



Appendix A Network-Wide Performance - Detailed Results



Table A.1 – Network Summary Statistics, no KVP

CLUSTERS	Over-Capacity Queues (s)	Travel Time (s)	Travel Distance (km)	Average Speed (kph)
BASE (Do Minimum)	20.3	563.5	7.969	50.9
(A) North Newbury	23.4	574.0	7.991	50.1
(B) South Newbury - Rugby Club	23.5	570.4	7.941	50.1
(C) South Newbury - Sandleford Park	39.1	590.5	7.922	48.3
(D) South Newbury - Wash Water	21.3	559.8	7.892	50.8
(E) Greenham	36.6	582.1	7.957	49.2
(F) West Newbury	38.2	587.6	7.963	48.8
(G) Newbury Racecourse	43.2	592.0	7.937	48.3
(H) North Tadley - Silchester Road	20.7	566.8	7.979	50.7
(I) Hungerford	20.9	565.8	8.022	51.0
(J) Hermitage - Denison Barracks	22.2	567.9	7.967	50.5
(K) Theale - Near Junction 12	20.2	563.0	7.966	50.9
(L) Tilehurst - Turnhams Farm	20.9	565.8	7.958	50.6
(M) Kennet Valley Park	136.5	700.5	7.834	40.3
(N) Thatcham - Siege Cross Farm	20.6	563.8	7.919	50.6
(O) Thatcham - North of Bowling Green Road	20.9	563.3	7.947	50.8
(P) Newbury & Thatcham Gap	20.4	561.6	7.940	50.9

Table A.2 – Network Summary Statistics, with KVP

CLUSTERS	Over-Capacity Queues (s)	Travel Time (s)	Travel Distance (km)	Average Speed (kph)
(A) North Newbury	140.0	717.1	7.864	39.5
(B) South Newbury - Rugby Club	137.6	707.1	7.820	39.8
(C) South Newbury - Sandleford Park	157.2	735.0	7.809	38.3
(D) South Newbury - Wash Water	136.0	696.8	7.766	40.1
(E) Greenham	153.8	721.1	7.830	39.1
(F) West Newbury	155.1	725.6	7.839	38.9
(G) Newbury Racecourse	179.6	748.5	7.814	37.6
(H) North Tadley - Silchester Road	152.4	718.5	7.847	39.3
(I) Hungerford	136.5	703.5	7.883	40.3
(J) Hermitage - Denison Barracks	138.3	705.0	7.839	40.0
(K) Theale - Near Junction 12	147.5	712.0	7.829	39.6
(L) Tilehurst - Turnhams Farm	161.1	727.0	7.824	38.7
(N) Thatcham - Siege Cross Farm	152.4	718.0	7.779	39.0
(O) Thatcham - North of Bowling Green Road	138.3	707.9	7.817	39.8
(P) Newbury & Thatcham Gap	139.5	705.5	7.808	39.8



Table A.3 – Network Summary Statistics - Differences

CLUSTERS	Over-Capacity Queues (s)		Travel Time (s)		Travel Distance (km)		Average Speed (kph)	
	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP
(A) North Newbury	3.148	3.477	10.435	16.598	0.022	0.029	-0.8	-0.8
(B) South Newbury - Rugby Club	3.247	1.039	6.927	6.566	-0.028	-0.015	-0.8	-0.5
(C) South Newbury - Sandford Park	18.754	20.668	27.021	34.457	-0.047	-0.025	-2.6	-2.0
(D) South Newbury - Wash Water	1.036	-0.503	-3.747	-3.689	-0.077	-0.068	-0.1	-0.2
(E) Greenham	16.257	17.308	18.578	20.569	-0.012	-0.005	-1.7	-1.2
(F) West Newbury	17.919	18.604	24.104	25.116	-0.007	0.005	-2.1	-1.4
(G) Newbury Racecourse	22.880	43.048	28.490	47.966	-0.032	-0.021	-2.6	-2.7
(H) North Tadley - Silchester Road	0.360	15.857	3.250	17.994	0.010	0.013	-0.2	-1.0
(I) Hungerford	0.609	0.031	2.307	2.962	0.053	0.048	0.1	0.0
(J) Hermitage - Denison Barracks	1.856	1.797	4.355	4.444	-0.003	0.005	-0.4	-0.3
(K) Theale - Near Junction 12	-0.105	10.986	-0.568	11.509	-0.004	-0.006	0.0	-0.7
(L) Tilehurst - Turnhams Farm	0.565	24.556	2.279	26.483	-0.012	-0.011	-0.3	-1.6
(M) Kennet Valley Park	116.216		136.986		-0.135		-10.6	
(N) Thatcham - Siege Cross Farm	0.334	15.909	0.300	17.482	-0.051	-0.055	-0.3	-1.3
(O) Thatcham - North of Bowling Green Road	0.553	1.788	-0.205	7.386	-0.022	-0.017	-0.1	-0.5
(P) Newbury & Thatcham Gap	0.080	2.995	-1.909	4.992	-0.029	-0.027	0.0	-0.5

Table A.4 – Network Summary Statistics - Scores

CLUSTERS	Over-Capacity Queues (s)		Travel Time (s)		Travel Distance (km)		Average Speed (kph)		Average	
	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP
(A) North Newbury	0	0	-1	-2	-1	-1	-1	-1	-1	-1
(B) South Newbury - Rugby Club	0	0	0	0	0	0	-1	-1	0	0
(C) South Newbury - Sandford Park	-2	-2	-2	-2	0	0	-2	-2	-2	-2
(D) South Newbury - Wash Water	0	0	0	0	0	0	0	0	0	0
(E) Greenham	-2	-2	-2	-2	0	0	-2	-2	-2	-2
(F) West Newbury	-2	-2	-2	-2	0	0	-2	-2	-2	-2
(G) Newbury Racecourse	-2	-2	-2	-2	0	0	-2	-2	-2	-2
(H) North Tadley - Silchester Road	0	-2	0	-2	0	-1	0	-2	0	-2
(I) Hungerford	0	0	0	0	-2	-1	0	0	-1	0
(J) Hermitage - Denison Barracks	0	0	0	0	0	0	0	0	0	0
(K) Theale - Near Junction 12	0	-1	0	-1	0	0	0	-1	0	-1
(L) Tilehurst - Turnhams Farm	0	-2	0	-2	0	0	0	-2	0	-2
(M) Kennet Valley Park	-2		-2		0		-2		-2	
(N) Thatcham - Siege Cross Farm	0	-2	0	-2	0	0	0	-2	0	-2
(O) Thatcham - North of Bowling Green Road	0	0	0	0	0	0	0	-1	0	0
(P) Newbury & Thatcham Gap	0	0	0	0	0	0	0	-1	0	0



Appendix B Congestion on Key Links - Detailed Results

ROAD	LOCATION	BASE		CLUSTER A		CLUSTER B		CLUSTER C		CLUSTER D		CLUSTER E		CLUSTER F		CLUSTER G		CLUSTER H		CLUSTER I		CLUSTER J		CLUSTER K		CLUSTER L		CLUSTER M		CLUSTER N		CLUSTER O		CLUSTER P	
		Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C
A4	Speen EB	1593	0.819	1631	0.839	1608	0.827	1620	0.833	1603	0.825	1603	0.824	1606	0.826	1611	0.828	1597	0.821	1603	0.824	1622	0.834	1600	0.823	1601	0.823	1605	0.825	1597	0.821	1597	0.821	1595	0.82
	Speen WB	754.3	0.387	884.2	0.454	769.9	0.395	786.6	0.404	761.8	0.391	761.2	0.391	757.4	0.389	752.4	0.386	758.9	0.389	766.7	0.393	755.9	0.388	749.1	0.384	753	0.386	912	0.468	751.3	0.386	763.9	0.392	781.5	0.401
	Shaw EB	1275	0.655	1216	0.624	1309	0.672	1360	0.698	1288	0.661	1293	0.664	1333	0.684	1347	0.692	1286	0.66	1272	0.653	1329	0.682	1292	0.663	1283	0.658	1277	0.655	1290	0.662	1289	0.662	1298	0.666
A34	Shaw WB	1343	0.692	1336	0.688	1361	0.702	1384	0.713	1344	0.693	1361	0.702	1354	0.698	1449	0.747	1347	0.694	1349	0.695	1367	0.704	1349	0.695	1348	0.694	1381	0.711	1352	0.696	1363	0.702	1392	0.718
	North of Donnington NB	2241	0.514	2253	0.517	2249	0.516	2227	0.511	2280	0.523	2208	0.506	2215	0.508	2254	0.517	2249	0.516	2246	0.515	2258	0.518	2251	0.516	2259	0.518	2356	0.54	2245	0.515	2243	0.514	2243	0.514
	North of Donnington SB	2113	0.485	2296	0.527	2121	0.486	2118	0.486	2110	0.484	2099	0.481	2120	0.486	2114	0.485	2114	0.485	2104	0.483	2180	0.5	2141	0.491	2169	0.497	2134	0.489	2112	0.484	2109	0.484	2127	0.488
A339	South of A4 Enborne NB	2783	0.638	2807	0.644	2851	0.654	2879	0.66	2842	0.652	2770	0.635	2822	0.647	2815	0.646	2803	0.643	2788	0.639	2789	0.64	2791	0.64	2796	0.641	2886	0.662	2786	0.639	2790	0.64	2789	0.64
	South of A4 Enborne SB	2322	0.595	2601	0.667	2345	0.601	2361	0.605	2321	0.595	2315	0.594	2327	0.597	2324	0.596	2327	0.597	2312	0.593	2374	0.609	2340	0.6	2366	0.607	2353	0.603	2314	0.593	2327	0.597	2363	0.606
	North of A4 Donnington NB	1210	0.277	945.2	0.217	1236	0.283	1249	0.286	1220	0.28	1237	0.284	1234	0.283	1226	0.281	1221	0.28	1215	0.279	1154	0.265	1241	0.285	1266	0.29	1388	0.318	1215	0.279	1213	0.278	1200	0.275
	North of A4 Donnington SB	1282	0.294	1389	0.319	1263	0.29	1256	0.288	1275	0.292	1278	0.293	1249	0.286	1343	0.308	1279	0.293	1293	0.296	1285	0.295	1290	0.296	1303	0.299	1354	0.311	1289	0.296	1279	0.293	1297	0.297
M4	South of A4 Newbury NB	815.2	0.237	830.3	0.241	810.1	0.235	826	0.24	819.9	0.238	804.1	0.234	808	0.235	800.4	0.233	815.5	0.237	814.2	0.237	809.4	0.235	809.8	0.235	811.5	0.236	792	0.23	815.5	0.237	808.9	0.235	811.4	0.236
	South of A4 Newbury SB	895	0.26	935.6	0.272	893.1	0.26	930.1	0.27	909.2	0.264	879.5	0.256	867.7	0.252	884.8	0.257	898.3	0.261	896.9	0.261	887.1	0.258	891.6	0.259	889.3	0.259	845.8	0.246	898.7	0.261	895	0.26	888.6	0.258
	East of A34 EB	5225	0.691	5289	0.7	5224	0.691	5215	0.69	5241	0.693	5219	0.69	5216	0.69	5306	0.702	5225	0.691	5384	0.712	5247	0.694	5249	0.694	5275	0.698	5591	0.739	5225	0.691	5227	0.691	5225	0.691
	East of A34 WB	4080	0.54	4080	0.54	4081	0.54	4083	0.54	4080	0.54	4080	0.54	4080	0.54	4080	0.54	4080	0.54	4080	0.54	4082	0.54	4151	0.549	4229	0.559	3929	1.027	4080	0.54	4080	0.54	4080	0.54
	West of A34 EB	4158	0.588	4164	0.589	4194	0.594	4226	0.6	4168	0.59	4167	0.59	4194	0.594	4172	0.59	4164	0.589	4309	0.608	4157	0.588	4157	0.588	4160	0.588	4200	0.592	4159	0.588	4159	0.588	4160	0.588
M4	West of A34 WB	3144	0.416	3184	0.421	3139	0.415	3130	0.414	3140	0.415	3134	0.415	3126	0.414	3141	0.416	3145	0.416	3159	0.418	3153	0.417	3146	0.416	3147	0.416	2345	0.31	3157	0.418	3143	0.416	3157	0.418

