

Appendix A – Transport Deficit Identified at 2011

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Appendix A provides details of the headline issues described in Section 4, including all elements of deficit either identified from the modelling, from other documents, or anecdotally via the local knowledge of District and County officers. This section explains how Appendix A has been set up, the definitions adopted, and how to use it.

The Figures are as follows. They have a common key but only certain modes apply to each, as denoted by the titles.

Figure A 1 Bus: This shows the main locations of bus capacity and bus congestion (where routes are affected by general congestion – see also Table A 12) problems;

Figure A 2 Rail: This shows the main locations of rail capacity problems. Clearly these are not necessarily site-specific (overcrowding is likely to affect long sections of route), so a representative location has been used;

Figure A 3 Road: This shows the main areas of traffic congestion in the AM peak, from the EERM model and other sources;

Figure A 4 Other: This includes other issues, either those not related to the above categories or bus/rail problems that cannot easily be attributed to a particular district.

All the locations in the Figures have cross-reference numbers to relate them to Table A 1 to Table A 12, which follow the Figures in Appendix A. These tables provide more information, with the following column headings:

Label: This is the cross-reference identifier between the tables and figures in the appendix;

Doc_ID: This is the cross-reference to the information source in Appendix D;

Location: This specifies as accurately as possible the location of the problem;

Description: This provides a brief explanation of the nature of the issue;

Type: The mode in question;

Corridor: Particularly for rail, road and bus if applicable, this notes the corridor to which the issue applies;

RSS Class: This column has been added to identify the scale of the issue, whether strategic, regional or local. This will help later to attribute infrastructure costs and the extent to which these may be viable for inclusion in the CIL.

Existing/Future: While the majority of problems are existing, i.e. are problems now, some (such as roads between 80 and 100% of capacity) are likely to become problems very soon. This column notes this distinction.

Table A 1 to Table A 10 refer to each district, and the items in each table are sorted by mode. Table A 11 lists 'Other Deficit', relating either to strategic corridors, effects outside Hertfordshire that influence it (London Underground overcrowding, Luton, Harlow), or less

specific issues that have been flagged. Table A 12 lists bus network congestion as noted above.

Table A 1: Broxbourne Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing/ Future
D77	142	Broxbourne	Extremely busy in peak	Rail		Regional	Existing
D114	3	Cheshunt	C-College Rd	Road		Local	Existing
D115	3	Cheshunt	C-Church Ln	Road		Local	Existing
D116	3	Hoddesdon	C-Essex Rd	Road		Local	Existing
D278	1003	Turnford	Retail Centre congestion	Road	A1170	Local	Existing
D113	3	Waltham Cross	C-Cambridge Rd jct M25	Road		Regional	Existing
D117	3	Waltham Cross	C-Eleanor X/Station Rds	Road		Local	Existing

Table A 2: Dacorum Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing/ Future
D11	40	Hemel Hemp Rail Station	Poor Access rail station	Rail		Regional	Existing
D126	3	A41	C-caused by M25 about	Road	A41	Strategic	Existing
D136	3	A5	C-Markyate sigs and M1 J9	Road	A5	Regional	Existing
D125	3	A5183	Link Capacity	Road	A5183	Regional	Existing
D123	3	Berkhampstead	A416 Link Capacity	Road		Local	Existing
D138	3	Boxmoor	Saturday congestion	Road		Local	Existing
D121	3	Hemel Hempstead	C-A414/ Green Lane	Road		Regional	Existing
D127	3	Hemel Hempstead	C-B4146/ B487	Road	B4146	Local	Existing
D128	3	Hemel Hempstead	C-A4146/ A4147	Road	A4146	Local	Existing
D129	3	Hemel Hempstead	C-A414/ A4147	Road	A414	Local	Existing
D130	3	Hemel Hempstead	C-A414/ A4146	Road	A414	Local	Existing
D131	3	Hemel Hempstead	C-A414/ A4215	Road	A414	Regional	Existing
D132	3	Hemel Hempstead	Jct congestion throughout	Road	A4251	Local	Existing
D133	3	Hemel Hempstead	C-A414/ Bennetts End Ln	Road	A414	Local	Existing
D134	3	Hemel Hempstead	C-Hemel & Redbourn Rd Jct	Road		Regional	Existing
D137	3	Hemel Hempstead	School congestion	Road		Local	Existing
D135	3	M1 J9	Junction capacity	Road	M1	Strategic	Existing
D118	3	M1 J9-10	Link Capacity	Road	M1	Strategic	Existing
D124	3	Markyate	Link Capacity & M1 Jct	Road	A5	Strategic	Existing

