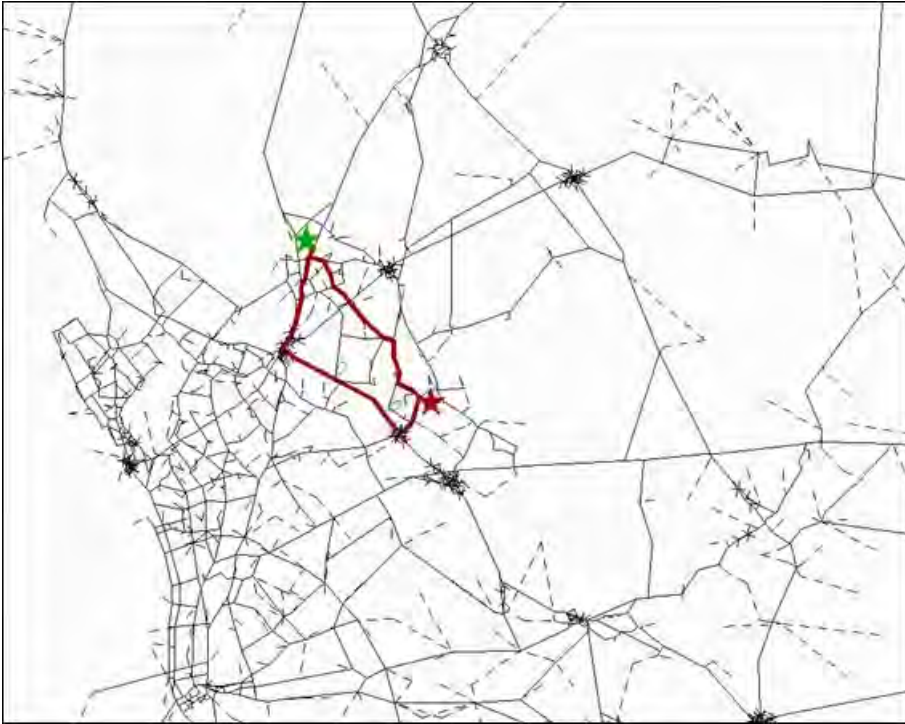
Ormskirk – Liverpool



Ormskirk – Manchester



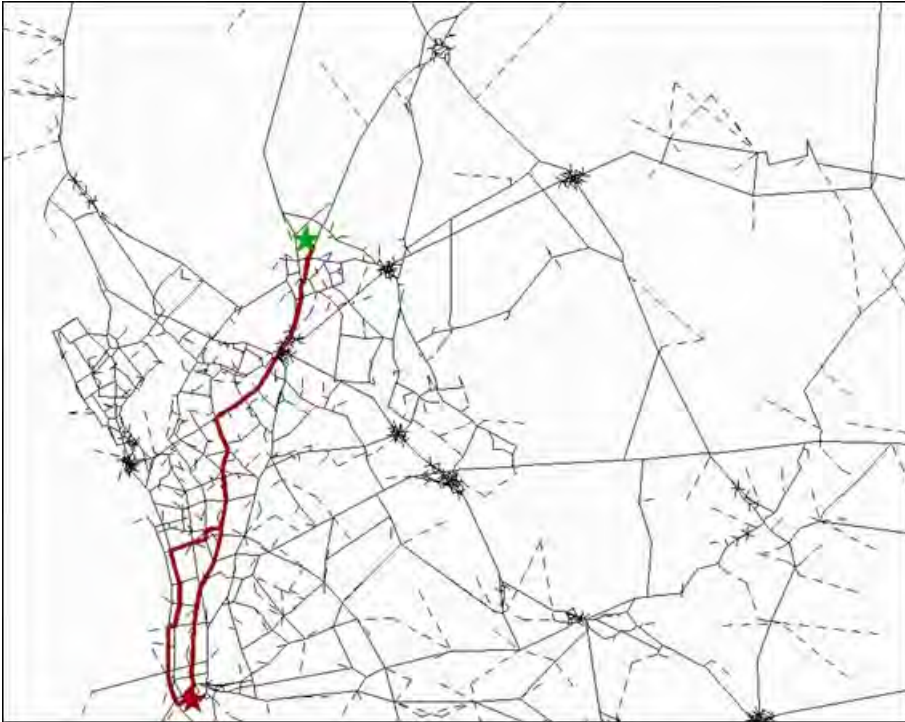
Maghull – Kirkby



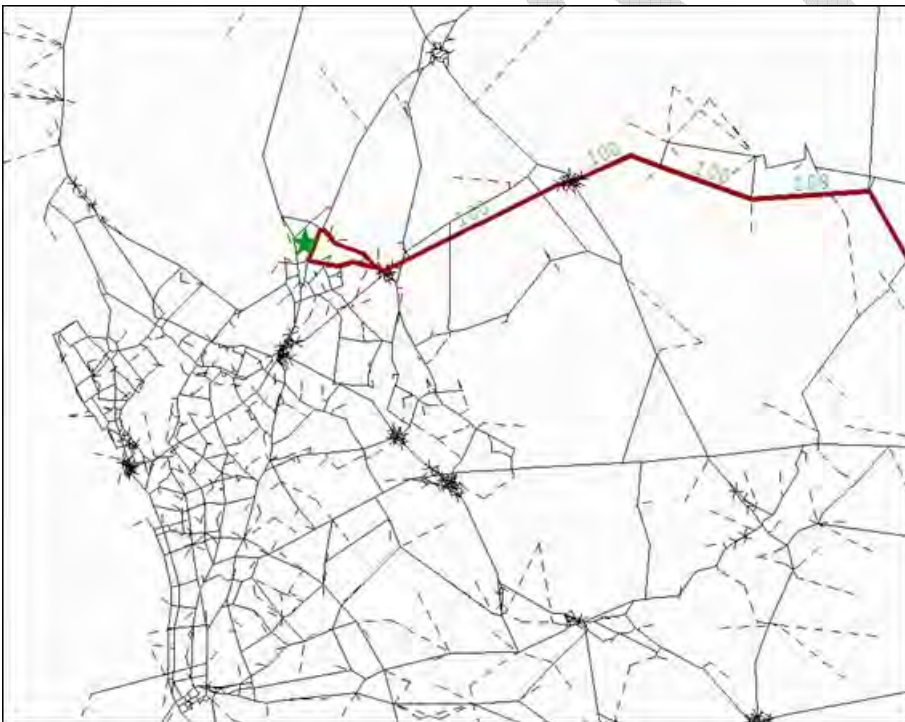
Maghull – Ormskirk



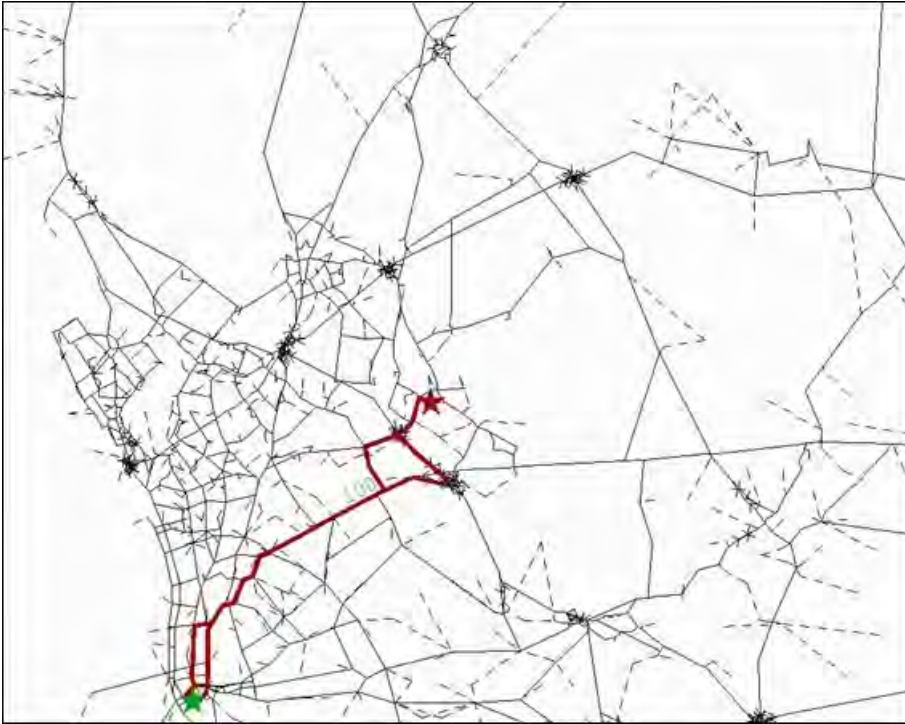
Maghull – Liverpool



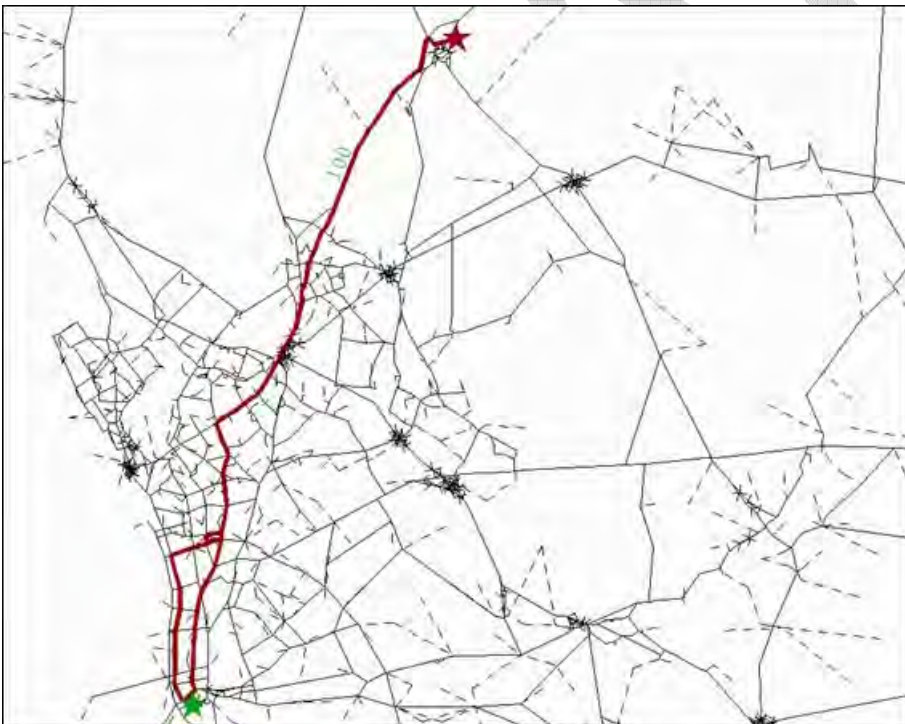
Maghull – Manchester



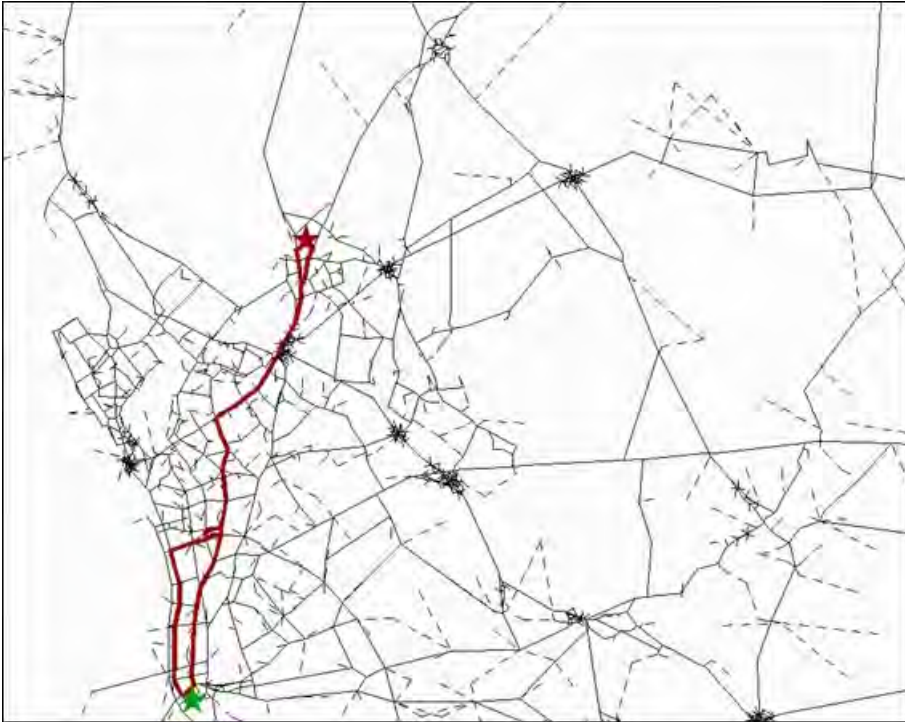
Liverpool – Kirkby



Liverpool – Ormskirk



Liverpool – Maghull



Manchester – Kirkby



Manchester – Ormskirk



Manchester – Maghull



C.3. PM peak

Kirkby – Ormskirk



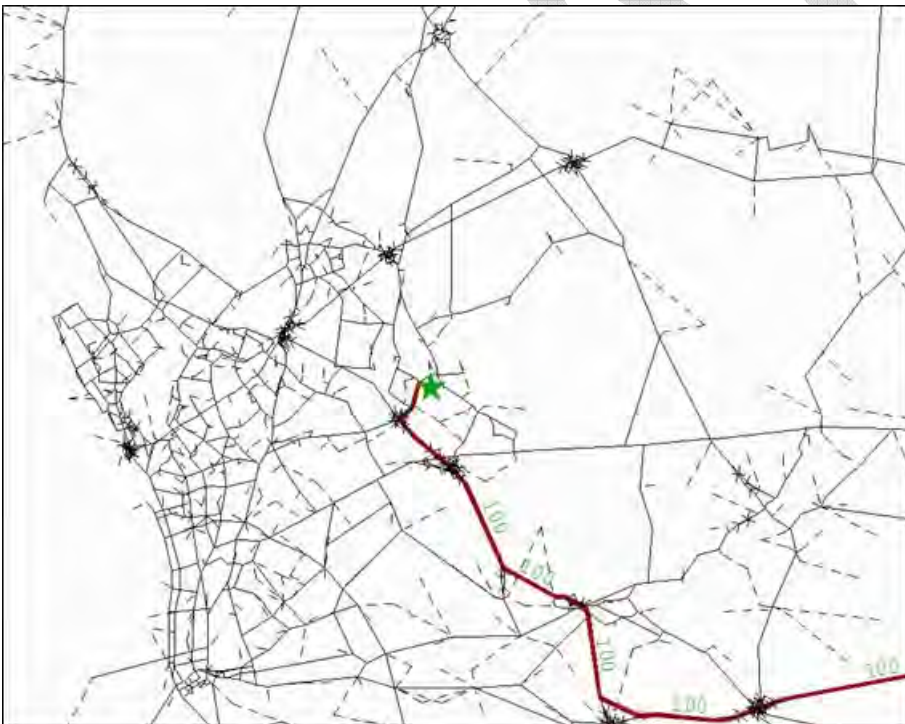
Kirkby – Maghull



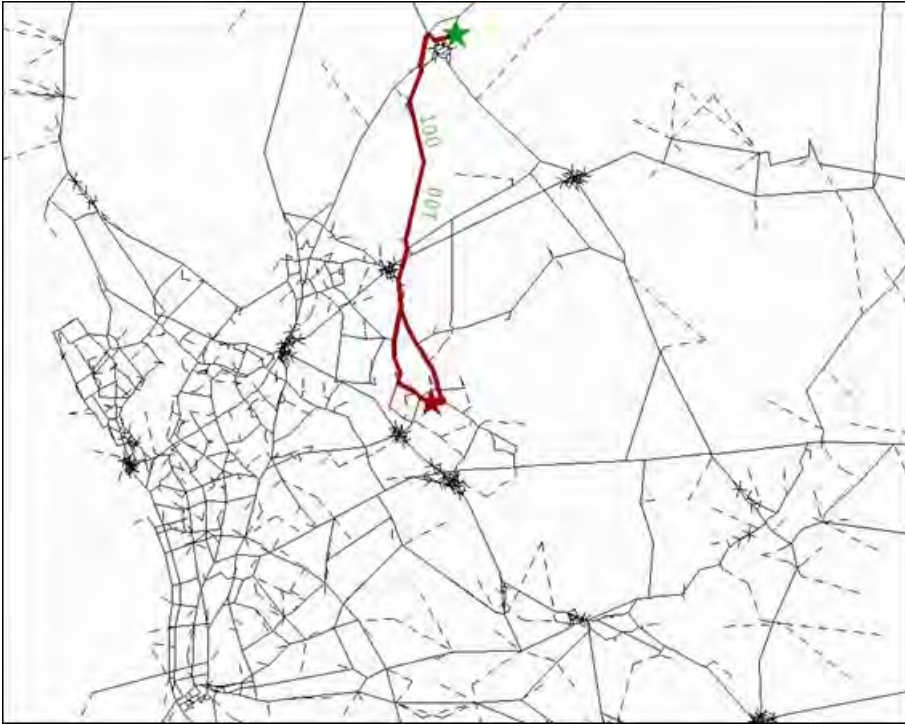
Kirkby – Liverpool



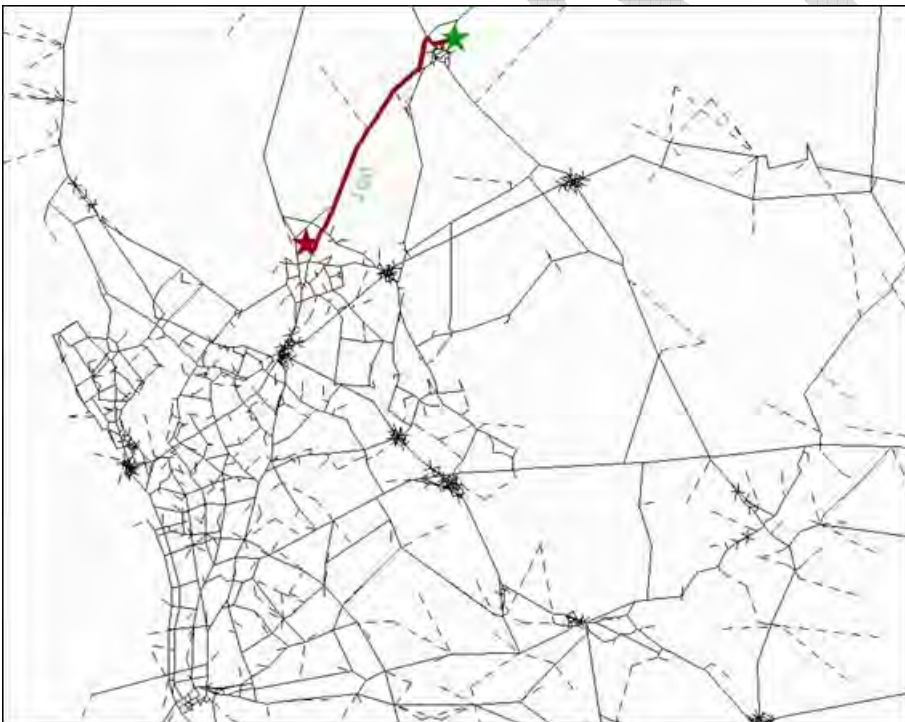
Kirkby – Manchester



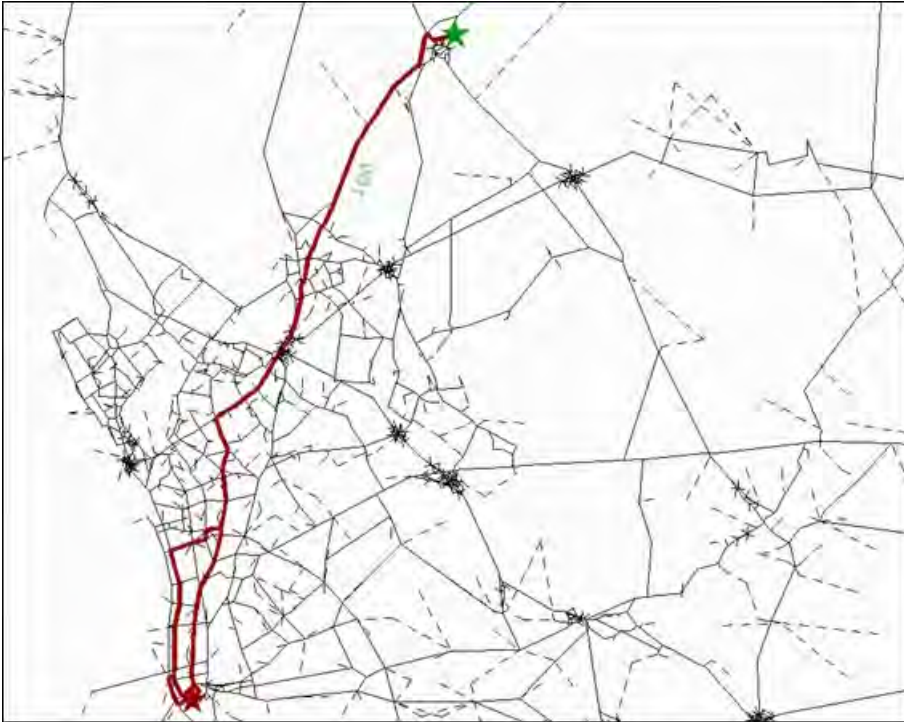
Ormskirk – Kirkby



Ormskirk – Maghull



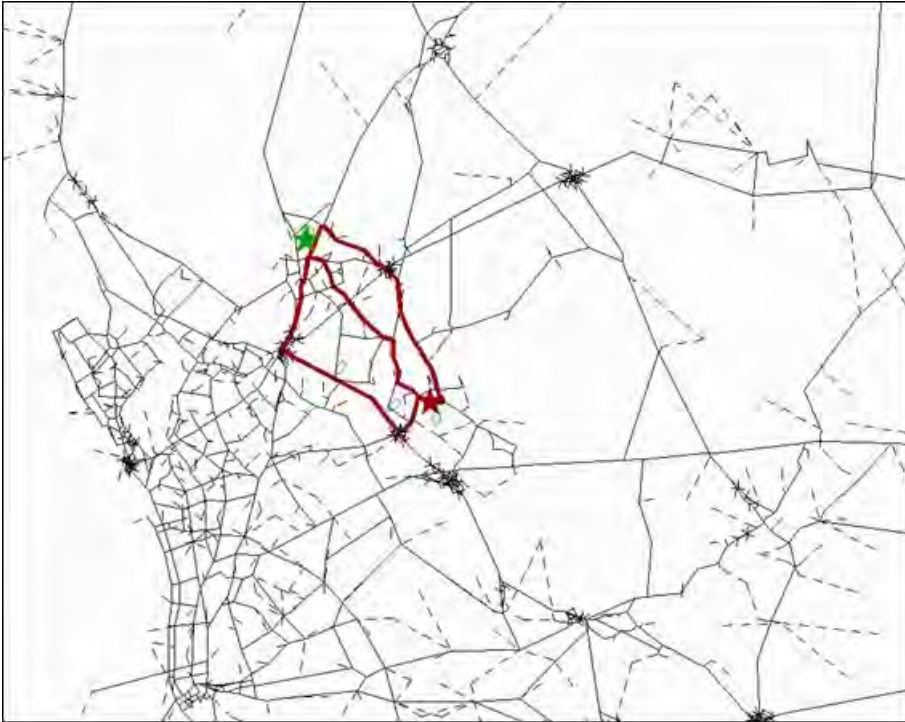
Ormskirk – Liverpool



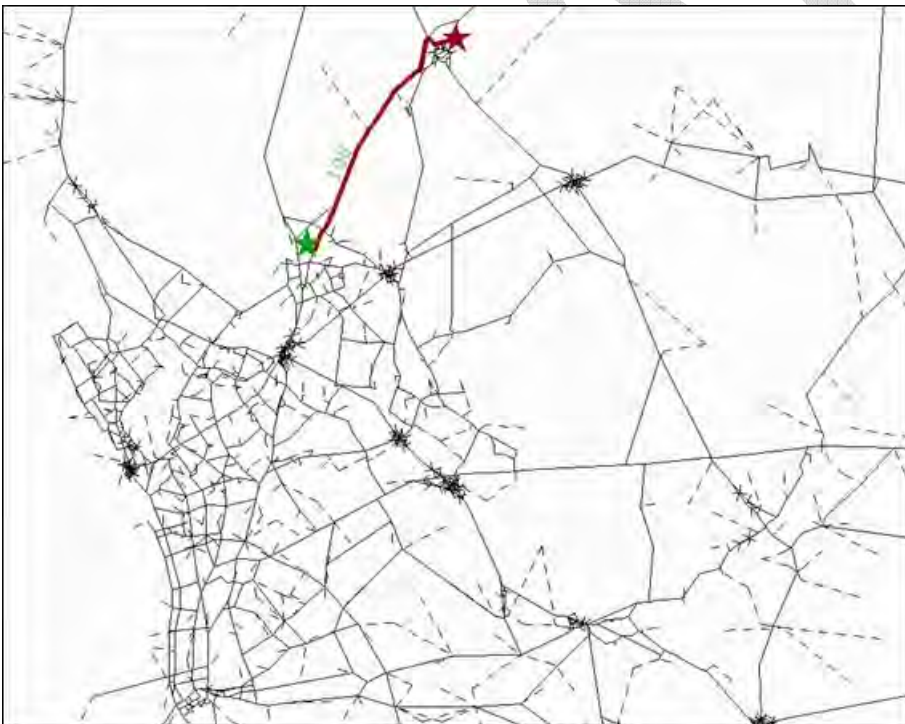
Ormskirk – Manchester



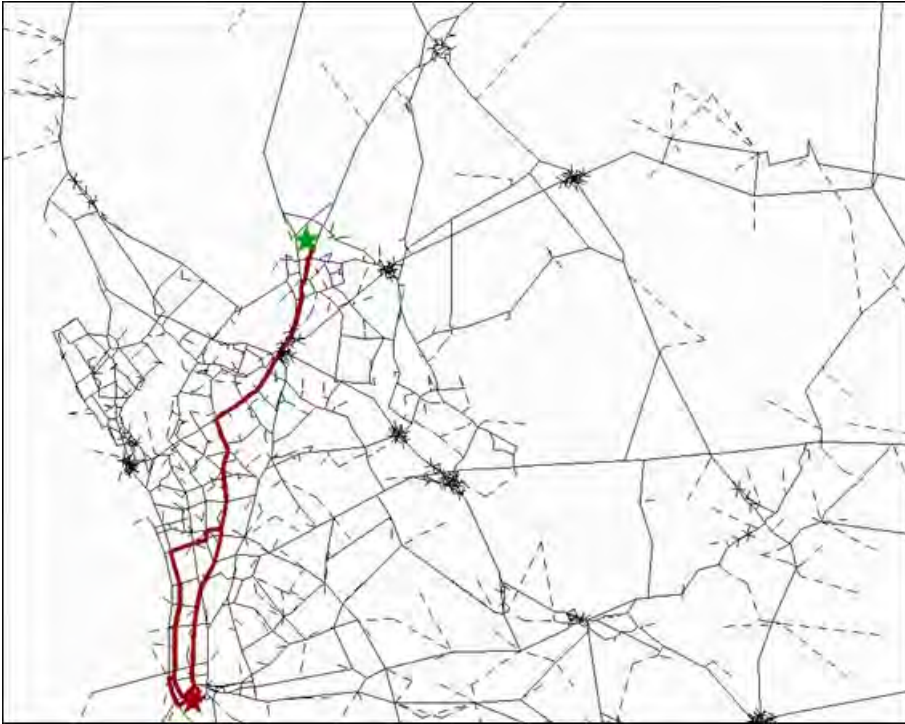
Maghull – Kirkby



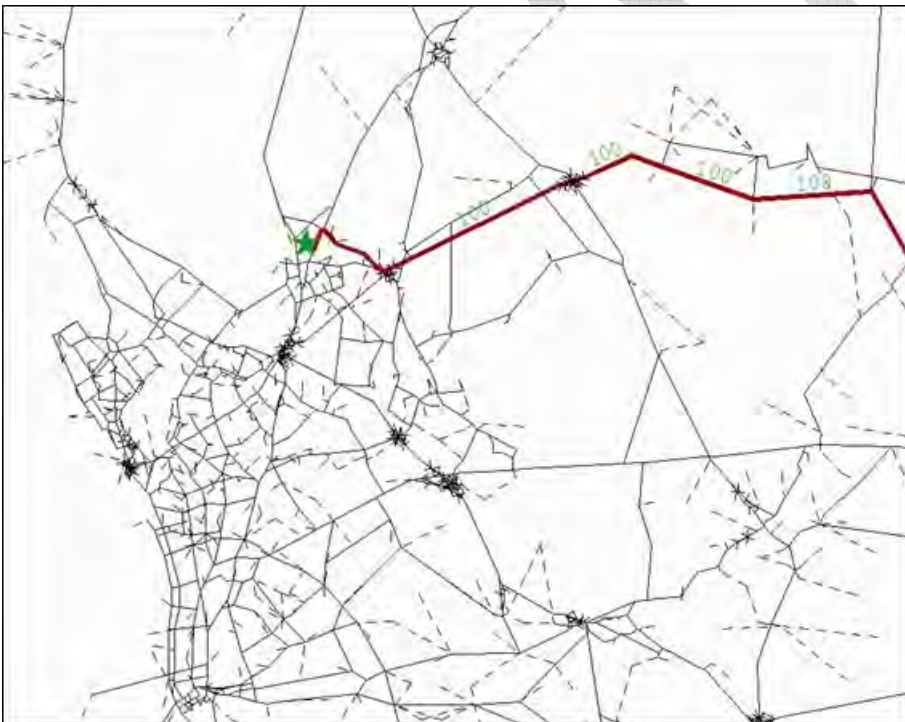
Maghull – Ormskirk



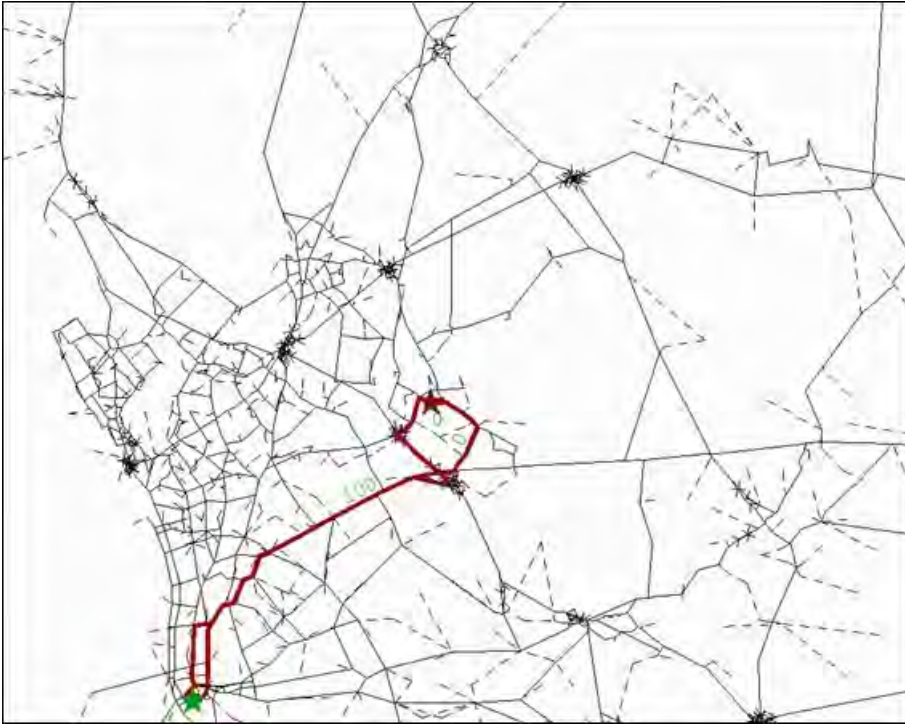
Maghull – Liverpool



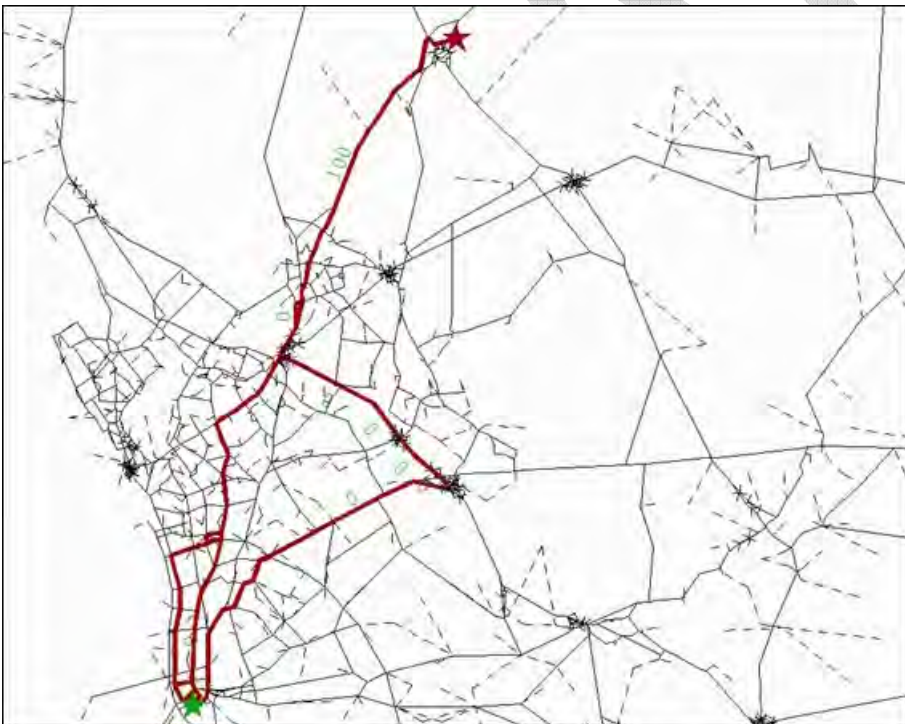
Maghull – Manchester



Liverpool – Kirkby



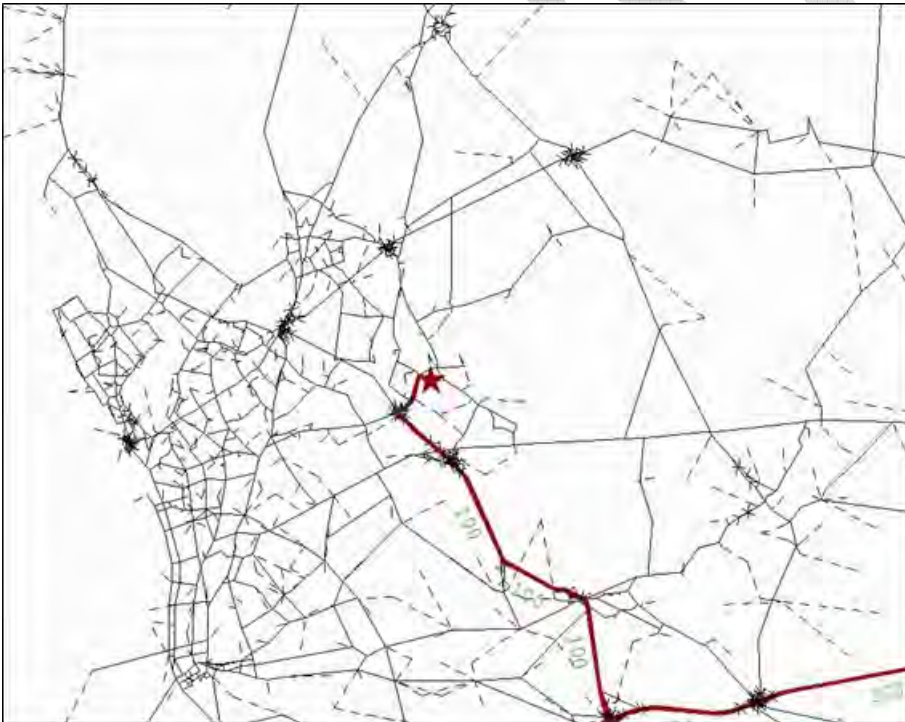
Liverpool – Ormskirk



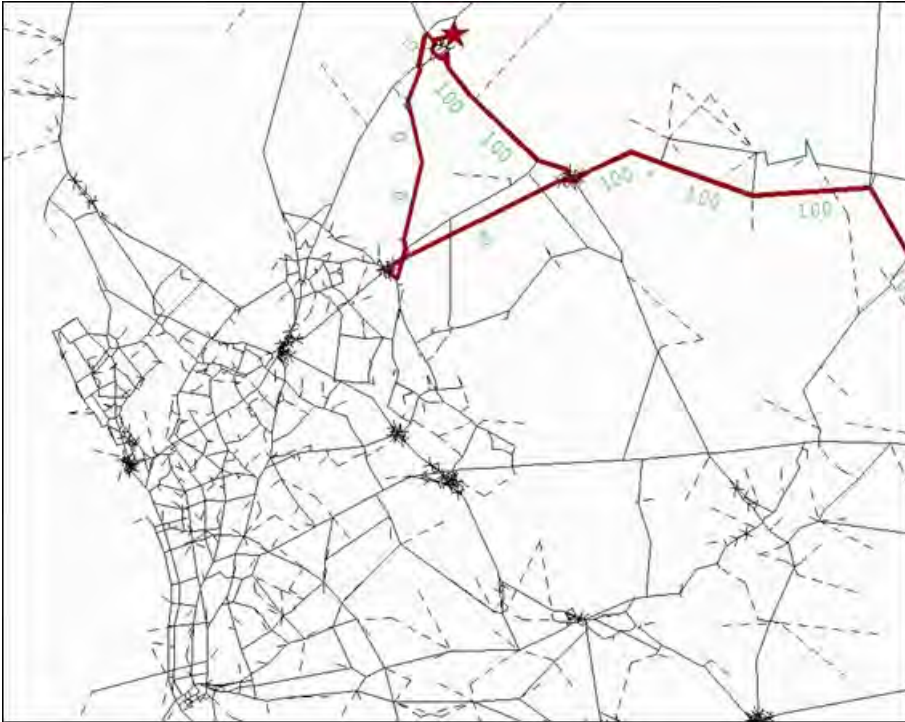
Liverpool – Maghull



Manchester – Kirkby



Manchester – Ormskirk



Manchester – Maghull



Appendix D. Link Flow Validation

Table D-1 Link flow validation - AM peak

Location	Dir	Count (Car)	Count (LV)	Count (HV)	Count (Total)	Post (Car)	Post (LV)	Post (HV)	Post (Total)	Diff	% Diff	GEH	TAG	
													Flow	GEH
M58 J3-4	EB	1879	255	82	2216	1889	210	75	2173	-42	-2%	0.9	✓	✓
M57 J6-7	NB	1530	208	66	1804	1599	172	38	1809	6	0%	0.1	✓	✓
M62 J8-7	EB	2827	384	123	3333	2922	392	128	3442	109	3%	1.9	✓	✓
Dunnings Bridge Road	NB	1881	255	82	2218	2232	258	111	2600	382	17%	7.8	✗	✗
Maghull Lane	NB	350	48	15	413	391	36	1	428	15	4%	0.7	✓	✓
M58 1-A5036	EB	862	117	37	1016	734	58	58	850	-166	-16%	5.4	✗	✗
Southport Road	NB	779	144	26	949	982	132	10	1124	174	18%	5.4	✗	✗
A570 Southport Road	NB	305	42	19	366	446	60	31	537	171	47%	8.1	✗	✗
BROWNS LANE	EB	105	14	5	123	76	18	0	95	-29	-23%	2.8	✓	✓
