Lincoln Eastern Bypass

Final Funding Submission
Local Model Validation Report – 2016 Update

Appendices

Lincolnshire COUNTY COUNCIL
HIGHWAYS ALLIANCE

July 2016
V0.2

Document Control Sheet

Project Title	Lincoln Eastern Bypass
Report Title	Local Model Validation Report - Appendices
Version	02
Status	Final
Control Date	27-July-2016

Record of Issue

Issue	Status	Author	Date	Check	Date	Authorised	Date
02	Final	A Tsitsimpis	20/07/16	P Smith	23/07/16	P Smith	23/07/16

Distribution

Organisation	Contact	Copies
Lincolnshire County Council	Lee Rowley	Electronic
Department for Transport	Betty Leow	Electronic

Appendices

Appendix A – Inconsistent Counts

ID	Inconsistent Site Names	Action Taken
1	ATC@IS1, MCLC@IS1	ATC Total split into classification proportions from MCLC
2	ATC@IS10, MCLC@IS10	ATC Total split into classification proportions from MCLC
3	ATC@IS11, MCLC@IS11	ATC Total split into classification proportions from MCLC
4	ATC@IS11a, MCLC@IS11a, ATC75	ATC75 flows exactly the same as ATC@RSI11a Flows. Split ATC@RSI11a Total into classification proportions from MCLC
5	ATC@IS12, MCLC@IS12	ATC Total split into classification proportions from MCLC
6	ATC@IS13N, MCLC@IS13N, TC65, MCLC@IS13S, ATC@IS13S	Discovered that the directional split on the MCLC at 13N appears reversed when compared to the other data; this has been reversed. ATC Total split into average classification proportions shown in MCLC@13N, MCLC@13S and the MCJC. MCJC Turning movements factored to match ATC flows
7	ATC@IS14N, MCLC@IS14N, Site 10 (2010), Site 10 (2009), Traf 07, Traf 07a, TC60, ATC94, LS4, TC61	Average classification proportions across the MCLC and MCJC surveys have then been calculated and applied to ATC totals to derive Cars, LGVs and HGVs. Turning movements at TC60 and TC61 have then been factored to match the calculated link flows
8	ATC@IS14S, MCLC@IS14S	ATC Total split into classification proportions from MCLC
9	ATC@IS16, MCLC@IS16, TC33, TC40	ATC Total split into average classification proportions shown in MCLC@RSI16, TC33 and TC40. MCJC Turning movements factored to match ATC flows
10	ATC@IS2, MCLC@IS2	ATC Total split into classification proportions from MCLC
11	ATC@IS3, MCLC@IS3, TC23	ATC Total split into average classification proportions shown in MCLC@RSI3 and the MCJC. MCJC Turning movements factored to match ATC flows
12	ATC@IS4, MCLC@IS4, ATC63	ATC Total split into classification proportions from MCLC
13	ATC@IS5, MCLC@IS5, TC43	ATC Total split into average classification proportions shown in MCLC@RSI5 and the MCJC

ID	Inconsistent Site Names	Action Taken
14	MCLC@IS6, TC15	Average of MCLC and MCJC flows taken
15	ATC@IS7, MCLC@IS7, TC30, ATC88	ATC Total split into average classification proportions shown in MCLC@RSI7 and the MCJC. ATC88 same as RSI ATC so excluded from database
16	ATC@IS8, MCLC@IS8, ATC87, TC36	ATC Total split into average classification proportions shown in MCLC@RSI8 and the MCJC. ATC87 same as RSI ATC so excluded from database. MCJC Turning movements factored to match ATC flows
17	ATC@IS9, TC36, MCLC@IS9	ATC Total split in classification proportions from MCLC. MCJC movements towards ID16 fixed and so remaining MCJC movements have been factored to match ATC Total
18	ATC02, TC01	ATC Total split into classification proportions from MCJC. MCJC Turning Movements Factored to match total ATC
19	ATC03, TC02	ATC Total split into classification proportions from MCJC
20	ATC04, TC02	ATC Total split into classification proportions from MCJC
21	ATC05, TC03	ATC Total split into classification proportions from MCJC
22	ATC06, TC04	ATC Total split into classification proportions from MCJC
23	ATC17, TC07	ATC Total split into classification proportions from MCJC. MCJC Turning Movements Factored to match total ATC
24	ATC25, TC13	ATC Total split into classification proportions from MCJC. MCJC Turning Movements Factored to match total ATC
25	ATC30, TC11	ATC Total split into classification proportions from MCJC
26	ATC65, TC32, LS5, L081	ATC Data retained, Adjust TC32 (note that no calculation is required for this as same AnodeBnode as ATC65) and L081 MCJC to match, Delete LS5 as less reliable than ATC65
27	ATC68, TC34	ATC Total split into classification proportions from MCJC. MCJC Turning Movements Factored to match total ATC

ID	Inconsistent Site Names	Action Taken
28	ATC69, TC40	ATC Total split into classification proportions from MCJC
29	ATC70, TC47	ATC Total split into classification proportions from MCJC
30	ATC77, TC50	ATC Total split into classification proportions from MCJC. MCJC Turning Movements Factored to match total ATC
31	ATC77, TC51	ATC Classifications calculated in ID33 split in proportion with turning movements at MCJC
32	ATC78, TC50	ATC Classifications calculated from TC50, inconsistent movements that have already been calculated in ID32 held fixed
33	ATC79, TC39	ATC Total split into classification proportions from MCJC
34	ATC80, TC39	ATC Total split into classification proportions from MCJC
35	ATC91, TC65	ATC Total split into classification proportions from MCJC. MCJC Turning Movements Factored to match total ATC
36	L082, ATC95	ATC Total split into classification proportions from MCJC. MCJC Turning Movements Factored to match total ATC
37	ATC93, LS2	ATC Total split into classification proportions from LS2
38	L082, L084	Totals of inconsistent flows averaged, with average flows distributed over turning movements, taking those movements calculated in ID38 as fixed
39	L083, TC32	Use TC32 totals as from 2006, L082 is 2008, totals distributed at L082 in accordance with turning proportions
40	Site 1 (2010), Site 1 (2009)	Counts averaged
41	Site 11 (2010), Site 11 (2009), TC62, Traf 08	Delete Site 1110, Site 1109 and Traf 08 counts as uncertain of their exact locations and also outside 2006, retain 2006 TC62 count
42	Site 12 (2010), Site 12 (2009)	Link counts look ok, average taken

ID	Inconsistent Site Names	Action Taken
43	Site 13 (2010), Site 13 (2009), Traf 10	Retain Traf 10, Delete Sites 1309 and 1310 as distant from 2006
44	Site 14 (2010), Site 14 (2009), Traf 11	Retain Traf 11, Delete Sites 1409 and 1410 as distant from 2006
45	Site 15 (2010), Site 15 (2009), Traf 12, TC55	Remove Sites 1509, 1510 and Traf 08, use TC55 (Note: could have averaged sites Traf 08 and TC55 as both 2006 but did not do this due to time pressures)
46	Site 16 (2010), Site 16 (2009)	Counts averaged
47	Site 17 (2010), Site 17 (2009)	Counts averaged
48	Site 18 (2010), Site 18 (2009)	Counts averaged
49	Site 19 (2010), Site 19 (2009)	Counts averaged
50	Site 20 (2010), Site 20 (2009)	Not in VISUM network so removed
51	Site 2 (2010), Site 2 (2009)	Counts averaged
52	Site 3 (2010), Site 3 (2009)	Counts averaged
53	Site 4 (2010), Site 4 (2009)	Counts averaged
54	Site 5 (2010), Site 5 (2009), TC31	Retain TC 31, Sites 509 and 510 deleted as distant from 2006
55	Site 6 (2010), Site 6 (2009), Traf 03	Remove Sites 609 and 610, retain Traf 03 as 2006 count
56	Site 7 (2010), Site 7 (2009), Traf 04	Remove Sites 709 and 710, retain Traf 04 as 2006 count
57	Site 8 (2010), Site 8 (2009), Traf 05	Remove Sites 809 and 810, retain Traf 05 as 2006 count

ID	Inconsistent Site Names	Action Taken
58	Site 9 (2010), Site 9 (2009), ATC66a, Traf 06	ATC Total split in proportion with classifications from Traf06 MCLC
59	TC01, TC06	Totals of inconsistent flows averaged, with average flows distributed over turning movements, taking those movements calculated in ID19 as fixed
60	TC03, TC04	Counts averaged
61	TC17, TC51	Totals of inconsistent flows averaged, with average flows distributed over turning movements, taking those movements calculated in ID33 as fixed (these movements are linked to ATC data and so are considered more reliable)
62	TC16, TC17	Totals of inconsistent flows averaged, with average flows then distributed over turning movements, taking those movements calculated in ID64 as fixed
63	TC14, TC16	Totals of inconsistent flows averaged, with average flows then distributed over turning movements, taking those movements calculated in ID65 as fixed
64	TC18, TC18a	Totals of inconsistent flows averaged, with average flows distributed over turning movements
65	TC22, TC23	Totals of inconsistent flows averaged, comparisons look ok
66	TC23, TC24	Totals of inconsistent flows averaged, comparisons look ok
67	TC27, TC26	Totals of inconsistent flows averaged, with average flows distributed over turning movements
68	TC33, L111	TC33 flows fixed and L111 flows factored to match
69	TC44, TC45	Totals of inconsistent flows averaged, comparisons look ok
70	TC45, TC46	Totals of inconsistent flows averaged, comparisons look ok
71	TC51, TC50	Amendments from ClashIDs32 and 33 have addressed clashes between these junctions
72	TC66, TC67	Totals of inconsistent flows averaged, with average flows distributed over turning movements
73	TC73, TC25	TC73 flows held fixed and TC25 flows factored to match, comparisons show that TC26 and TC73

ID	Inconsistent Site Names	Action Taken
		are not too disimilar but that TC25 is much more different
74	TC73, TC26	Totals of inconsistent flows averaged, with average flows distributed over turning movements
75	Traf 02, TC31, TC58	Excluded Traf02 as flows differ significantly to TC31 and TC58. TC31 and TC58 flows averaged and distributed across turning movements
76	Traf 09, TC32, Traf 09a	Average Flows used
77	TC41, TC22	Totals of inconsistent flows averaged
78	TC42, TC43	Totals of inconsistent flows averaged
79	LS3, TC64, LS3, TC63	ATC Classifications considered unreliable, for simplicity and speed average flows across MCJCs taken, then distributed over turning movements
80	TC70, TC69	Totals of inconsistent flows averaged
81	TC41, TC42, LS1	inconsistent flows average
82	TC35, TC36	TC36 flows were calculated under ClashIDs 16 & 17 where comparisons were drawn with ATC data, where there are conflicts TC36 flows have therefore been held fixed and TC35 flows have been adjusted to match
83	L113, L112	inconsistent flows average

Appendix B – Calibration & Validation counts

B1 - Calibration Counts

SiteNumber	SurveyType	Anode	Bnode	AM (veh)	IP (veh)	PM (veh)
ATC01	ATC	119530842	119530843	466	288	467
ATC01	ATC	119530843	119530842	387	283	386
ATC02	CALC	119516917	119542056	217	103	166
ATC02	CALC	119542056	119516917	195	103	236
ATC03	CALC	119513282	119513283	138	95	208
ATC03	CALC	119513283	119513282	200	93	130
ATC04	CALC	119529646	119529647	203	138	364
ATC04	CALC	119529647	119529646	391	129	194
ATC05	CALC	119517551	119519389	111	110	272
ATC05	CALC	119519389	119517551	292	105	138
ATC06	CALC	119528561	119534437	291	324	585
ATC06	CALC	119534437	119528561	427	281	389
ATC07	ATC	119532204	119537500	424	212	267
ATC07	ATC	119537500	119532204	274	209	417
ATC09	ATC	119514236	119520182	44	22	30
ATC09	ATC	119520182	119514236	45	20	70
ATC10	ATC	119520182	119532721	524	347	396
ATC10	ATC	119532721	119520182	450	345	468
ATC11	ATC	119519455	119524707	490	299	361
ATC11	ATC	119524707	119519455	459	308	436
ATC12	ATC	119517730	119526770	52	41	91
ATC12	ATC	119526770	119517730	103	50	93
ATC13	ATC	2098	119538239	200	132	254
ATC13	ATC	119538239	2098	389	143	218
ATC15	ATC	119267692	119515074	483	286	445
ATC15	ATC	119515074	119267692	458	292	402
ATC16	ATC	119533152	119542211	393	292	395
ATC16	ATC	119542211	119533152	314	295	393
ATC17	CALC	119519263	119529407	433	389	670
ATC17	CALC	119529407	119519263	655	364	488
ATC18	ATC	119530408	119531649	24	6	3
ATC18	ATC	119531649	119530408	4	8	13
ATC21	ATC	119527587	119527730	18	12	33
ATC21	ATC	119527730	119527587	37	16	25
ATC23	ATC	119525642	119544482	93	72	148
ATC23	ATC	119544482	119525642	150	67	93
ATC24	ATC	119515209	119529657	29	14	13
ATC24	ATC	119529657	119515209	20	19	31
ATC25	CALC	119516320	119529545	75	37	38
ATC25	CALC	119529545	119516320	48	33	54
ATC26	ATC	119541915	119541916	95	35	49
ATC26	ATC	119541916	119541915	44	40	83
ATC27	ATC	119518975	119529172	50	33	54
ATC27	ATC	119529172	119518975	42	32	57
ATC28	ATC	119527321	119538661	196	155	276

SiteNumber	SurveyType	Anode	Bnode	AM (veh)	IP (veh)	PM (veh)
ATC28	ATC	119538661	119527321	232	161	268
ATC30	CALC	119515703	119541423	154	95	178
ATC30	CALC	119541423	119515703	179	93	160
ATC31	ATC	119516713	119530234	155	116	184
ATC31	ATC	119530234	119516713	195	114	171
ATC32	ATC	119513723	119524845	9	13	8
ATC32	ATC	119524845	119513723	13	12	9
ATC33	ATC	119540324	119541012	136	95	150
ATC33	ATC	119541012	119540324	120	90	162
ATC34	ATC	119531475	119531476	57	40	73
ATC34	ATC	119531476	119531475	73	38	76
ATC35	ATC	119523490	119523491	179	135	228
ATC35	ATC	119523491	119523490	221	128	192
ATC36	ATC	119518228	119518229	466	284	396
ATC36	ATC	119518229	119518228	425	287	571
ATC37	ATC	119527797	119527798	130	130	179
ATC37	ATC	119527798	119527797	212	126	151
ATC38	ATC	119521245	119527798	2	3	2
ATC38	ATC	119527798	119521245	3	2	2
ATC39	ATC	119536140	119536141	28	25	49
ATC39	ATC	119536141	119536140	42	22	36
ATC40	ATC	119538443	119543078	4	3	2
ATC40	ATC	119543078	119538443	1	3	3
ATC41	ATC	119525551	119537044	11	5	6
ATC41	ATC	119537044	119525551	6	5	14
ATC42	ATC	119523506	119529211	344	112	279
ATC42	ATC	119529211	119523506	233	121	303
ATC44	ATC	119514686	119517359	196	123	358
ATC44	ATC	119517359	119514686	413	128	216
ATC45	ATC	119517367	119543763	33	44	80
ATC45	ATC	119543763	119517367	71	34	48
ATC46	ATC	119517536	119524761	75	46	102
ATC46	ATC	119524761	119517536	87	41	91
ATC47	ATC	119543153	119543854	68	36	51
ATC47	ATC	119543854	119543153	45	37	56
ATC48	ATC	119515598	119541706	39	40	78
ATC48	ATC	119541706	119515598	68	35	40
ATC49	ATC	119514490	119526838	9	6	7
ATC49	ATC	119526838	119514490	8	6	7
ATC50	ATC	119269142	119534672	13	15	20
ATC50	ATC	119534672	119269142	22	17	22
ATC53	ATC	119290727	119294365	245	197	385
ATC53	ATC	119294365	119290727	412	196	217
ATC58	ATC	119512849	119538266	16	13	19
ATC58	ATC	119538266	119512849	20	12	14
ATC60	ATC	119520049	119533052	46	30	47
ATC60	ATC	119533052	119520049	37	32	42
ATC61	ATC	119516919	119520050	106	50	96
ATC61	ATC	119520050	119516919	121	50	110
ATC62	ATC	119523323	119525383	110	41	110

SiteNumber	SurveyType	Anode	Bnode	AM (veh)	IP (veh)	PM (veh)
ATC62	ATC	119525383	119523323	72	38	76
ATC66	ATC	119527058	119545055	95	23	10
ATC66	ATC	119545055	119527058	29	53	93
ATC66a	CALC	119537117	119541695	53	48	96
ATC66a	CALC	119541695	119537117	175	53	60
ATC67	ATC	119545452	119545453	64	38	69
ATC67	ATC	119545453	119545452	96	64	140
ATC68	CALC	5038	119536019	543	406	395
ATC68	CALC	119536019	5038	528	416	444
ATC69	ATC	119516940	119539513	244	441	562
ATC69	ATC	119539513	119516940	413	409	430
ATC70	CALC	5232	119522392	817	815	1098
ATC70	CALC	119522392	5232	1016	885	1062
ATC71	ATC	119516140	119525705	504	525	631
ATC71	ATC	119525705	119516140	725	544	612
ATC72	ATC	119528869	119531787	488	379	741
ATC72	ATC	119531787	119528869	529	310	268
ATC74	ATC	119520417	119528396	438	202	343
ATC74	ATC	119528396	119520417	271	213	383
ATC76	ATC	119535647	119544516	420	306	514
ATC76	ATC	119544516	119535647	565	286	471
ATC79	CALC	119512682	119512683	456	273	372
ATC79	CALC	119512683	119512682	365	301	498
ATC81	ATC	119521125	119524079	304	89	83
ATC81	ATC	119524079	119521125	96	151	323
ATC82	ATC	119516432	119530025	60	42	66
ATC82	ATC	119530025	119516432	77	36	43
ATC86	ATC	119521125	119540321	127	51	73
ATC86	ATC	119540321	119521125	65	29	36
ATC90	ATC	4284	119513905	392	510	484
ATC90	ATC	119513905	4284	358	294	306
ATC91	CALC	119530094	119523959	770	559	641
ATC93	CALC	119518823	119538808	249	218	208
ATC93	CALC	119538808	119518823	98	87	143
ATC95	CALC	119517044	119533186	294	316	368
ATC95	CALC	119533186	119517044	376	245	226
ATC98	ATC	119530692	119538751	331	110	184
ATC98	ATC	119538751	119530692	203	152	350
L115	MCJC	119529177	119530492	154		91
L115	MCJC	119530492	119529177	68		111
RSI01	CALC	4135	5631	166	180	573
RSI01	CALC	5631	4135	641	186	276
RSI02	CALC	119512936	119527799	758	392	502
RSI02	CALC	119527799	119512936	436	412	648
RSI03	CALC	119529293	119540164	652	525	966
RSI03	CALC	119540164	119529293	1036	549	563
RSI04	CALC	119520664	119543493	642	487	556
RSI04	CALC	119543493	119520664	340	499	706
RSI05	CALC	119523255	119539035	326	192	261
RSI05	CALC	119539035	119523255	228	210	275

SiteNumber	SurveyType	Anode	Bnode	AM (veh)	IP (veh)	PM (veh)
RSI06	CALC	119512781	119539003	1235	849	1098
RSI06	CALC	119525407	119523781	1290	815	1244
RSI07	CALC	119516693	119540156	122	188	477
RSI07	CALC	119540156	119516693	561	169	120
RSI08	CALC	119525748	119539235	123	166	294
RSI08	CALC	119539235	119525748	441	224	290
RSI09	CALC	119534819	119534820	1117	608	579
RSI09	CALC	119534820	119534819	572	719	1276
RSI10	CALC	119525785	119540776	454	432	446
RSI10	CALC	119540776	119525785	310	404	697
RSI11	CALC	31	119536355	415	306	400
RSI11	CALC	119536355	31	268	303	507
RSI11a	CALC	119516945	119539252	374	214	222
RSI11a	CALC	119539252	119516945	328	206	379
RSI12	CALC	119529287	119532410	607	513	511
RSI12	CALC	119532410	119529287	471	530	731
RSI13N	CALC	119533041	119521119	581	441	538
RSI13S	CALC	119521119	119533041	476	362	480
RSI14N	CALC	119522918	119532688	1202	1273	1672
RSI14N	CALC	119532688	119522918	1977	1141	1080
RSI14S	CALC	119545399	119526484	1364	1249	1209
RSI14S	MCLC	119526484	119545399	1940	1252	1302
RSI16	CALC	119524957	119545388	1120	714	529
RSI16	CALC	119545388	119524957	450	798	887
Site 1	CALC	119525571	119529003	350		
Site 12	CALC	119519560	119532271	1268		
Site 16	CALC	119528366	119539263	87		
Site 17	CALC	119519544	119529869	18		
Site 18	CALC	119518285	119515671	499		
Site 19	CALC	119533604	119536871	30		
Site 2	CALC	119525003	119513373	319		
Site 3	CALC	119526595	119524011	223		
Site 4	CALC	119523371	119529580	616		
TC02	MCJC	119519552	119519553	235	97	125
TC02	MCJC	119519553	119519552	129	97	225
TC02	MCJC	119520011	119525980	390	132	187
TC02	MCJC	119525980	119520011	224	134	378
TC03	MCJC	119517551	119542988	139	63	120
TC03	MCJC	119517552	119521238	533	173	283
TC03	MCJC	119517552	119541943	451	212	498
TC03	MCJC	119521238	119517552	169	144	492
TC03	MCJC	119541943	119517552	310	112	193
TC04	MCJC	119512936	119520982	706	366	426
TC04	MCJC	119513915	119517761	272	113	223
TC04	MCJC	119517761	119513915	248	124	213
TC04	MCJC	119520982	119512936	438	378	706
TC04	MCJC	119542988	119517551	140	71	125
TC10	MCJC	119514631	119516209	123	86	176
TC10	MCJC	119516209	119514631	154	99	138
TC10	MCJC	119520315	119527044	460	282	430

SiteNumber	SurveyType	Anode	Bnode	AM (veh)	IP (veh)	PM (veh)
TC10	MCJC	119524355	119528611	395	283	389
TC10	MCJC	119527044	119520315	438	304	407
TC10	MCJC	119528611	119524355	414	254	364
TC10	MCJC	119538044	119538045	133	84	136
TC10	MCJC	119538045	119538044	167	102	147
TC11	MCJC	119527769	119537945	94	44	114
TC11	MCJC	119533562	119540272	87	49	97
TC11	MCJC	119537945	119527769	94	40	74
TC11	MCJC	119540272	119533562	93	57	69
TC12	MCJC	119515011	119535645	67	26	81
TC12	MCJC	119525216	119535645	256	258	428
TC12	MCJC	119525642	119542012	157	66	73
TC12	MCJC	119529657	119542012	434	242	350
TC12	MCJC	119535645	119515011	86	31	45
TC12	MCJC	119535645	119525216	433	245	297
TC12	MCJC	119542012	119525642	100	70	171
TC12	MCJC	119542012	119529657	295	247	417
TC15	MCJC	119517005	119517004	1348	923	1289
TC15	MCJC	119517744	119530624	225	115	216
TC15	MCJC	119525375	119525376	115	65	76
TC15	MCJC	119525376	119525375	101	77	104
TC15	MCJC	119530624	119517744	257	106	177
TC15	MCJC	119532154	119514417	1448	923	1623
TC18	MCJC	119525538	119538822	353	244	410
TC18	MCJC	119537840	119538923	152	90	193
TC18	MCJC	119538822	119525538	322	115	236
TC18	MCJC	119538923	119537840	165	61	121
TC21	MCJC	119277153	119283515	522	266	269
TC21	MCJC	119278481	119273309	1683	1100	1303
TC21	MCJC	119279344	119282168	1444	1042	1900
TC21	MCJC	119282611	119293438	1285	833	1505
TC21	MCJC	119283515	119277153	262	264	526
TC21	MCJC	119287716	119301280	1257	883	1158
TC22	CALC	119522898	119520951	1118	983	1277
TC22	CALC	119528632	119529186	793	840	820
TC22	MCJC	4560	119531101	892	483	664
TC22	MCJC	119516975	119524376	981	442	684
TC22	MCJC	119524376	119516975	519	447	823
TC22	MCJC	119531101	4560	508	480	755
TC23	CALC	119515142	119516326	661	664	843
TC23	CALC	119529186	119528632	961	779	1055
TC23	MCJC	3074	119521878	344	350	495
TC23	MCJC	119521878	3074	679	358	520
TC24	CALC	119516326	119515142	802	611	702
TC24	MCJC	119538414	119539561	568	688	1084
TC24	MCJC	119539561	119538414	986	620	603
TC25	CALC	119524686	119542279	608	537	774
TC25	CALC	119542279	119524686	613	493	523
TC25	MCJC	119513410	119524094	316	376	474
TC25	MCJC	119519919	119535701	361	178	153

SiteNumber	SurveyType	Anode	Bnode	AM (veh)	IP (veh)	PM (veh)
TC25	MCJC	119524094	119513410	598	387	408
TC25	MCJC	119535701	119519919	234	260	432
TC26	CALC	119524686	119527203	757	517	559
TC26	CALC	119527203	119524686	579	547	789
TC26	MCJC	119517892	119529676	679	299	314
TC26	MCJC	119525820	119525821	887	510	598
TC26	MCJC	119525821	119525820	577	474	902
TC26	MCJC	119529676	119517892	317	313	557
TC27	MCJC	119513846	119519545	694	591	724
TC27	MCJC	119519545	119513846	783	657	915
TC27	MCJC	119525623	119533534	220	275	547
TC27	MCJC	119530698	119540972	731	310	392
TC27	MCJC	119533534	119525623	578	304	339
TC27	MCJC	119540972	119530698	231	318	788
TC30	MCJC	119513879	119521802	850	670	606
TC30	MCJC	119516693	119525155	925	511	481
TC30	MCJC	119521802	119513879	475	659	725
TC30	MCJC	119525155	119516693	321	415	726
TC32	CALC	119512889	119535023	1286	979	1063
TC32	CALC	119535023	119512889	918	899	1149
TC32	MCJC	119520973	119537787	115	91	94
TC32	MCJC	119528600	119524325	291	571	661
TC32	MCJC	119537787	119520973	58	85	87
TC32	MCJC	119541066	119528600	695	498	344
TC37	MCJC	119520787	119521127	1154	1151	1733
TC37	MCJC	119521127	119520787	1629	1092	1327
TC37	MCJC	119525320	119534406	519	677	996
TC37	MCJC	119534406	119525320	850	631	656
TC39	MCJC	119518310	119537334	612	607	1027
TC39	MCJC	119537334	119518310	1084	591	629
TC40	MCJC	5198	119525974	275	257	254
TC40	MCJC	119522994	119525974	772	573	516
TC40	MCJC	119525974	5198	278	291	410
TC40	MCJC	119525974	119522994	318	498	435
TC41	CALC	119520952	119526159	1397	934	1436
TC41	MCJC	119513589	119536776	954	560	577
TC41	MCJC	119536656	119537469	596	540	757
TC41	MCJC	119536776	119513589	519	580	826
TC41	MCJC	119537469	119536656	509	523	750
TC42	CALC	119512520	119519841	1380	932	1311
TC42	MCJC	119513757	119513758	212	229	416
TC42	MCJC	119513758	119513757	422	214	274
TC42	MCJC	119529105	119534588	579	368	531
TC42	MCJC	119534588	119529105	330	356	666
TC43	CALC	119519841	119512520	1313	831	1345
TC43	MCJC	119529111	119538073	942	567	871
TC43	MCJC	119538073	119529111	884	471	664
TC47	MCJC	119515602	119516340	677	775	928
TC47	MCJC	119516340	119515602	960	755	817
TC47	MCJC	119518385	119533112	733	401	416

SiteNumber	SurveyType	Anode	Bnode	AM (veh)	IP (veh)	PM (veh)
TC47	MCJC	119533112	119518385	339	430	687
TC52	MCJC	5371	119518802	325	286	411
TC52	MCJC	119513119	119518802	398	181	268
TC52	MCJC	119513975	119524365	390	269	331
TC52	MCJC	119518802	5371	681	284	449
TC52	MCJC	119518802	119513119	165	173	255
TC52	MCJC	119524365	119513975	307	260	338
TC54	MCJC	158	119531806	768	552	717
TC54	MCJC	119516222	119520093	1444	934	1408
TC54	MCJC	119521550	119521549	1202	984	710
TC54	MCJC	119522437	119542432	984	854	340
TC54	MCJC	119531806	158	697	565	633
TC54	MCJC	119542432	119522437	1329	800	1192
TC57	MCJC	119513905	119522682	335	378	478
TC57	MCJC	119522283	119538757	404	282	433
TC57	MCJC	119522682	119513905	291	198	297
TC57	MCJC	119522682	119524519	380	158	174
TC57	MCJC	119524519	119522682	79	95	201
TC57	MCJC	119537001	119539063	94	146	359
TC57	MCJC	119538757	119522283	454	315	374
TC57	MCJC	119539063	119537001	402	62	93
TC62	MCJC	5088	119519053	628	433	496
TC62	MCJC	119513467	119541865	57	44	20
TC62	MCJC	119518634	119519053	131	127	99
TC62	MCJC	119519053	5088	519	447	581
TC62	MCJC	119519053	119518634	250	225	346
TC62	MCJC	119525752	119541865	516	391	663
TC62	MCJC	119541865	119513467	178	40	47
TC62	MCJC	119541865	119525752	385	282	307
TC69	CALC	119527608	119531353	471	382	442
TC69	MCJC	5204	119519010	475	586	649
TC69	MCJC	119518511	119539338	328	254	264
TC69	MCJC	119519010	5204	642	622	708
TC69	MCJC	119539338	119518511	26	154	360
TC70	CALC	119531353	119527608	471	441	439
TC70	MCJC	119527590	119527591	798	425	426
TC70	MCJC	119527591	119527590	443	390	511
TC70	MCJC	119527609	119538900	171	205	404
TC70	MCJC	119538900	119527609	662	185	171
Traf 01	MCLC	119527192	119539064	730	202	208
Traf 01	MCLC	119539064	119527192	112	135	349
Traf 04	MCLC	119516165	119522506	155	173	171
Traf 04	MCLC	119522506	119516165	349	213	279
Traf 05	MCLC	119527059	119535794	146	134	112
Traf 05	MCLC	119535794	119527059	26	11	5
Traf 10	MCLC	119529765	119531558	523	837	864
Traf 10	MCLC	119531558	119529765	975	561	607
Traf 11	MCLC	119525769	119532210	108	137	141
Traf 11	MCLC	119532210	119525769	161	118	116

B2- Independent Validation Data

Site Number	Sources	Code	Observed counts (veh)	Observed counts (veh)	Observed counts (veh)
ATC20	ATC	119512545-119520170	50	25	56
ATC20	ATC	119520170-119512545	58	24	42
ATC43	ATC	119518697-119520479	18	12	14
ATC43	ATC	119520479-119518697	93	27	117
ATC65	ATC	119526714-119527712	848	802	968
ATC65	ATC	119527712-119526714	1029	853	1015
ATC77	CALC	119524272-119529229	411	252	421
ATC77	CALC	119529229-119524272	474	245	294
ATC78	CALC	119524272-119525811	99	41	102
ATC78	CALC	119525811-119524272	101	35	72
ATC80	CALC	119514511-119542251	708	352	329
ATC80	CALC	119542251-119514511	291	367	642
ATC89	ATC	119536763-119542218	240	460	534
ATC89	ATC	119542218-119536763	247	546	919
TC24	MCJC	119524810-119540508	804	614	574
TC24	MCJC	119540508-119524810	520	611	906
TC25	MCJC	119513411-119515357	558	485	776
TC25	MCJC	119515357-119513411	802	499	541
TC26	CALC	119515265-119515266	676	549	748
TC27	CALC	119515266-119515265	637	538	667
TC30	MCJC	119520654-119521802	274	432	494
TC30	MCJC	119521802-119520654	615	335	267
TC37	MCJC	4269-119542248	779	684	840
TC37	MCJC	119542248-4269	924	671	774
TC41	CALC	119531738-119529131	1408	1044	1765
TC42	CALC	119514146-119543047	1933	1025	1683
TC43	MCJC	119515280-119538252	1118	697	1050
TC43	MCJC	119538252-119515280	1121	780	1051
TC52	MCJC	119513975-119525950	208	216	333
TC52	MCJC	119525950-119513975	414	215	351
TC54	MCJC	119516605-119542627	144	117	121
TC54	MCJC	119542627-119516605	178	127	192
Traf 03	MCLC	119517474-119524816	343	456	434
Traf 03	MCLC	119524816-119517474	461	396	369
L081	MCJC	119526714-119527712-119527713	75	36	38
L081	MCJC	119527713-119527712-119526714	14	16	34
L081	MCJC	119527713-119527712-119531185	19	29	33
L082	CALC	119517043-119517044-119538808	7	34	26
L082	CALC	119533186-119517044-119538808	78	65	73

Site Number	Sources	Code	Observed counts (veh)	Observed counts (veh)	Observed counts (veh)
L082	CALC	119538808-119517044-119517043	31	68	61
L083	CALC	119532935-119545400-119528600	21	236	213
L083	MCJC	3075-119545400-119532935	10	40	20
L083	MCJC	119532935-119545400-3075	7	21	27
L084	CALC	119540183-119517043-119517044	4	20	19
L084	MCJC	119540183-119517043-119521948	7	51	41
L111	MCJC	4909-119519166-119519167	39	18	40
L111	MCJC	5179-119519166-119519167	6	6	5
L111	MCJC	119519167-119519166-4909	35	25	63
L111	MCJC	119519167-119519166-5179	7	9	6
L112	CALC	119521029-119527673-119527672	99	134	174
L112	MCJC	119527672-119527673-119543282	61	104	92
L112	MCJC	119543282-119527673-119527672	81	200	157
L114	MCJC	119525662-119531034-119513132	43	24	24
LTC1	MCJC	119532271-119512888-119537926	1	1	1
LTC1	MCJC	119535466-119512888-119512889	34	36	44
LTC1	MCJC	119535466-119512888-119532271	33	33	29
LTC1	MCJC	119535466-119512888-119537926	10	5	7
LTC1	MCJC	119537926-119512888-119512889	13	64	42
LTC1	MCJC	119537926-119512888-119532271	3	10	6
LTC2	MCJC	119541922-119512889-119535023	6	26	72
LTC3	MCJC	119541922-119537926-119512888	1	11	13
LTC3	MCJC	119541922-119537926-119521031	3	2	5
LTC4	MCJC	119512888-119532271-119528925	52	76	93
LTC4	MCJC	119528925-119532271-119545380	2	13	5
LTC5	MCJC	119545380-119532271-119519560	10	111	99
LTC5	MCJC	119545380-119532271-119528925	10	19	16
TC01	MCJC	119527644-119534826-119527644	0	0	0
TC01	MCJC	119532614-119534826-119532614	0	0	0
TC05	MCJC	119512651-119518023-119512651	0	0	0
TC05	MCJC	119512651-119518023-119528352	4	7	4
TC05	MCJC	119513915-119518023-119513915	0	0	0
TC05	MCJC	119528352-119518023-119528352	0	0	0
TC06	MCJC	119518158-119518159-119518158	0	0	1
TC06	MCJC	119518158-119518159-119527250	3	9	14
TC06	MCJC	119518682-119518159-119518158	5	6	3
TC06	MCJC	119518682-119518159-119518682	0	0	0
TC07	MCJC	119526786-119541077-119526786	0	0	0
TC07	MCJC	119542211-119541077-119542211	0	0	0
TC08	MCJC	119284543-119284544-119284543	0	0	0
TC08	MCJC	119284892-119284544-119284892	0	0	0
TC08	MCJC	119284892-119284544-119529280	5	7	10
TC08	MCJC	119529280-119284544-119284892	11	9	11
TC08	MCJC	119529280-119284544-119529280	0	0	0
TC09	MCJC	119284543-119513783-119284543	0	0	0
TC09	MCJC	119531540-119513784-119531540	0	0	0
TC09	MCJC	119531540-119513784-119535994	3	6	2

Site Number	Sources	Code	Observed counts (veh)	Observed counts (veh)	Observed counts (veh)
TC09	MCJC	119535994-119513784-119531540	6	5	2
TC09	MCJC	119535994-119513784-119535994	0	0	0
TC13	CALC	119516320-119529545-119529930	60	32	33
TC13	CALC	119529657-119529545-119516320	5	5	4
TC13	CALC	119529930-119529545-119516320	43	28	50
TC13	MCJC	119529657-119529545-119529657	0	0	0
TC13	MCJC	119529930-119529545-119529930	0	0	0
TC14	MCJC	119513237-119523819-119513237	0	0	0
TC14	MCJC	119528117-119523819-119528117	0	0	0
TC16	CALC	119518816-119522219-119524440	48	15	38
TC16	CALC	119524440-119522219-4251	84	42	97
TC16	CALC	119524440-119522219-119518816	43	16	58
TC16	MCJC	4251-119522219-4251	0	0	0
TC16	MCJC	4251-119522219-119523603	15	4	2
TC16	MCJC	119518816-119522219-119523603	98	68	116
TC16	MCJC	119523603-119522219-4251	4	2	7
TC16	MCJC	119523603-119522219-119523603	0	0	0
TC17	CALC	119523477-119529228-119529229	46	22	53
TC17	CALC	119529229-119529228-119523477	83	24	42
TC17	MCJC	4326-119529228-4326	0	0	0
TC18a	MCJC	119520470-119541010-119520470	0	0	0
TC18a	MCJC	119540067-119541010-119540067	0	0	0
TC19	MCJC	119517251-119531178-119517251	0	0	0
TC19	MCJC	119517251-119531178-119525796	45	32	58
TC19	MCJC	119517251-119531178-119530887	6	8	22
TC19	MCJC	119517251-119531178-119532278	7	6	11
TC19	MCJC	119525796-119531178-119517251	60	36	55
TC19	MCJC	119525796-119531178-119525796	0	0	0
TC19	MCJC	119525796-119531178-119530887	38	24	30
TC19	MCJC	119525796-119531178-119532278	16	8	13
TC19	MCJC	119530887-119531178-119517251	31	8	6
TC19	MCJC	119530887-119531178-119525796	41	31	53
TC19	MCJC	119530887-119531178-119530887	0	0	0
TC19	MCJC	119532278-119531178-119517251	26	10	21
TC19	MCJC	119532278-119531178-119525796	7	11	18
TC19	MCJC	119532278-119531178-119532278	0	0	0
TC20	MCJC	119512567-119512566-119512567	0	0	0
TC20	MCJC	119512567-119512566-119541857	85	34	53
TC20	MCJC	119541218-119512566-119541218	0	0	0
TC20	MCJC	119541857-119512566-119512567	46	41	84
TC20	MCJC	119541857-119512566-119541857	0	0	0
TC28	MCJC	82-119512771-82	0	0	0
TC28	MCJC	82-119512771-119512772	27	16	25
TC28	MCJC	119512772-119512771-119512772	0	0	0
TC28	MCJC	119512772-119512771-119536412	24	21	21
TC28	MCJC	119526515-119512771-119512772	39	69	69
TC28	MCJC	119526515-119512771-119526515	0	0	0

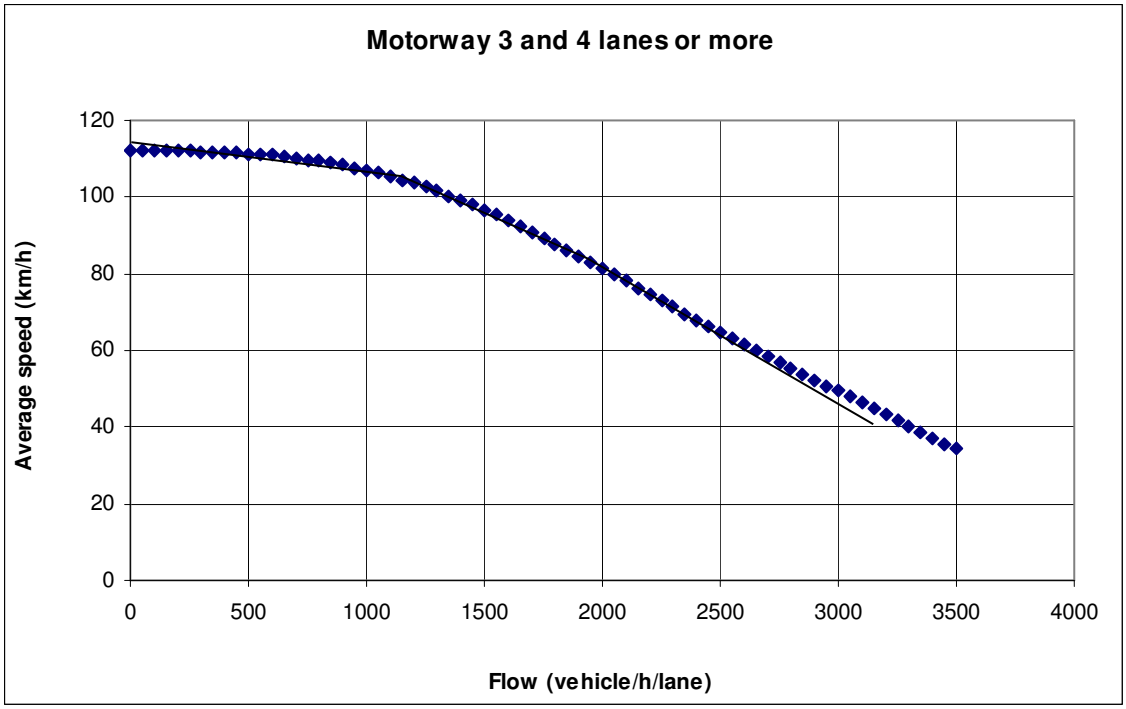
Site Number	Sources	Code	Observed counts (veh)	Observed counts (veh)	Observed counts (veh)
TC28	MCJC	119536412-119512771-119512772	20	26	16
TC28	MCJC	119536412-119512771-119536412	0	0	0
TC29	MCJC	78-119524181-78	0	0	0
TC29	MCJC	79-119524181-79	0	0	0
TC29	MCJC	3091-119524181-3091	0	0	0
TC31	CALC	119520150-119537871-119533260	0	0	0
TC31	MCJC	119531778-119537871-119531778	0	0	0
TC31	MCJC	119531778-119537871-119533260	0	0	0
TC31	MCJC	119533260-119537871-119531778	1	0	0
TC31	MCJC	119533260-119537871-119533260	0	0	0
TC33	CALC	119531976-119518113-119545388	12	105	75
TC33	CALC	119545388-119518113-119531976	43	105	50
TC33	MCJC	5067-119518113-5067	0	0	0
TC33	MCJC	119518112-119518113-119531976	40	77	45
TC33	MCJC	119531976-119518113-119518112	22	88	78
TC33	MCJC	119531976-119518113-119531976	0	0	0
TC34	MCJC	119522377-119538445-119522377	0	0	0
TC34	MCJC	119526257-119538445-119526257	0	0	0
TC35	MCJC	119516703-119529436-119516703	0	0	0
TC35	MCJC	119523413-119529436-119523413	0	0	0
TC36	CALC	3533-119534820-119534819	15	19	18
TC36	CALC	119534819-119534820-3533	6	12	12
TC44	CALC	5031-119532776-119526471	24	21	20
TC44	CALC	119526471-119532776-5031	3	9	6
TC44	CALC	119526471-119532776-119541681	48	59	51
TC44	CALC	119541681-119532776-119526471	33	28	33
TC44	MCJC	5031-119532776-5031	0	0	0
TC44	MCJC	5031-119532776-119525934	41	36	27
TC44	MCJC	119525934-119532776-5031	15	48	47
TC44	MCJC	119525934-119532776-119525934	0	0	0
TC44	MCJC	119541681-119532776-119541681	0	0	0
TC45	CALC	171-119526471-119532776	7	13	4
TC45	CALC	119532776-119526471-171	6	10	8
TC45	MCJC	5375-119526471-5375	0	0	0
TC46	CALC	119512774-119512773-119539822	1	0	0
TC46	CALC	119539822-119512774-119534353	26	24	28
TC46	MCJC	119512774-119512773-119512774	0	0	0
TC46	MCJC	119533967-119512773-119533967	0	0	0
TC48	MCJC	1175-119529308-1175	0	0	0
TC48	MCJC	1175-119529308-3690	61	54	135
TC48	MCJC	3690-119529308-1175	94	22	67
TC48	MCJC	3690-119529308-3690	0	0	0
TC48	MCJC	119529307-119529308-119529307	0	0	0
TC49	MCJC	4127-119524535-4127	0	0	0
TC49	MCJC	119519532-119524535-119519532	0	0	0
TC49	MCJC	119519532-119524535-119528748	18	17	37
TC49	MCJC	119528748-119524535-119519532	32	22	48

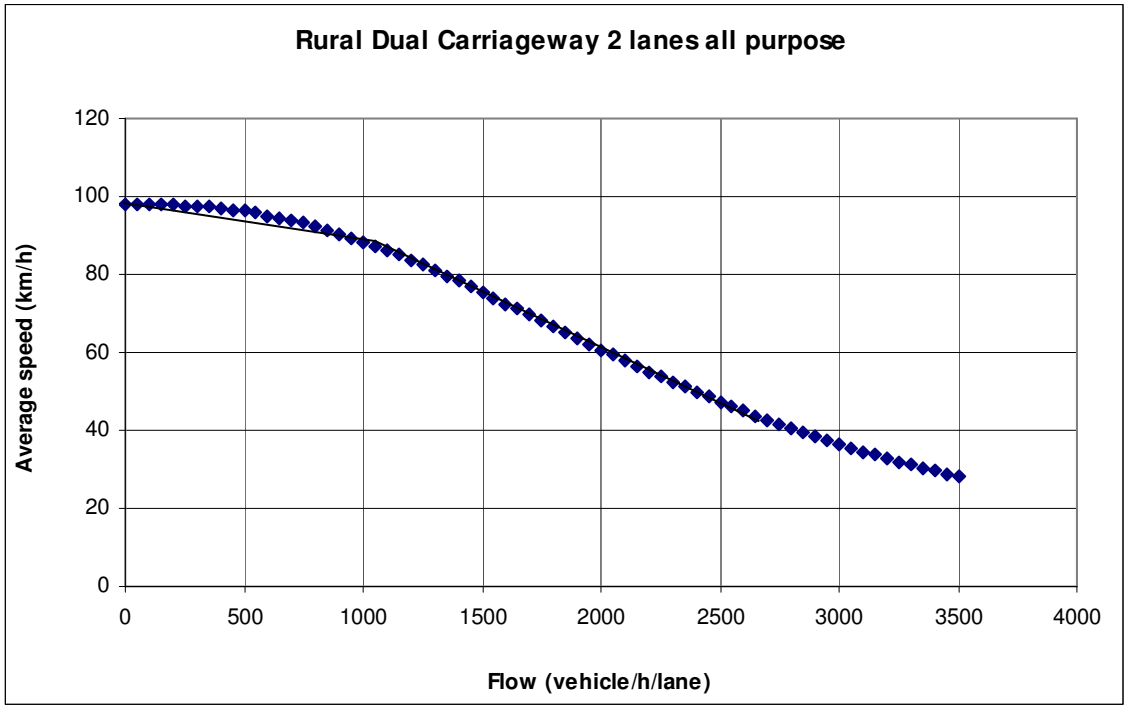
Site Number	Sources	Code	Observed counts (veh)	Observed counts (veh)	Observed counts (veh)
TC49	MCJC	119528748-119524535-119528748	0	0	0
TC50	CALC	119525811-119524272-119529229	1	0	0
TC50	CALC	119529229-119524272-119525811	3	1	0
TC50	CALC	119540618-119524272-119525811	96	40	102
TC50	MCJC	119540618-119524272-119540618	0	0	0
TC51	CALC	119524272-119529229-119524272	0	0	0
TC51	CALC	119524272-119529229-119525811	17	8	16
TC51	CALC	119525811-119529229-119524272	10	10	10
TC51	CALC	119525811-119529229-119529228	76	39	54
TC51	CALC	119529228-119529229-119525811	48	44	105
TC51	MCJC	119525811-119529229-119525811	0	0	0
TC53	MCJC	18-119531204-18	0	0	0
TC53	MCJC	164-119531204-164	0	0	0
TC53	MCJC	164-119531204-119531128	70	40	34
TC53	MCJC	165-119531204-165	0	0	0
TC53	MCJC	165-119531204-119531128	91	99	63
TC53	MCJC	119531128-119531204-164	43	38	59
TC53	MCJC	119531128-119531204-165	63	126	114
TC53	MCJC	119531128-119531204-119531128	0	0	0
TC55	MCJC	146-119523419-146	0	0	0
TC55	MCJC	146-119523419-119531910	0	1	2
TC55	MCJC	119531910-119523419-119526253	27	80	129
TC55	MCJC	119531910-119523419-119531910	0	0	0
TC56	MCJC	119513264-119524200-119513264	0	0	0
TC56	MCJC	119513264-119524200-119522283	61	62	184
TC56	MCJC	119513264-119524200-119524201	66	37	45
TC56	MCJC	119513264-119524200-119537129	3	6	18
TC56	MCJC	119522283-119524200-119513264	90	44	69
TC56	MCJC	119522283-119524200-119522283	0	0	0
TC56	MCJC	119522283-119524200-119537129	4	8	18
TC56	MCJC	119524201-119524200-119513264	77	30	21
TC56	MCJC	119524201-119524200-119524201	0	0	0
TC56	MCJC	119524201-119524200-119537129	5	4	6
TC56	MCJC	119537129-119524200-119513264	4	4	4
TC56	MCJC	119537129-119524200-119522283	18	9	13
TC56	MCJC	119537129-119524200-119524201	12	7	2
TC56	MCJC	119537129-119524200-119537129	0	0	0
TC58	CALC	119520149-119535721-5201	0	0	0
TC58	CALC	119520149-119535721-119536557	0	0	0
TC58	CALC	119520149-119535721-119537397	55	25	24
TC58	CALC	119536557-119535721-119520149	32	63	94
TC58	CALC	119537397-119535721-119520149	0	0	0
TC58	MCJC	5201-119535721-5201	0	0	0
TC58	MCJC	5201-119535721-119536557	7	95	65
TC58	MCJC	119536557-119535721-5201	0	0	0
TC58	MCJC	119536557-119535721-119536557	0	0	0
TC58	MCJC	119537397-119535721-5201	0	0	0

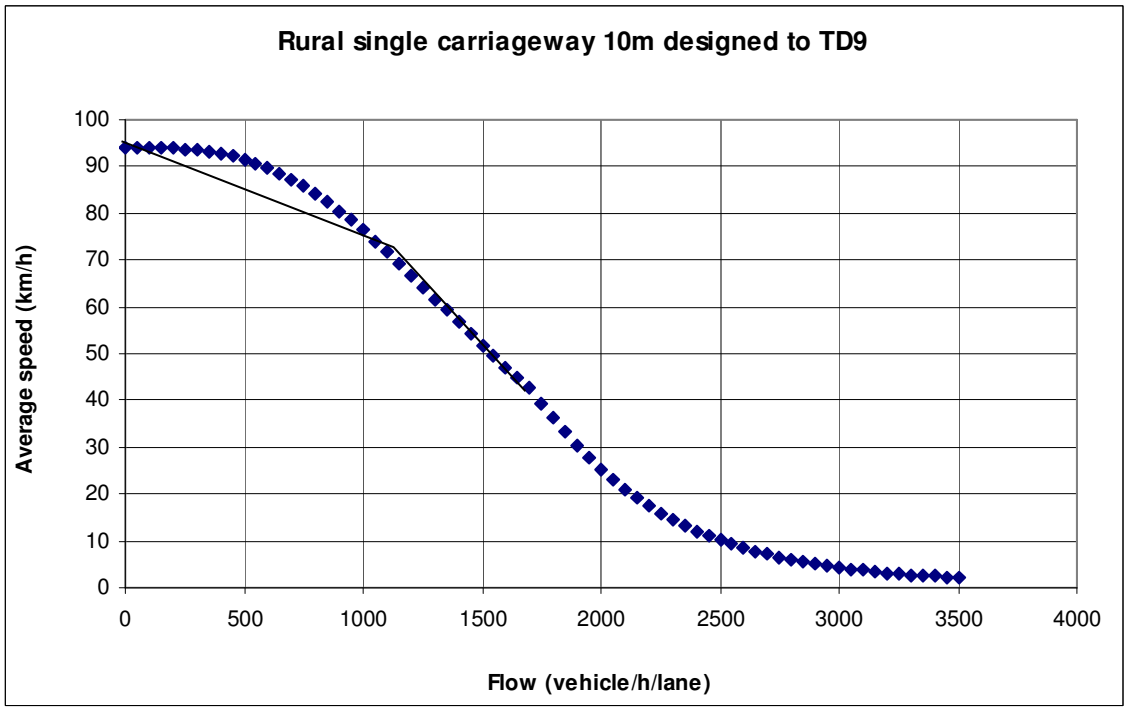
Site Number	Sources	Code	Observed counts (veh)	Observed counts (veh)	Observed counts (veh)
TC58	MCJC	119537397-119535721-119537397	0	0	0
TC58	MCJC	119537397-119535721-119545381	83	181	147
TC58	MCJC	119545381-119535721-5201	0	0	0
TC58	MCJC	119545381-119535721-119537397	0	0	0
TC58	MCJC	119545381-119535721-119545381	0	0	0
TC59	MCJC	119516787-119527300-119516787	0	0	0
TC59	MCJC	119516787-119527300-119527314	0	0	0
TC59	MCJC	119527301-119527300-119527301	0	0	0
TC59	MCJC	119527314-119527300-119527301	0	0	0
TC59	MCJC	119527314-119527300-119527314	0	0	0
TC61	CALC	119522918-119532688-119525662	0	0	0
TC61	MCJC	119522918-119532688-119525662	0	0	0
TC61	MCJC	119523008-119532688-119523008	0	0	0
TC61	MCJC	119525662-119532688-119523008	0	0	0
TC61	MCJC	119525662-119532688-119525662	0	0	0
TC63	CALC	119516575-119516576-119520666	7	36	44
TC63	CALC	119520666-119516576-5188	1	2	0
TC63	CALC	119520666-119516576-119516575	89	56	23
TC63	MCJC	5188-119516576-5188	0	0	0
TC63	MCJC	119516575-119516576-5188	16	73	65
TC63	MCJC	119516575-119516576-119516575	0	0	0
TC63	MCJC	119525752-119516576-119525752	0	0	0
TC64	CALC	119533041-119514127-119520666	90	92	82
TC64	MCJC	5187-119514127-5187	0	0	0
TC64	MCJC	119533041-119514127-119533041	0	0	0
TC65	CALC	119513728-119521119-119530094	15	25	20
TC65	CALC	119530094-119521119-119533041	7	10	18
TC65	CALC	119533041-119521119-119513728	57	57	120
TC65	MCJC	5125-119521119-5125	0	0	0
TC65	MCJC	119513728-119521119-5125	53	32	46
TC65	MCJC	119513728-119521119-119513728	0	0	0
TC66	MCJC	119525809-119532301-119525809	0	0	0
TC66	MCJC	119539399-119532301-119539399	0	0	0
TC67	CALC	119514190-119534515-119532301	0	0	0
TC67	MCJC	119514190-119534515-119514190	0	0	0
TC67	MCJC	119514190-119534515-119524844	11	7	58
TC67	MCJC	119514190-119534515-119526576	0	0	0
TC67	MCJC	119524844-119534515-119514190	0	0	0
TC67	MCJC	119524844-119534515-119524844	0	0	0
TC67	MCJC	119526576-119534515-119514190	11	3	0
TC67	MCJC	119526576-119534515-119526576	0	0	0
TC68	MCJC	119516946-119518650-119516946	0	0	0
TC68	MCJC	119520417-119518650-119520417	0	0	0
TC68	MCJC	119526790-119518650-119526790	0	0	0
TC71	MCJC	119516921-119536558-119516921	0	0	0
TC71	MCJC	119526030-119536558-119526030	0	0	0
TC71	MCJC	119531847-119536558-119531847	0	0	0