Table B.1 – Key Link Flows and V/C – no KVP

Road	Location	CLUSTER A+M		CLUSTER B+M		CLUSTER C+M		CLUSTER D+M		CLUSTER E+M		CLUSTER F+M		CLUSTER G+M		CLUSTER H+M		CLUSTER I+M		CLUSTER J+M		CLUSTER K+M		CLUSTER L+M		CLUSTER N+M		CLUSTER O+M		CLUSTER P+M	
		Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C
A4	Speen EB	1564	0.804	1596	0.821	1592	0.818	1607	0.827	1614	0.83	1603	0.824	1563	0.804	1601	0.823	1592	0.819	1605	0.825	1595	0.82	1583	0.814	1590	0.818	1590	0.818	1585	0.815
	Speen WB	1012	0.519	943.5	0.484	943.4	0.484	928.7	0.477	910.4	0.467	908.9	0.466	929	0.477	905.5	0.465	926.1	0.475	928.7	0.477	921.1	0.473	918.5	0.471	919.5	0.472	926.9	0.476	954.6	0.49
	Shaw EB	1160	0.595	1340	0.688	1377	0.707	1289	0.662	1291	0.662	1336	0.686	1360	0.698	1288	0.661	1280	0.657	1335	0.685	1275	0.654	1273	0.653	1287	0.661	1305	0.67	1303	0.669
A34	Shaw WB	1375	0.708	1404	0.724	1432	0.738	1385	0.714	1403	0.723	1398	0.721	1473	0.759	1384	0.713	1386	0.714	1405	0.724	1379	0.711	1380	0.711	1385	0.714	1405	0.724	1404	0.724
	North of Donnington NB	2377	0.545	2373	0.544	2350	0.539	2399	0.55	2310	0.53	2337	0.536	2336	0.536	2314	0.531	2359	0.541	2371	0.544	2364	0.542	2377	0.545	2363	0.542	2363	0.542	2361	0.541
	North of Donnington SB	2331	0.535	2126	0.488	2127	0.488	2130	0.488	2137	0.49	2116	0.485	2134	0.49	2130	0.489	2132	0.489	2185	0.501	2124	0.487	2122	0.487	2136	0.49	2123	0.487	2124	0.487
A339	South of A4 Enborne NB	2886	0.662	2968	0.681	2984	0.684	2938	0.674	2861	0.656	2917	0.669	2859	0.656	2850	0.654	2887	0.662	2890	0.663	2886	0.662	2894	0.664	2887	0.662	2889	0.663	2885	0.662
	South of A4 Enborne SB	2620	0.672	2394	0.614	2419	0.62	2355	0.604	2362	0.606	2363	0.606	2379	0.61	2361	0.606	2350	0.603	2423	0.621	2355	0.604	2350	0.603	2365	0.606	2367	0.607	2400	0.615
	North of A4 Donnington NB	1079	0.247	1401	0.321	1405	0.322	1395	0.32	1376	0.316	1400	0.321	1384	0.318	1394	0.32	1385	0.318	1377	0.316	1400	0.321	1414	0.324	1396	0.32	1393	0.32	1395	0.32
	North of A4 Donnington SB	1471	0.337	1360	0.312	1360	0.312	1343	0.308	1360	0.312	1348	0.309	1416	0.325	1372	0.315	1353	0.31	1354	0.311	1361	0.312	1366	0.313	1362	0.312	1361	0.312	1365	0.313
M4	South of A4 Newbury NB	822.9	0.239	785.1	0.228	813.5	0.236	797.7	0.232	790.4	0.23	794.1	0.231	787.4	0.229	791.5	0.23	791.8	0.23	791.8	0.23	790.8	0.23	793.7	0.231	797.8	0.232	788.8	0.229	790.9	0.23
	South of A4 Newbury SB	909.8	0.264	821.1	0.239	871.2	0.253	852.7	0.248	827.6	0.241	823	0.239	837.4	0.243	843.5	0.245	846.8	0.246	825.6	0.24	834.8	0.243	838.4	0.244	843.1	0.245	837.4	0.243	819.4	0.238
	East of A34 EB	5661	0.749	5596	0.74	5590	0.739	5610	0.742	5586	0.739	5581	0.738	5671	0.75	5583	0.738	5746	0.76	5612	0.742	5607	0.742	5626	0.744	5590	0.739	5596	0.74	5583	0.739
	East of A34 WB	3951	1.027	3924	1.027	3921	1.027	3930	1.027	3930	1.027	3928	1.027	3922	1.027	3929	1.027	3930	1.027	3929	1.027	3894	1.028	3854	1.028	3903	1.027	3925	1.027	3913	1.027
M4	West of A34 EB	4208	0.594	4250	0.601	4285	0.607	4211	0.594	4218	0.596	4239	0.599	4214	0.595	4205	0.593	4353	0.613	4202	0.593	4199	0.592	4204	0.593	4201	0.593	4199	0.592	4195	0.592
	West of A34 WB	2401	0.318	2345	0.31	2360	0.312	2343	0.31	2351	0.311	2362	0.312	2327	0.308	2355	0.311	2351	0.311	2364	0.313	2304	0.305	2259	0.299	2327	0.308	2343	0.31	2340	0.31

Table B.2 – Key Link Flows and V/C – with KVP

ROAD	LOCATION	CLUSTER A		CLUSTER B		CLUSTER C		CLUSTER D		CLUSTER E		CLUSTER F		CLUSTER G		CLUSTER H		CLUSTER I		CLUSTER J		CLUSTER K		CLUSTER L		CLUSTER M		CLUSTER N		CLUSTER O		CLUSTER P	
		Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C
A4	Speen EB	37.76	1.936	14.74	0.757	27.21	1.396	10.17	0.521	9.67	0.495	13	0.666	17.53	0.899	3.38	0.173	9.32	0.478	28.5	1.464	7.2	0.369	7.83	0.401	11.89	0.605	3.34	0.171	4.05	0.208	1.78	0.091
	Speen WB	129.9	6.661	15.62	0.801	32.3	1.656	7.49	0.384	6.85	0.351	3.1	0.16	-1.94	-0.1	4.53	0.232	12.35	0.633	1.62	0.083	-5.18	-0.27	-1.32	-0.07	157.7	8.085	-3.04	-0.16	9.59	0.492	27.16	1.393
	Shaw EB	-59.4	-3.05	33.77	1.735	84.6	4.346	12.72	0.652	17.65	0.905	57.67	2.958	72.08	3.697	10.38	0.532	-3.14	-0.16	54.25	2.781	17.23	0.884	7.49	0.384	1.39	0.07	14.7	0.754	14.03	0.719	22.48	1.153
A34	Shaw WB	-6.78	-0.35	18.41	0.966	41.13	2.134	1.31	0.072	17.76	0.976	10.85	0.586	106.2	5.5	4.35	0.248	5.66	0.294	23.9	1.257	6.47	0.336	4.77	0.25	37.94	1.951	8.63	0.452	20.04	1.04	49.45	2.56
	North of Donnington NB	11.39	0.261	7.99	0.183	-14.8	-0.34	38.3	0.878	-33.2	-0.76	-26.5	-0.61	12.19	0.28	8.04	0.184	4.19	0.096	17.06	0.391	9.69	0.222	17.77	0.408	114.6	2.628	4.01	0.092	1.42	0.033	1.65	0.038
	North of Donnington SB	182.7	4.191	8.23	0.189	5.44	0.125	-2.38	-0.05	-14.3	-0.33	7.11	0.163	1.25	0.029	1.12	0.026	-8.9	-0.2	67.41	1.546	28.36	0.65	55.87	1.281	21.16	0.485	-0.94	-0.02	-3.71	-0.09	14.3	0.328
A339	South of A4 Enborne NB	23.44	0.538	67.47	1.547	96.13	2.205	58.45	1.341	-12.8	-0.29	38.79	0.89	32.16	0.738	19.72	0.452	4.6	0.106	6.31	0.145	7.87	0.181	12.67	0.291	103.1	2.366	3.15	0.072	7.26	0.167	6.14	0.141
	South of A4 Enborne SB	278.3	7.137	22.73	0.583	38.51	0.987	-1.54	-0.04	-7.21	-0.18	4.82	0.124	1.55	0.04	4.71	0.121	-10	-0.26	51.77	1.327	17.63	0.452	44.15	1.132	31.17	0.799	-7.81	-0.2	4.84	0.124	40.99	1.051
	North of A4 Donnington NB	-265	-6.07	25.84	0.593	39.14	0.898	10.42	0.239	27.38	0.628	23.86	0.547	16.22	0.372	11.6	0.266	5.31	0.122	-55.3	-1.27	30.95	0.71	56.18	1.289	177.9	4.081	4.88	0.112	3.48	0.08	-9.54	-0.22
	North of A4 Donnington SB	106.9	2.453	-18.8	-0.43	-25.6	-0.59	-7.21	-0.17	-3.91	-0.09	-33.1	-0.76	61.37	1.408	-2.69	-0.06	10.55	0.242	2.68	0.061	7.82	0.179	20.6	0.472	72.13	1.654	7	0.161	-2.79	-0.06	14.58	0.334
M4	South of A4 Newbury NB	15.08	0.438	-5.13	-0.15	10.8	0.314	4.71	0.137	-11.1	-0.32	-7.25	-0.21	-14.8	-0.43	0.28	0.008	-0.99	-0.03	-5.85	-0.17	-5.45	-0.16	-3.77	-0.11	-23.2	-0.67	0.31	0.009	-6.31	-0.18	-3.87	-0.11
	South of A4 Newbury SB	40.53	1.178	-1.93	-0.06	35.03	1.018	14.17	0.412	-15.6	-0.45	-27.3	-0.79	-10.3	-0.3	3.27	0.095	1.88	0.055	-7.95	-0.23	-3.48	-0.1	-5.72	-0.17	-49.3	-1.43	3.7	0.108	-0.06	-0	-6.42	-0.19
	East of A34 EB	63.65	0.842	-1.32	-0.02	-10.3	-0.14	16.02	0.212	-5.78	-0.08	-8.91	-0.12	80.46	1.064	0.06	8E-04	158.8	2.101	22.23	0.294	23.75	0.314	49.98	0.661	365.4	4.833	-0.12	-0	2.06	0.027	0.2	0.003
	East of A34 WB	0	0	1.54	0.02	3.2	0.042	0.06	8E-04	0	0	0	0	0	0	0.08	0.001	0.27	0.004	2.34	0.031	71.24	0.942	149.1	1.973	-151	48.76	0	0	0	0	0.5	0.007
M4	West of A34 EB	6.49	0.111	36.11	0.618	68.46	1.175	10.01	0.171	9.48	0.167	35.88	0.618	14.14	0.242	5.84	0.1	151.2	1.97	-0.46	-0.01	-0.51	-0.02	1.68	-0	42.03	0.445	1.47	0.025	0.61	0.01	2.09	0.036
	West of A34 WB	39.38	0.521	-5.53	-0.07	-14	-0.19	-3.98	-0.05	-9.83	-0.13	-17.8	-0.24	-2.74	-0.04	0.38	0.005	15.16	0.201	8.62	0.114	1.9	0.025	2.72	0.036	-799	-10.6	12.67	0.168	-1.58	-0.02	12.82	0.17

Table B.3 – Key Link Differences – no KVP

Road	Location	CLUSTER A+M		CLUSTER B+M		CLUSTER C+M		CLUSTER D+M		CLUSTER E+M		CLUSTER F+M		CLUSTER G+M		CLUSTER H+M		CLUSTER I+M		CLUSTER J+M		CLUSTER K+M		CLUSTER L+M		CLUSTER M		CLUSTER N+M		CLUSTER O+M		CLUSTER P+M	
		Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C	Flow	V/C		
A4	Speen EB	-40.8	-2.19	-8.86	-0.48	-13.1	-0.75	2.23	0.114	8.4	0.429	-2.49	-0.14	-41.7	-2.16	-4.33	-0.22	-12.6	-0.65	-0.52	-0.03	-10.5	-0.54	-22.4	-1.15	0	0	-14.8	-0.76	-15.1	-0.77	-19.8	-1.02
	Speen WB	100	5.128	31.48	1.614	31.45	1.613	16.74	0.858	-1.56	-0.08	-3.09	-0.16	17	0.871	-6.53	-0.33	14.07	0.722	16.67	0.855	9.14	0.469	6.54	0.335	0	0	7.49	0.384	14.93	0.766	42.63	2.186
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Shaw EB	-117	-5.99	62.97	3.232	100.6	5.167	12.7	0.651	14.03	0.719	59.16	3.034	83.64	4.29	11.03	0.565	3.42	0.175	58.51	3	-2.03	-0.1	-4.08	-0.21	0	0	10.73	0.55	28.82	1.478	26.03	1.335
A34	Shaw WB	-6.35	-0.35	23.64	1.249	50.82	2.646	4.42	0.235	21.78	1.183	17.02	0.918	92.12	4.786	2.87	0.182	5.27	0.277	24.02	1.263	-1.4	-0.07	-0.78	-0.05	0	0	4.39	0.236	23.87	1.24	23.61	1.233
	North of Donnington NB	21.22	0.487	17.34	0.398	-6.32	-0.14	42.56	0.976	-46.3	-1.06	-18.6	-0.43	-20.2	-0.46	-42	-0.96	2.63	0.06	15.27	0.35	8.25	0.189	20.98	0.481	0	0	6.9	0.158	7.06	0.162	4.63	0.106
	North of Donnington SB	196.6	4.51	-8.06	-0.18	-7.39	-0.17	-4.46	-0.1	2.8	0.064	-17.5	-0.4	0.45	0.01	-3.58	-0.08	-2.18	-0.05	50.78	1.165	-10.1	-0.23	-12.1	-0.28	0	0	2.12	0.049	-11	-0.25	-10.4	-0.24
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
A339	South of A4 Enborne NB	-0.22	-0.01	81.71	1.874	98.1	2.25	51.82	1.189	-25.3	-0.58	30.93	0.709	-27.4	-0.63	-36.2	-0.83	0.31	0.007	4.03	0.092	-0.54	-0.01	7.84	0.18	0	0	0.94	0.022	3.05	0.07	-1.48	-0.03
	South of A4 Enborne SB	267	6.846	40.16	1.03	65.88	1.689	1.81	0.046	8.63	0.221	9.93	0.255	25.71	0.659	8.12	0.208	-3.38	-0.09	69.15	1.773	1.3	0.033	-3.26	-0.08	0	0	11.45	0.294	13.45	0.345	47.02	1.206
	North of A4 Donnington NB	-309	-7.08	13.76	0.316	17.63	0.404	7.5	0.172	-11.5	-0.26	12.65	0.29	-3.31	-0.08	6.77	0.155	-2.19	-0.05	-10.3	-0.24	12.57	0.288	26.06	0.598	0	0	8.12	0.186	5.37	0.123	7.65	0.175
	North of A4 Donnington SB	117	2.683	6.39	0.147	6.14	0.141	-11.4	-0.26	6.39	0.147	-5.74	-0.13	61.88	1.419	17.67	0.405	-1.49	-0.03	0.39	0.009	6.63	0.152	11.68	0.268	0	0	7.92	0.182	7.06	0.162	10.92	0.25
M4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	South of A4 Newbury NB	30.86	0.897	-6.96	-0.2	21.53	0.626	5.71	0.166	-1.63	-0.05	2.13	0.062	-4.66	-0.14	-0.54	-0.02	-0.21	-0.01	-0.19	-0.01	-1.18	-0.03	1.67	0.049	0	0	5.77	0.168	-3.18	-0.09	-1.07	-0.03
	South of A4 Newbury SB	64.03	1.861	-24.7	-0.72	25.39	0.738	6.94	0.202	-18.1	-0.53	-22.8	-0.66	-8.4	-0.24	-2.23	-0.06	1.04	0.03	-20.2	-0.59	-11	-0.32	-7.36	-0.21	0	0	-2.64	-0.08	-8.32	-0.24	-26.3	-0.77
	East of A34 EB	70.87	0.937	5.9	0.078	-1.01	-0.01	19.01	0.251	-4.82	-0.06	-9.34	-0.12	80.87	1.07	-7.65	-0.1	155.6	2.058	21.37	0.283	16.16	0.214	35.74	0.473	0	0	-0.28	0	5.73	0.076	-7.23	-0.1
M4	East of A34 WB	21.94	-0.02	-4.75	0.003	-8.35	0.006	0.47	-0	0.97	-0	-1.68	0.001	-6.96	0.005	-0.34	2E-04	0.56	-0	-0.44	3E-04	-35.6	0.026	-75.4	0.055	0	0	-25.8	0.019	-3.92	0.003	-15.8	0.011
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	West of A34 EB	8.32	0.144	50.49	0.865	84.7	1.457	11.06	0.189	17.96	0.313	39.52	0.683	14.3	0.251	5.31	0.097	152.9	2.007	2.29	0.04	-1.39	-0.04	3.8	0.037	0	0	0.7	0.013	-1.41	-0.02	-4.51	-0.08
	West of A34 WB	55.57	0.735	0.23	0.003	15.03	0.199	-1.9	-0.03	5.94	0.079	16.33	0.216	-18.6	-0.25	9.76	0.129	5.92	0.078	18.55	0.245	-41.4	-0.55	-85.8	-1.13	0	0	-18.2	-0.24	-2.25	-0.03	-5.08	-0.07