M58 J3-4	WB	1884	256	82	2221	1932	268	100	2301	79	4%	1.7	✓	✓
M57 J6-7	SB	2166	294	94	2554	2256	267	27	2549	-5	0%	0.1	✓	✓
M62 J8-7	WB	3328	452	145	3925	3385	454	145	3984	59	1%	0.9	✓	✓
Dunnings Bridge Road	SB	1927	262	84	2273	2043	279	111	2433	161	7%	3.3	✓	✓
Maghull Lane	SB	344	47	15	406	399	30	11	440	34	8%	1.7	✓	✓
M58 1-A5036	WB	1055	143	44	1242	848	148	50	1046	-196	-16%	5.8	✗	✗
Southport Road	SB	1261	168	25	1454	1349	172	32	1553	99	7%	2.6	✓	✓
A570 Southport Road	SB	333	46	21	400	340	70	9	420	19	5%	1.0	✓	✓
BROWNS LANE	WB	136	18	6	160	163	23	1	188	28	17%	2.1	✓	✓
Individual Links	Both Directions												72%	72%

Table D-2 Link flow validation – Inter-peak

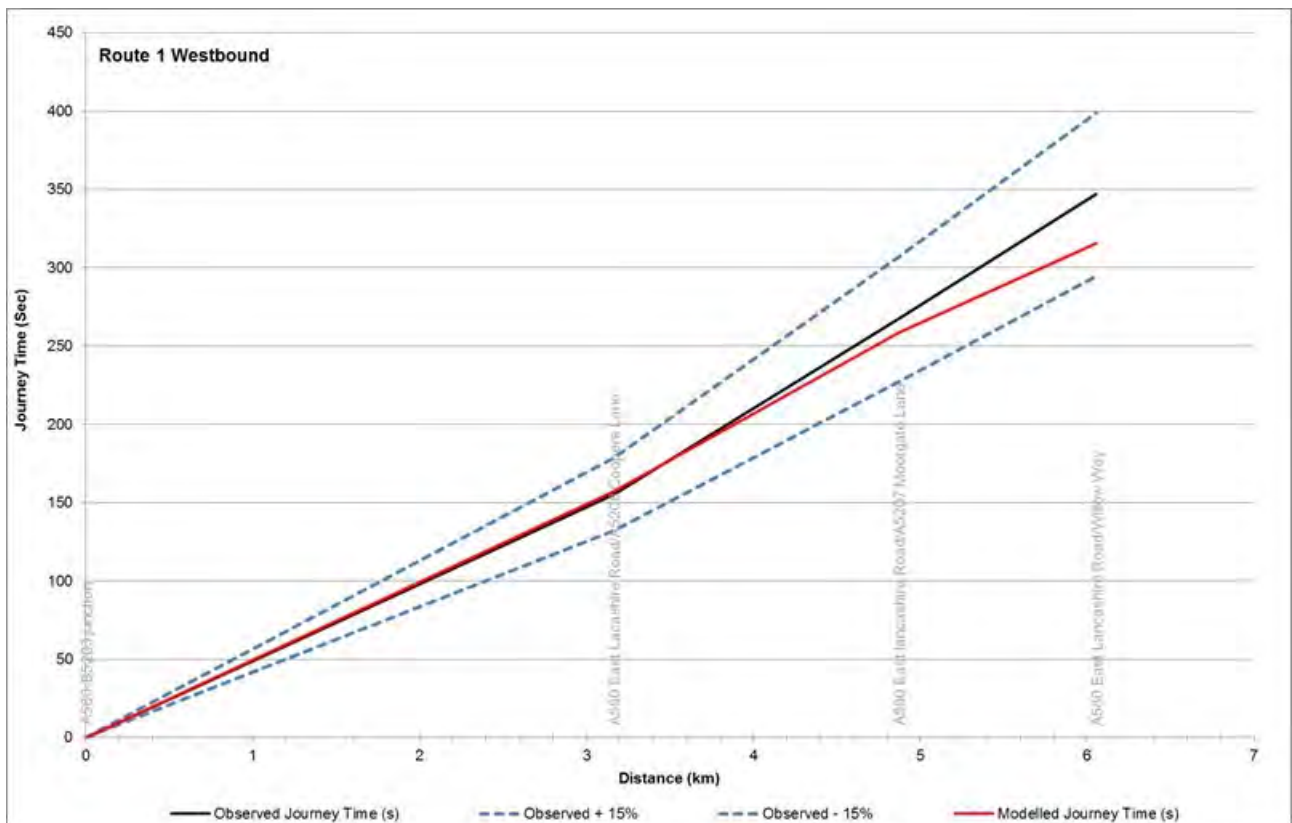
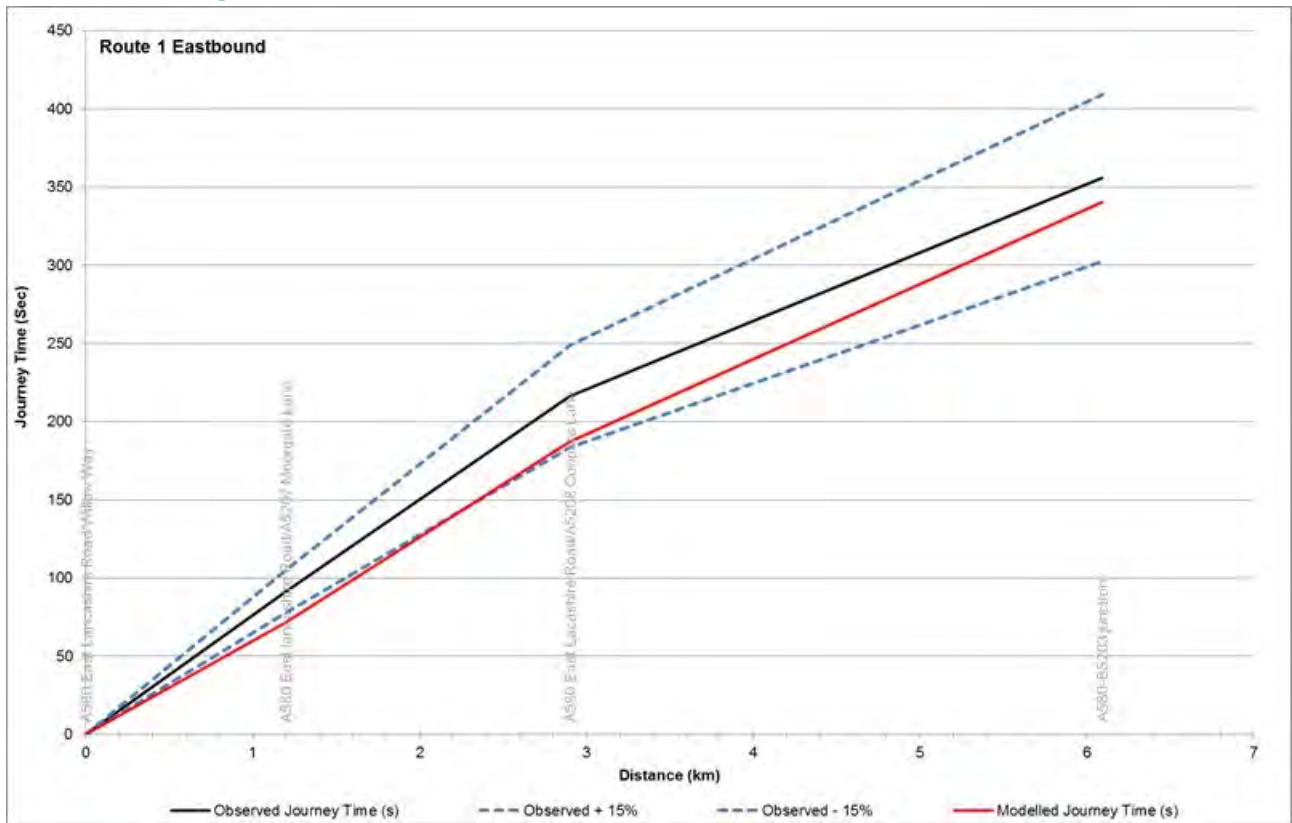
Location	Dir	Count (Car)	Count (LV)	Count (HV)	Count (Total)	Post (Car)	Post (LV)	Post (HV)	Post (Total)	Diff	% Diff	GEH	TAG	
													Flow	GEH
M58 J3-4	EB	1023	176	71	1271	985	182	86	1253	-18	-1%	0.5	✓	✓
M57 J6-7	NB	1220	210	84	1515	1488	201	43	1733	218	14%	5.4	✓	✗
M62 J8-7	EB	2368	408	164	2940	2388	411	166	2965	24	1%	0.4	✓	✓
Dunnings Bridge Road	NB	1216	210	84	1510	1352	228	168	1748	238	16%	5.9	✗	✗
Maghull Lane	NB	250	43	17	310	322	29	9	361	51	16%	2.8	✓	✓
M58 1-A5036	EB	521	90	36	647	402	83	42	527	-121	-19%	5.0	✗	✓
Southport Road	NB	669	115	33	817	880	157	52	1089	272	33%	8.8	✗	✗
A570 Southport Road	NB	297	54	28	379	348	70	29	447	68	18%	3.4	✓	✓
BROWNS LANE	EB	105	14	5	123	117	18	12	146	23	19%	2.0	✓	✓
M58 J3-4	WB	1028	177	71	1276	1147	202	98	1447	171	13%	4.6	✓	✓
M57 J6-7	SB	1196	206	83	1486	1208	206	38	1452	-33	-2%	0.9	✓	✓
M62 J8-7	WB	2318	400	161	2879	2301	388	161	2849	-29	-1%	0.5	✓	✓
Dunnings Bridge Road	SB	1247	215	86	1549	1371	219	123	1713	164	11%	4.1	✓	✓
Maghull Lane	SB	248	43	17	308	277	36	16	329	21	7%	1.2	✓	✓
M58 1-A5036	WB	541	93	37	672	434	79	39	552	-120	-18%	4.9	✗	✓
Southport Road	SB	604	121	27	752	873	129	46	1048	296	39%	9.9	✗	✗
A570 Southport Road	SB	303	55	28	387	339	71	32	443	56	15%	2.8	✓	✓
BROWNS LANE	WB	136	18	6	160	107	13	8	128	-33	-20%	2.7	✓	✓
Individual Links	Both Directions												72%	78%

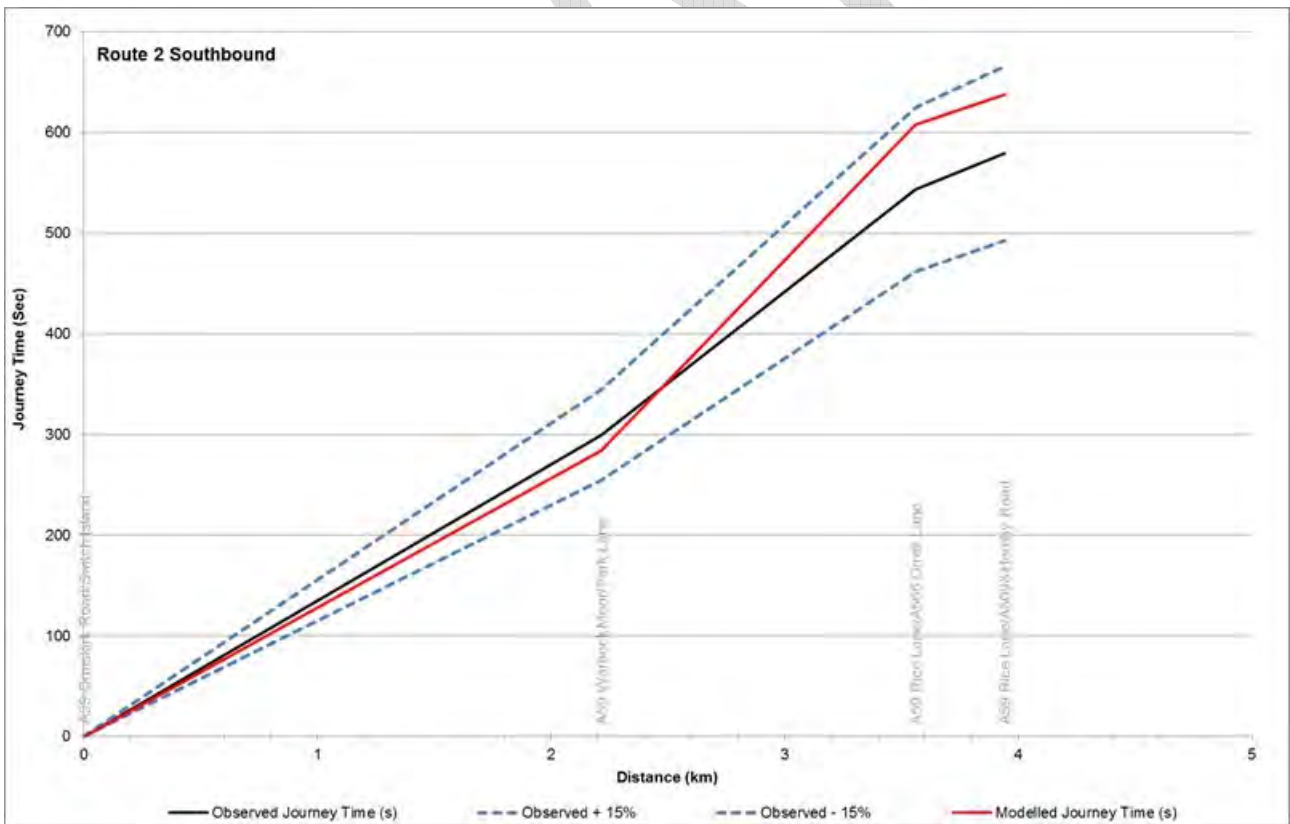
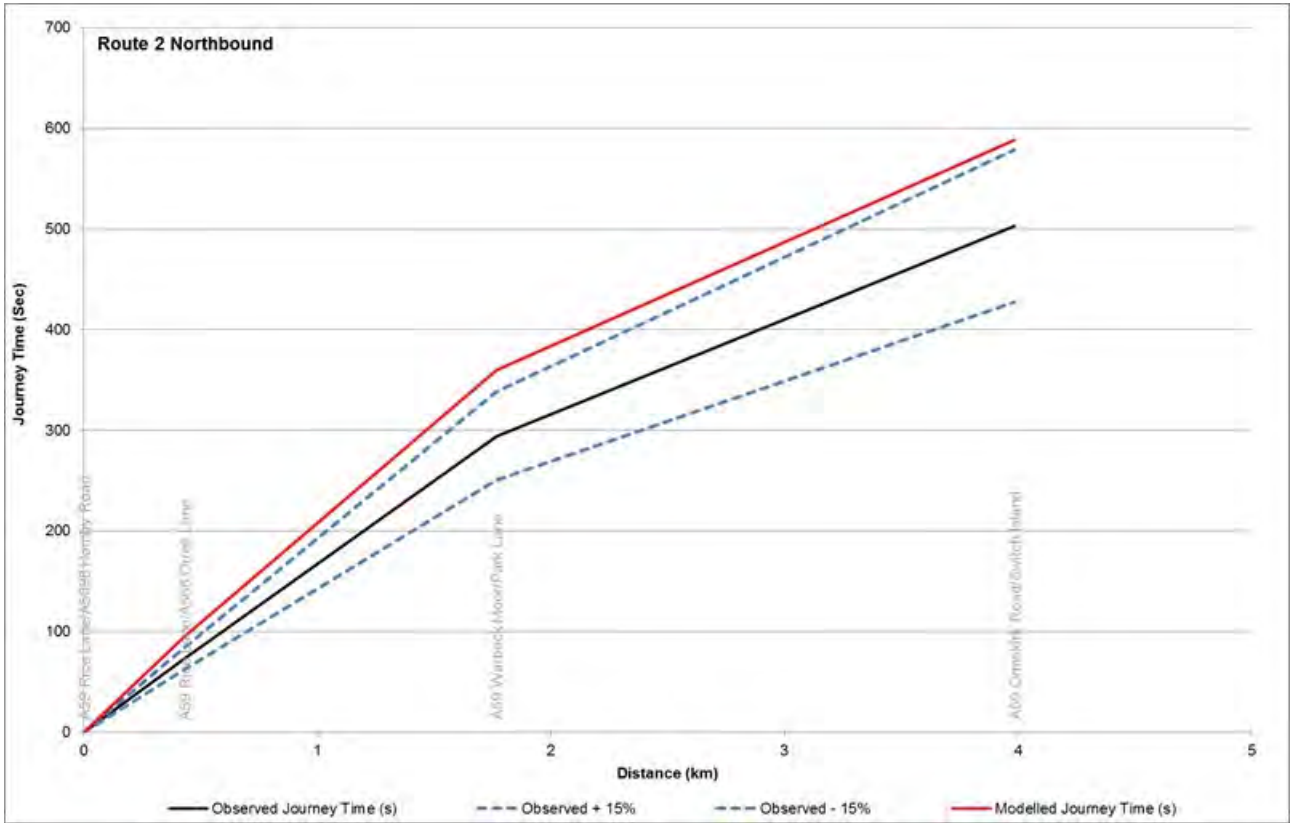
Table D-3 Link flow validation - PM peak