Table A 3: East Herts Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing/ Future
D110	142	Bishops Stortford	Growth of 28pc	Rail		Regional	Future
D80	142	Bishops Stortford	Standing during AM Peak	Rail		Regional	Existing
D86	140	Hertford Loop Line	Limited Capacity	Rail		Strategic	Existing
D158	3	A120	C-M11 J8 approach	Road	M11	Strategic	Existing
D162	3	A120	C-Jct with B1383	Road	A120	Regional	Existing
D153	3	A414	C-Eastwick rbout	Road	A414	Regional	Existing
D156	3	A602	Link capacity	Road	A602	Regional	Existing
D142	3	Bishops Stortford	C-London Rd	Road		Local	Existing
D143	3	Bishops Stortford	C-South St/ Station Rd	Road		Local	Existing
D148	3	Bishops Stortford	C-Hadham Rd link capacity	Road		Regional	Existing
D149	3	Bishops Stortford	C-Causeway/New Adderly	Road		Local	Existing
D150	3	Bishops Stortford	C-Hockerhill/ Dane St	Road		Local	Existing
D151	3	Bishops Stortford	C-Hockerhill Jct	Road		Local	Existing
D157	3	Bishops Stortford	C-High/ North/ Bridge St	Road		Local	Existing
D139	3	Hertford	C-A10 rbout	Road	A10	Strategic	Existing
D140	3	Hertford	C-A414/ A119	Road	A414	Regional	Existing
D145	3	Hertford	C-Ware Rd/ Mill Rd	Road		Regional	Existing
D146	3	Hertford	C-A119, Bramfield-A414	Road		Local	Existing
D152	3	Hertford	C-A414/ B158	Road	A414	Regional	Existing
D147	3	Little Hadham	C-A120/ Stortford Rd	Road	A120	Regional	Existing
D154	3	Paynes Hall	C-A602 link capacity	Road	A602	Regional	Existing
D160	3	Puckeridge	C-High St, parking	Road		Local	Existing
D161	3	Puckeridge/ Standon	C-Station Rd, schools	Road		Local	Existing
D144	3	Sawbridgeworth	C-London Rd	Road		Local	Existing
D163	3	Stanstead Abbots	C-Hoddesdon Rd, jcts	Road		Local	Existing
D164	3	Stanstead Abbots	C-High St, jcts	Road		Local	Existing
D159	3	Ware	C-High St	Road		Local	Existing
D155	3	Watton at Stone	C-A602 link capacity	Road	A602	Regional	Existing

Table A 4: Hertsmere Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing/ Future
D169	3	A1	Link capacity	Road	A1(M)	Regional	Existing
D76	1000	A1 south of M25	Tidal congestion part M25	Road		Strategic	Existing
D168	3	A1(M) J1-2	Link capacity	Road	A1(M)	Strategic	Existing
D174	3	Borehamwood	C-Shenley/Station Rd	Road	B5378	Local	Existing
D175	3	Borehamwood	C-Shenley Rd	Road	B5378	Local	Existing
D181	3	Borehamwood	C-Theobold St	Road		Local	Existing
D182	3	Borehamwood	C-Shenley Rd app rbout	Road	B5378	Local	Existing
D290	167	Bushey Town Centre	Congestion	Road	A411	Local	Existing
D178	3	Elstree	C-Elstree Hill North	Road		Local	Existing
D179	3	Elstree	C-Barnet Lane	Road		Local	Existing
D180	3	Elstree	C-Allum Lane	Road	B5378	Local	Existing
D165	3	M25 J21a-22	Link capacity	Road	M25	Strategic	Existing
D166	3	M25 J23-24	Link capacity	Road	M25	Strategic	Existing
D167	3	M25 J24-25	Link capacity	Road	M25	Strategic	Existing
D170	3	Potters Bar	C-High St	Road	A1000	Local	Existing
D171	3	Potters Bar	C-Hatfield Rd	Road	A1000	Local	Existing
D172	3	Potters Bar	Southgate Rd link cap	Road		Local	Existing
D176	3	Potters Bar	C-Mutton Lane	Road		Local	Existing
D177	3	Potters Bar	C-Darkes Lane	Road		Local	Existing
D173	3	Radlet	Watling St Link capacity	Road		Local	Existing
D246	3	Watford	C-Hartspring/ A41	Road	A41	Regional	Existing