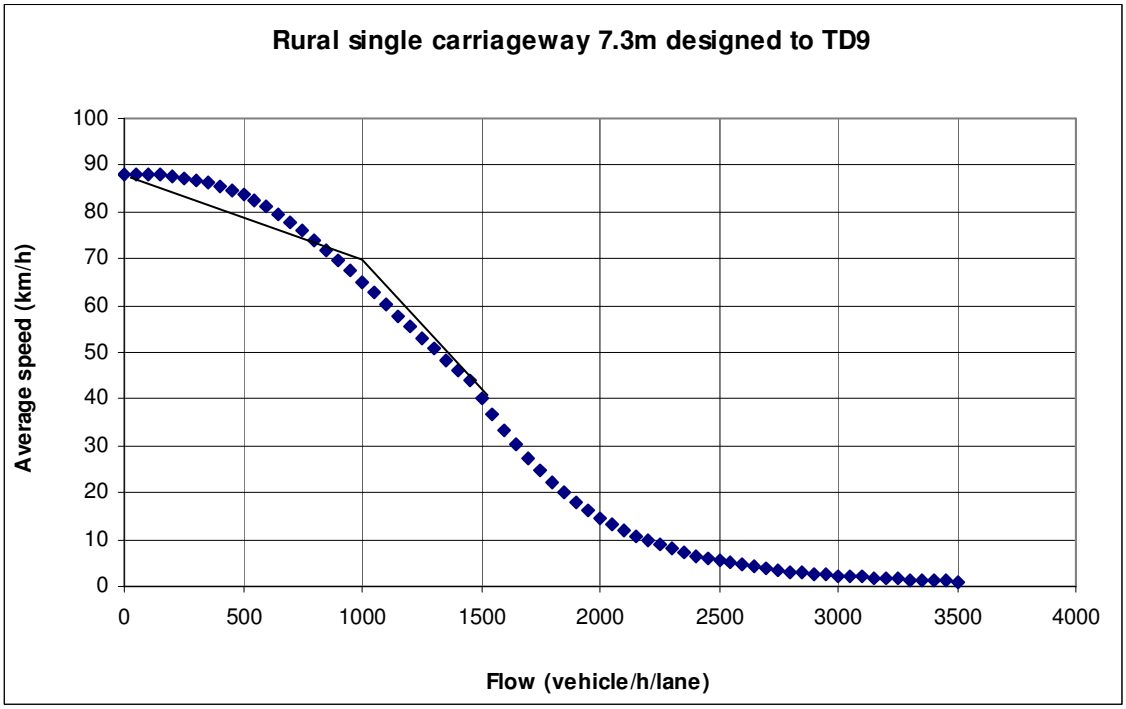
Site Number	Sources	Code	Observed counts (veh)	Observed counts (veh)	Observed counts (veh)
TC72	MCJC	119524095-119524096-119524095	0	0	0
TC72	MCJC	119524375-119524096-119524375	0	0	0
TC72	MCJC	119536786-119524096-119524375	79	66	71
TC72	MCJC	119536786-119524096-119536786	0	0	0
TC73	CALC	119514477-119524686-119542279	54	41	56
TC73	CALC	119527203-119524686-119514477	25	50	71
TC73	CALC	119542279-119524686-119514477	50	45	49
TC73	MCJC	119514477-119524686-119514477	0	0	0
TC74	MCJC	119516102-119519672-119516102	0	0	0
TC74	MCJC	119516102-119519672-119529037	22	44	41
TC74	MCJC	119516102-119519672-119529713	54	117	180
TC74	MCJC	119516102-119519672-119536090	65	83	104
TC74	MCJC	119529037-119519672-119516102	38	49	54
TC74	MCJC	119529037-119519672-119529037	0	0	0
TC74	MCJC	119529037-119519672-119529713	48	138	147
TC74	MCJC	119529037-119519672-119536090	93	146	154
TC74	MCJC	119529713-119519672-119516102	87	91	101
TC74	MCJC	119529713-119519672-119529713	0	0	0
TC74	MCJC	119536090-119519672-119516102	59	112	135
TC74	MCJC	119536090-119519672-119529037	99	82	145
TC74	MCJC	119536090-119519672-119536090	0	0	0
TC85	MCJC	119516432-119519853-119516432	0	0	0
TC85	MCJC	119516432-119519853-119520474	61	26	47
TC85	MCJC	119516432-119519853-119532759	6	7	17
TC85	MCJC	119520474-119519853-119520474	0	0	0
TC85	MCJC	119521125-119519853-119521125	0	0	0
TC85	MCJC	119521125-119519853-119532759	80	108	214
TC85	MCJC	119532759-119519853-119516432	36	8	10
TC85	MCJC	119532759-119519853-119520474	47	30	32
TC85	MCJC	119532759-119519853-119532759	0	0	0
TC96	MCJC	119535382-119539084-119535382	0	0	0
TC96	MCJC	119544584-119539084-119544584	0	0	0

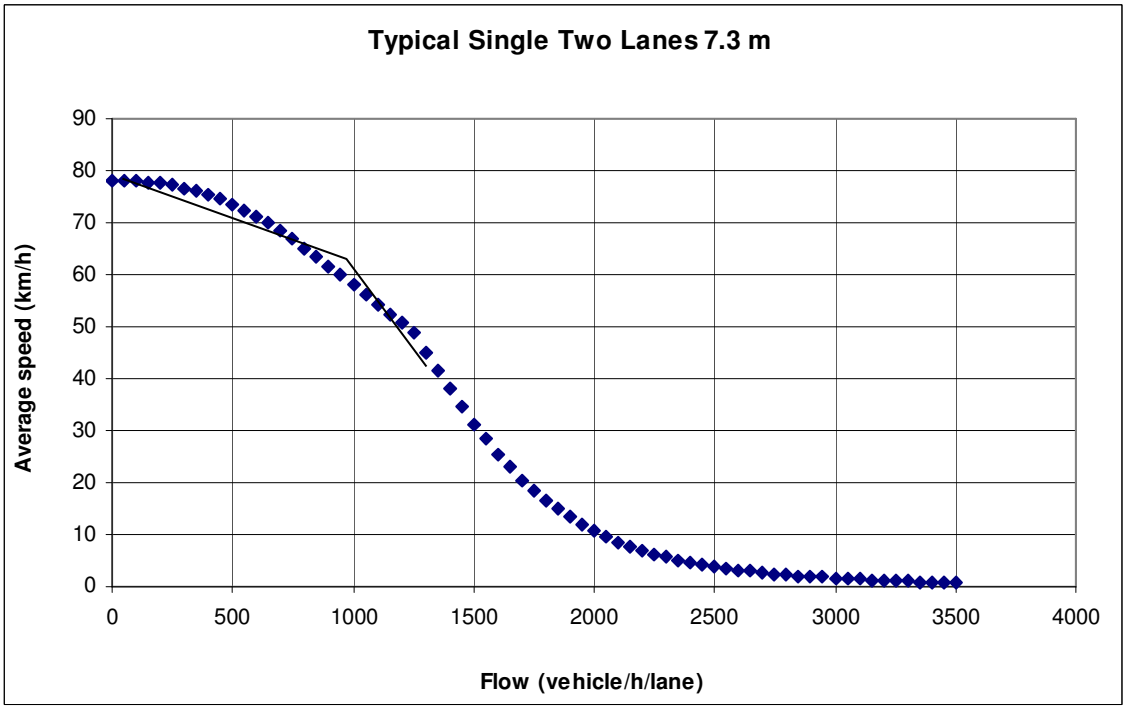
Appendix C – Speed – Flow Curves

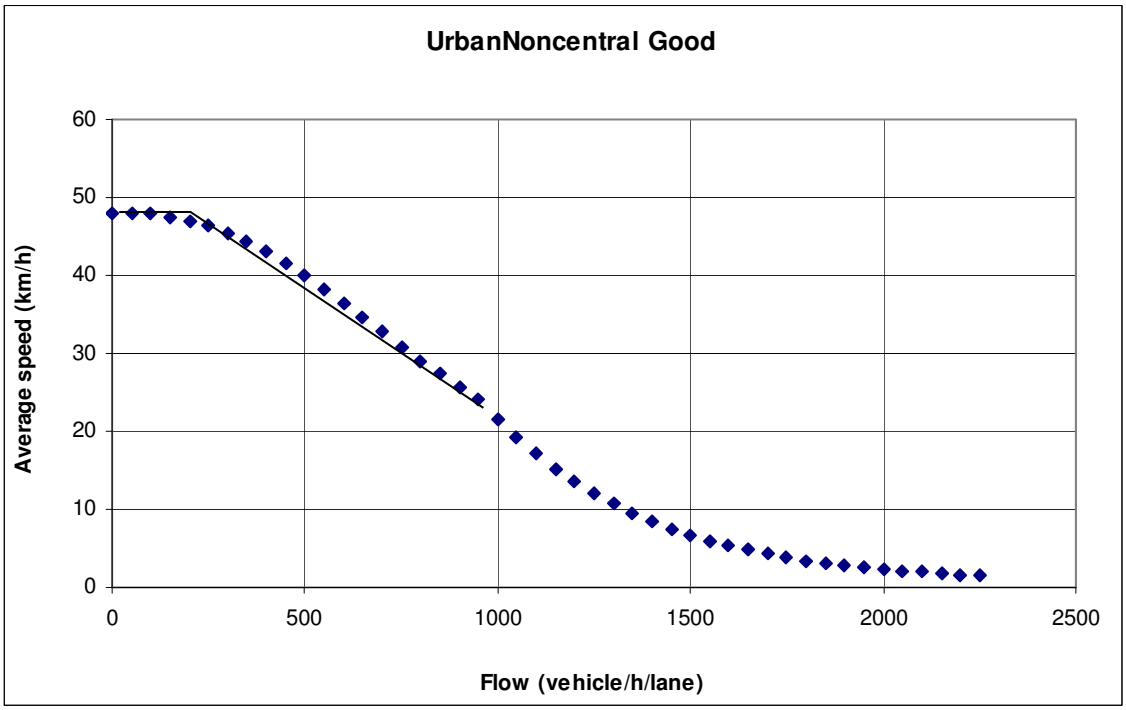


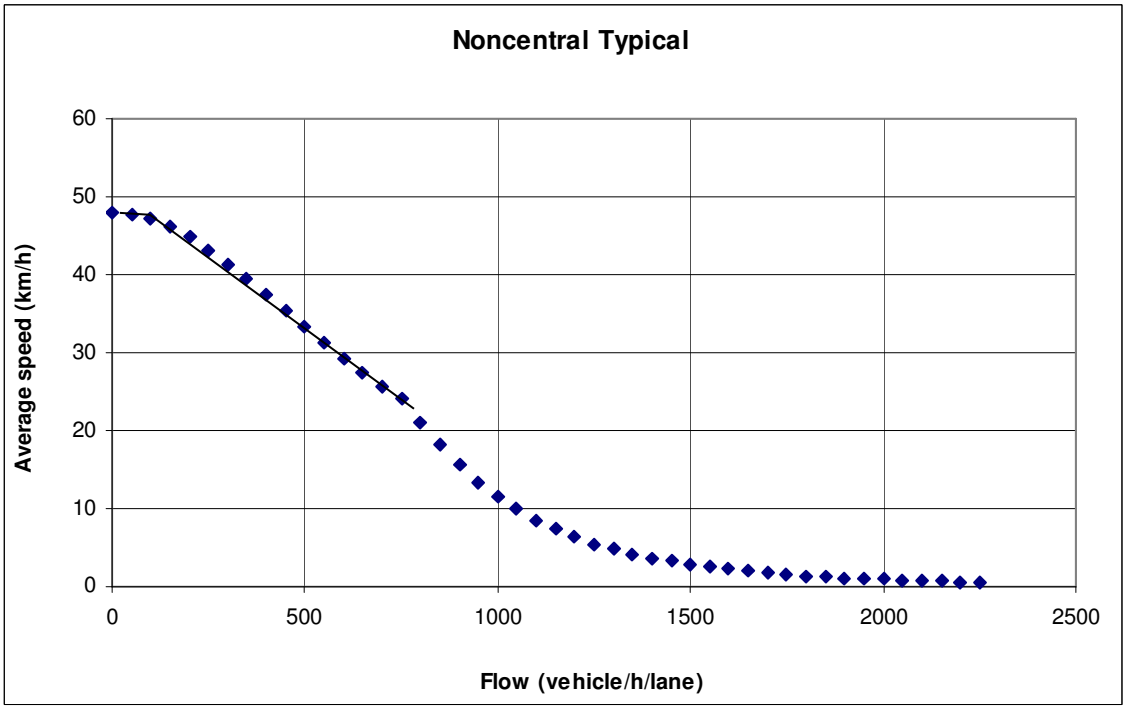

Rural Dual Carriageway 2 lanes all purpose
Average speed (km/h)
120
100
80
60
40
20
0
0
500
1000
1500
2000
2500
3000
3500
4000
Flow (vehicle/h/lane)

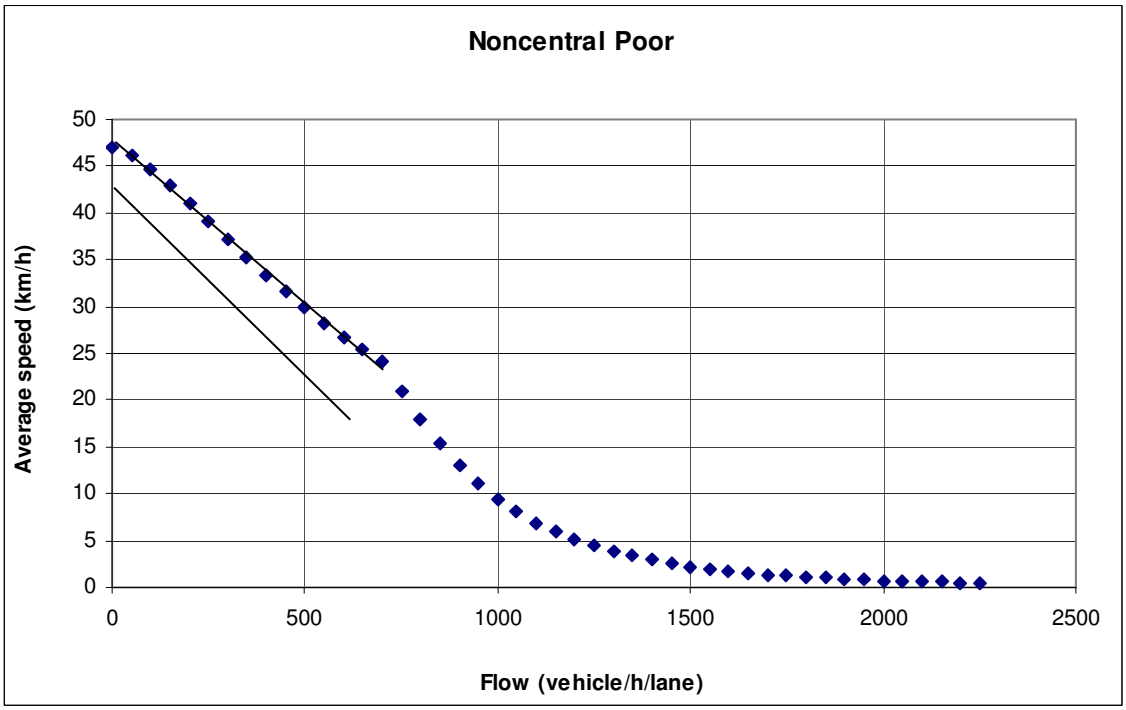

Rural single carriageway 10m designed to TD9
Average speed (km/h)
100
90
80
70
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
3000
3500
4000
Flow (vehicle/h/lane)

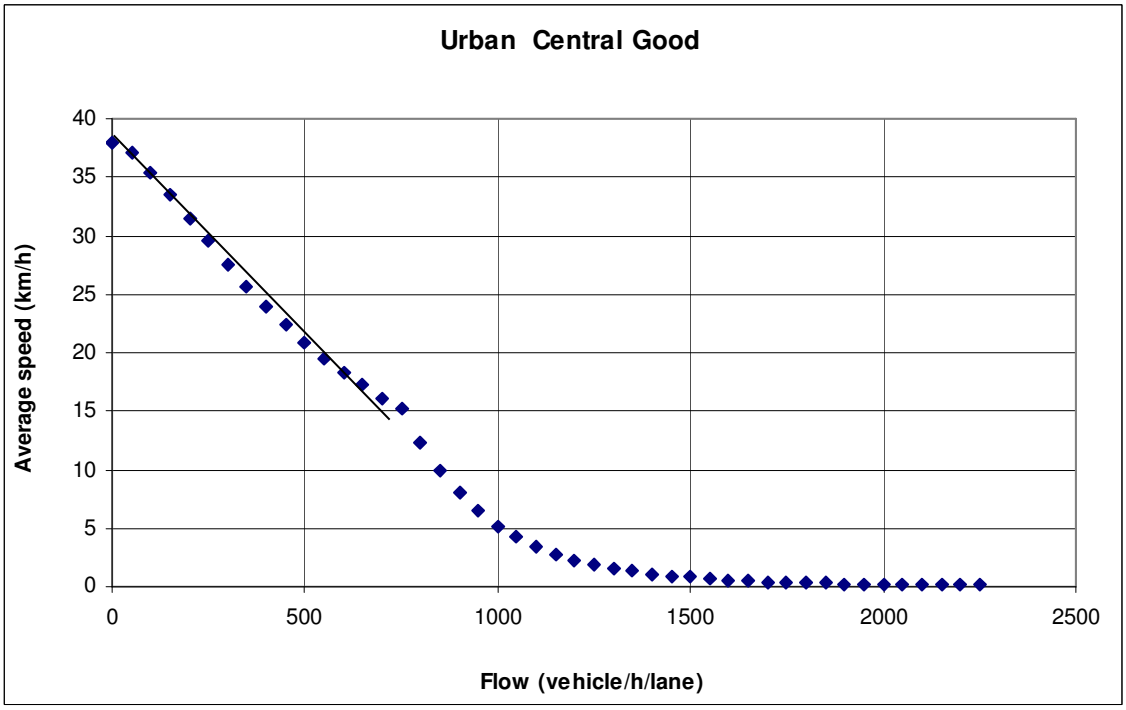

Rural single carriageway 7.3m designed to TD9
Average speed (km/h)
100
90
80
70
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
3000
3500
4000
Flow (vehicle/h/lane)

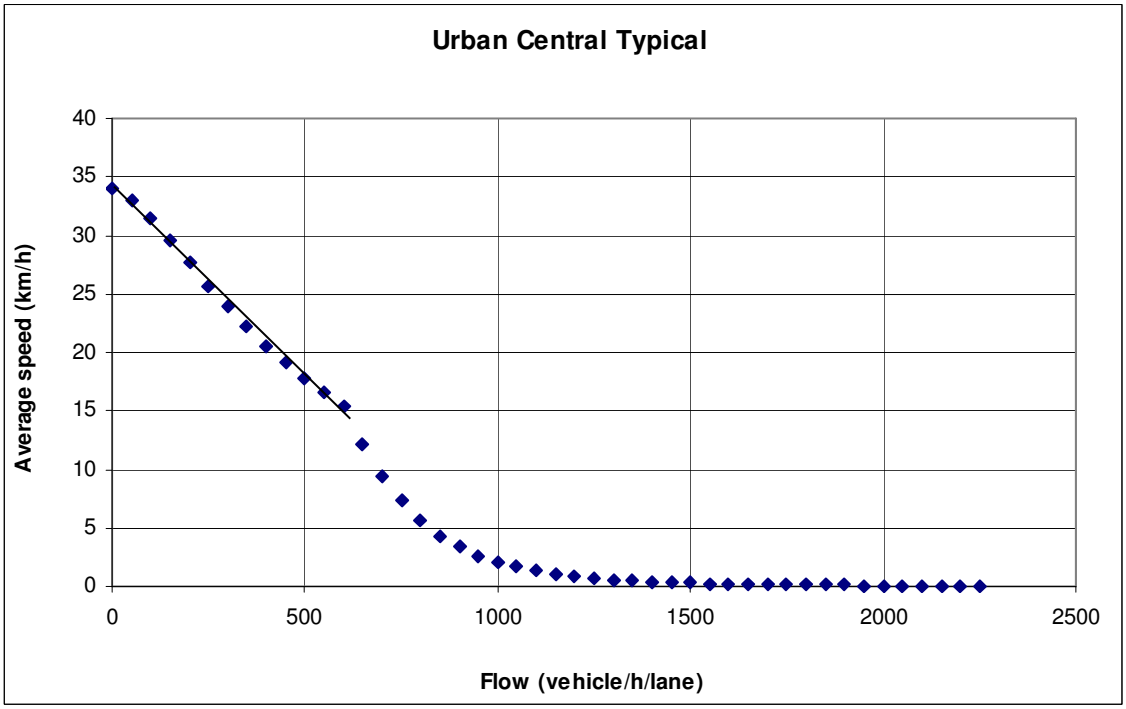

Typical Single Two Lanes 7.3 m
Average speed (km/h)
90
80
70
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
3000
3500
4000
Flow (vehicle/h/lane)

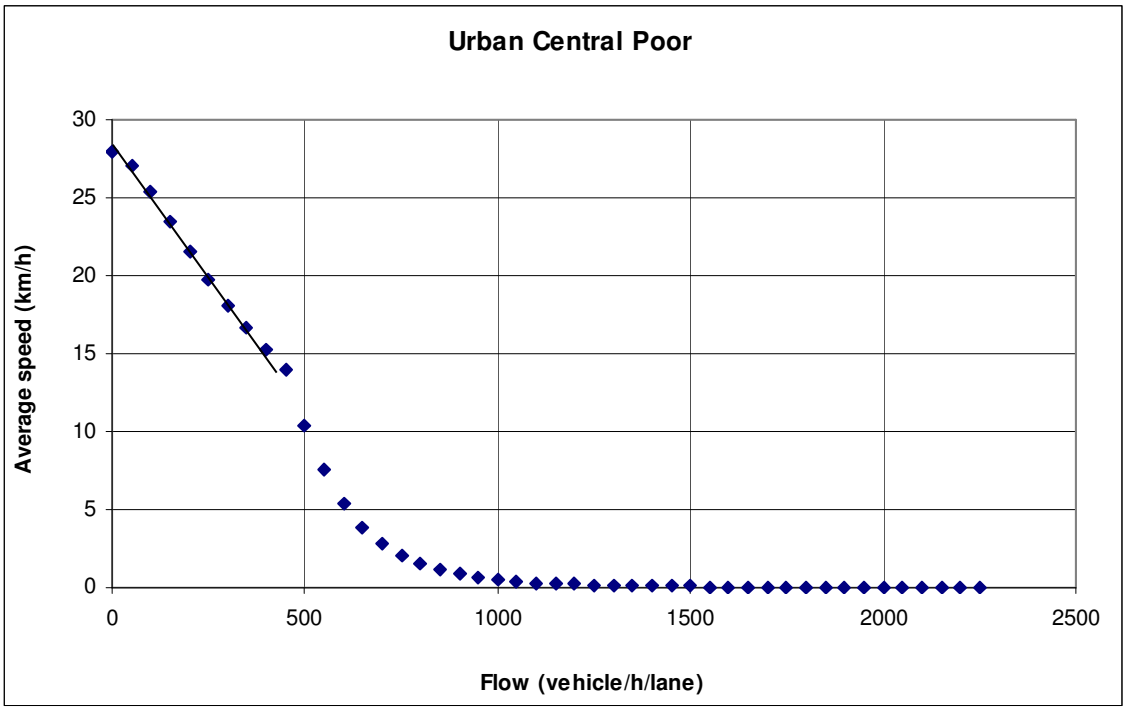

UrbanNoncentral Good
Average speed (km/h)
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

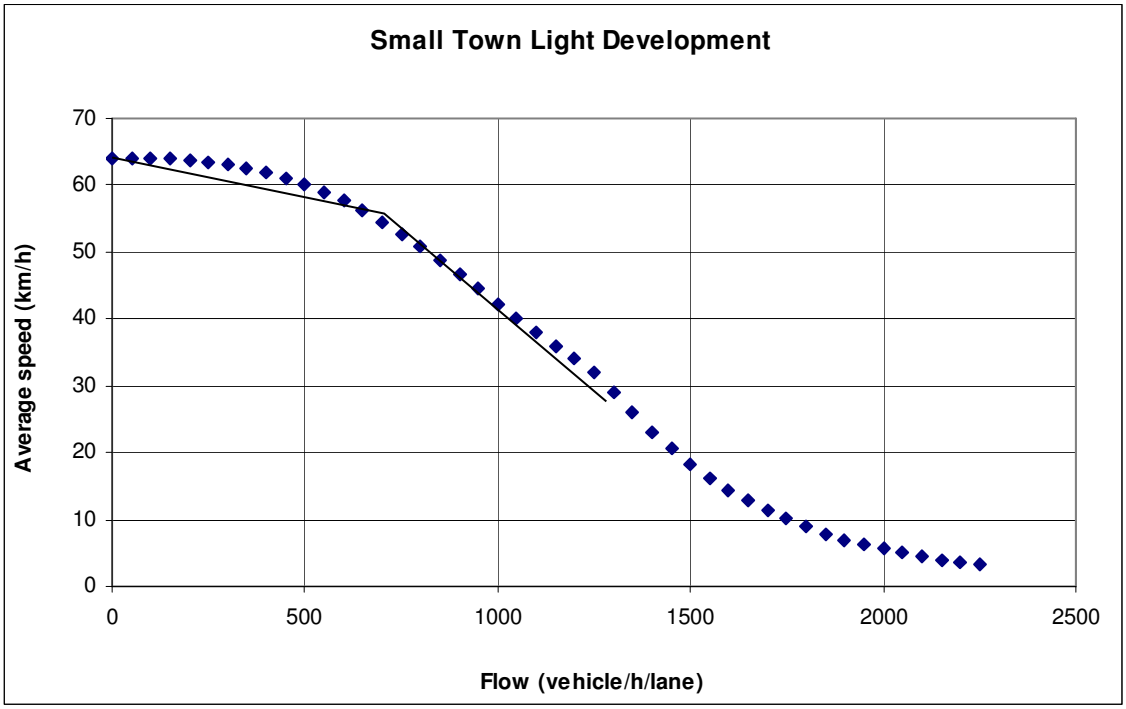

Noncentral Typical
Average speed (km/h)
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

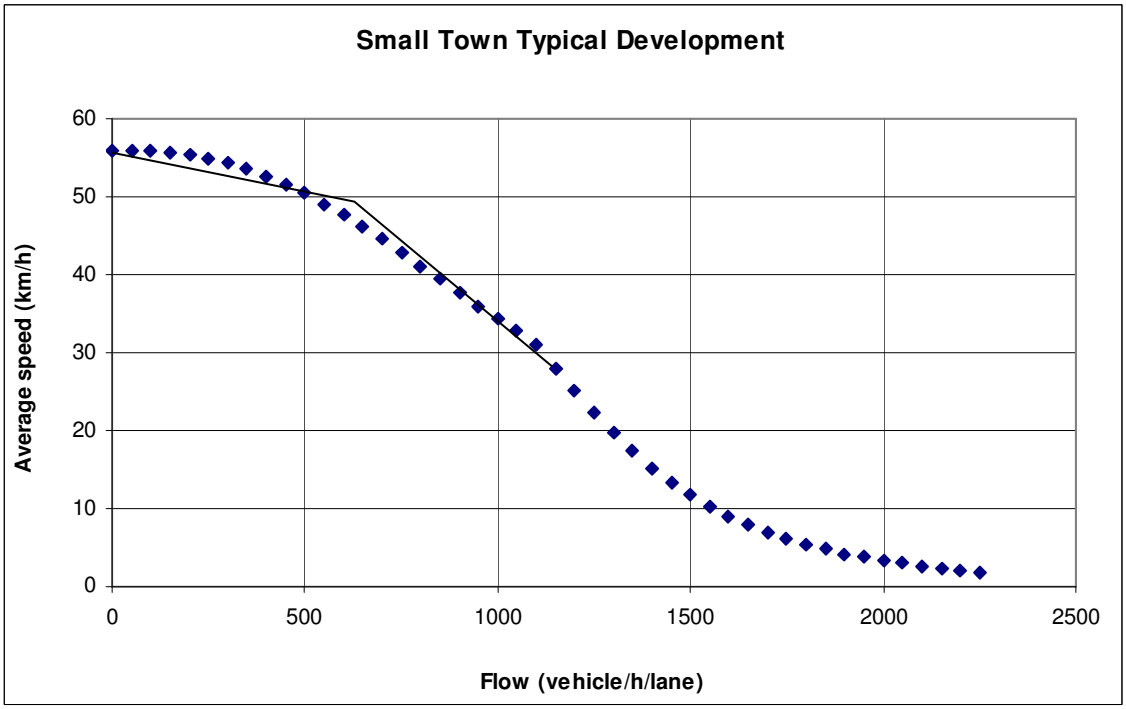

Noncentral Poor
Average speed (km/h)
50
45
40
35
30
25
20
15
10
5
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

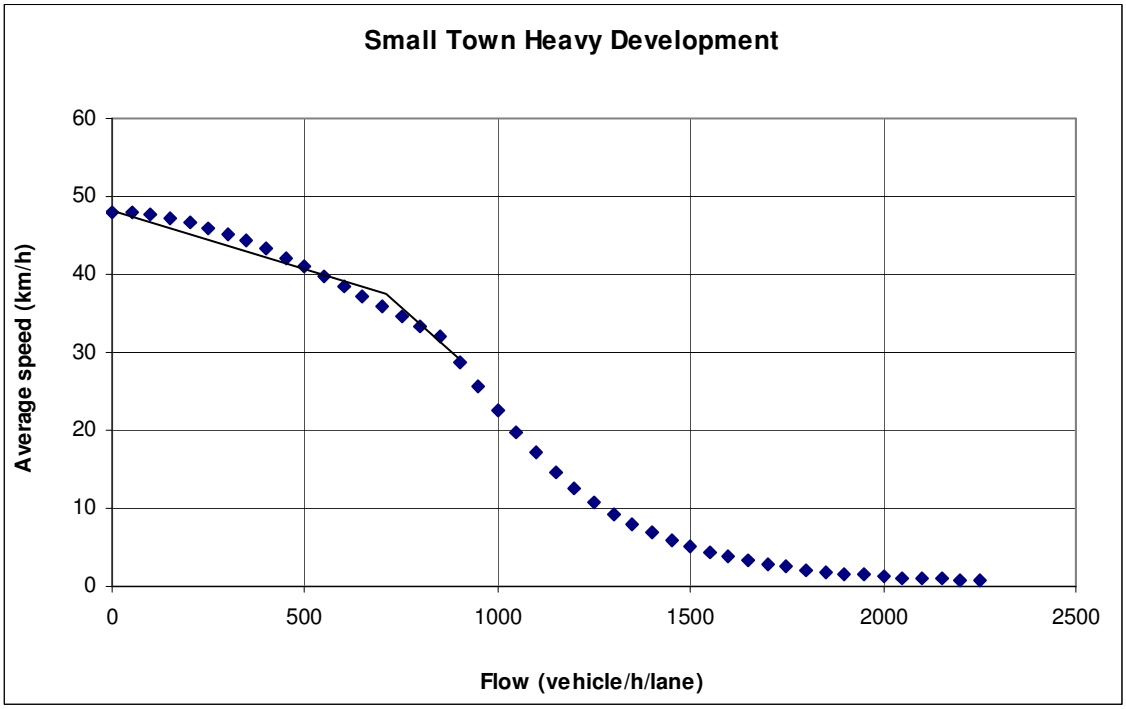

Urban Central Good
Average speed (km/h)
40
35
30
25
20
15
10
5
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

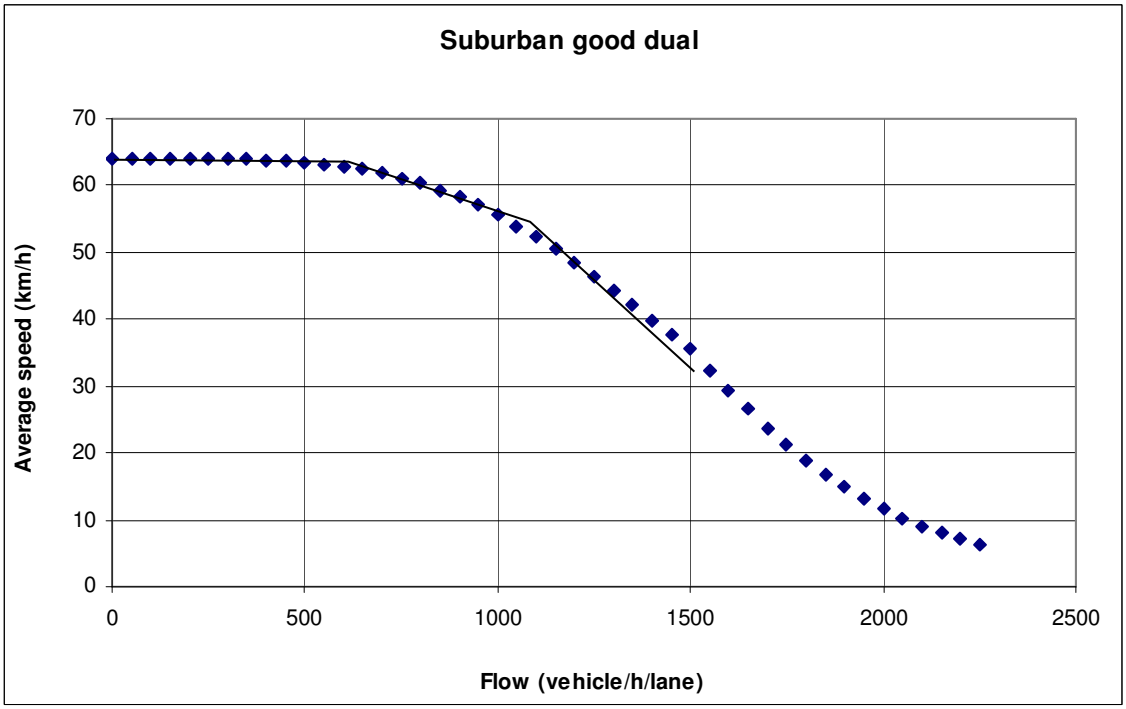

Urban Central Typical
Average speed (km/h)
40
35
30
25
20
15
10
5
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

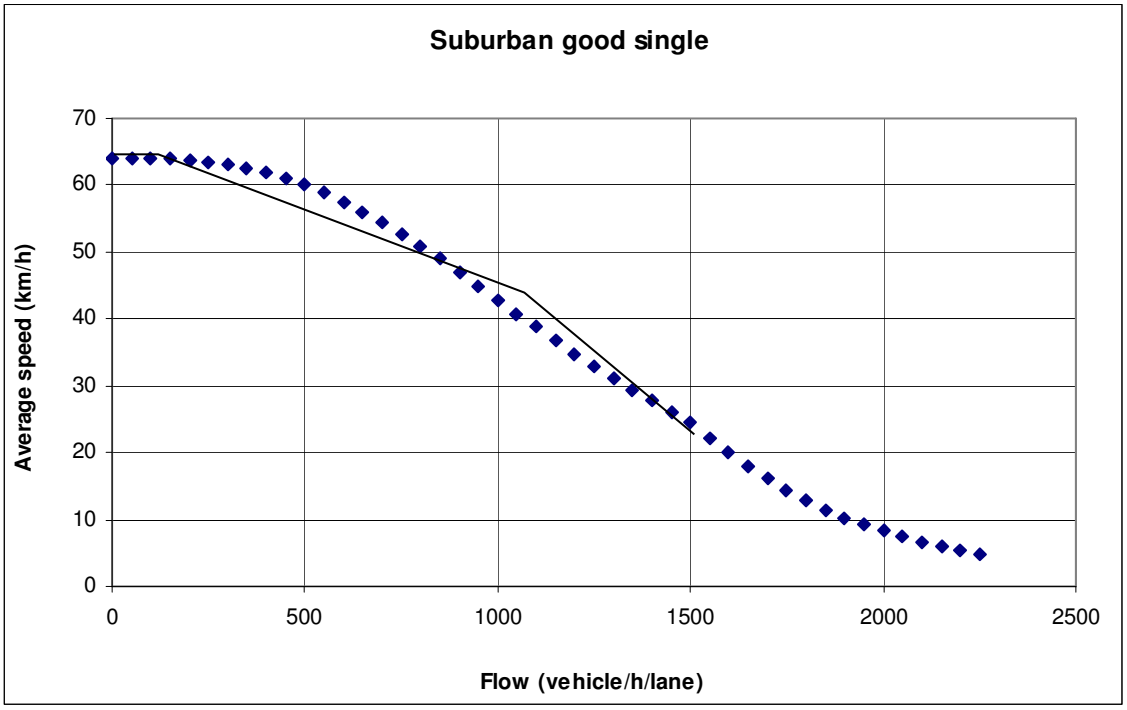

Urban Central Poor
Average speed (km/h)
30
25
20
15
10
5
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

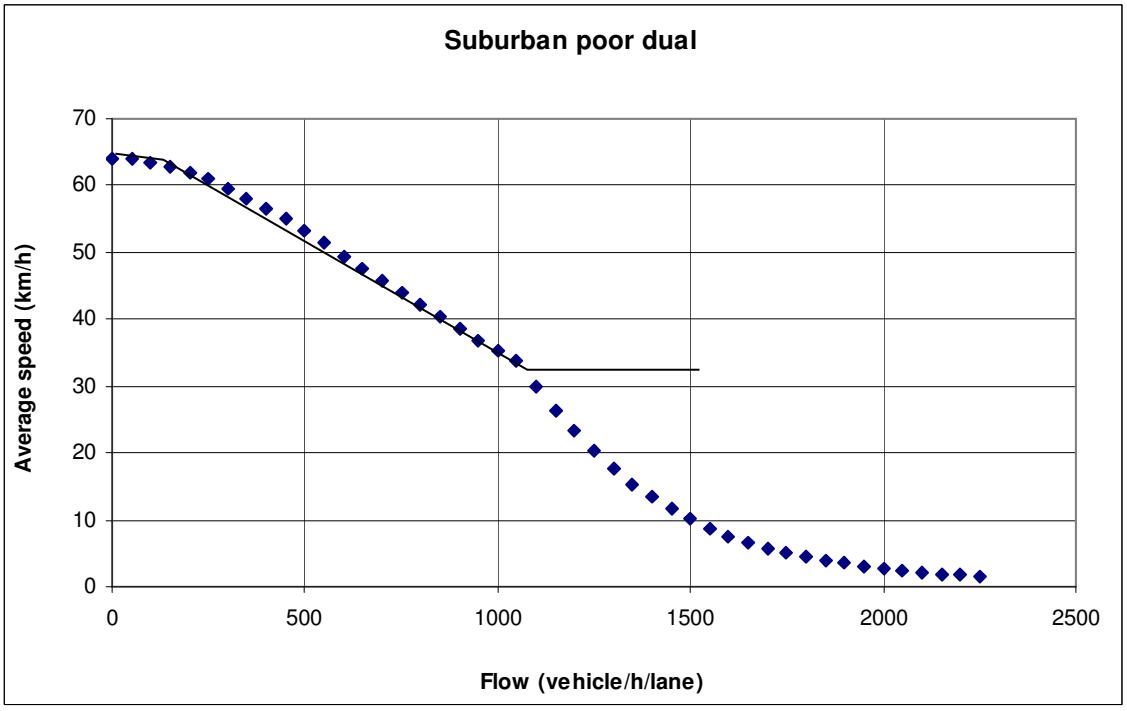

Small Town Light Development
Average speed (km/h)
70
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

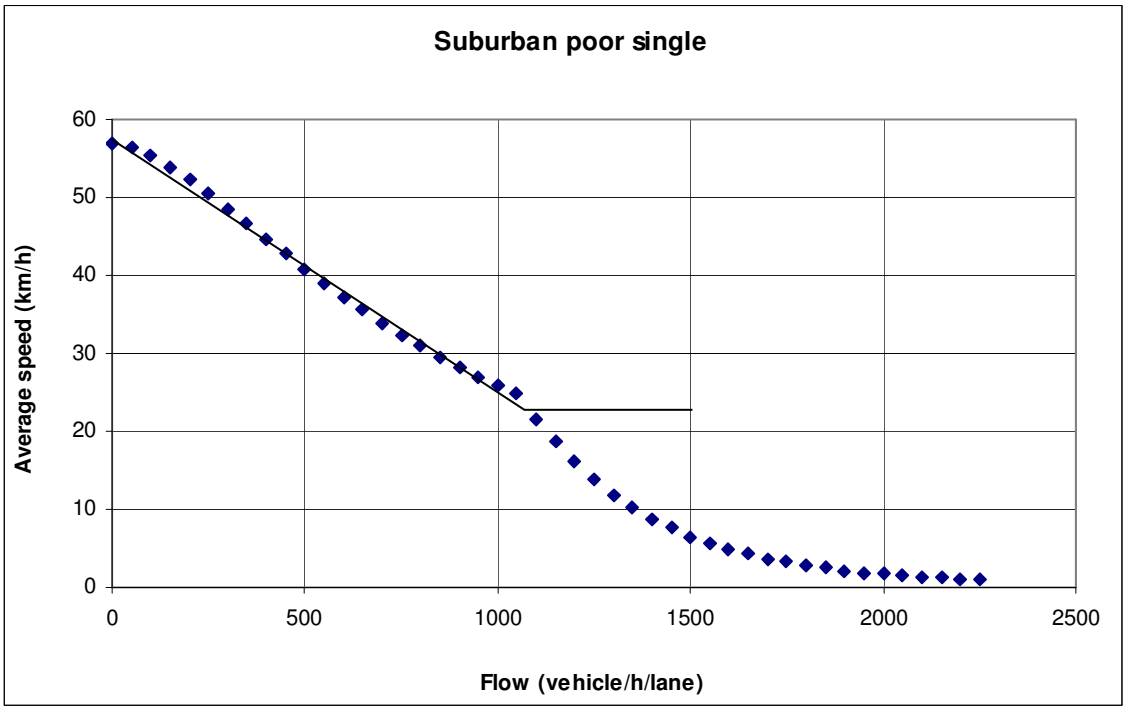

Small Town Typical Development
Average speed (km/h)
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)


Small Town Heavy Development
Average speed (km/h)
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

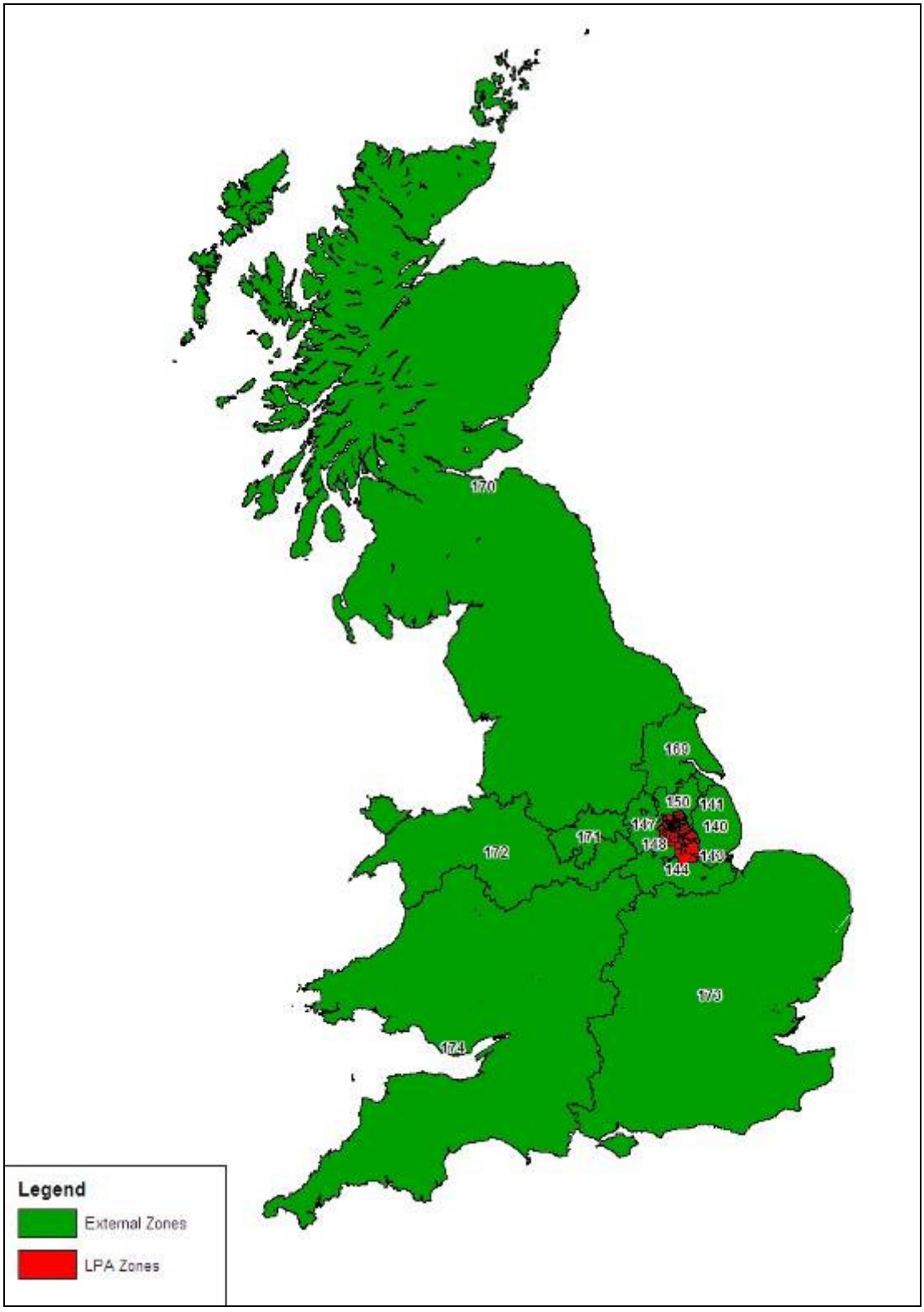

Suburban good dual
Average speed (km/h)
70
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

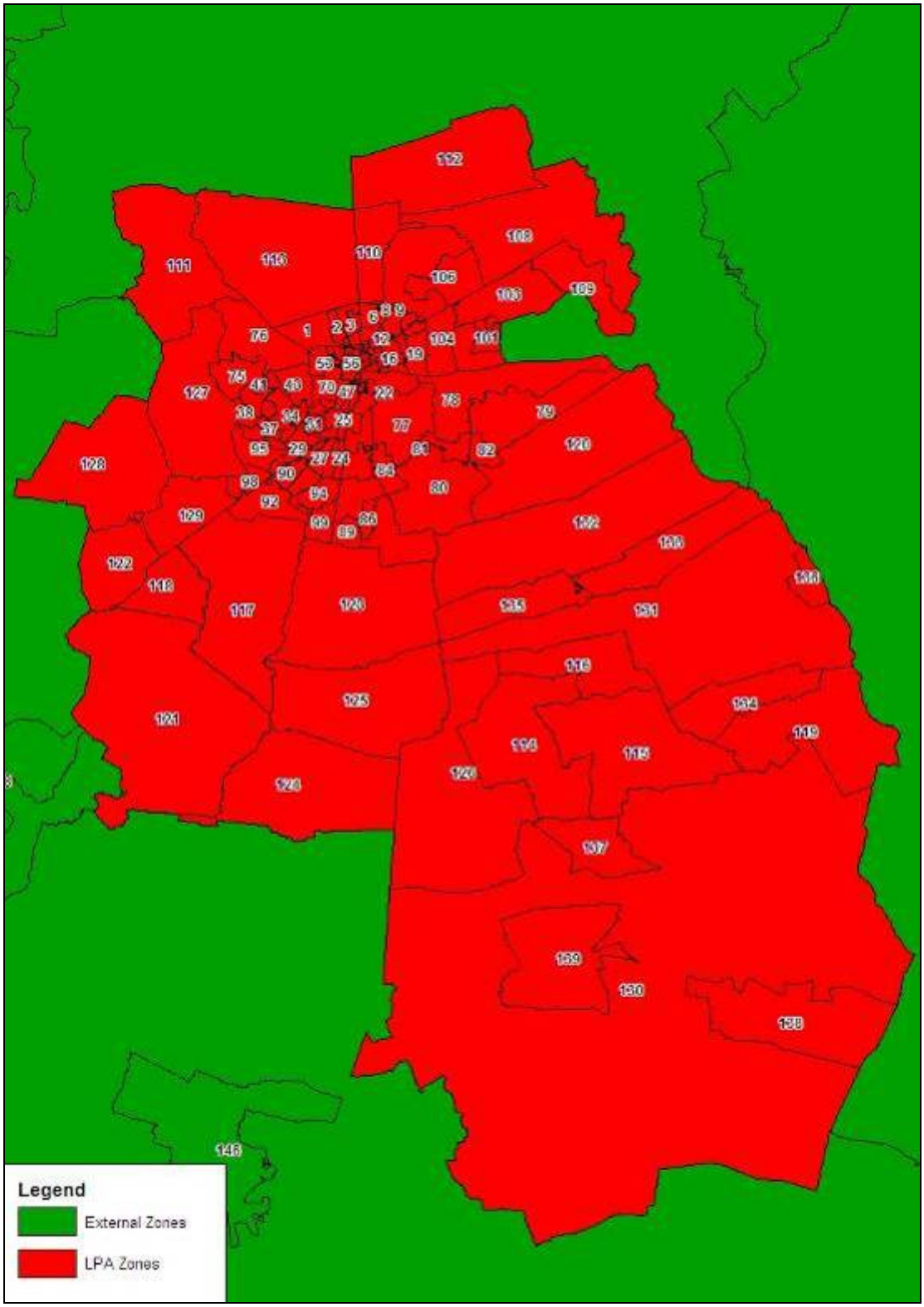

Suburban good single
Average speed (km/h)
70
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)


Suburban poor dual
Average speed (km/h)
70
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)


Suburban poor single
Average speed (km/h)
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
Flow (vehicle/h/lane)

Appendix D – Zoning System




Legend
External Zones
LPA Zones

Zone Number	Zone Description	Level
1	Lincoln (main)	LPA
2	Lincoln (main)	LPA
3	Lincoln (main)	LPA
4	Lincoln (main)	LPA
5	Lincoln (main)	LPA
6	Lincoln (main)	LPA
7	Lincoln (main)	LPA
8	Lincoln (main)	LPA
9	Lincoln (main)	LPA
10	Lincoln (main)	LPA
11	Lincoln (main)	LPA
12	Lincoln (main)	LPA
13	Lincoln (main)	LPA
14	Lincoln (main)	LPA
15	Lincoln (main)	LPA
16	Lincoln (main)	LPA
17	Lincoln (main)	LPA
18	Lincoln (main)	LPA
19	Lincoln (main)	LPA
20	Lincoln (main)	LPA
21	Lincoln (main)	LPA
22	Lincoln (main)	LPA
23	Lincoln (main)	LPA
24	Lincoln (main)	LPA
25	Lincoln (main)	LPA
26	Lincoln (main)	LPA
27	Lincoln (main)	LPA
28	Lincoln (main)	LPA
29	Lincoln (main)	LPA
30	Lincoln (main)	LPA
31	Lincoln (main)	LPA
32	Lincoln (main)	LPA
33	Lincoln (main)	LPA
34	Lincoln (main)	LPA
35	Lincoln (main)	LPA
36	Birchwood	LPA
37	Birchwood	LPA
38	Birchwood	LPA
39	Birchwood	LPA
40	Birchwood	LPA
41	Birchwood	LPA
42	Birchwood	LPA

Zone Number	Zone Description	Level
43	Lincoln (main)	LPA
44	Lincoln (main)	LPA
45	Lincoln (main)	LPA
46	Lincoln (main)	LPA
47	Lincoln (main)	LPA
48	Lincoln (main)	LPA
49	Lincoln (main)	LPA
50	Lincoln (main)	LPA
51	Lincoln (main)	LPA
52	Lincoln (main)	LPA
53	Lincoln (main)	LPA
54	Lincoln (main)	LPA
55	Lincoln (main)	LPA
56	Lincoln (main)	LPA
57	Lincoln (main)	LPA
58	Lincoln (main)	LPA
59	Lincoln (main)	LPA
60	Lincoln (main)	LPA
61	Lincoln (main)	LPA
62	Lincoln (main)	LPA
63	Lincoln (main)	LPA
64	Lincoln (main)	LPA
65	Lincoln (main)	LPA
66	Lincoln (main)	LPA
67	Lincoln (main)	LPA
68	Lincoln (main)	LPA
69	Lincoln (main)	LPA
70	Lincoln (main)	LPA
71	Lincoln (main)	LPA
72	Lincoln (main)	LPA
73	Lincoln (main)	LPA
74	Birchwood	LPA
75	Skellingthorpe	LPA
76	Skellingthorpe	LPA
77	Lincoln (part of)	LPA
78	Heighington / Washingborough	LPA
79	Heighington / Washingborough	LPA
80	Branston	LPA
81	Branston	LPA
82	Branston	LPA
83	Bracebridge Heath	LPA
84	Bracebridge Heath	LPA
85	Bracebridge Heath	LPA
86	Waddington	LPA
87	Waddington	LPA
88	Waddington	LPA