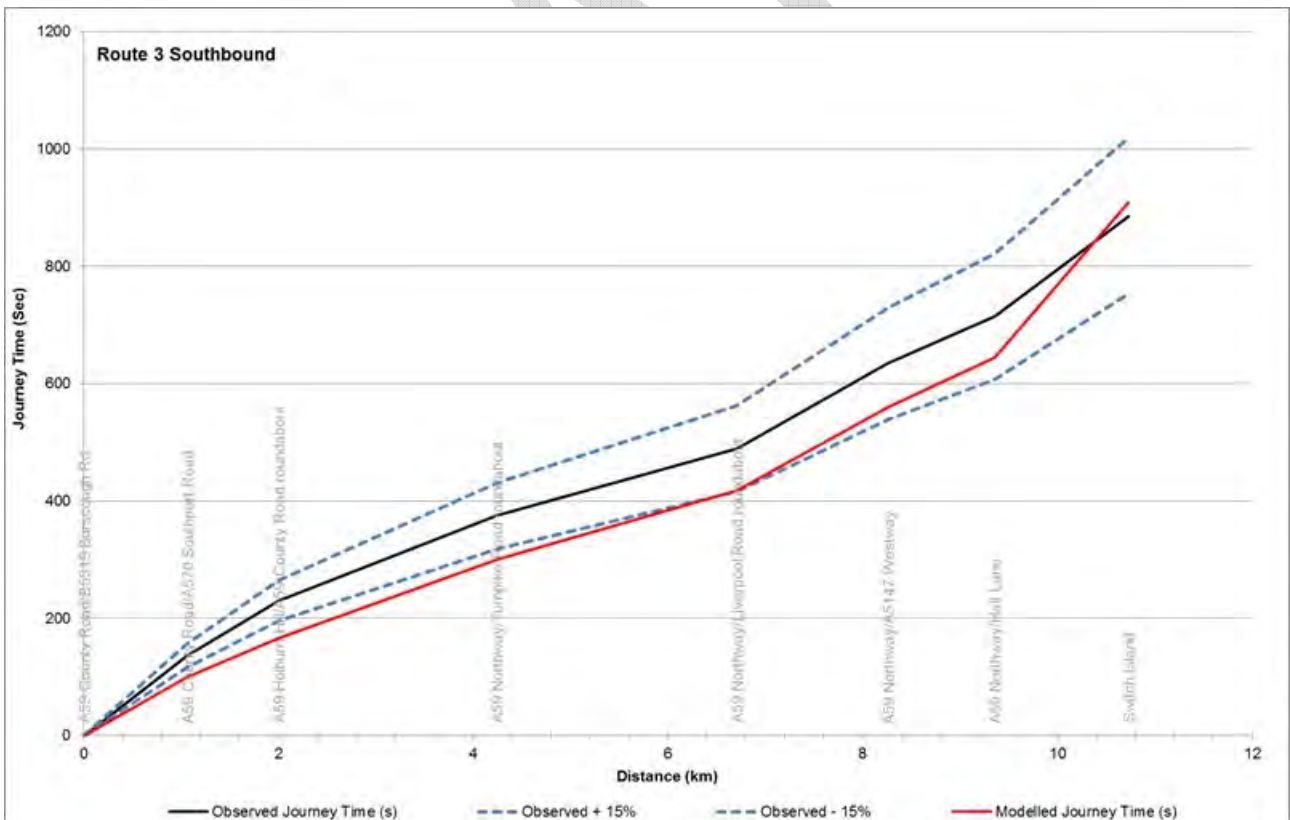
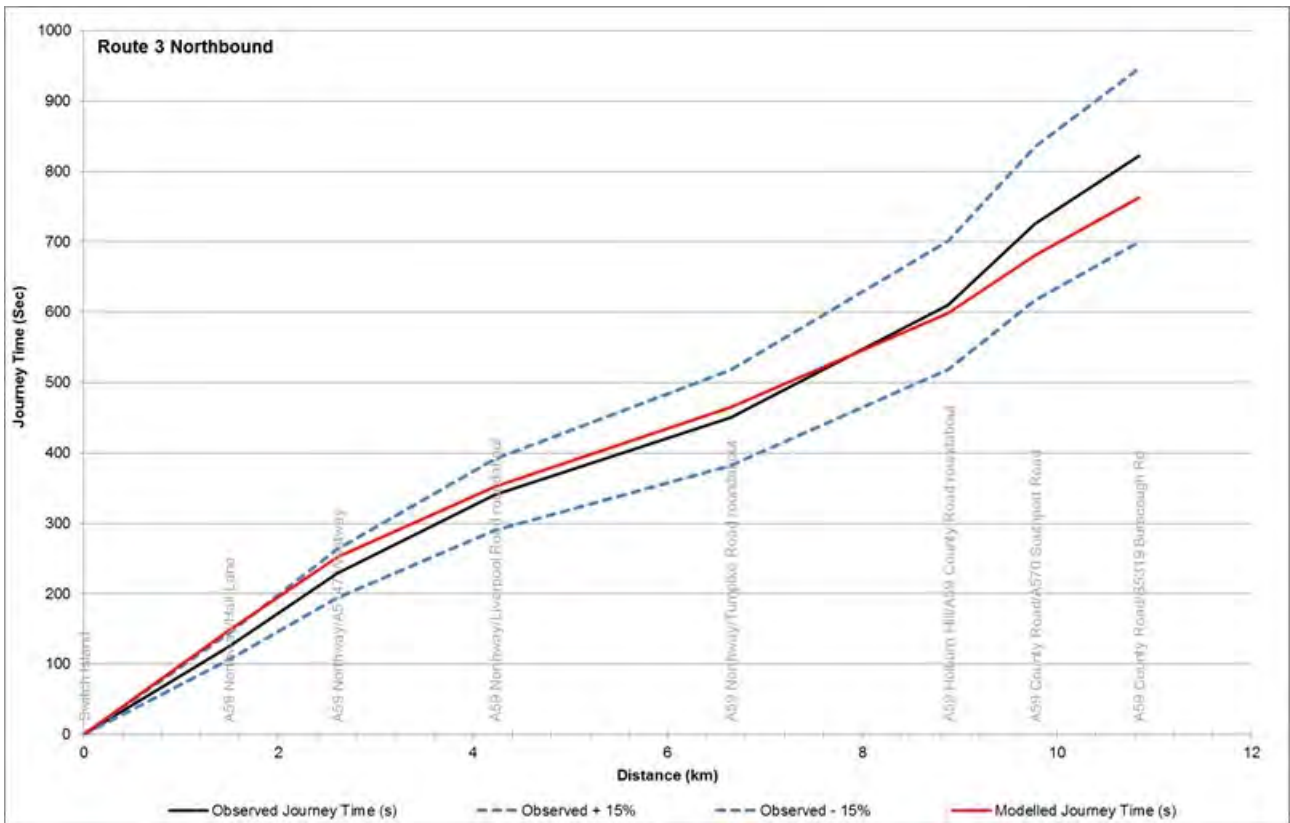
Location	Dir	Count (Car)	Count (LV)	Count (HV)	Count (Total)	Post (Car)	Post (LV)	Post (HV)	Post (Total)	Diff	% Diff	GEH	TAG	
													Flow	GEH
M58 J3-4	EB	1712	162	28	1902	1695	173	27	1895	-7	0%	0.1	✓	✓
M57 J6-7	NB	2410	228	39	2676	2651	208	34	2893	217	8%	4.1	✓	✓
M62 J8-7	EB	3698	349	60	4107	3628	341	53	4023	-84	-2%	1.3	✓	✓
Dunnings Bridge Road	NB	1886	178	30	2095	2042	148	58	2248	153	7%	3.3	✓	✓
Maghull Lane	NB	417	39	7	463	363	40	1	405	-58	-13%	2.8	✓	✓
M58 1-A5036	EB	952	90	15	1057	891	69	19	980	-77	-7%	2.4	✓	✓
Southport Road	NB	1646	154	19	1819	1432	156	10	1597	-222	-12%	5.4	✓	✗
A570 Southport Road	NB	340	34	10	383	387	46	6	439	56	15%	2.8	✓	✓
BROWNS LANE	EB	97	9	2	108	157	4	0	161	53	49%	4.6	✓	✓
M58 J3-4	WB	2303	218	37	2558	2498	193	47	2737	180	7%	3.5	✓	✓
M57 J6-7	SB	1693	160	27	1880	1588	128	28	1745	-135	-7%	3.2	✓	✓
M62 J8-7	WB	4088	386	66	4540	4019	380	64	4462	-78	-2%	1.2	✓	✓
Dunnings Bridge Road	SB	2161	204	35	2400	2220	138	73	2431	32	1%	0.6	✓	✓
Maghull Lane	SB	420	40	7	467	355	27	1	383	-84	-18%	4.1	✓	✓
M58 1-A5036	WB	886	84	14	983	854	60	23	938	-45	-5%	1.5	✓	✓
Southport Road	SB	828	93	4	925	1185	79	3	1267	342	37%	10.3	✗	✗
A570 Southport Road	SB	343	34	10	387	390	41	8	440	53	14%	2.6	✓	✓
BROWNS LANE	WB	107	10	2	119	132	5	1	138	19	16%	1.7	✓	✓
Individual Links	Both Directions												94%	89%

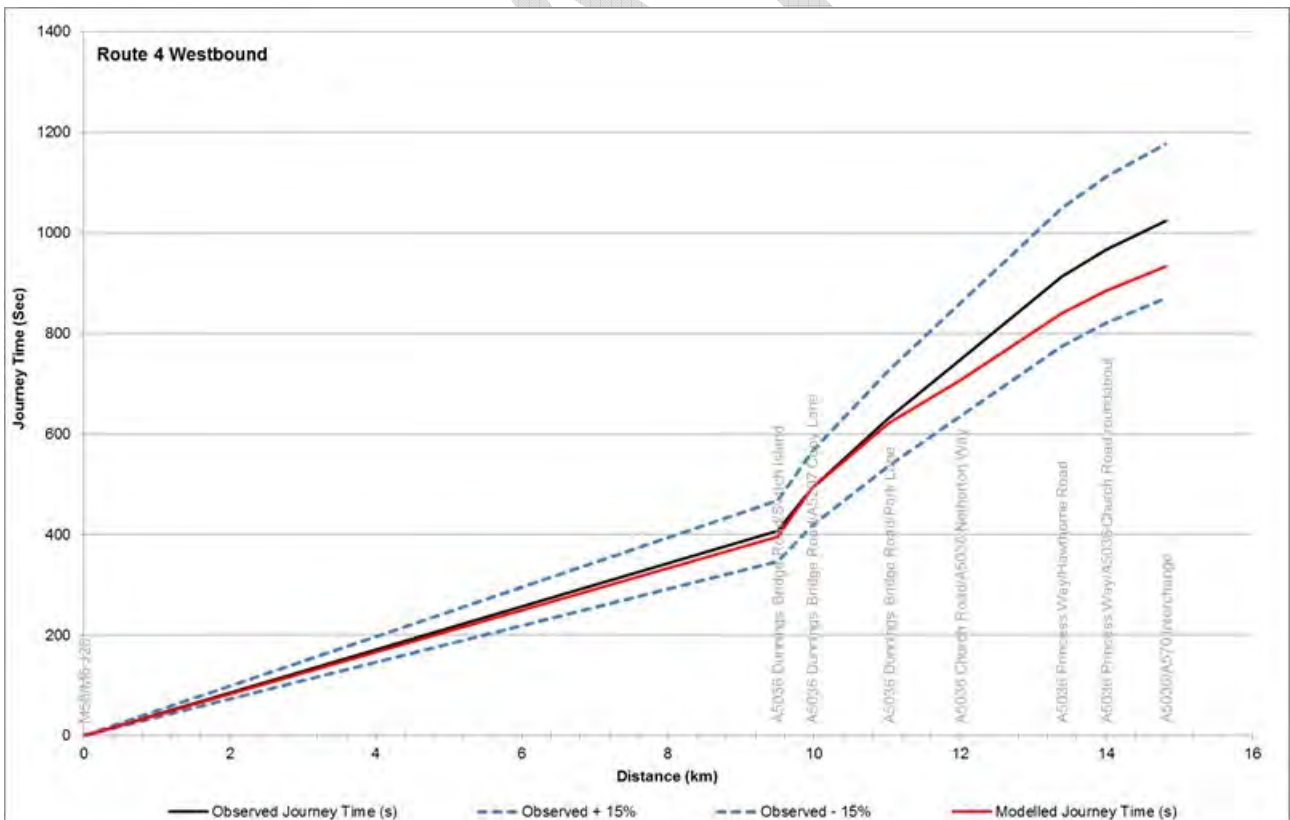
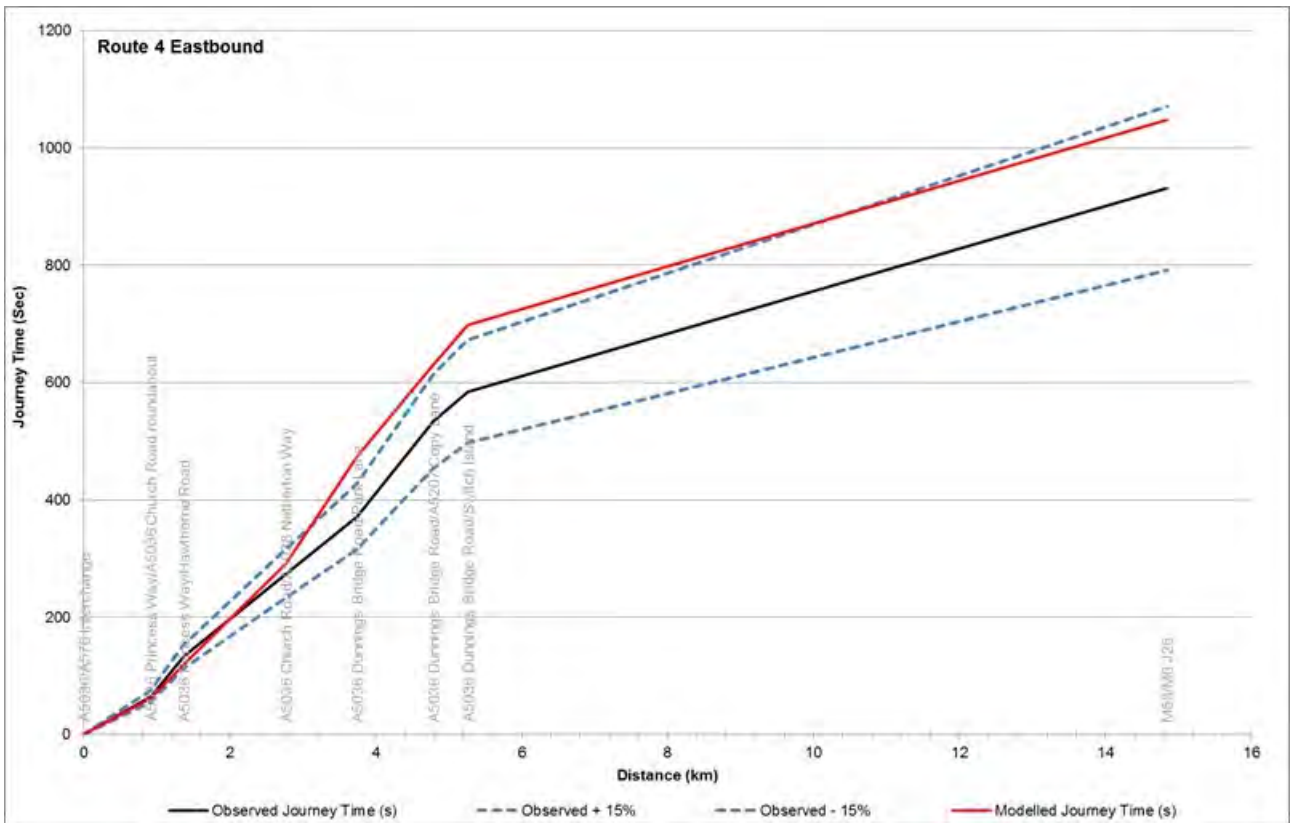
Appendix E. Journey time validation

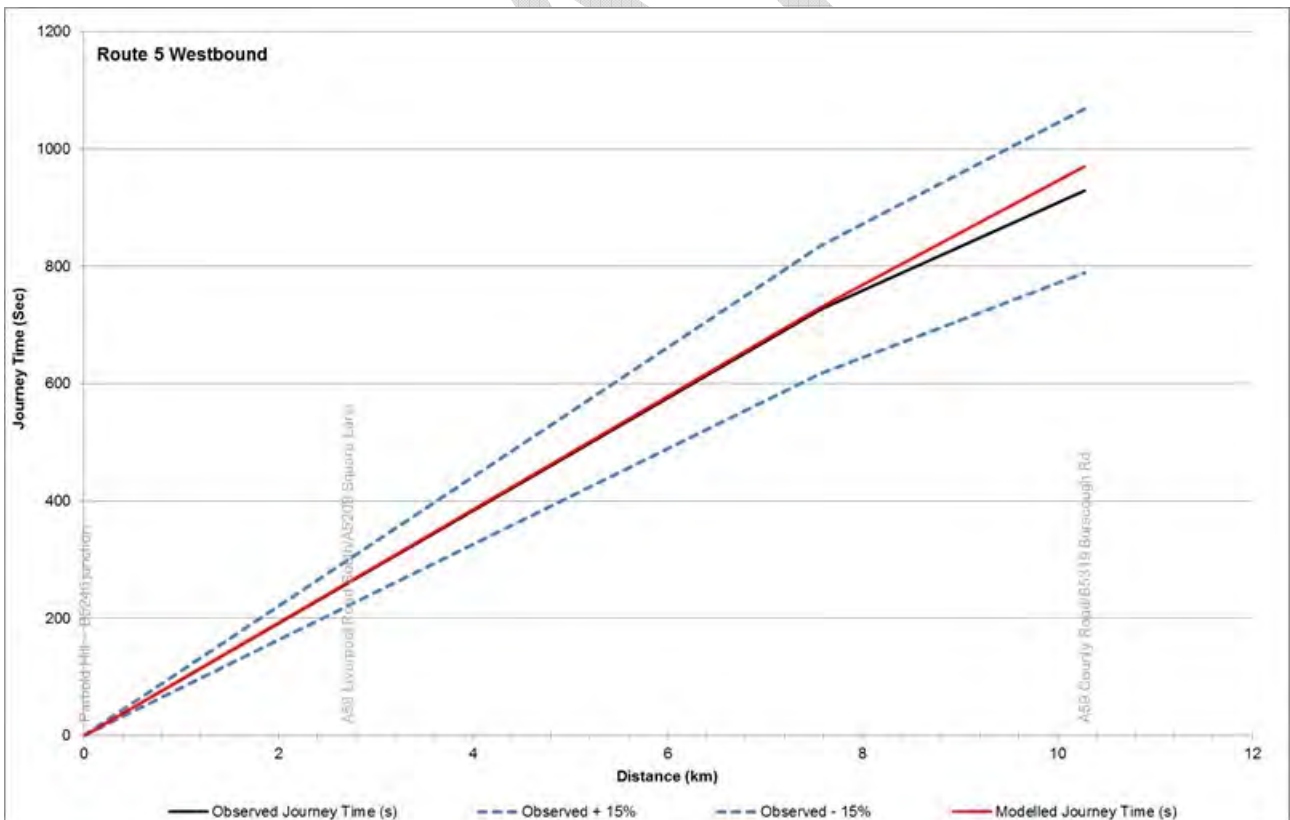
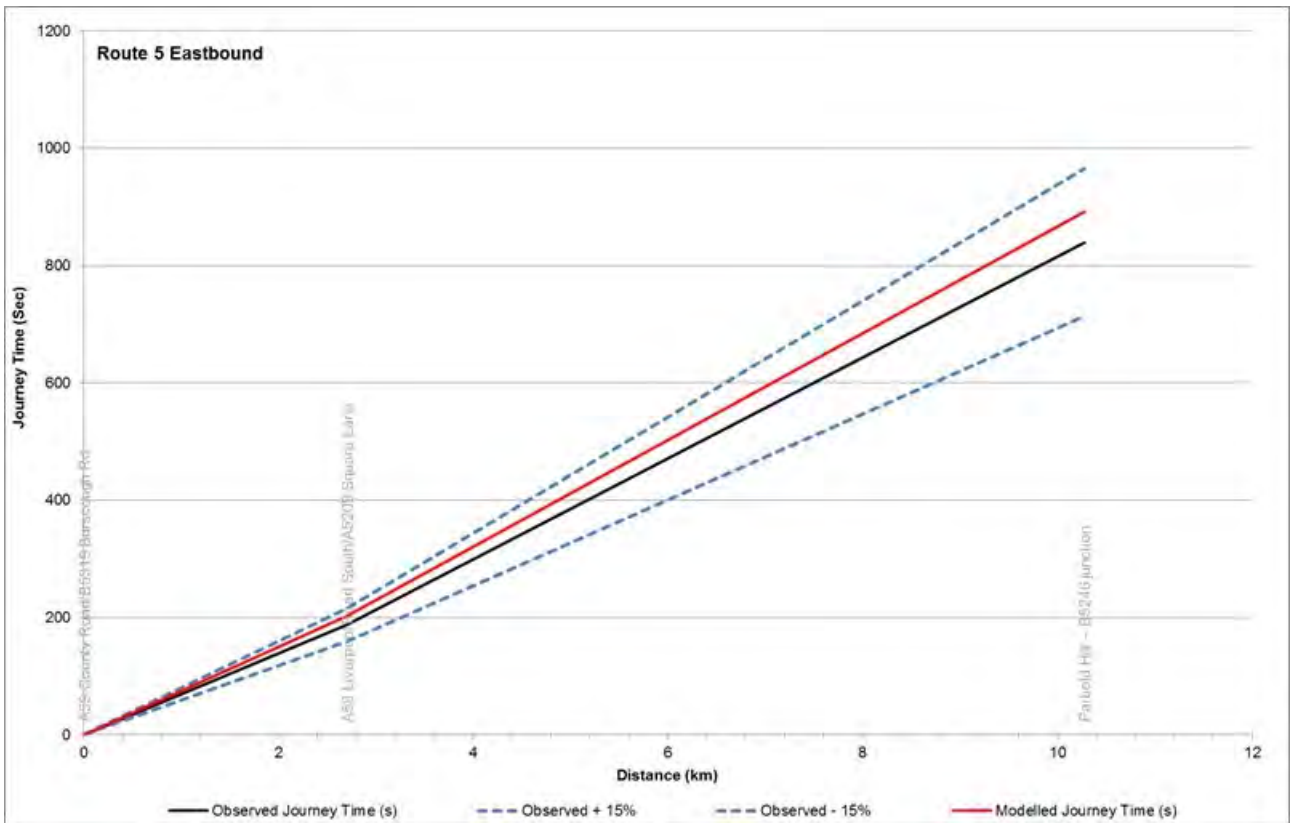
E.1. AM peak

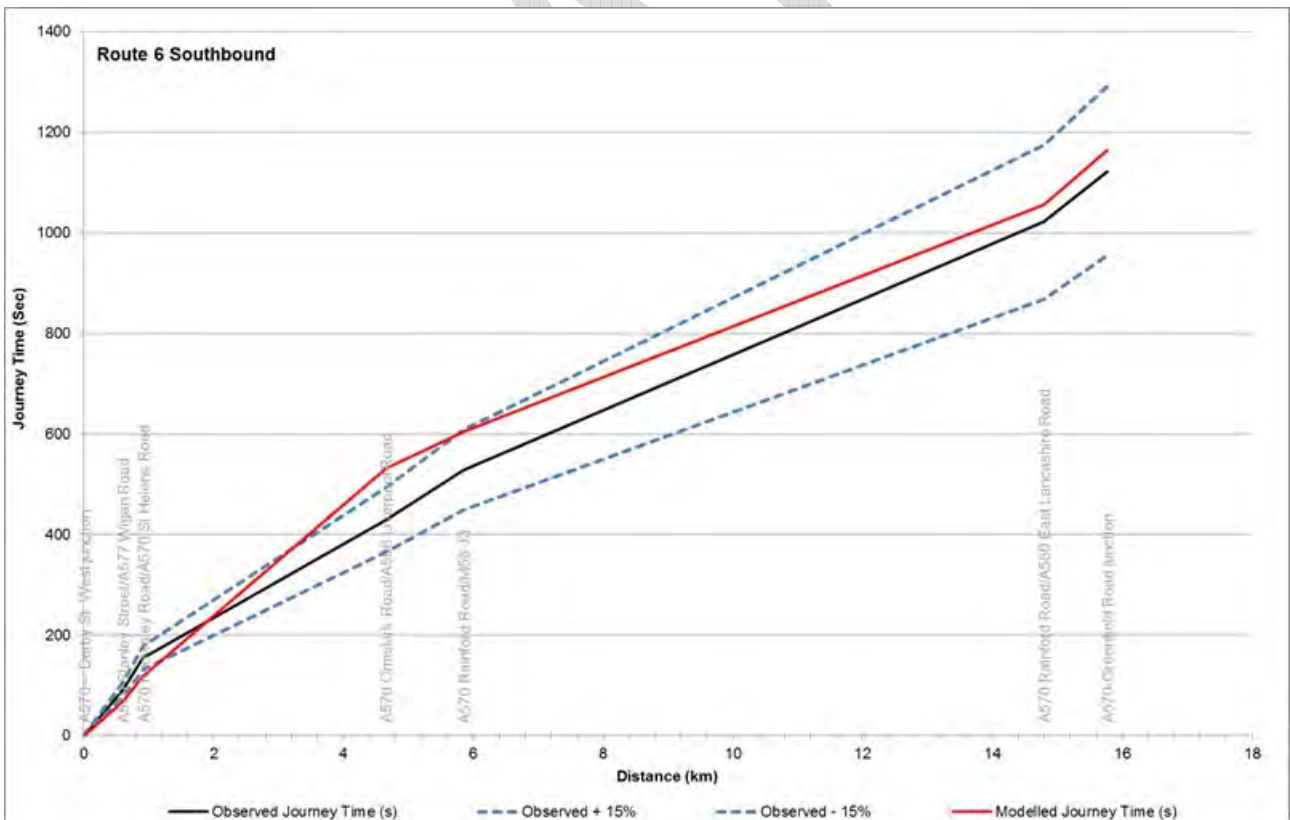
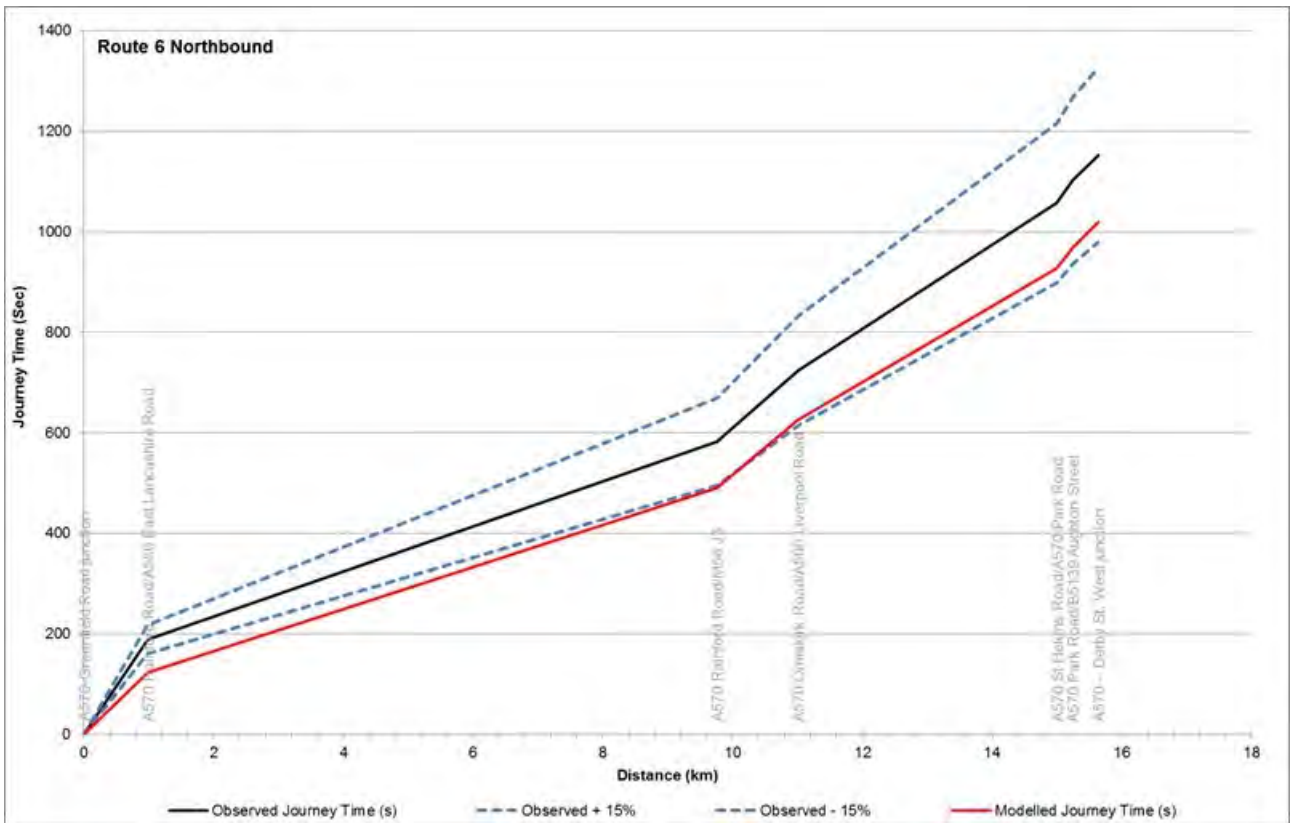