Table A 5: North Herts Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing/ Future
D90	140	Cambridge Jun. Hitchin	Conflict with ECML	Rail		Strategic	Existing
D89	139	East Coast Mainline	Limited inc of Freight	Rail	ECML	Strategic	Existing
D109	140	Hitchin	Growth of 18 pc	Rail		Regional	Existing
D183	3	A1(M)	C-A1M J8-9	Road	A1(M)	Strategic	Existing
D185	3	A1(M)	C-A1M J6-7	Road	A1(M)	Strategic	Existing
D189	3	A1(M) J9	C-Letchworth Gate queuing	Road	A1(M)	Regional	Existing
D186	3	Baldock	C-Royston/Whitehorse sigs	Road	A505	Regional	Existing
D192	3	Codicote	C-High St, parking	Road		Local	Existing
D198	3	Gravelly	C-Gravelly/ North Rd	Road		Local	Existing
D187	3	Hitchin	C-A505/ A602	Road	A505	Regional	Existing
D188	3	Hitchin	C-Hitchin Hill rbout	Road	A602	Regional	Existing
D191	3	Hitchin	A505/A602 block Pirton Rd	Road	A505	Local	Existing
D194	3	Hitchin	C-Bedford Rd to Fishponds	Road	A505	Regional	Existing
D195	3	Hitchin	C-Cambridge/ Walsworth Rd	Road	A505	Regional	Existing
D203	3	Hitchin	C-Stevenage Rd	Road	A602	Local	Existing
D193	3	Knebworth	C-London Rd, parking	Road		Local	Existing
D196	3	Letchworth	C-Letchworth Gate	Road		Local	Existing
D199	3	Letchworth	C-Baldock Rd	Road	A505	Regional	Existing
D200	3	Letchworth	C-Broadway, ped crossing	Road		Local	Existing
D201	3	Royston	C-south of Royston	Road	A10	Strategic	Existing
D202	3	Royston	C-Priory/ Market/ Barkway	Road	A10	Strategic	Existing
D204	3	Royston	C-Roads around station	Road		Local	Existing

Table A 6: St Albans Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Exist/ Future
D287	166	St Albans	Citywide bus info lacking	Bus		Local	Existing
D279	166	St Albans station	Lack of cycle parking	Cycle		Local	Existing
D280	166	St Albans town centre	Lack of cycle parking	Cycle		Local	Existing
D281	166	St Albans station	Overcrowded FCC services	Rail	FCC	Regional	Existing
D83	22	Thameslink Route	Freight Pressure	Rail		Regional	Existing
D239	3	A405 North Circular	CA405, M25 J21a	Road	A405	Regional	Existing
D112	1000	A414 at M25	Impact of ramp metering	Road	M25	Strategic	Future
D111	1000	A5183 at Redbourn	Impact of ramp metering	Road	A5138	Strategic	Future
D214	3	Harpenden	C-Luton Rd	Road	A1081	Regional	Existing
D215	3	Harpenden	C-Station/ Coldharbour	Road		Local	Existing
D120	3	M1 J7-8	Link Capacity	Road	M1	Strategic	Existing
D119	3	M1 J8-9	Link Capacity	Road	M1	Strategic	Existing
D85	1000	M10/ A414 junction	Junction congestion	Road	M10	Regional	Existing
D285	166	St Albans city centre	Lacking disabled parking	Road		Local	Existing
D282	166	St Albans town centre	Strategic traf diverting	Road		Regional	Existing
D205	3	St. Albans	C-Peahen signals	Road	A1081	Local	Existing
D206	3	St. Albans	C-St Peters/ Chequer St	Road	A1081	Local	Existing
D207	3	St. Albans	C-London Colney rbout	Road	A414	Regional	Existing
D208	3	St. Albans	C-A1081/A4147	Road	A1081	Regional	Existing
D209	3	St. Albans	Holywell Hill queuing	Road	A5183	Local	Existing
D210	3	St. Albans	C-M10/A414/A405	Road	A414	Strategic	Existing
D211	3	St. Albans	C-Ancient Briton SB appr	Road	A1081	Regional	Existing
D213	3	St. Albans	C-Station area, signals	Road		Local	Existing
D216	3	St. Albans	C-Batchwood rbout	Road	A5183	Regional	Existing