Table B.4 – Key Link Differences – with KVP



Table B.5 – Key Link Scores – no KVP

ROAD	LOCATION	CLUSTER A	CLUSTER B	CLUSTER C	CLUSTER D	CLUSTER E	CLUSTER F	CLUSTER G	CLUSTER H	CLUSTER I	CLUSTER J	CLUSTER K	CLUSTER L	CLUSTER M	CLUSTER N	CLUSTER O	CLUSTER P
		V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C
A4	Speen EB	-1	0	-1	0	0	0	0	0	0	-1	0	0	0	0	0	0
	Speen WB	-2	0	-1	0	0	0	0	0	0	0	0	0	-2	0	0	-1
	Shaw EB	0	-1	-1	0	0	-1	-1	0	0	-1	0	0	0	0	0	-1
	Shaw WB	0	0	-1	0	0	0	-2	0	0	-1	0	0	-1	0	-1	-1
A34	North of Donnington NB	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0
	North of Donnington SB	-1	0	0	0	0	0	0	0	0	-1	0	-1	0	0	0	0
	South of A4 Enborne NB	0	-1	-1	-1	0	0	0	0	0	0	0	0	-1	0	0	0
	South of A4 Enborne SB	-2	0	0	0	0	0	0	0	0	-1	0	-1	0	0	0	-1
A339	North of A4 Donnington NB	0	0	0	0	0	0	0	0	0	0	0	-1	-1	0	0	0
	North of A4 Donnington SB	-1	0	0	0	0	0	-1	0	0	0	0	0	-1	0	0	0
	South of A4 Newbury NB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	South of A4 Newbury SB	-1	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0
M4	East of A34 EB	0	0	0	0	0	0	-1	0	-1	0	0	0	-1	0	0	0
	East of A34 WB	0	0	0	0	0	0	0	0	0	0	0	-1	-2	0	0	0
	West of A34 EB	0	0	-1	0	0	0	0	0	-1	0	0	0	0	0	0	0
	West of A34 WB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average		-1	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0

Table B.6 – Key Link Scores – with KVP

Road	Location	CLUSTER A	CLUSTER B	CLUSTER C	CLUSTER D	CLUSTER E	CLUSTER F	CLUSTER G	CLUSTER H	CLUSTER I	CLUSTER J	CLUSTER K	CLUSTER L	CLUSTER N	CLUSTER O	CLUSTER P
		V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C	V/C
A4	Speen EB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Speen WB	-2	-1	-1	0	0	0	0	0	0	0	0	0	0	0	-1
	Shaw EB	0	-1	-2	0	0	-1	-1	0	0	-1	0	0	0	-1	-1
	Shaw WB	0	-1	-1	0	-1	0	-1	0	0	-1	0	0	0	-1	-1
A34	North of Donnington NB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	North of Donnington SB	-1	0	0	0	0	0	0	0	0	-1	0	0	0	0	0
	South of A4 Enborne NB	0	-1	-1	-1	0	0	0	0	0	0	0	0	0	0	0
	South of A4 Enborne SB	-2	-1	-1	0	0	0	0	0	0	-1	0	0	0	0	-1
A339	North of A4 Donnington NB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	North of A4 Donnington SB	-1	0	0	0	0	0	-1	0	0	0	0	0	0	0	0
	South of A4 Newbury NB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	South of A4 Newbury SB	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M4	East of A34 EB	0	0	0	0	0	0	-1	0	-1	0	0	0	0	0	0
	East of A34 WB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	West of A34 EB	0	0	-1	0	0	0	0	0	-1	0	0	0	0	0	0
	West of A34 WB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Appendix C Journey Times on Principal Routes - Detailed Results



Table C.1 – Journey Times (seconds) – no KVP

CLUSTERS	A4 EB	A4 WB	A34 NB	A34 SB	A339 NB	A339 SB	M4 EB	M4 WB
BASE (Do Minimum)	1811	1620	592	563	975	712	503	447
(A) North Newbury	1815	1637	595	581	974	749	504	448
(B) South Newbury - Rugby Club	1833	1628	597	565	996	738	505	446
(C) South Newbury - Sandleford Park	1844	1644	598	565	1014	794	507	446
(D) South Newbury - Wash Water	1831	1621	597	563	967	729	504	446
(E) Greenham	1822	1623	590	562	984	728	504	446
(F) West Newbury	1838	1626	593	564	992	731	505	446
(G) Newbury Racecourse	1833	1644	595	563	974	725	504	446
(H) North Tadley - Silchester Road	1819	1622	594	563	983	726	503	447
(I) Hungerford	1827	1623	592	562	976	728	513	447
(J) Hermitage - Denison Barracks	1829	1624	593	567	974	741	503	447
(K) Theale - Near Junction 12	1817	1621	593	565	975	726	503	447
(L) Tilehurst - Turnhams Farm	1819	1622	593	568	976	723	503	447
(M) Kennet Valley Park	1944	1663	603	567	989	755	507	1123
(N) Thatcham - Siege Cross Farm	1820	1628	592	562	978	727	503	447
(O) Thatcham - North of Bowling Green Road	1820	1633	592	563	967	728	503	446
(P) Newbury & Thatcham	1792	1643	593	565	975	708	503	447

Table C.2 – Journey Times (seconds) – with KVP

CLUSTERS	A4 EB	A4 WB	A34 NB	A34 SB	A339 NB	A339 SB	M4 EB	M4 WB
(A) North Newbury	2004	1689	606	584	1009	894	508	1099
(B) South Newbury - Rugby Club	1974	1678	610	570	1010	760	510	1130
(C) South Newbury - Sandleford Park	2085	1695	610	570	1026	773	512	1135
(D) South Newbury - Wash Water	1944	1669	609	568	999	755	508	1123
(E) Greenham	1935	1667	600	568	1008	745	508	1122
(F) West Newbury	1968	1671	605	568	1017	750	509	1126
(G) Newbury Racecourse	1951	1686	601	569	992	759	508	1132
(H) North Tadley - Silchester Road	1941	1669	599	568	999	751	507	1124
(I) Hungerford	1942	1674	604	567	990	754	517	1123
(J) Hermitage - Denison Barracks	1971	1668	604	573	1002	783	507	1124
(K) Theale - Near Junction 12	1923	1665	604	567	993	748	507	1175
(L) Tilehurst - Turnhams Farm	1966	1667	605	567	990	755	507	1235
(N) Thatcham - Siege Cross Farm	2030	1677	604	568	1000	749	507	1159
(O) Thatcham - North of Bowling Green Road	2057	1684	604	568	994	761	507	1128
(P) Newbury & Thatcham	2019	1688	604	570	1001	764	507	1145



Table C.3 – Journey Time Differences (seconds)

CLUSTERS	A4 EB		A4 WB		A339 NB		A339 SB		A34 NB		A34 SB		M4 EB		M4 WB	
	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP
BASE (Do Minimum)	1811		1620		975		712		592		563		503		447	
(A) North Newbury	4	60	17	26	-1	20	37	139	3	3	18	17	1	1	1	-24
(B) South Newbury - Rugby Club	22	30	8	15	21	21	26	5	5	7	2	3	2	3	-1	7
(C) South Newbury - Sandleford Park	33	141	24	32	39	37	82	18	6	7	2	3	4	5	-1	12
(D) South Newbury - Wash Water	20	0	1	6	-8	10	17	0	5	6	0	1	1	1	-1	0
(E) Greenham	11	-9	3	4	9	19	16	-10	-2	-3	-1	1	1	1	-1	-1
(F) West Newbury	27	24	6	8	17	28	19	-5	1	2	1	1	2	2	-1	3
(G) Newbury Racecourse	22	7	24	23	-1	3	13	4	3	-2	0	2	1	1	-1	9
(H) North Tadley - Silchester Road	8	-3	2	6	8	10	14	-4	2	-4	0	1	0	0	0	1
(I) Hungerford	16	-2	3	11	1	1	16	-1	0	1	-1	0	10	10	0	0
(J) Hermitage - Denison Barracks	18	27	4	5	-1	13	29	28	1	1	4	6	0	0	0	1
(K) Theale - Near Junction 12	6	-21	1	2	0	4	14	-7	1	1	2	0	0	0	0	52
(L) Tilehurst - Turnhams Farm	8	22	2	4	1	1	11	0	1	2	5	0	0	0	0	112
(M) Kennet Valley Park	133		43		14		43		11		4		4		676	
(N) Thatcham - Siege Cross Farm	9	86	8	14	3	11	15	-6	0	1	-1	1	0	0	0	36
(O) Thatcham - North of Bowling Green Road	9	113	13	21	-8	5	16	6	0	1	0	1	0	0	-1	5
(P) Newbury & Thatcham Gap	-19	75	23	25	0	12	-4	9	1	1	2	3	0	0	0	22