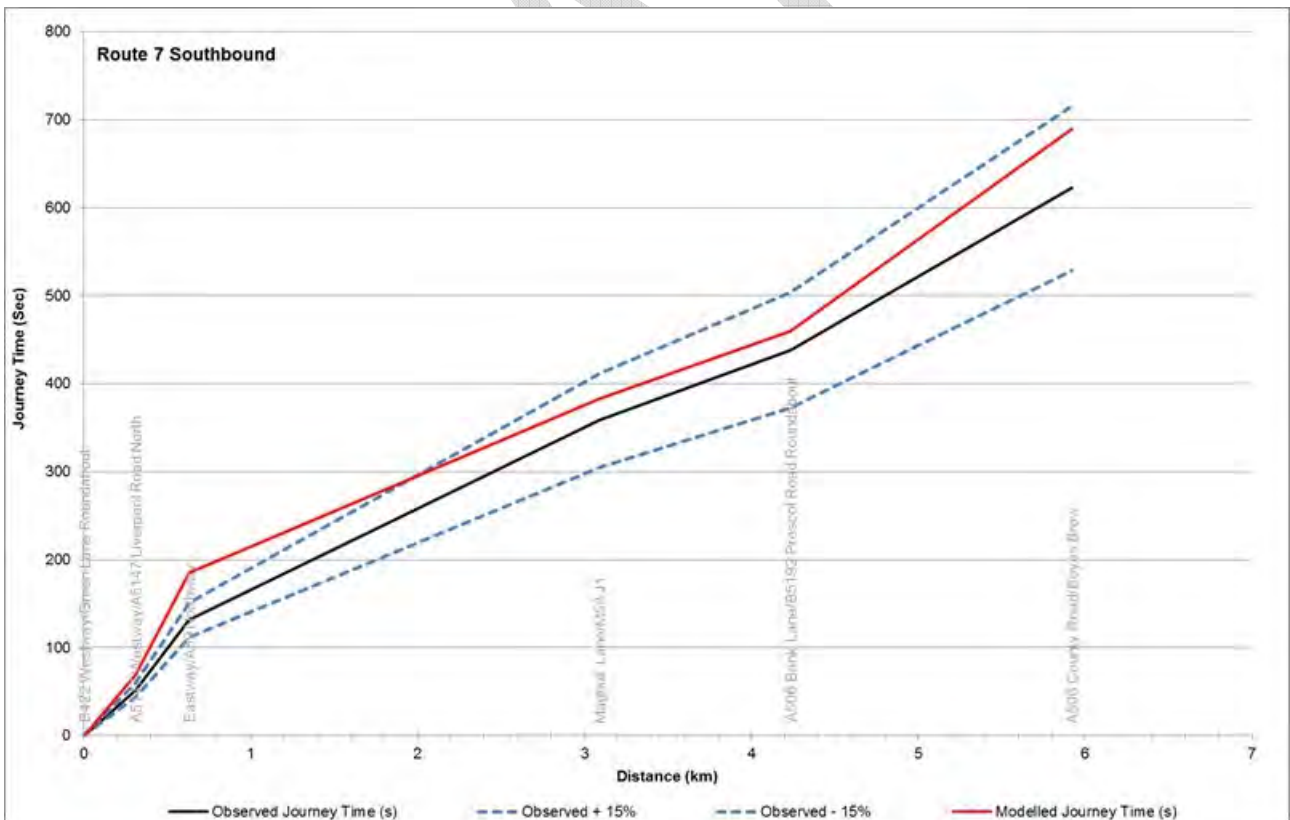
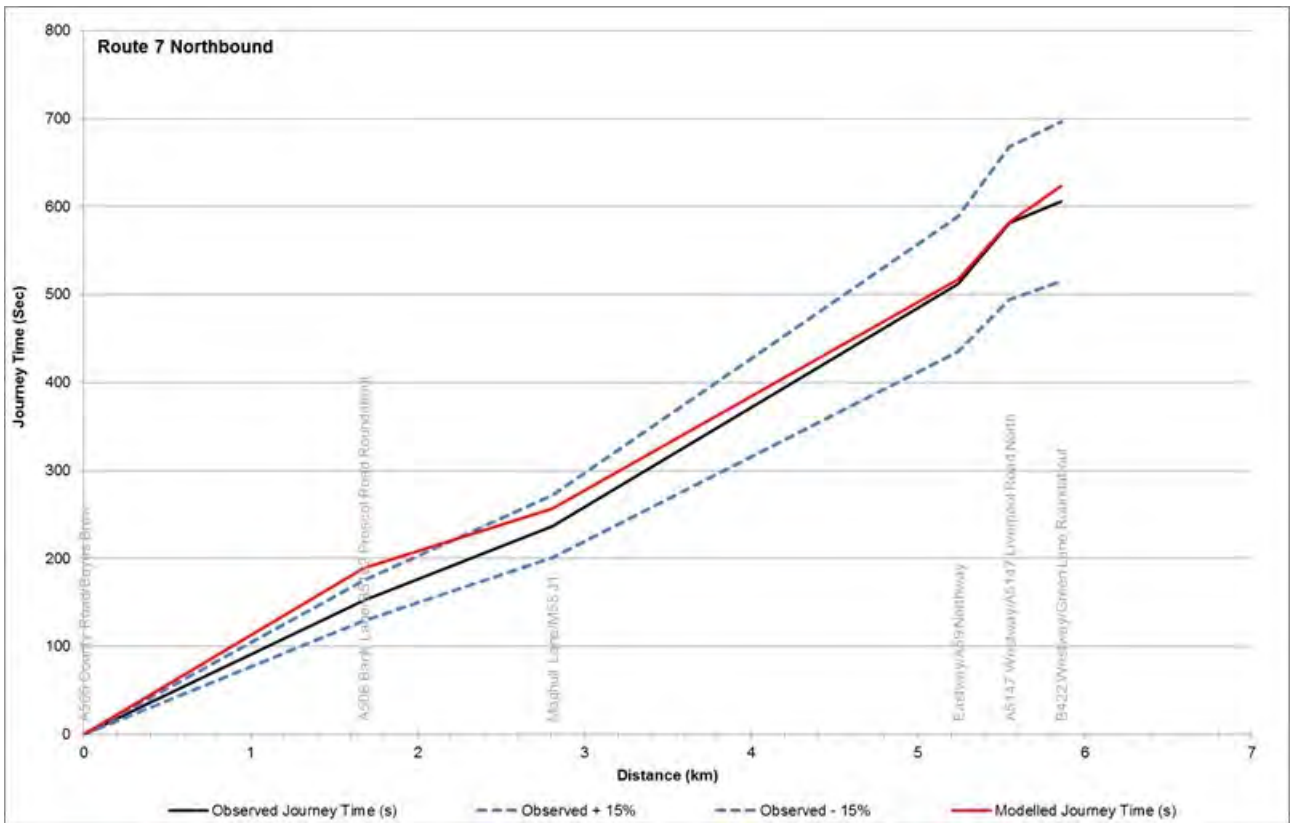


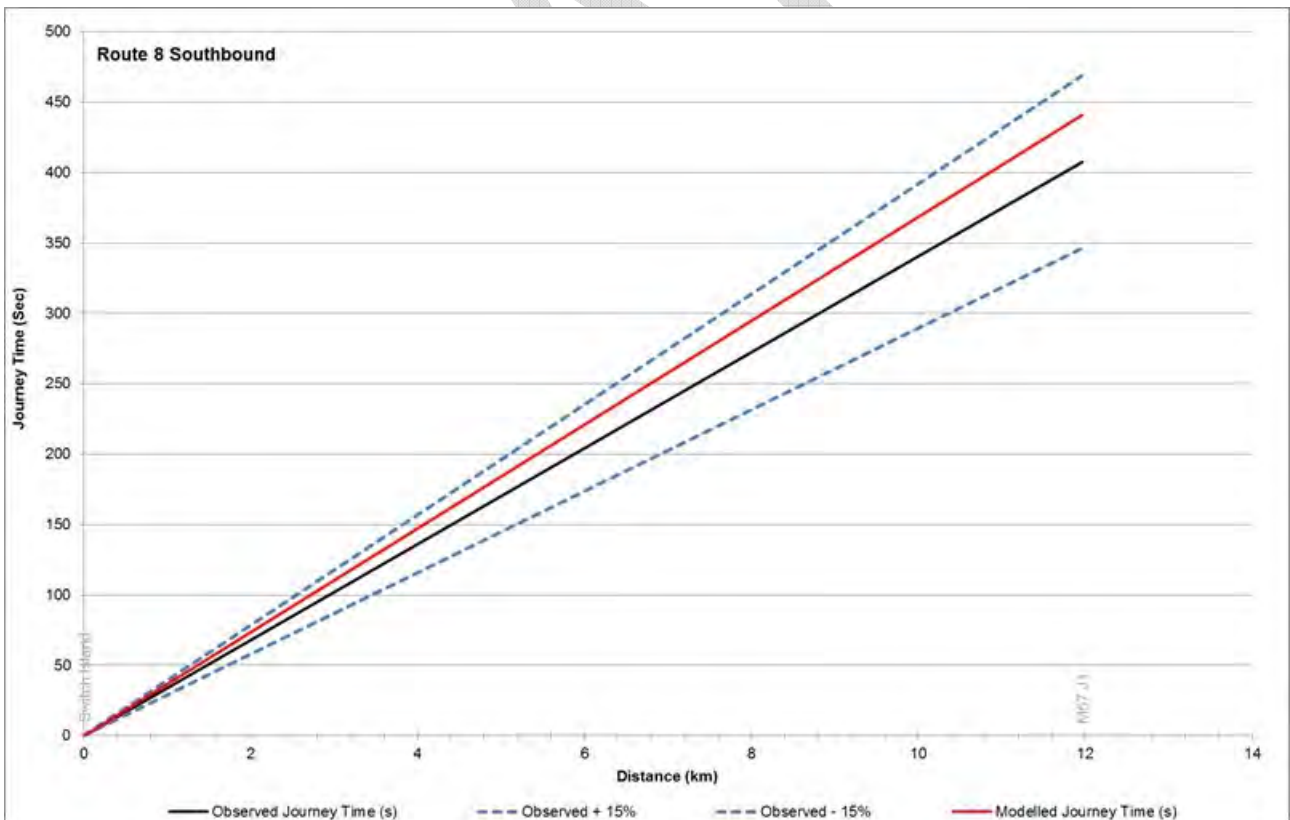
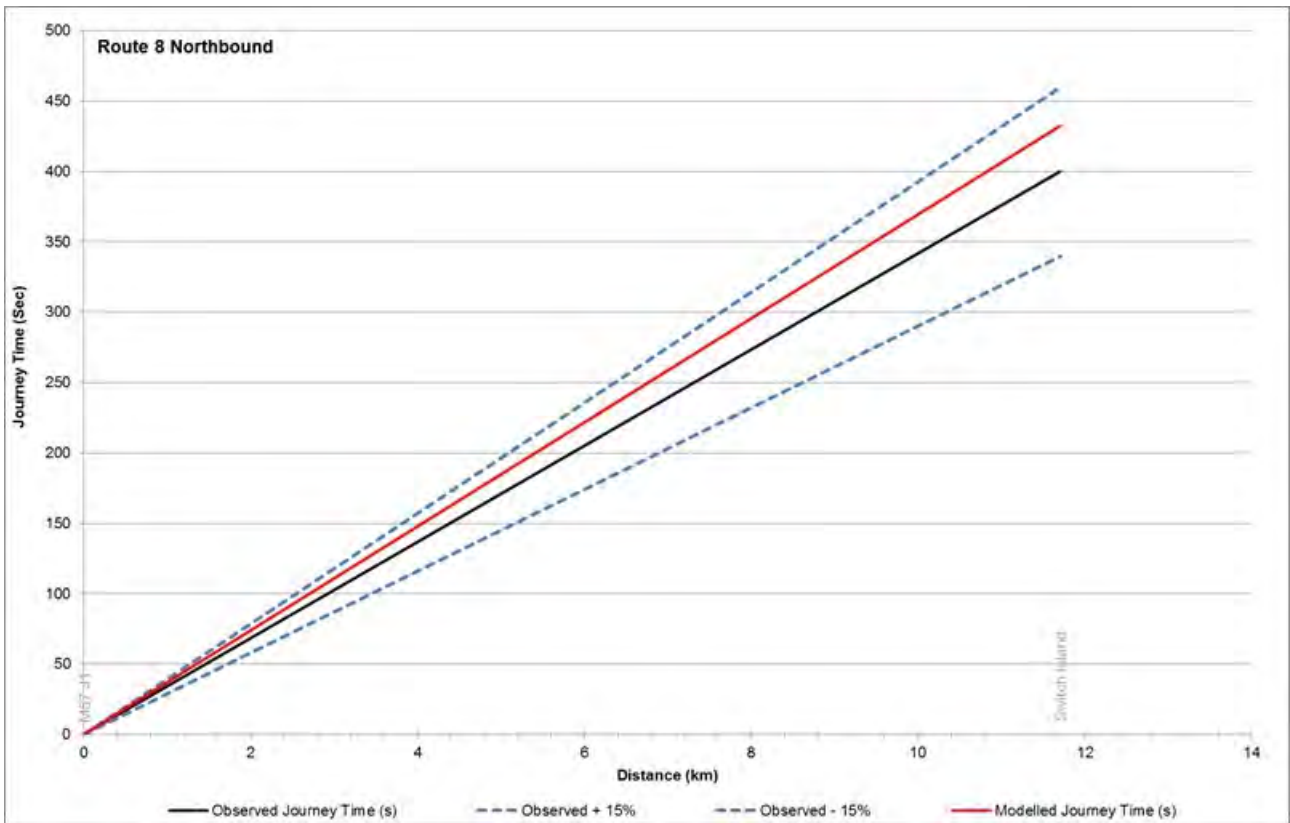


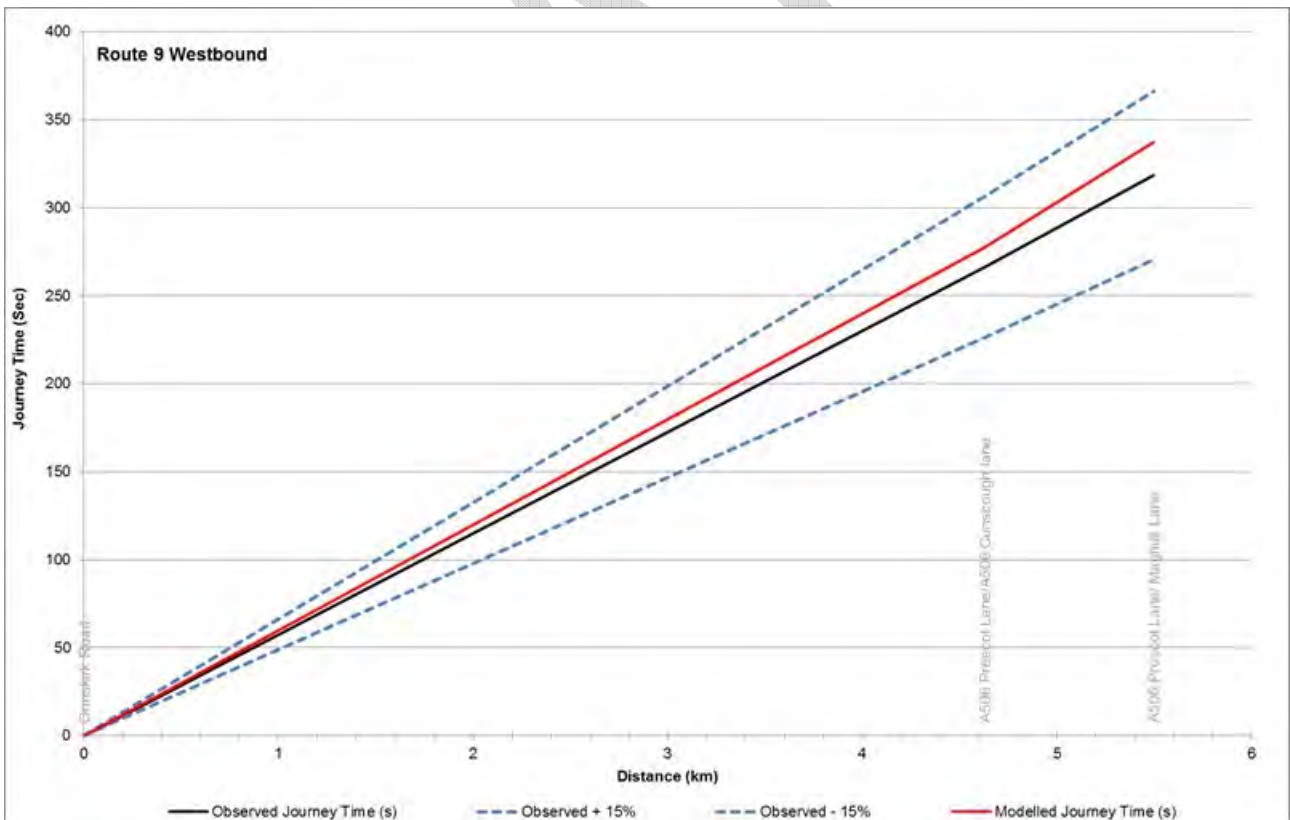
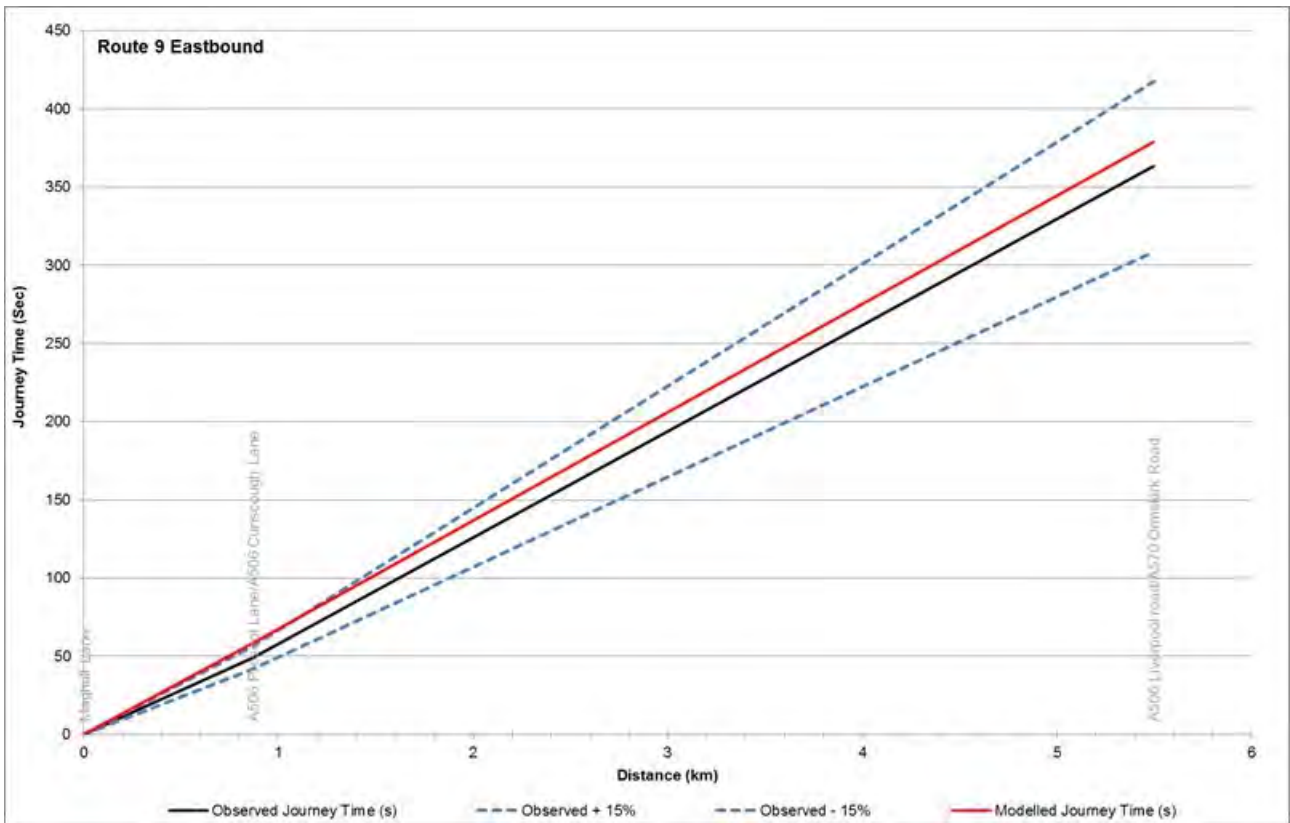




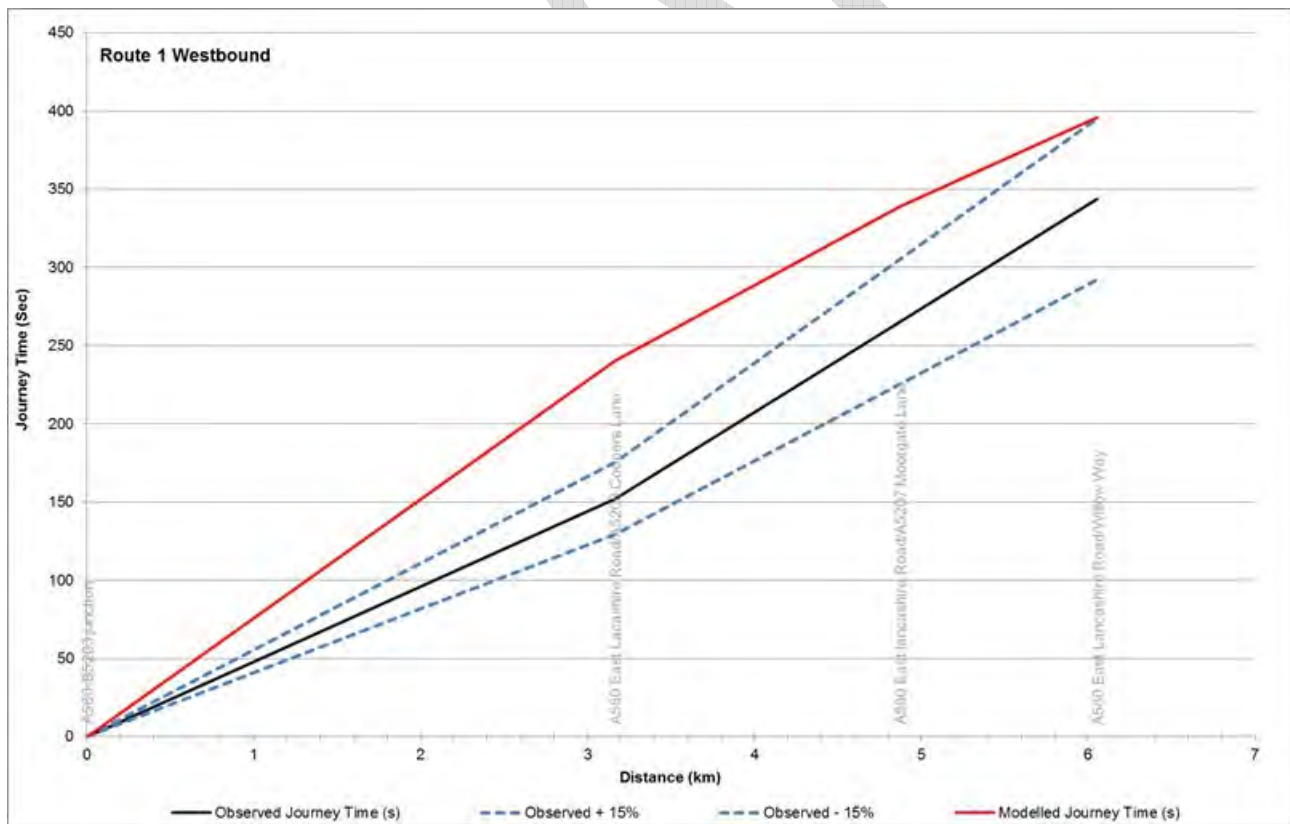
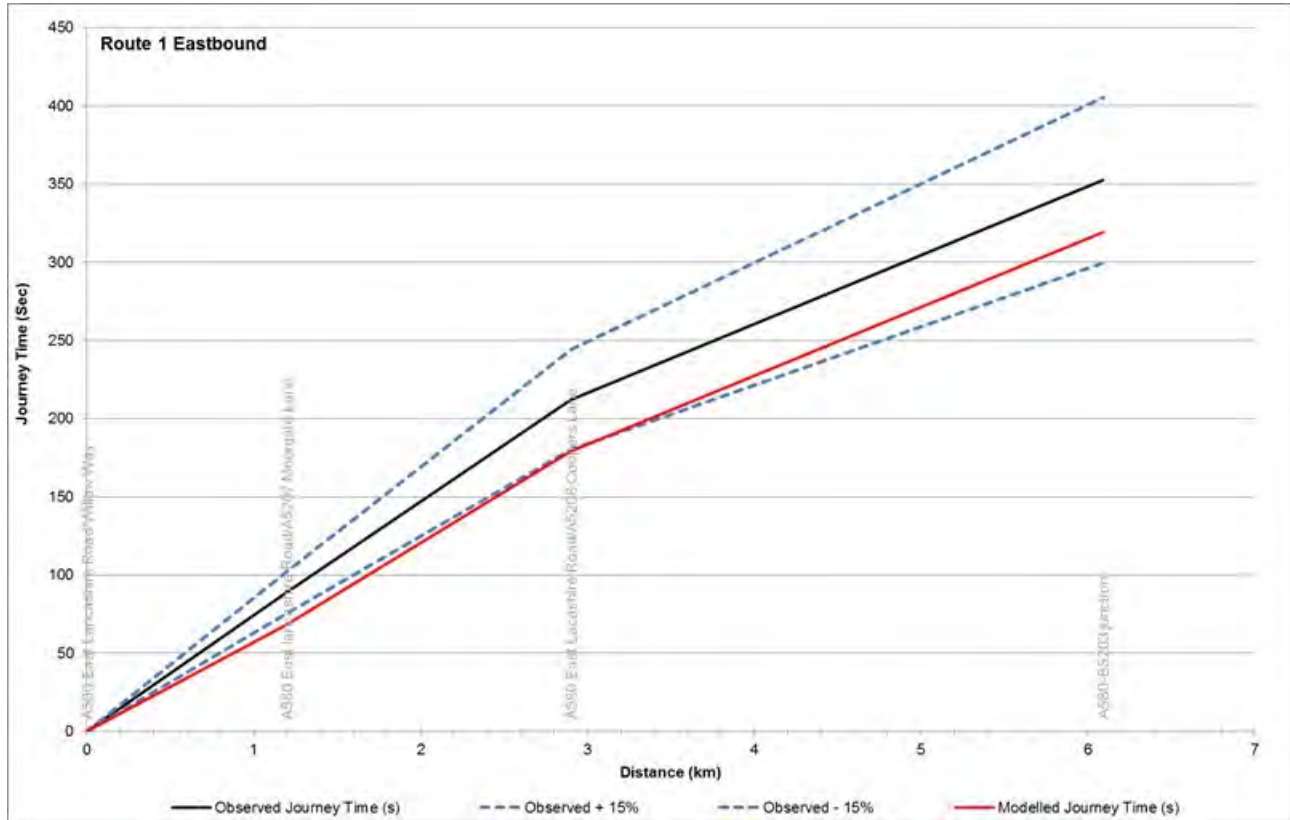