Table A 7: Stevenage Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing/ Future
D35	107	Stevenage	Poor service to Zone 31	Bus		Local	Existing
D36	107	Stevenage Bus Station	Poor service after 2000hr	Bus		Local	Existing
D37	107	Great Ashby-Martins Way	Gap in the cycle track	Cycle		Local	Existing
D40	107	Stevenage Weston Rd	No Facilities to link Rds	Cycle		Local	Existing
D33	88	North Herts/ Stevenage	Poor Parking rail station	Rail		Local	Existing
D108	140	Stevenage	Growth of 14pc	Rail		Strategic	Existing
D184	3	A1(M)	C-A1M J7-8	Road	A1(M)	Strategic	Existing
D34	88	North Herts/ Stevenage	Poor Parking town centre	Road		Local	Existing
D217	3	Stevenage	C-Broadhall/Hertford rbt	Road	A602	Regional	Existing
D218	3	Stevenage	C-North Rd app Old Town	Road		Local	Existing
D219	3	Stevenage	C-Gresley Way/ A602	Road	A602	Regional	Existing
D220	3	Stevenage	C-Hitchin Rd, J8	Road	A602	Regional	Existing
D221	3	Stevenage	C-A602/A1072	Road	A602	Regional	Existing
D222	3	Stevenage	C-London Rd link capacity	Road		Local	Existing
D223	3	Stevenage	C-Six Hills Way main rbts	Road		Local	Existing
D224	3	Stevenage	C-A1155/A602	Road	A602	Regional	Existing
D226	3	Stevenage	C-A1072/A602	Road	A602	Regional	Existing

Table A 8: Three Rivers Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing/ Future
D238	3	Chorleywood	C-North Hill-Harewood	Road	A404	Local	Existing
D232	3	Croxley	C-Scotts Hill/ Watford	Road	A412	Local	Existing
D233	3	Croxley	C-Watford/ Baldwin about	Road	A412	Local	Existing
D227	3	M25	J16-17 link capacity	Road	M25	Strategic	Existing
D228	3	M25	J17-18 link capacity	Road	M25	Strategic	Existing
D229	3	M25	J18-19 link capacity	Road	M25	Strategic	Existing
D230	3	M25	J19-20 link capacity	Road	M25	Strategic	Existing
D231	3	M25	J20-21 link capacity	Road	M25	Strategic	Existing
D236	3	Moor Farm	C-Moor/ Sandy Lodge	Road	A4125	Local	Existing
D237	3	Northwood	C-Batchworth/ White Hill	Road	A404	Local	Existing
D234	3	Rickmansworth	C-Uxbridge/ Riverside jct	Road	A412	Local	Existing
D240	3	Rickmansworth	C-Uxbridge/ Denham	Road	A412	Local	Existing
D235	3	Watford	C-Hamperhill/ Brookdene	Road	A412	Local	Existing

Table A 9: Watford Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing Future
D291	167	Watford Town	Bus network reliability	Bus		Regional	Existing
D241	3	Watford	Link capacity	Road	A41	Regional	Existing
D242	3	Watford	C-Market Street Signals	Road	A411	Local	Existing
D243	3	Watford	Link capacity	Road	A411	Local	Existing
D244	3	Watford	C-Leavesden/ St Albans	Road	A412	Local	Existing
D245	3	Watford	C-Bushey Arches Gyratory	Road	A4125	Local	Existing
D247	3	Watford	C-Lower High St	Road		Local	Existing
D248	3	Watford	C-Clarendon Rd @ jcts	Road		Local	Existing
D249	3	Watford	C-Station/ St Albans	Road		Local	Existing
D250	3	Watford	C-Vicarage Rd	Road	A4145	Local	Existing
D289	167	Watford Ring Road	Congestion	Road		Local	Existing
D260	3	WGC	C-Chequers/ Broadwater	Road	A1000	Local	Existing