Zone Number	Zone Description	Level
89	Waddington	LPA
90	Lincoln (part of)	LPA
91	Lincoln (part of)	LPA
92	Lincoln (part of)	LPA
93	Lincoln (part of)	LPA
94	Lincoln (part of)	LPA
95	Lincoln (part of)	LPA
96	Lincoln (part of)	LPA
97	Lincoln (part of)	LPA
98	Lincoln (part of)	LPA
99	Waddington	LPA
100	Lincoln (part of)	LPA
101	Cherry Willingham / Reepham	LPA
102	Rural	LPA
103	Cherry Willingham / Reepham	LPA
104	Rural	LPA
105	Cherry Willingham / Reepham	LPA
106	Nettleham	LPA
107	Nettleham	LPA
108	Rural	LPA
109	Rural	LPA
110	Rural	LPA
111	Saxilby	LPA
112	Welton / Dunholme	LPA
113	Rural	LPA
114	Rural	LPA
115	Rural	LPA
116	Rural	LPA
117	Rural	LPA
118	Rural	LPA
119	Rural	LPA
120	Rural	LPA
121	Rural	LPA
122	Rural	LPA
123	Rural	LPA
124	Rural	LPA
125	Rural	LPA
126	Rural	LPA
127	Rural	LPA
128	Rural	LPA
129	Rural	LPA
130	Rural	LPA
131	Rural	LPA
132	Rural	LPA
133	Metheringham	LPA
134	Rural	LPA

Zone Number	Zone Description	Level
135	Metheringham	LPA
136	Woodhall Spa (part of)	LPA
137	Ruskinton	LPA
138	Heckington	LPA
139	Sleaford	LPA
140	East Lindsey	External
141	Louth	External
142	Horncastle	External
143	Boston	External
144	South Kesteven	External
145	Spalding	External
146	Grantham	External
147	West Lindsey	External
148	Newark-On-Trent	External
149	Retford	External
150	West Lindsey	External
151	Gainsborough	External
152	Market Rasen	External
153	Grimsby - Point Zone	External
154	Cleethorpes - Point Zone	External
155	Scunthorpe - Point Zone	External
156	NEQ1 - Point Zone	LPA
157	NEQ2 - Point Zone	LPA
158	NEQ3 - Point Zone	LPA
159	SWQ1 - Point Zone	LPA
160	SWQ2 - Point Zone	LPA
161	SWQ3 - Point Zone	LPA
162	WGC1 - Point Zone	LPA
163	WGC2 - Point Zone	LPA
164	WGC3 - Point Zone	LPA
165	SEQ1 - Point Zone	LPA
166	SEQ2 - Point Zone	LPA
167	SEQ3 - Point Zone	LPA
168	Grimsby	External
169	Hull and A15	External
170	A1 North	External
171	Chesterfield, Mansfield and the Peak District	External
172	Nottingham, Derby and A50	External
173	A1 South	External
174	M42 and M69	External
175	Lincoln East Disaggregation	LPA
176	Lincoln East Disaggregation	LPA
177	Lincoln East Disaggregation	LPA
178	Lincoln East Disaggregation	LPA

Appendix E – Bus Routes

Bus Service	Route	Direction	Frequency		
			AM	IP	PM
1	Lincoln-Grantham	IB	2	6	1
		OB	2	12	2
2	Lincoln-Branston	IB	3	16	3
		OB	1	16	3
3	Lincoln-Grimsby	IB	2	10	2
		OB	2	12	2
4(1)	Lincoln-County Hospital	IB	2	16	3
		OB	3	16	3
4(2)	Lincoln-Nettleham	IB	1	4	0
		OB	1	6	0
5(1)	Lincoln-Boston	IB	1	7	1
		OB	1	10	1
5(2)	Lincoln-Er Estate	-	1	6	1
6	Lincoln-Skegness	IB	2	6	1
		OB	2	7	1
10(1)	Lincoln-Horncastle	IB	1	2	1
		OB	1	4	1
10(2)	Lincoln-Louth	IB	1	3	1
		OB	1	3	1
11	Lincoln-Welton	IB	2	12	2
		OB	2	12	2
13	Lincoln-Waddington	IB	2	12	2
		OB	2	12	2
15	Lincoln-Short Ferry	IB	1	13	2
		OB	3	13	2
27	Lincoln-North Hykeham	IB	5	35	5
		OB	5	35	5
29	Lincoln-Doddington	IB	1	6	1
		OB	1	6	2
31	Sleaford-Lincoln	IB	1	3	1
		OB	1	3	1
44	Lincoln-Birchwood	IB	4	24	4
		OB	4	24	4
46	Lincoln-Newark	IB	1	2	1
		OB	1	3	1
46A	Lincoln-Carlton Le Moorland	IB	0	1	1
		OB	0	2	1
66	Lincoln-Birchwood	IB	6	35	6
		OB	6	30	6
87	Lincoln-Newark	IB	1	2	1
		OB	0	2	1
100	Scunthorpe-Lincoln	IB	1	5	1
		OB	1	5	1
103	Lincoln-Scunthorpe	IB	1	3	1
		OB	1	3	1
106/107	Lincoln-Gainsborough	IB	1	3	1

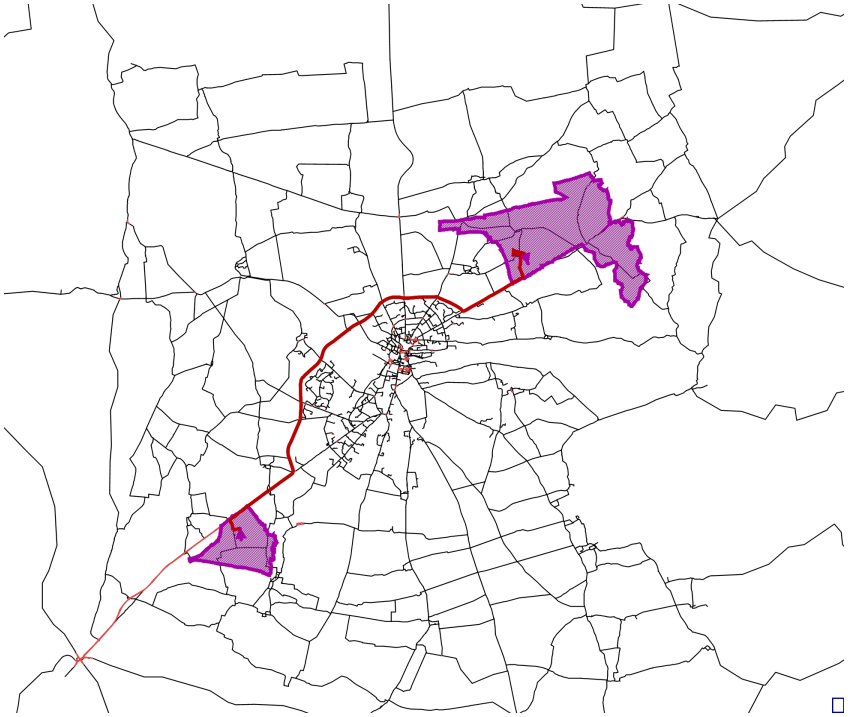
		OB	1	3	2
777	Lincoln-Carltons	-	1	6	1

Appendix F – Network Observed / Modelled JT Distance

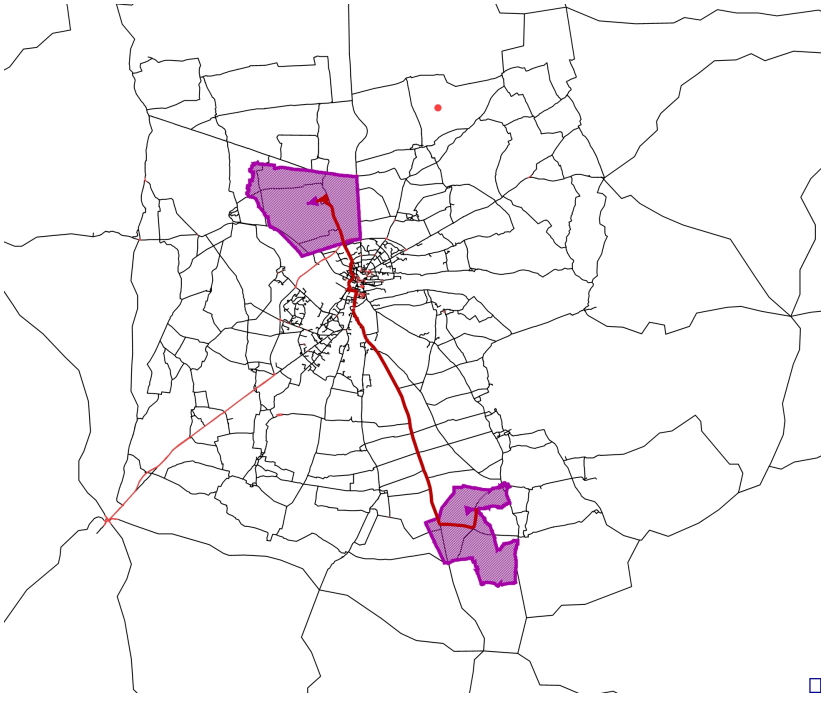
Route	Description	Direction	Observed Distance (km)	Modelled Distance (km)	Diff. %
1	B1182 Ruskin Ave/A15 Wragby Rd to A1434 Newark Rd/B1003 Tritton Rd	SB	8.61	8.65	0.46%
		NB	8.54	8.58	0.47%
2	Greetwell Rd/Fishkerton Rd to A113/A46	WB	47.00	47.07	0.15%
		EB	46.90	47.10	0.43%
3	B1189 Moor Ln to A57 Gainsborough Rd/B1190 Tom Otters Ln	NB	36.47	36.43	-0.11%
		SB	36.45	36.46	0.03%
4	Hopyard Ln/Navenby Ln to A1133 Newark Rd/A156	NB	34.54	34.52	-0.06%
		SB	34.63	34.61	-0.06%
5	B1189/B1191 Main St/Station Rd to A46 Lincoln Rd/Washdyke Ln	NB	25.97	26.05	0.31%
		SB	24.61	24.67	0.24%
6	B1191 Main St/B1189/Station Rd to A1434 Newark Rd/Boundary Ln	WB	28.74	28.76	0.07%
		EB	28.80	28.83	0.10%
7	A46/A1434 Newark Rd to Moor Ln/Fiskerton Rd	EB	19.73	19.77	0.20%
		WB	19.64	19.69	0.25%
8	A607 Cliff Rd/Skinnand Ln to A1500 Stow Park Rd/railway	NB	36.53	36.63	0.27%
		SB	36.85	36.93	0.22%
9	B1190 Branston Causway at river to B1378 Skellingthorpe Rd/Lincoln Rd	WB	21.29	21.30	0.05%
		EB	29.74	29.77	0.10%
10	B1190 Branston Causeway at river to A1500 Horncastle Ln/A15	NB	27.92	27.94	0.07%
		EB	27.95	27.94	-0.04%

Appendix G – Network Routing Plots and Checking

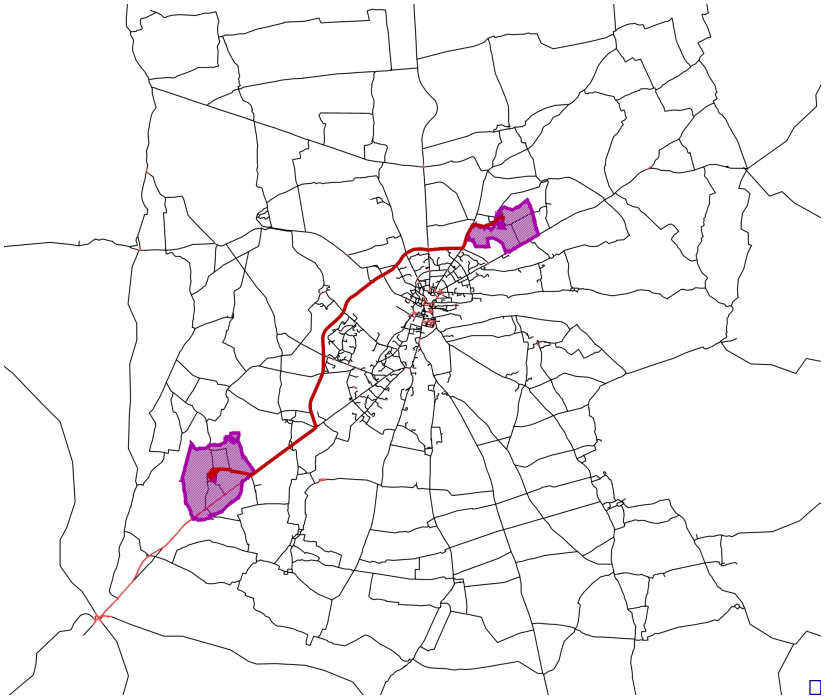
Shortest path check from Witham St Hughs to Langworth AM Peak



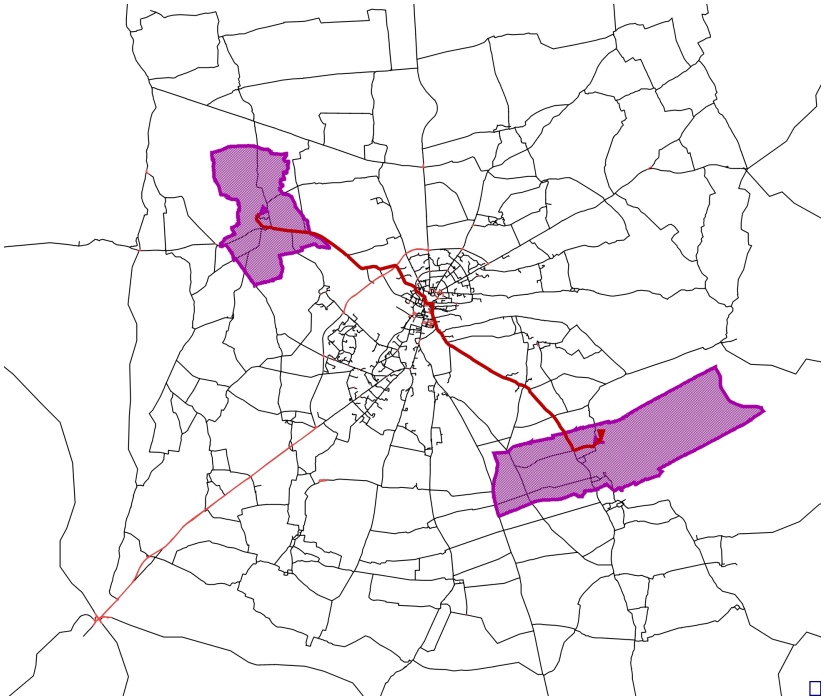
Shortest path check from Scopwick Heath to North Carlton AM Peak



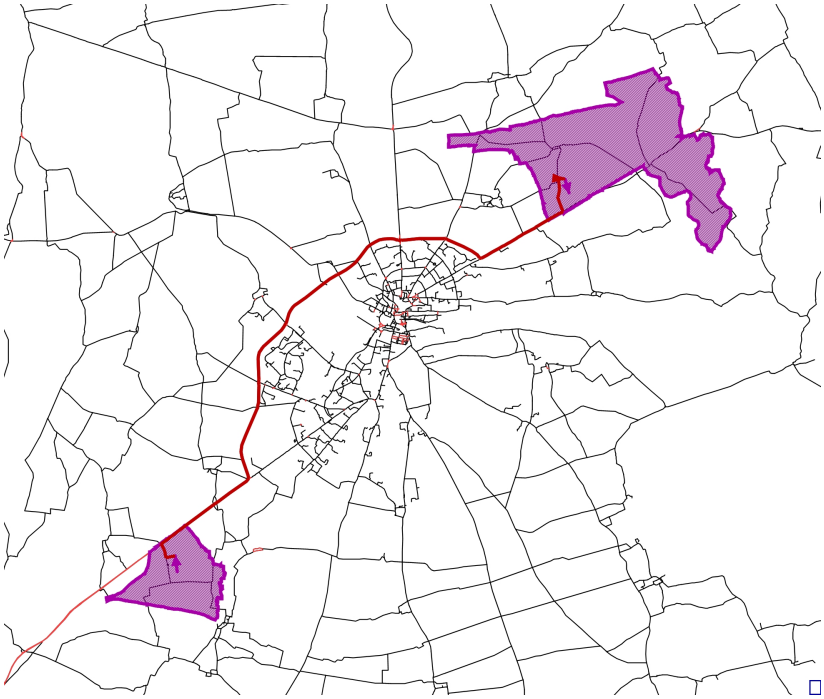
Shortest path check from Witham St Hughs to Langworth IP



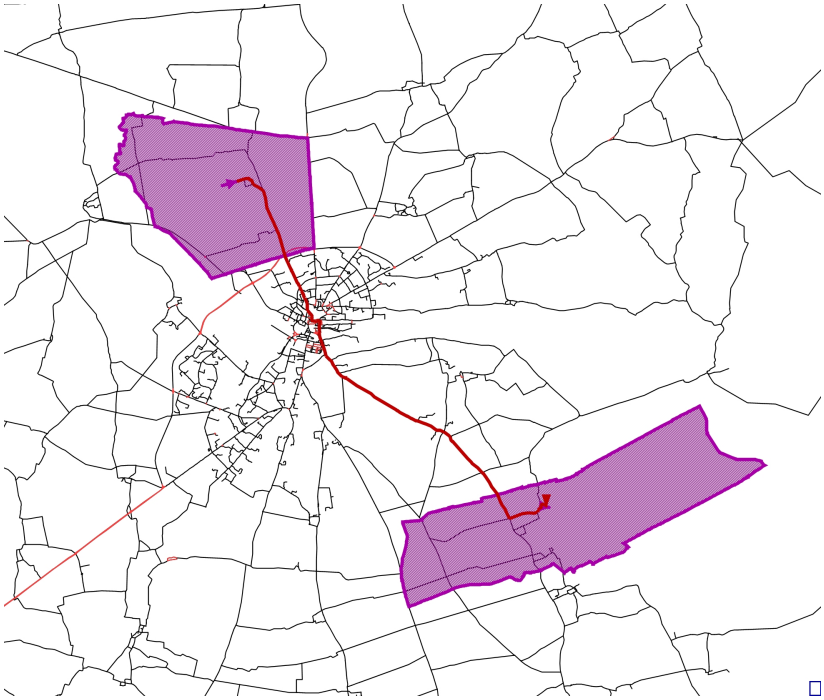
Shortest path check from Saxilby to Potter Hanworth IP



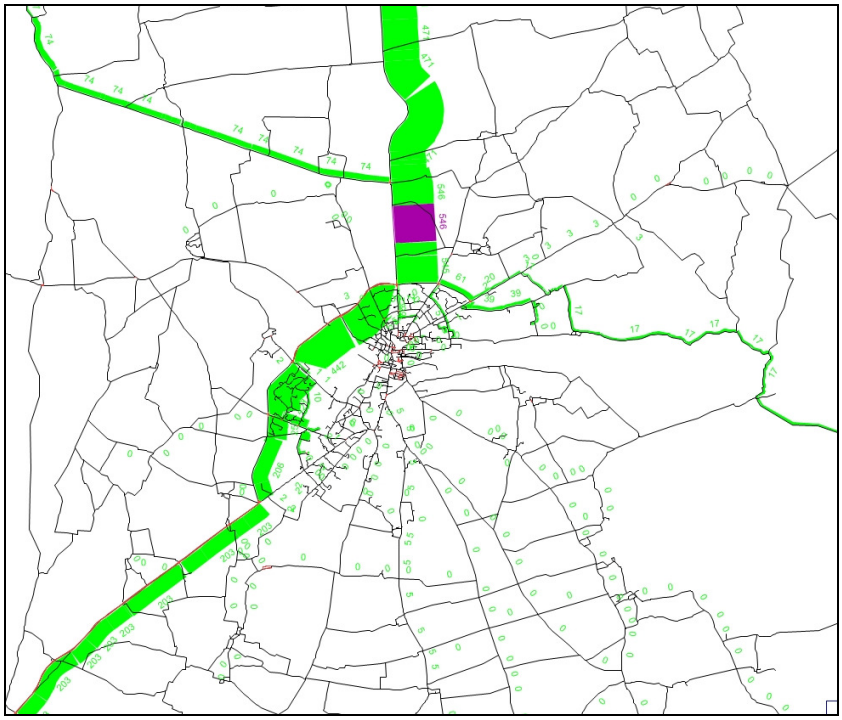
Shortest path check from Witham St Hughs to Langworth PM Peak



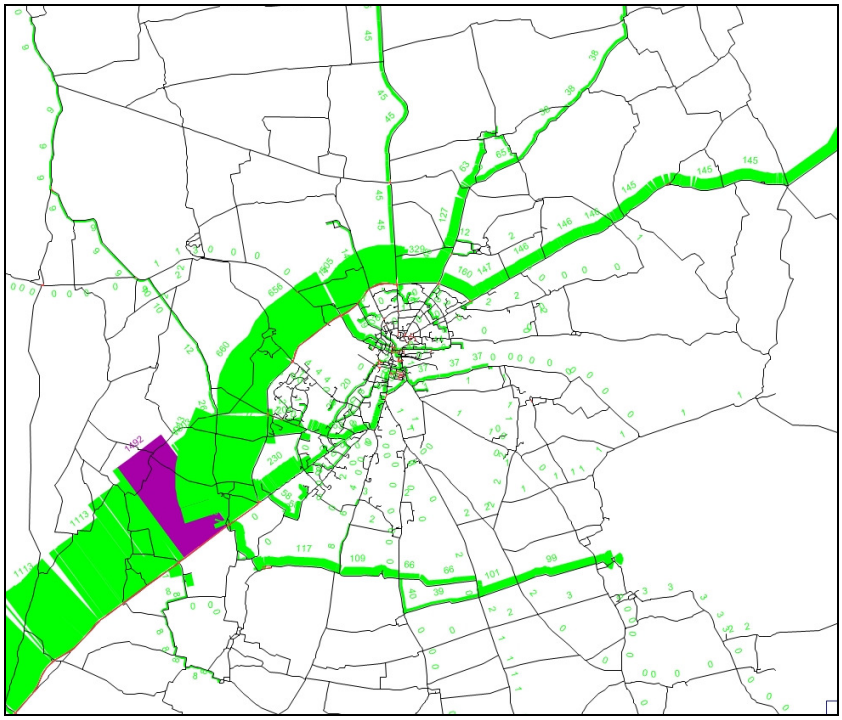
Shortest path check from North Carlton to Potter Hanworth PM Peak



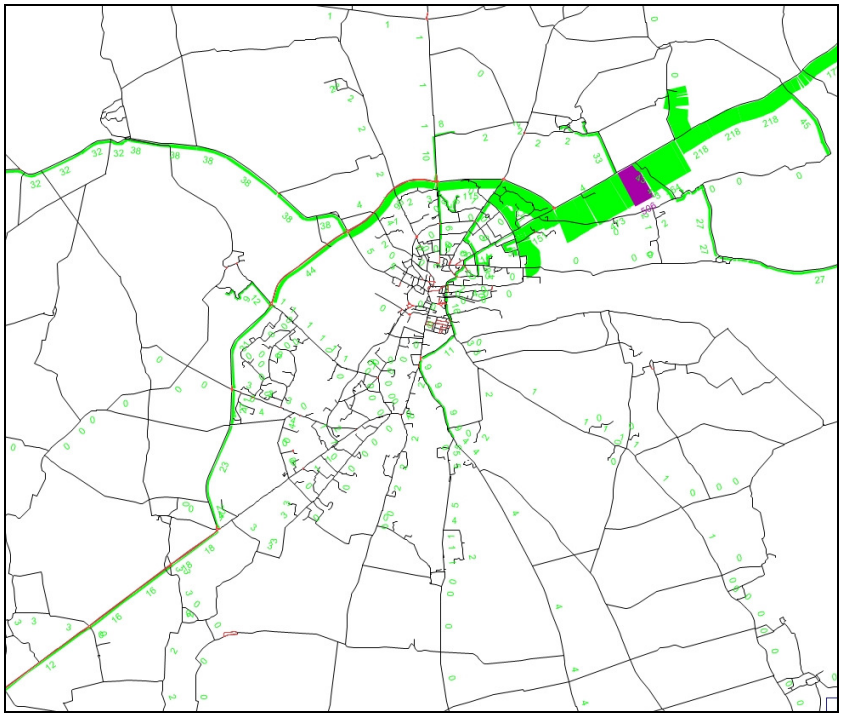
Select link analyses A15 Southbound AM



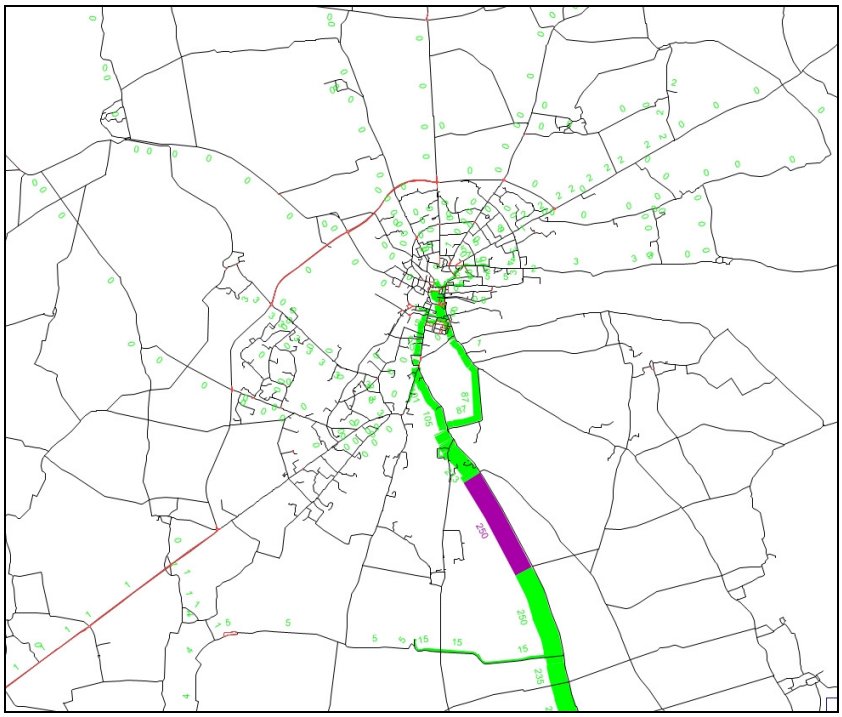
Select link analyses A46 Northbound AM



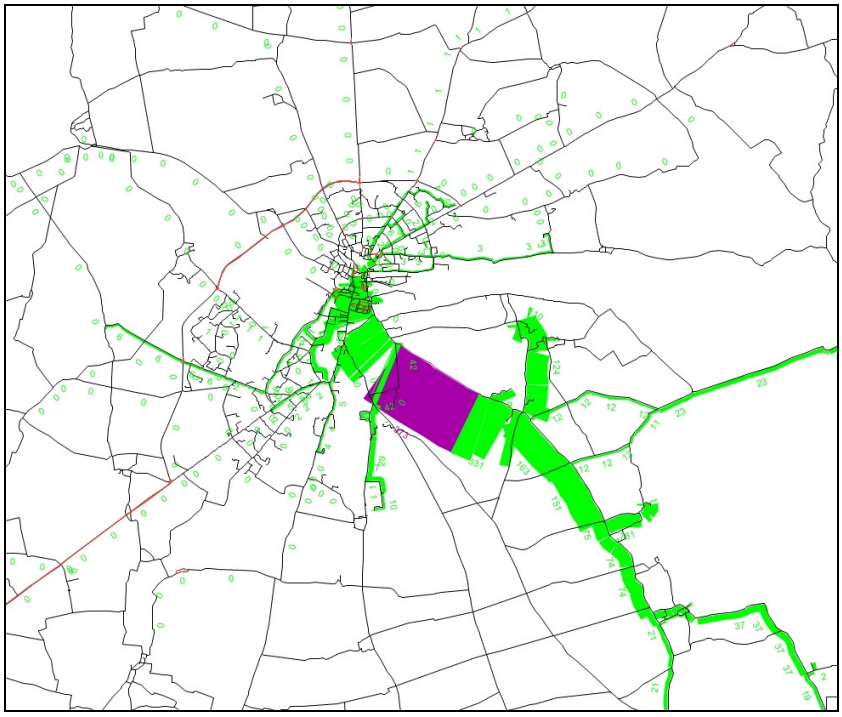
Select link analyses A158 Southbound IP



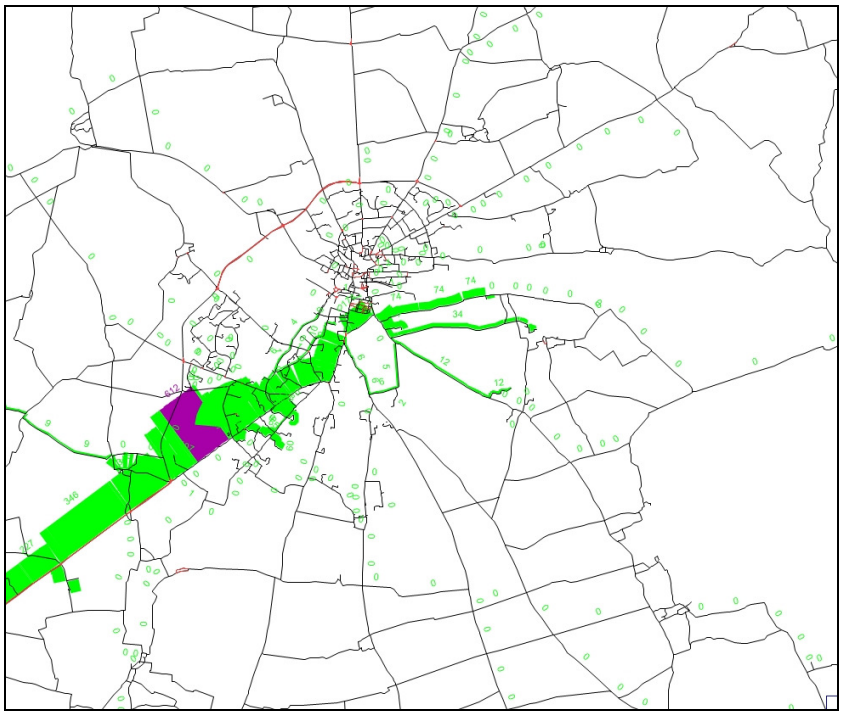
Select link analyses A15 Northbound IP



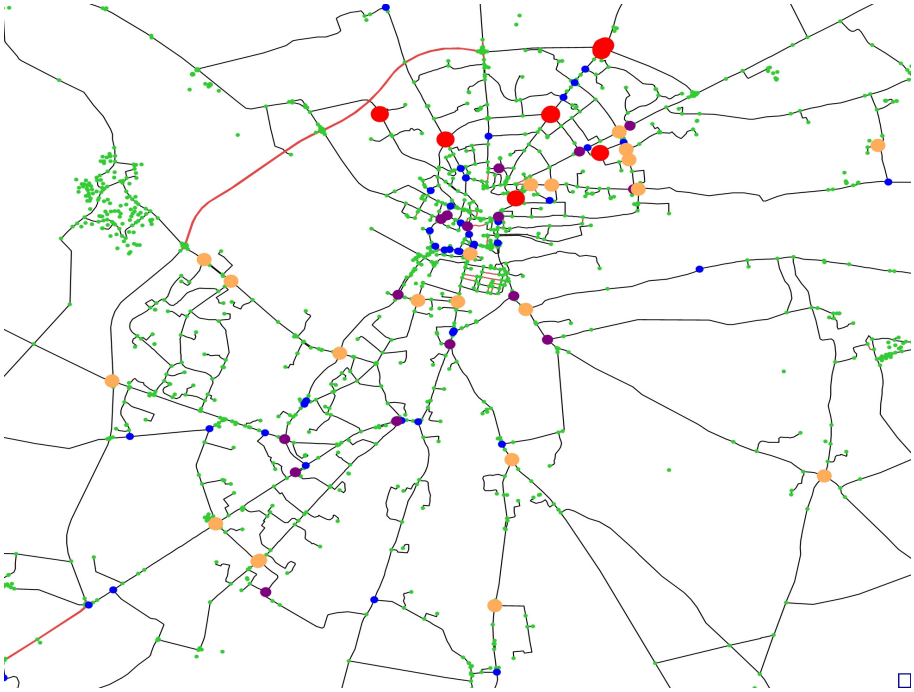
Select link analyses B1188 Northbound PM



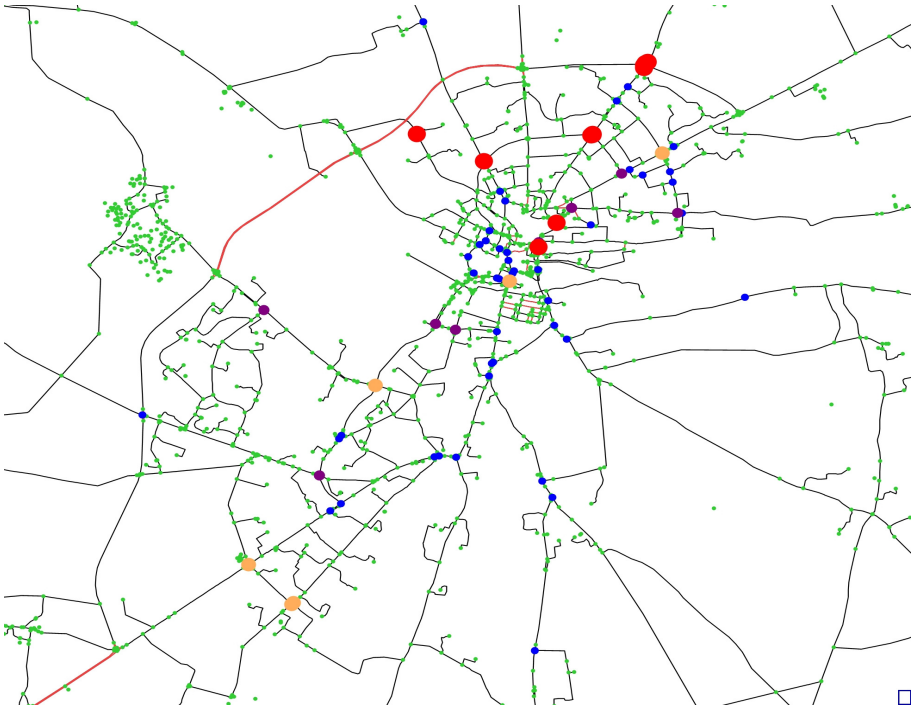
Select link analyses A1434 Northbound PM



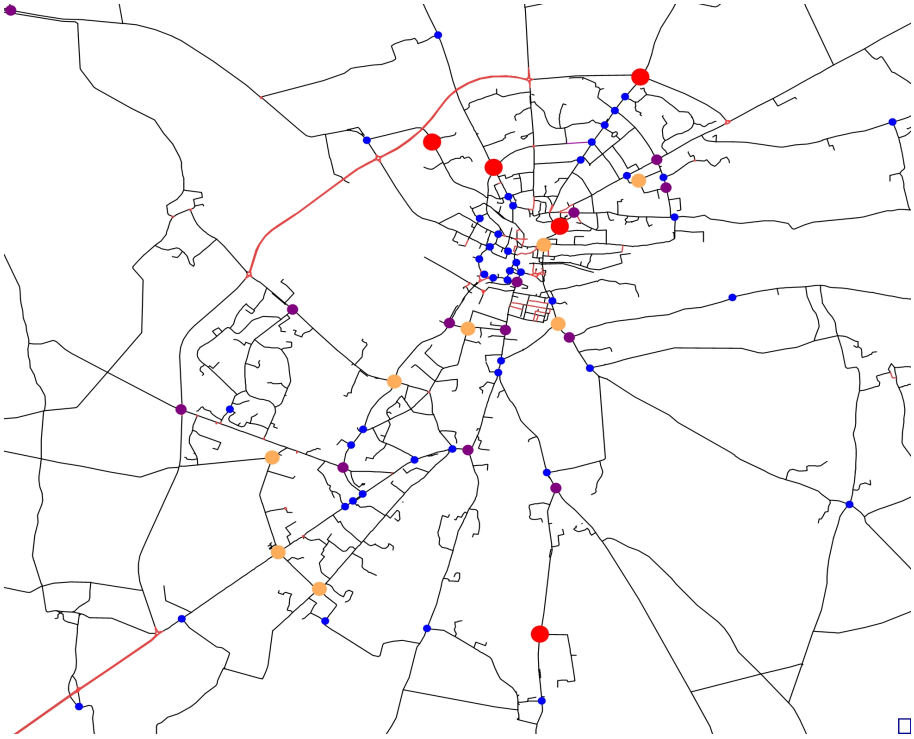
Junction Delay Check AM



Junction Delay Check IP



Junction Delay Check PM



Key to the map

Delay ≤ 10 seconds

10 ≤ delay ≤ 30 seconds

Appendix H – Matrix Build

Reserved - Not used – Reporting contained within main text

Appendix I – Screenline Calibration / Validation

Reserved - Not used – Reporting contained within main text

Appendix J – Link Based Calibration/Validation

Table N-1 – Screenline 1 – AM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A57 Saxilby Rd	NB	340	404	-64	-64.00	3.32	Pass	Pass
B1398 Middle St	NB	166	109	57	57.00	4.86	Pass	Pass
A15	NB	508	441	67	67.00	3.08	Pass	Pass
A46 Lincoln Rd	NB	652	594	58	58.00	2.32	Pass	Pass
A57 Saxilby Rd	SB	642	772	-130	-130.00	4.89	Fail	Pass
B1398 Middle St	SB	641	653	-12	-12.00	0.47	Pass	Pass
A15	SB	892	670	222	0.25	7.94	Fail	Fail
A46 Lincoln Rd	SB	1036	1067	-31	-0.03	0.96	Pass	Pass

Table N-2 – Screenline 2 – AM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A158 Wragby Rd	EB	471	449	22	22.00	1.03	Pass	Pass
Hawthorn Rd	EB	143	169	-26	-26.00	2.08	Pass	Pass
Greetwell Rd	EB	122	127	-5	-5.00	0.45	Pass	Pass
B1190 Washingborough	EB	123	121	2	2.00	0.18	Pass	Pass
Heighington Rd	EB	96	52	44	44.00	5.11	Pass	Fail
B1188 Lincoln Rd	EB	291	268	23	23.00	1.38	Pass	Pass
A15 Sleaford Rd	EB	506	492	14	14.00	0.63	Pass	Pass
A158 Wragby Rd	WB	607	700	-93	-93.00	3.64	Pass	Pass
Hawthorn Rd	WB	122	391	-269	-269.00	16.80	Fail	Fail
Greetwell Rd	WB	561	498	63	63.00	2.74	Pass	Pass
B1190 Washingborough	WB	441	434	7	7.00	0.33	Pass	Pass
Heighington Rd	WB	304	195	109	109.00	6.90	Fail	Fail
B1188 Lincoln Rd	WB	708	753	-45	-0.06	1.66	Pass	Pass
A15 Sleaford Rd	WB	571	485	86	86.00	3.74	Pass	Pass

Table N-3 – Screenline 3 – AM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Bloxholm Ln	NB	101	98	3	3.00	0.30	Pass	Pass
A15 Sleaford Rd	NB	474	387	87	87.00	4.19	Pass	Pass
A607 Grantham Rd	NB	420	406	14	14.00	0.69	Pass	Pass
Brant Rd	NB	357	444	-87	-87.00	4.35	Pass	Pass
Bloxholm Ln	SB	99	83	16	16.00	1.68	Pass	Pass
A15 Sleaford Rd	SB	411	410	1	1.00	0.05	Pass	Pass
A607 Grantham Rd	SB	565	520	45	45.00	1.93	Pass	Pass
Brant Rd	SB	411	480	-69	-69.00	3.27	Pass	Pass

Table N-4 – Screenline 4 – AM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Lincoln Rd	EB	390	387	3	3.00	0.15	Pass	Pass
A1434 Newark Rd	EB	626	601	25	25.00	1.01	Pass	Pass
B1190 Doddington Rd	EB	504	902	-398	-398.00	15.01	Fail	Fail
B1378 Skellingthorpe	EB	1067	724	343	0.32	11.46	Fail	Fail
A46	EB	1933	1799	134	0.07	3.10	Pass	Pass
Lincoln Rd	WB	308	294	14	14.00	0.81	Pass	Pass
A1434 Newark Rd	WB	597	573	24	24.00	0.99	Pass	Pass
B1190 Doddington Rd	WB	728	1009	-281	-0.39	9.54	Fail	Fail
B1378 Skellingthorpe	WB	553	503	50	50.00	2.18	Pass	Pass
A46	WB	1428	1334	94	0.07	2.53	Pass	Pass

Table N-5 – Screenline 5 – AM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A15 Canwick Rd	WB	308	294	14	14.00	0.81	Pass	Pass
B1262 High St	WB	597	573	24	24.00	0.99	Pass	Pass
Brayford Way	WB	728	1009	-281	-0.39	9.54	Fail	Fail
A46	WB	553	503	50	50.00	2.18	Pass	Pass
A15 Canwick Rd	NB	1994	1994	0	0.00	0.00	Pass	Pass
B1262 High St	NB	600	840	-240	-240.00	8.94	Fail	Fail
Brayford Way	NB	862	1237	-375	-0.44	11.58	Fail	Fail
A46	EB	1962	1799	163	0.08	3.76	Pass	Pass

Table N-6 – Screenline 6 – AM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A46	EB	981	965	16	0.02	0.51	Pass	Pass
Scopwick Pl	EB	250	312	-62	-62.00	3.70	Pass	Pass
B1273 Longdales Rd	EB	583	747	-164	-164.00	6.36	Fail	Fail
Newport	EB	352	236	116	116.00	6.77	Fail	Fail
Mildmay St	EB	31	64	-33	-33.00	4.79	Pass	Pass
Burton Rd	EB	501	406	95	95.00	4.46	Pass	Pass
Upper Long Leys Rd	EB	19	0	19	19.00	6.16	Pass	Fail
Carline Rd	EB	87	23	64	64.00	8.63	Pass	Fail
B1308 West Parade	EB	424	458	-34	-34.00	1.62	Pass	Pass
A57 Newland	EB	879	993	-114	-0.13	3.73	Pass	Pass
Brayford Wharf North	EB	51	0	51	51.00	10.10	Pass	Fail
B1003 Ropewalk	EB	698	588	110	110.00	4.34	Fail	Pass
Beevor St	EB	165	153	12	12.00	0.95	Pass	Pass
B1360 Valentine Rd	EB	429	357	72	72.00	3.63	Pass	Pass
Skellingthorpe Rd	EB	282	388	-106	-106.00	5.79	Fail	Fail
Moorland Ave	EB	263	275	-12	-12.00	0.73	Pass	Pass
B1190 Doddington Rd	EB	181	83	98	98.00	8.53	Pass	Fail
A1434 Newark Rd	EB	462	917	-455	-455.00	17.33	Fail	Fail
Hykeham Rd	EB	429	280	149	149.00	7.91	Fail	Fail
A46	WB	805	837	-32	-0.04	1.12	Pass	Pass
Scopwick Pl	WB	213	185	28	28.00	1.98	Pass	Pass
B1273 Longdales Rd	WB	763	790	-27	-0.04	0.97	Pass	Pass

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Newport	WB	127	107	20	20.00	1.85	Pass	Pass
Mildmay St	WB	72	92	-20	-20.00	2.21	Pass	Pass
Burton Rd	WB	37	59	-22	-22.00	3.18	Pass	Pass
Upper Long Leys Rd	WB	105	143	-38	-38.00	3.41	Pass	Pass
Carline Rd	WB	33	28	5	5.00	0.91	Pass	Pass
B1308 West Parade	WB	393	609	-216	-216.00	9.65	Fail	Fail
A57 Newland	WB	490	280	210	210.00	10.70	Fail	Fail
Brayford Wharf North	WB	11	0	11	11.00	4.69	Pass	Pass
B1003 Ropewalk	WB	294	588	-294	-294.00	14.00	Fail	Fail
Beevor St	WB	78	100	-22	-22.00	2.33	Pass	Pass
B1360 Valentine Rd	WB	676	330	346	346.00	15.43	Fail	Fail
Skellingthorpe Rd	WB	278	408	-130	-130.00	7.02	Fail	Fail
Moorland Ave	WB	365	409	-44	-44.00	2.24	Pass	Pass
B1190 Doddington Rd	WB	428	427	1	1.00	0.05	Pass	Pass
A1434 Newark Rd	WB	300	250	50	50.00	3.02	Pass	Pass
Hykeham Rd	WB	555	602	-47	-47.00	1.95	Pass	Pass

Table N-7 – Screenline 7 – AM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A158	EB	820	644	176	0.21	6.51	Fail	Fail
Wolsey Way	EB	133	109	24	24.00	2.18	Pass	Pass
Outer Circle Dr	EB	301	246	55	55.00	3.33	Pass	Pass
Oval Approach	EB	56	55	1	1.00	0.13	Pass	Pass
B1182 Ruskin Ave	EB	565	630	-65	-65.00	2.66	Pass	Pass
Byron Ave	EB	99	72	27	27.00	2.92	Pass	Pass
Lee Rd	EB	512	470	42	42.00	1.90	Pass	Pass
East Gate	EB	77	113	-36	-36.00	3.69	Pass	Pass
A15 Wragby Rd	EB	972	847	125	0.13	4.14	Pass	Pass
B1308 Monks Rd	EB	467	583	-116	-116.00	5.06	Fail	Fail
Croft St	EB	155	0	155	155.00	17.61	Fail	Fail
Waterside North	EB	26	71	-45	-45.00	6.46	Pass	Fail
Waterside South	EB	53	116	-63	-63.00	6.85	Pass	Fail
Great Northern Terrace	EB	319	437	-118	-118.00	6.07	Fail	Fail
Washingtonborough Rd	EB	125	121	4	4.00	0.36	Pass	Pass
Heightington Rd	EB	64	52	12	12.00	1.58	Pass	Pass
A158	WB	675	510	165	165.00	6.78	Fail	Fail
Wolsey Way	WB	194	165	29	29.00	2.16	Pass	Pass
Outer Circle Dr	WB	182	193	-11	-11.00	0.80	Pass	Pass
Oval Approach	WB	63	76	-13	-13.00	1.56	Pass	Pass
B1182 Ruskin Ave	WB	808	560	248	0.31	9.48	Fail	Fail
Byron Ave	WB	35	76	-41	-41.00	5.50	Pass	Fail

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Lee Rd	WB	219	182	37	37.00	2.61	Pass	Pass
East Gate	WB	224	275	-51	-51.00	3.23	Pass	Pass
A15 Wragby Rd	WB	625	1102	-477	-477.00	16.23	Fail	Fail
Lindum Terrace	WB	106	58	48	48.00	5.30	Pass	Fail
B1308 Monks Rd	WB	349	521	-172	-172.00	8.25	Fail	Fail
Croft St	WB	351	200	151	151.00	9.10	Fail	Fail
Waterside North	WB	147	212	-65	-65.00	4.85	Pass	Pass
Waterside South	WB	178	88	90	90.00	7.80	Pass	Fail
Great Northern Terrace	WB	122	128	-6	-6.00	0.54	Pass	Pass
Washingtonborough Rd	WB	448	434	14	14.00	0.67	Pass	Pass
Heightington Rd	WB	110	195	-85	-85.00	6.88	Pass	Fail

Table N-8 – Screenline 1 – Inter Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A57 Saxilby Rd	NB	499	534	-35	-35.00	1.54	Pass	Pass
B1398 Middle St	NB	180	150	30	30.00	2.34	Pass	Pass
A15	NB	480	501	-21	-21.00	0.95	Pass	Pass
A46 Lincoln Rd	NB	525	524	1	1.00	0.04	Pass	Pass
A57 Saxilby Rd	SB	487	499	-12	-12.00	0.54	Pass	Pass
B1398 Middle St	SB	186	149	37	37.00	2.86	Pass	Pass
A15	SB	483	519	-36	-36.00	1.61	Pass	Pass
A46 Lincoln Rd	SB	549	547	2	2.00	0.09	Pass	Pass

Table N-9 – Screenline 2 – Inter Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A158 Wragby Rd	EB	530	543	-13	-13.00	0.56	Pass	Pass
Hawthorn Rd	EB	143	172	-29	-29.00	2.31	Pass	Pass
Greetwell Rd	EB	200	190	10	10.00	0.72	Pass	Pass
B1190 Washingborough	EB	166	163	3	3.00	0.23	Pass	Pass
Heighington Rd	EB	151	107	44	44.00	3.87	Pass	Pass
B1188 Lincoln Rd	EB	367	355	12	12.00	0.63	Pass	Pass
A15 Sleaford Rd	EB	292	290	2	2.00	0.12	Pass	Pass
A158 Wragby Rd	WB	513	525	-12	-12.00	0.53	Pass	Pass
Hawthorn Rd	WB	122	160	-38	-38.00	3.20	Pass	Pass
Greetwell Rd	WB	189	177	12	12.00	0.89	Pass	Pass
B1190 Washingborough	WB	224	209	15	15.00	1.02	Pass	Pass
Heighington Rd	WB	89	99	-10	-10.00	1.03	Pass	Pass
B1188 Lincoln Rd	WB	352	337	15	15.00	0.81	Pass	Pass
A15 Sleaford Rd	WB	279	302	-23	-23.00	1.35	Pass	Pass

Table N-10 – Screenline 3 – Inter Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Bloxholm Ln	NB	35	31	4	4.00	0.70	Pass	Pass
A15 Sleaford Rd	NB	245	271	-26	-26.00	1.62	Pass	Pass
A607 Grantham Rd	NB	306	271	35	35.00	2.06	Pass	Pass
Brant Rd	NB	226	254	-28	-28.00	1.81	Pass	Pass
Bloxholm Ln	SB	41	25	16	16.00	2.79	Pass	Pass
A15 Sleaford Rd	SB	252	265	-13	-13.00	0.81	Pass	Pass
A607 Grantham Rd	SB	286	279	7	7.00	0.42	Pass	Pass
Brant Rd	SB	411	374	37	37.00	1.87	Pass	Pass

Table N-11 – Screenline 4 – Inter Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Lincoln Rd	EB	269	291	-22	-22.00	1.31	Pass	Pass
A1434 Newark Rd	EB	617	574	43	43.00	1.76	Pass	Pass
B1190 Doddington Rd	EB	525	658	-133	-133.00	5.47	Fail	Fail
B1378 Skellingthorpe	EB	369	355	14	14.00	0.74	Pass	Pass
A46	EB	1025	1040	-15	-0.01	0.47	Pass	Pass
Lincoln Rd	WB	260	250	10	10.00	0.63	Pass	Pass
A1434 Newark Rd	WB	590	482	108	108.00	4.66	Fail	Pass
B1190 Doddington Rd	WB	544	738	-194	-194.00	7.66	Fail	Fail
B1378 Skellingthorpe	WB	458	353	105	105.00	5.21	Fail	Fail
A46	WB	1044	1144	-100	-0.10	3.02	Pass	Pass

Table N-12 – Screenline 5 – Inter Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	Flow
A15 Canwick Rd	NB	1202	1348	-146	-0.12	4.09	Pass	Pass
B1262 High St	NB	600	611	-11	-11.00	0.45	Pass	Pass
Brayford Way	NB	845	900	-55	-0.07	1.86	Pass	Pass
A46	EB	1080	1040	40	0.04	1.23	Pass	Pass
A15 Canwick Rd	SB	1341	1371	-30	-0.02	0.81	Pass	Pass
B1262 High St	SB	380	525	-145	-145.00	6.82	Fail	Fail
Brayford Way	SB	899	848	51	0.06	1.73	Pass	Pass
A46	WB	1100	1144	-44	-0.04	1.31	Pass	Pass

Table N-13 – Screenline 6 – Inter Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A46	EB	779	736	43	0.06	1.56	Pass	Pass
Scopwick Pl	EB	170	239	-69	-69.00	4.83	Pass	Pass
B1273 Longdales Rd	EB	547	589	-42	-42.00	1.76	Pass	Pass
Newport	EB	261	87	174	174.00	13.19	Fail	Fail
Mildmay St	EB	51	41	10	10.00	1.47	Pass	Pass
Burton Rd	EB	21	159	-138	-138.00	14.55	Fail	Fail
Upper Long Leys Rd	EB	70	0	70	70.00	11.83	Pass	Fail
Carline Rd	EB	14	12	2	2.00	0.55	Pass	Pass
B1308 West Parade	EB	283	373	-90	-90.00	4.97	Pass	Pass
A57 Newland	EB	668	648	20	20.00	0.78	Pass	Pass
Brayford Wharf North	EB	6	0	6	6.00	3.46	Pass	Pass
B1003 Ropewalk	EB	498	328	170	170.00	8.37	Fail	Fail
Beevor St	EB	65	162	-97	-97.00	9.10	Pass	Fail
B1360 Valentine Rd	EB	570	303	267	267.00	12.78	Fail	Fail
Skellingthorpe Rd	EB	291	266	25	25.00	1.50	Pass	Pass
Moorland Ave	EB	209	228	-19	-19.00	1.29	Pass	Pass
B1190 Doddington Rd	EB	242	267	-25	-25.00	1.57	Pass	Pass
A1434 Newark Rd	EB	382	404	-22	-22.00	1.11	Pass	Pass
Hykeham Rd	EB	118	269	-151	-151.00	10.86	Fail	Fail
A46	WB	885	843	42	0.05	1.43	Pass	Pass
Scopwick Pl	WB	177	152	25	25.00	1.95	Pass	Pass
B1273 Longdales Rd	WB	545	663	-118	-118.00	4.80	Fail	Pass

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Newport	WB	179	155	24	24.00	1.86	Pass	Pass
Mildmay St	WB	50	43	7	7.00	1.03	Pass	Pass
Burton Rd	WB	72	89	-17	-17.00	1.89	Pass	Pass
Upper Long Leys Rd	WB	72	85	-13	-13.00	1.47	Pass	Pass
Carline Rd	WB	20	14	6	6.00	1.46	Pass	Pass
B1308 West Parade	WB	390	627	-237	-237.00	10.51	Fail	Fail
A57 Newland	WB	427	253	174	174.00	9.44	Fail	Fail
Brayford Wharf North	WB	7	0	7	7.00	3.74	Pass	Pass
B1003 Ropewalk	WB	602	659	-57	-57.00	2.27	Pass	Pass
Beevor St	WB	78	83	-5	-5.00	0.56	Pass	Pass
B1360 Valentine Rd	WB	579	194	385	385.00	19.58	Fail	Fail
Skellingthorpe Rd	WB	271	275	-4	-4.00	0.24	Pass	Pass
Moorland Ave	WB	146	218	-72	-72.00	5.34	Pass	Fail
B1190 Doddington Rd	WB	272	266	6	6.00	0.37	Pass	Pass
A1434 Newark Rd	WB	399	165	234	234.00	13.93	Fail	Fail
Hykeham Rd	WB	289	337	-48	-48.00	2.71	Pass	Pass