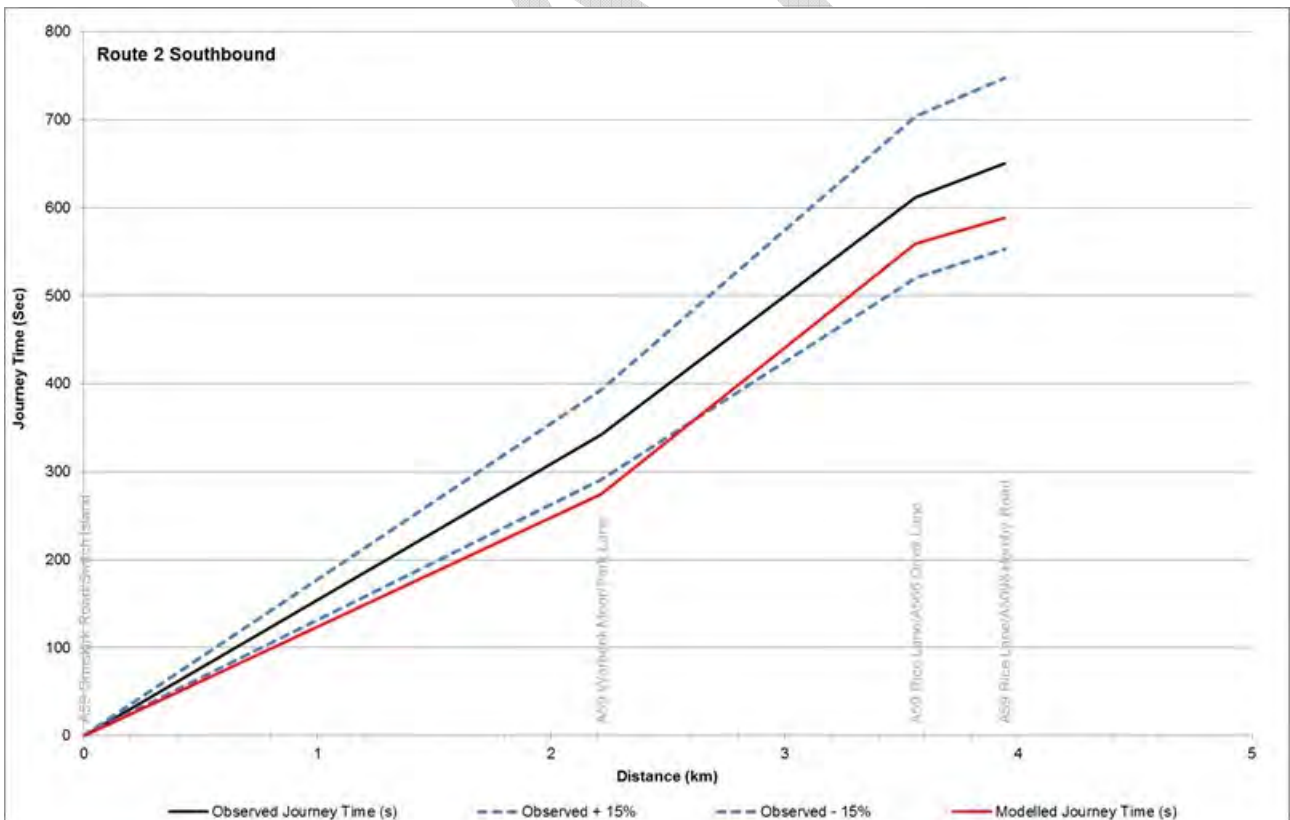
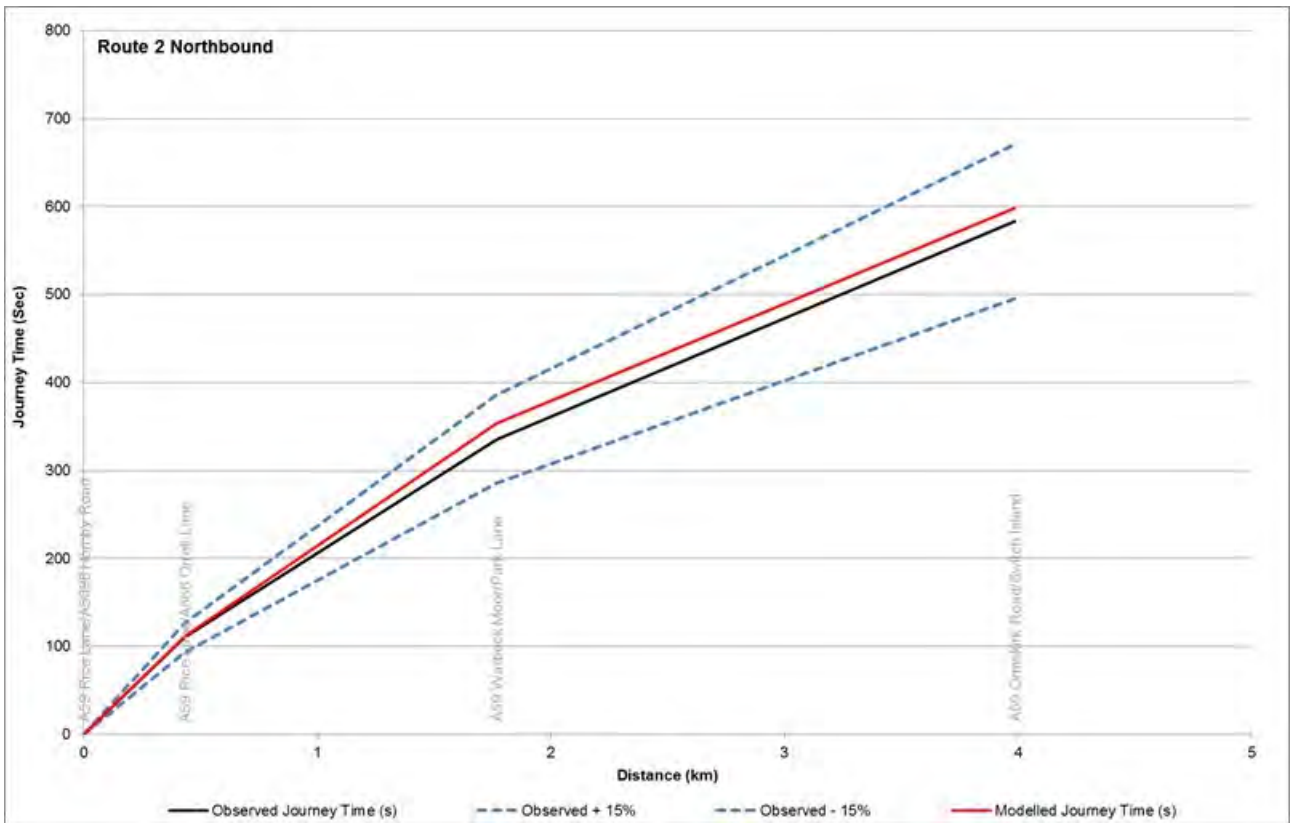


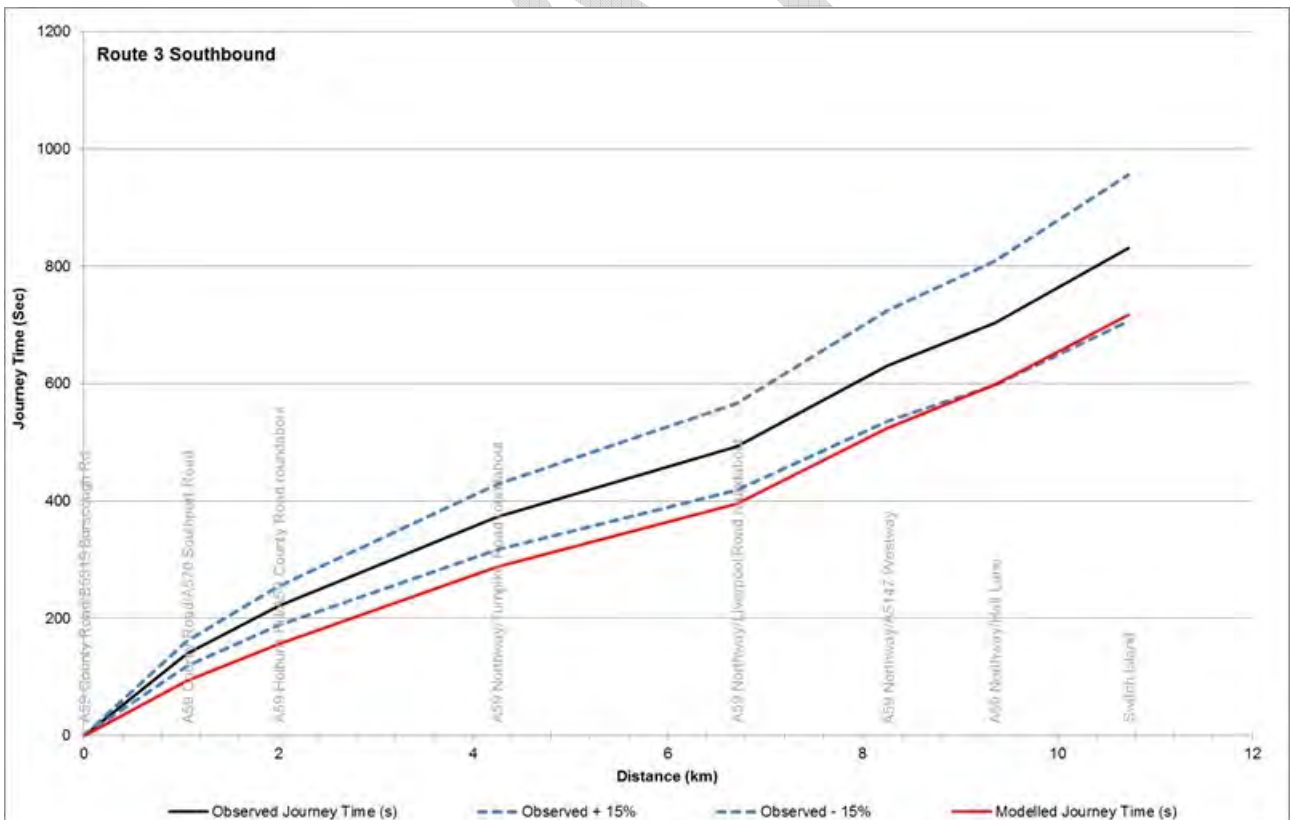
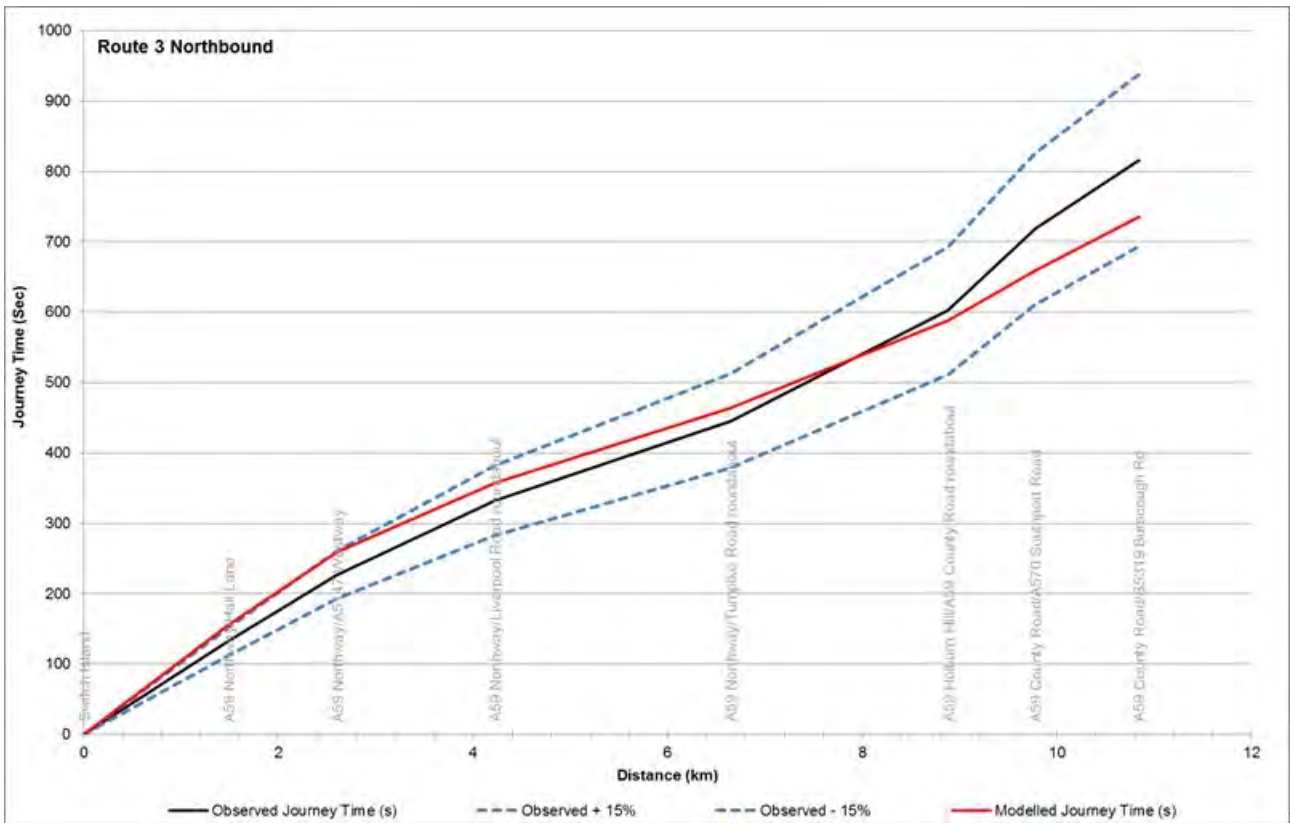


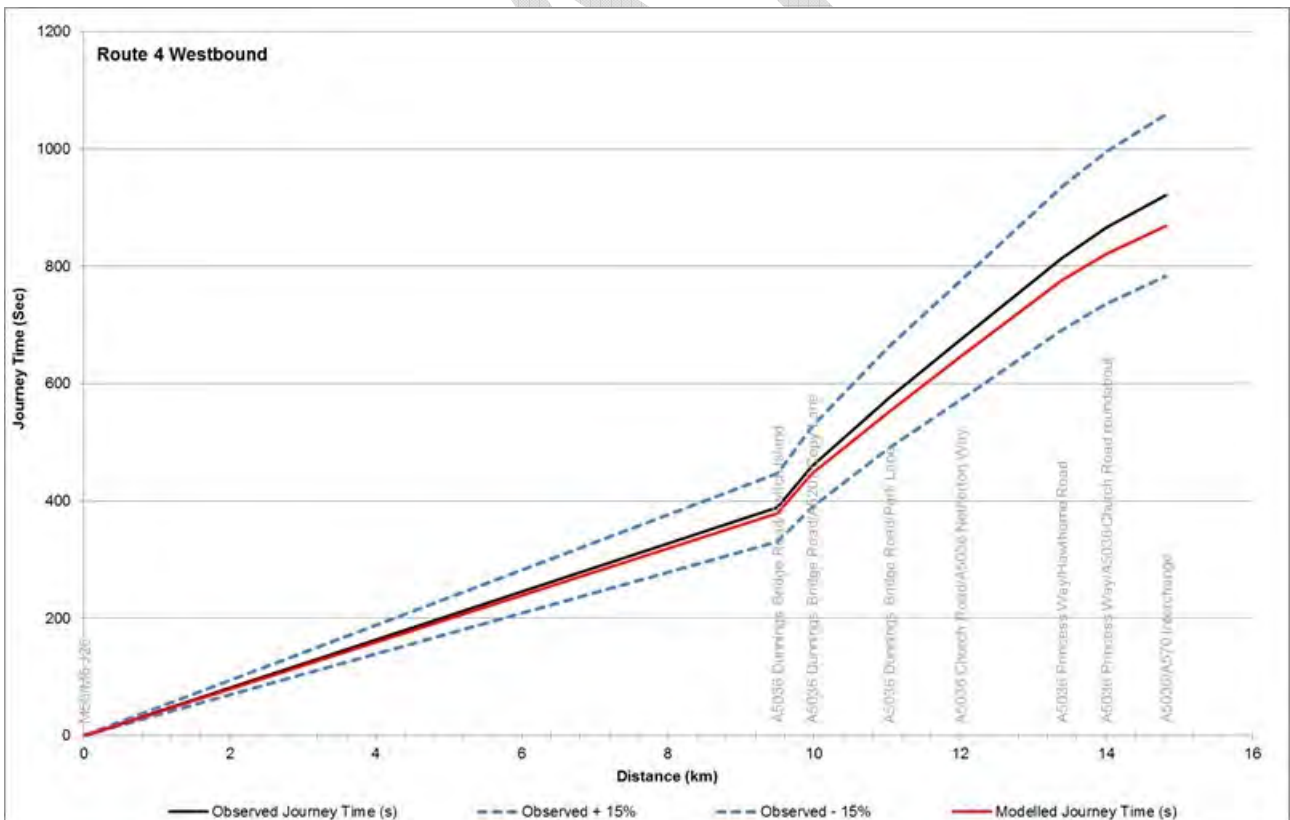
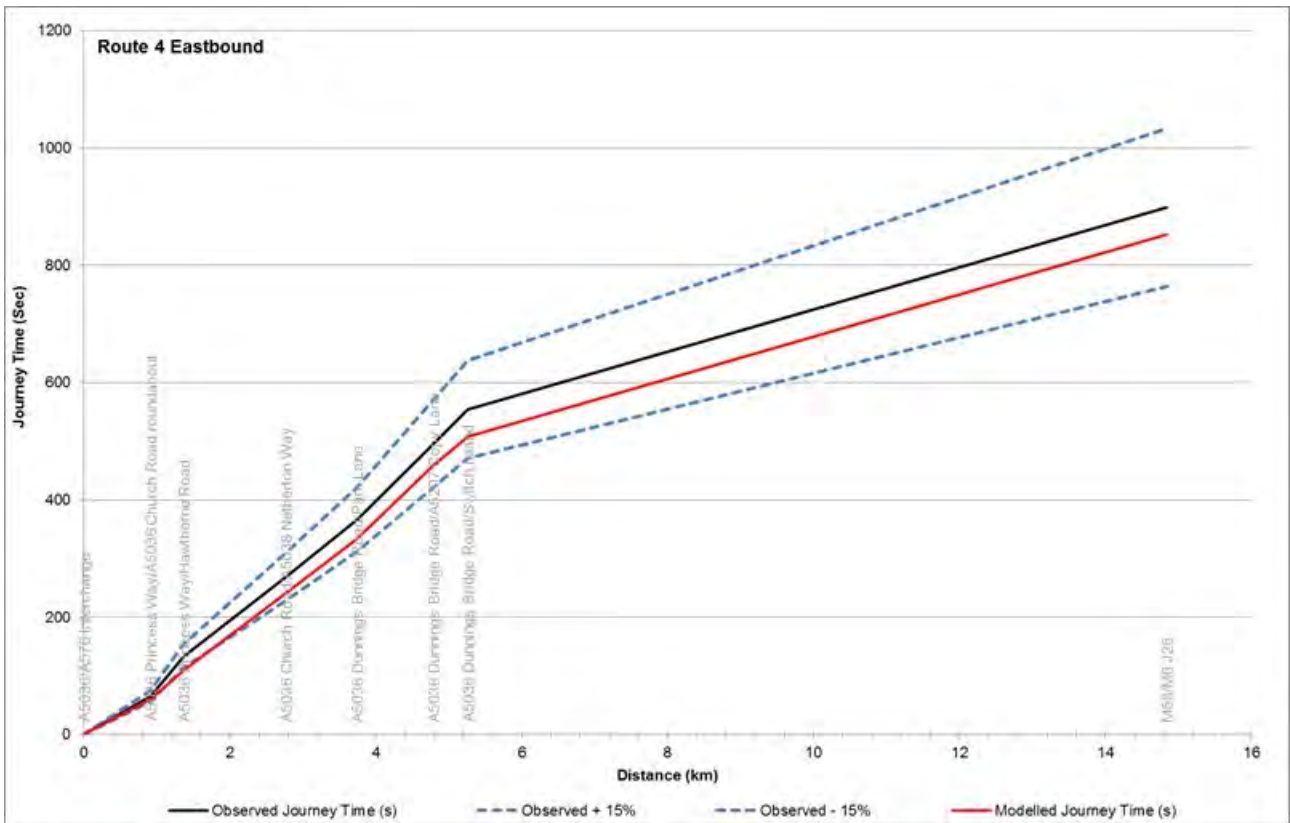


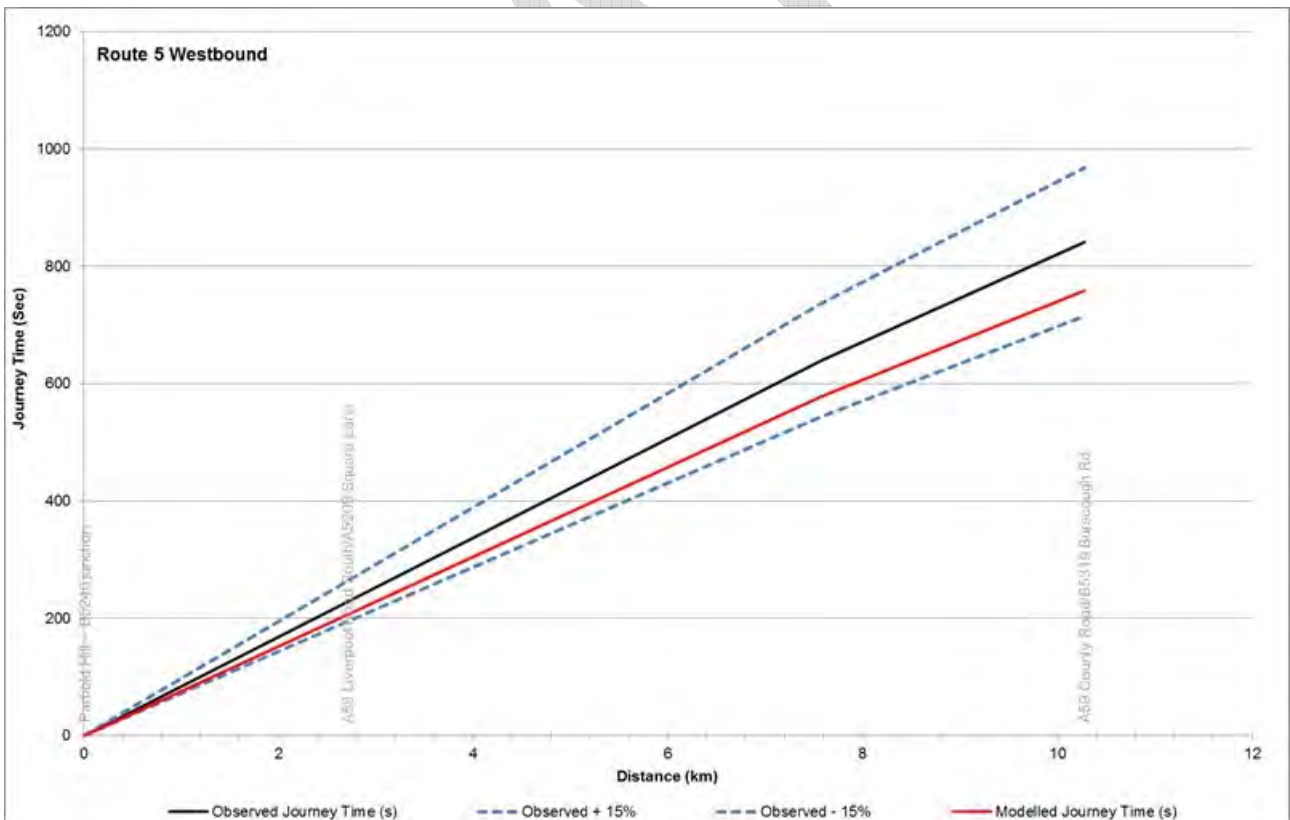
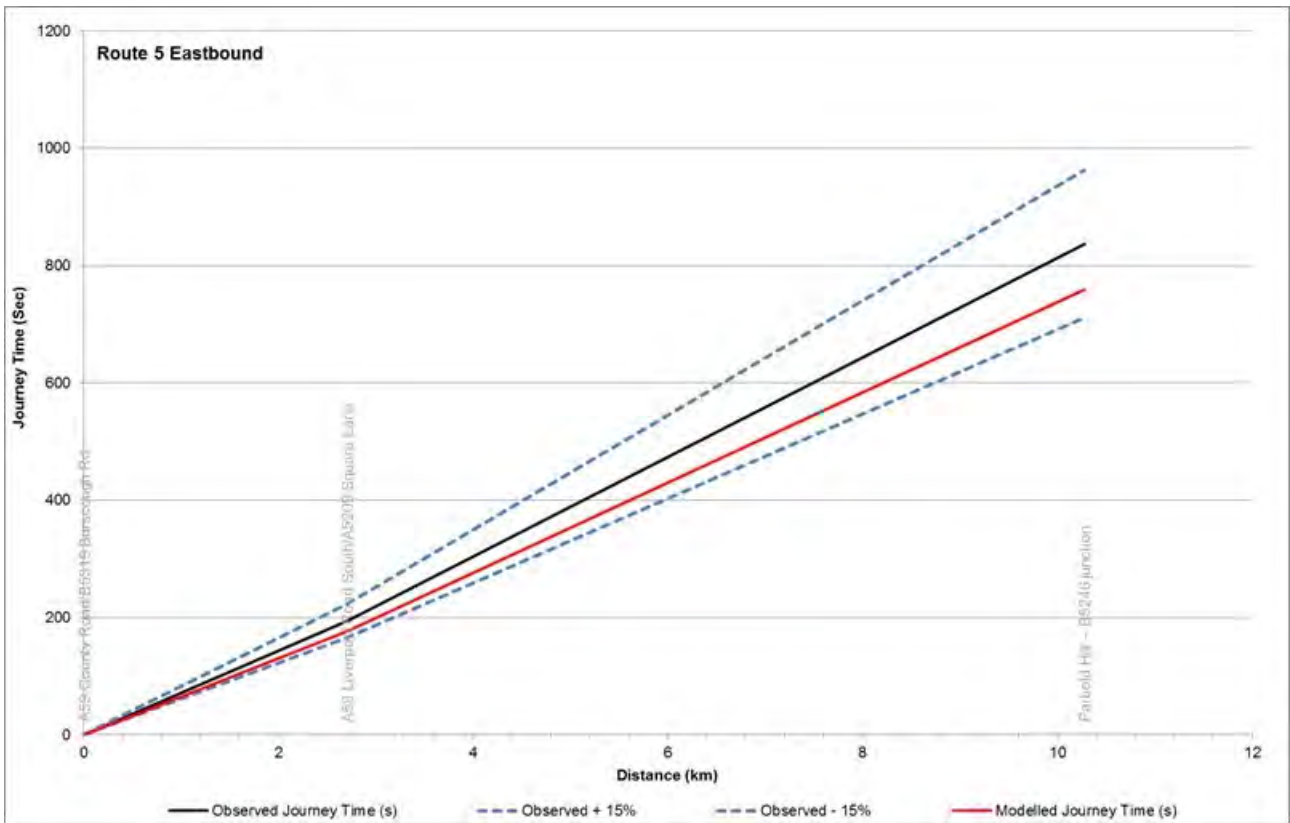
E.2. Inter-peak