Table A 10: Welwyn Hatfield Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing/ Future
D25	107	Digswell to Woolmer Green	Two Track section Delays	Rail		Strategic	Existing
D87	140	KX - Letchworth	Slow Services	Rail	FCC	Regional	Existing
D273	3	Hatfield	C-Queensway/Wellfield	Road		Local	Existing
D251	3	A1(M)	A1(M) J2-3 link capacity	Road	A1(M)	Strategic	Existing
D252	3	A1(M)	A1(M) J4-5 link capacity	Road	A1(M)	Strategic	Existing
D253	3	A1(M)	A1(M) J5-6 link capacity	Road	A1(M)	Strategic	Existing
D271	3	A1(M)	C-Bessemer/A1(M) J6	Road	A1(M)	Strategic	Existing
D255	3	Digswell	Bessemer Rd link capacity	Road	A1000	Local	Existing
D270	3	Digswell	C-Bessemer/Hertford	Road	A1000	Local	Existing
D254	3	Hatfield	Great N Rd link capacity	Road	A1000	Local	Existing
D256	3	Hatfield	C-A414/A1(M) J3	Road	A1(M)	Strategic	Existing
D257	3	Hatfield	C-A414/A1(M) rbout	Road	A414	Regional	Existing
D262	3	Hatfield	C-Mill Green/A414 sigs	Road	A1000	Regional	Existing
D276	3	Hatfield	C-Cavendish/Bishops	Road		Local	Existing
D277	3	Hatfield	C-Comet Way rbout SB app	Road	A1001	Local	Existing
D259	3	Stanborough	C-Bull rbt + A6129 blocks	Road		Local	Existing
D272	3	Welwyn	C-A1000/Parkside	Road	A1000	Local	Existing
D258	3	WGC	C-Stanborough along route	Road	A6129	Regional	Existing
D261	3	WGC	C-Bridge/ Broadwater	Road		Local	Existing
D264	3	WGC	C-Parkway/Campus rbout	Road		Local	Existing
D265	3	WGC	C-Digswell/ Campus rbout	Road		Local	Existing
D266	3	WGC	C-Bessemer/Digswell	Road	A1000	Local	Existing
D274	3	WGC	C-Ascots Ln end jcts	Road		Local	Existing
D275	3	WGC	C-All Mundells approaches	Road		Local	Existing

Table A 11: Other Deficit

Label	Doc_ID	Location	Description	Type	Corridor	RSS Class	Existing/ Future
D81	152	Harlow	Housing Growth & PAER	Demand Mgt.		Strategic	Future
D92	152	Luton	Housing Growth & PAER	Demand Mgt.		Strategic	Future
D82	152	Stansted Airport	General Expansion	Other		Strategic	Future
D74	139	Gospel Oak	North London Line	Rail		Strategic	Existing
D73	22	Herts - London	High Level Commuting	Rail		Regional	Existing
D75	140	Kings Cross	Platform Capacity	Rail		Strategic	Existing
D288	1	Luton Airport	Pressure on rail network	Rail	FCC	Regional	Existing
D88	22	Luton Airport	Rail Mode Share 17pc	Rail		Strategic	Existing
D79	1	Stansted Airport	Pressure on Network	Rail	WAGN	Strategic	Existing
D78	1	M1 J10A	Junction congestion	Road	M1	Strategic	Existing