Table C.4 – Journey Time Scores

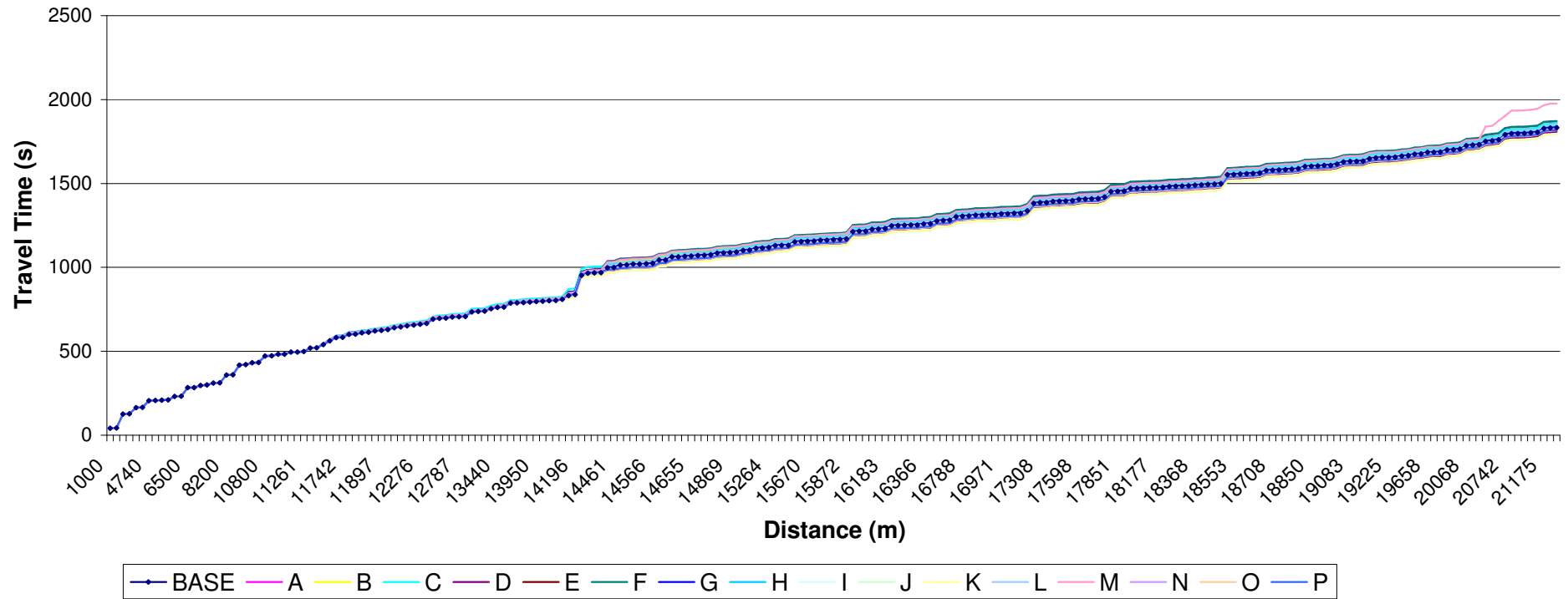
CLUSTERS	A4 EB		A4 WB		A339 NB		A339 SB		A34 NB		A34 SB		M4 EB		M4 WB		Average Local		Average Strategic	
	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP	No KVP	KVP
BASE (Do Minimum)																	No KVP	KVP	No KVP	KVP
(A) North Newbury	0	-2	-2	-2	0	-2	-2	-2	0	0	-2	-2	0	0	0	0	-1	-2	-1	-1
(B) South Newbury - Rugby Club	-2	-2	-1	-2	-2	-2	-2	-1	-1	-1	0	0	0	0	0	-1	-2	-2	0	-1
(C) South Newbury - Sandleford Park	-2	-2	-2	-2	-2	-2	-2	-2	-1	-1	0	0	0	-1	0	-1	-2	-2	0	-1
(D) South Newbury - Wash Water	-2	0	0	-1	0	-1	-2	0	-1	-1	0	0	0	0	0	0	-1	-1	0	0
(E) Greenham	-1	0	0	0	-1	-2	-2	0	0	0	0	0	0	0	0	0	-1	-1	0	0
(F) West Newbury	-2	-2	-1	-1	-2	-2	-2	0	0	0	0	0	0	0	0	0	-2	-1	0	0
(G) Newbury Racecourse	-2	-1	-2	-2	0	0	-1	0	0	0	0	0	0	0	0	-1	-1	-1	0	0
(H) North Tadley - Silchester Road	-1	0	0	-1	-1	-1	-1	0	0	0	0	0	0	0	0	0	-1	-1	0	0
(I) Hungerford	-2	0	0	-1	0	0	-2	0	0	0	0	0	-1	-1	0	0	-1	0	0	0
(J) Hermitage - Denison Barracks	-2	-2	0	-1	0	-1	-2	-2	0	0	0	-1	0	0	0	0	-1	-2	0	0
(K) Theale - Near Junction 12	-1	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	-2	-1	0	-1	0
(L) Tilehurst - Turnhams Farm	-1	-2	0	0	0	0	-1	0	0	0	-1	0	0	0	0	-2	-1	-1	0	-1
(M) Kennet Valley Park	-2		-2		-1		-2		-1				0		-2		-2		-1	
(N) Thatcham - Siege Cross Farm	-1	-2	-1	-1	0	-1	-2	0	0	0	0	0	0	0	0	-2	-1	-1	0	-1
(O) Thatcham - North of Bowling Green Road	-1	-2	-1	-2	0	-1	-2	-1	0	0	0	0	0	0	0	-1	-1	-2	0	0
(P) Newbury & Thatcham Gap	0	-2	-2	-2	0	-1	0	-1	0	0	0	0	0	0	0	-2	-1	-2	0	-1



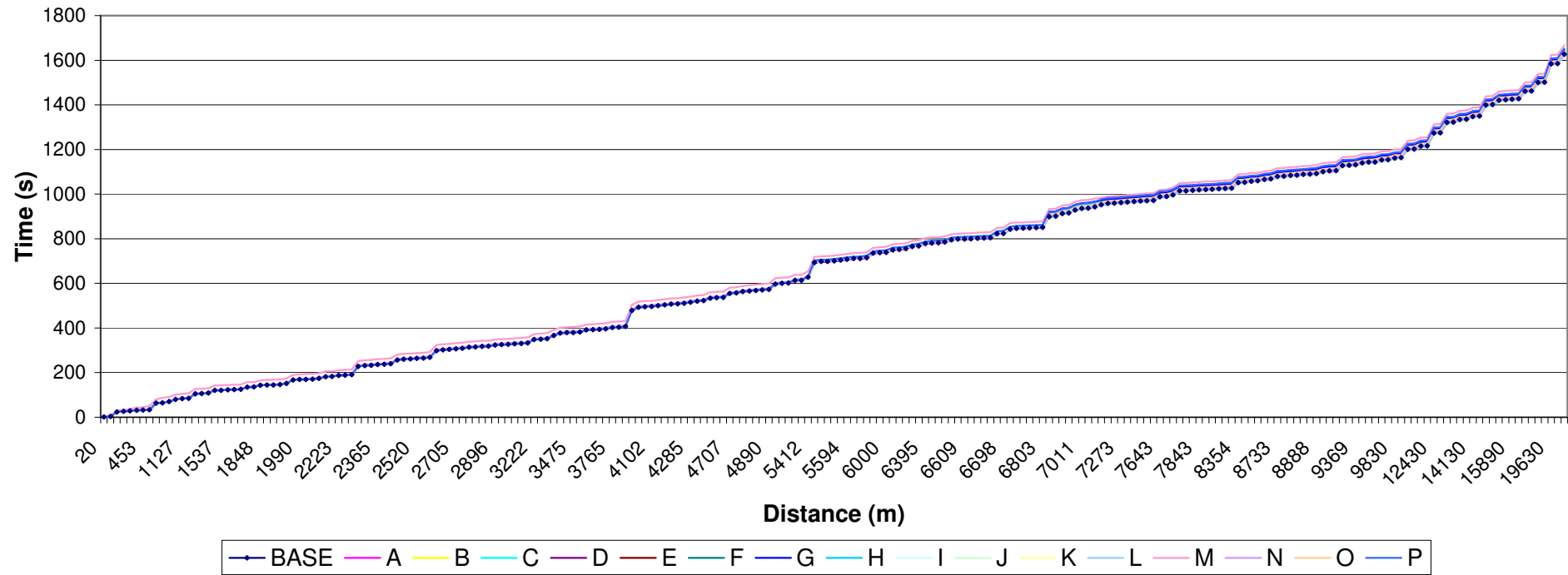
Appendix D Journey Times - Flow Profiles