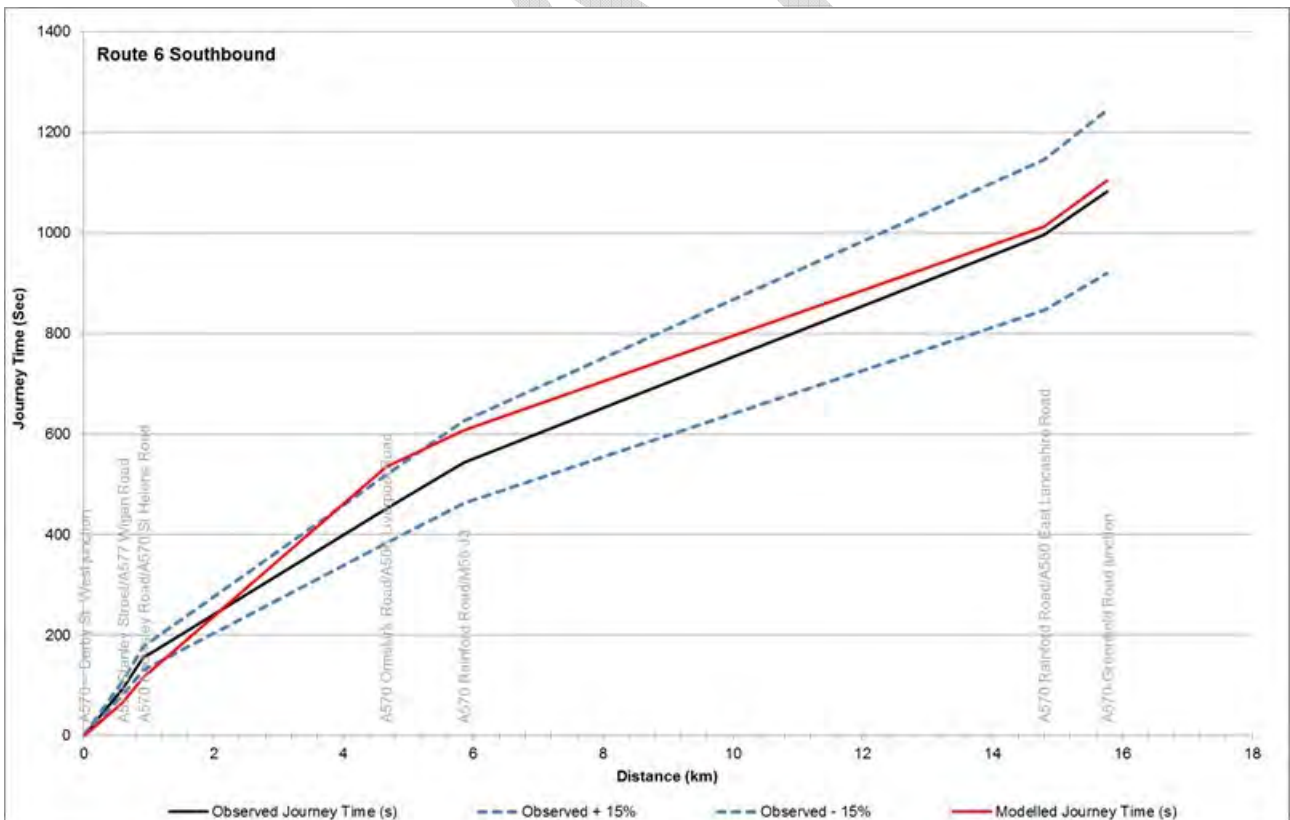
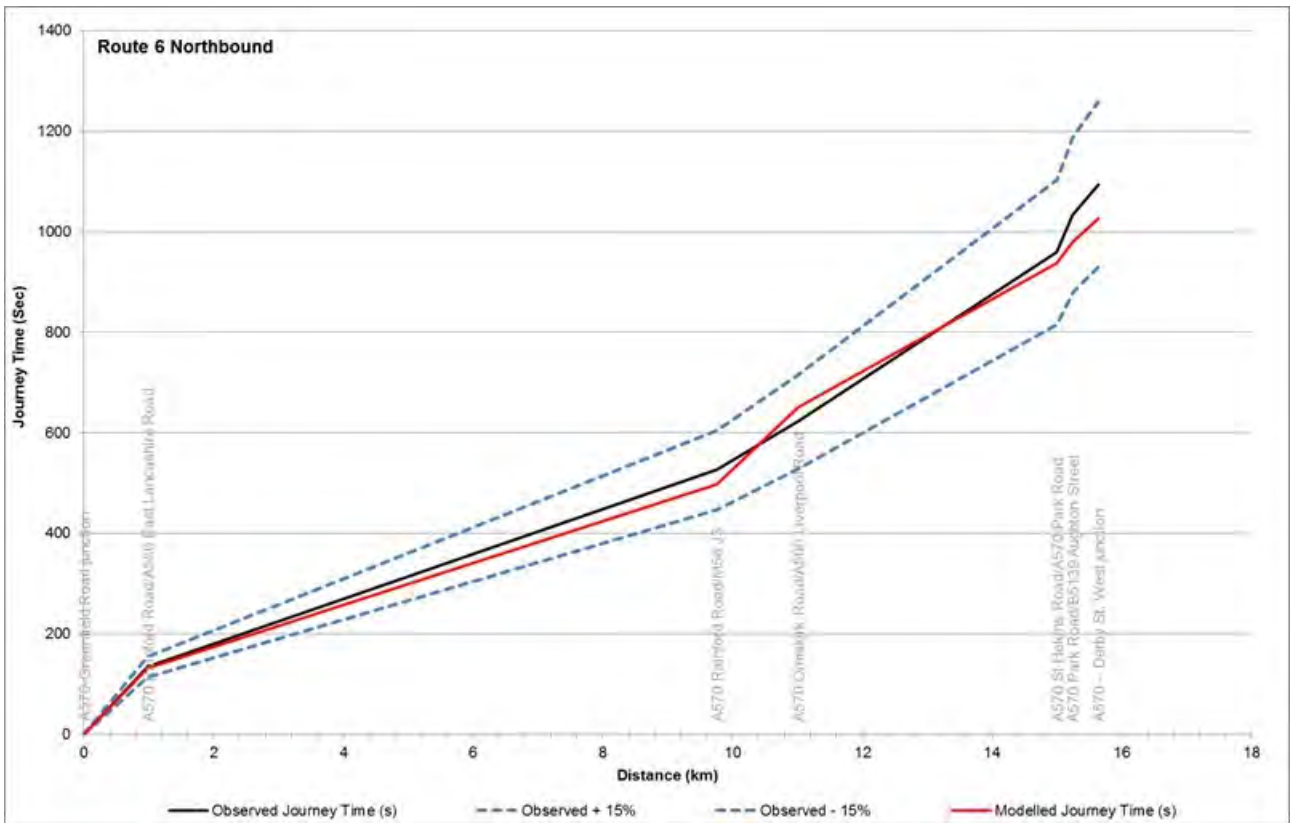


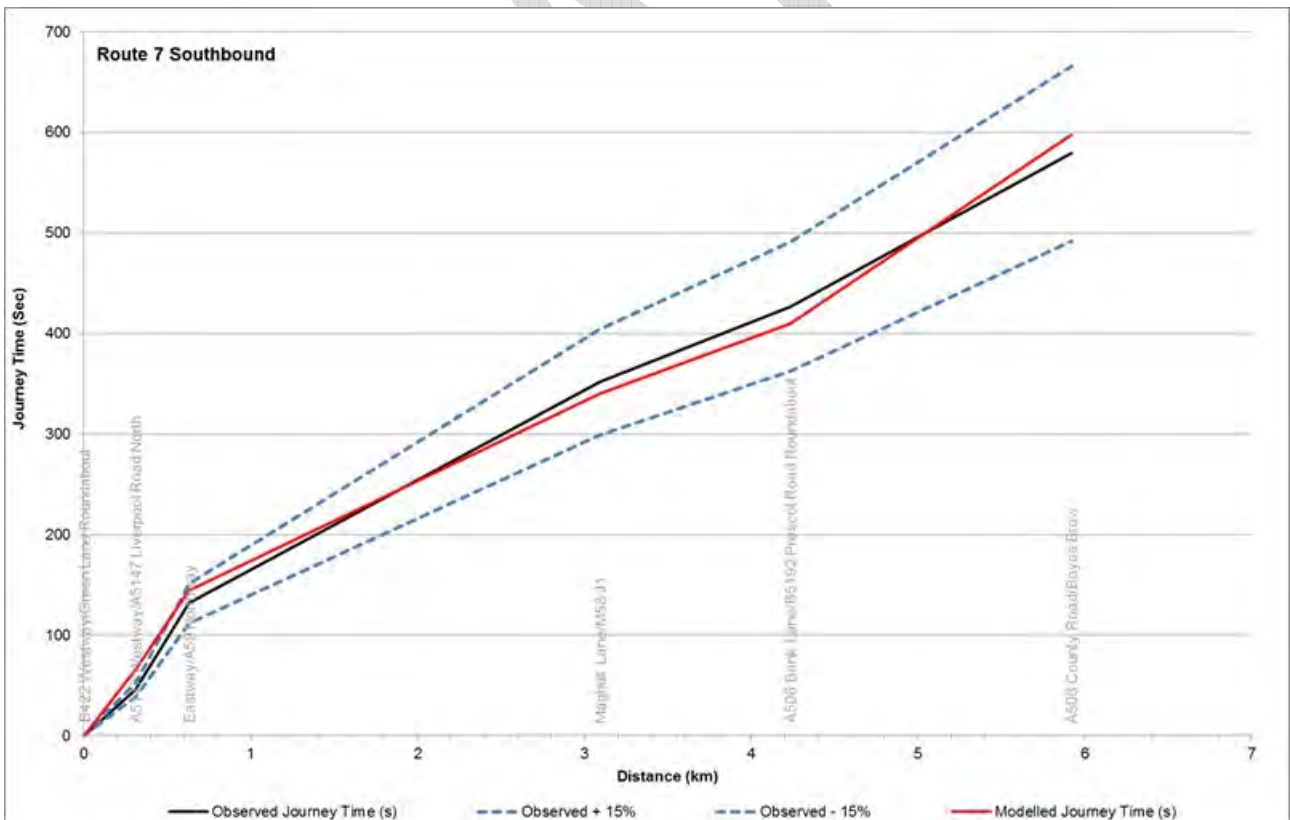
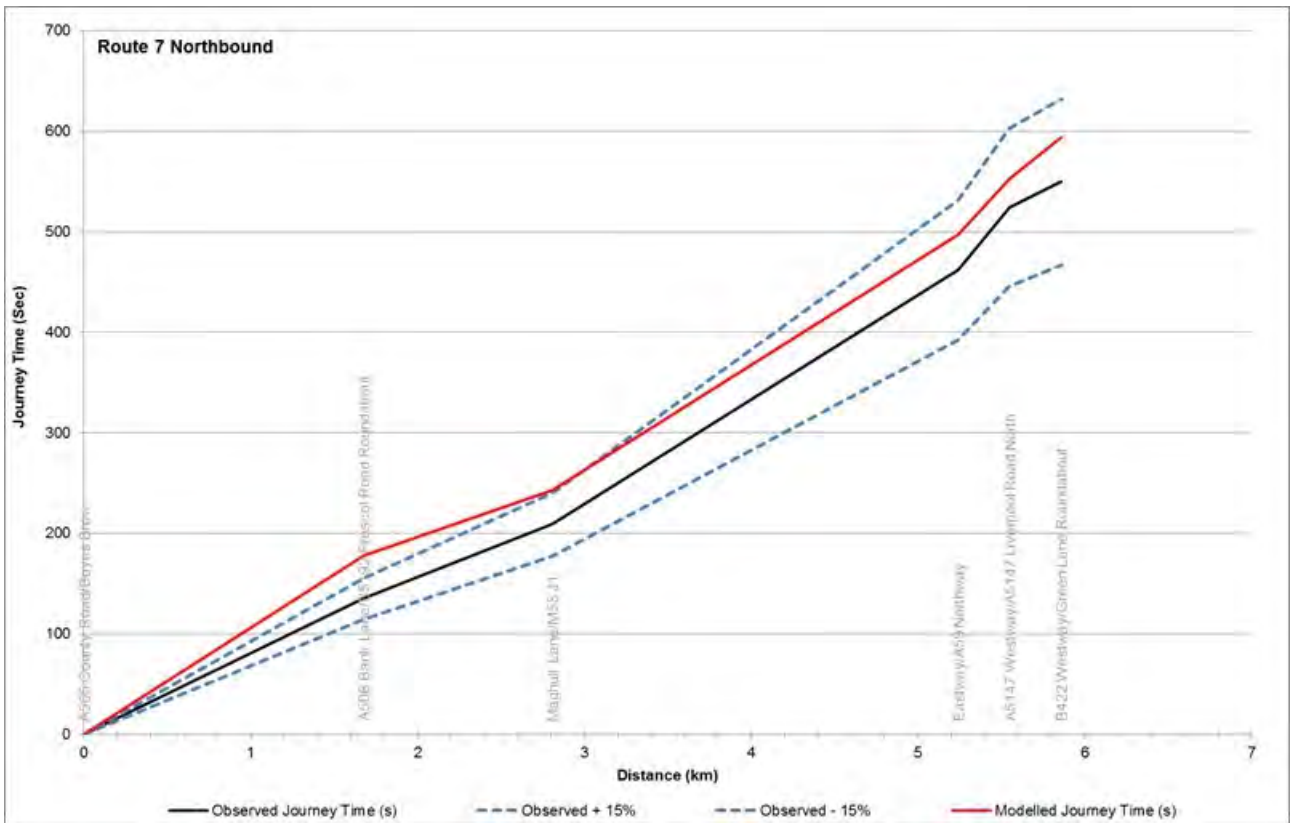


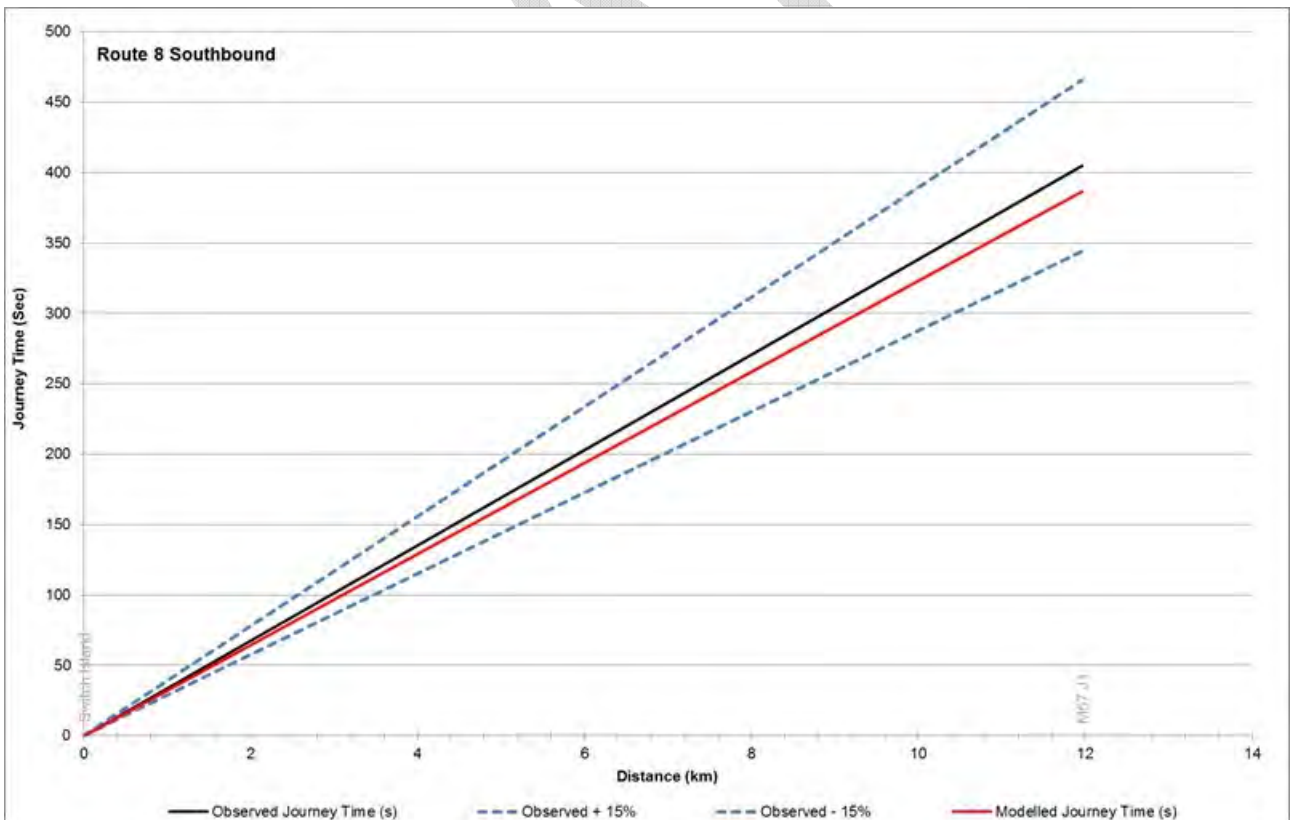
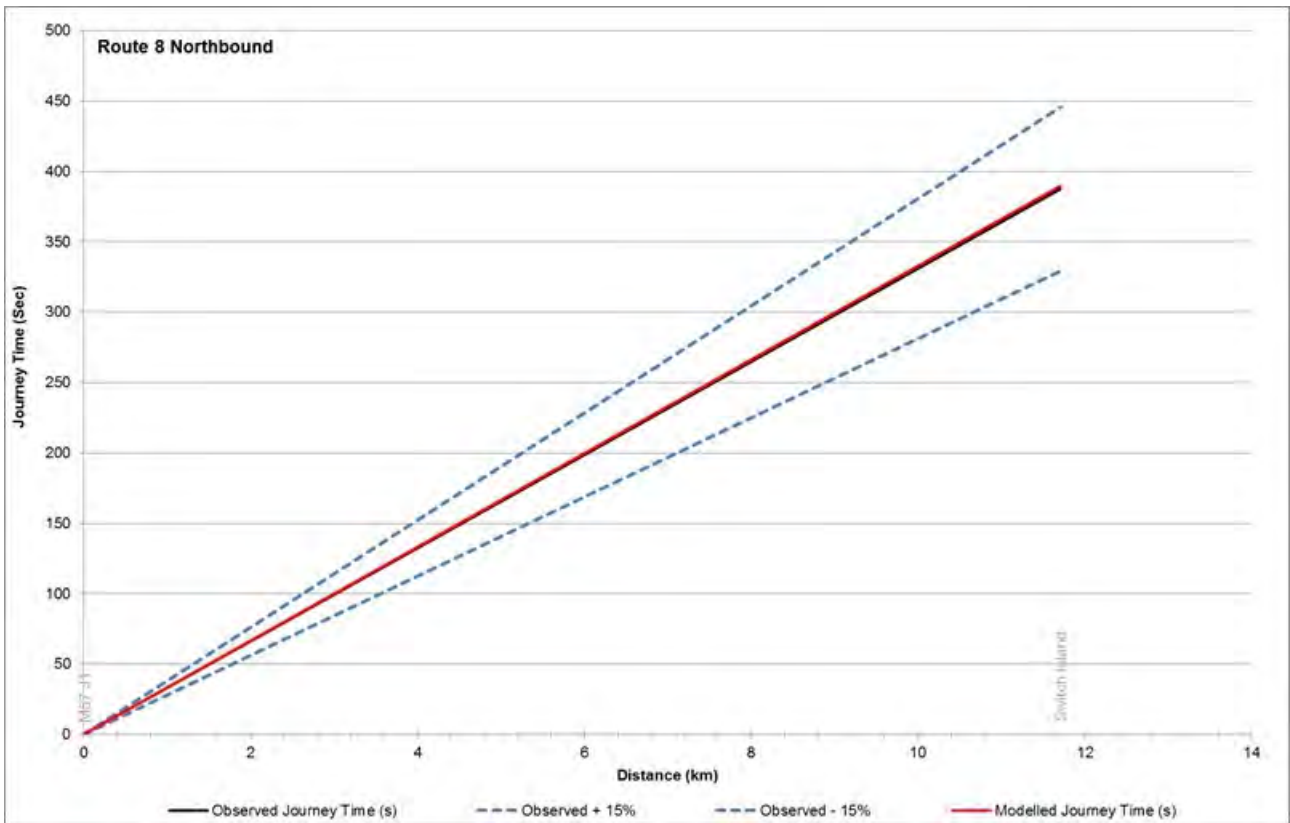


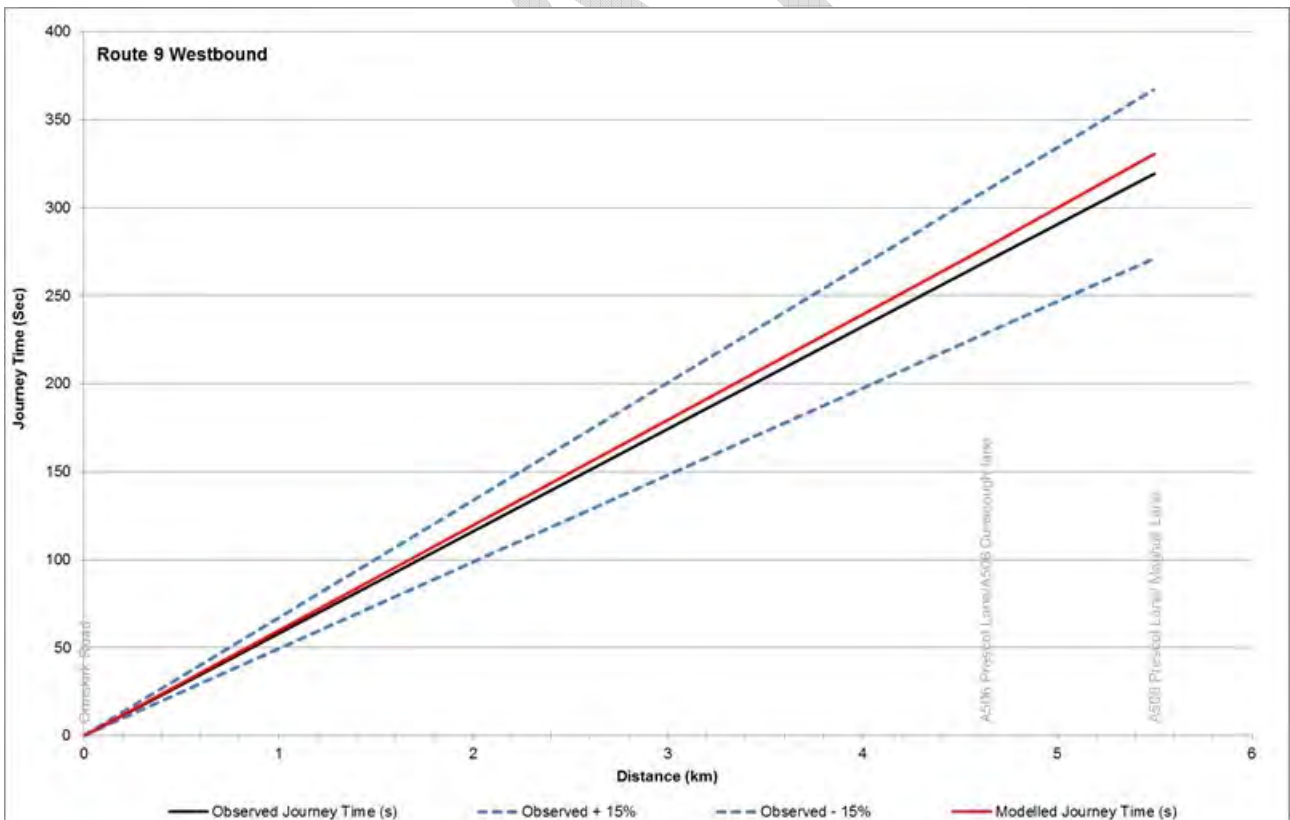
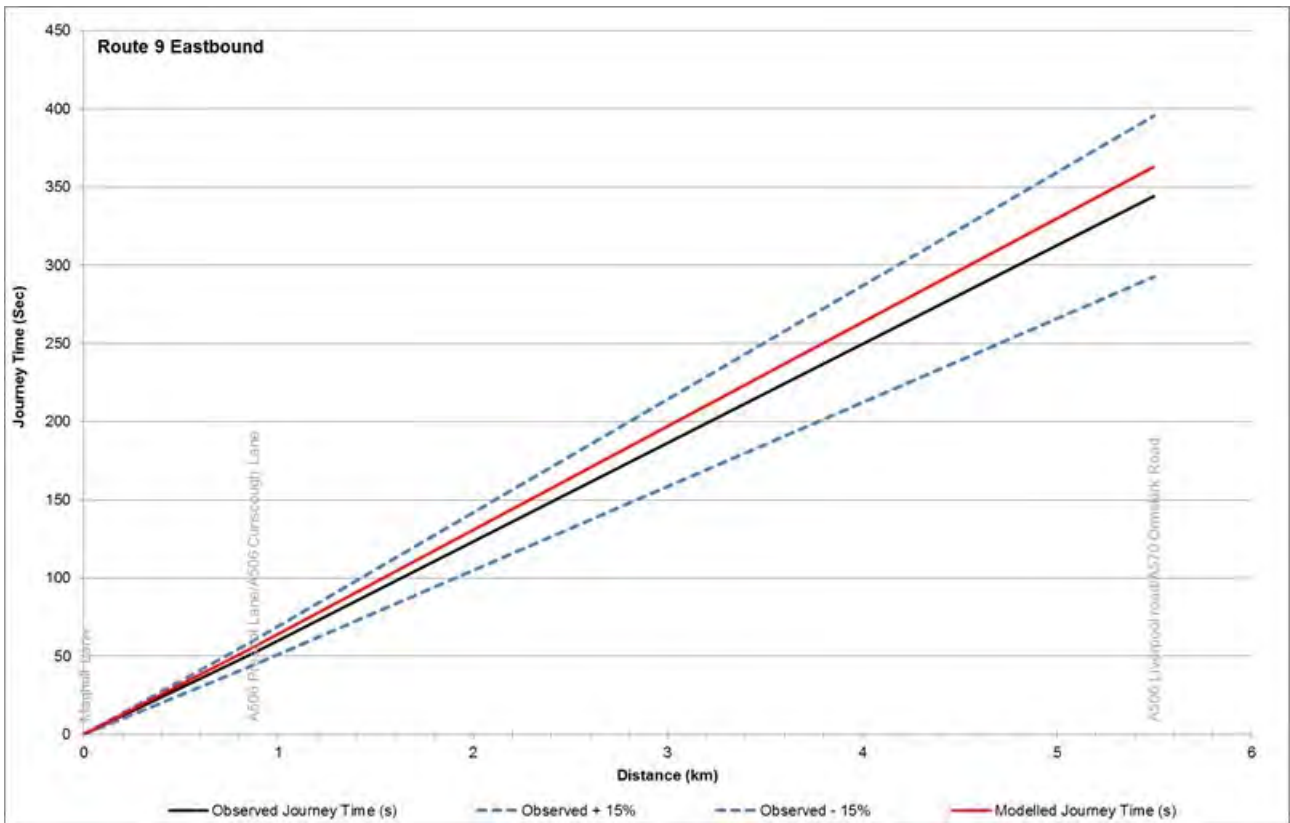




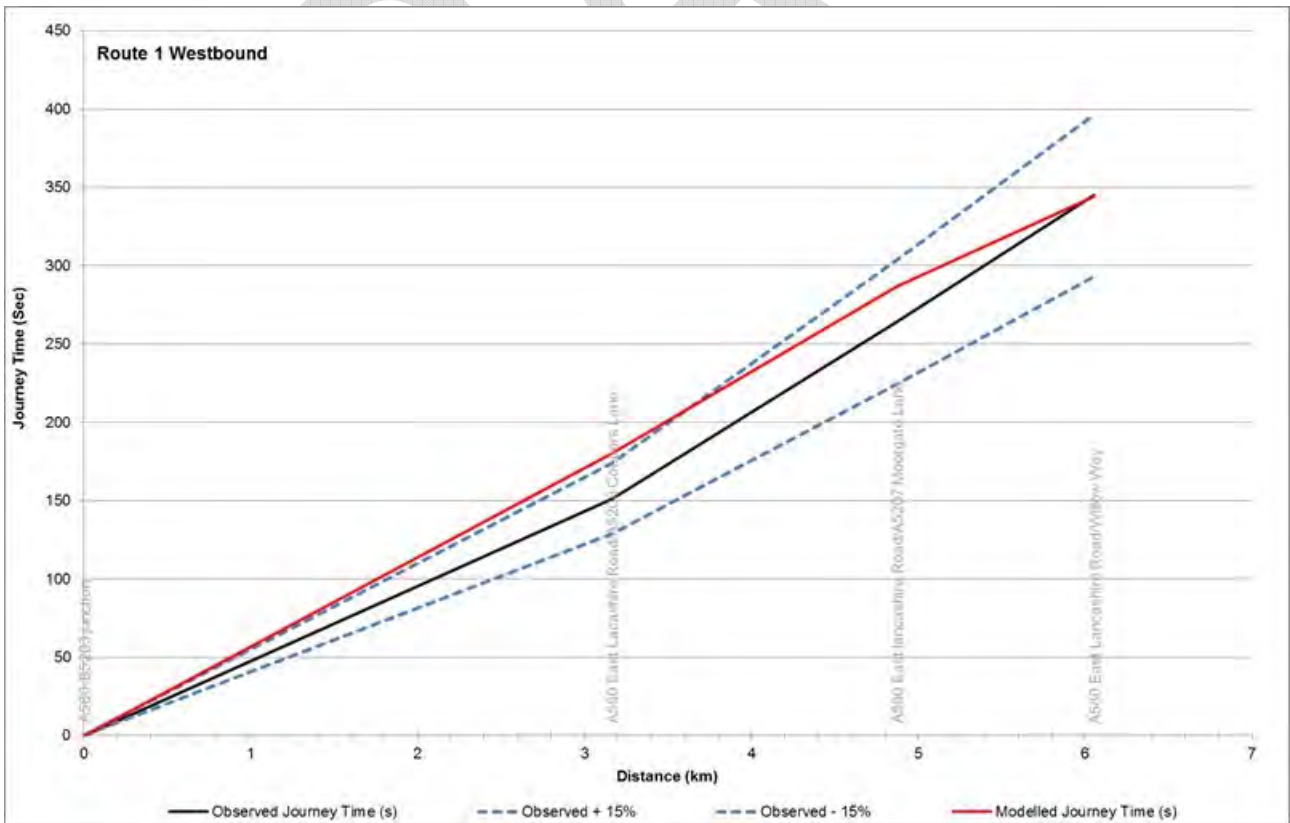
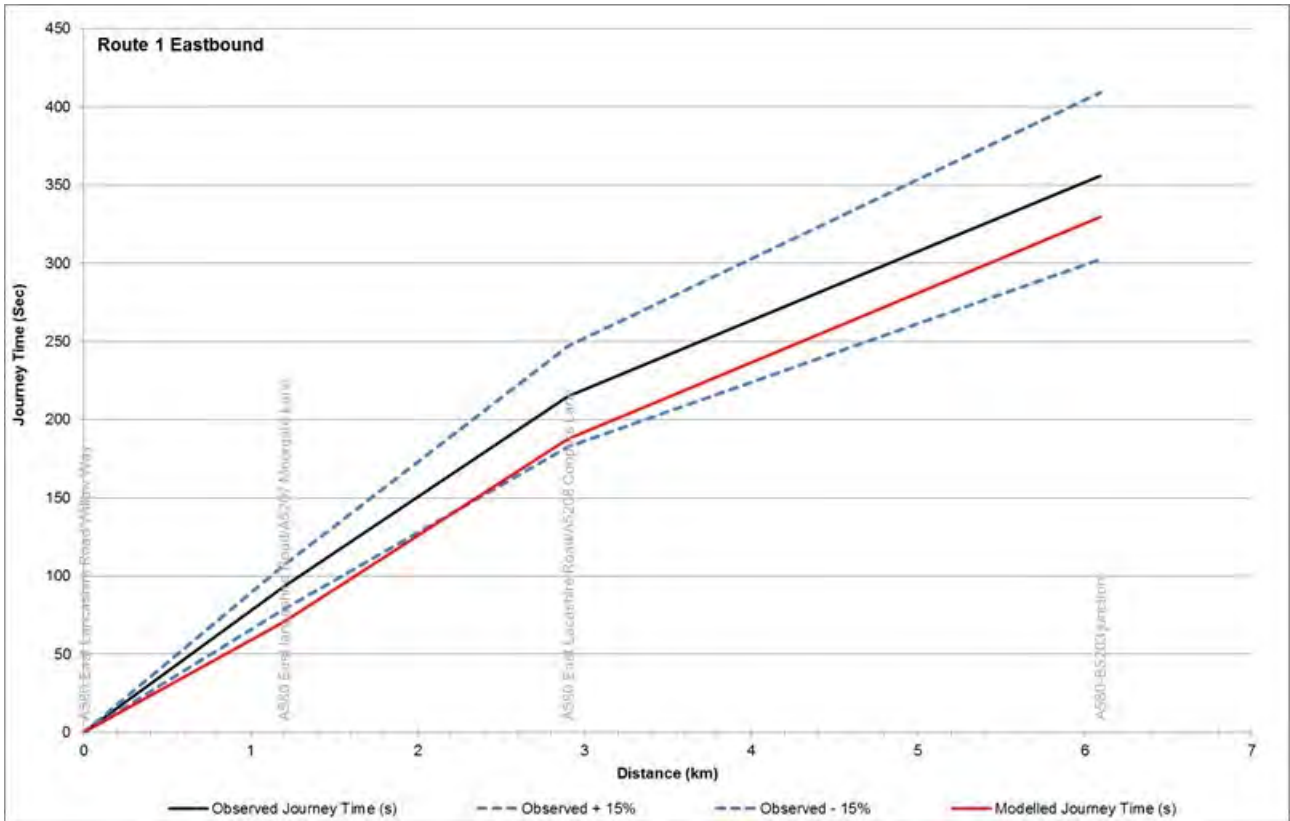