Table N-14 – Screenline 7 – Inter Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A158	EB	644	637	7	7.00	0.28	Pass	Pass
Wolsey Way	EB	130	103	27	27.00	2.50	Pass	Pass
Outer Circle Dr	EB	262	172	90	90.00	6.11	Pass	Fail
Oval Approach	EB	18	44	-26	-26.00	4.67	Pass	Pass
B1182 Ruskin Ave	EB	511	467	44	44.00	1.99	Pass	Pass
Byron Ave	EB	23	25	-2	-2.00	0.41	Pass	Pass
Lee Rd	EB	344	351	-7	-7.00	0.38	Pass	Pass
East Gate	EB	96	127	-31	-31.00	2.94	Pass	Pass
A15 Wragby Rd	EB	890	823	67	0.08	2.29	Pass	Pass
B1308 Monks Rd	EB	417	422	-5	-5.00	0.24	Pass	Pass
Croft St	EB	182	88	94	94.00	8.09	Pass	Fail
Waterside North	EB	12	92	-80	-80.00	11.09	Pass	Fail
Waterside South	EB	51	78	-27	-27.00	3.36	Pass	Pass
Great Northern Terrace	EB	231	257	-26	-26.00	1.66	Pass	Pass
Washingtonborough Rd	EB	175	163	12	12.00	0.92	Pass	Pass
Heightington Rd	EB	124	107	17	17.00	1.58	Pass	Pass
A158	WB	664	697	-33	-33.00	1.27	Pass	Pass
Wolsey Way	WB	196	119	77	77.00	6.14	Pass	Fail
Outer Circle Dr	WB	333	286	47	47.00	2.67	Pass	Pass
Oval Approach	WB	146	49	97	97.00	9.82	Pass	Fail
B1182 Ruskin Ave	WB	499	420	79	79.00	3.69	Pass	Pass
Byron Ave	WB	181	43	138	138.00	13.04	Fail	Fail

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Lee Rd	WB	139	102	37	37.00	3.37	Pass	Pass
East Gate	WB	372	137	235	235.00	14.73	Fail	Fail
A15 Wragby Rd	WB	532	1125	-593	-593.00	20.60	Fail	Fail
Lindum Terrace	WB	64	156	-92	-92.00	8.77	Pass	Fail
B1308 Monks Rd	WB	456	526	-70	-70.00	3.16	Pass	Pass
Croft St	WB	213	199	14	14.00	0.98	Pass	Pass
Waterside North	WB	134	171	-37	-37.00	3.00	Pass	Pass
Waterside South	WB	53	71	-18	-18.00	2.29	Pass	Pass
Great Northern Terrace	WB	203	147	56	56.00	4.23	Pass	Pass
Washingtonborough Rd	WB	224	209	15	15.00	1.02	Pass	Pass
Heightington Rd	WB	177	99	78	78.00	6.64	Pass	Fail

Table N-15 – Screenline 1 – PM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A57 Saxilby Rd	NB	590	538	52	52.00	2.19	Pass	Pass
B1398 Middle St	NB	608	596	12	12.00	0.49	Pass	Pass
A15	NB	620	434	186	186.00	8.10	Fail	Fail
A46 Lincoln Rd	NB	1025	1072	-47	-0.05	1.45	Pass	Pass
A57 Saxilby Rd	SB	556	684	-128	-128.00	5.14	Fail	Fail
B1398 Middle St	SB	276	343	-67	-67.00	3.81	Pass	Pass
A15	SB	664	412	252	252.00	10.86	Fail	Fail
A46 Lincoln Rd	SB	563	630	-67	-67.00	2.74	Pass	Pass

Table N-16 – Screenline 2 – PM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A158 Wragby Rd	EB	776	792	-16	-0.02	0.57	Pass	Pass
Hawthorn Rd	EB	229	327	-98	-98.00	5.88	Pass	Fail
Greetwell Rd	EB	506	433	73	73.00	3.37	Pass	Pass
B1190 Washingborough	EB	295	400	-105	-105.00	5.63	Fail	Fail
Heighington Rd	EB	343	140	203	203.00	13.06	Fail	Fail
B1188 Lincoln Rd	EB	681	660	21	21.00	0.81	Pass	Pass
A15 Sleaford Rd	EB	555	643	-88	-88.00	3.60	Pass	Pass
A158 Wragby Rd	WB	542	570	-28	-28.00	1.19	Pass	Pass
Hawthorn Rd	WB	108	134	-26	-26.00	2.36	Pass	Pass
Greetwell Rd	WB	127	139	-12	-12.00	1.04	Pass	Pass
B1190 Washingborough	WB	272	224	48	48.00	3.05	Pass	Pass
Heighington Rd	WB	88	120	-32	-32.00	3.14	Pass	Pass
B1188 Lincoln Rd	WB	349	309	40	40.00	2.21	Pass	Pass
A15 Sleaford Rd	WB	388	431	-43	-43.00	2.12	Pass	Pass

Table N-17 – Screenline 3 – PM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Bloxholm Ln	NB	76	57	19	19.00	2.33	Pass	Pass
A15 Sleaford Rd	NB	312	374	-62	-62.00	3.35	Pass	Pass
A607 Grantham Rd	NB	545	504	41	41.00	1.79	Pass	Pass
Brant Rd	NB	463	493	-30	-30.00	1.37	Pass	Pass
Bloxholm Ln	SB	108	48	60	60.00	6.79	Pass	Fail
A15 Sleaford Rd	SB	447	595	-148	-148.00	6.48	Fail	Fail
A607 Grantham Rd	SB	500	409	91	91.00	4.27	Pass	Pass
Brant Rd	SB	437	443	-6	-6.00	0.29	Pass	Pass

Table N-18 – Screenline 4 – PM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Lincoln Rd	EB	351	454	-103	-103.00	5.13	Fail	Fail
A1434 Newark Rd	EB	776	653	123	0.16	4.60	Fail	Pass
B1190 Doddington Rd	EB	670	852	-182	-182.00	6.60	Fail	Fail
B1378 Skellingthorpe	EB	398	664	-266	-266.00	11.54	Fail	Fail
A46	EB	1786	1527	259	0.15	6.36	Pass	Fail
Lincoln Rd	WB	359	286	73	73.00	4.06	Pass	Pass
A1434 Newark Rd	WB	665	459	206	206.00	8.69	Fail	Fail
B1190 Doddington Rd	WB	649	922	-273	-273.00	9.74	Fail	Fail
B1378 Skellingthorpe	WB	553	494	59	59.00	2.58	Pass	Pass
A46	WB	1873	1747	126	0.07	2.96	Pass	Pass

Table N-19 – Screenline 5 – PM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	Flow
A15 Canwick Rd	NB	1146	1289	-143	-0.12	4.10	Pass	Pass
B1262 High St	NB	600	649	-49	-49.00	1.96	Pass	Pass
Brayford Way	NB	1027	1073	-46	-0.04	1.42	Pass	Pass
A46	EB	1786	1527	259	0.15	6.36	Pass	Fail
A15 Canwick Rd	SB	1774	1754	20	0.01	0.48	Pass	Pass
B1262 High St	SB	480	551	-71	-71.00	3.13	Pass	Pass
Brayford Way	SB	1077	1051	26	0.02	0.80	Pass	Pass
A46	WB	1873	1747	126	0.07	2.96	Pass	Pass

Table N-20 – Screenline 6 – PM Peak

Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A46	EB	1055	922	133	0.13	4.23	Pass	Pass
Scopwick Pl	EB	220	246	-26	-26.00	1.70	Pass	Pass
B1273 Longdales Rd	EB	789	753	36	0.05	1.30	Pass	Pass
Newport	EB	286	40	246	246.00	19.27	Fail	Fail
Mildmay St	EB	113	45	68	68.00	7.65	Pass	Fail
Burton Rd	EB	4	193	-189	-189.00	19.04	Fail	Fail
Upper Long Leys Rd	EB	35	0	35	35.00	8.37	Pass	Fail
Carline Rd	EB	17	13	4	4.00	1.03	Pass	Pass
B1308 West Parade	EB	313	377	-64	-64.00	3.45	Pass	Pass
A57 Newland	EB	678	574	104	104.00	4.16	Fail	Pass
Brayford Wharf North	EB	3	0	3	3.00	2.45	Pass	Pass
B1003 Ropewalk	EB	344	237	107	107.00	6.28	Fail	Fail
Beevor St	EB	27	112	-85	-85.00	10.20	Pass	Fail
B1360 Valentine Rd	EB	732	442	290	0.40	11.97	Fail	Fail
Skellingthorpe Rd	EB	410	511	-101	-101.00	4.71	Fail	Pass
Moorland Ave	EB	259	218	41	41.00	2.65	Pass	Pass
B1190 Doddington Rd	EB	363	269	94	94.00	5.29	Pass	Fail
A1434 Newark Rd	EB	526	862	-336	-336.00	12.75	Fail	Fail
Hykeham Rd	EB	124	411	-287	-287.00	17.55	Fail	Fail
A46	WB	870	1020	-150	-0.17	4.88	Fail	Pass
Scopwick Pl	WB	196	100	96	96.00	7.89	Pass	Fail
B1273 Longdales Rd	WB	593	853	-260	-260.00	9.67	Fail	Fail

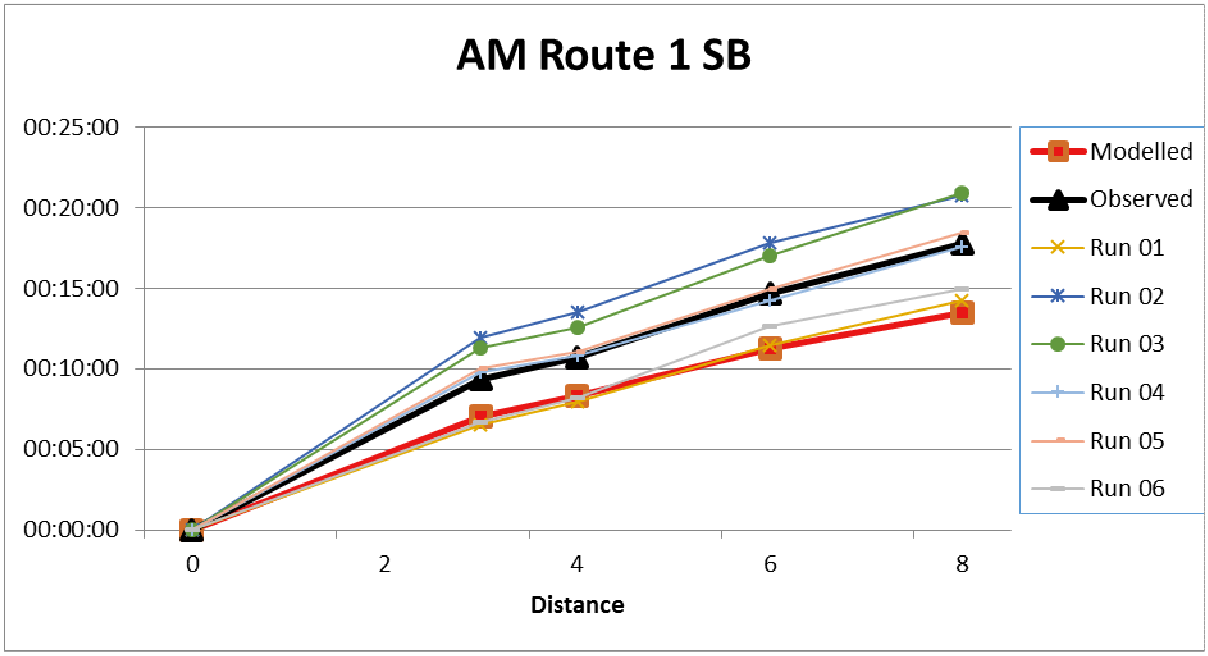
Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Newport	WB	273	210	63	63.00	4.05	Pass	Pass
Mildmay St	WB	49	49	0	0.00	0.00	Pass	Pass
Burton Rd	WB	129	187	-58	-58.00	4.61	Pass	Pass
Upper Long Leys Rd	WB	110	113	-3	-3.00	0.28	Pass	Pass
Carline Rd	WB	40	68	-28	-28.00	3.81	Pass	Pass
B1308 West Parade	WB	419	657	-238	-238.00	10.26	Fail	Fail
A57 Newland	WB	684	299	385	385.00	17.37	Fail	Fail
Brayford Wharf North	WB	62	0	62	62.00	11.14	Pass	Fail
B1003 Ropewalk	WB	701	1032	-331	-0.47	11.24	Fail	Fail
Beevor St	WB	85	84	1	1.00	0.11	Pass	Pass
B1360 Valentine Rd	WB	624	142	482	482.00	24.63	Fail	Fail
Skellingthorpe Rd	WB	270	283	-13	-13.00	0.78	Pass	Pass
Moorland Ave	WB	186	268	-82	-82.00	5.44	Pass	Fail
B1190 Doddington Rd	WB	318	193	125	125.00	7.82	Fail	Fail
A1434 Newark Rd	WB	428	152	276	276.00	16.21	Fail	Fail
Hykeham Rd	WB	408	470	-62	-62.00	2.96	Pass	Pass

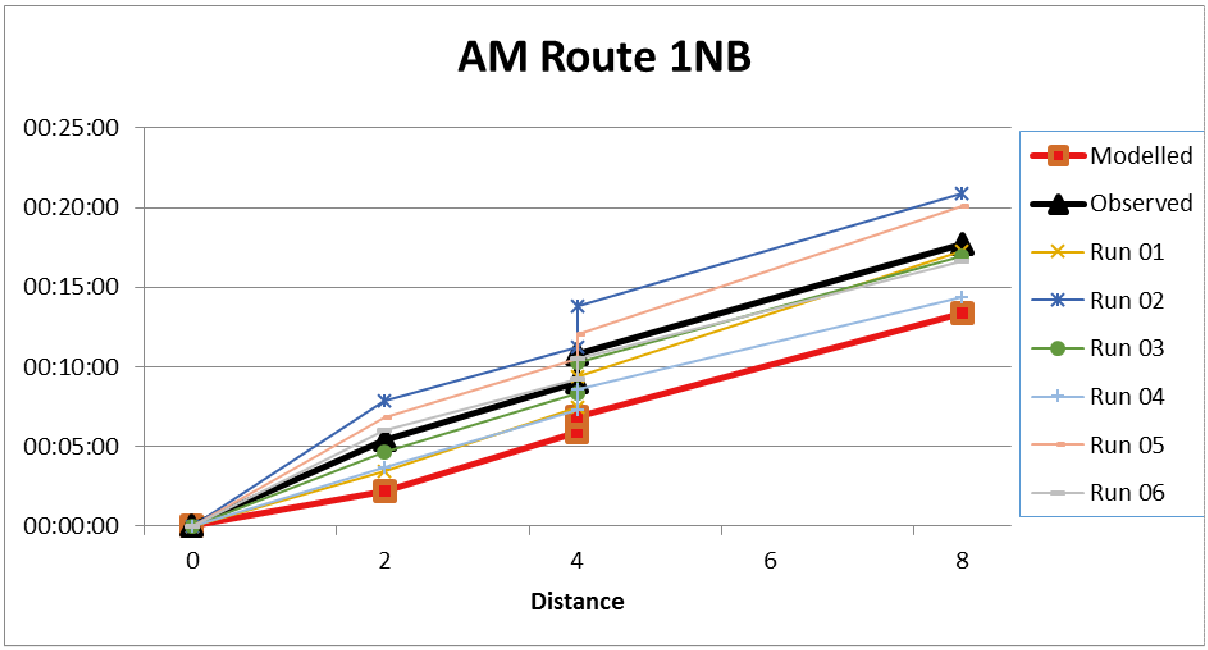
Table N-21 – Screenline 7 – PM Peak

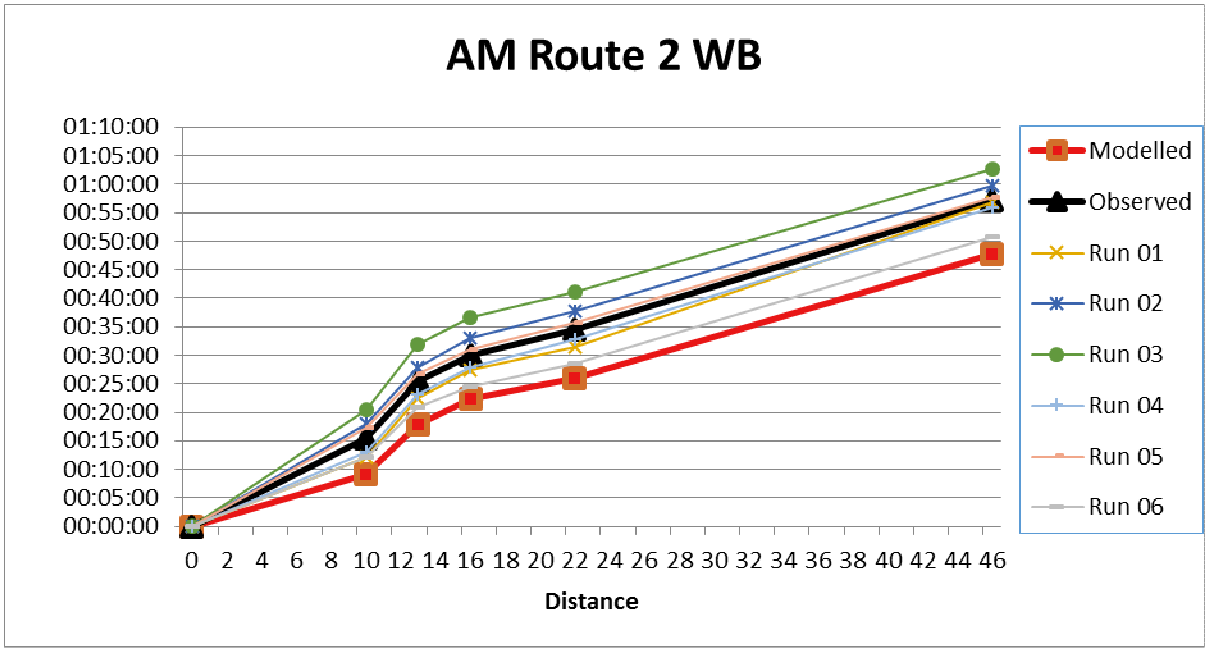
Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
A158	EB	745	643	102	0.14	3.87	Pass	Pass
Wolsey Way	EB	183	205	-22	-22.00	1.58	Pass	Pass
Outer Circle Dr	EB	339	192	147	147.00	9.02	Fail	Fail
Oval Approach	EB	51	39	12	12.00	1.79	Pass	Pass
B1182 Ruskin Ave	EB	823	551	272	0.33	10.38	Fail	Fail
Byron Ave	EB	176	159	17	17.00	1.31	Pass	Pass
Lee Rd	EB	399	360	39	39.00	2.00	Pass	Pass
East Gate	EB	58	70	-12	-12.00	1.50	Pass	Pass
A15 Wragby Rd	EB	929	892	37	0.04	1.23	Pass	Pass
Lindum Terrace	EB	0	0	0	0.00	0.00	Pass	0.00
B1308 Monks Rd	EB	392	471	-79	-79.00	3.80	Pass	Pass
Croft St	EB	181	54	127	127.00	11.72	Fail	Fail
Waterside North	EB	5	94	-89	-89.00	12.65	Pass	Fail
Waterside South	EB	102	50	52	52.00	5.96	Pass	Fail
Great Northern Terrace	EB	100	164	-64	-64.00	5.57	Pass	Fail
Washingtonborough Rd	EB	312	400	-88	-88.00	4.66	Pass	Pass
Heightington Rd	EB	245	140	105	105.00	7.57	Fail	Fail
A158	WB	895	772	123	0.14	4.26	Pass	Pass
Wolsey Way	WB	210	226	-16	-16.00	1.08	Pass	Pass
Outer Circle Dr	WB	377	229	148	148.00	8.50	Fail	Fail
Oval Approach	WB	21	45	-24	-24.00	4.18	Pass	Pass
B1182 Ruskin Ave	WB	574	471	103	103.00	4.51	Fail	Pass

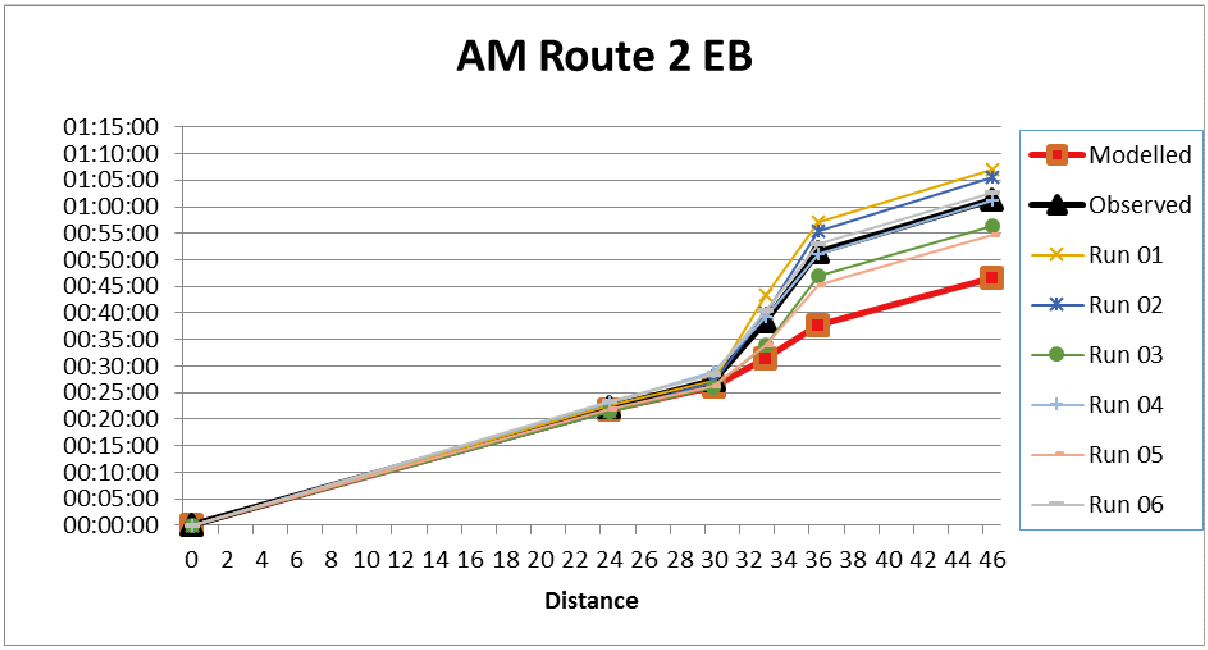
Location	Dir	Obs. Flow	Post Matrix Estimation					
			Mod. (PCU)	Diff. (PCU)	% Diff.	Ave. GEH	DMRB Criteria	
							Flow	GEH
Byron Ave	WB	0	25	-25	-25.00	7.07	Pass	Fail
Lee Rd	WB	282	277	5	5.00	0.30	Pass	Pass
East Gate	WB	186	153	33	33.00	2.53	Pass	Pass
A15 Wragby Rd	WB	1277	1242	35	0.03	0.99	Pass	Pass
Lindum Terrace	WB	193	156	37	37.00	2.80	Pass	Pass
B1308 Monks Rd	WB	461	509	-48	-48.00	2.18	Pass	Pass
Croft St	WB	296	203	93	93.00	5.89	Pass	Fail
Waterside North	WB	119	166	-47	-47.00	3.94	Pass	Pass
aterside South	WB	64	98	-34	-34.00	3.78	Pass	Pass
Great Northern Terrace	WB	212	180	32	32.00	2.29	Pass	Pass
Washingtonborough Rd	WB	308	224	84	84.00	5.15	Pass	Fail
Heightington Rd	WB	88	120	-32	-32.00	3.14	Pass	Pass

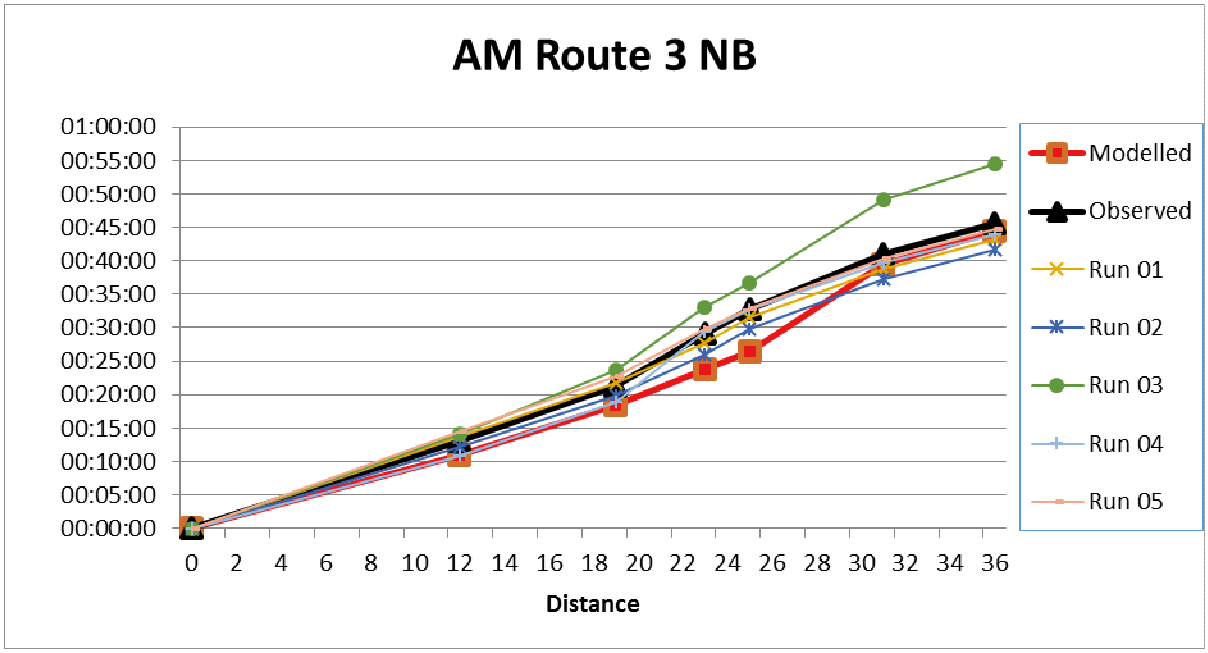
Appendix K – Journey Time Calibration / Validation

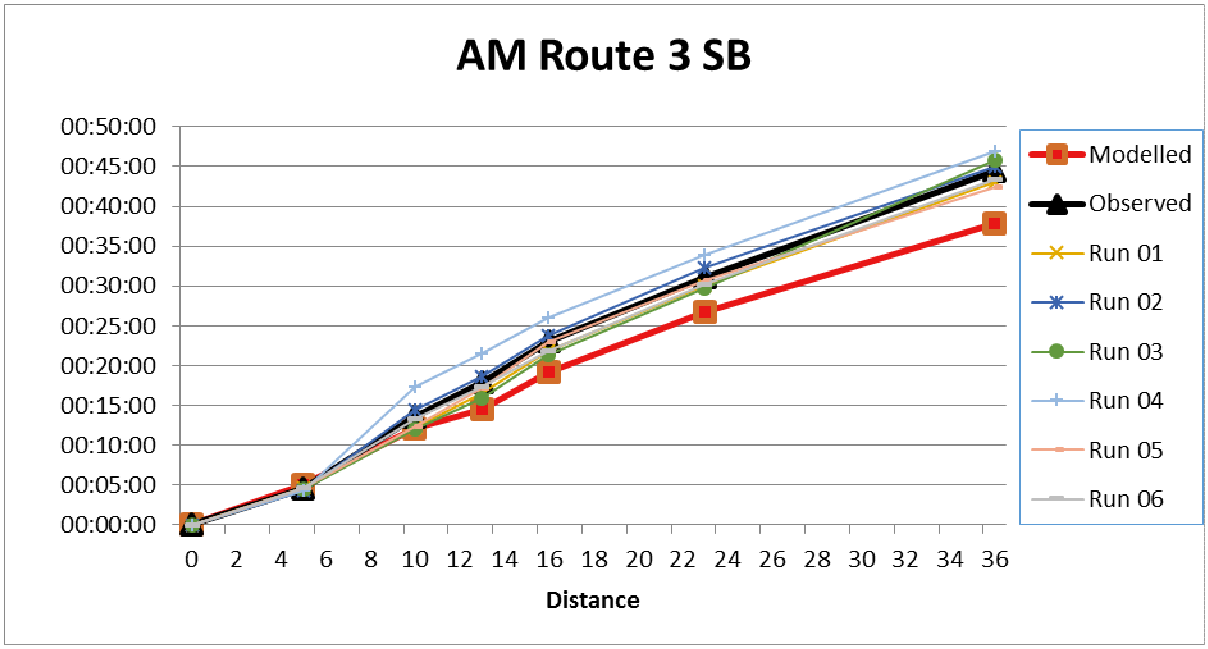


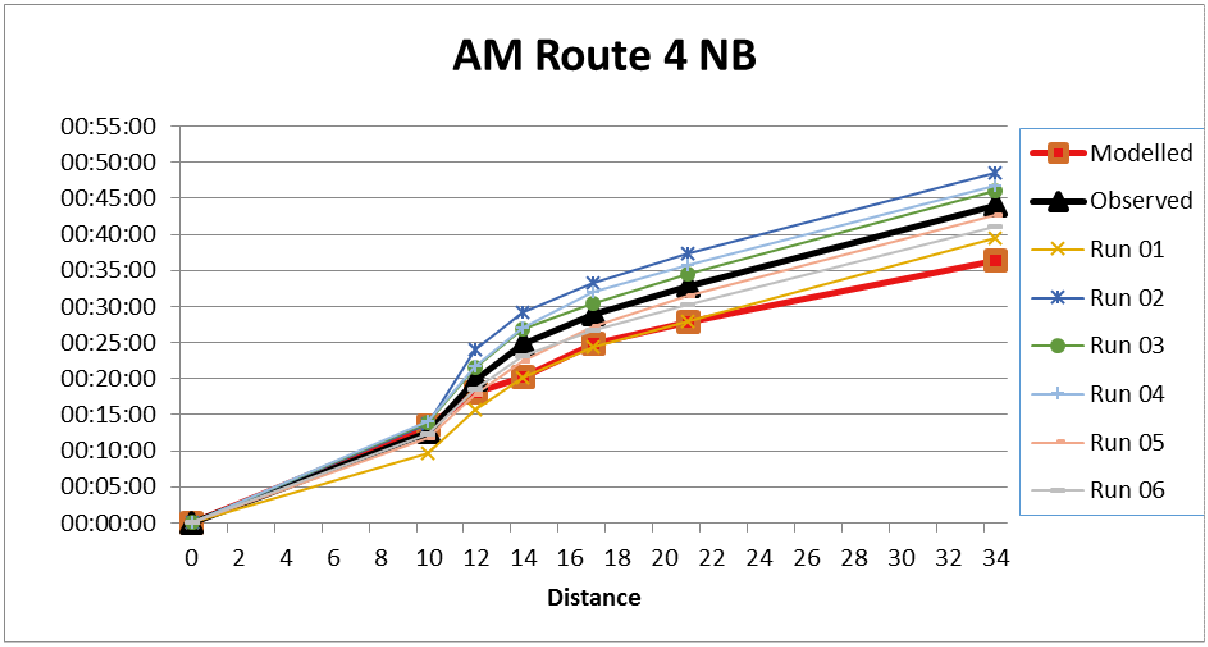


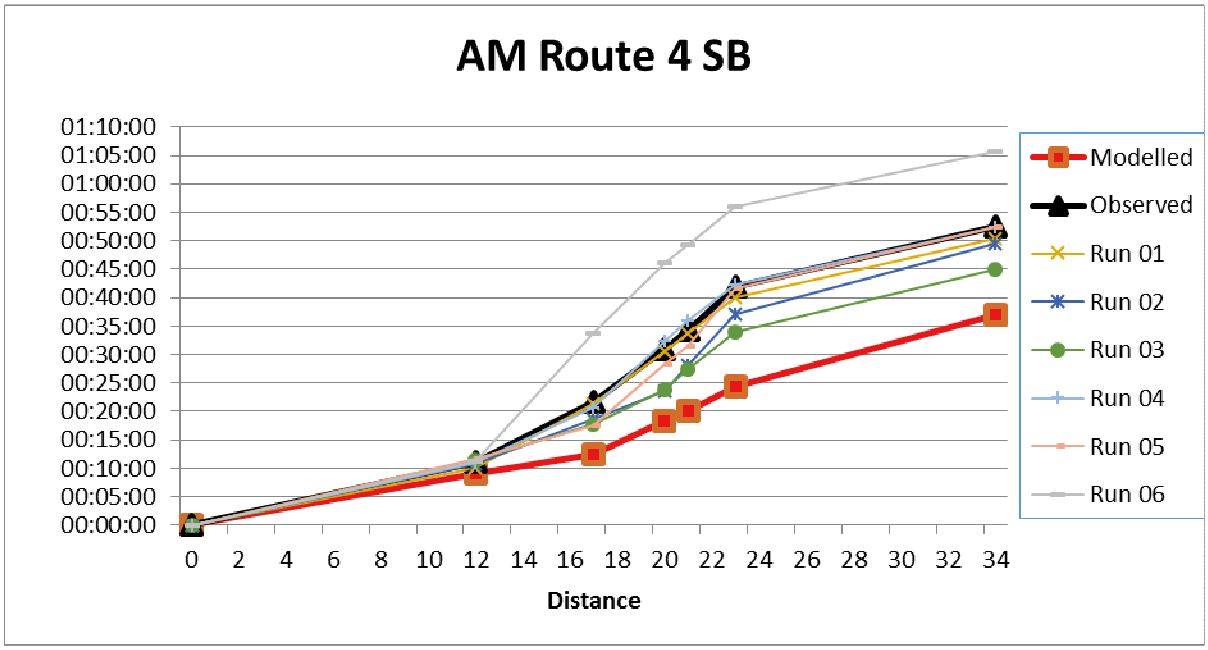

AM Route 2 WB
01:10:00
01:05:00
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

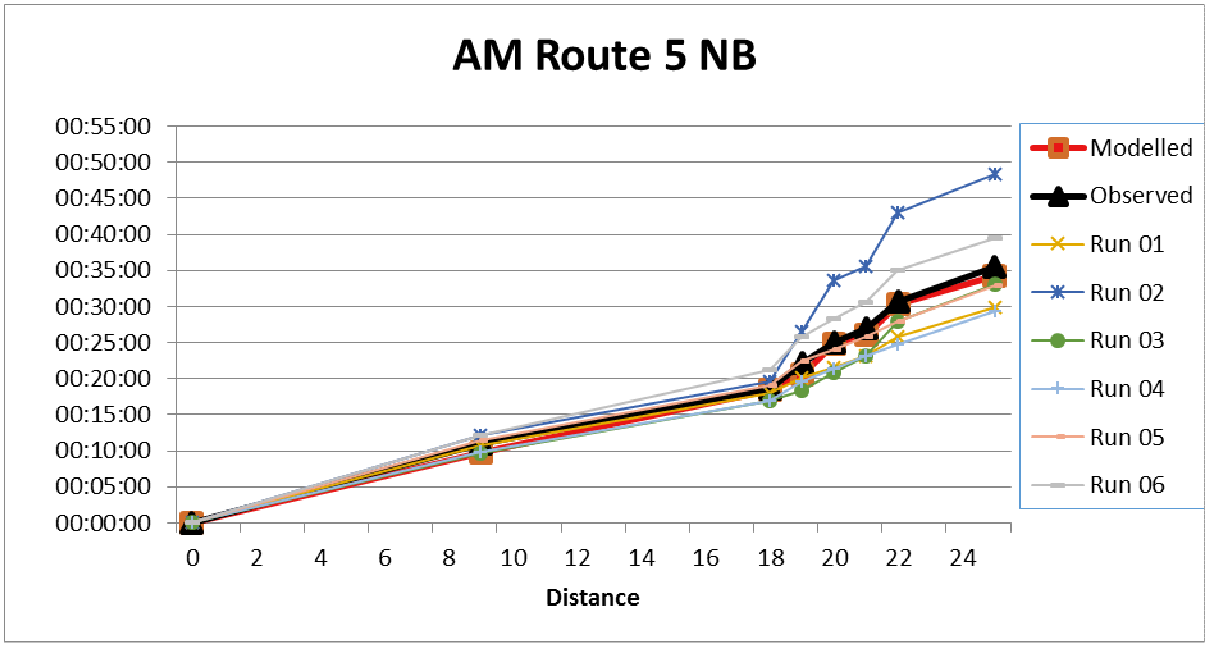

AM Route 2 EB
01:15:00
01:10:00
01:05:00
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

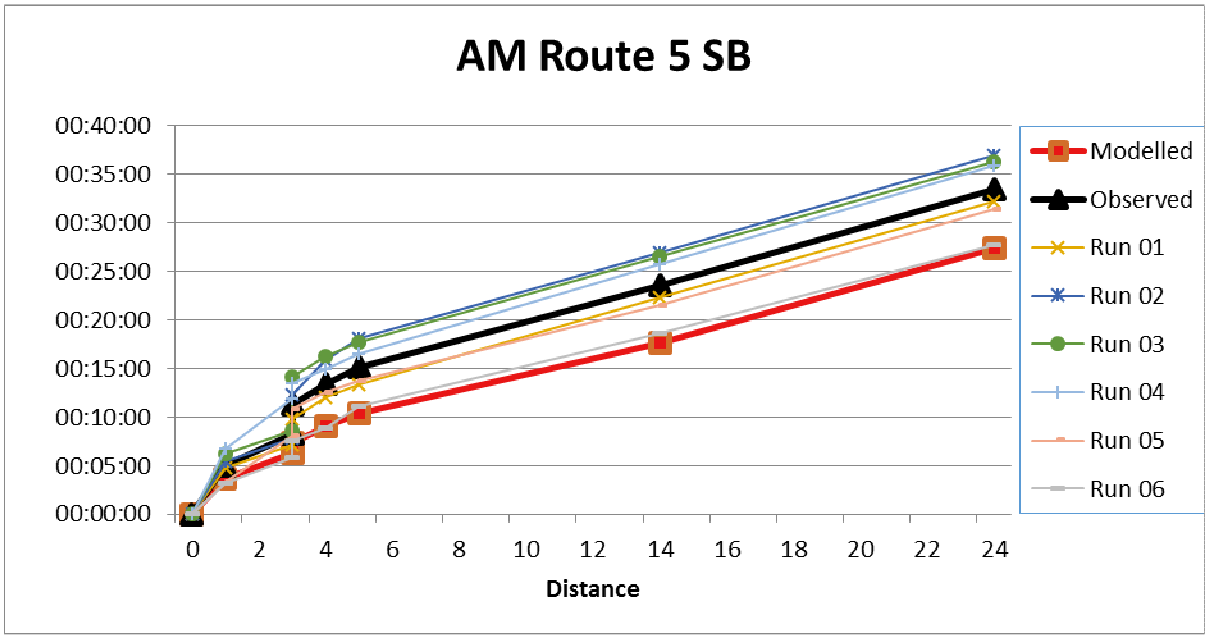

AM Route 3 NB
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

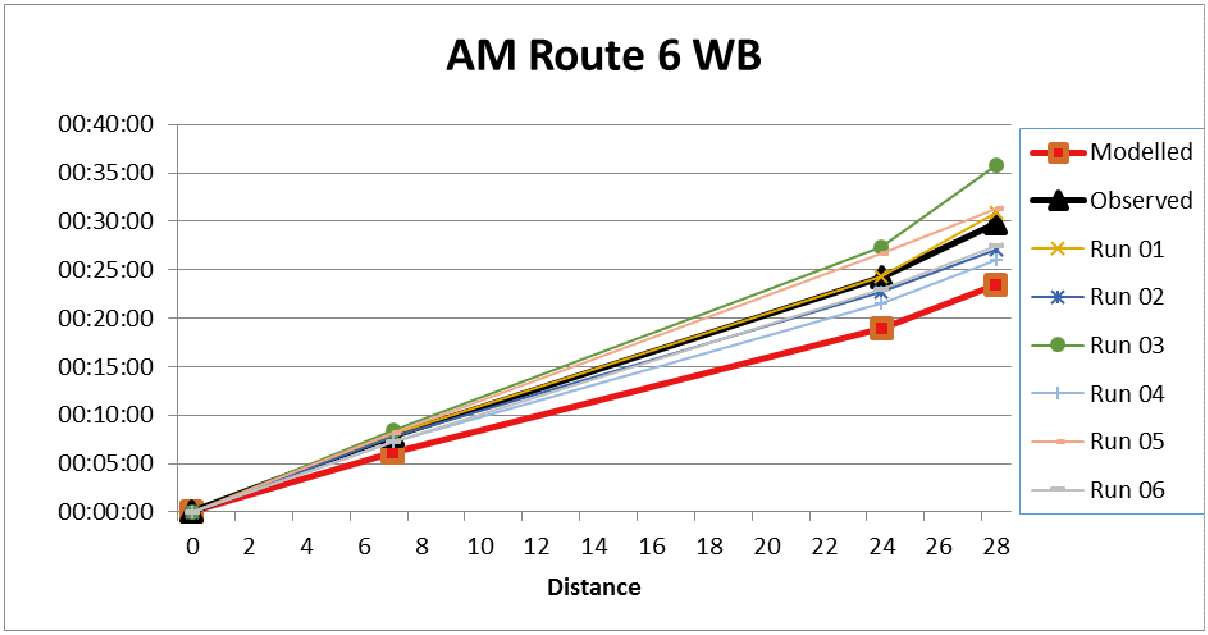

AM Route 3 SB
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

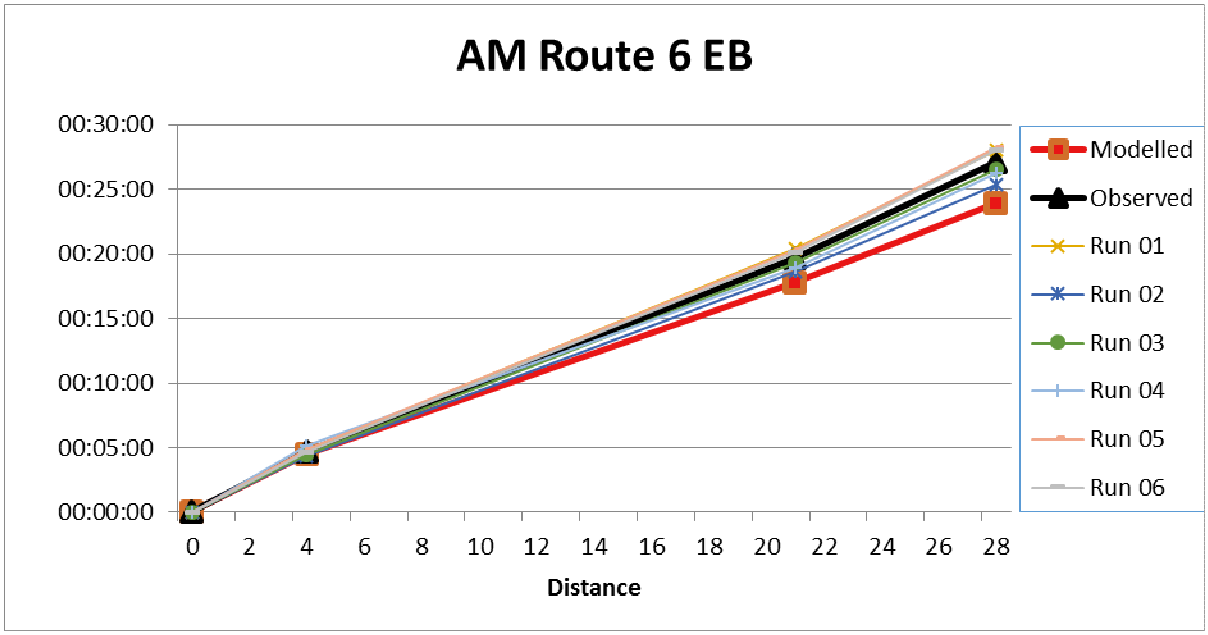

AM Route 4 NB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

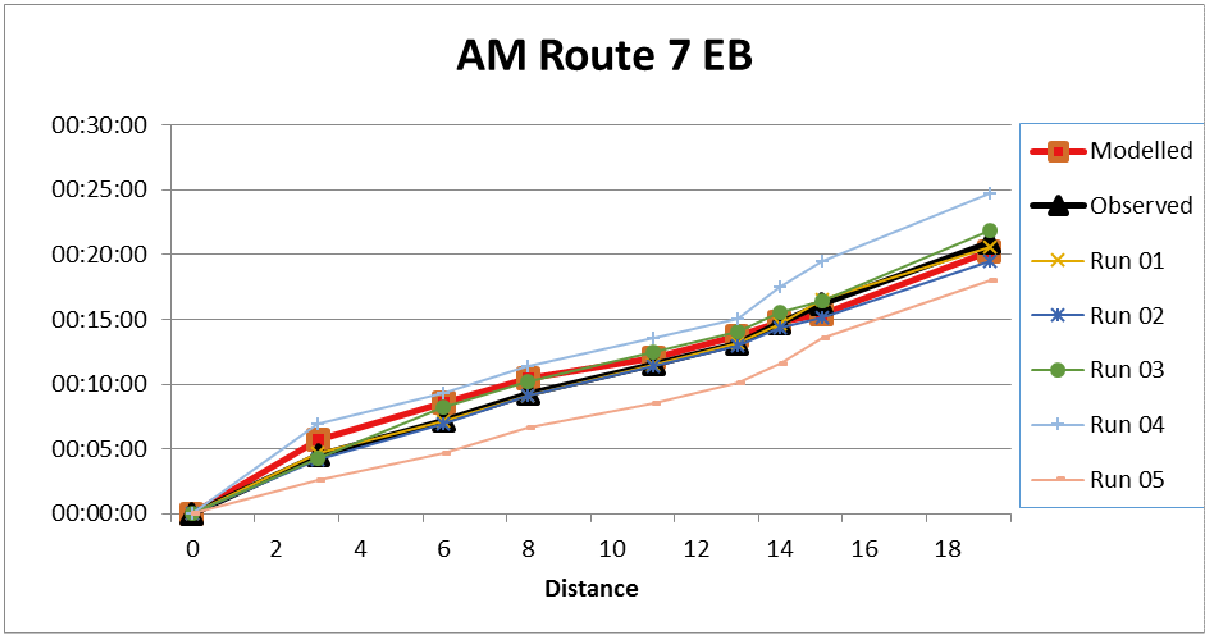

AM Route 4 SB
01:10:00
01:05:00
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

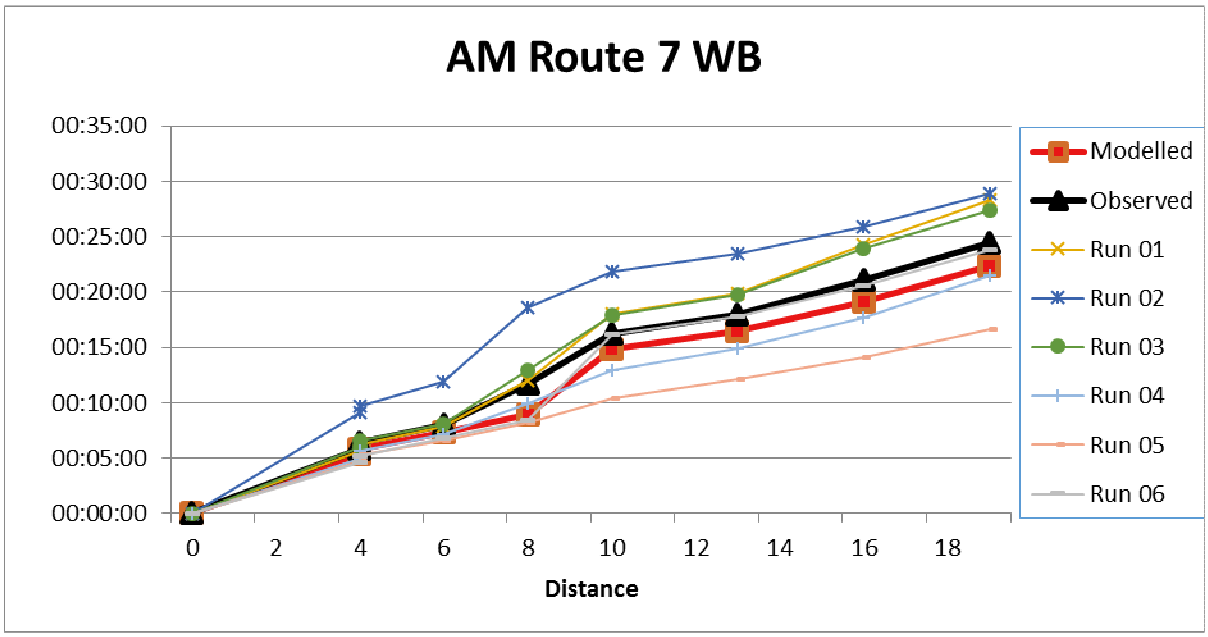

AM Route 5 NB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

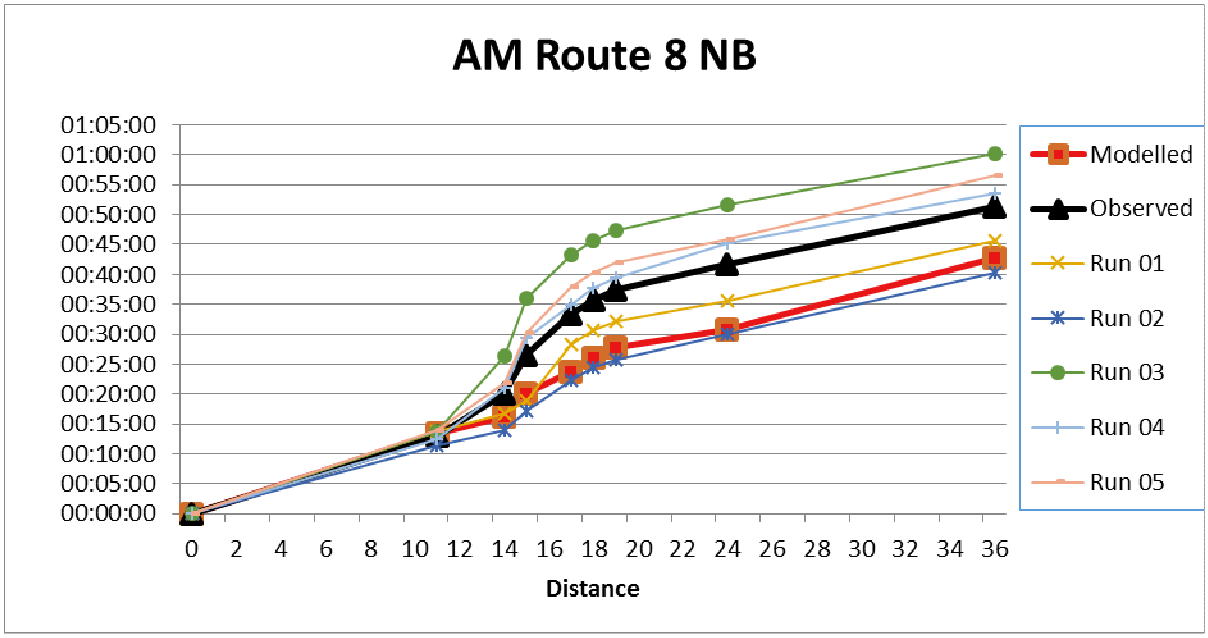

AM Route 5 SB
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

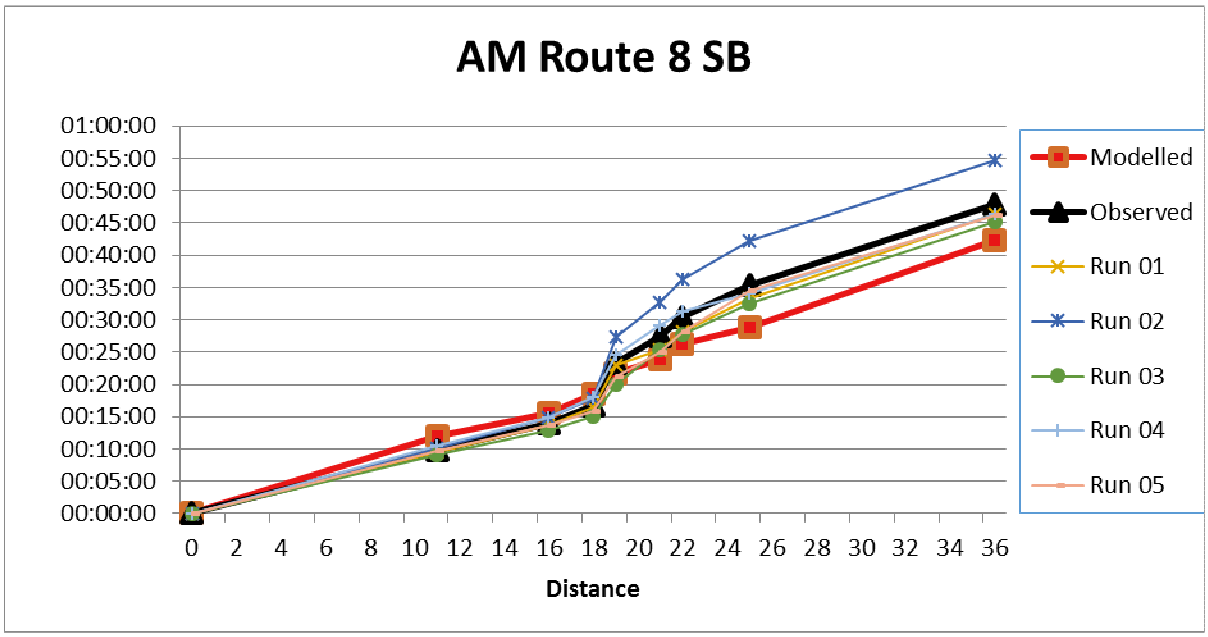

AM Route 6 WB
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

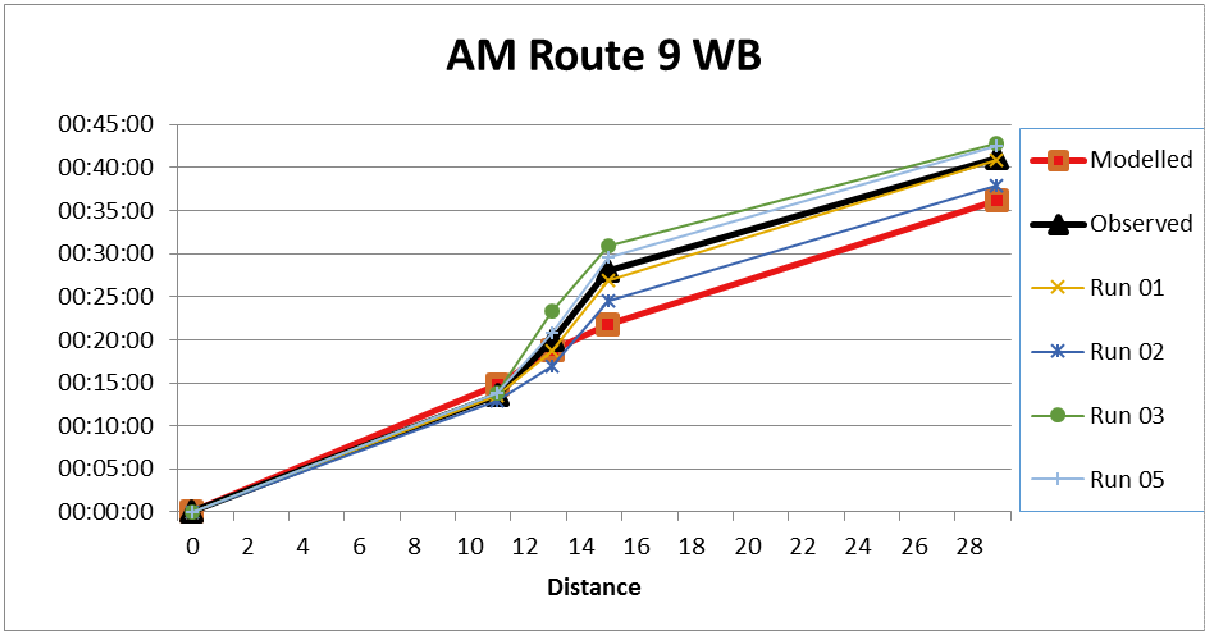

AM Route 6 EB
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

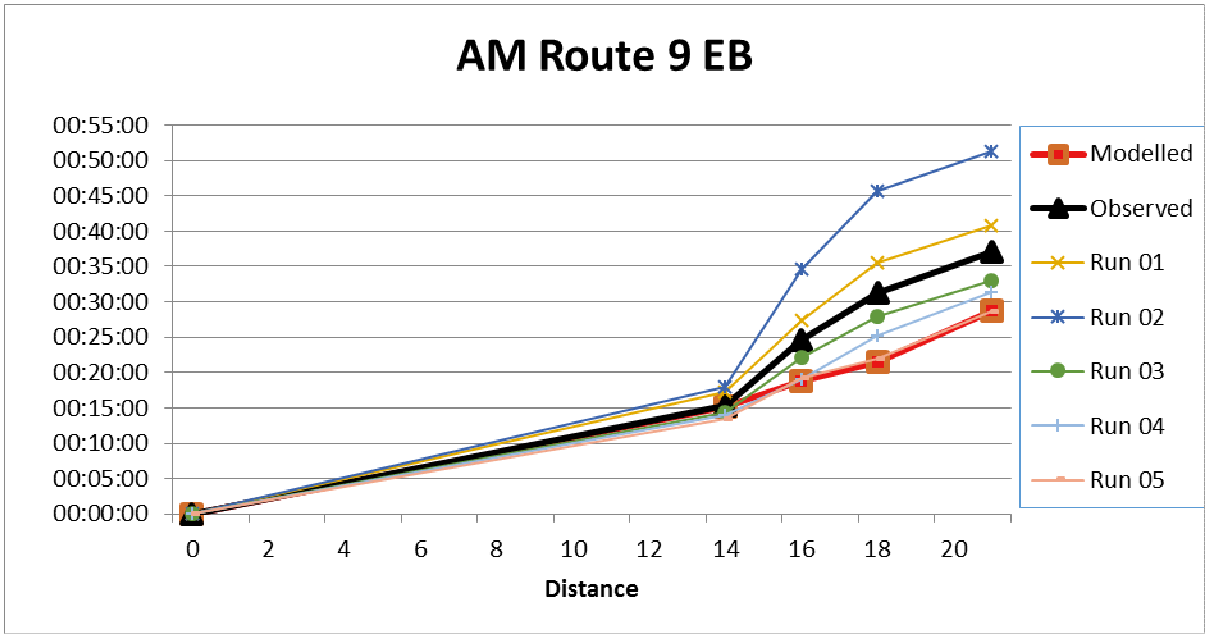

AM Route 7 EB
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
10
12
14
16
18
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