Table A 12: Bus Network Congestion

Label	DocID	District	Location	RSS Class	Existing/ Future
BC1	1008	Dacorum	Hemel Hempstead Bus Stn	Strategic	Existing
BC2	1008	Watford	Watford Town Centre	Strategic	Existing
BC3	1008	Watford	Watford Hospital	Regional	Existing
BC4	1008	St Albans	St Albans Town Centre	Strategic	Existing
BC5	1008	Dacorum	Hemel Hempstead, Adeyfield	Regional	Existing
BC6	1008	East Herts	Bishops Stortford Bus Stn	Strategic	Existing
BC7	1008	Broxbourne	Waltham Cross	Strategic	Existing
BC8	1008	Watford	Bushey Rail Stn	Regional	Existing
BC9	1008	Watford	Watford Junction	Strategic	Existing
BC10	1008	Other	Luton TC & BStn	Strategic	Existing

Figure A 1: Bus Deficit Map – References

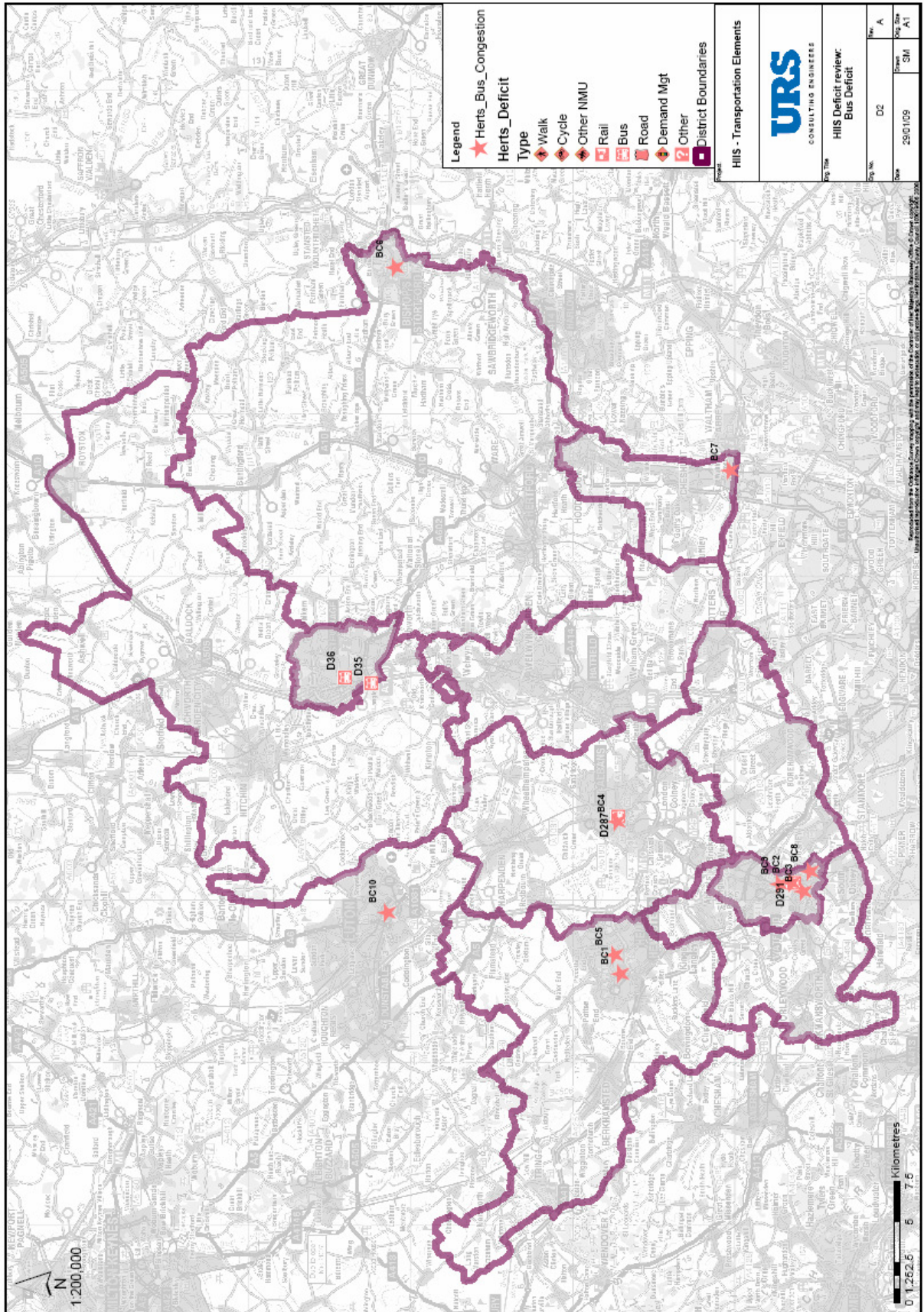


Figure A 2: Rail Deficit Map – References

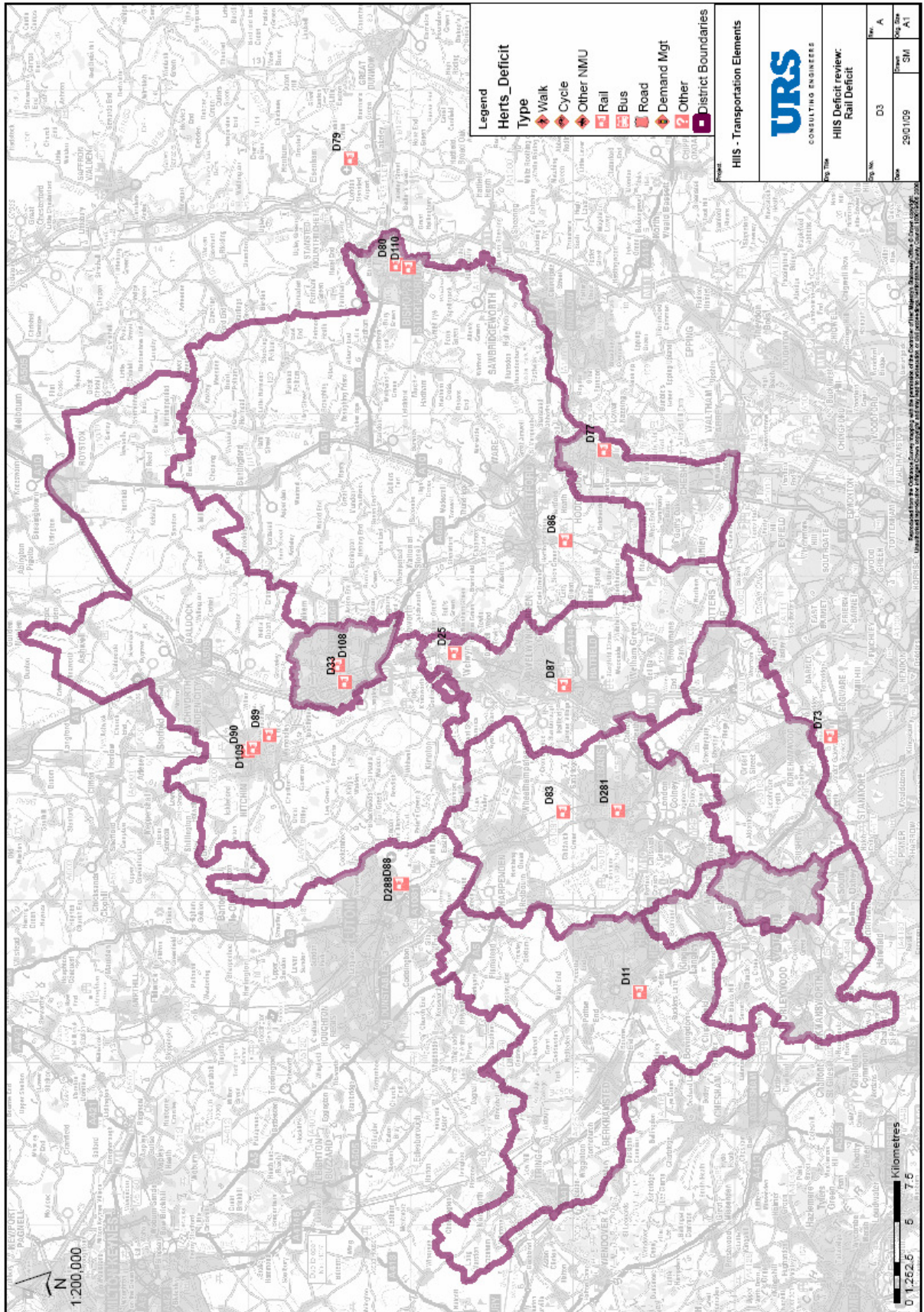


Figure A 3: Road Deficit Map – References

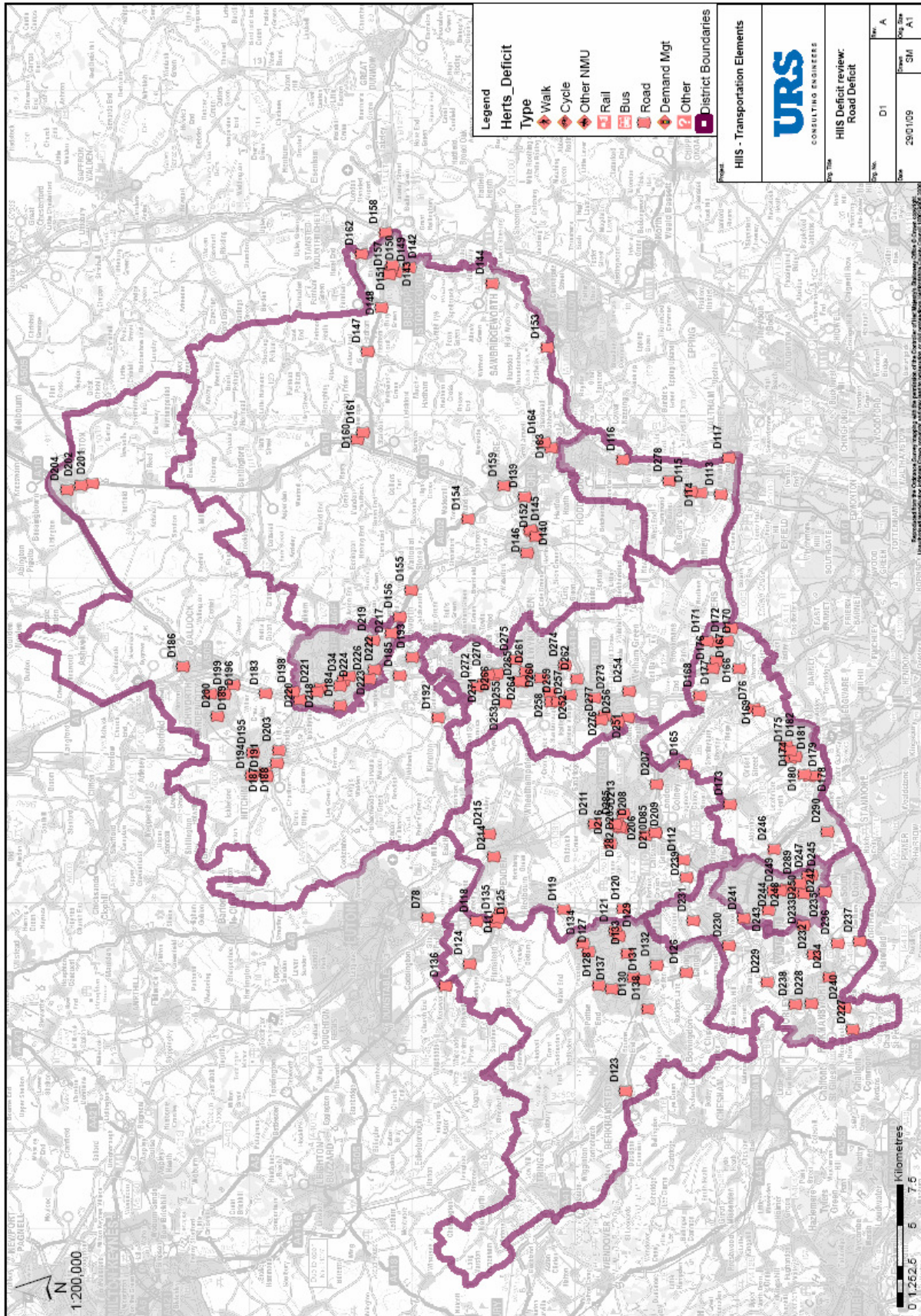


Figure A 4: Other Deficit Map – References