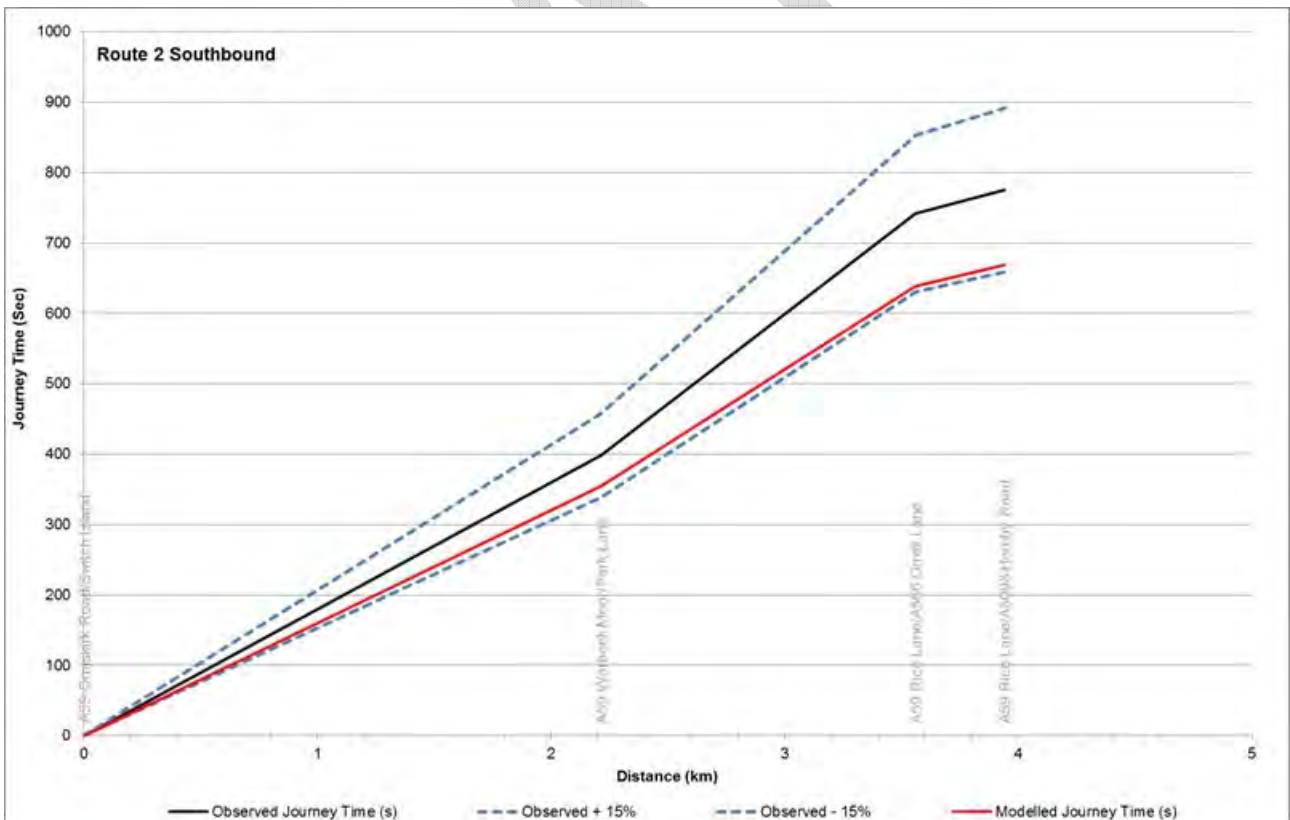
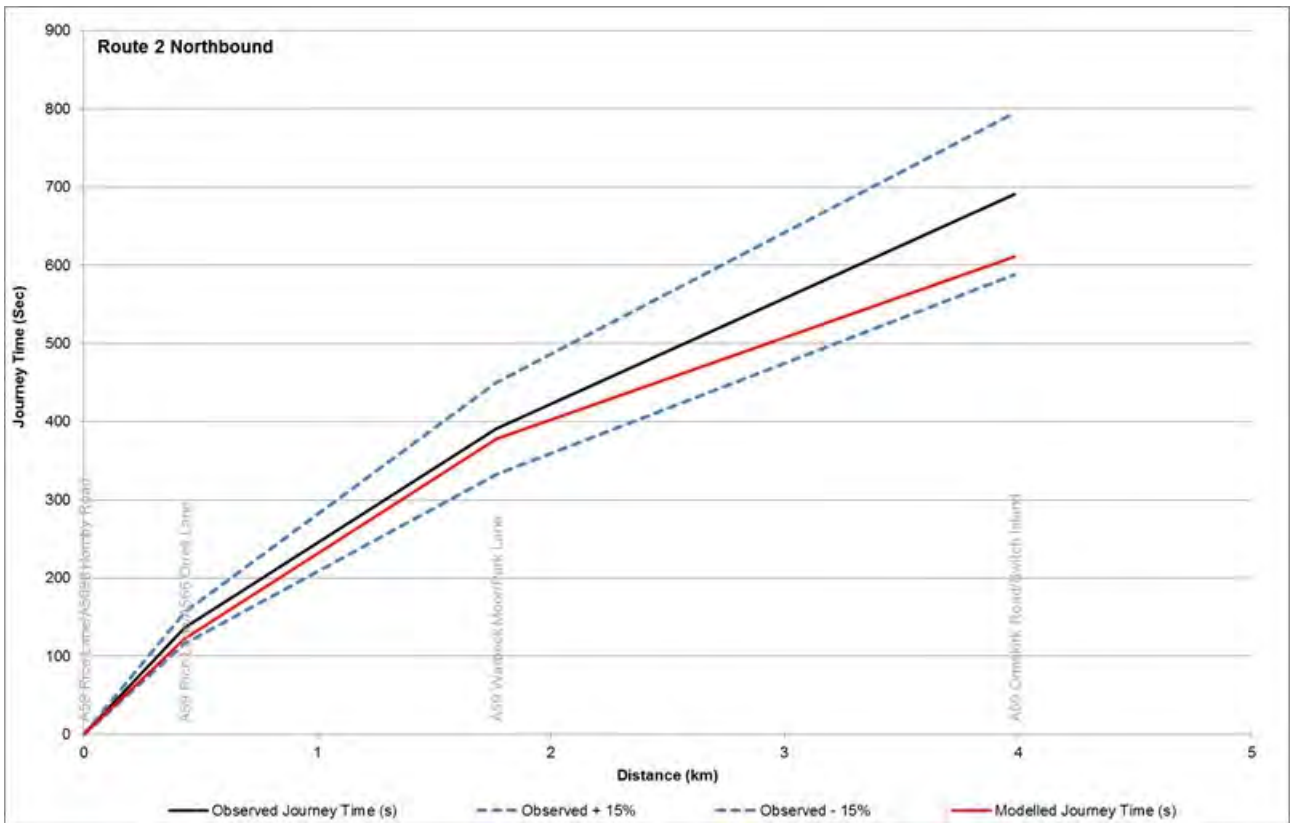


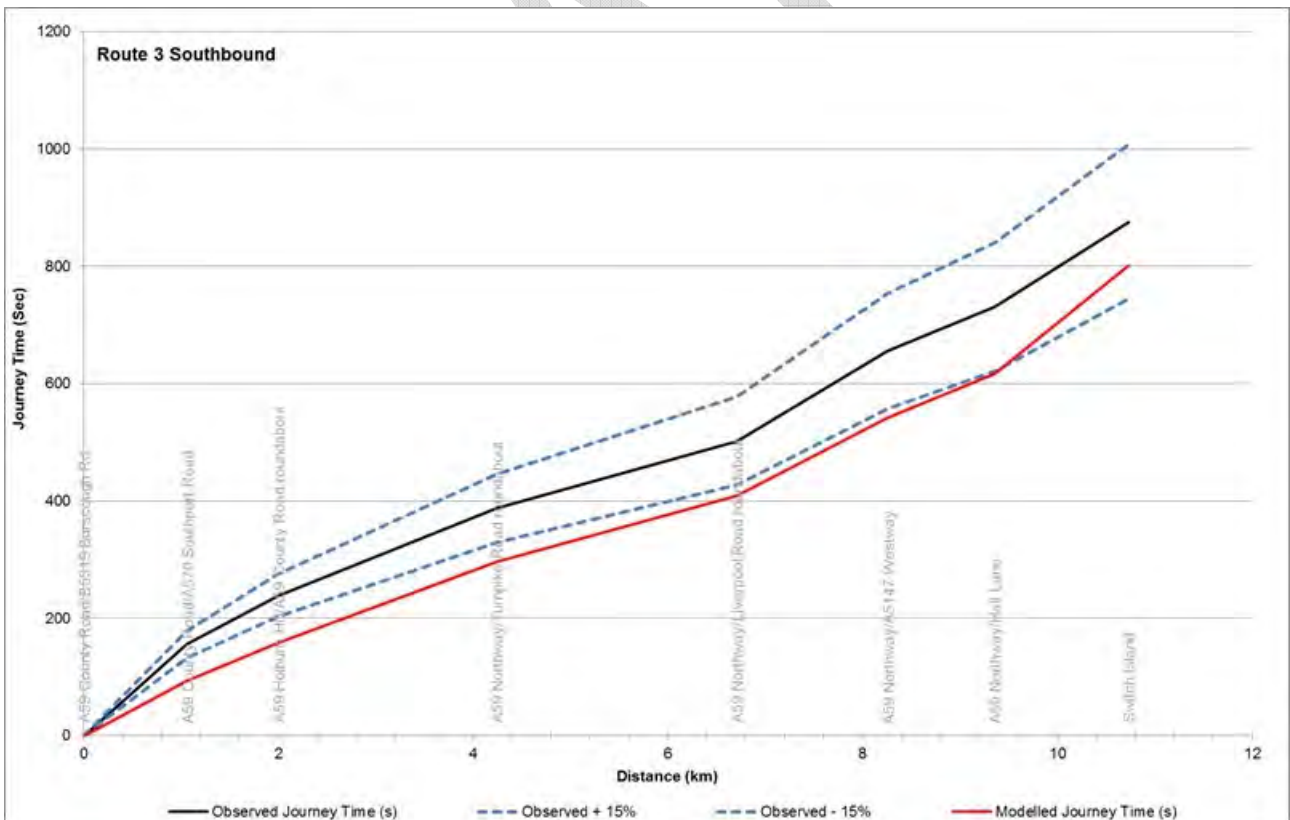
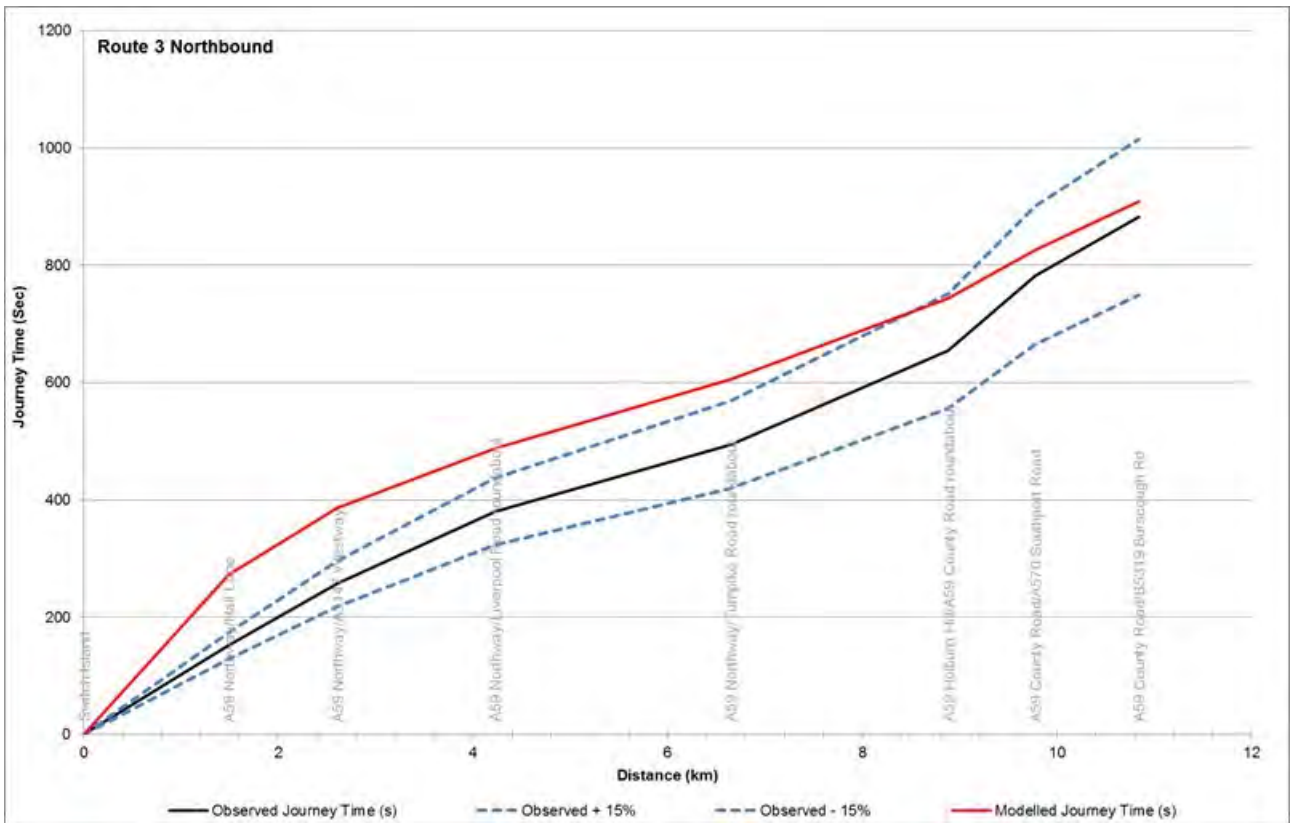


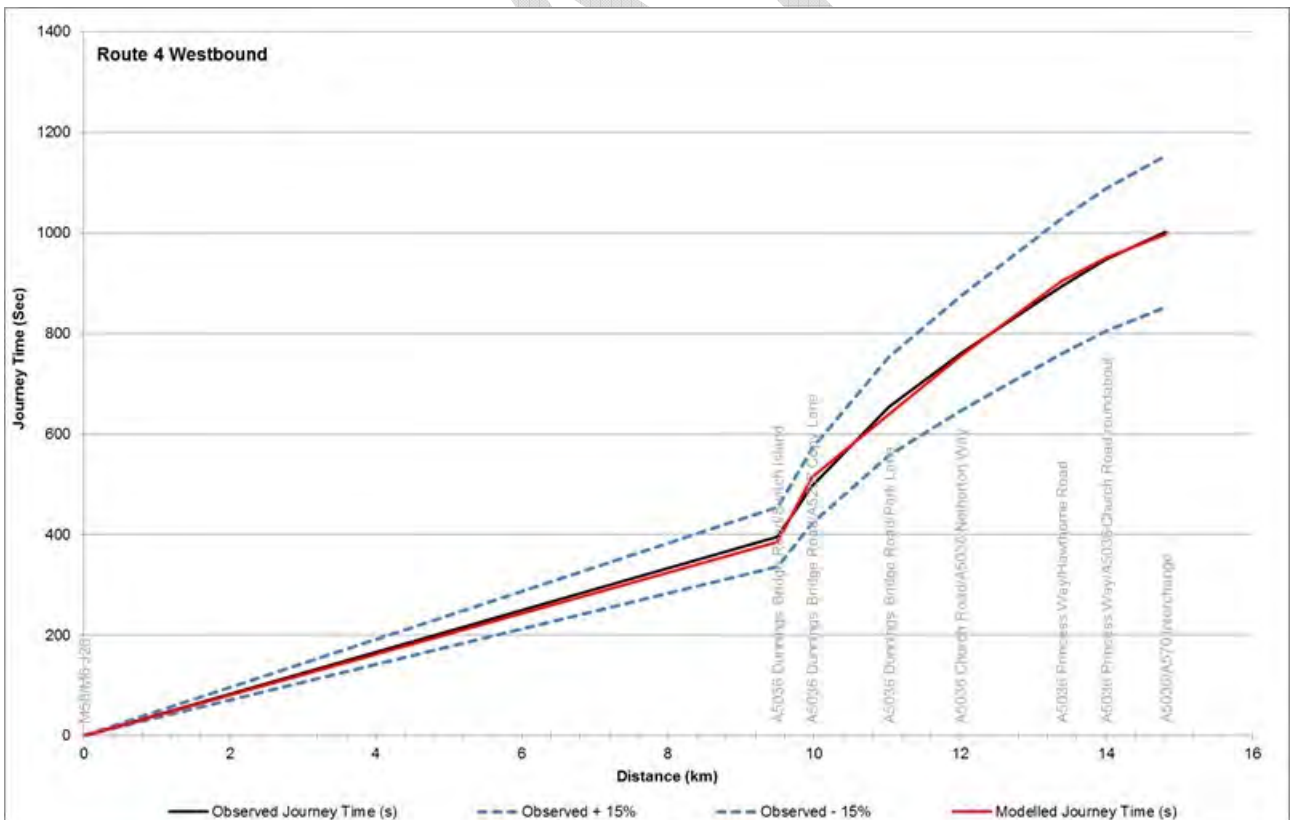
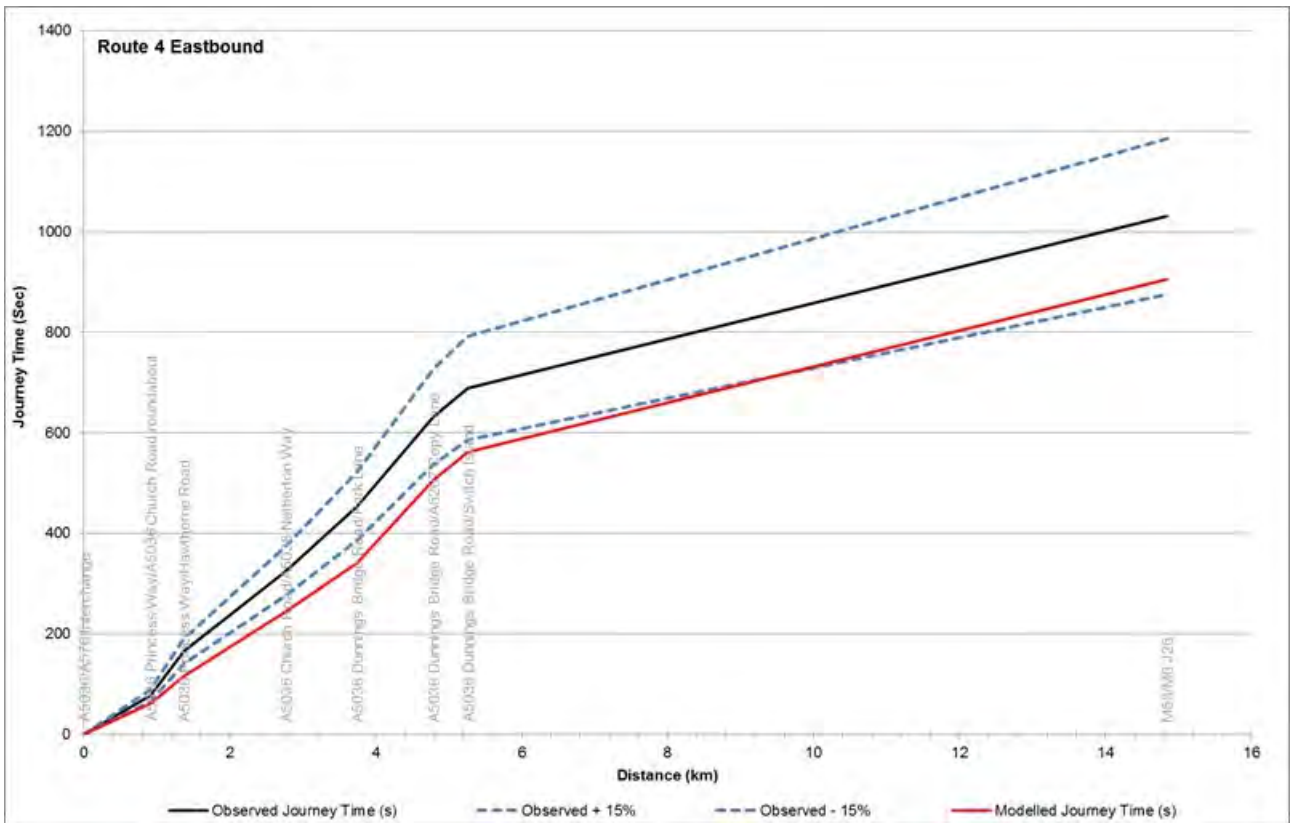


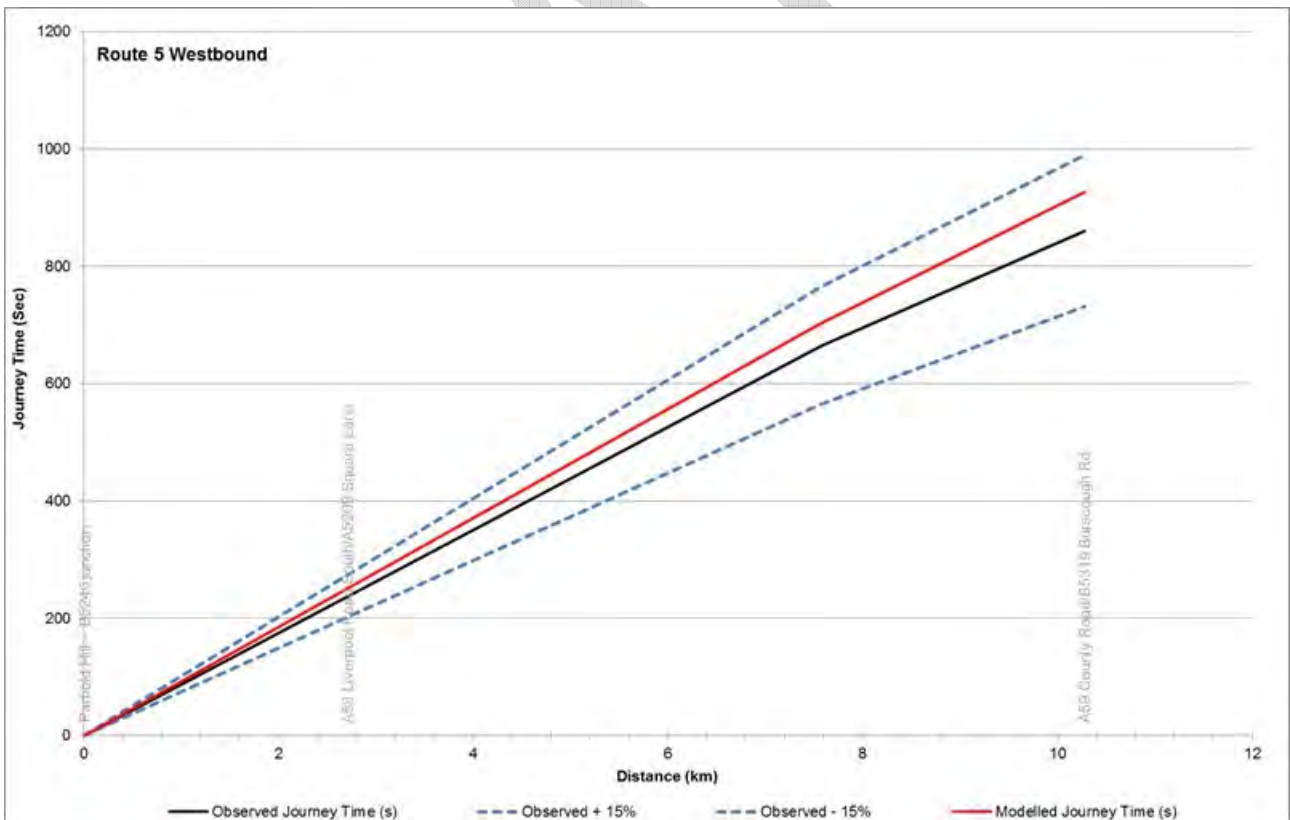
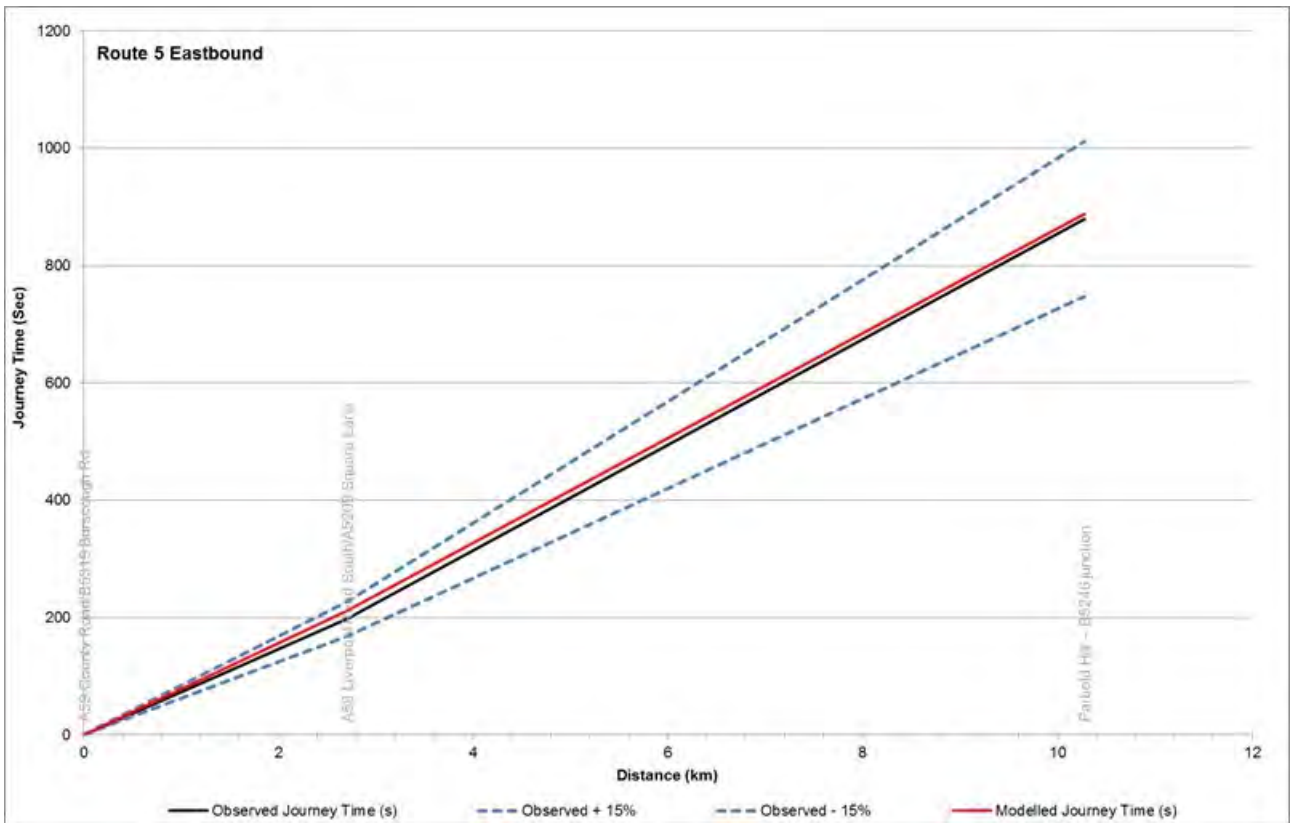
E.3. PM peak