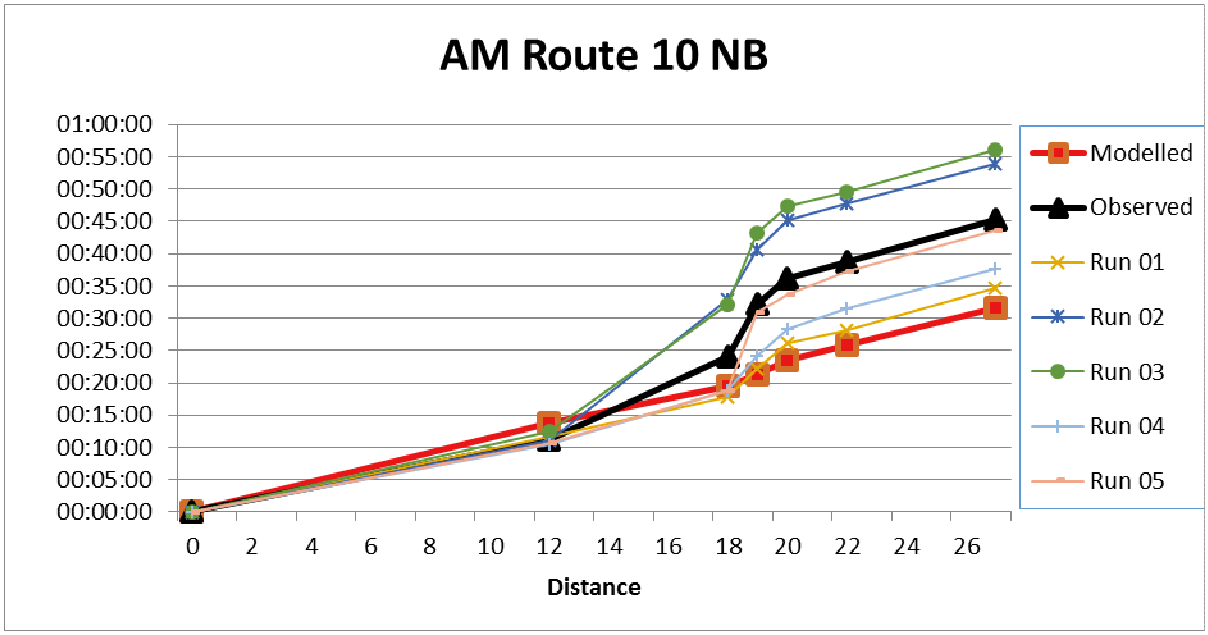

AM Route 7 WB
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
10
12
14
16
18
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

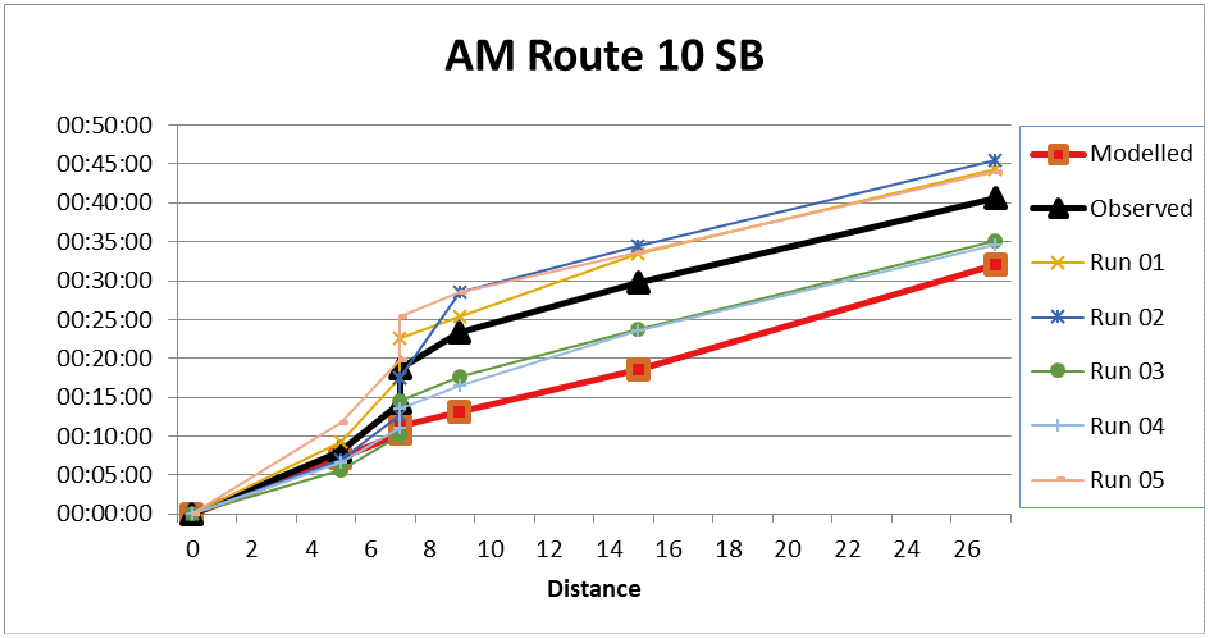

AM Route 8 NB
01:05:00
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

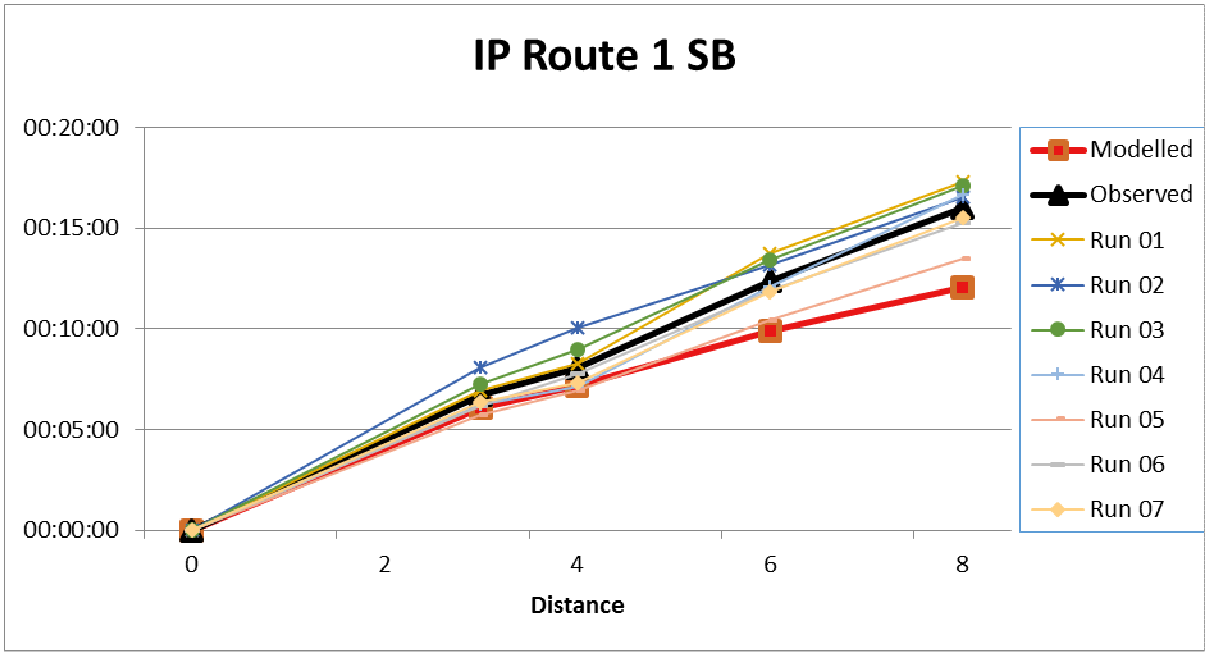

AM Route 8 SB
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

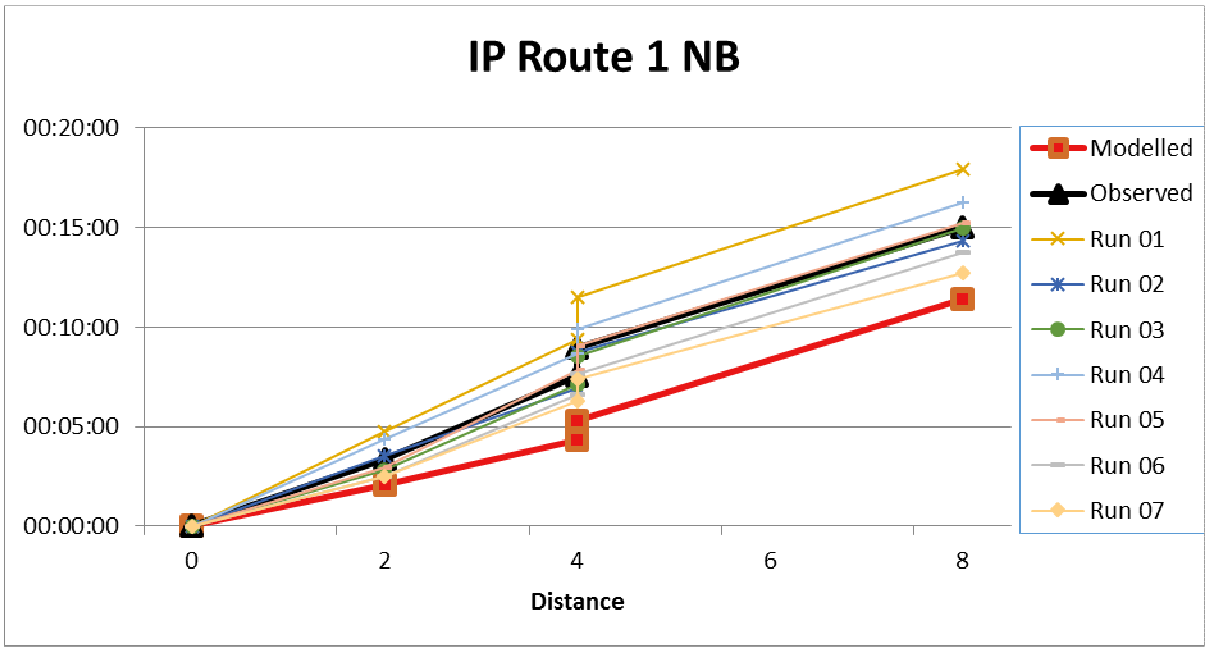

AM Route 9 WB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 05

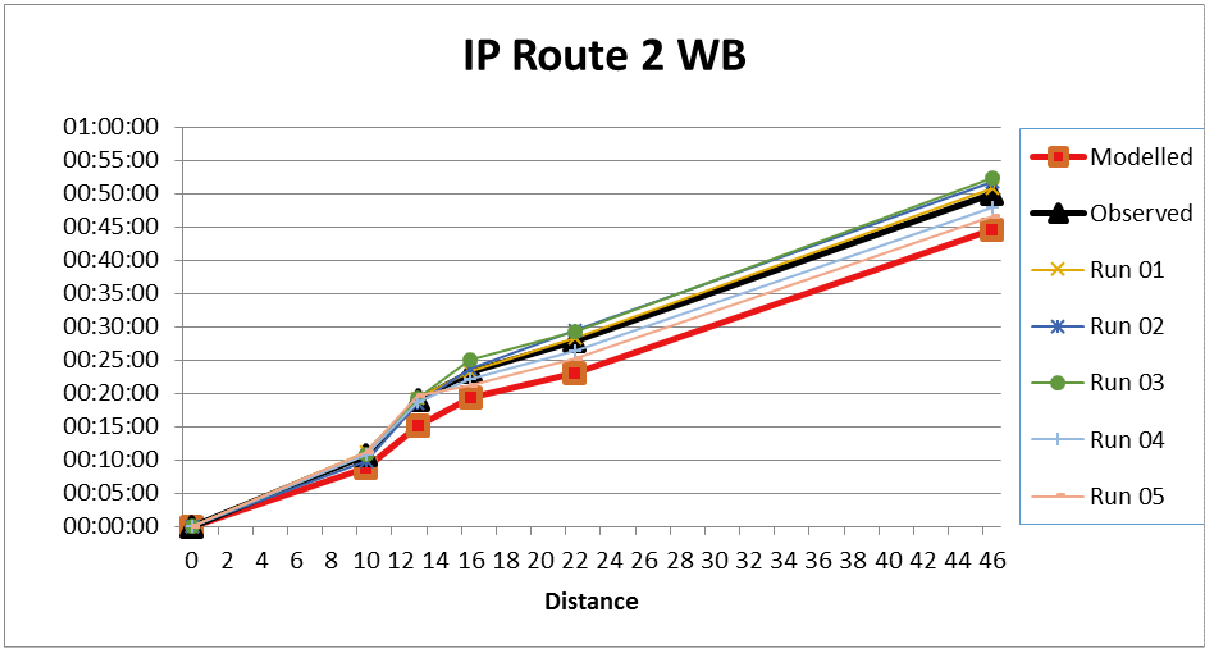

AM Route 9 EB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

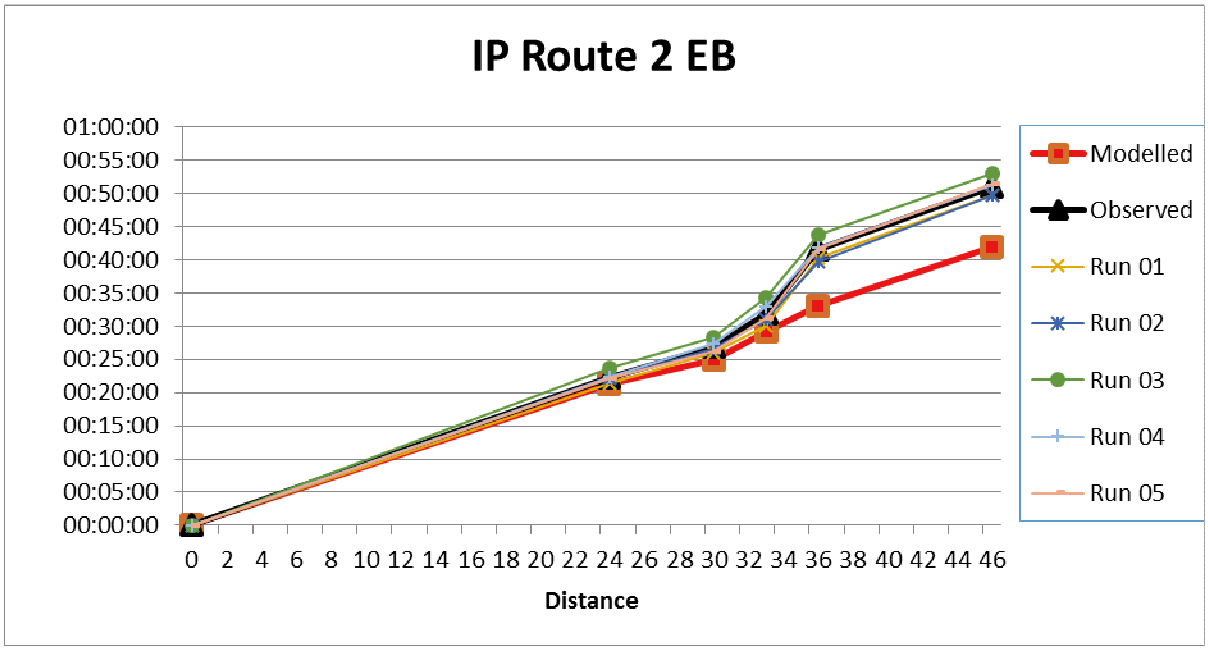

AM Route 10 NB
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

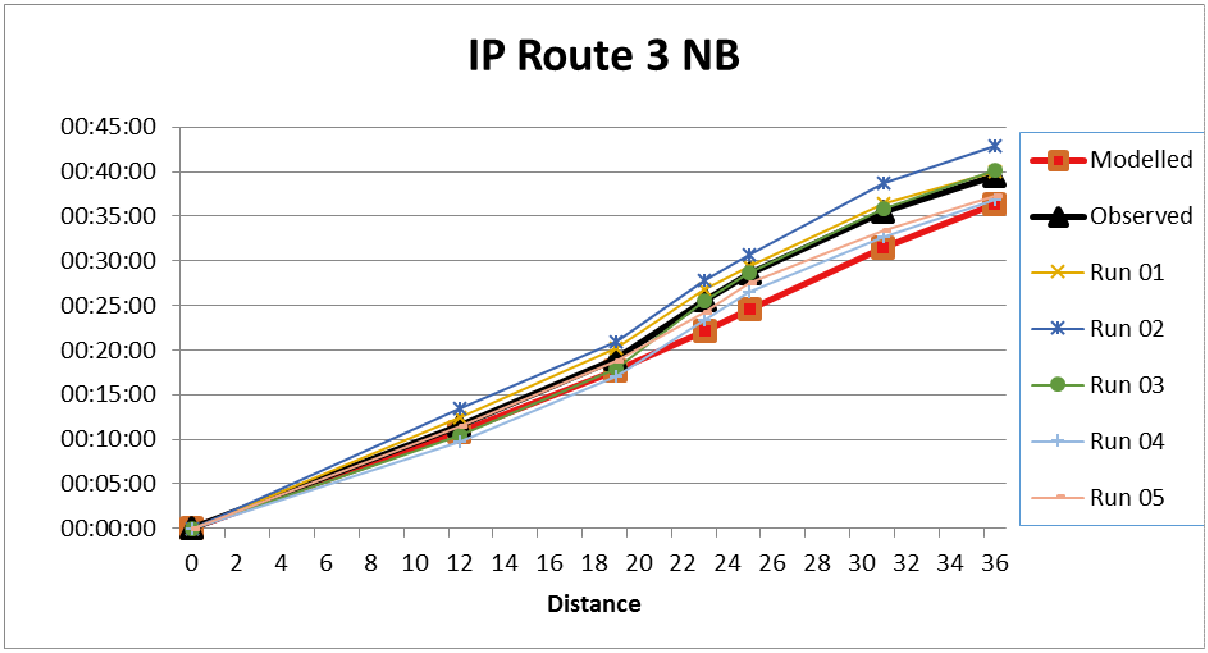

AM Route 10 SB
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

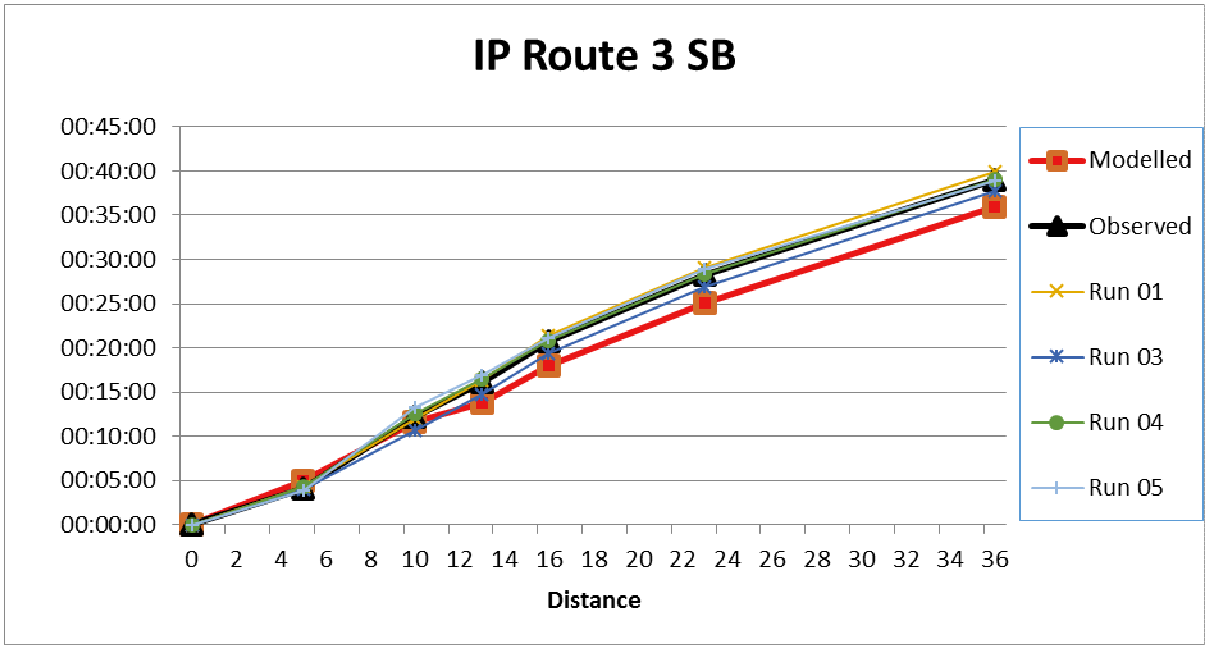

IP Route 1 SB
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06
Run 07

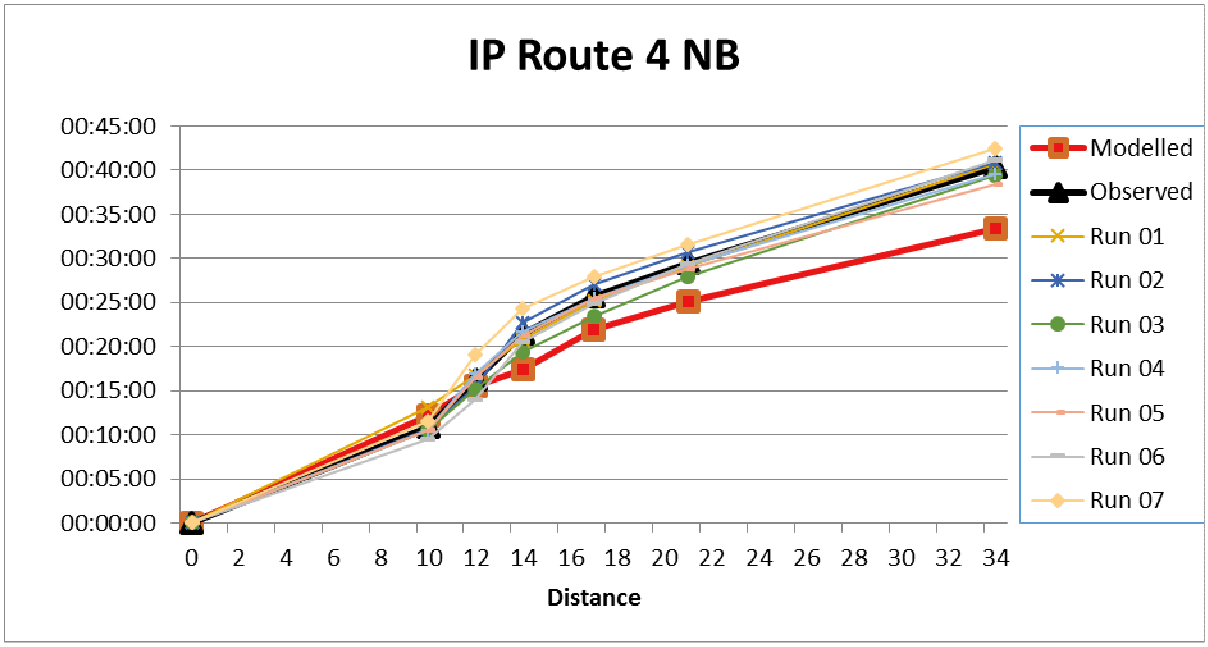

IP Route 1 NB
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06
Run 07

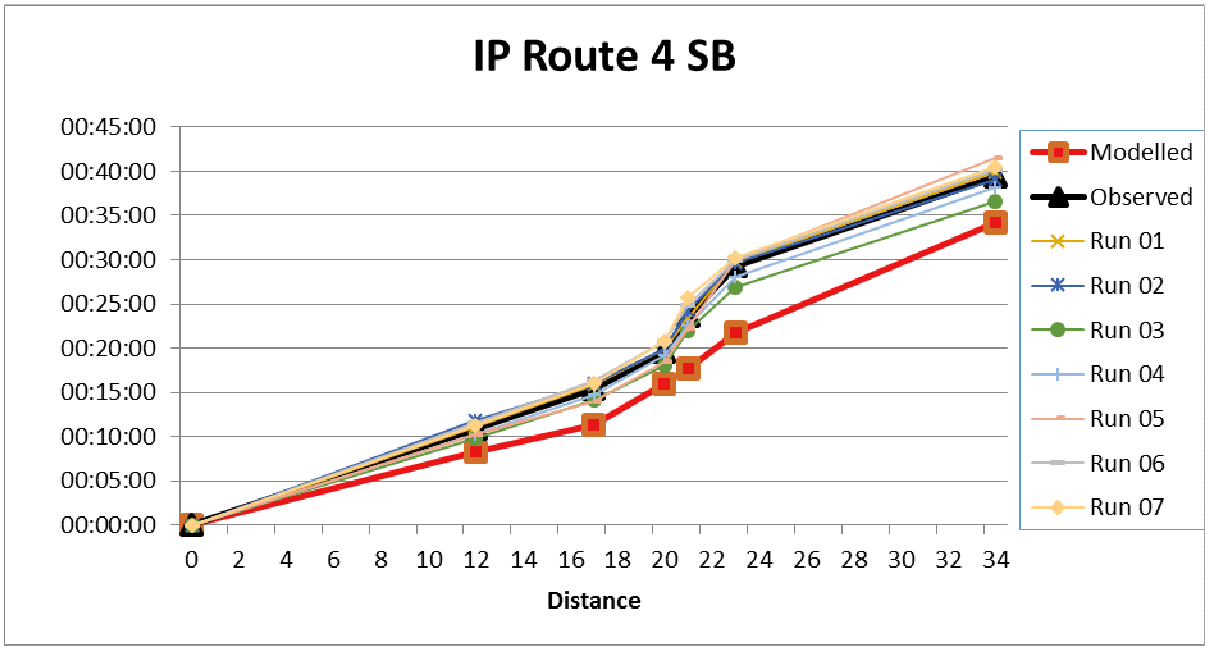

IP Route 2 WB
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

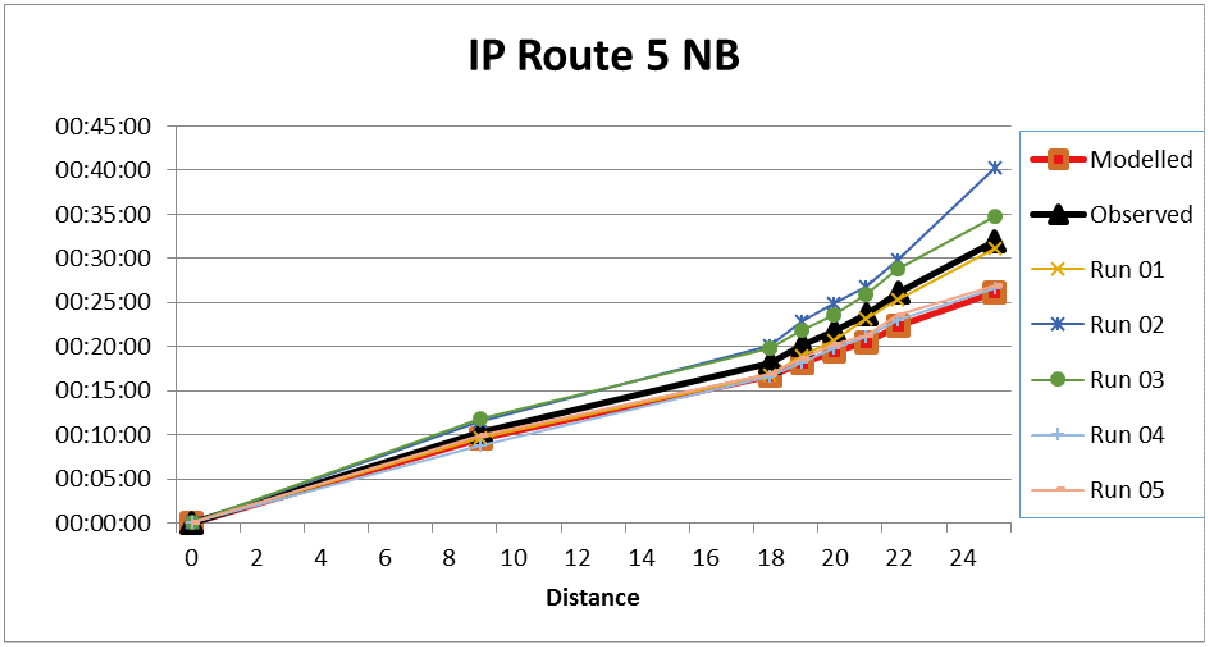

IP Route 2 EB
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

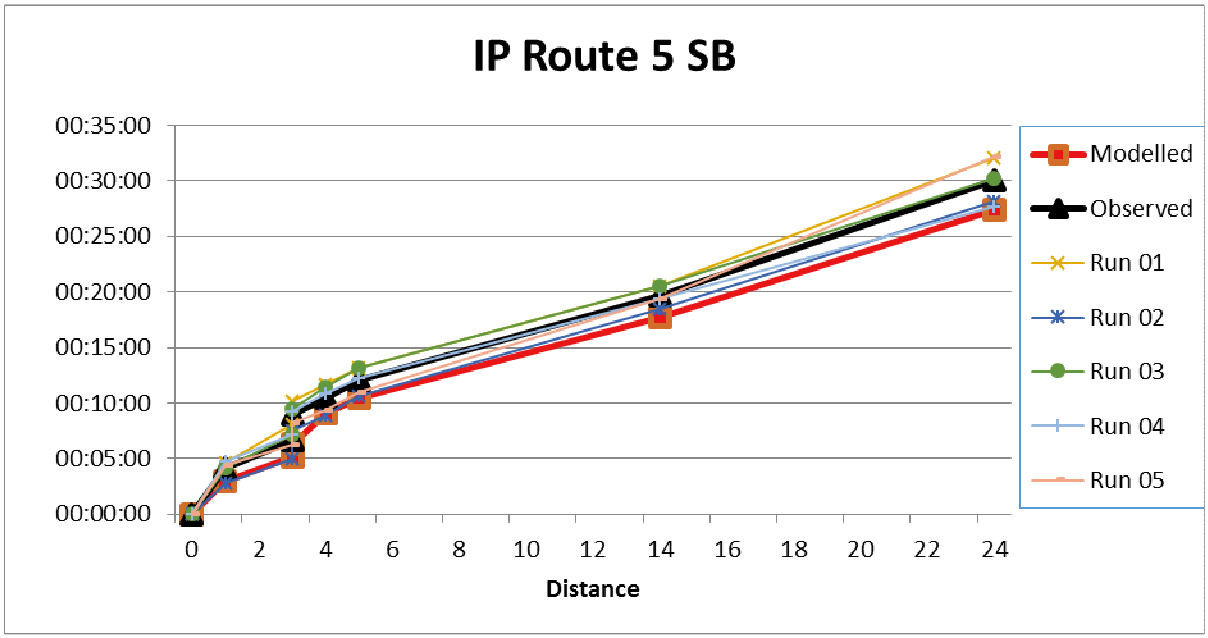

IP Route 3 NB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

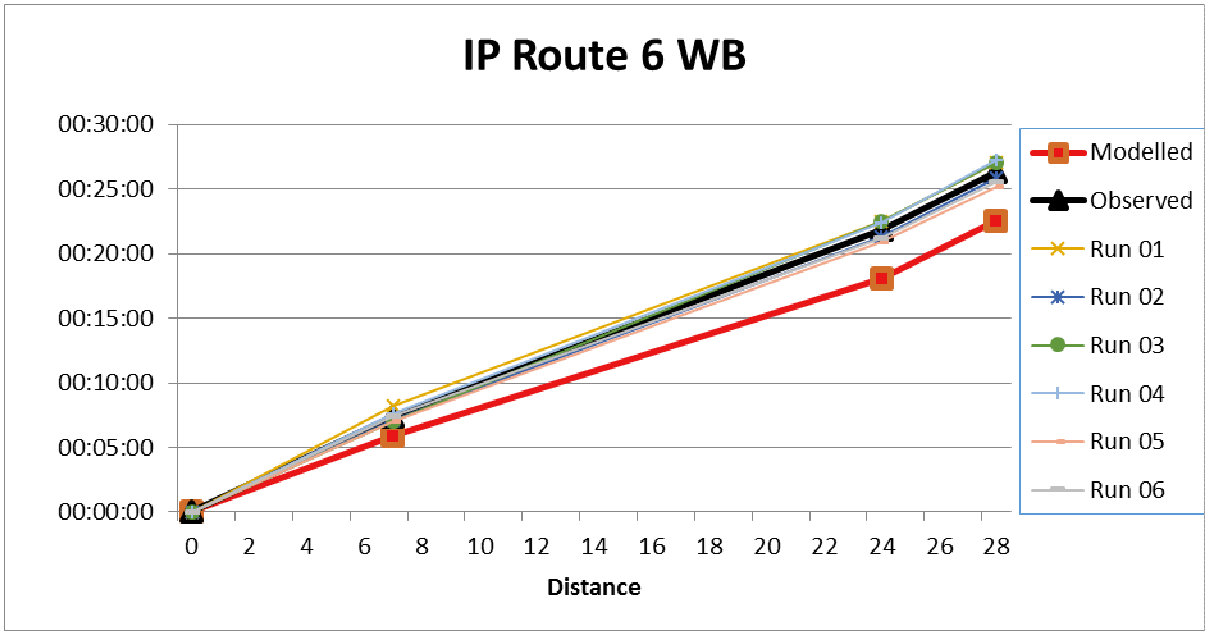

IP Route 3 SB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 03
Run 04
Run 05

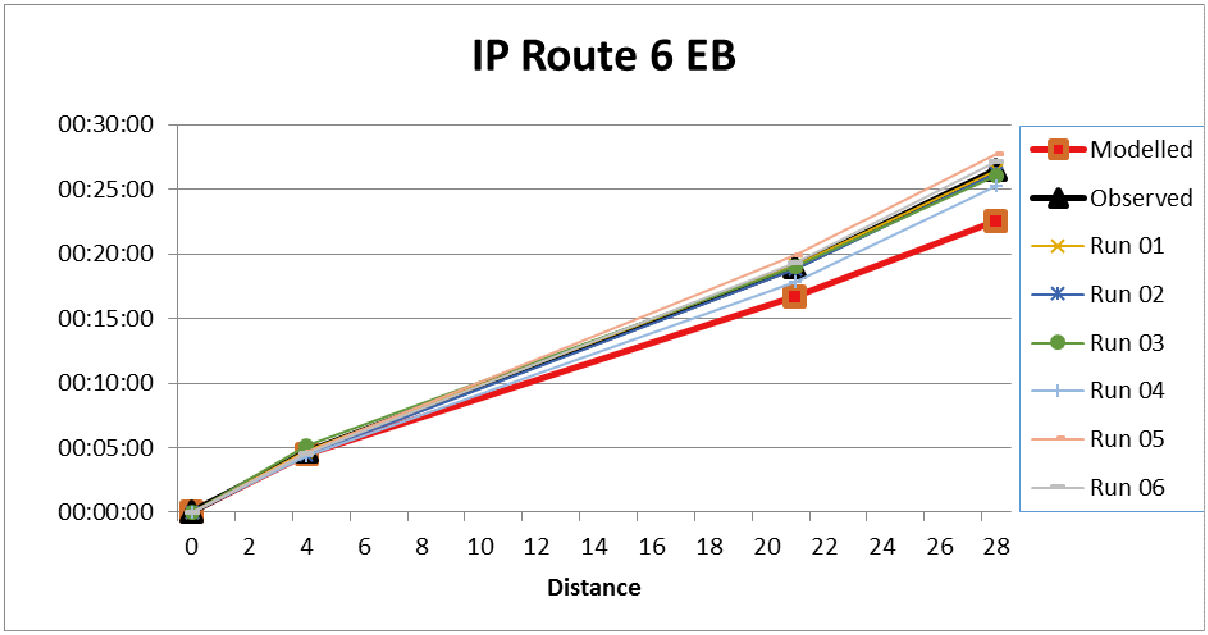

IP Route 4 NB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06
Run 07

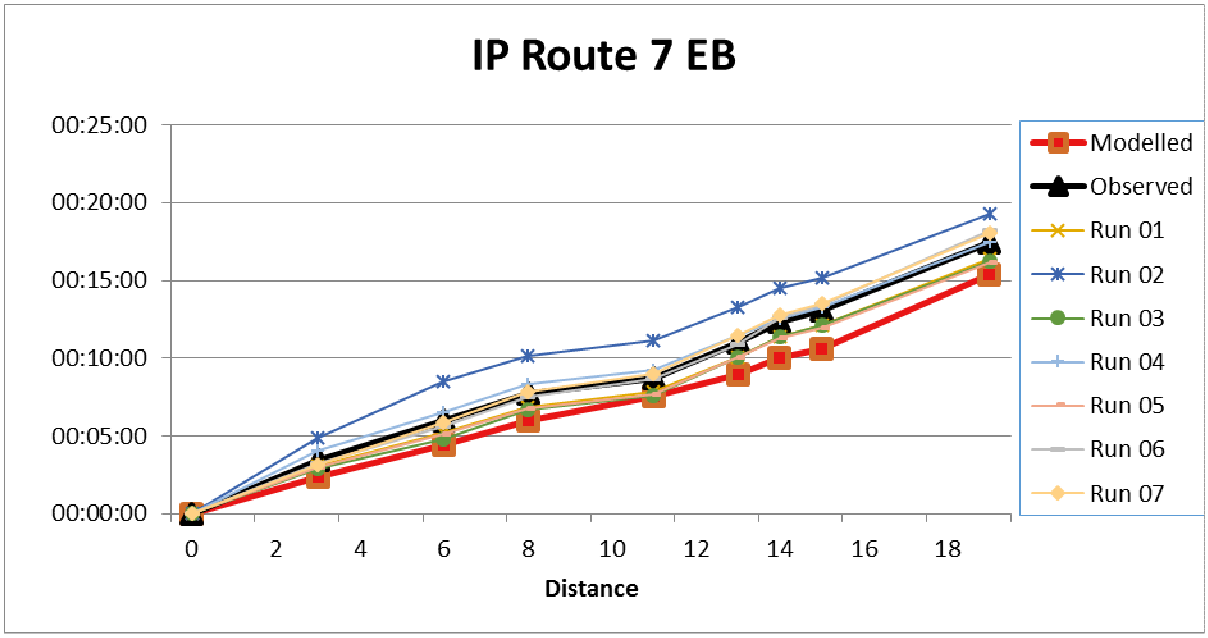

IP Route 4 SB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06
Run 07

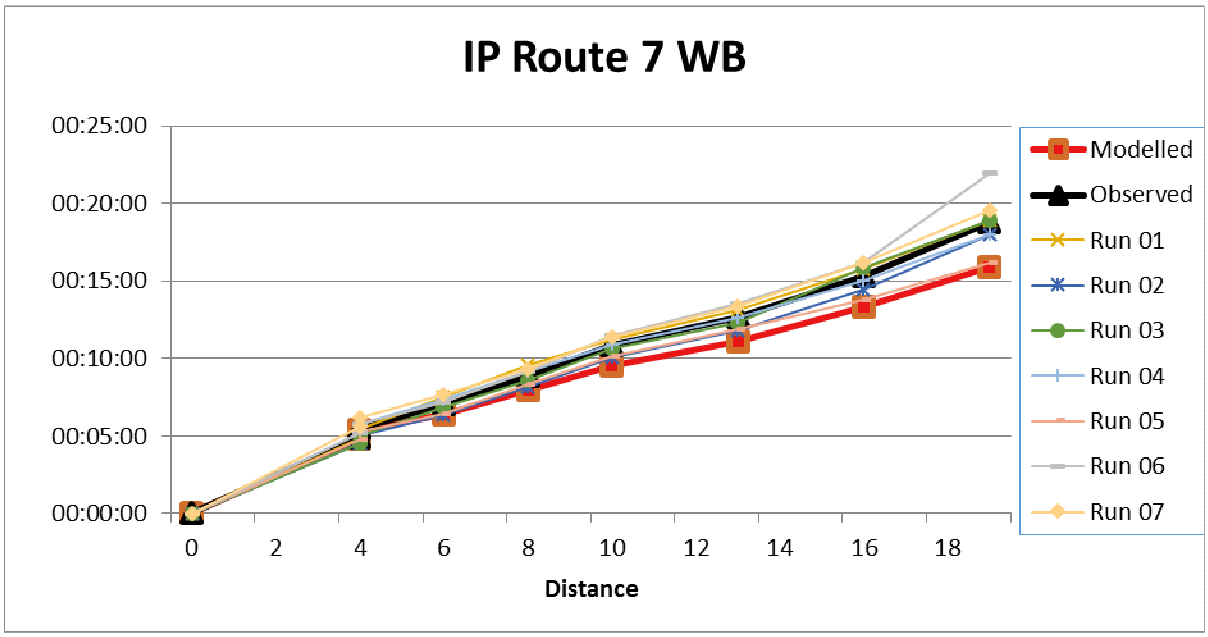

IP Route 5 NB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

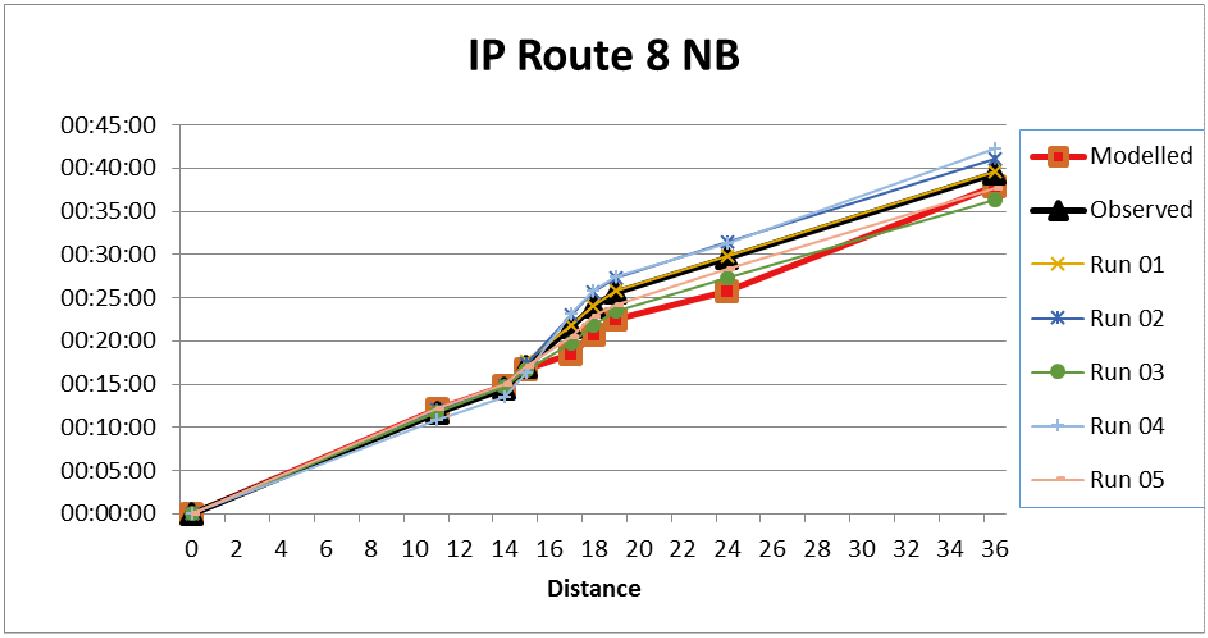

IP Route 5 SB
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

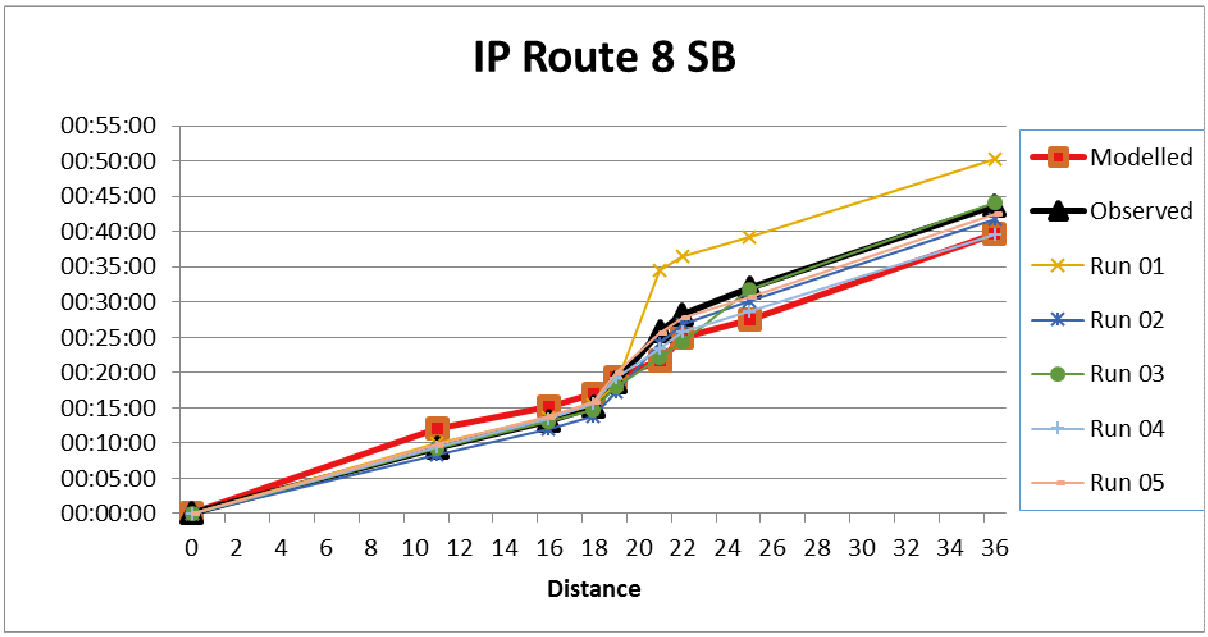

IP Route 6 WB
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

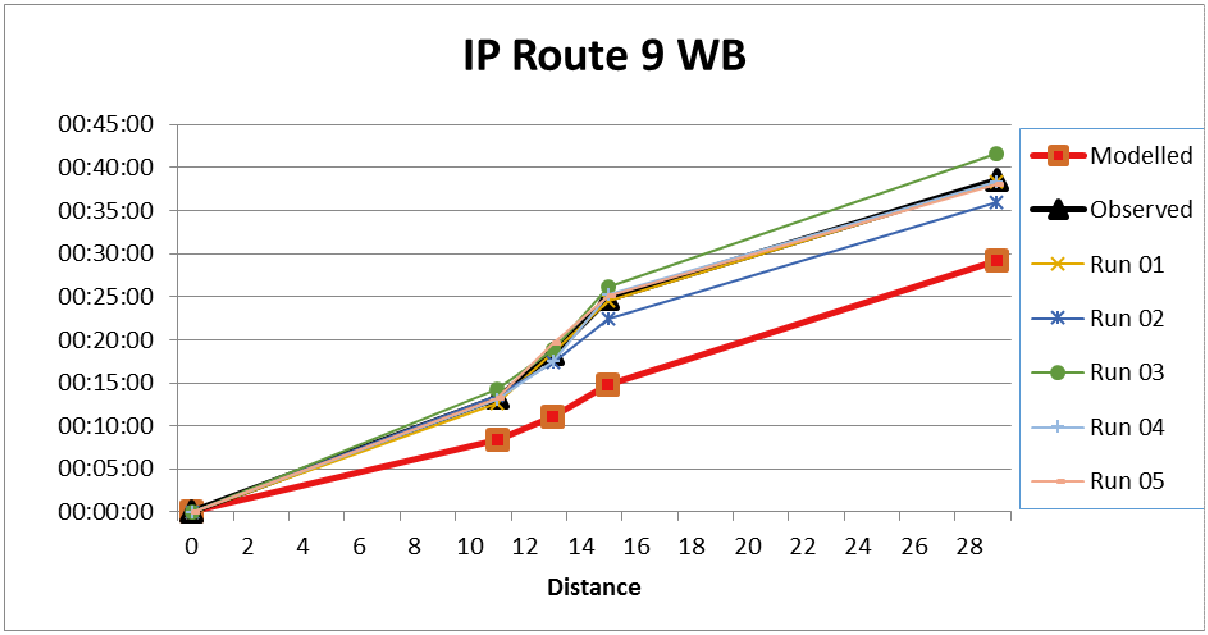

IP Route 6 EB
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

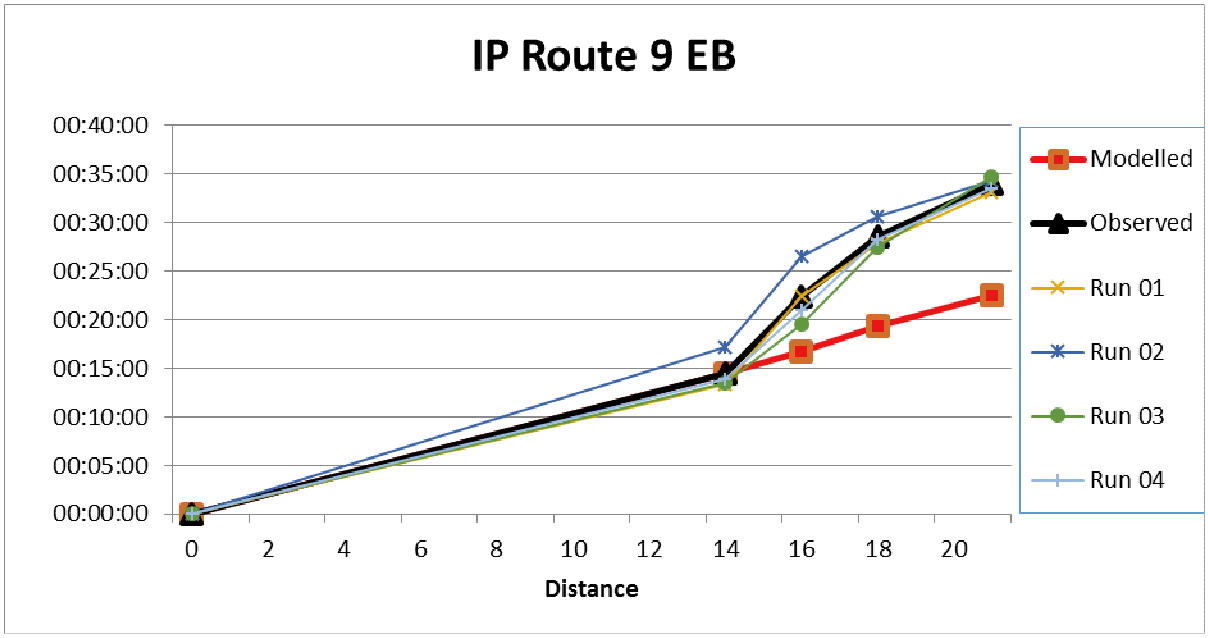

IP Route 7 EB
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
10
12
14
16
18
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06
Run 07