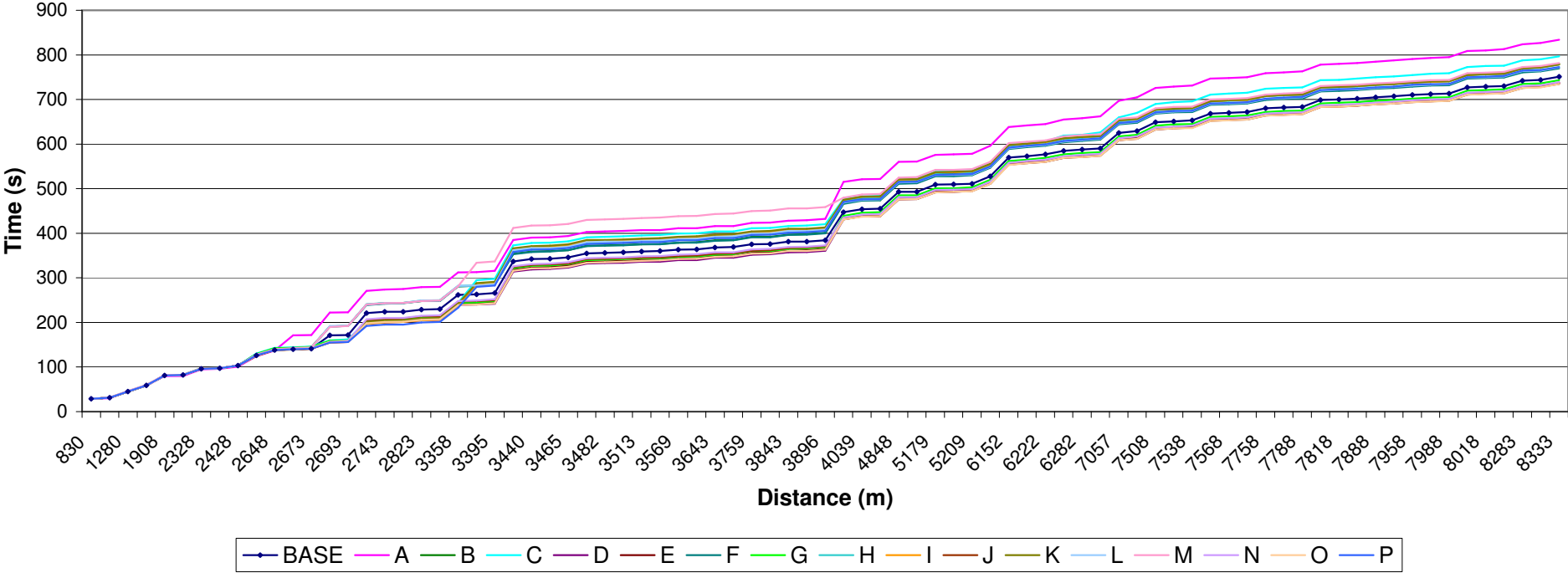
Comparison of Journey Times on A4 EB



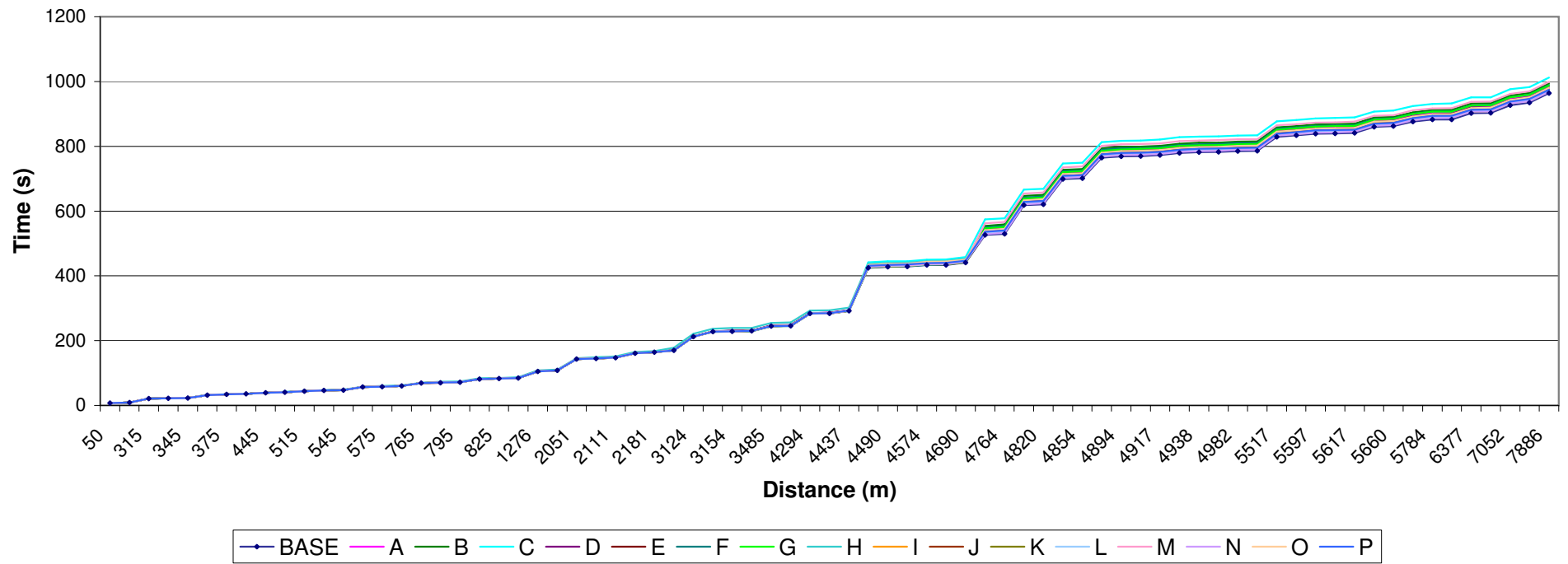
Comparison of Journey Times on A4 WB



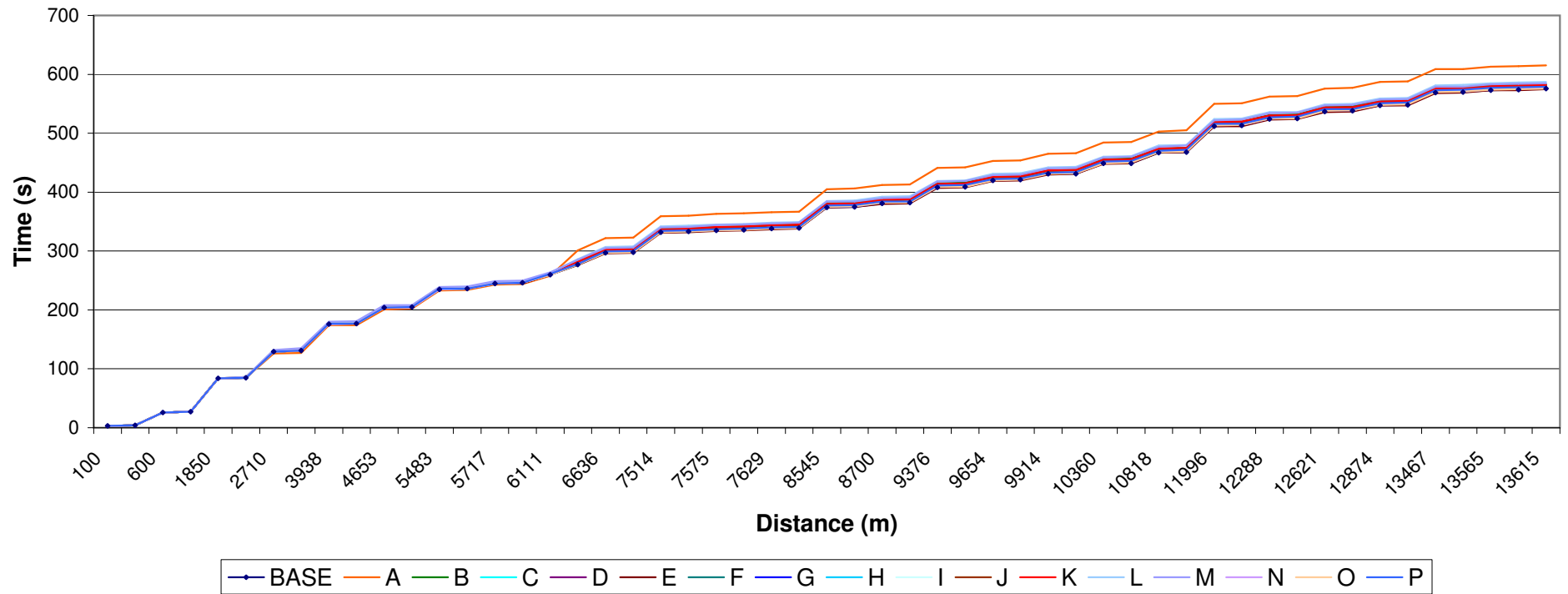
Comparison of Journey Times on A339 SB



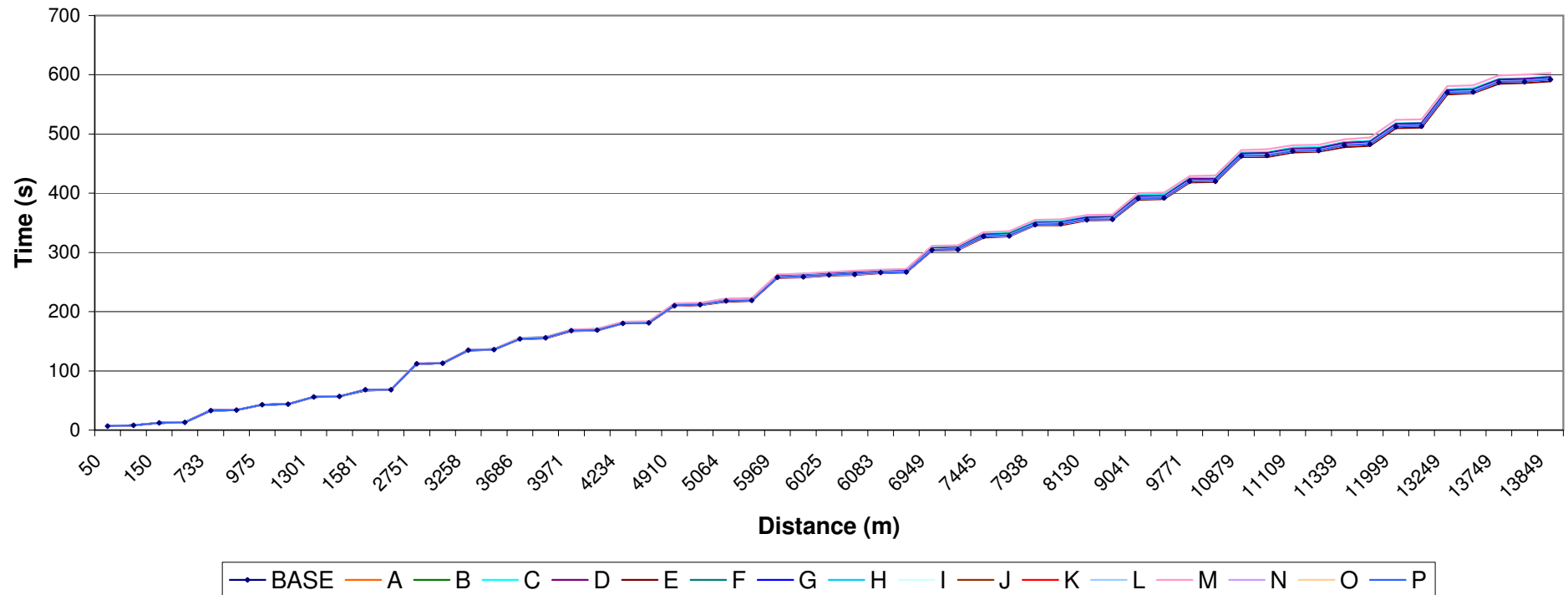
Comparison of Journey Times on A339 NB



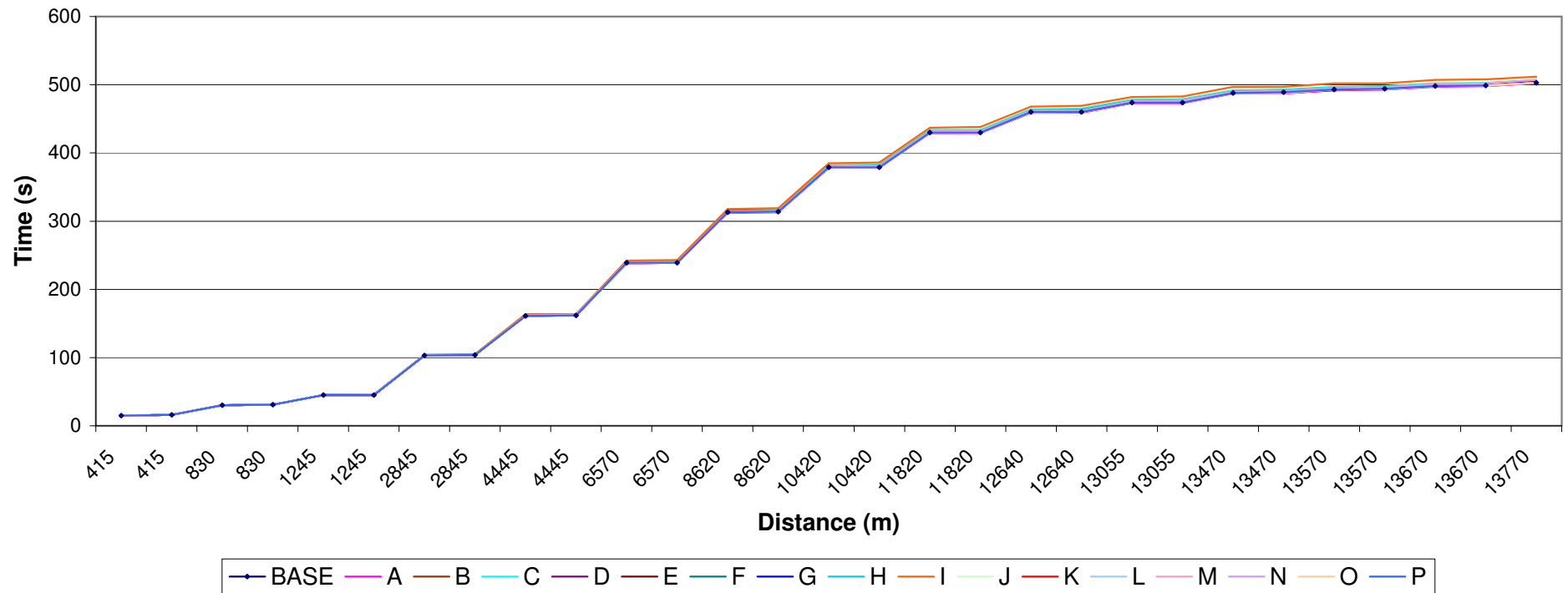
Comparison of Journey Times on A34 SB



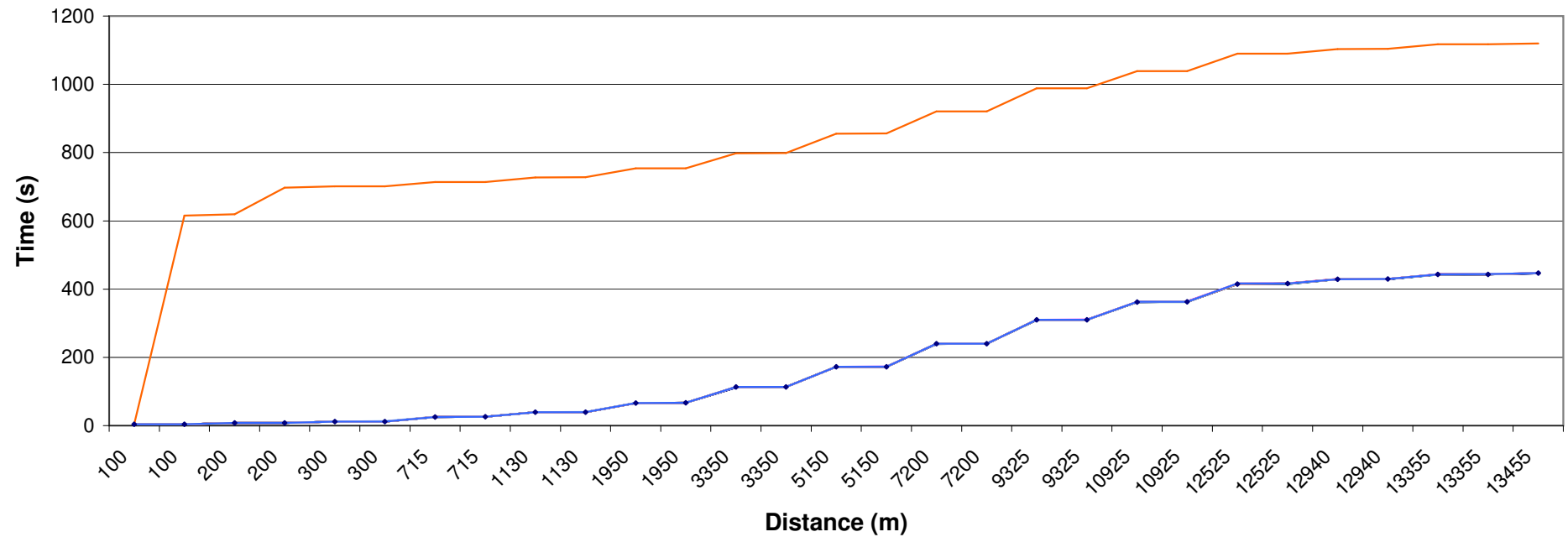
Comparison of Journey Times on A34 NB



Comparison of Journey Times on M4 EB