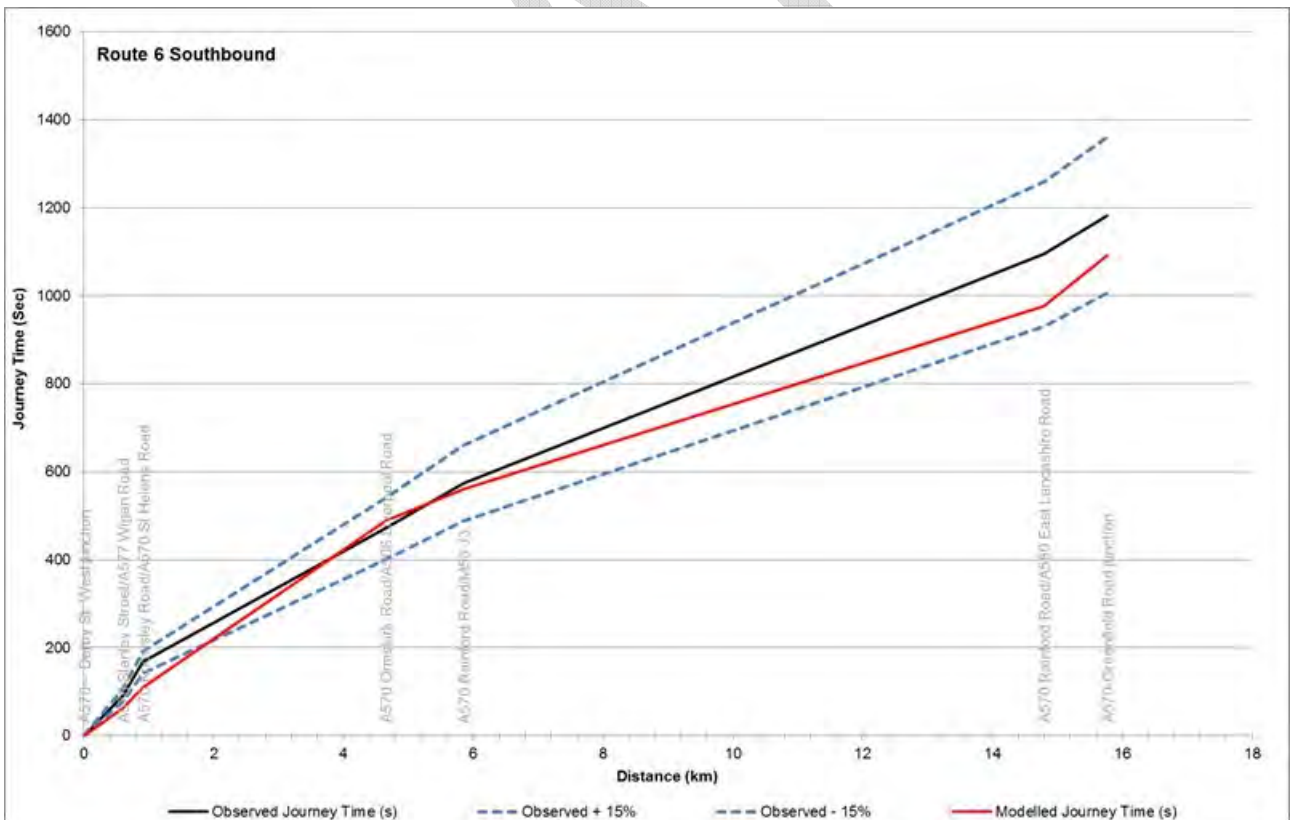
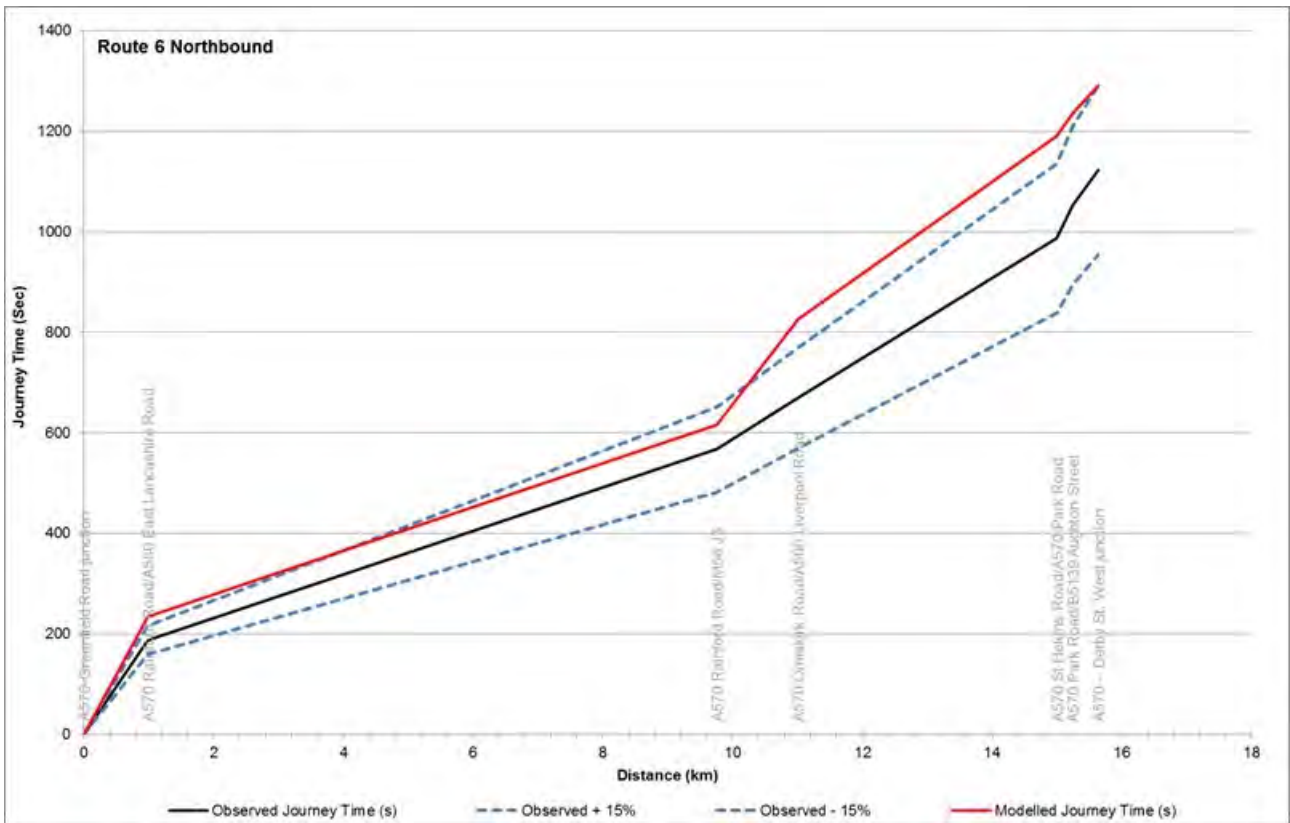


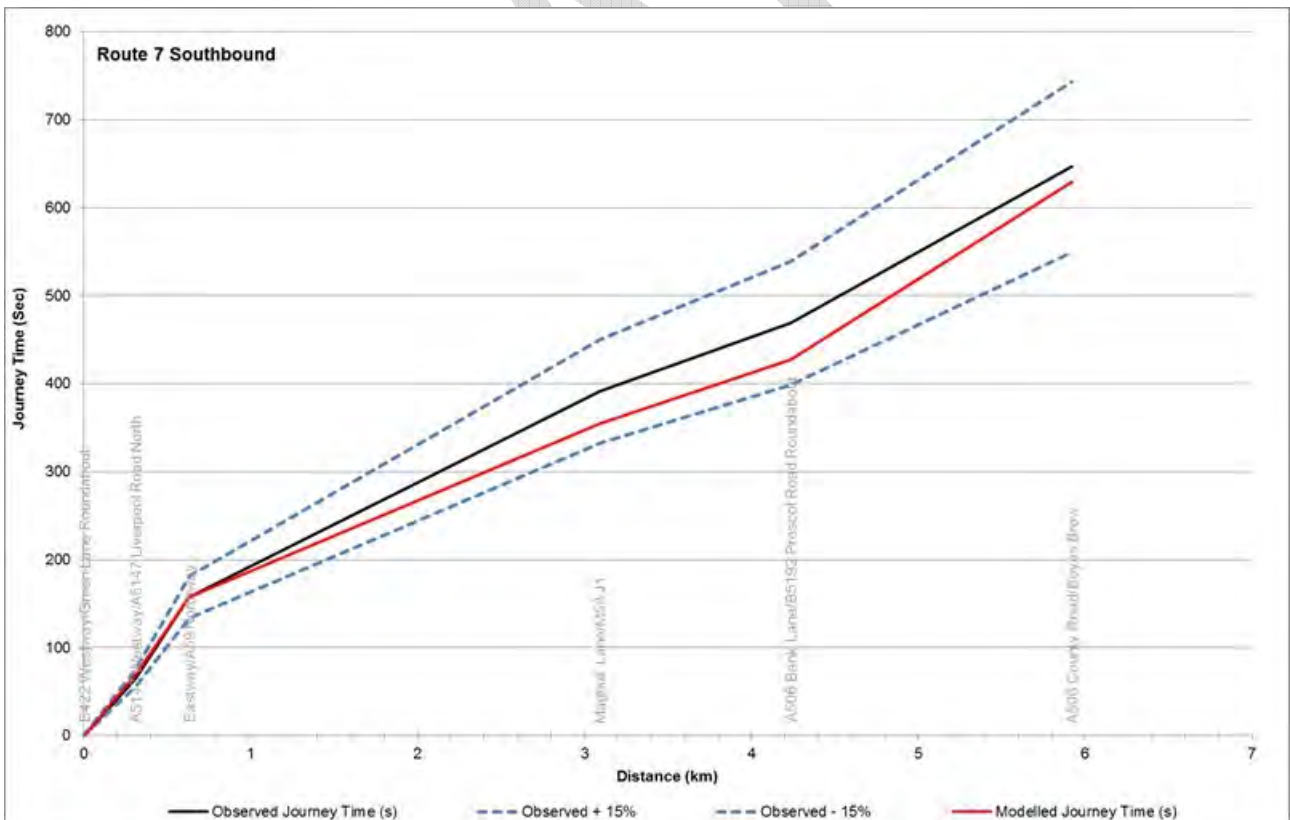
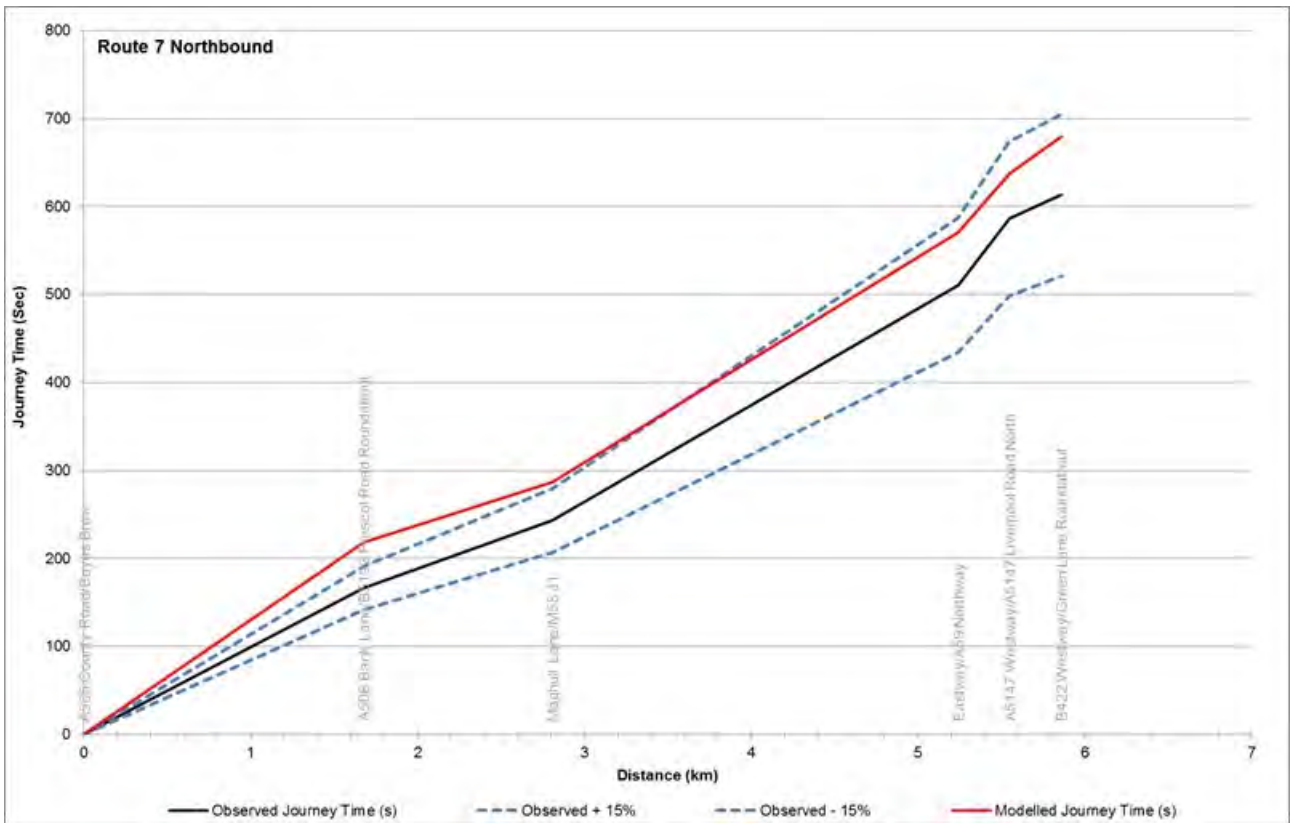


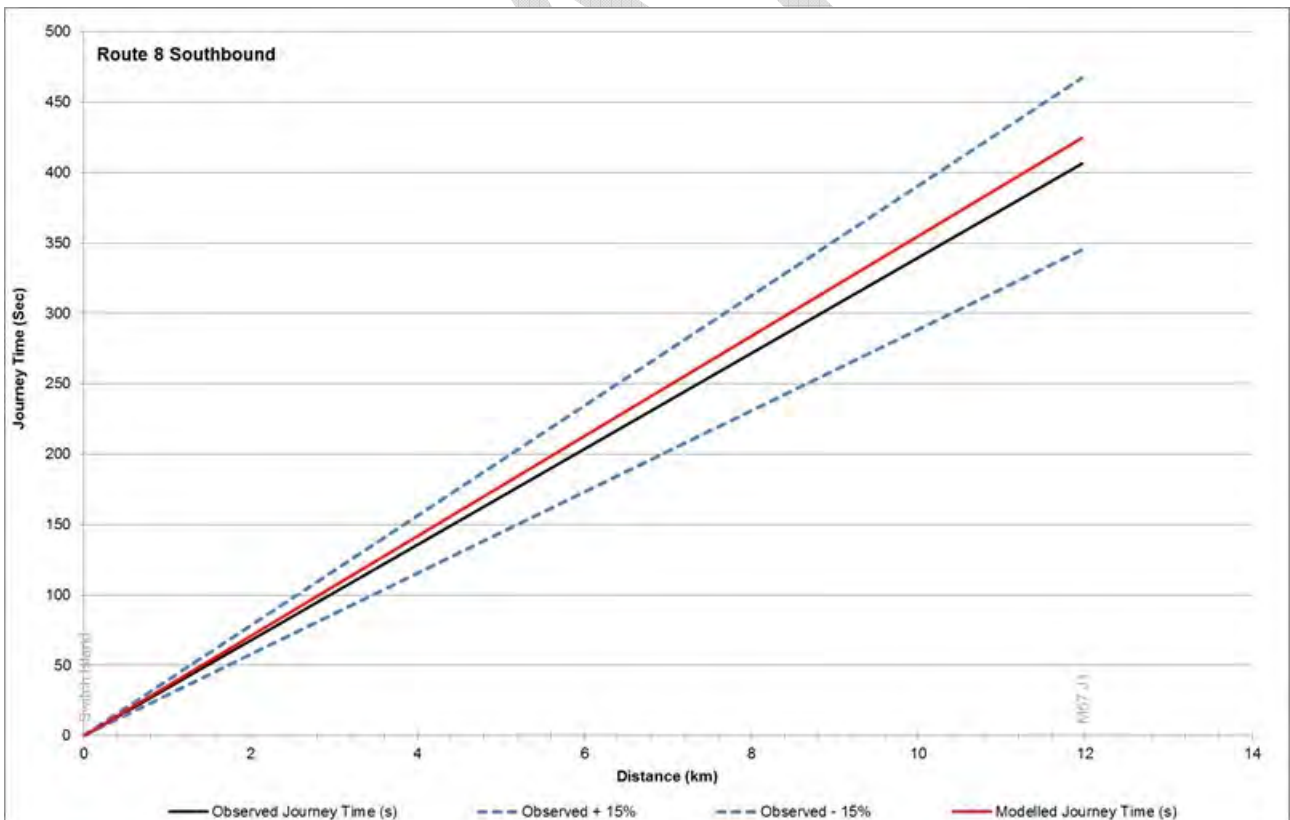
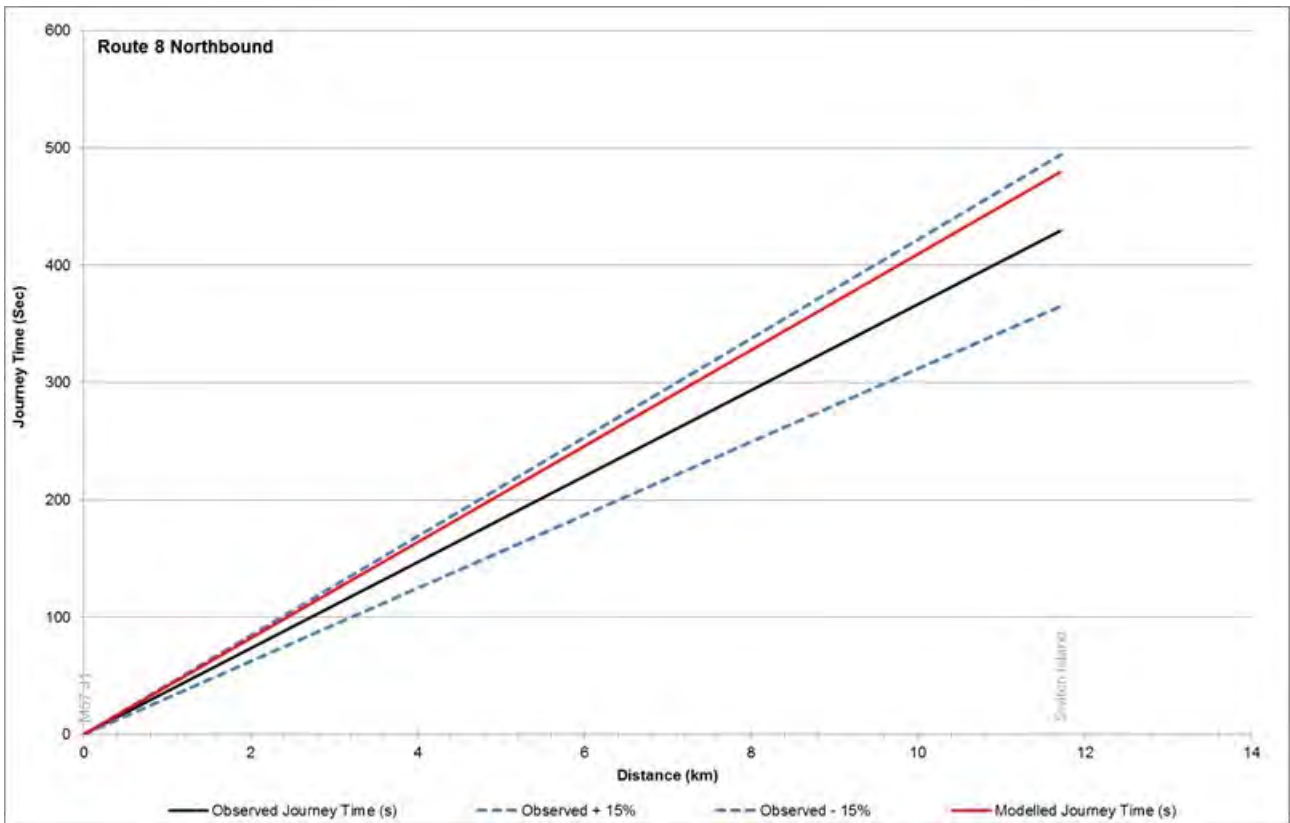


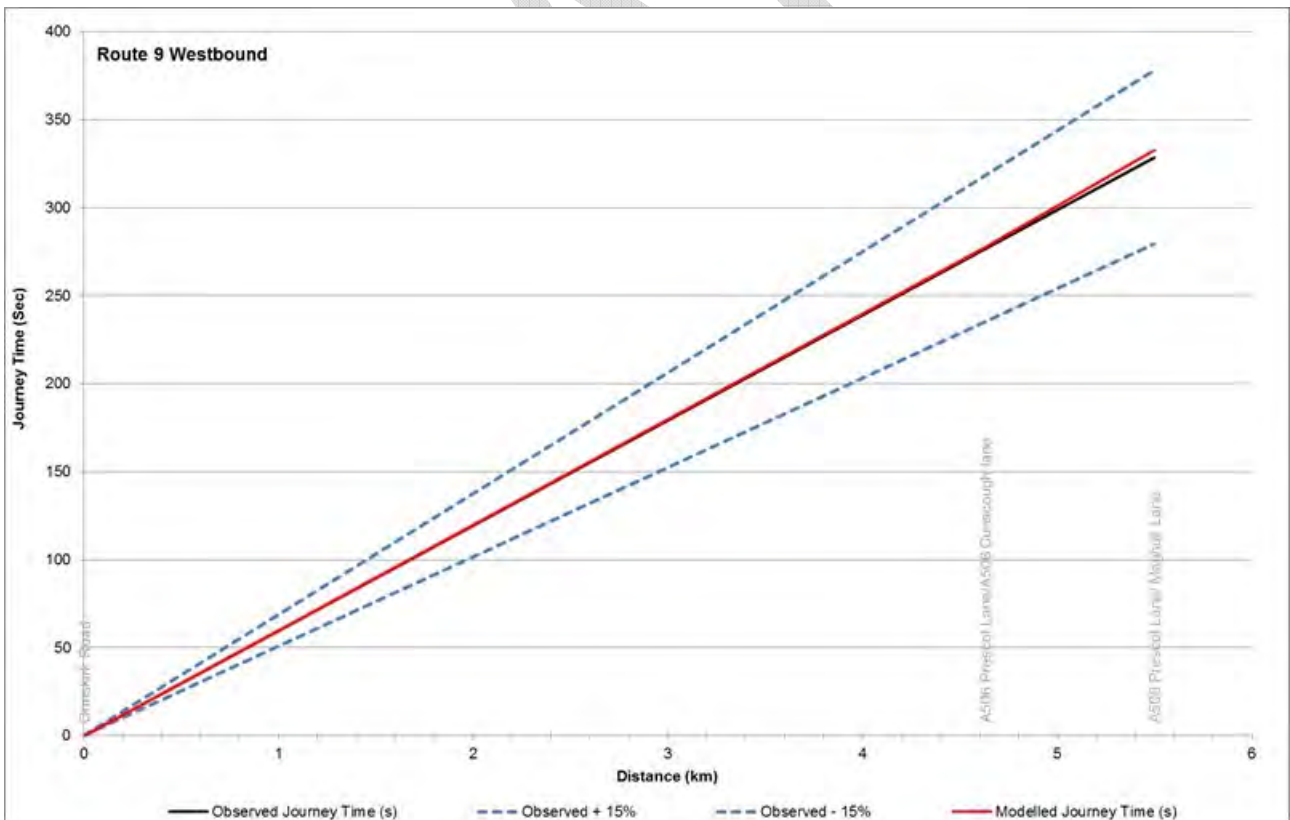
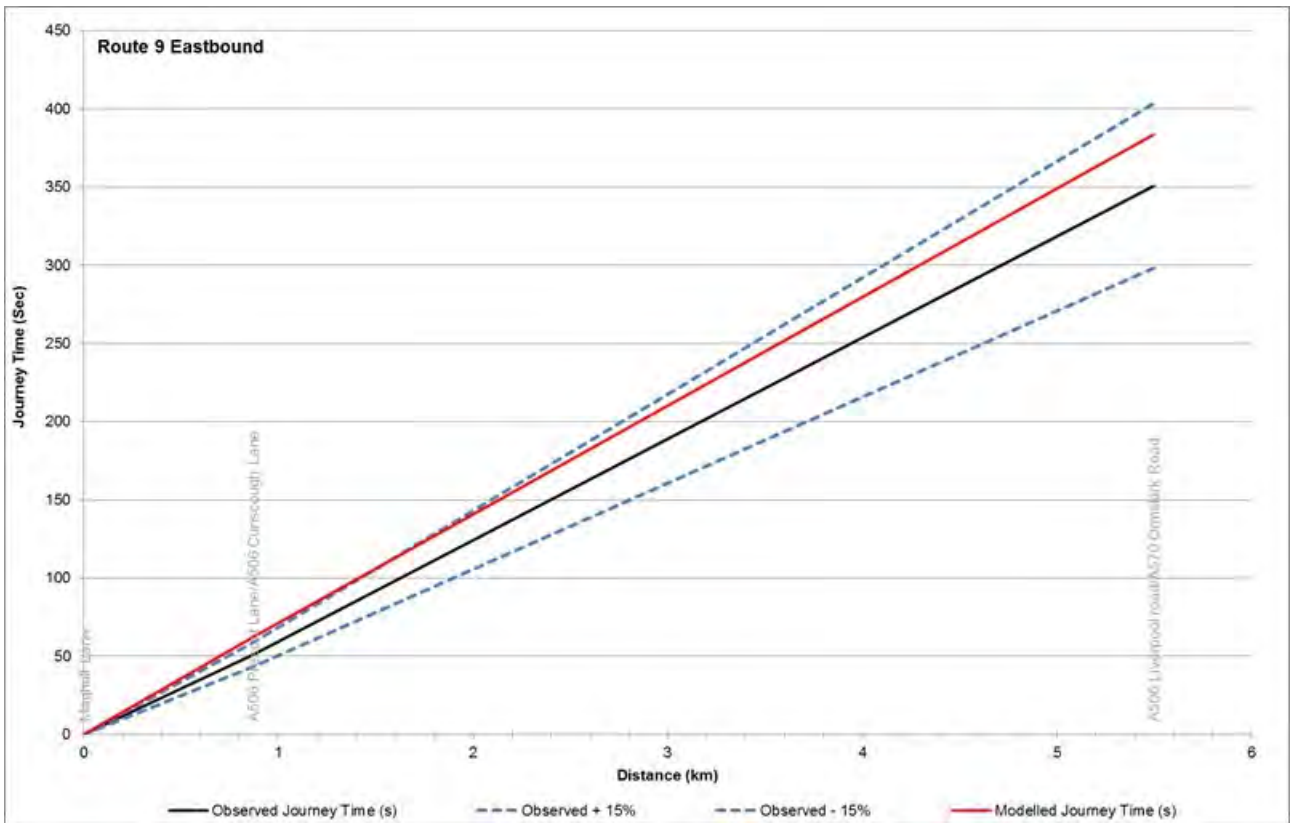












Robin Kimber

Atkins
Bank Chambers, Faulkner Street
Manchester M1 4EH

Email – robin.kimber@atkinsglobal.com

Telephone - +44 161 245 3435

Fax - +44 161 245 3500

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