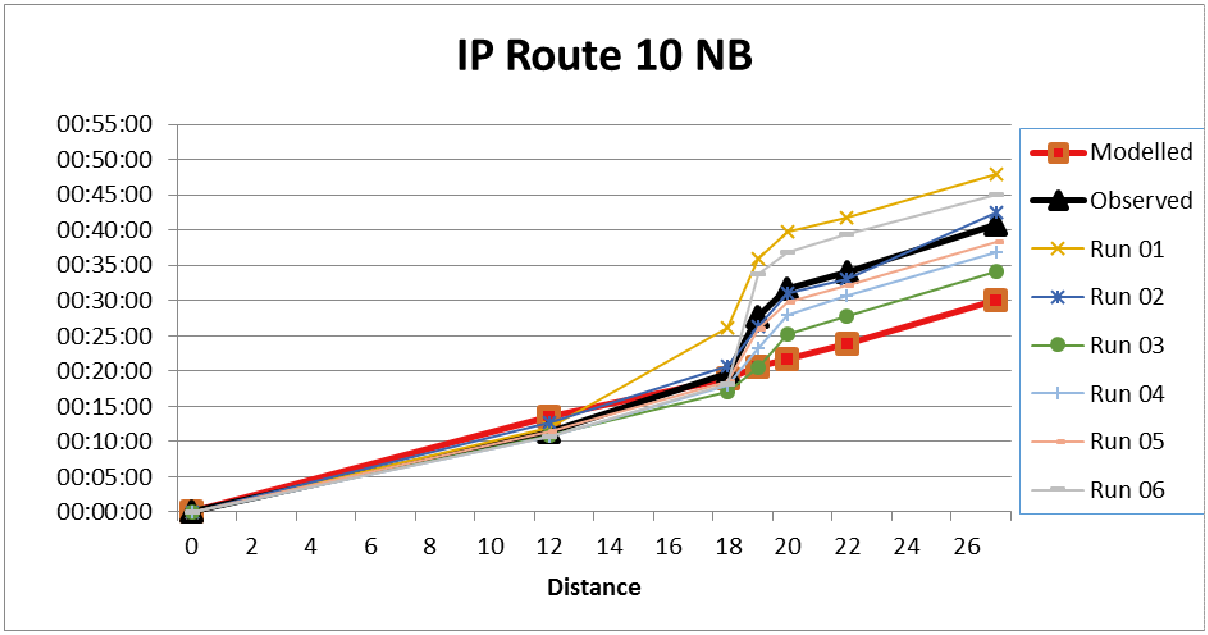

IP Route 7 WB
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
10
12
14
16
18
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06
Run 07

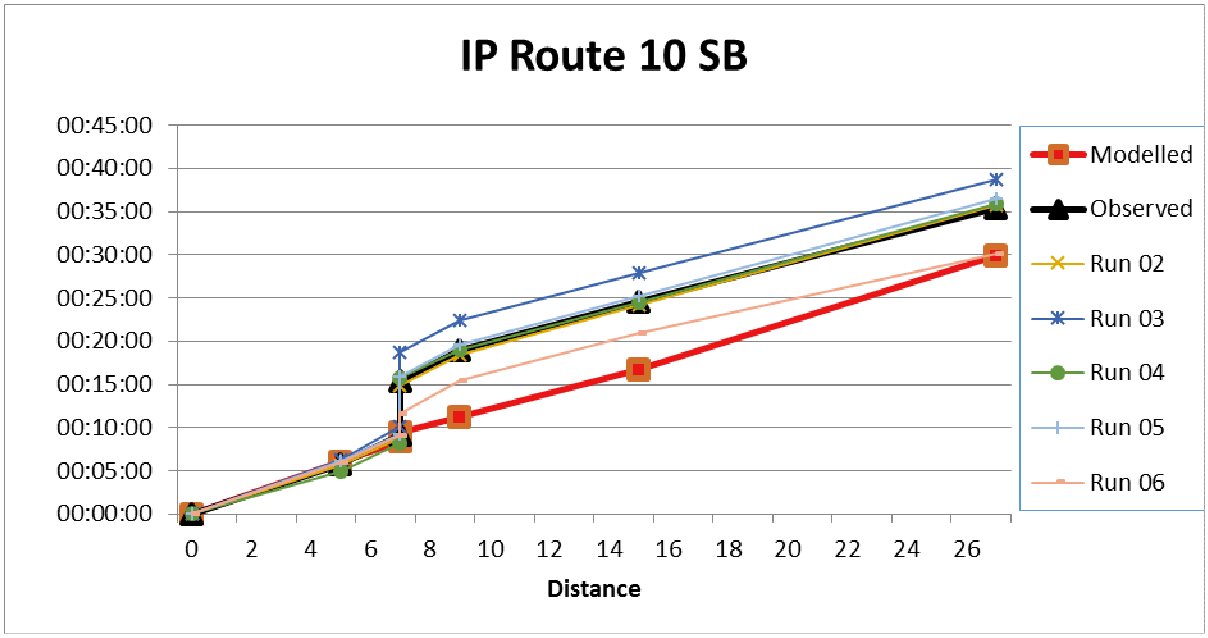

IP Route 8 NB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

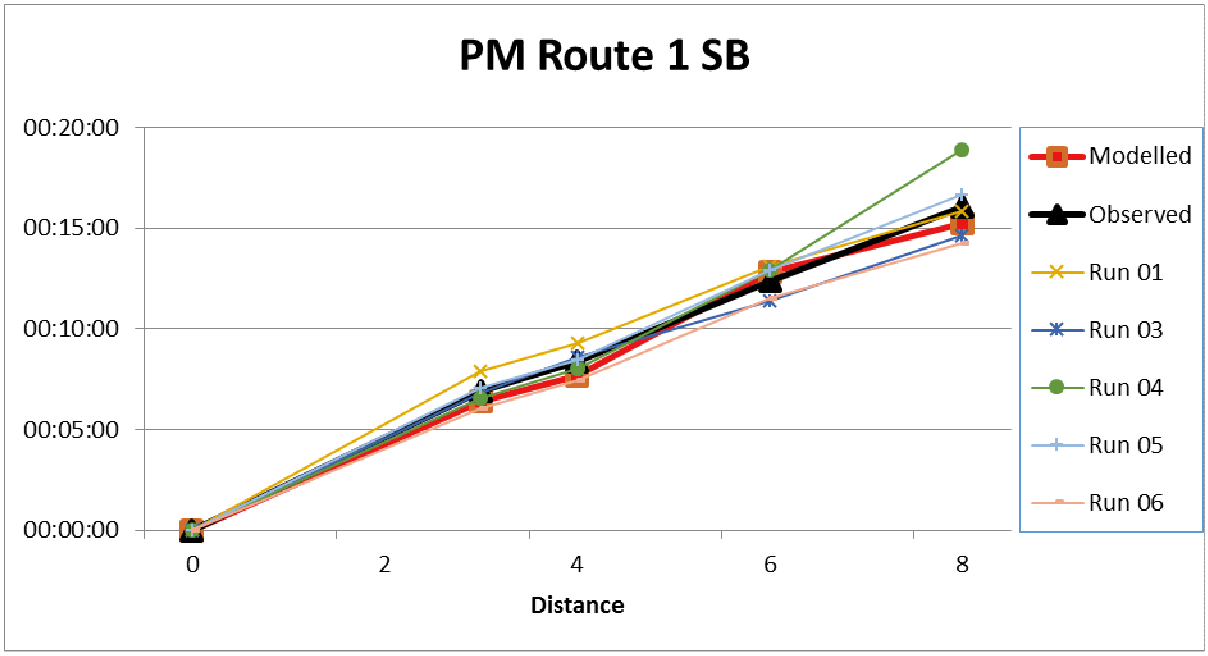

IP Route 8 SB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

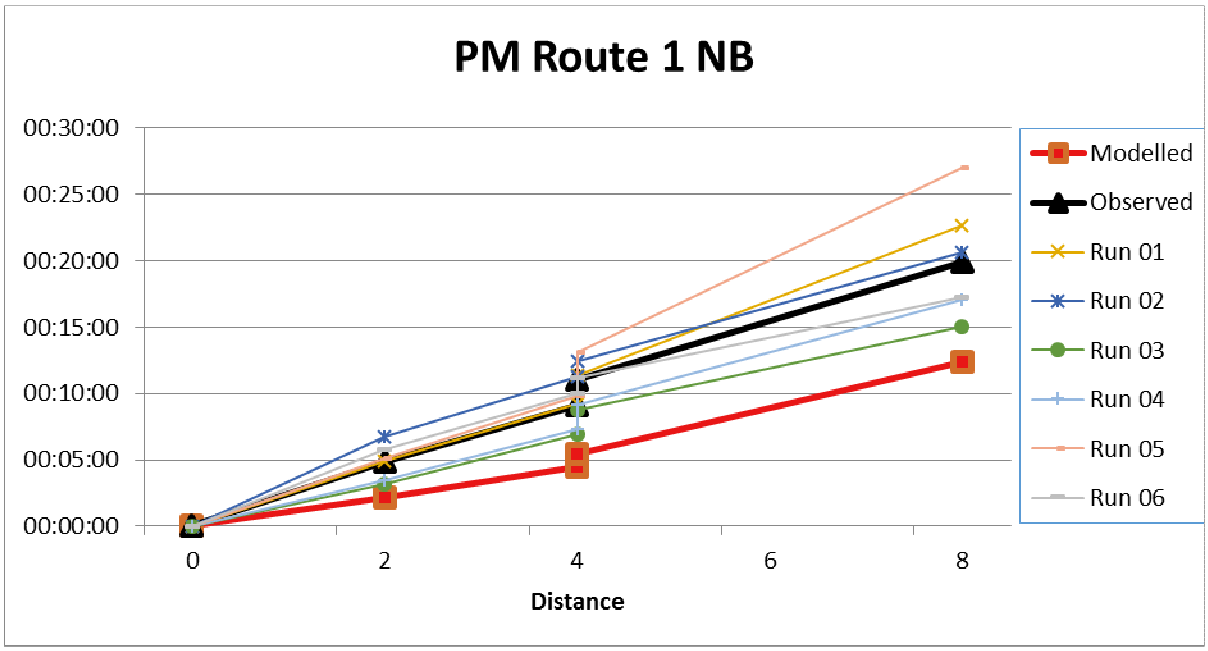

IP Route 9 WB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

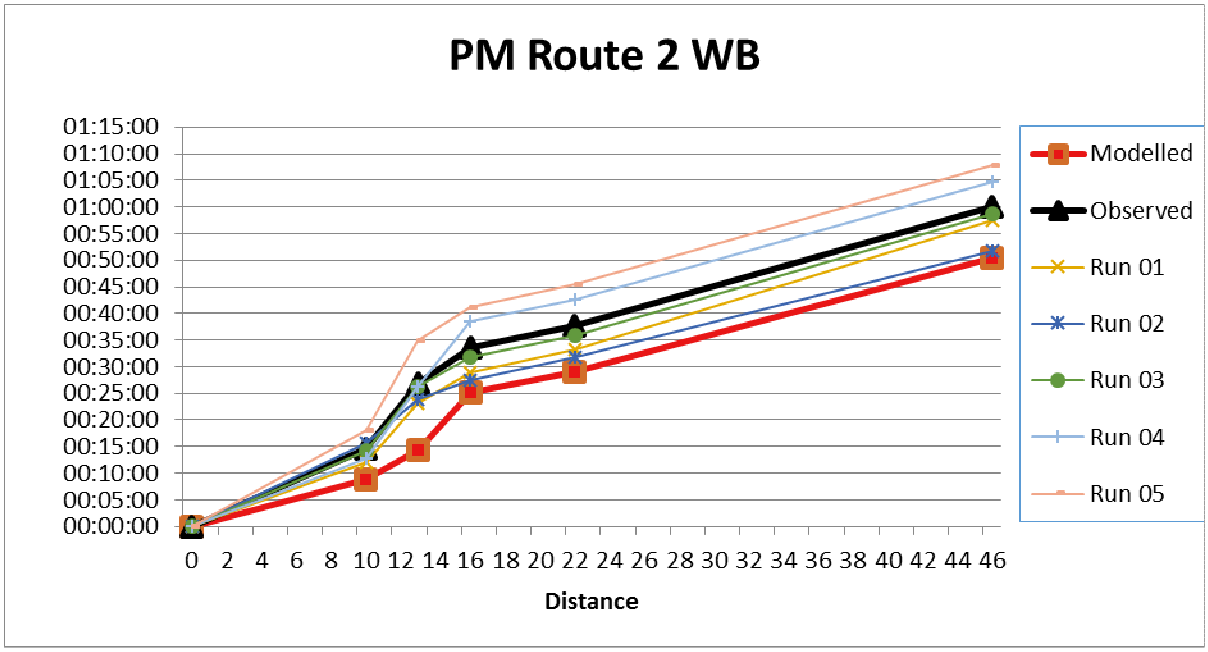

IP Route 9 EB
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04

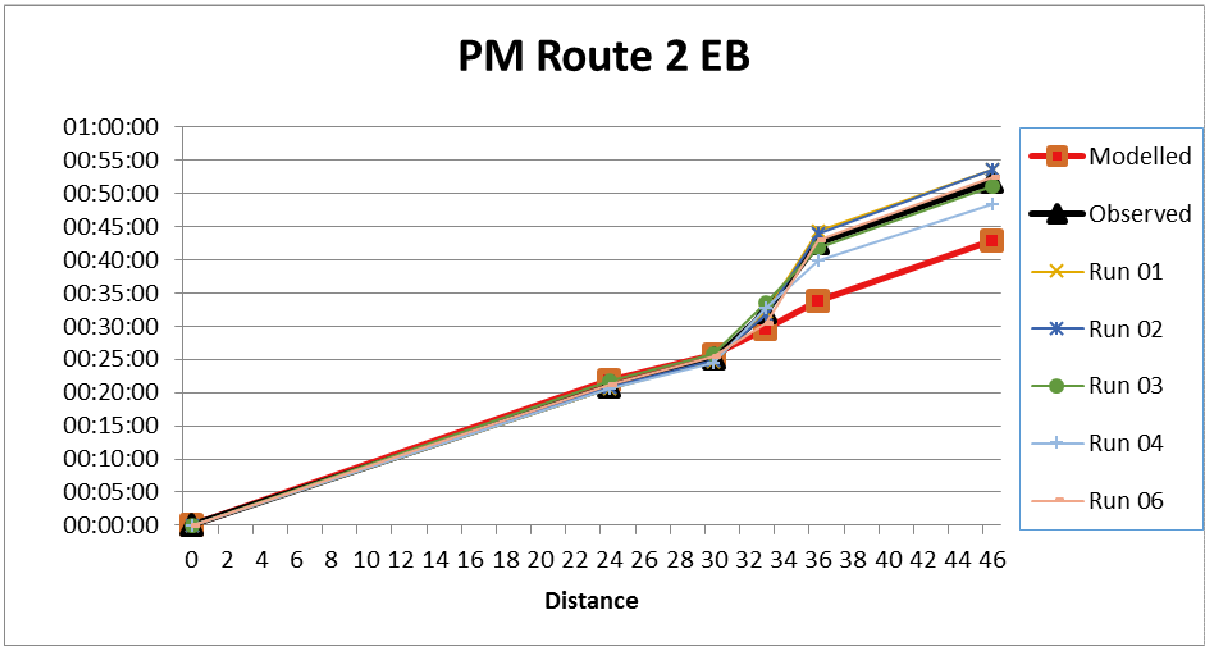

IP Route 10 NB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

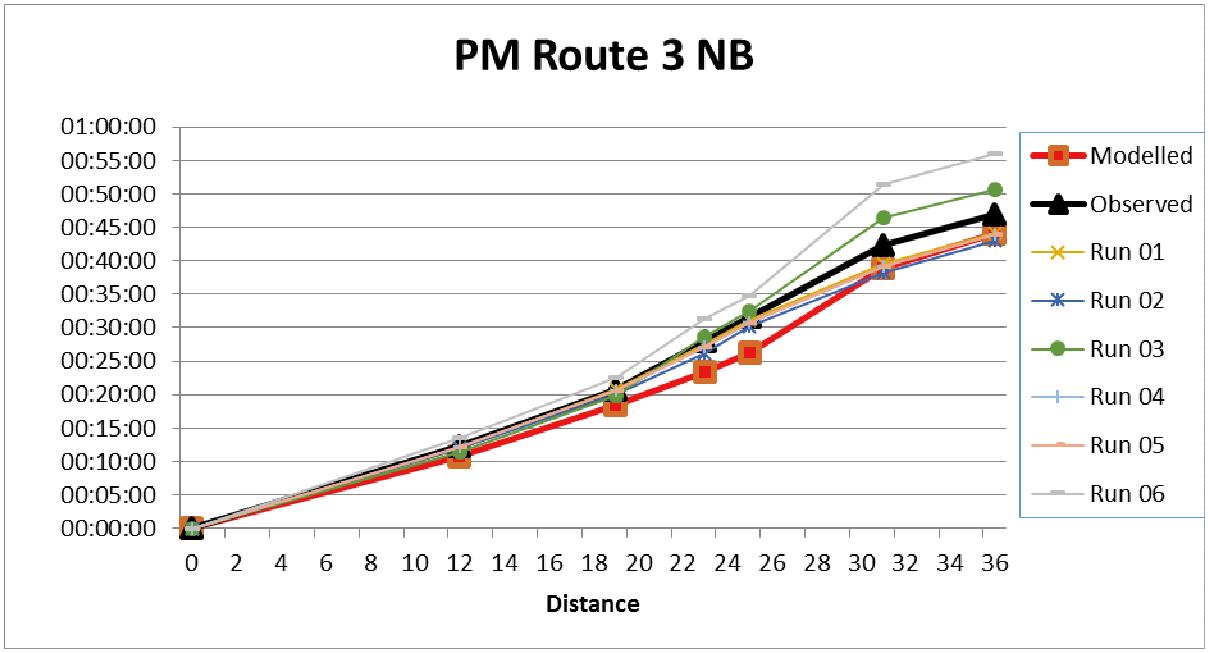

IP Route 10 SB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26
Distance
Modelled
Observed
Run 02
Run 03
Run 04
Run 05
Run 06

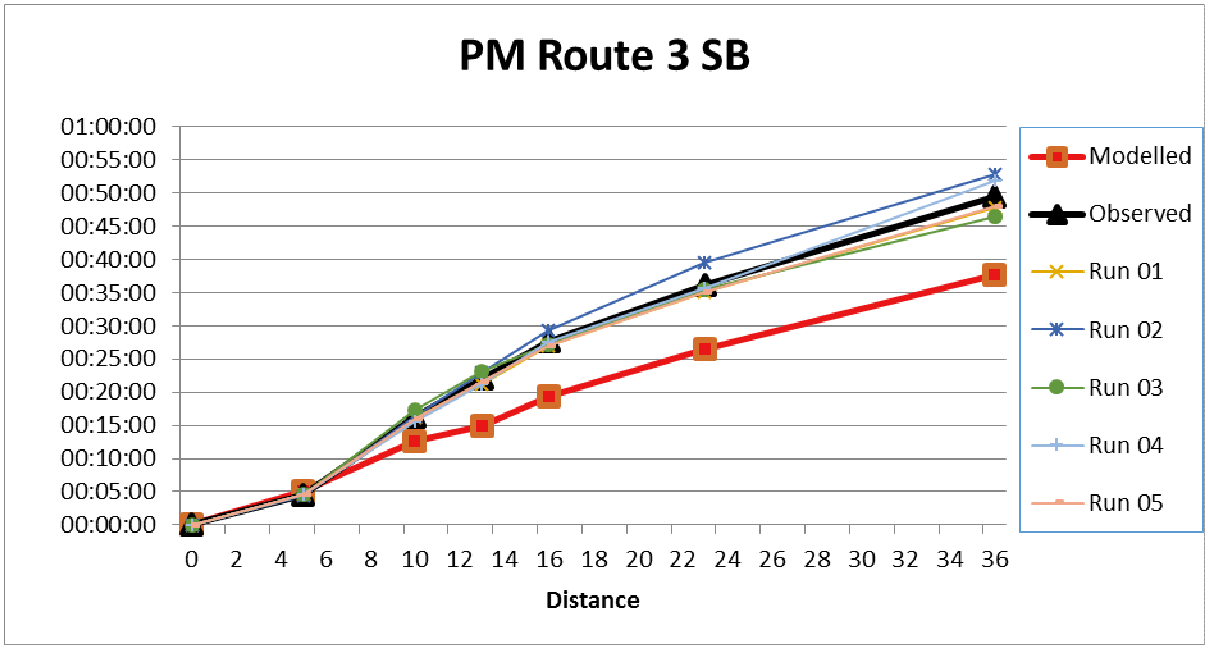

PM Route 1 SB
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
Distance
Modelled
Observed
Run 01
Run 03
Run 04
Run 05
Run 06

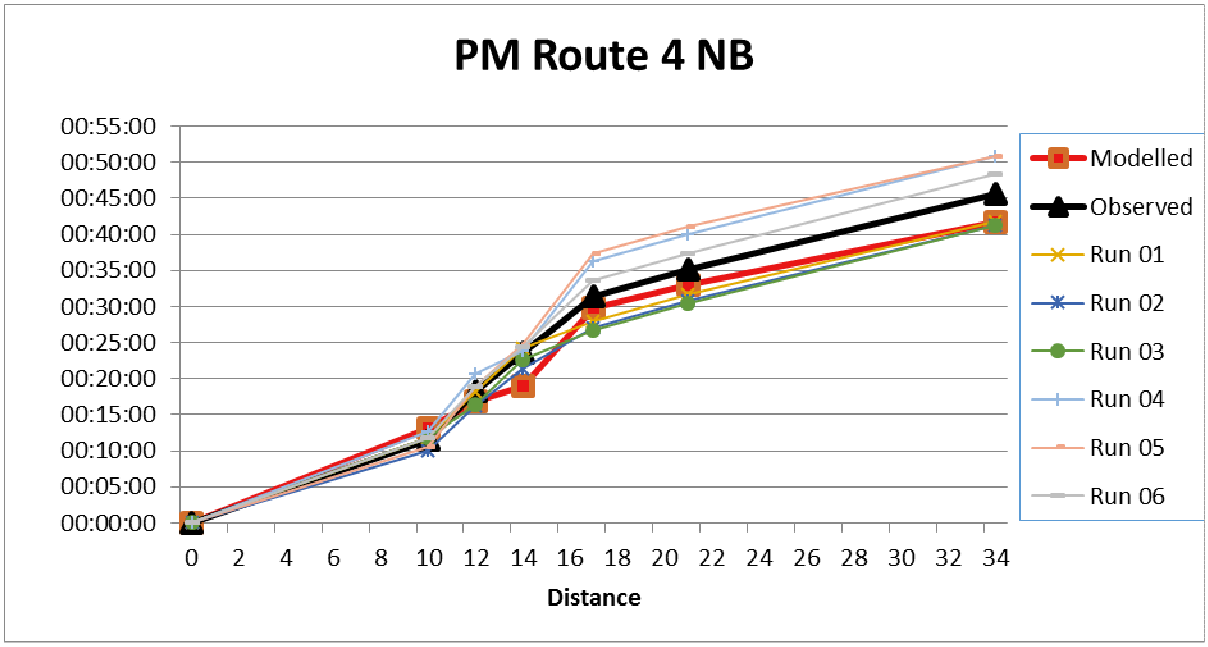

PM Route 1 NB
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

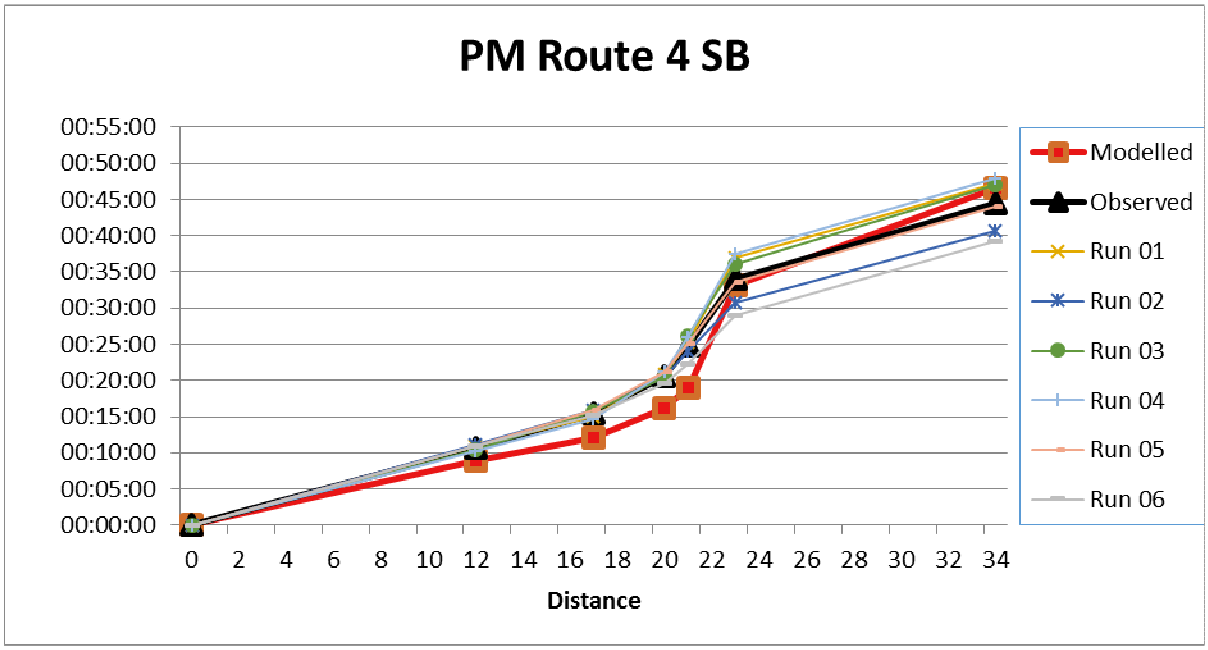

PM Route 2 WB
01:15:00
01:10:00
01:05:00
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

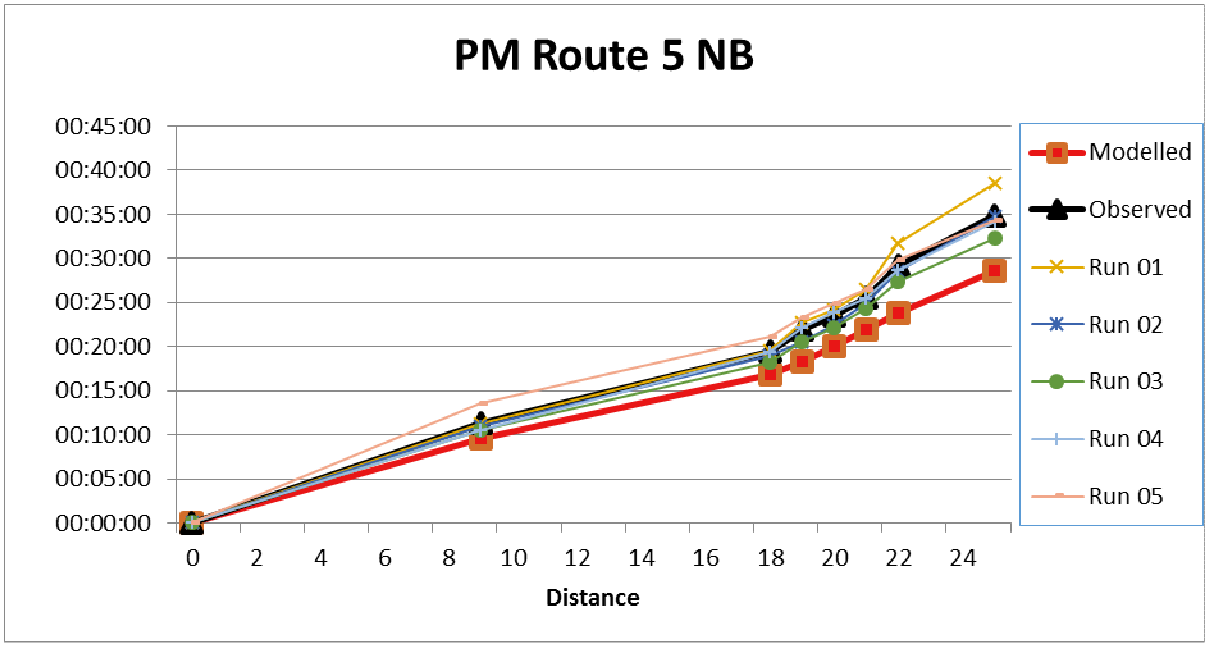

PM Route 2 EB
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 06

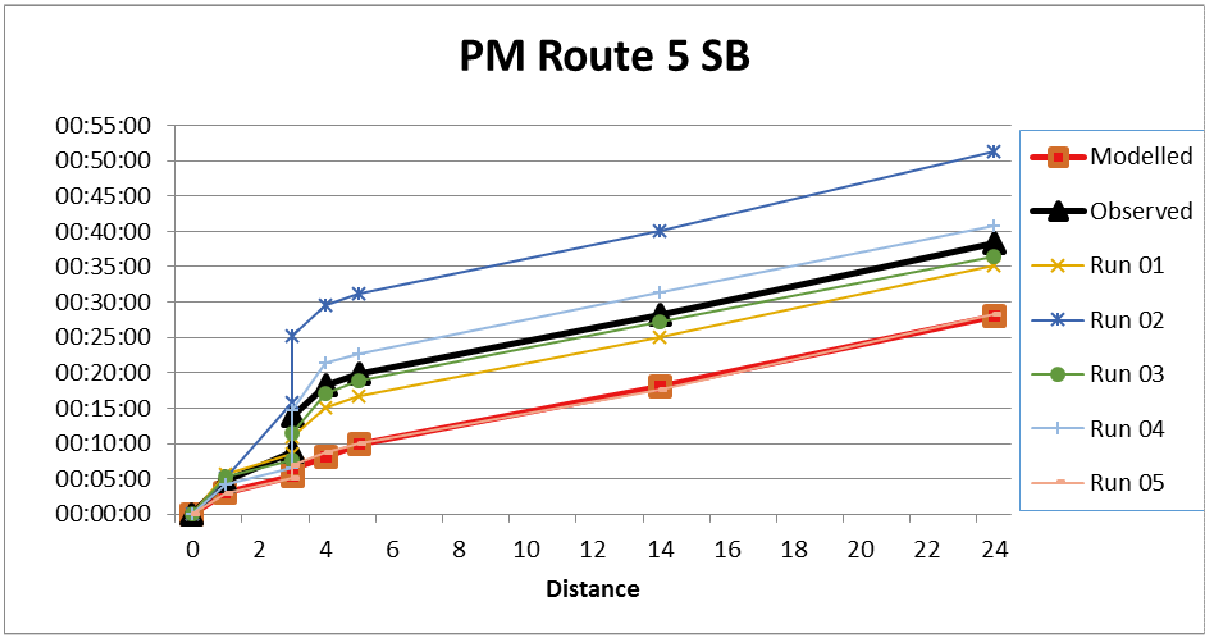

PM Route 3 NB
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

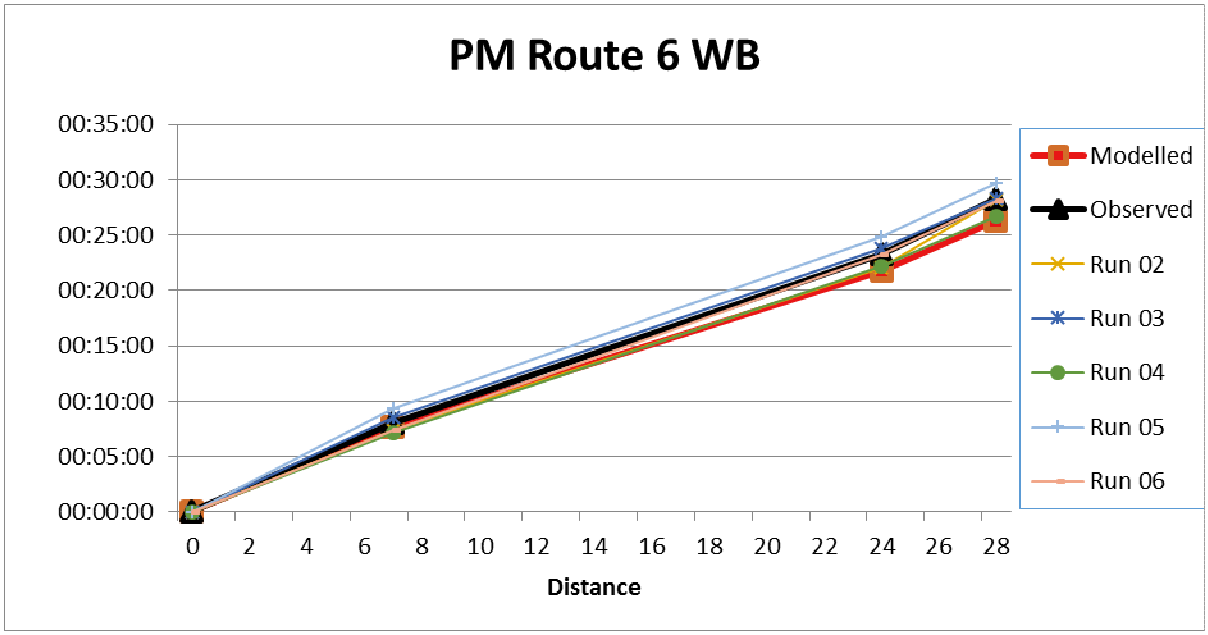

PM Route 3 SB
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

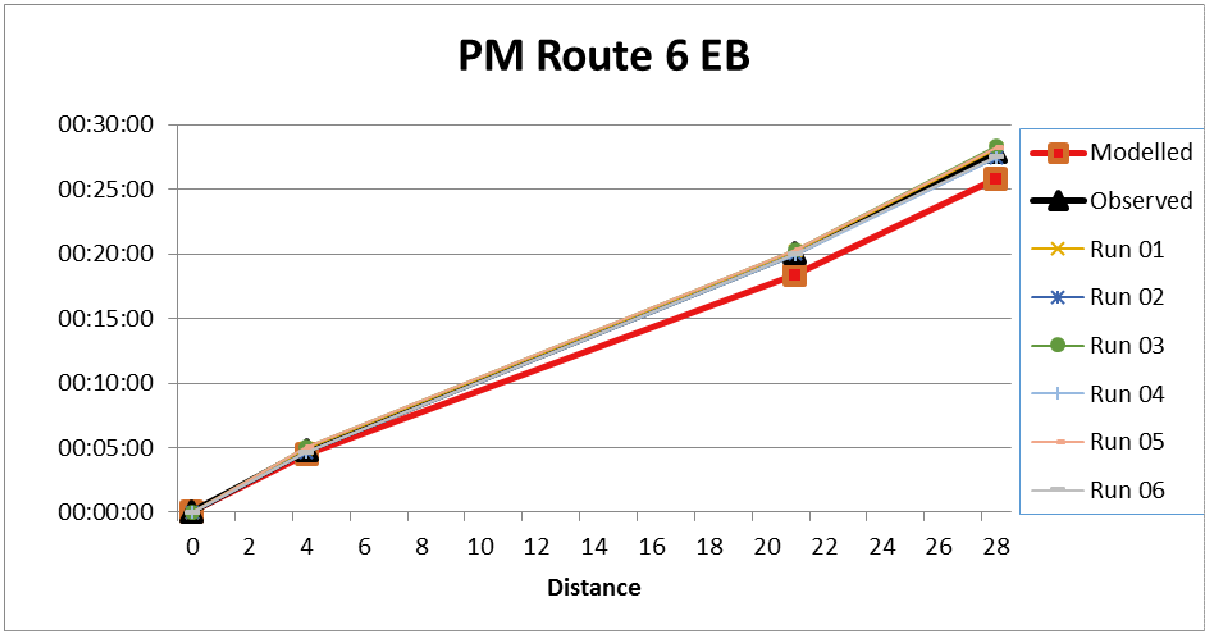

PM Route 4 NB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

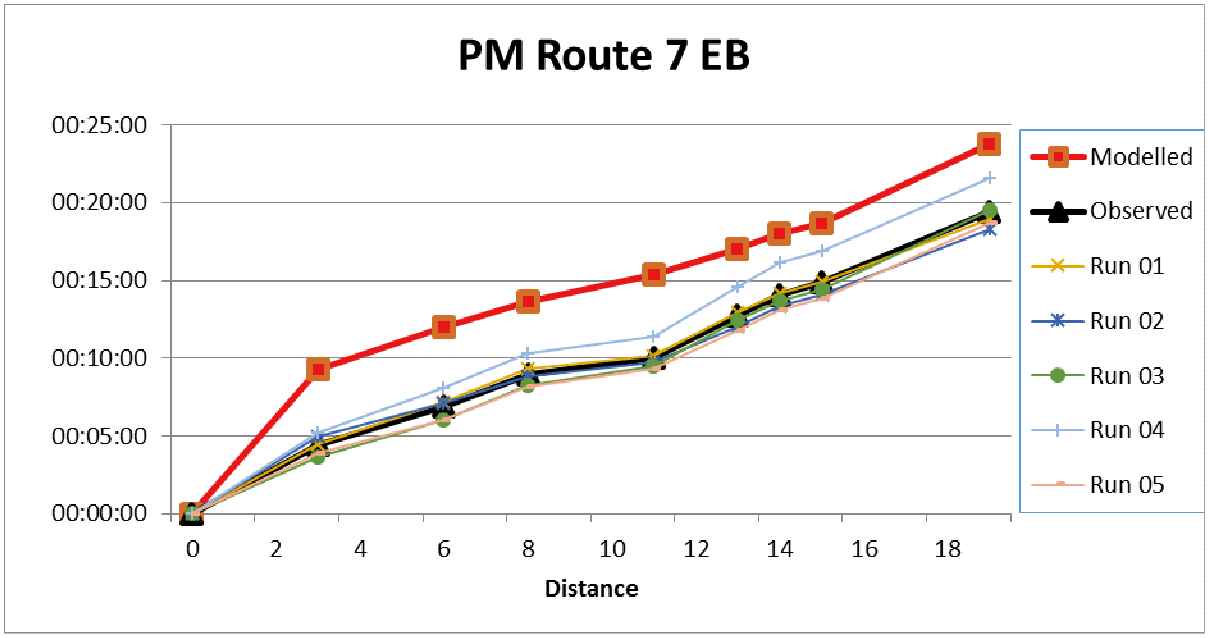

PM Route 4 SB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

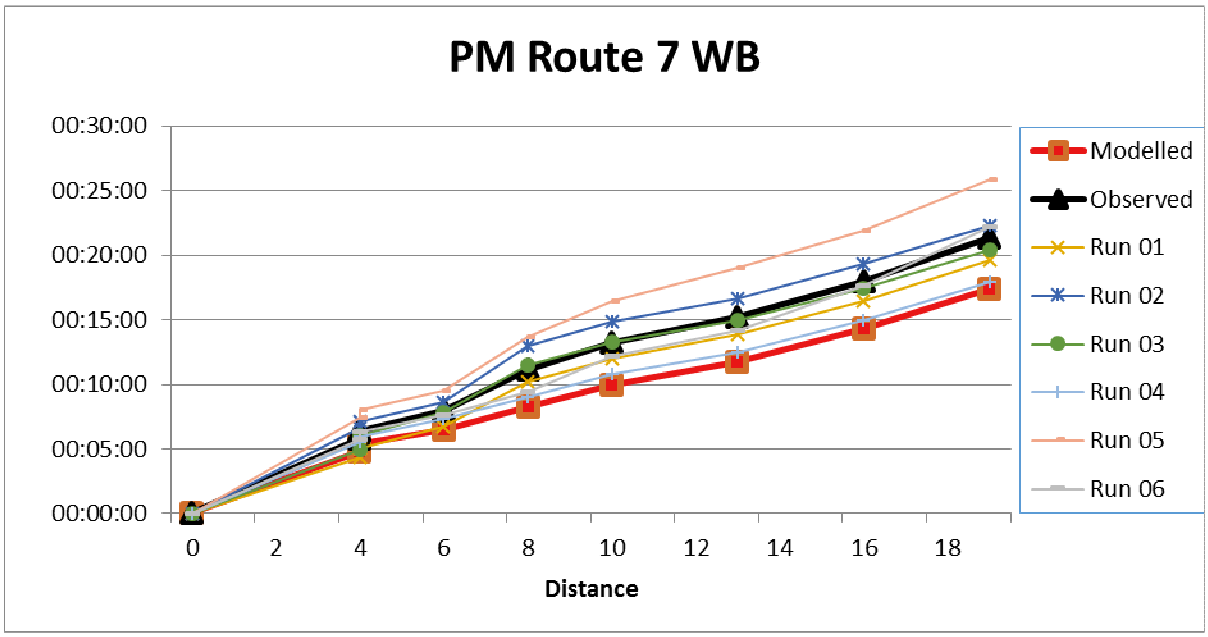

PM Route 5 NB
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

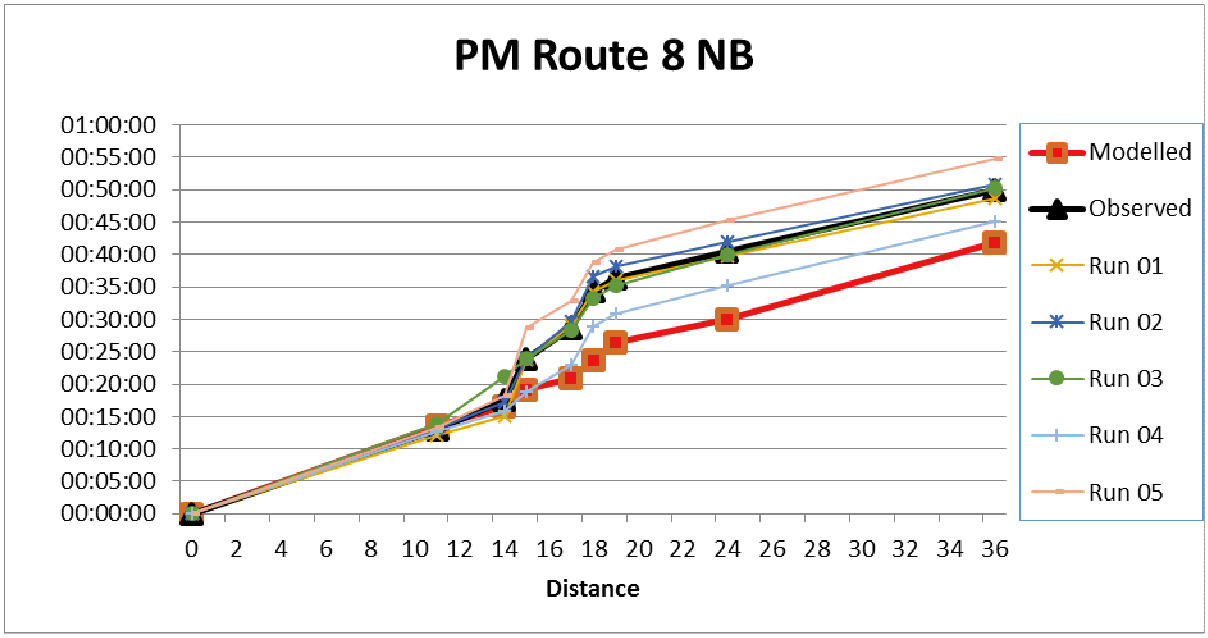

PM Route 5 SB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

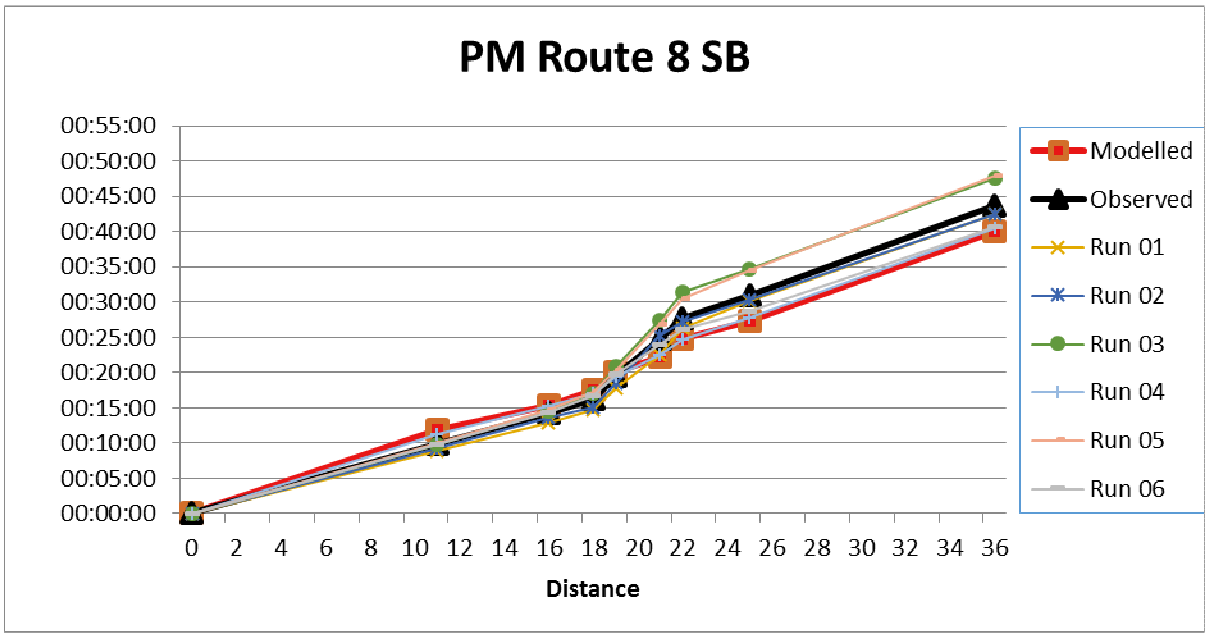

PM Route 6 WB
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Distance
Modelled
Observed
Run 02
Run 03
Run 04
Run 05
Run 06

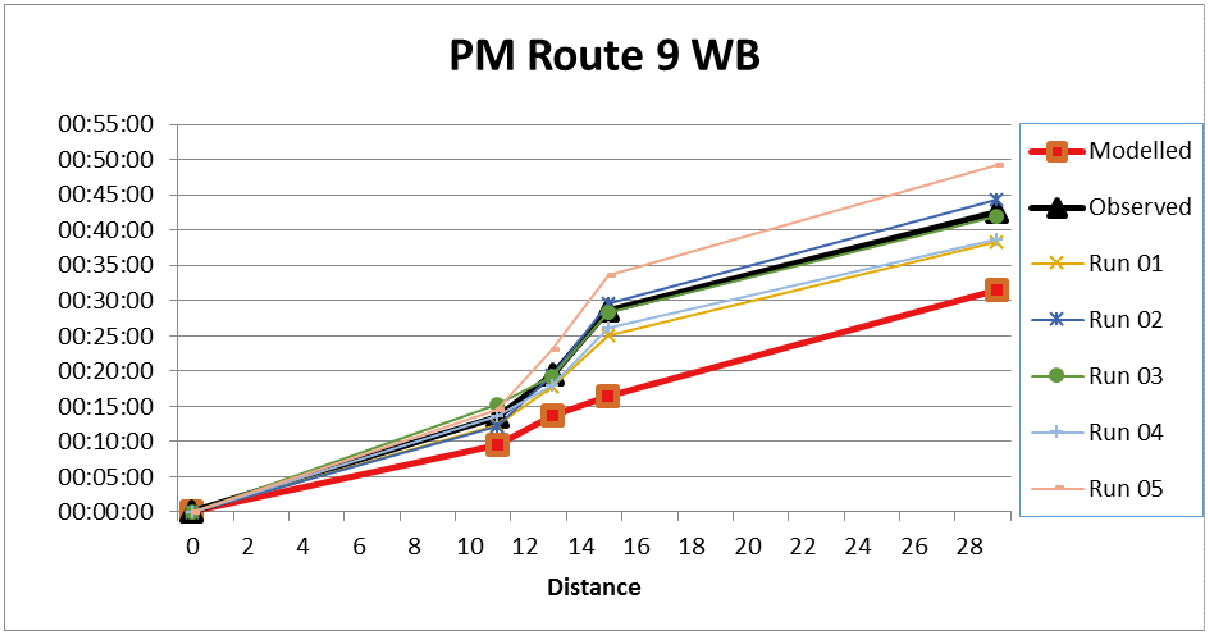

PM Route 6 EB
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

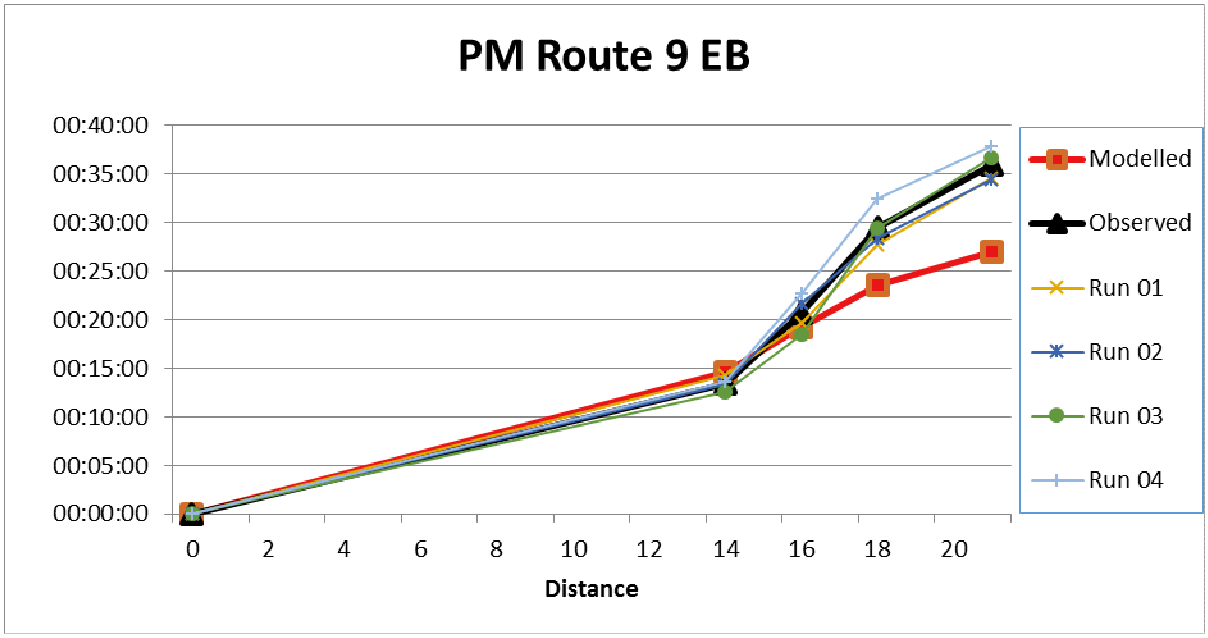

PM Route 7 EB
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
10
12
14
16
18
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

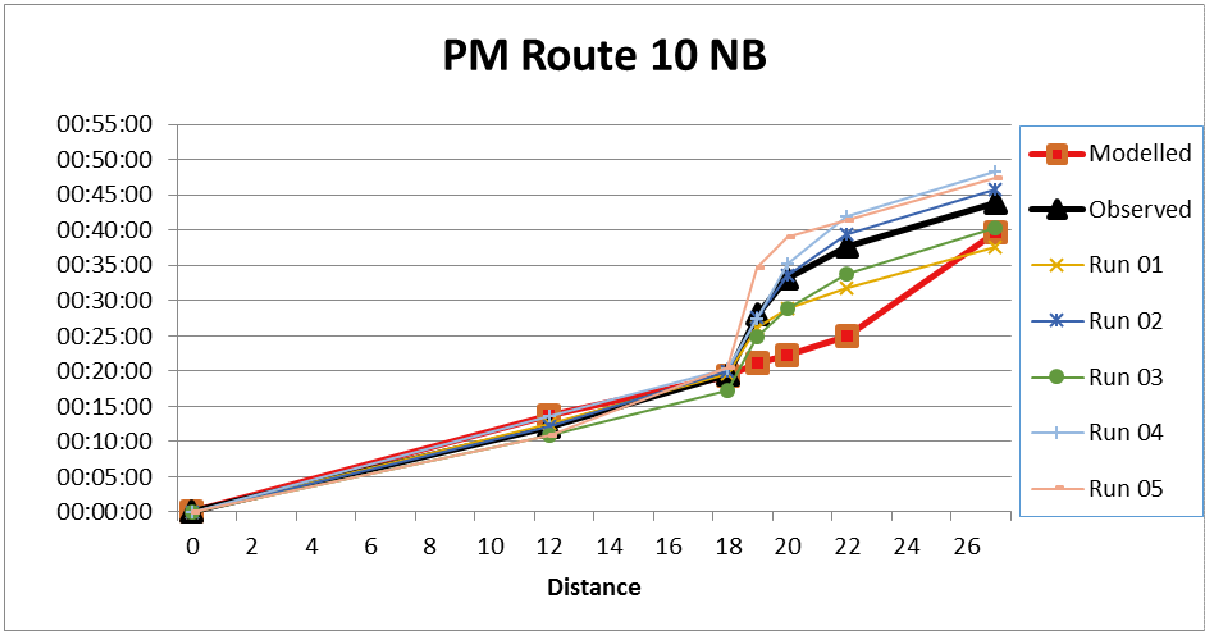

PM Route 7 WB
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0
2
4
6
8
10
12
14
16
18
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