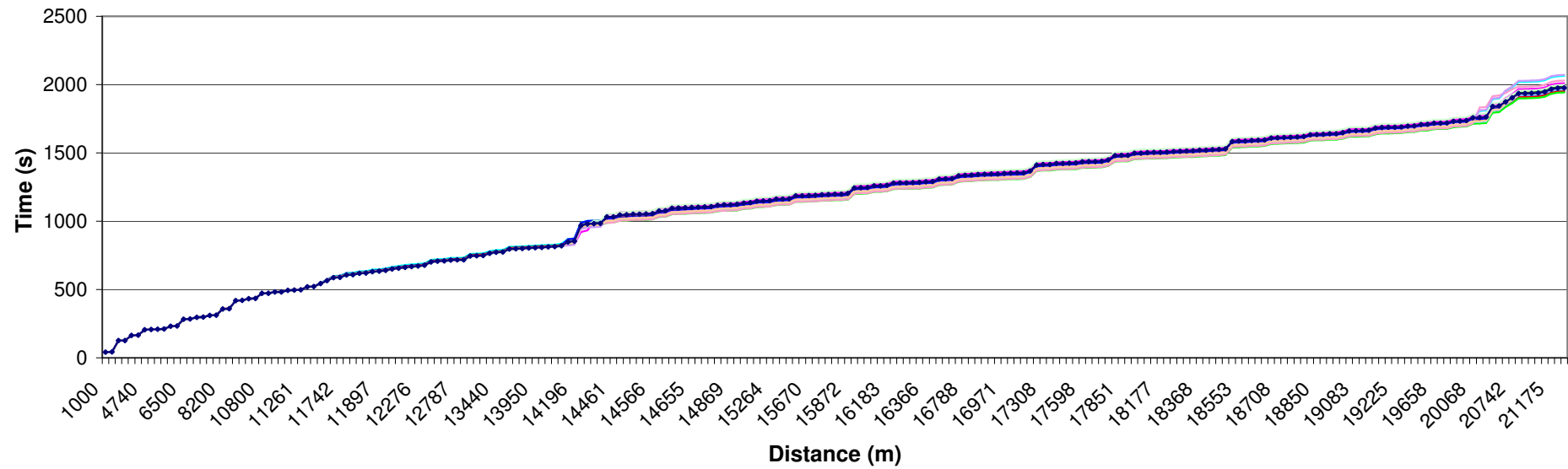


Comparison of Journey Times on M4 WB



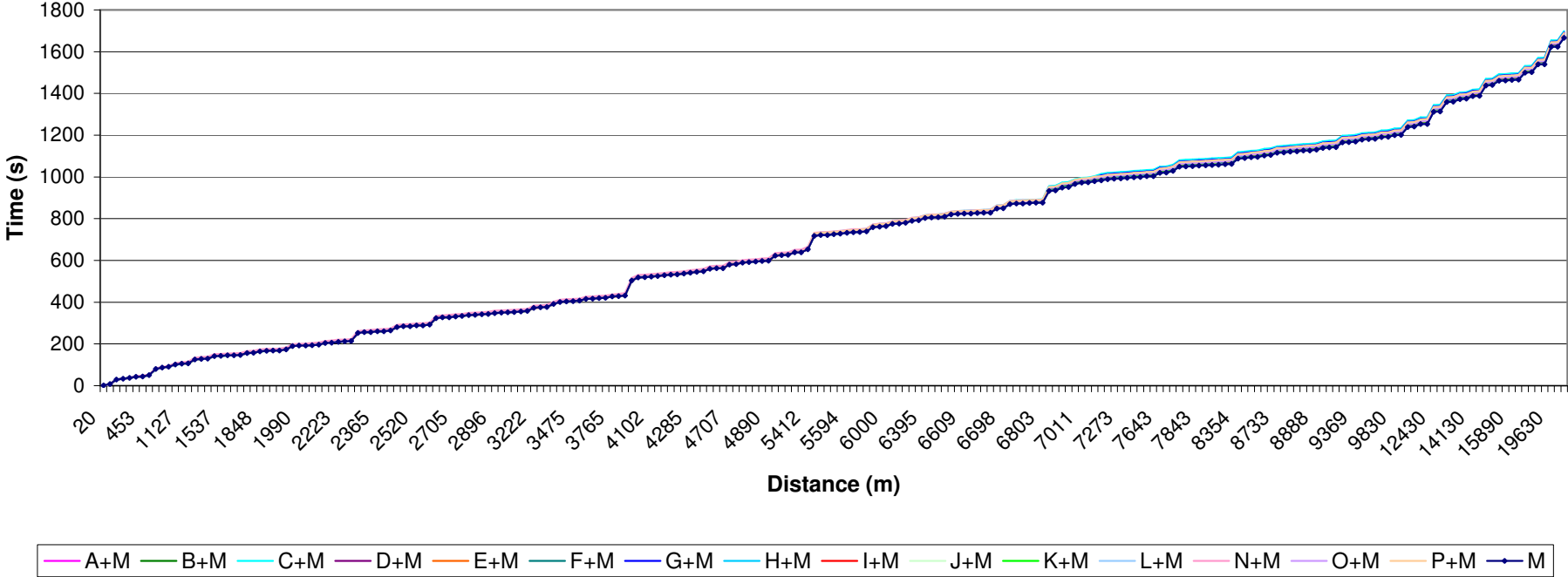
BASE A B C D E F G H I J K L M N O P

Comparison of Journey Times on A4 EB

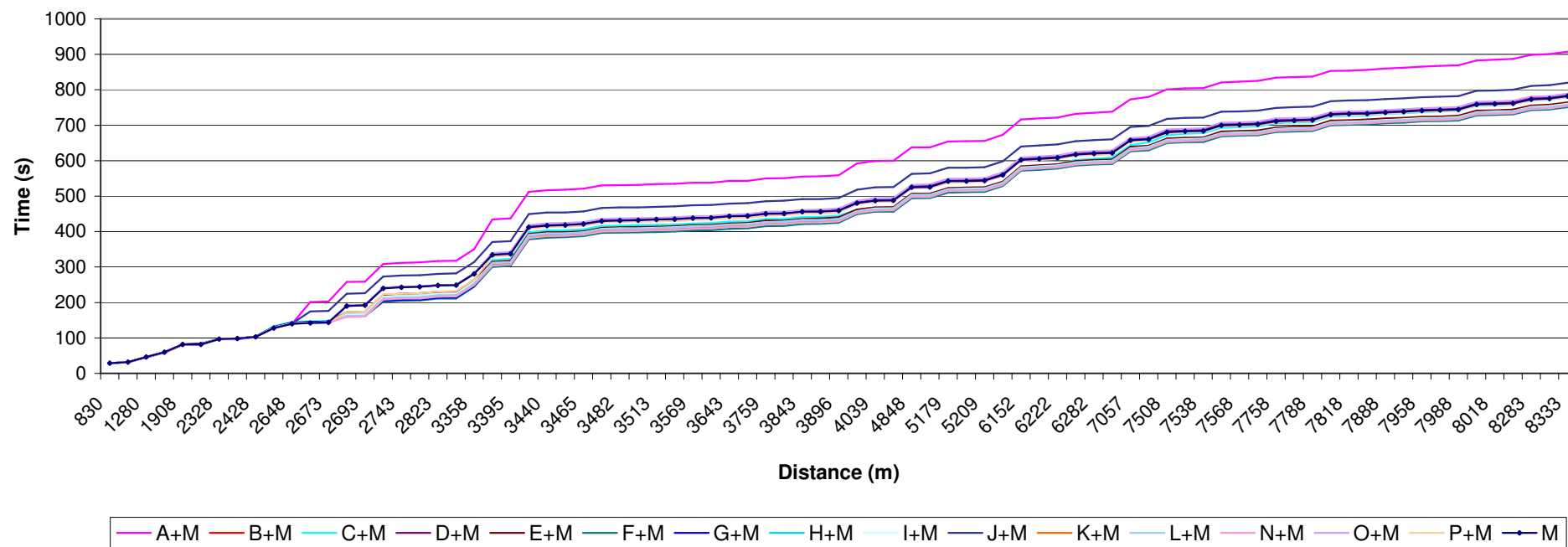


A+M B+M C+M D+M E+M F+M G+M H+M I+M J+M K+M L+M N+M O+M P+M M

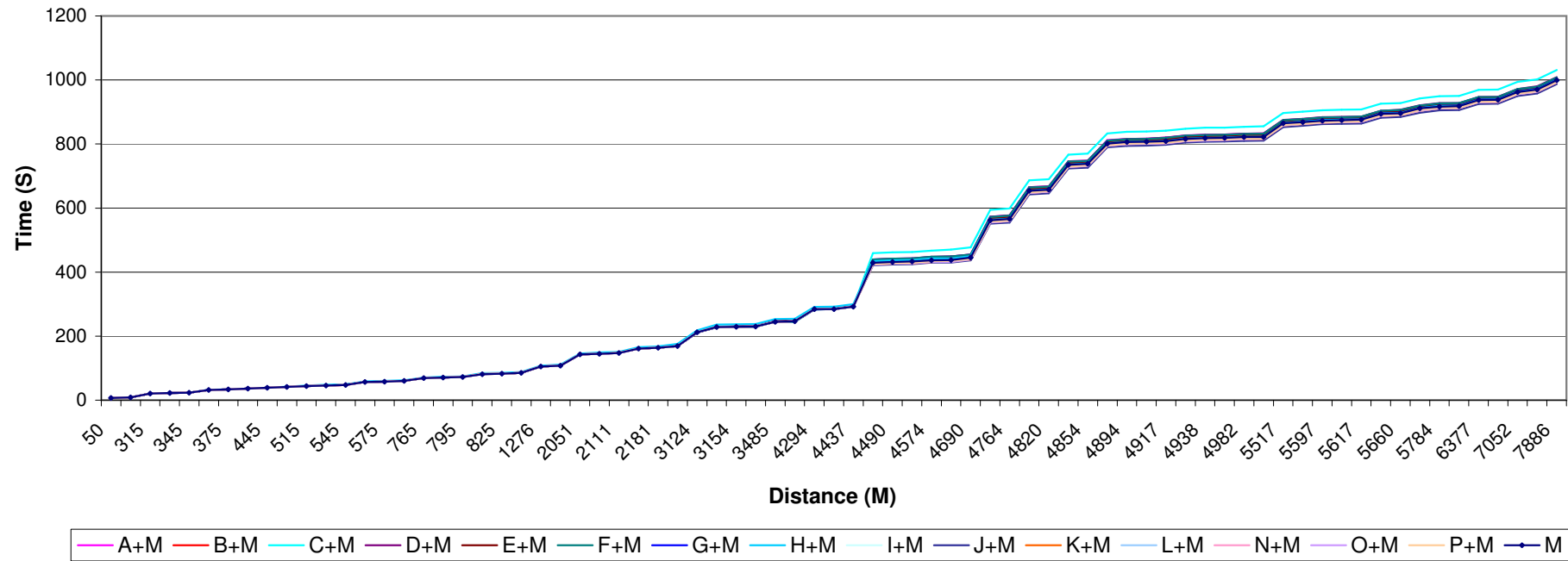
Comparison of Journey Times on A4 WB



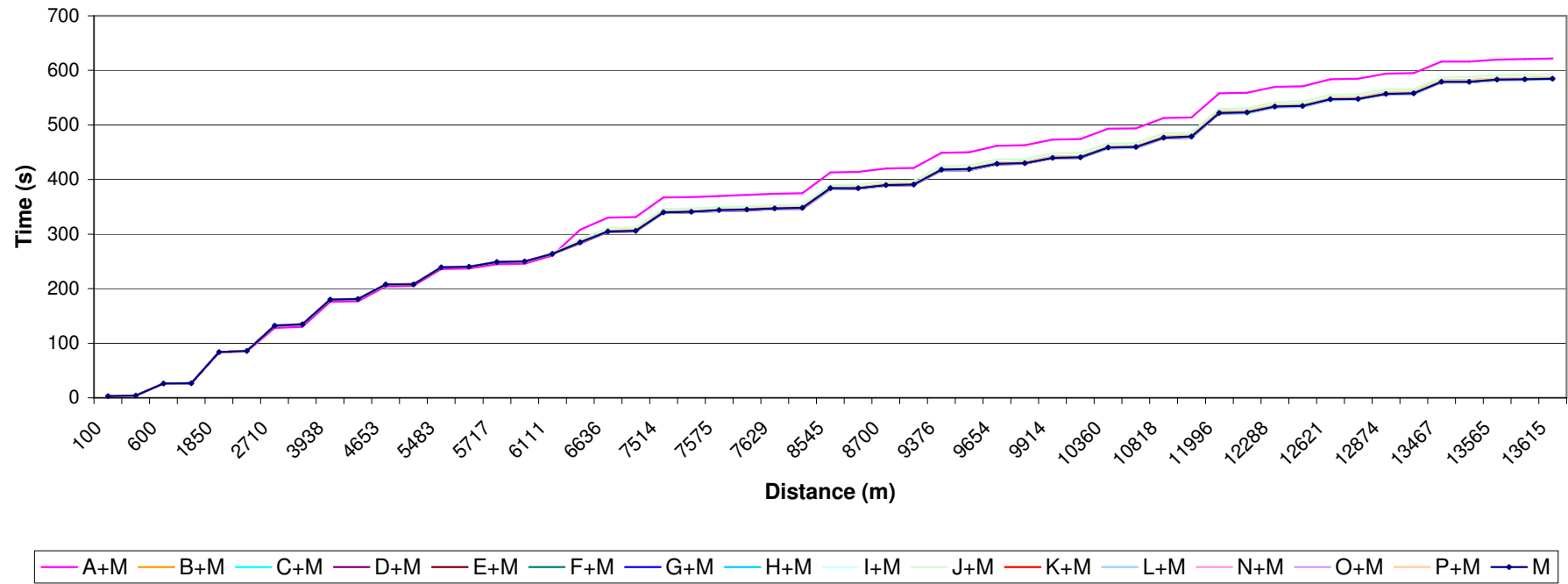
Comparison of Journey Times on A339 SB



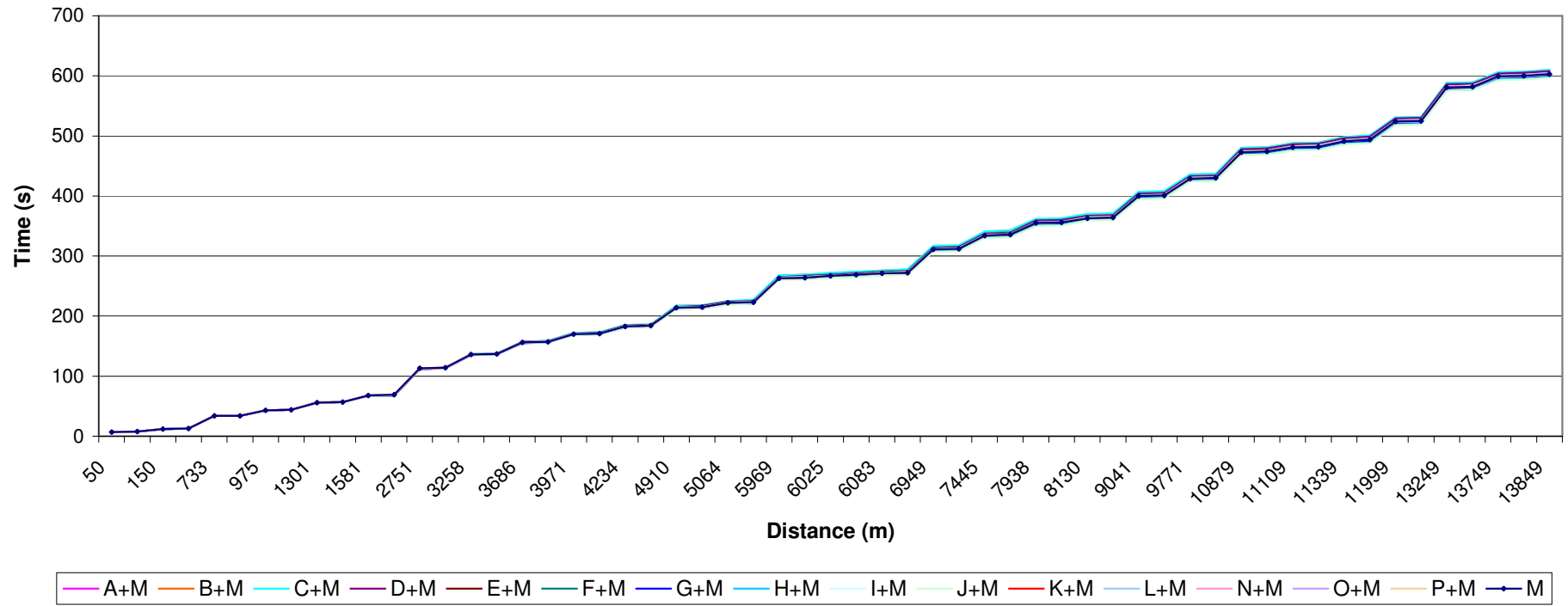
Comparison of Journey Times on A339 NB