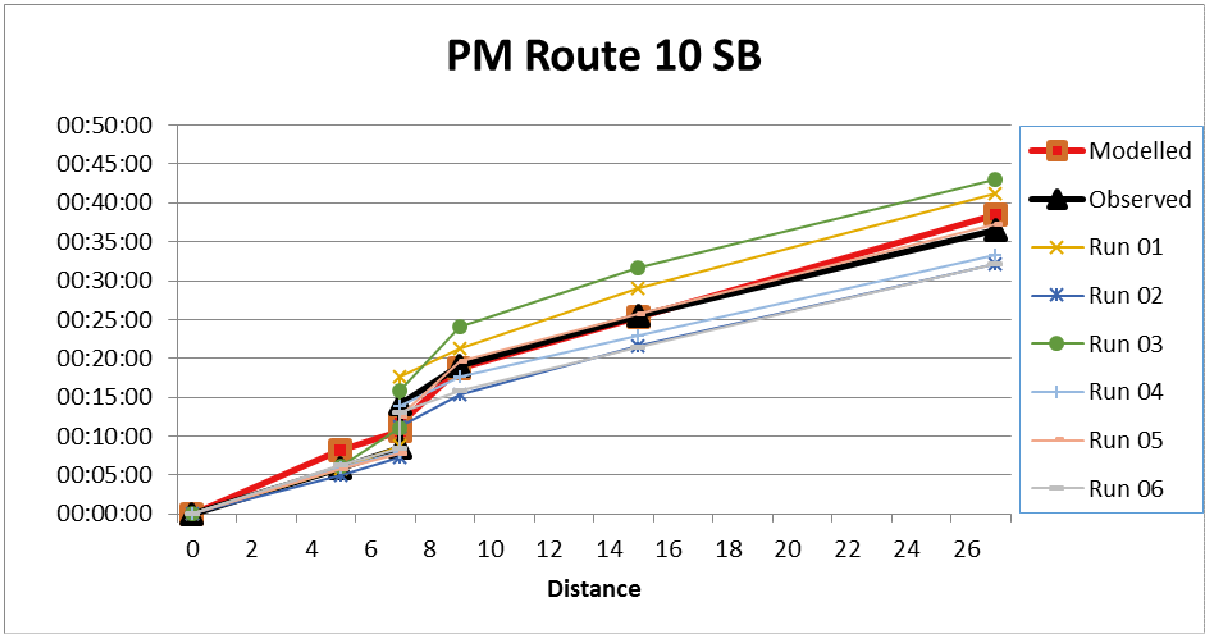

PM Route 8 NB
01:00:00
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05


PM Route 8 SB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

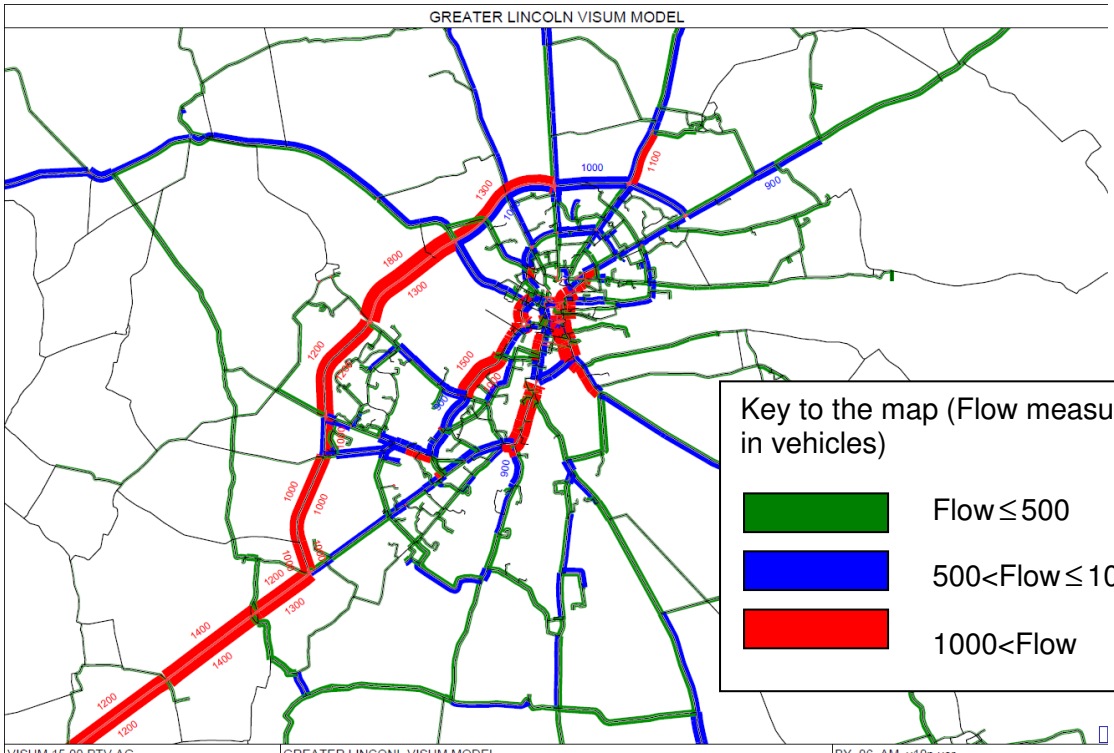

PM Route 9 WB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

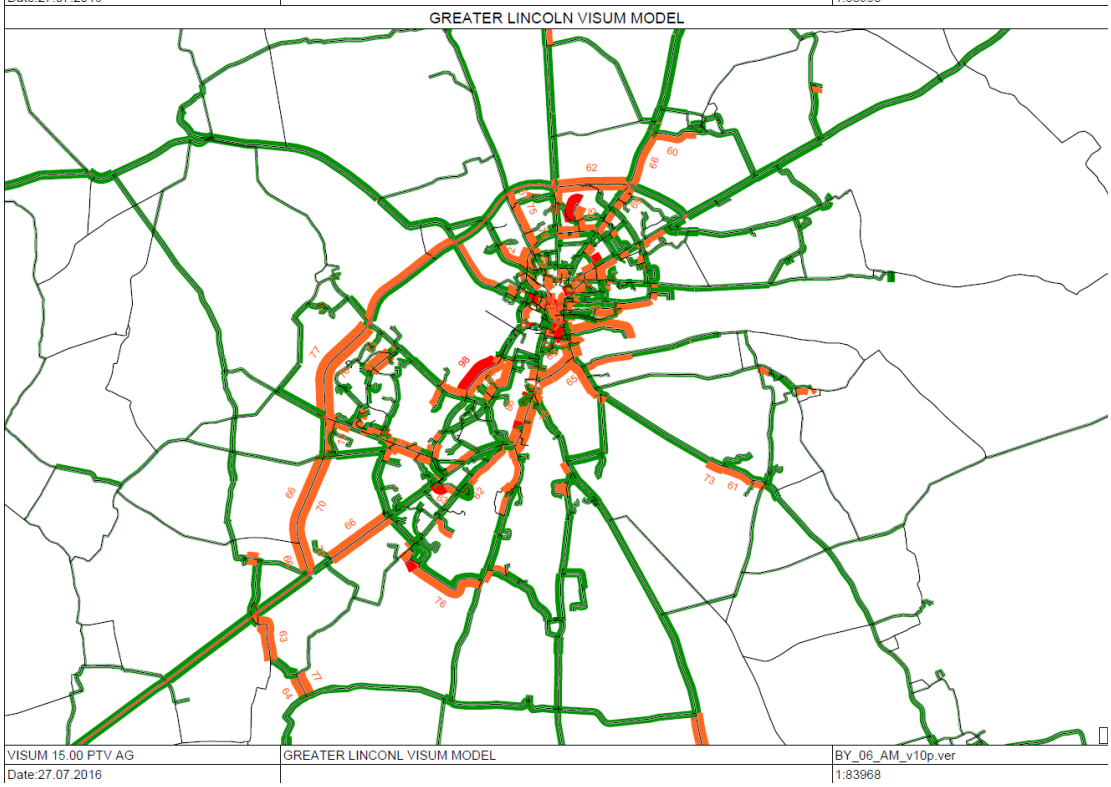

PM Route 9 EB
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04

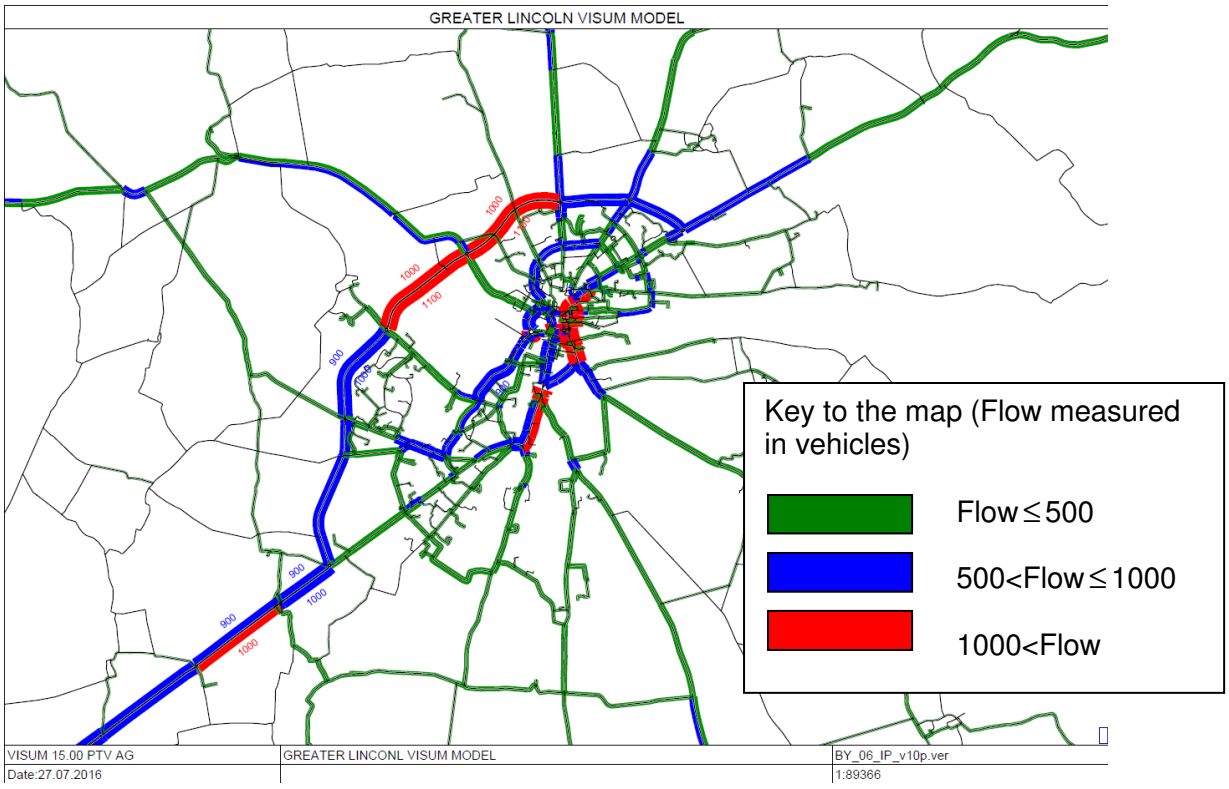

PM Route 10 NB
00:55:00
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05

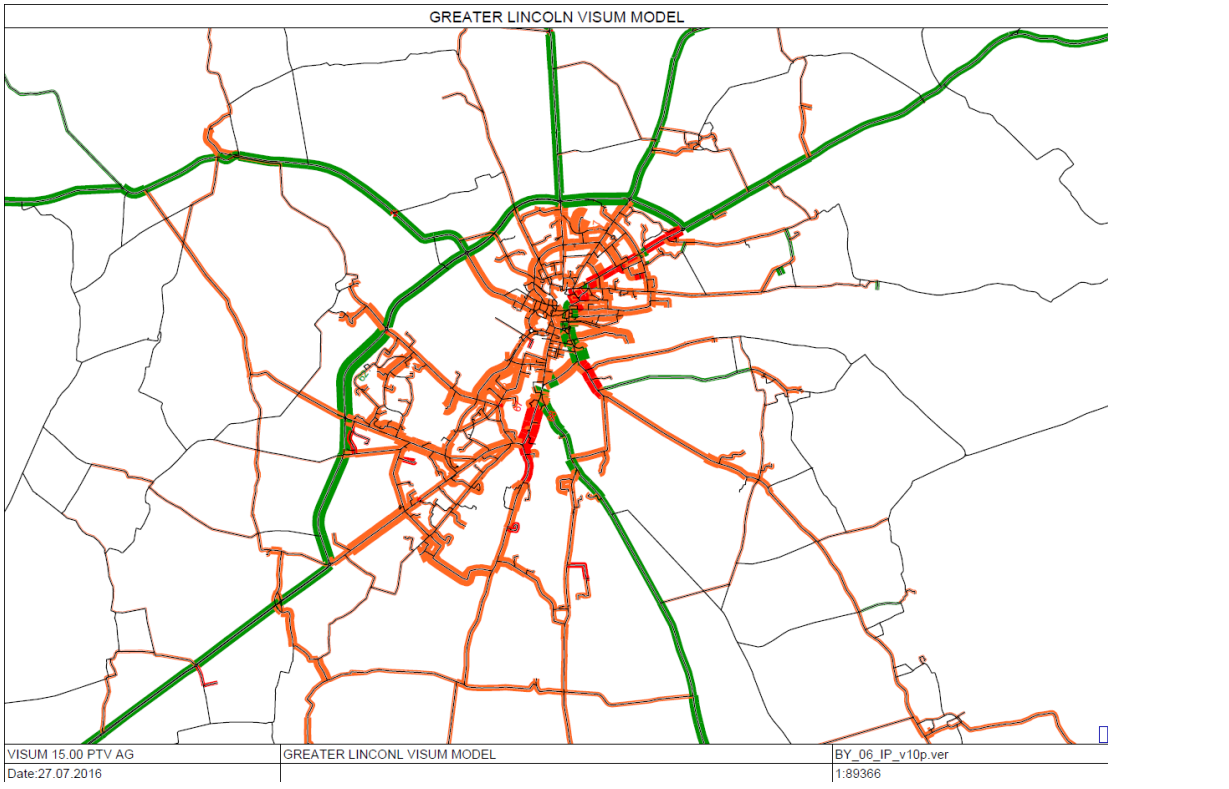

PM Route 10 SB
00:50:00
00:45:00
00:40:00
00:35:00
00:30:00
00:25:00
00:20:00
00:15:00
00:10:00
00:05:00
00:00:00
0 2 4 6 8 10 12 14 16 18 20 22 24 26
Distance
Modelled
Observed
Run 01
Run 02
Run 03
Run 04
Run 05
Run 06

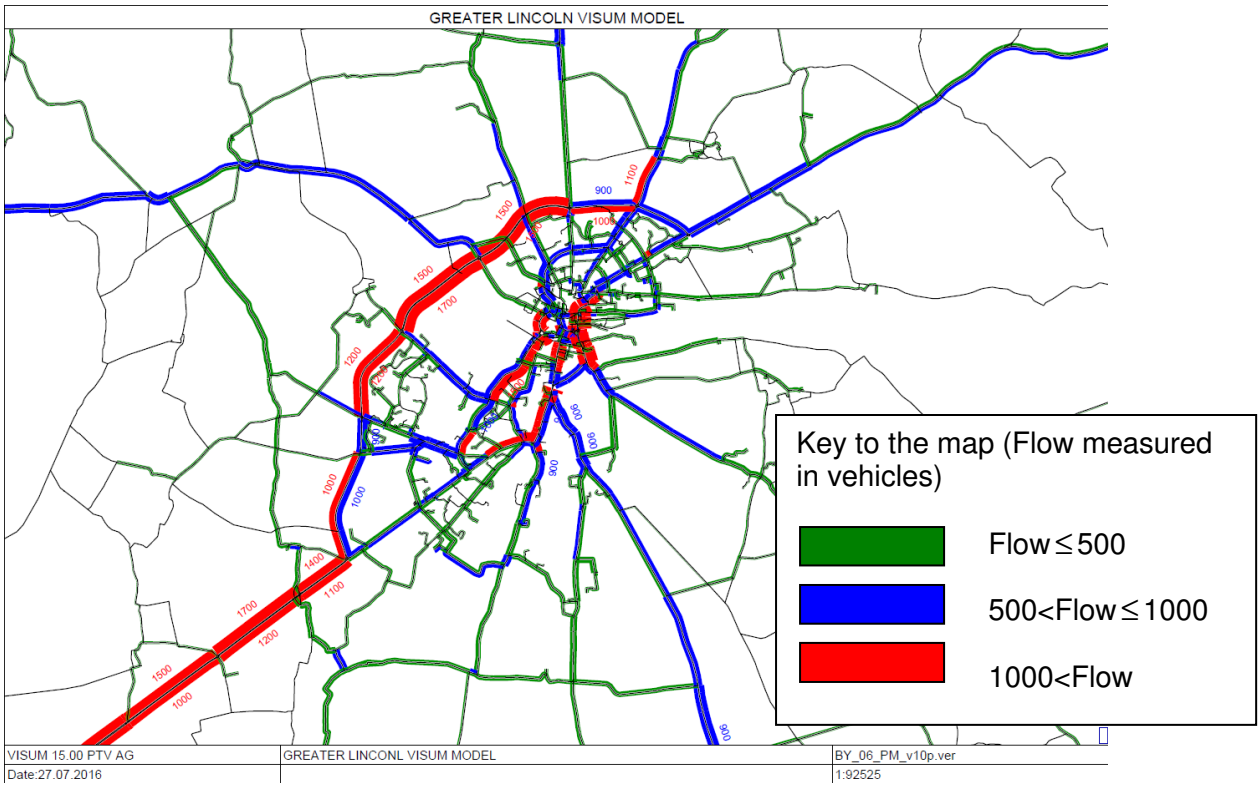
Appendix L – Flow and Volume to Capacity Plots

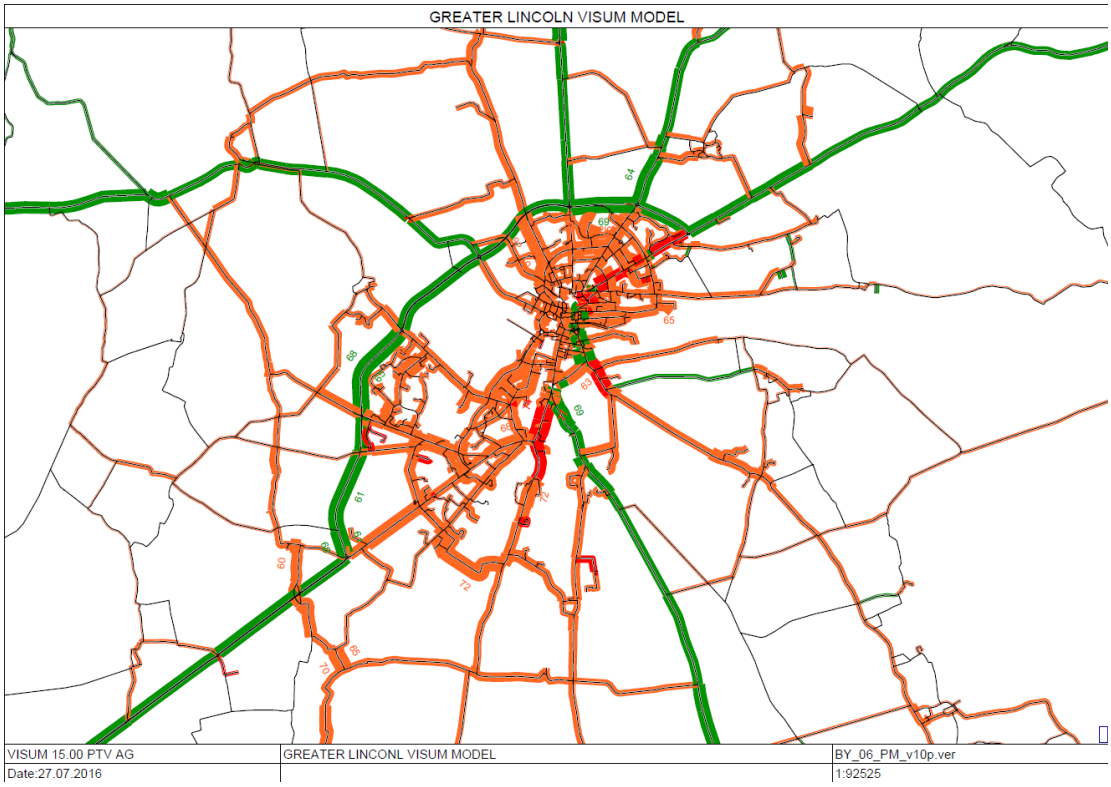




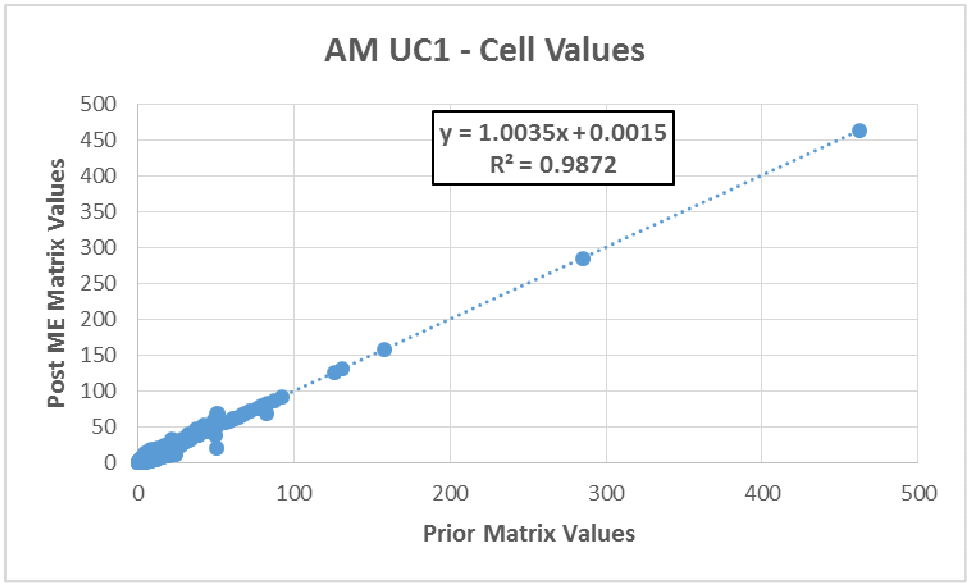

GREATER LINCOLN VISUM MODEL
Key to the map (Flow measured in vehicles)
Flow ≤ 500
500<Flow ≤ 1000
1000<Flow
VISUM 15.00 PTV AG
GREATER LINCONL VISUM MODEL
BY_06_IP_v10p.ver
Date:27.07.2016
1:89366

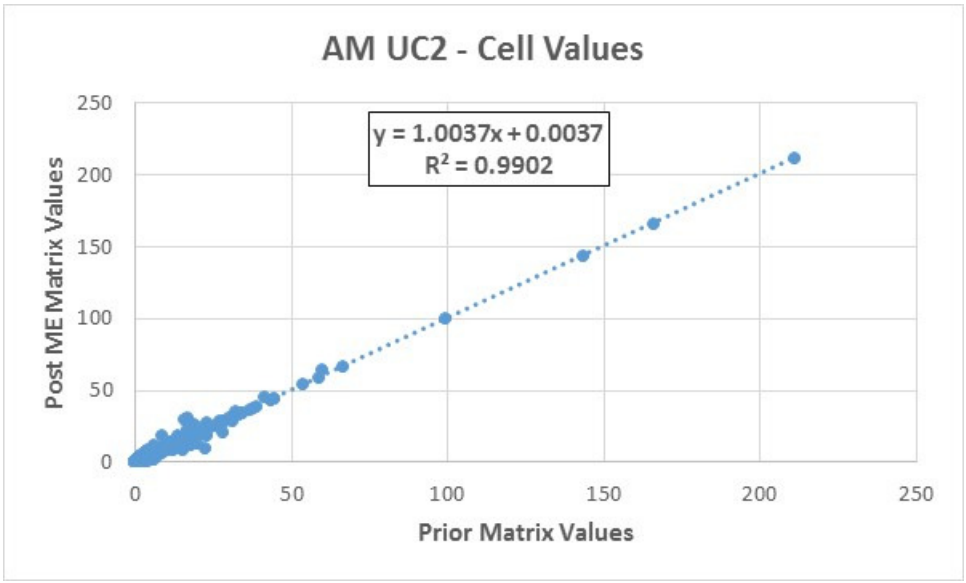

GREATER LINCOLN VISUM MODEL
VISUM 15.00 PTV AG
GREATER LINCONL VISUM MODEL
BY_06_IP_v10p.ver
Date:27.07.2016
1:89366

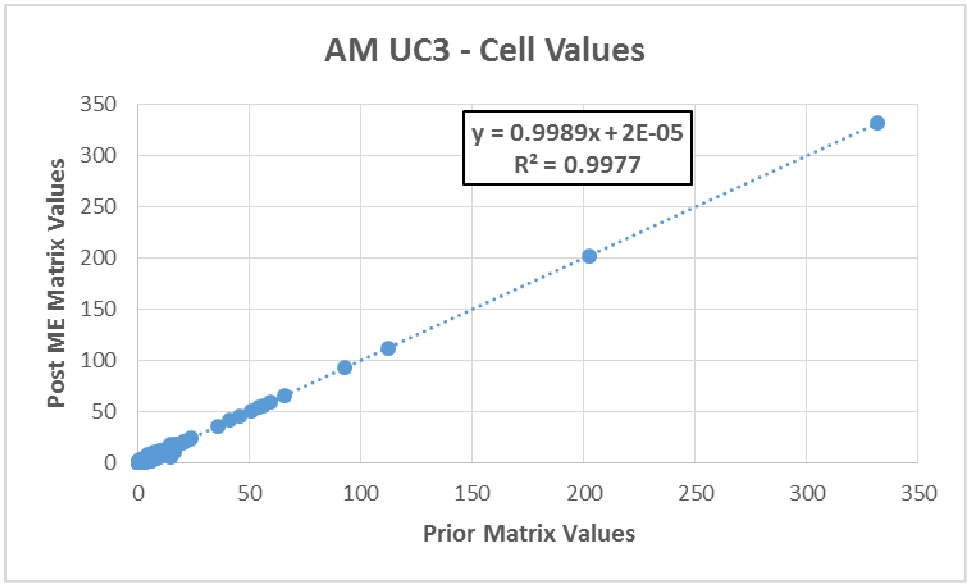

GREATER LINCOLN VISUM MODEL
Key to the map (Flow measured in vehicles)
Flow ≤ 500
500<Flow ≤ 1000
1000<Flow
VISUM 15.00 PTV AG
GREATER LINCONL VISUM MODEL
BY_06_PM_v10p.ver
Date:27.07.2016
1:92525

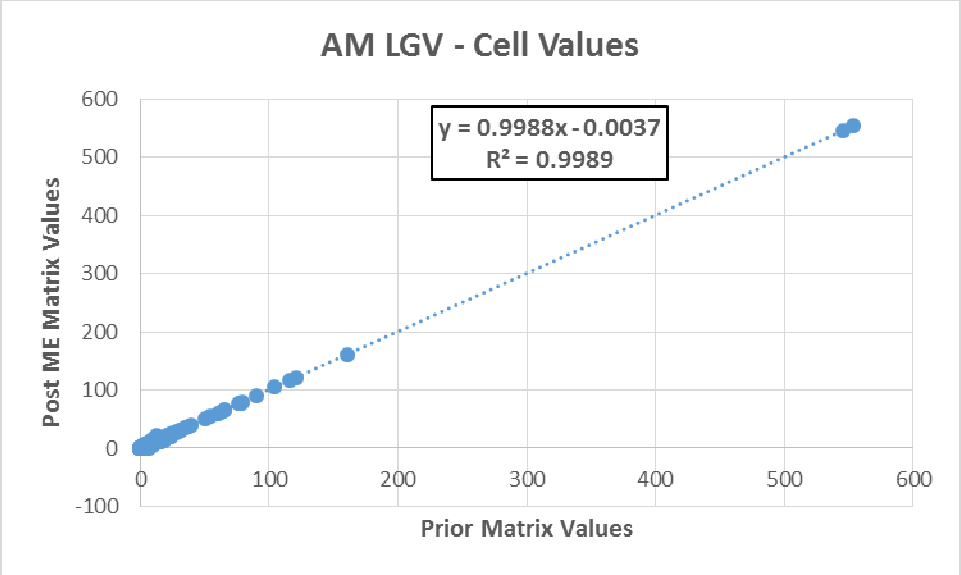

GREATER LINCOLN VISUM MODEL
VISUM 15.00 PTV AG
GREATER LINCONL VISUM MODEL
BY_06_PM_v10p.ver
Date:27.07.2016
1:92525

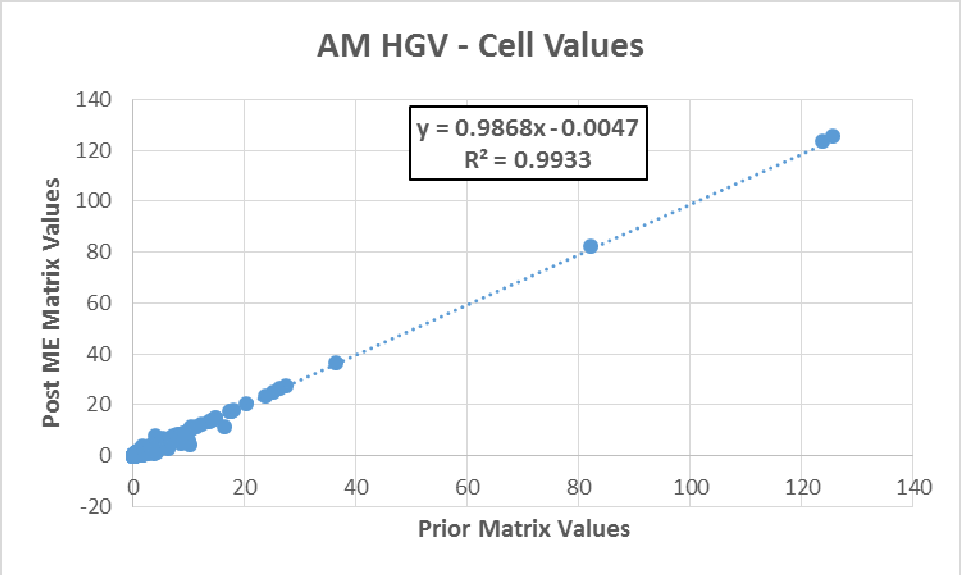
Appendix M – ME Statistics

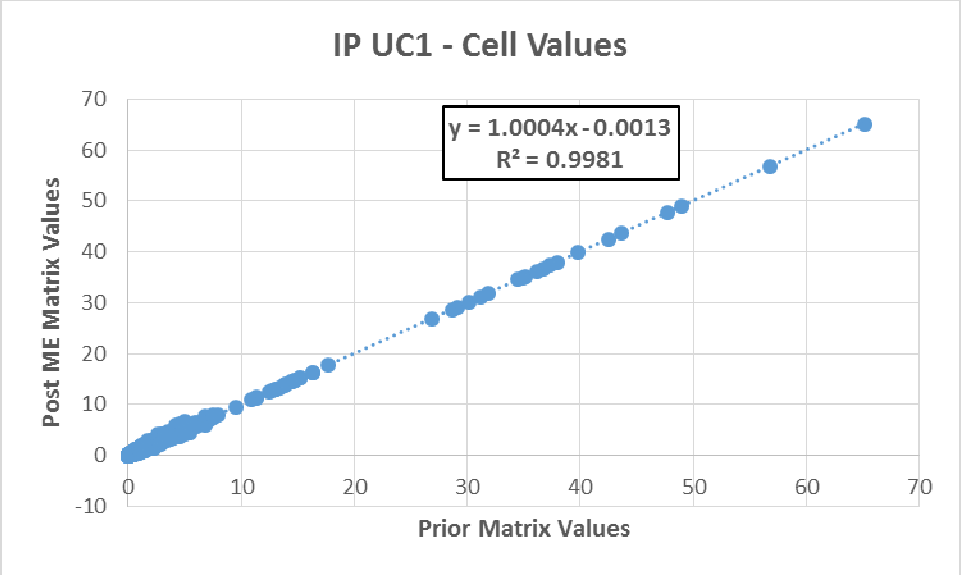

AM UC1 - Cell Values
y = 1.0035x + 0.0015
R² = 0.9872
Post ME Matrix Values
Prior Matrix Values
0
50
100
150
200
250
300
350
400
450
500

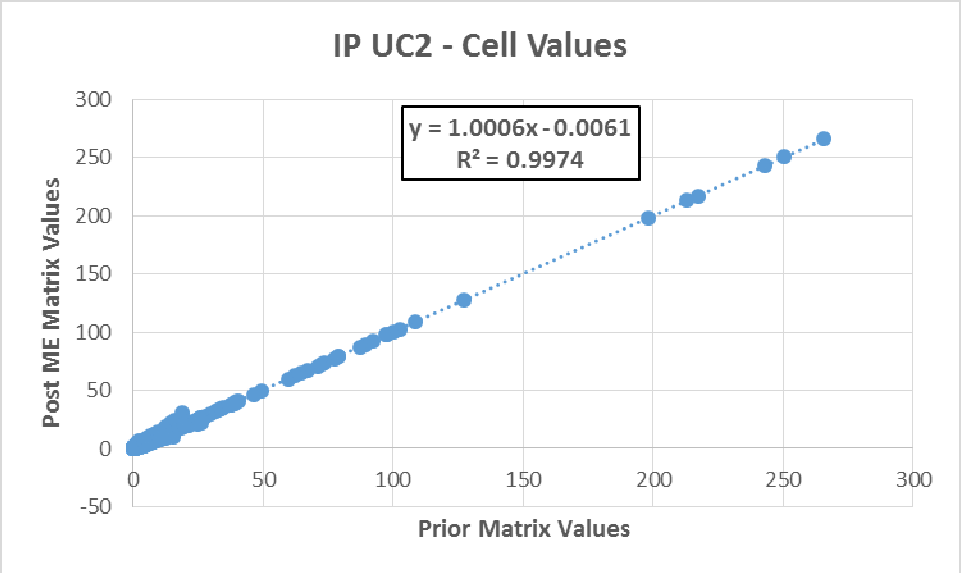

AM UC2 - Cell Values
y = 1.0037x + 0.0037
R² = 0.9902
Post ME Matrix Values
Prior Matrix Values
0
50
100
150
200
250

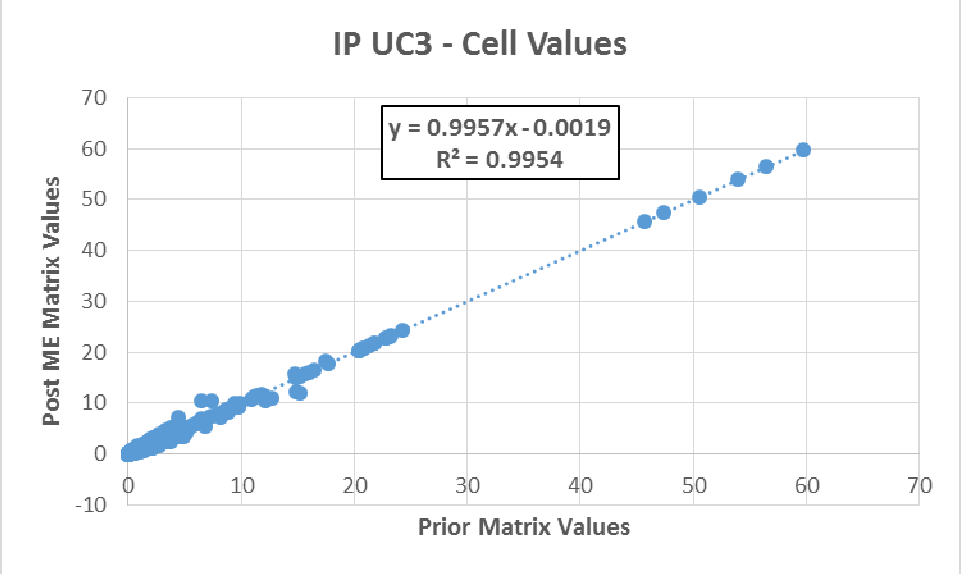

AM UC3 - Cell Values
y = 0.9989x + 2E-05
R² = 0.9977
Post ME Matrix Values
Prior Matrix Values
0
50
100
150
200
250
300
350

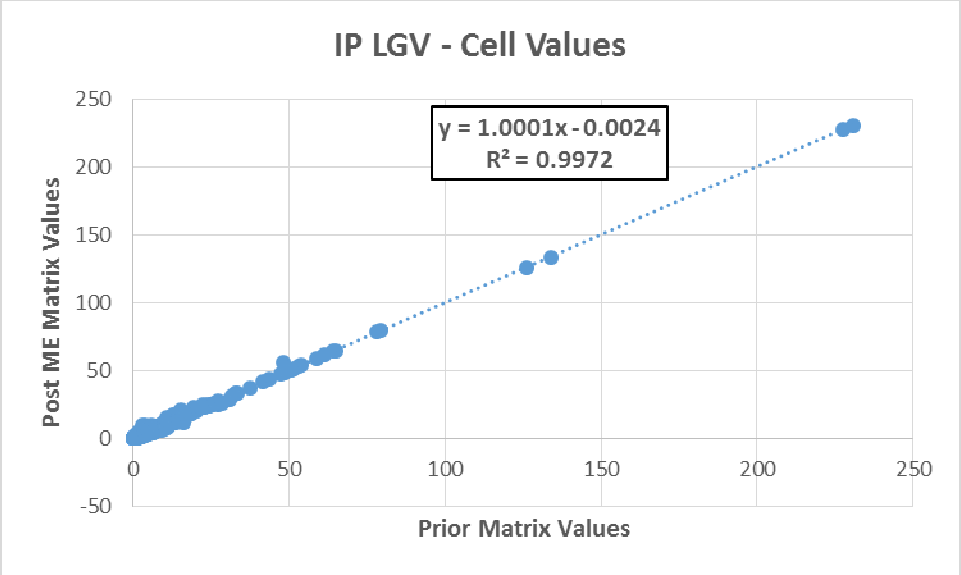

AM LGV - Cell Values
y = 0.9988x - 0.0037
R² = 0.9989
Post ME Matrix Values
Prior Matrix Values
600
500
400
300
200
100
0
-100
0
100
200
300
400
500
600

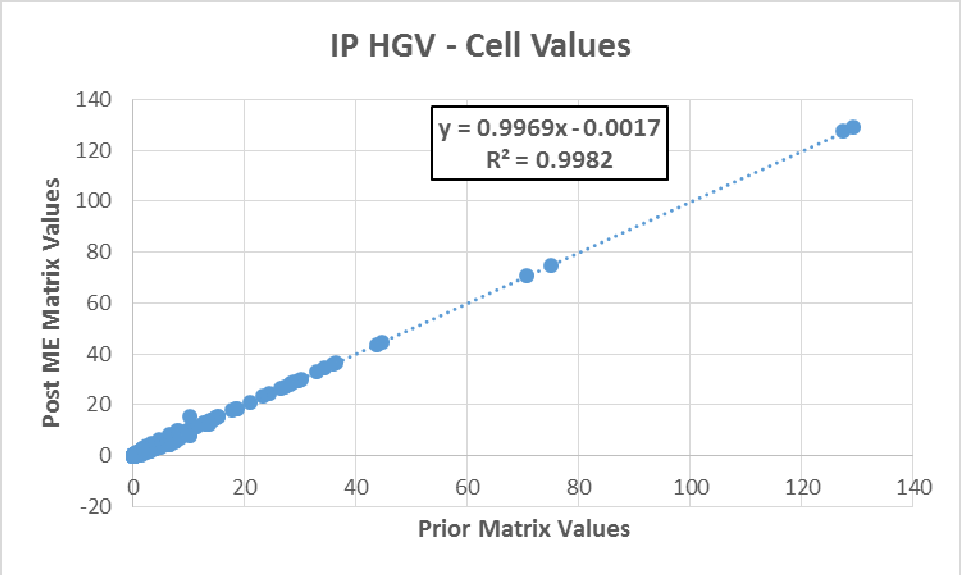

AM HGV - Cell Values
y = 0.9868x - 0.0047
R² = 0.9933
Post ME Matrix Values
Prior Matrix Values
140
120
100
80
60
40
20
0
-20
0
20
40
60
80
100
120
140

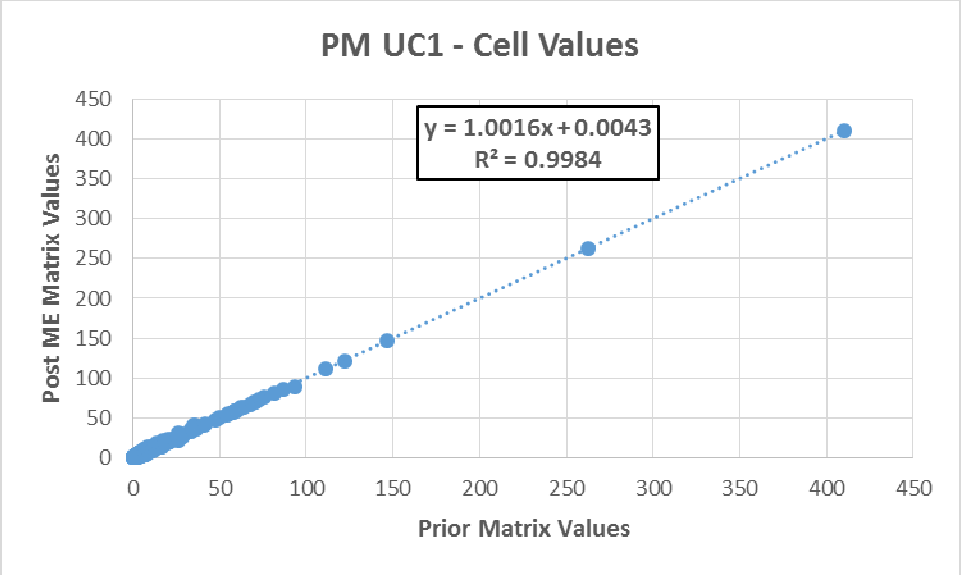

IP UC1 - Cell Values
y = 1.0004x - 0.0013
R² = 0.9981
Post ME Matrix Values
Prior Matrix Values
70
60
50
40
30
20
10
0
-10
0
10
20
30
40
50
60
70

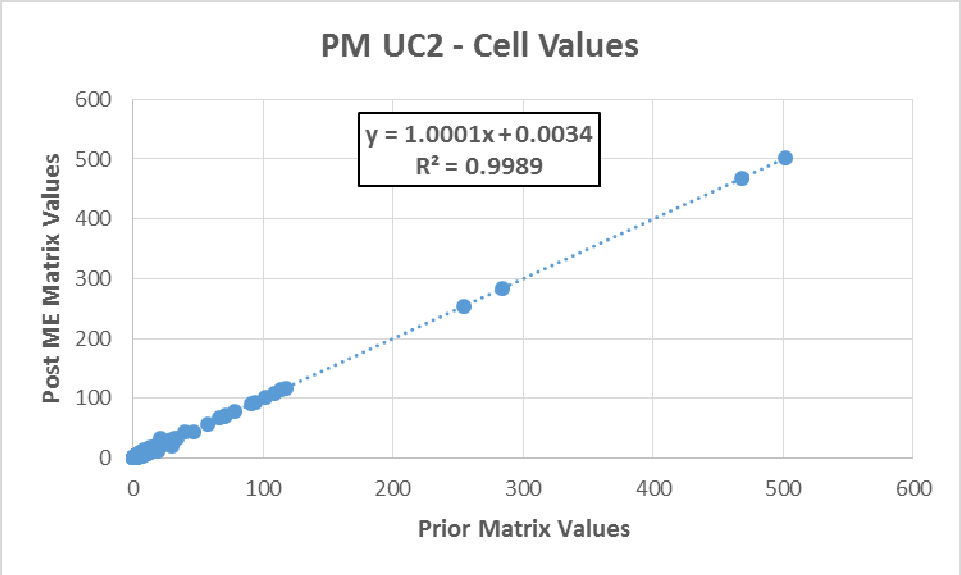

IP UC2 - Cell Values
y = 1.0006x - 0.0061
R² = 0.9974
Post ME Matrix Values
Prior Matrix Values
300
250
200
150
100
50
0
-50
0
50
100
150
200
250
300

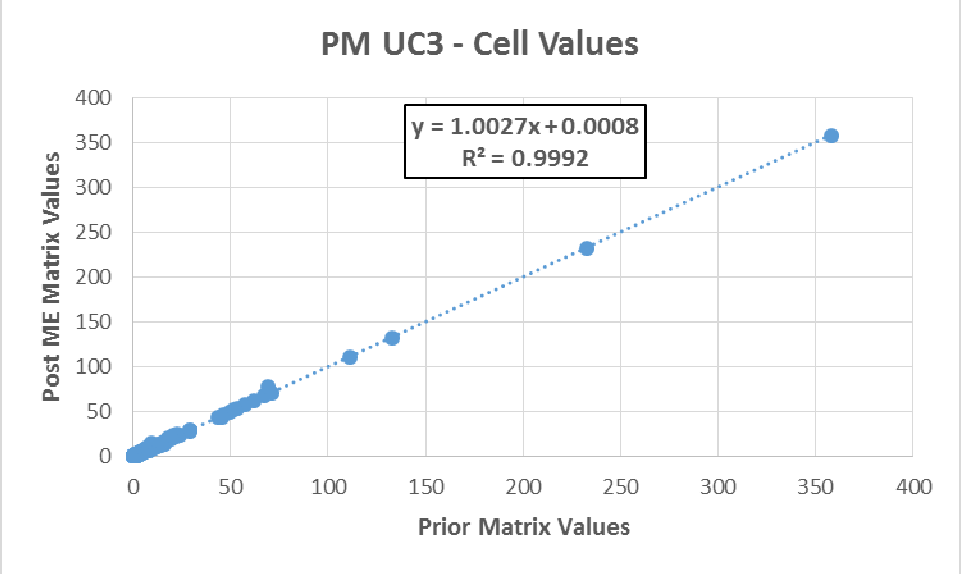

IP UC3 - Cell Values
y = 0.9957x - 0.0019
R² = 0.9954
Post ME Matrix Values
Prior Matrix Values
70
60
50
40
30
20
10
0
-10
0
10
20
30
40
50
60
70

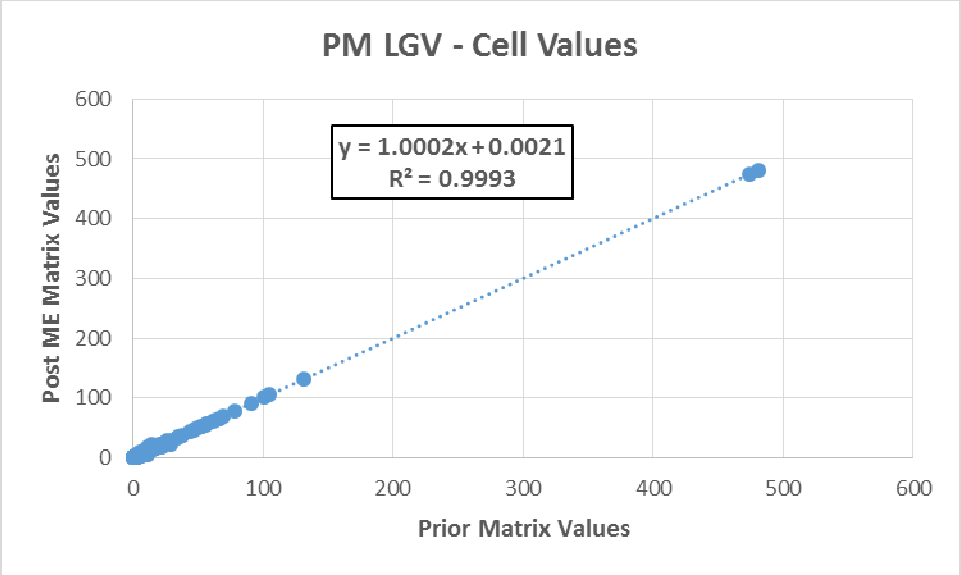

IP LGV - Cell Values
y = 1.0001x - 0.0024
R² = 0.9972
Post ME Matrix Values
Prior Matrix Values
250
200
150
100
50
0
-50
0
50
100
150
200
250

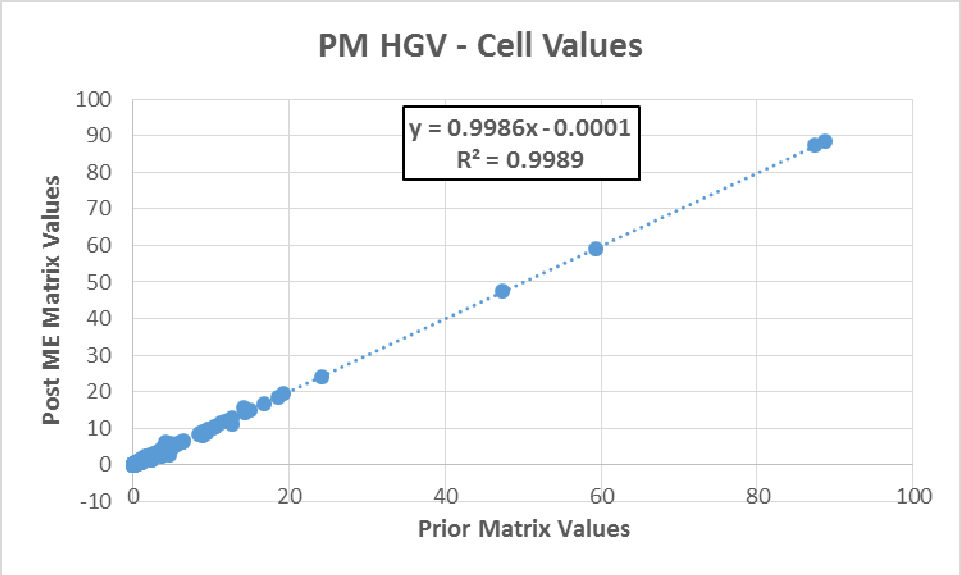

IP HGV - Cell Values
y = 0.9969x - 0.0017
R² = 0.9982
Post ME Matrix Values
Prior Matrix Values
140
120
100
80
60
40
20
0
-20
0
20
40
60
80
100
120
140

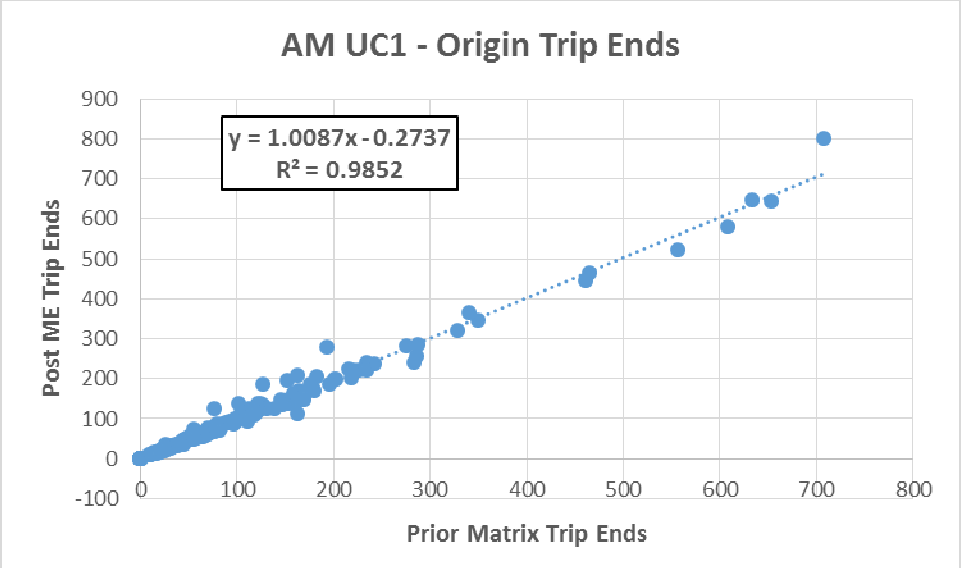

PM UC1 - Cell Values
y = 1.0016x + 0.0043
R² = 0.9984
Post ME Matrix Values
Prior Matrix Values
0
50
100
150
200
250
300
350
400
450

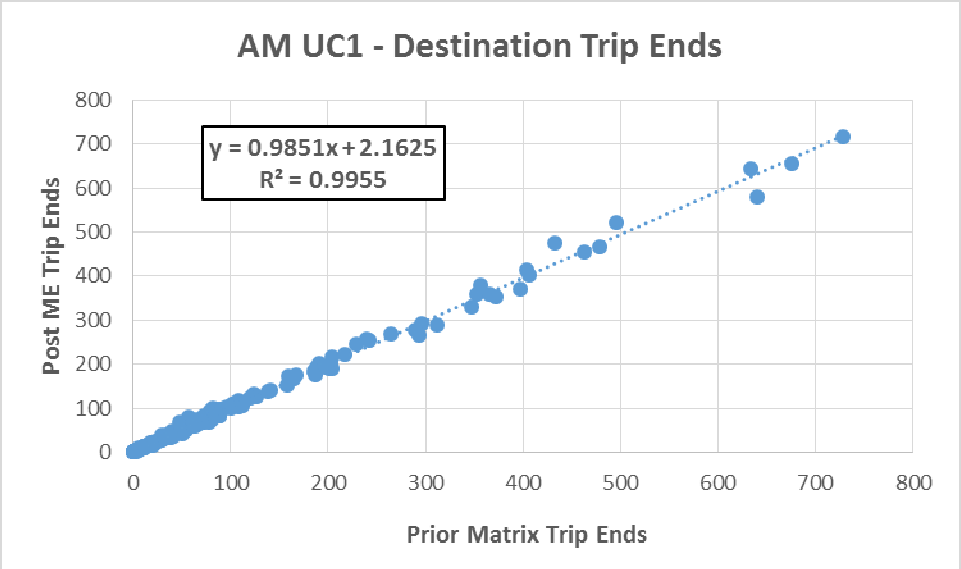

PM UC2 - Cell Values
y = 1.0001x + 0.0034
R² = 0.9989
Post ME Matrix Values
Prior Matrix Values
0
100
200
300
400
500
600

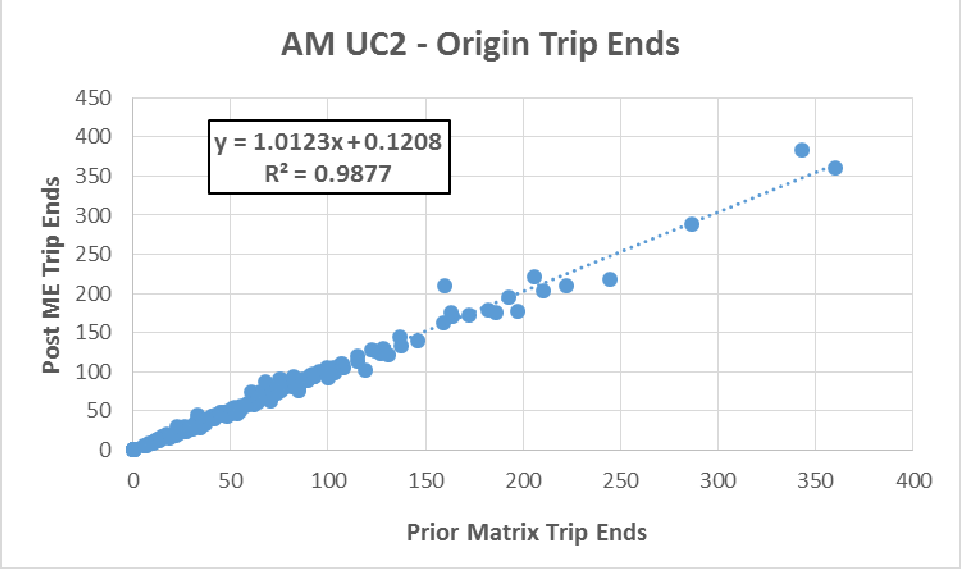

PM UC3 - Cell Values
y = 1.0027x + 0.0008
R² = 0.9992
Post ME Matrix Values
Prior Matrix Values
0
50
100
150
200
250
300
350
400