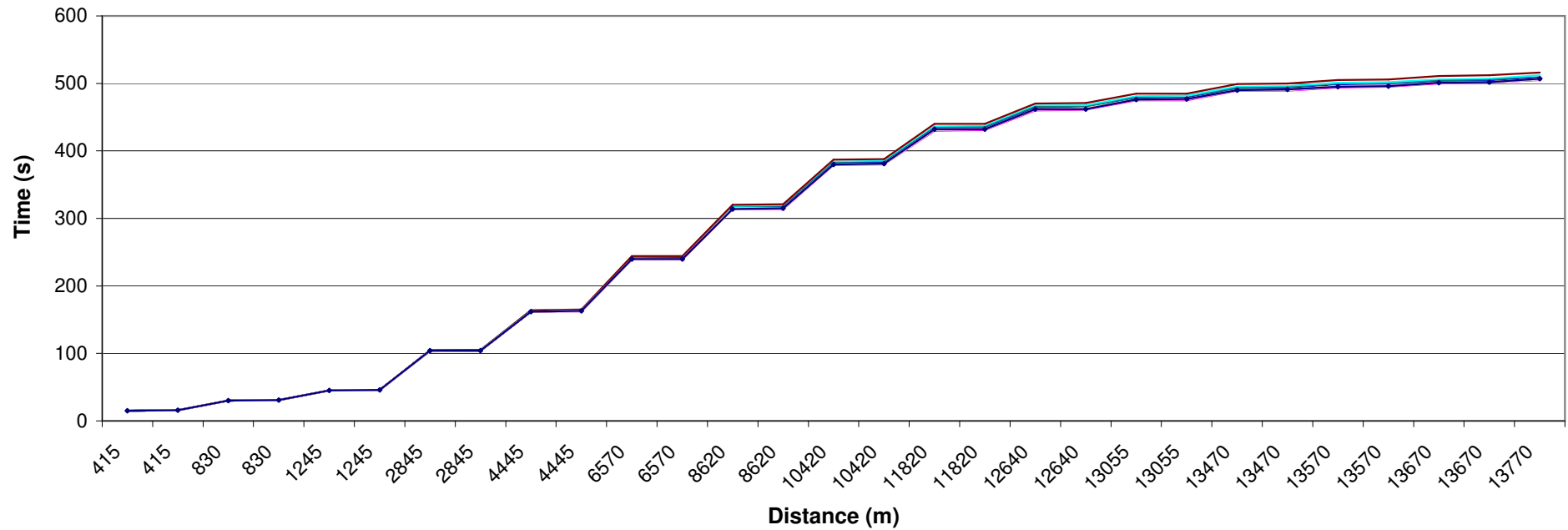
Comparison of Journey Times on A34 SB



Comparison of Journey Times on A34 NB

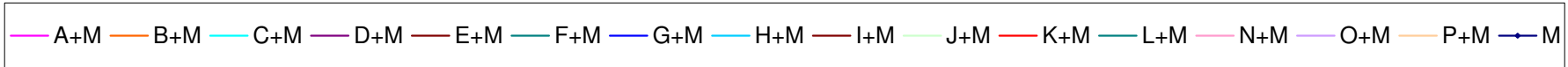
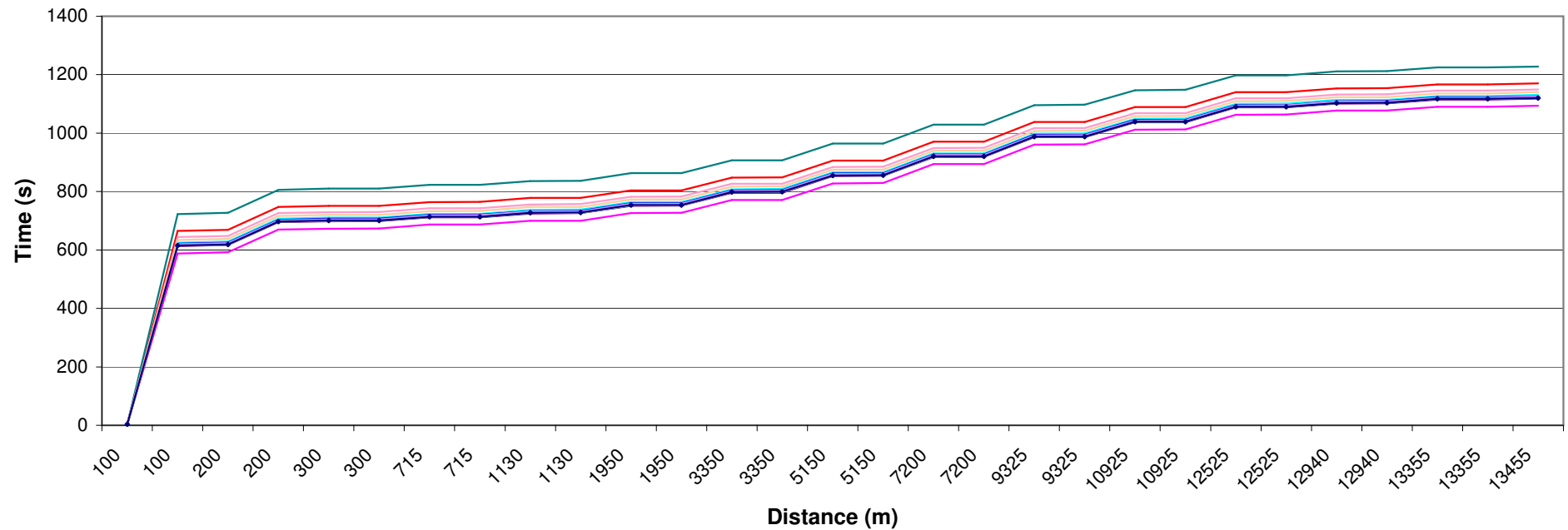


Comparison of Journey Times on M4 EB



A+M B+M C+M D+M E+M F+M G+M H+M I+M J+M K+M L+M N+M O+M P+M M

Comparison of Journey Times on M4 WB



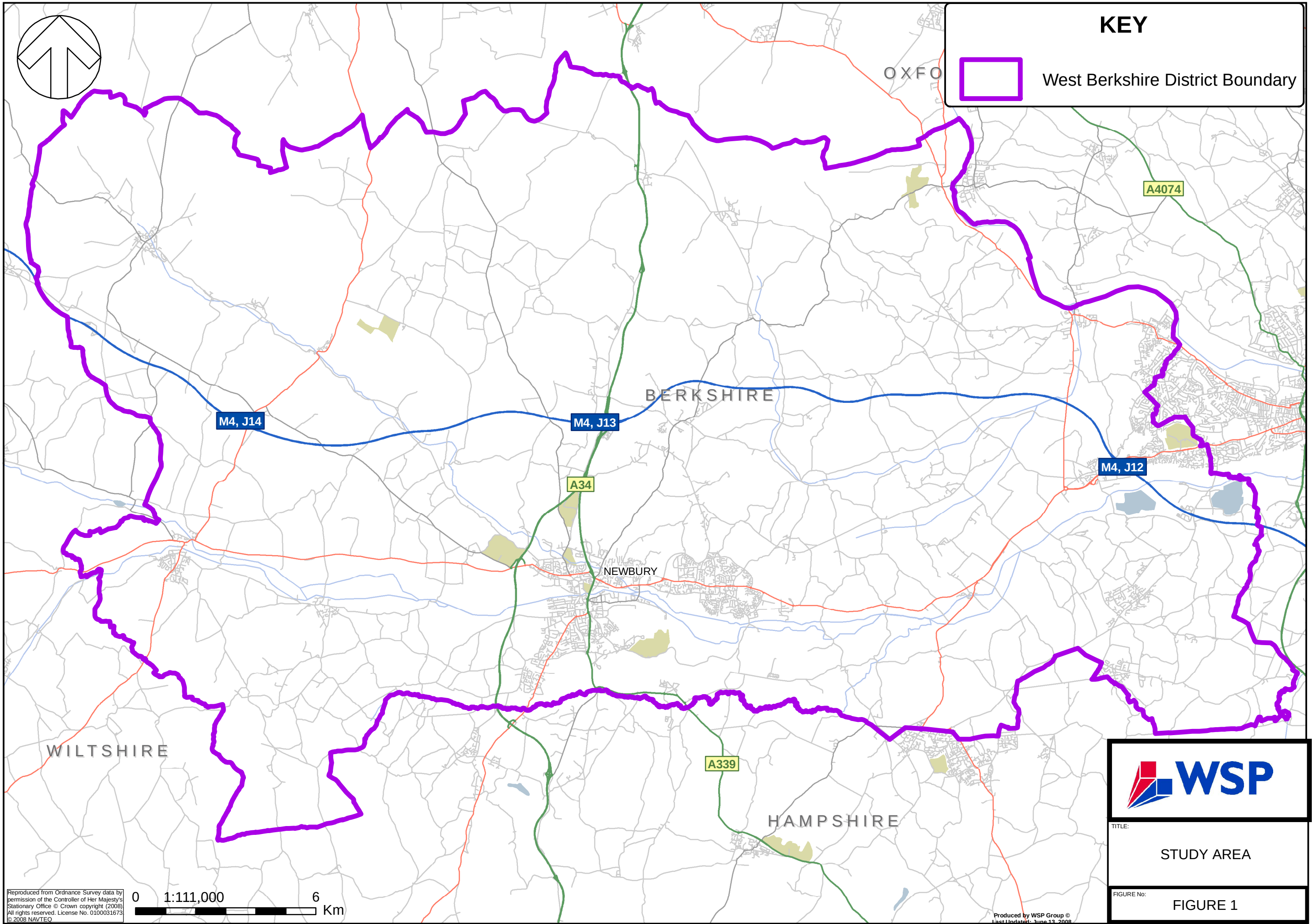


Appendix E Matrix of Local Facilities

[illegible]



Figure 1 Location of Study Area



KEY



West Berkshire District Boundary



TITLE:

STUDY AREA

FIGURE No:

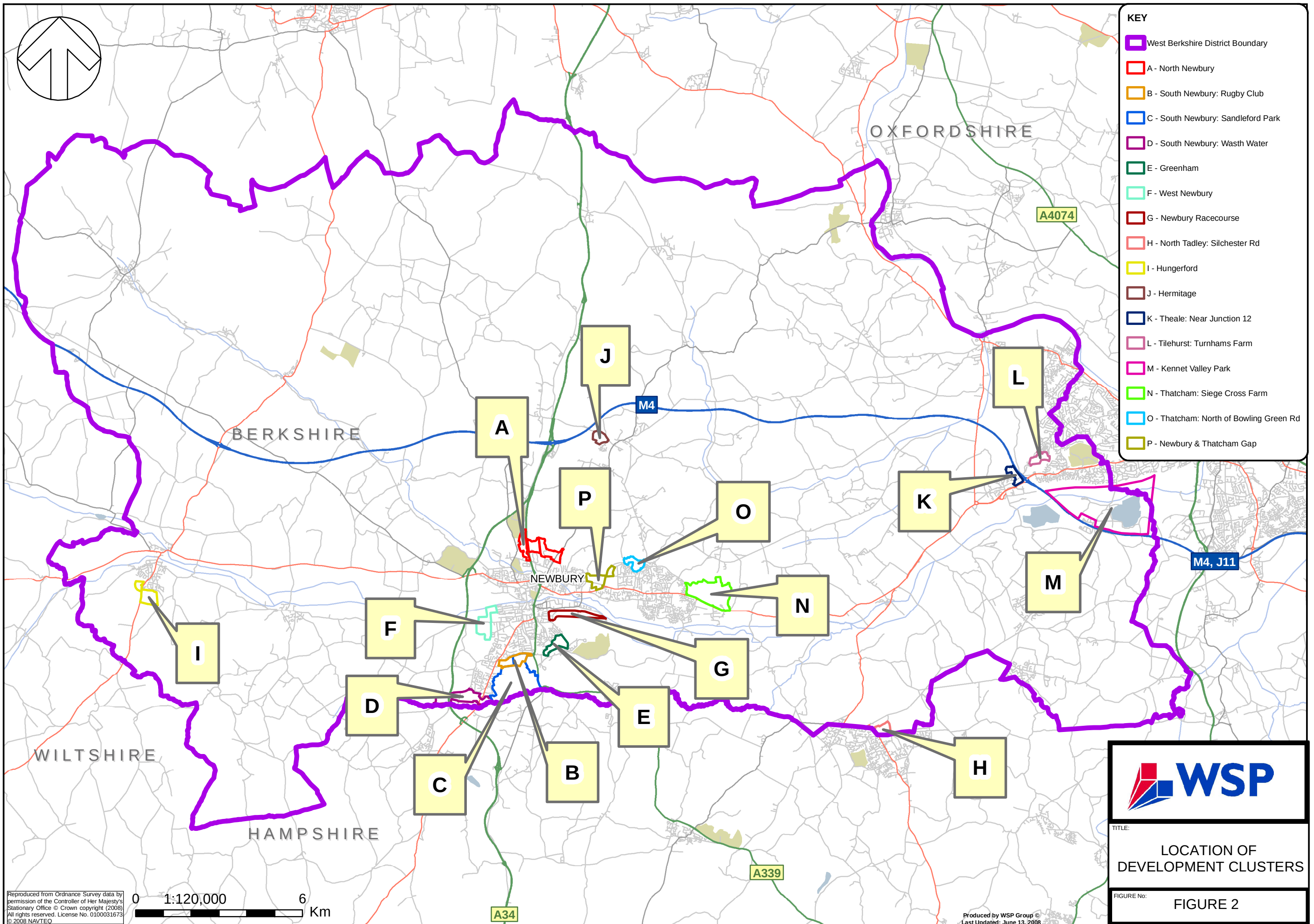
FIGURE 1

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0 1:111,000 6 Km

Produced by WSP Group © Last Updated: June 13, 2008

Figure 2 Location of Development Clusters





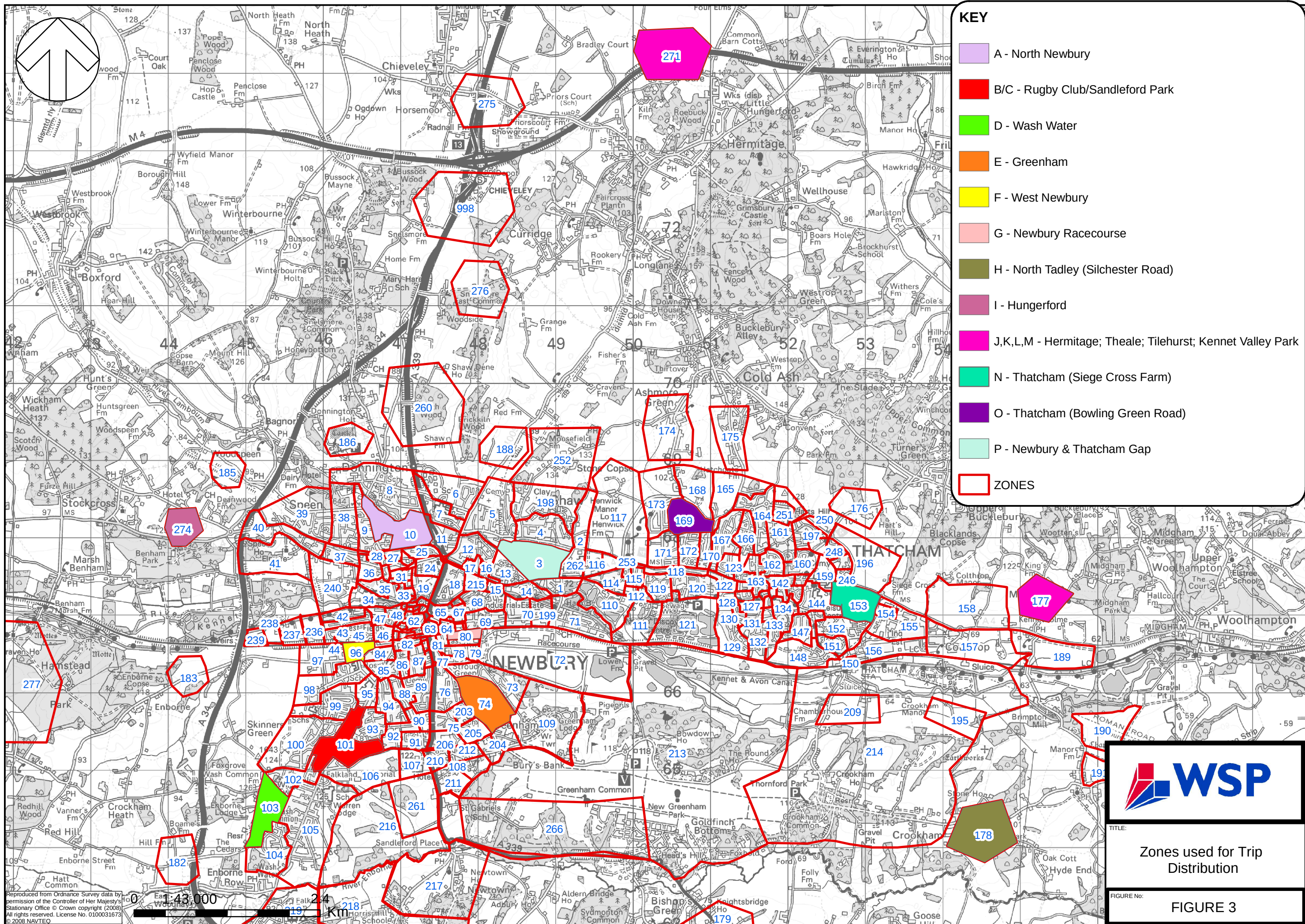




Figure 4 SATURN Model Coverage

SATURN

WS Atkins
& Leeds ITS

ASE.UFS
2016AM_LDF_B

Scale 91864



13- 6- 8
WSP MANAGEME



Figure 5 Cluster Loading Points

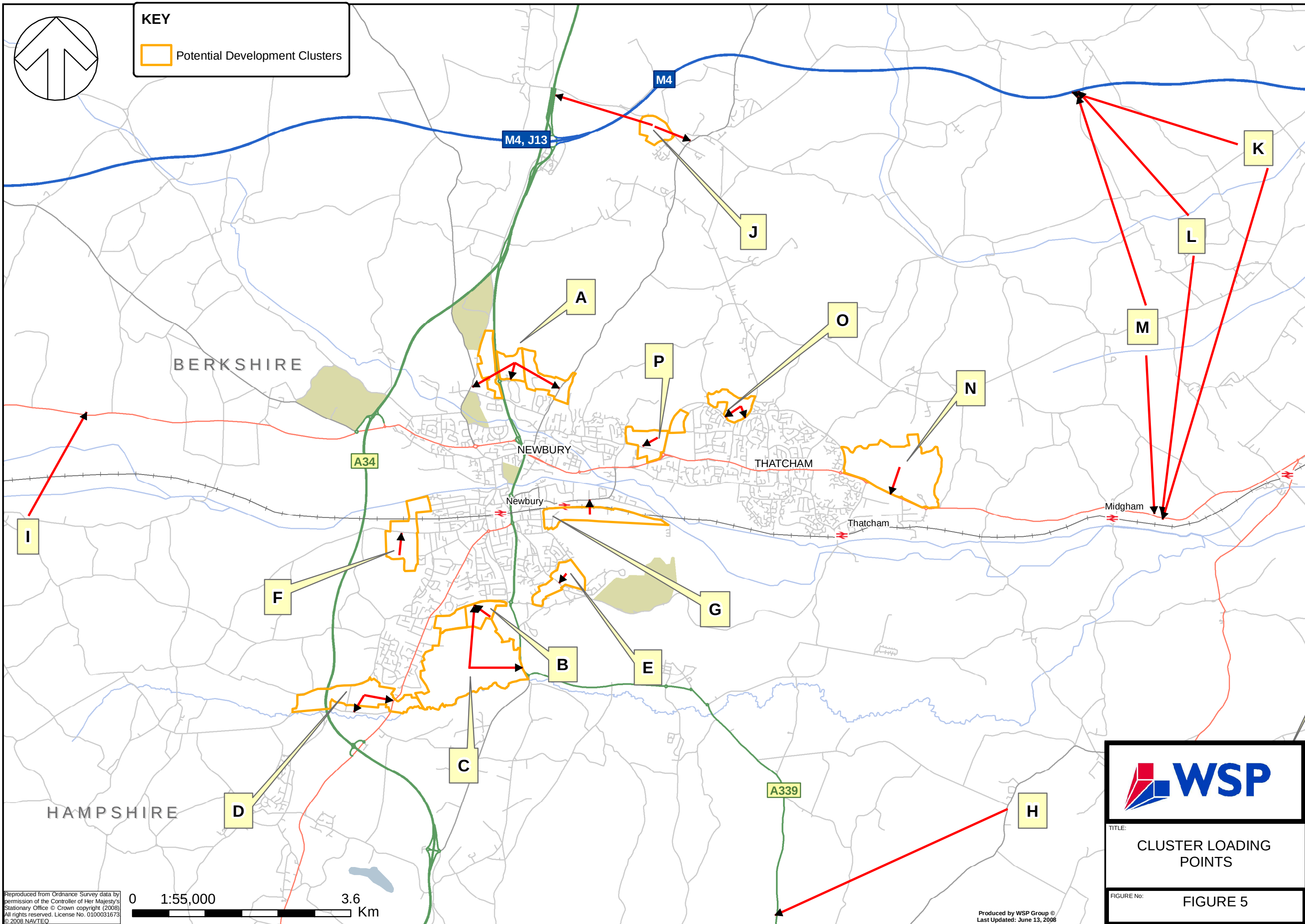
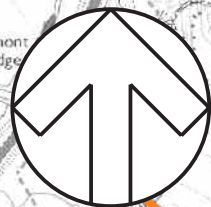
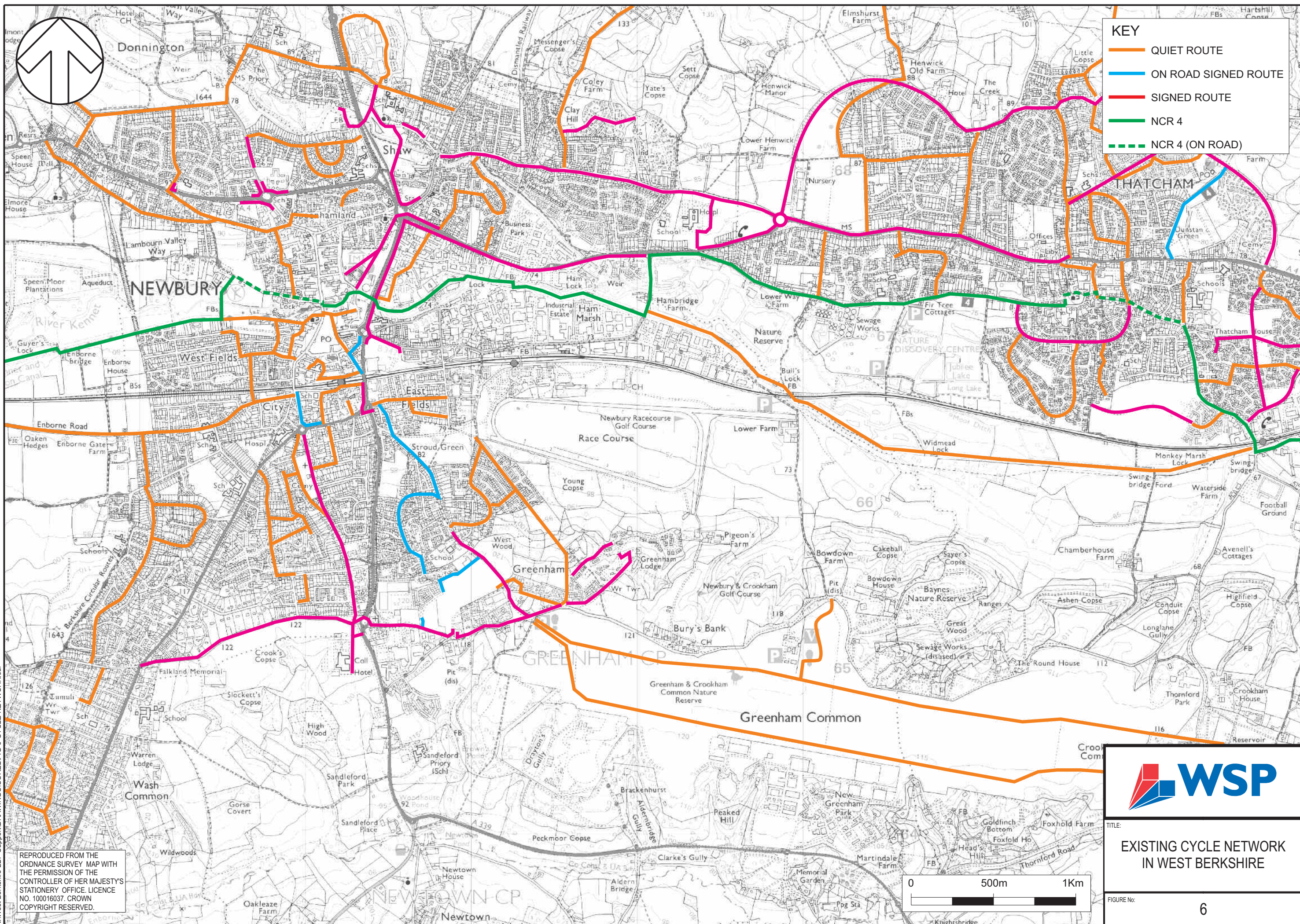




Figure 6 Existing Cycle Route Network in West Berkshire



- KEY**
- QUIET ROUTE
 - ON ROAD SIGNED ROUTE
 - SIGNED ROUTE
 - NCR 4
 - NCR 4 (ON ROAD)



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TITLE:
**EXISTING CYCLE NETWORK
IN WEST BERKSHIRE**

FIGURE No: 6



Figure 7 Location of Development Clusters in Relation to Cycle Route Network