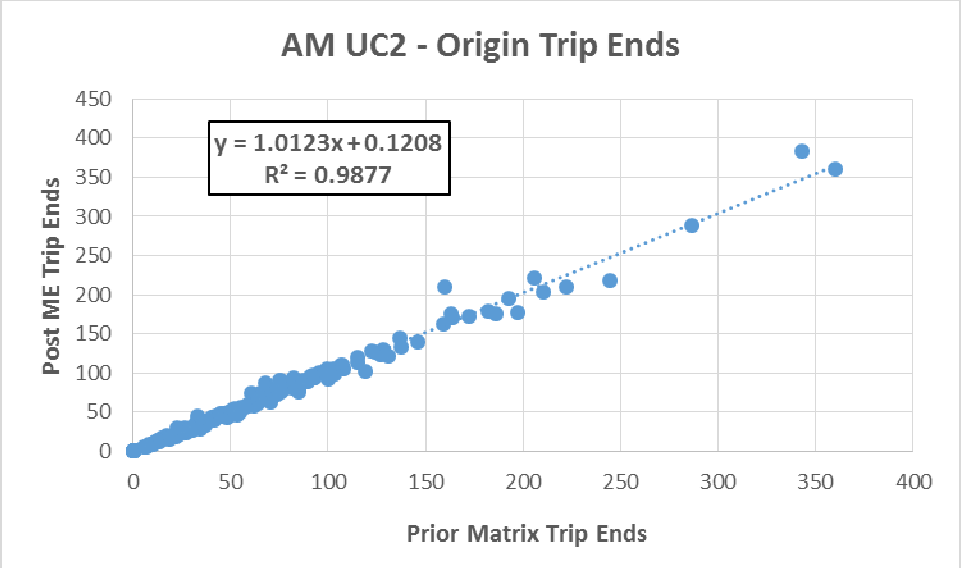

PM LGV - Cell Values
y = 1.0002x + 0.0021
R² = 0.9993
Post ME Matrix Values
Prior Matrix Values
0
100
200
300
400
500
600

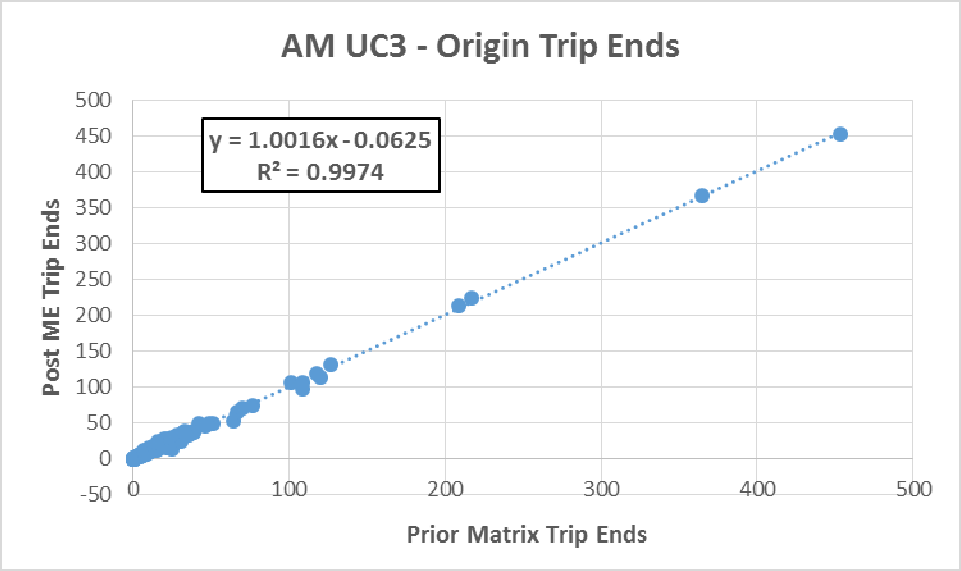

PM HGV - Cell Values
y = 0.9986x - 0.0001
R² = 0.9989
Post ME Matrix Values
Prior Matrix Values
-10
0
10
20
30
40
50
60
70
80
90
100
0
20
40
60
80
100

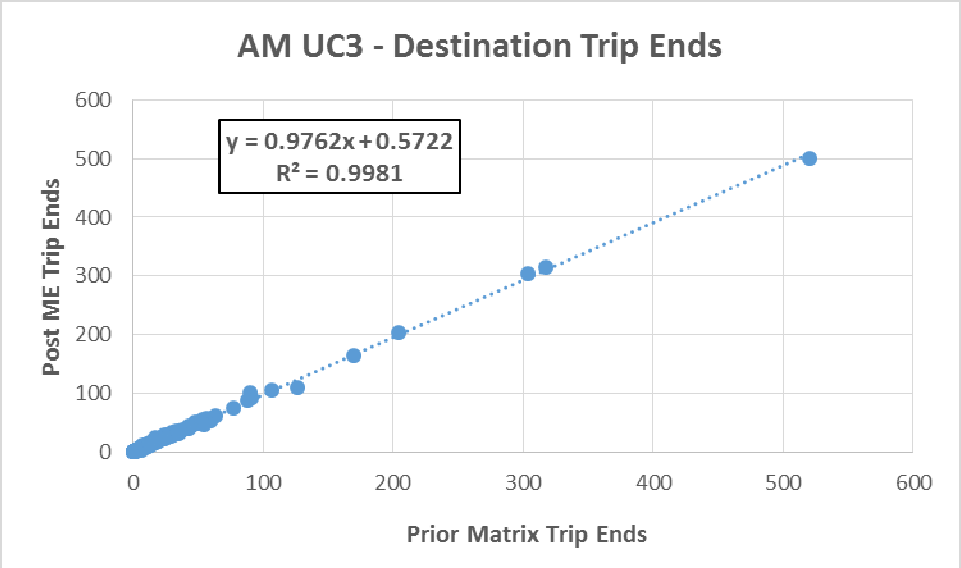

AM UC1 - Origin Trip Ends
y = 1.0087x - 0.2737
R² = 0.9852
Post ME Trip Ends
Prior Matrix Trip Ends
900
800
700
600
500
400
300
200
100
0
-100
0
100
200
300
400
500
600
700
800

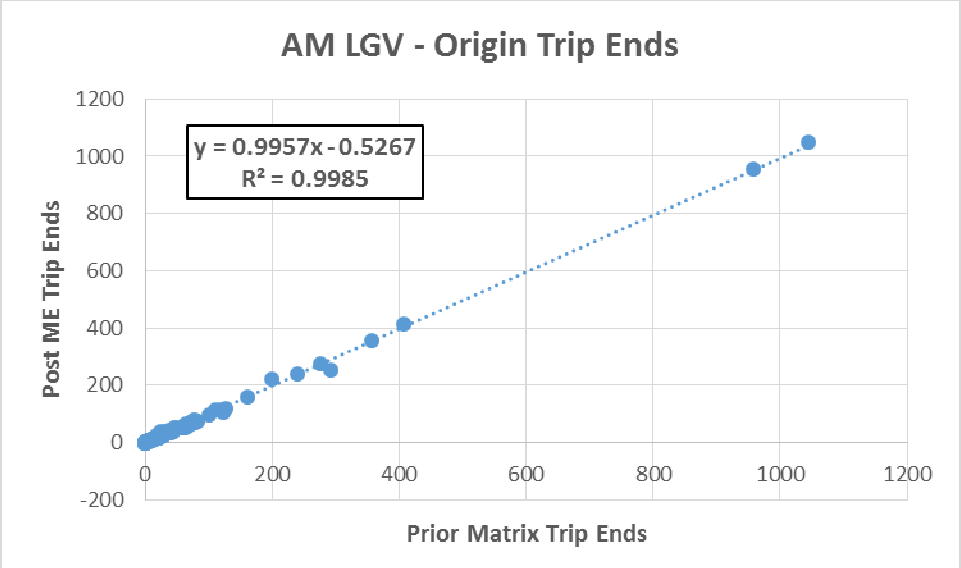

AM UC1 - Destination Trip Ends
y = 0.9851x + 2.1625
R² = 0.9955
Post ME Trip Ends
Prior Matrix Trip Ends
800
700
600
500
400
300
200
100
0
0
100
200
300
400
500
600
700
800

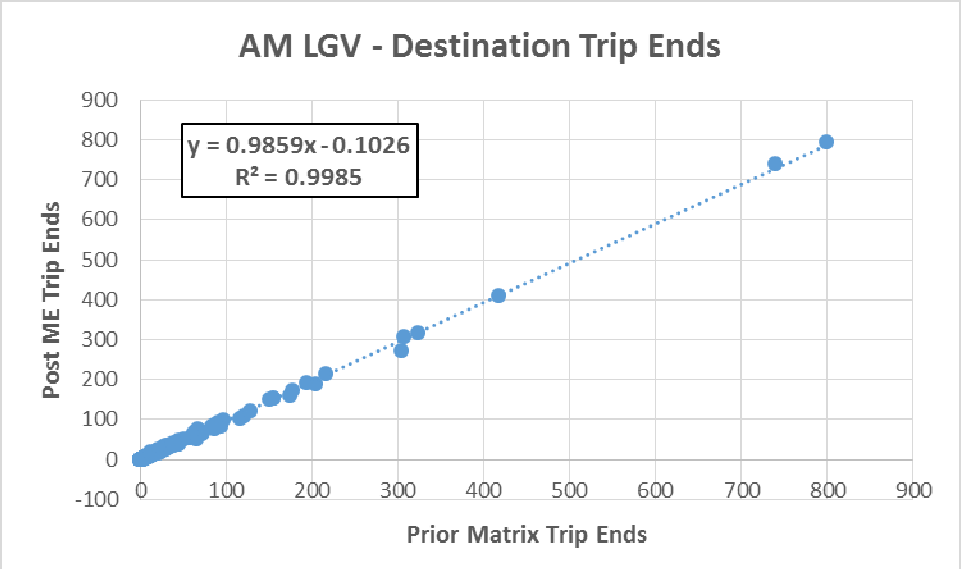

AM UC2 - Origin Trip Ends
y = 1.0123x + 0.1208
R² = 0.9877
Post ME Trip Ends
Prior Matrix Trip Ends
450
400
350
300
250
200
150
100
50
0
0
50
100
150
200
250
300
350
400

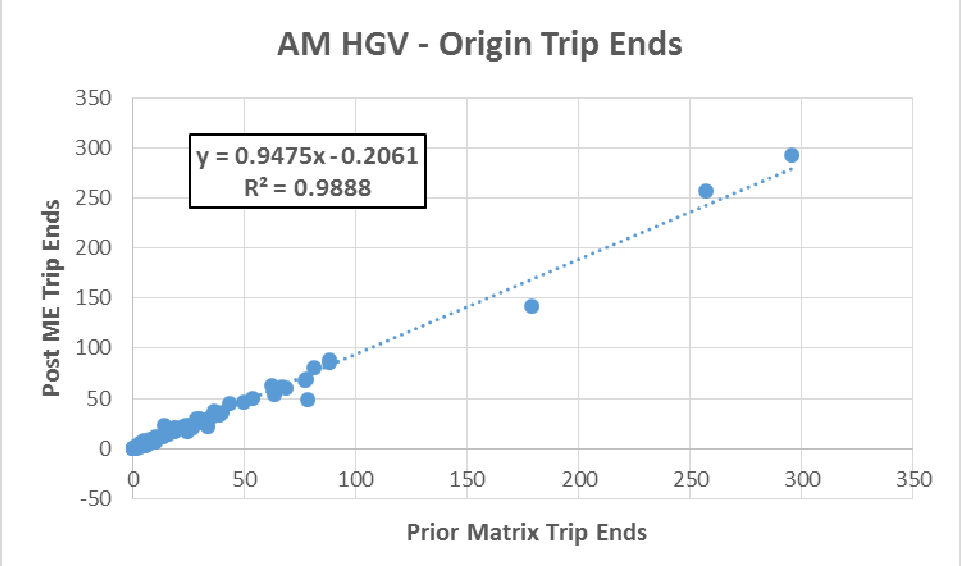

AM UC2 - Origin Trip Ends
y = 1.0123x + 0.1208
R² = 0.9877
Post ME Trip Ends
Prior Matrix Trip Ends
0
50
100
150
200
250
300
350
400
450

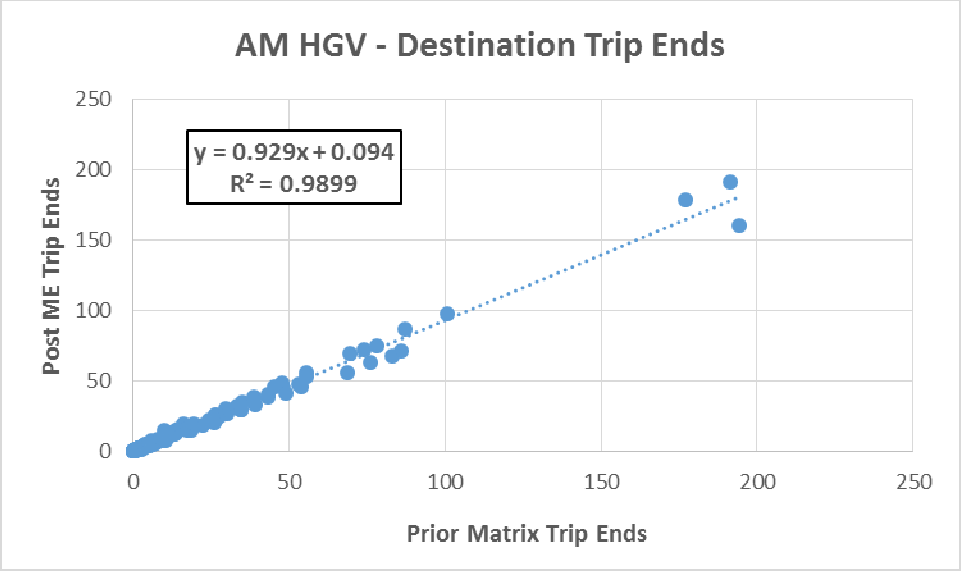

AM UC3 - Origin Trip Ends
y = 1.0016x - 0.0625
R² = 0.9974
Post ME Trip Ends
Prior Matrix Trip Ends
-50
0
50
100
150
200
250
300
350
400
450
500

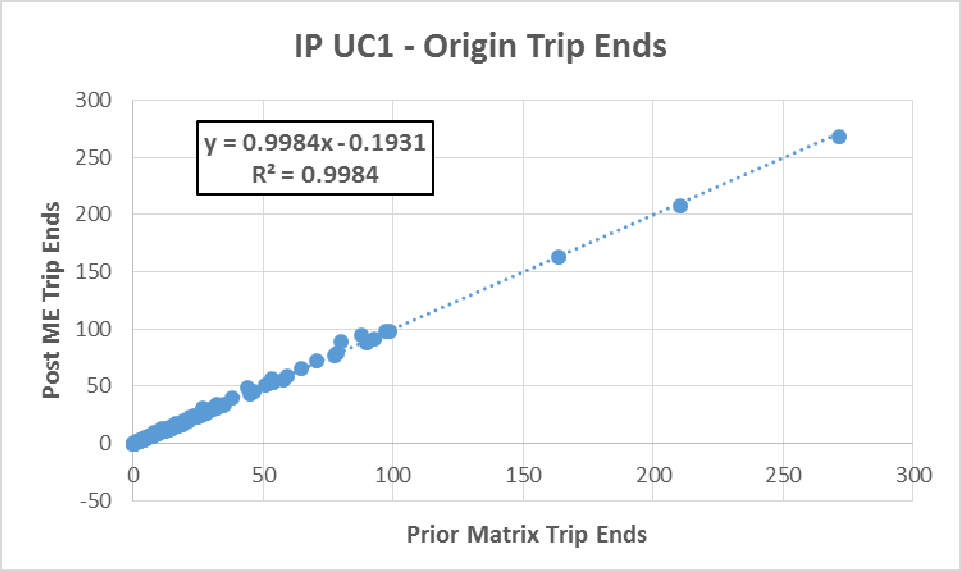

AM UC3 - Destination Trip Ends
y = 0.9762x + 0.5722
R² = 0.9981
Post ME Trip Ends
Prior Matrix Trip Ends
0
100
200
300
400
500
600

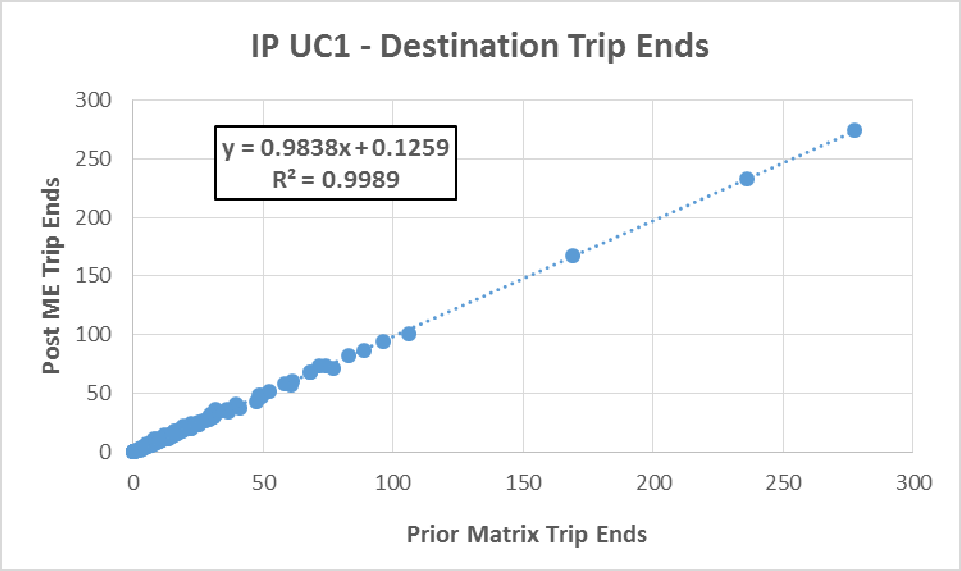

AM LGV - Origin Trip Ends
y = 0.9957x - 0.5267
R² = 0.9985
Post ME Trip Ends
Prior Matrix Trip Ends
1200
1000
800
600
400
200
0
-200
0
200
400
600
800
1000
1200

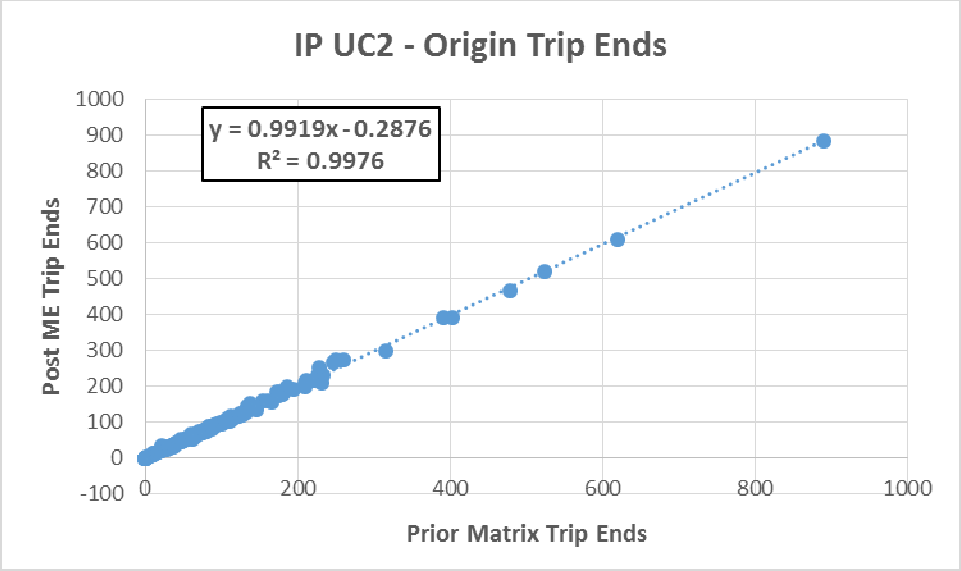

AM LGV - Destination Trip Ends
y = 0.9859x - 0.1026
R² = 0.9985
Post ME Trip Ends
Prior Matrix Trip Ends
900
800
700
600
500
400
300
200
100
0
-100
0
100
200
300
400
500
600
700
800
900

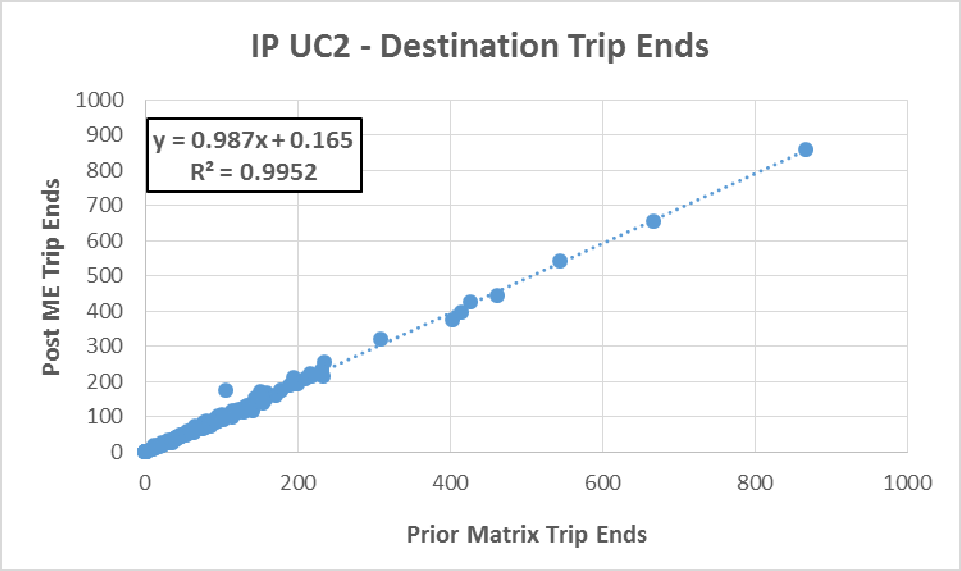

AM HGV - Origin Trip Ends
y = 0.9475x - 0.2061
R² = 0.9888
Post ME Trip Ends
Prior Matrix Trip Ends
350
300
250
200
150
100
50
0
-50
0
50
100
150
200
250
300
350

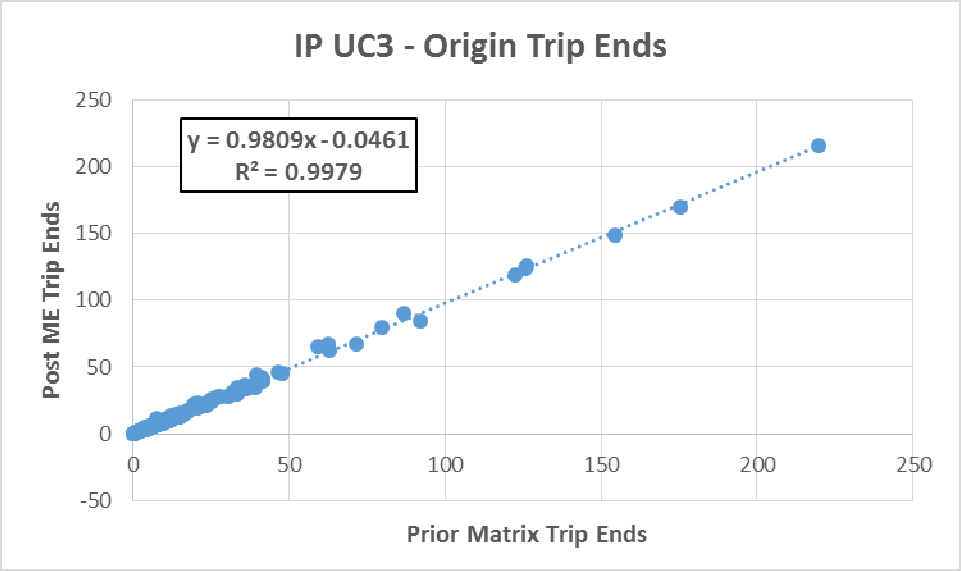

AM HGV - Destination Trip Ends
y = 0.929x + 0.094
R² = 0.9899
Post ME Trip Ends
Prior Matrix Trip Ends
0
50
100
150
200
250

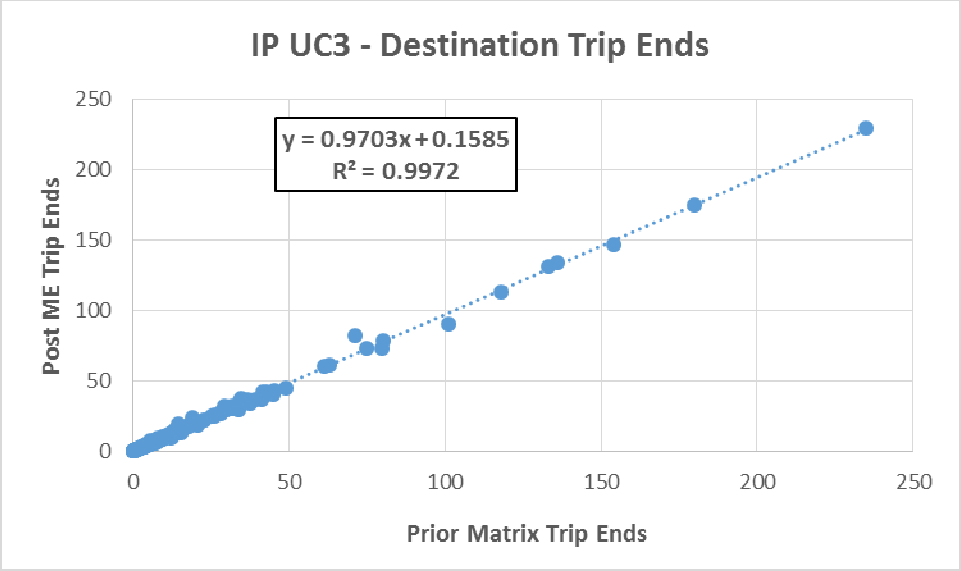

IP UC1 - Origin Trip Ends
y = 0.9984x - 0.1931
R² = 0.9984
Post ME Trip Ends
Prior Matrix Trip Ends
-50
0
50
100
150
200
250
300

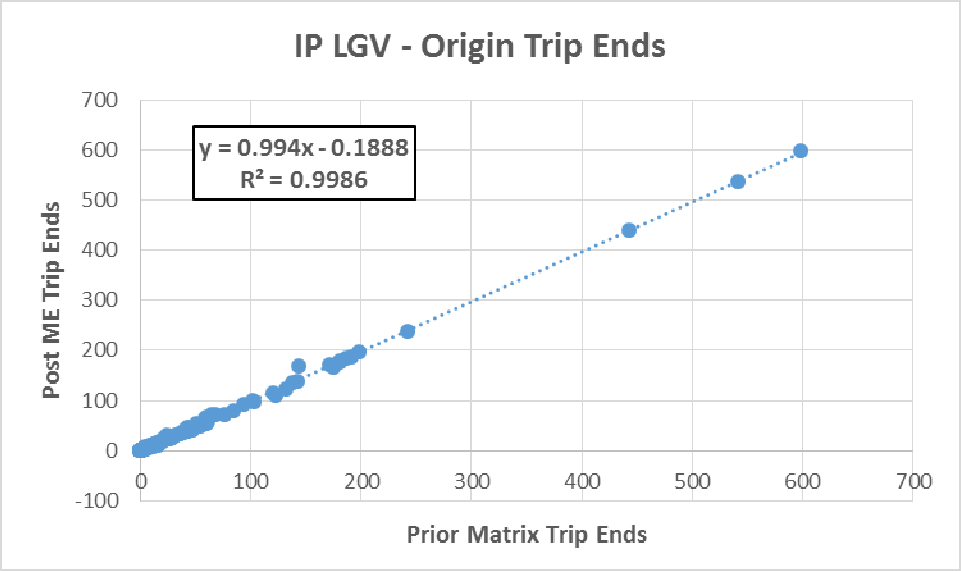

IP UC1 - Destination Trip Ends
y = 0.9838x + 0.1259
R² = 0.9989
Post ME Trip Ends
Prior Matrix Trip Ends
0
50
100
150
200
250
300

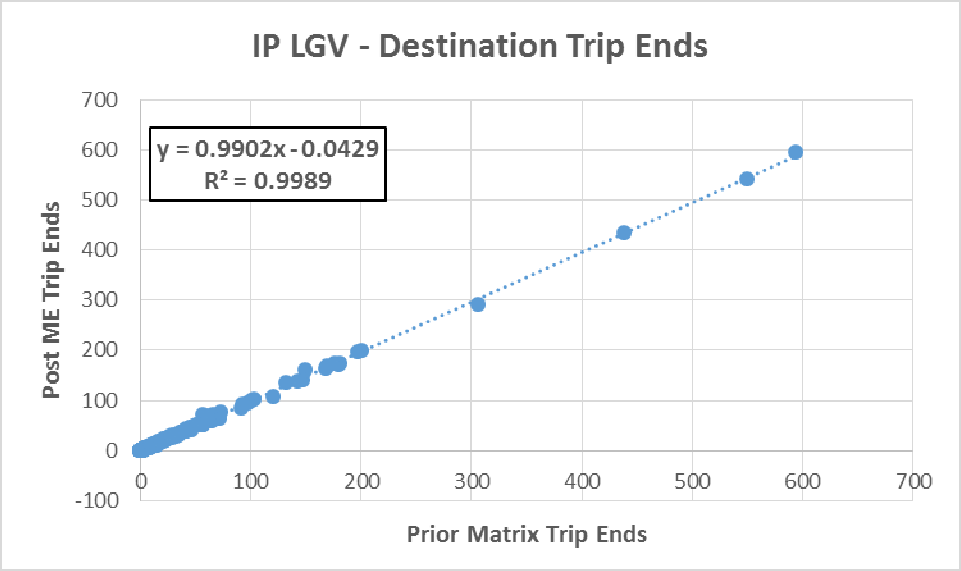

IP UC2 - Origin Trip Ends
y = 0.9919x - 0.2876
R² = 0.9976
Post ME Trip Ends
Prior Matrix Trip Ends
1000
900
800
700
600
500
400
300
200
100
0
-100
0
200
400
600
800
1000

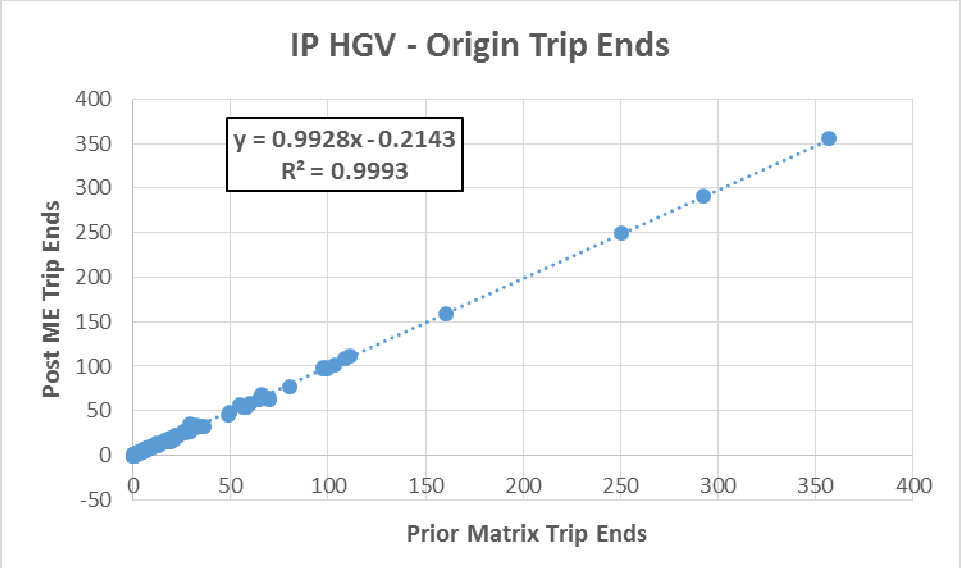

IP UC2 - Destination Trip Ends
y = 0.987x + 0.165
R² = 0.9952
Post ME Trip Ends
Prior Matrix Trip Ends
1000
900
800
700
600
500
400
300
200
100
0
0
200
400
600
800
1000

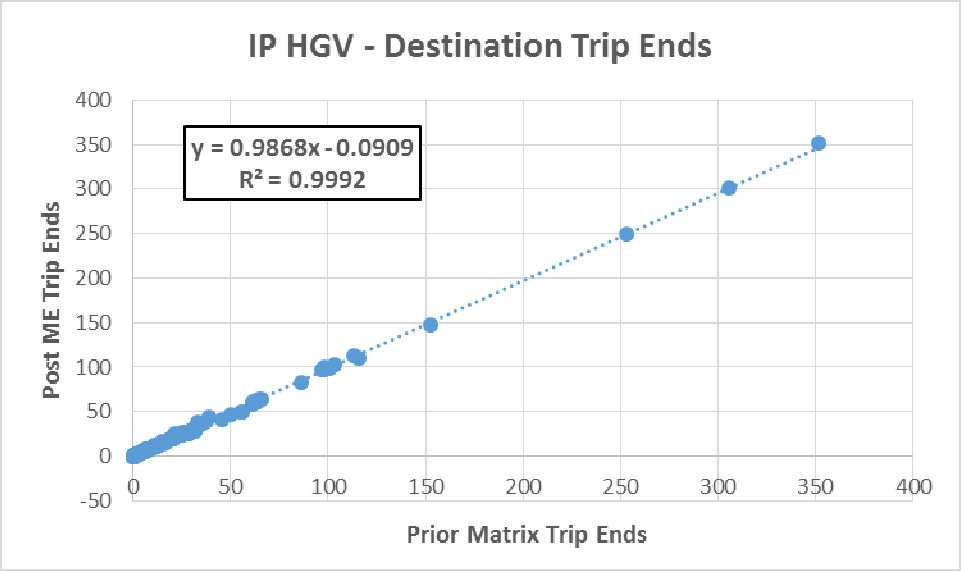

IP UC3 - Origin Trip Ends
y = 0.9809x - 0.0461
R² = 0.9979
Post ME Trip Ends
Prior Matrix Trip Ends
250
200
150
100
50
0
-50
0
50
100
150
200
250

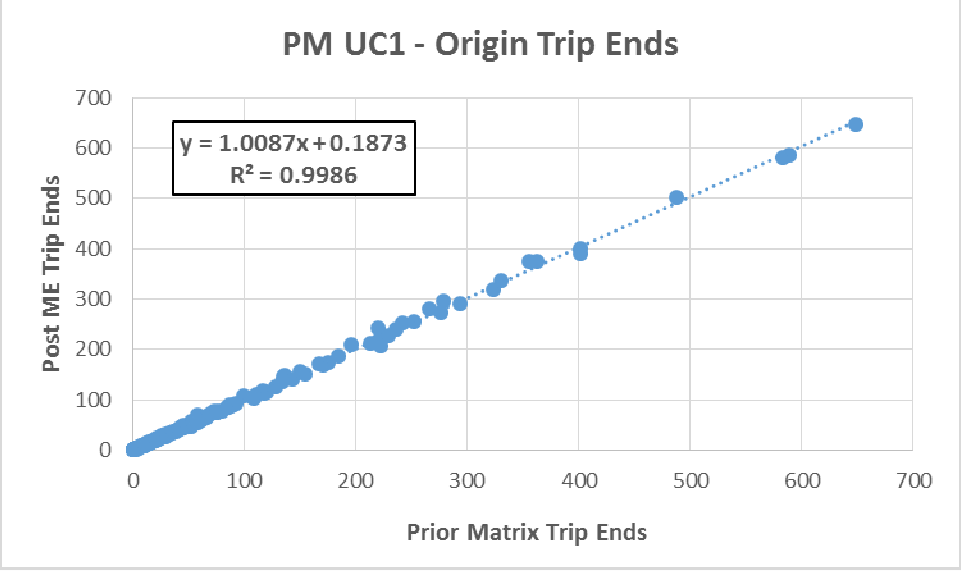

IP UC3 - Destination Trip Ends
y = 0.9703x + 0.1585
R² = 0.9972
Post ME Trip Ends
Prior Matrix Trip Ends
0
50
100
150
200
250

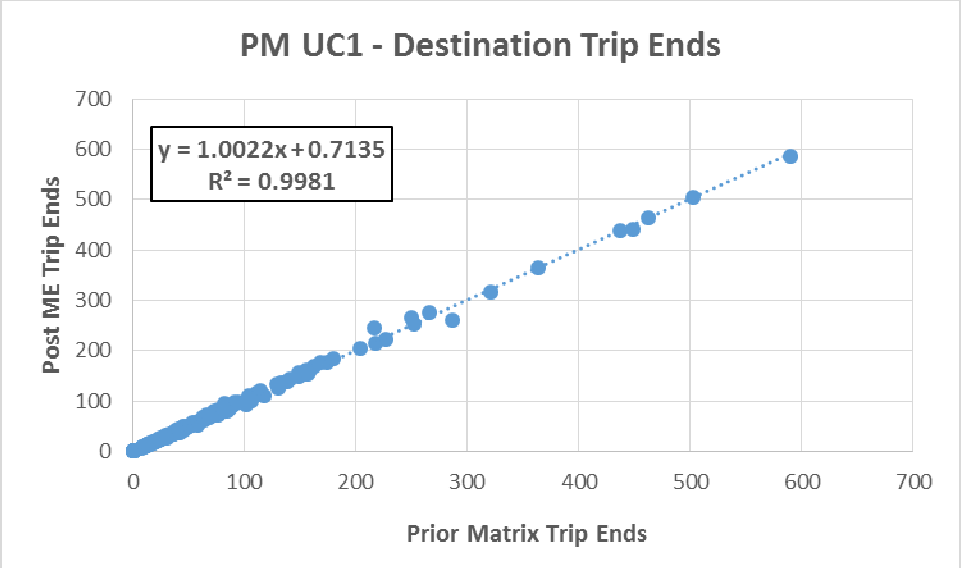

IP LGV - Origin Trip Ends
y = 0.994x - 0.1888
R² = 0.9986
Post ME Trip Ends
Prior Matrix Trip Ends
-100
0
100
200
300
400
500
600
700

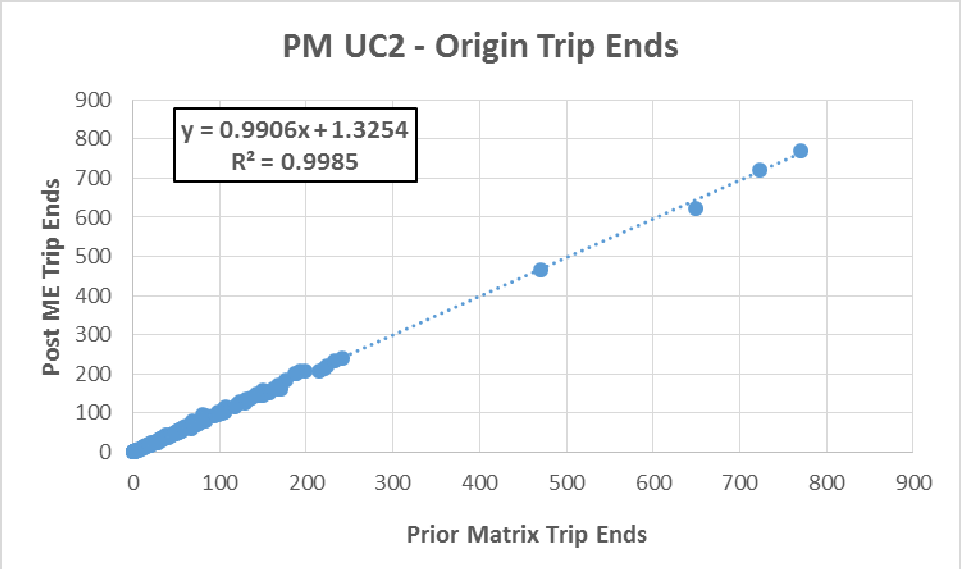

IP LGV - Destination Trip Ends
y = 0.9902x - 0.0429
R² = 0.9989
Post ME Trip Ends
Prior Matrix Trip Ends
-100
0
100
200
300
400
500
600
700

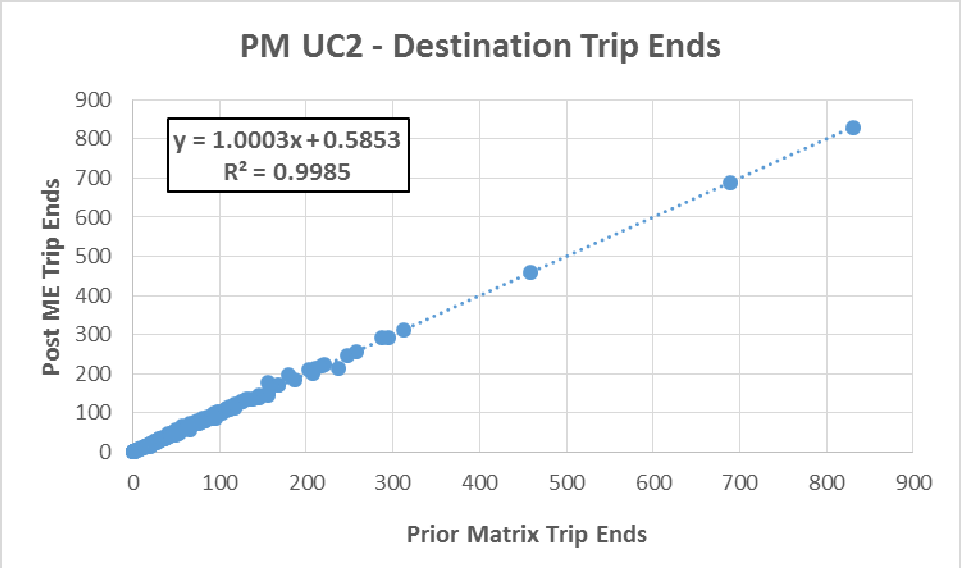

IP HGV - Origin Trip Ends
y = 0.9928x - 0.2143
R² = 0.9993
Post ME Trip Ends
Prior Matrix Trip Ends
400
350
300
250
200
150
100
50
0
-50
0
50
100
150
200
250
300
350
400

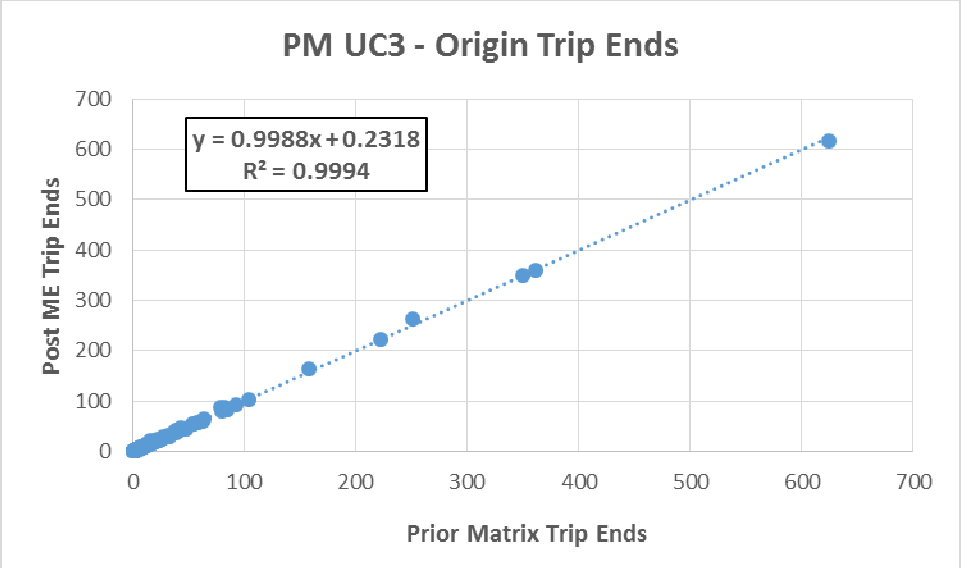

IP HGV - Destination Trip Ends
y = 0.9868x - 0.0909
R² = 0.9992
Post ME Trip Ends
Prior Matrix Trip Ends
400
350
300
250
200
150
100
50
0
-50
0
50
100
150
200
250
300
350
400

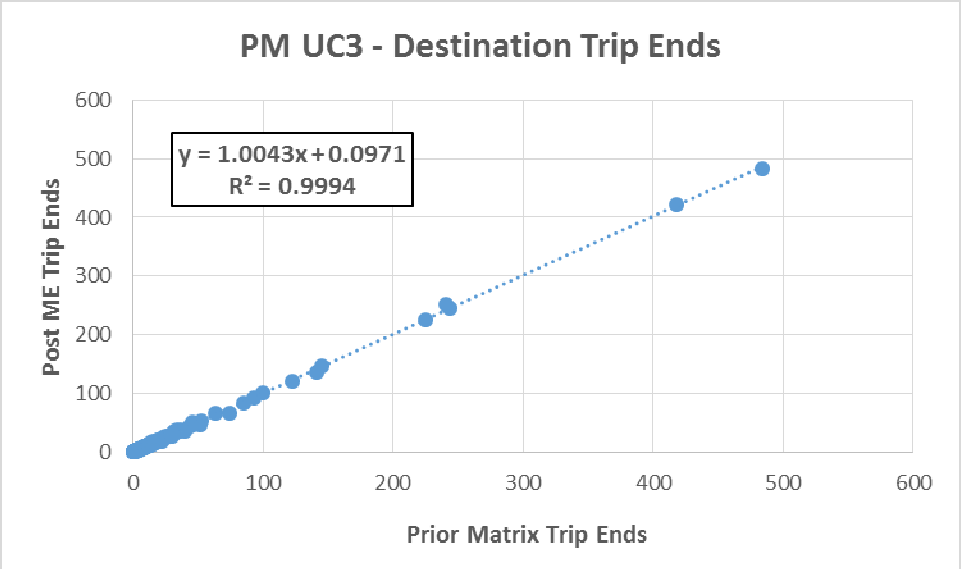

PM UC1 - Origin Trip Ends
y = 1.0087x + 0.1873
R² = 0.9986
Post ME Trip Ends
Prior Matrix Trip Ends
700
600
500
400
300
200
100
0
0
100
200
300
400
500
600
700

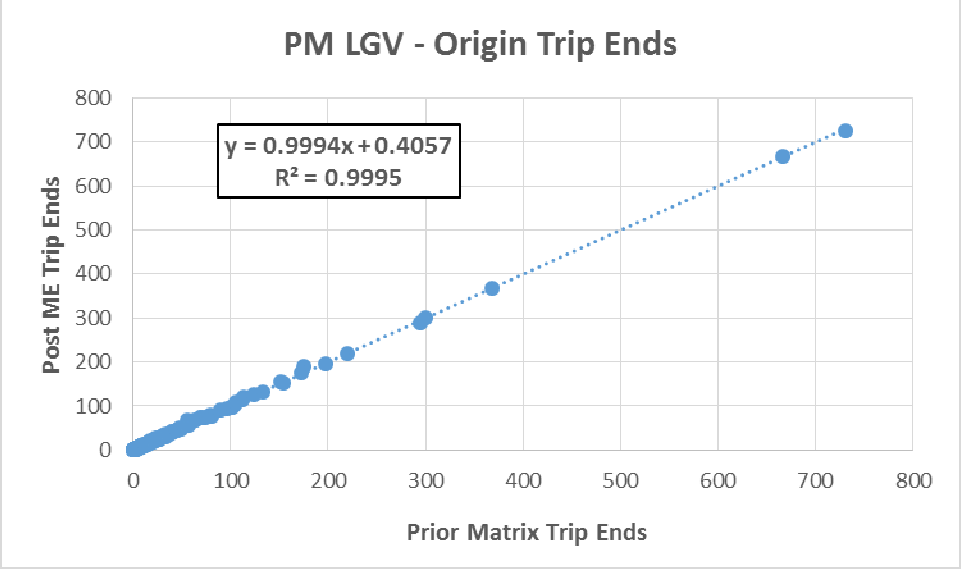

PM UC1 - Destination Trip Ends
y = 1.0022x + 0.7135
R² = 0.9981
Post ME Trip Ends
Prior Matrix Trip Ends
0
100
200
300
400
500
600
700

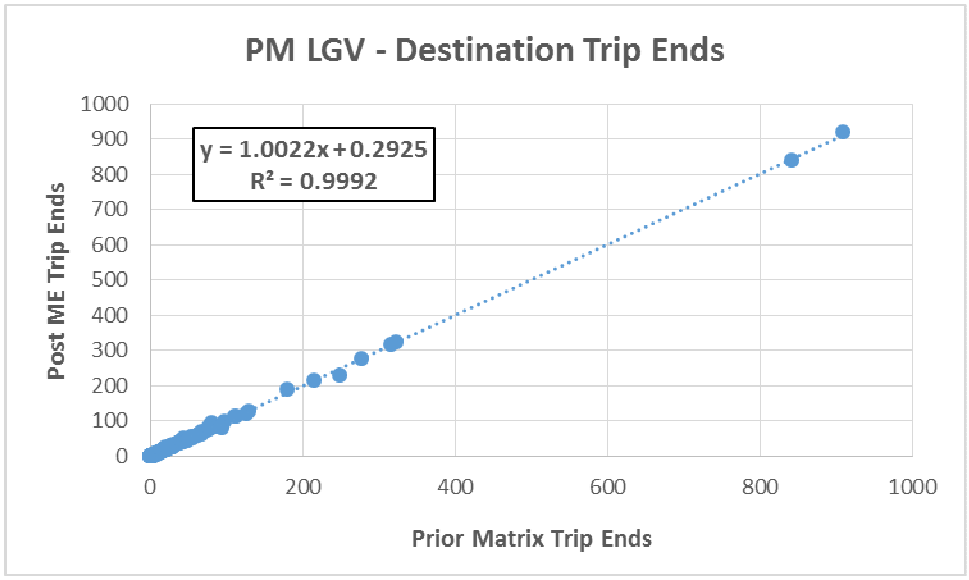

PM UC2 - Origin Trip Ends
y = 0.9906x + 1.3254
R² = 0.9985
Post ME Trip Ends
Prior Matrix Trip Ends
0
100
200
300
400
500
600
700
800
900

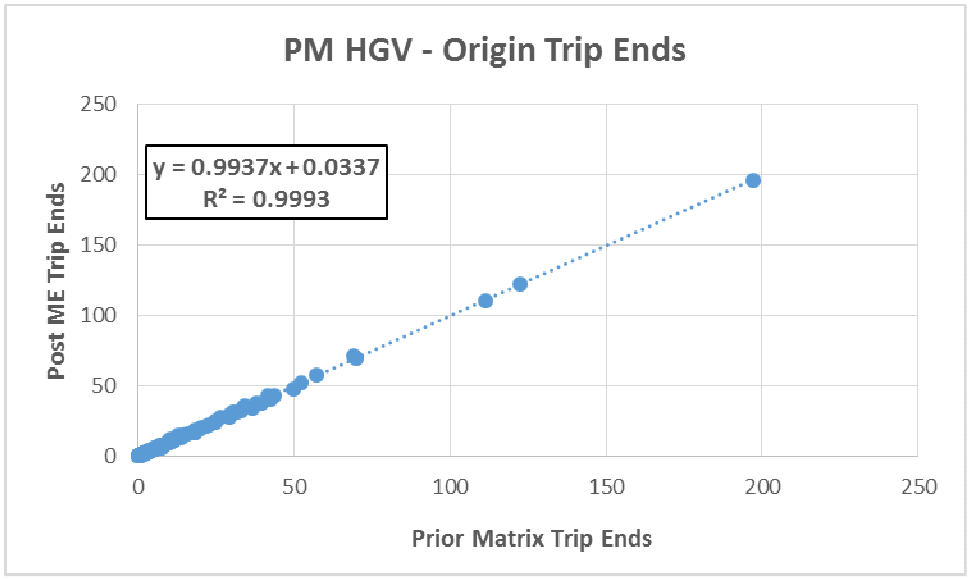

PM UC2 - Destination Trip Ends
y = 1.0003x + 0.5853
R² = 0.9985
Post ME Trip Ends
Prior Matrix Trip Ends
0
100
200
300
400
500
600
700
800
900

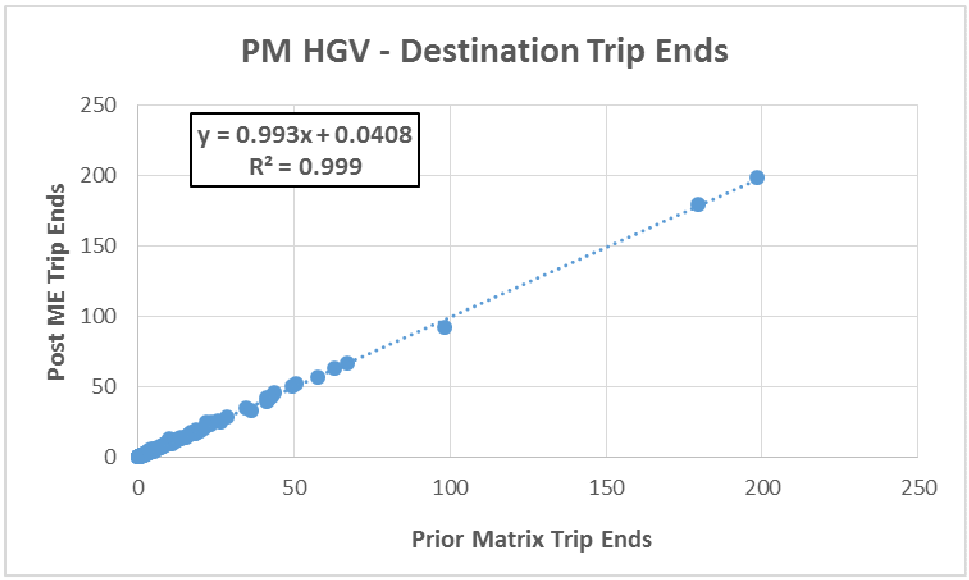

PM UC3 - Origin Trip Ends
y = 0.9988x + 0.2318
R² = 0.9994
Post ME Trip Ends
Prior Matrix Trip Ends
0
100
200
300
400
500
600
700


PM UC3 - Destination Trip Ends
y = 1.0043x + 0.0971
R² = 0.9994
Post ME Trip Ends
Prior Matrix Trip Ends
0
100
200
300
400
500
600


PM LGV - Origin Trip Ends
y = 0.9994x + 0.4057
R² = 0.9995
Post ME Trip Ends
Prior Matrix Trip Ends
0
100
200
300
400
500
600
700
800


PM LGV - Destination Trip Ends
y = 1.0022x + 0.2925
R² = 0.9992
Post ME Trip Ends
Prior Matrix Trip Ends
0
100
200
300
400
500
600
700
800
900
1000


PM HGV - Origin Trip Ends
y = 0.9937x + 0.0337
R² = 0.9993
Post ME Trip Ends
Prior Matrix Trip Ends
0
50
100
150
200
250


PM HGV - Destination Trip Ends
y = 0.993x + 0.0408
R² = 0.999
Post ME Trip Ends
Prior Matrix Trip Ends
0
50
100
150
200
250