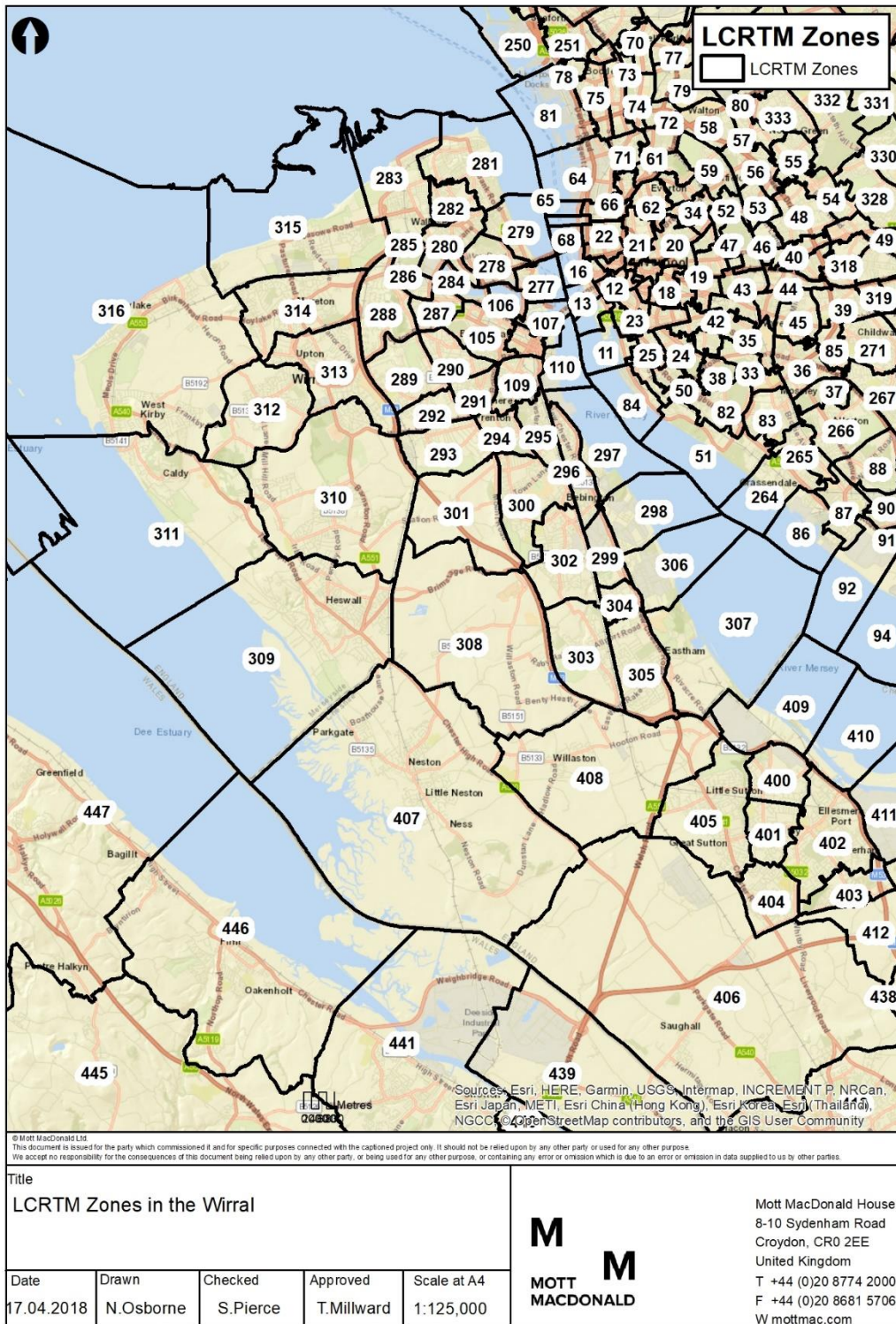


Appendices

A.	Housing and Employment Information	66
B.	Sites	79
C.	Trip Generation	104
D.	Demand Model	108

A. Housing and Employment Information

Figure A.1: LCRTM Zones



A.1 Baseline

Table A.1: Housing Forecasts by LCRTM Zone (Additional Dwellings) – Baseline

LCRTM Zone	Completions 2015-2017	Planning Permissions and SHLAA 2018-2033	Windfall 2018-2033	Demolitions	Additional Housing 2015-2033	Housing 2033-2035	Additional Housing 2015-2035
105	40	241	22	-19	285	30	315
106	0	4,100	1	-1	4,100	35	4,135
107	0	358	4	-3	359	8	366
108	40	350	5	-4	391	9	400
109	28	315	31	-26	348	42	390
110	0	0	0	0	0	0	0
277	0	59	5	-4	60	7	67
278	3	54	25	-21	61	32	93
279	16	280	28	-23	301	38	338
280	45	143	27	-22	192	35	228
281	123	121	46	-38	252	60	311
282	1	2	18	-15	6	22	28
283	6	73	23	-19	83	30	113
284	0	0	0	0	0	0	0
285	0	0	0	0	0	0	0
286	0	128	5	-5	129	8	137
287	114	252	19	-16	369	27	396
288	11	70	15	-12	83	20	103
289	10	35	20	-17	48	26	74
290	19	91	22	-18	114	28	142
291	20	37	19	-16	60	25	85
292	0	5	15	-12	7	19	26
293	10	54	20	-16	67	25	93
294	43	37	16	-14	83	21	104
295	18	204	30	-25	227	40	268
296	61	304	24	-20	369	33	402
297	5	94	9	-7	100	12	113
298	19	353	4	-3	373	8	381
299	31	24	4	-4	56	6	62
300	4	24	36	-30	34	46	80
301	3	0	1	-1	3	1	4
302	34	80	30	-25	119	39	158
303	0	7	12	-10	9	15	24
304	2	77	12	-10	81	16	97
305	19	304	34	-29	329	46	375
306	0	0	1	-1	0	1	2
307	27	8	4	-3	36	5	41
308	1	1	3	-2	2	3	6

LCRTM Zone	Completions 2015-2017	Planning Permissions and SHLAA 2018-2033	Windfall 2018-2033	Demolitions	Additional Housing 2015-2033	Housing 2033-2035	Additional Housing 2015-2035
309	43	167	42	-35	217	55	272
310	14	155	54	-45	178	70	248
311	4	38	12	-10	44	15	59
312	1	9	26	-22	14	33	48
313	29	279	44	-36	315	58	373
314	25	345	52	-43	379	68	447
315	1	398	20	-17	402	29	432
316	76	281	60	-50	367	79	446
Total	946	9,957	900	-750	11,053	1,228	12,281

Table A.2: Employment Forecasts by LCRTM Zone (Additional Jobs) – Baseline

LCRTM Zone	Baseline Employment 2015-2035	Growth Forecast Employment 2015-2035	Growth Forecast Location	Additional Jobs 2015-2035
105	58	0		58
106	0	2,149	Wirral Waters East Float ⁴	2,149
107	173	400	Kingsgate, Tower Wharf	573
108	166	0		166
109	294	0		294
110	23	0		23
277	83	2,500	Woodside	2,583
278	366	0		366
279	0	0		0
280	203	0		203
281	27	0		27
282	0	0		0
283	0	0		0
284	0	3,105	Wirral Waters West Float ⁵	3,105
285	839	0		839
286	61	0		61
287	201	0		201
288	0	0		0
289	0	0		0
290	0	0		0
291	5	0		5
292	0	0		0
293	55	0		55
294	0	0		0
295	0	0		0
296	0	0		0

⁴ VN81125 Wirral Waters Development Trajectory Information Medium Housing PT231018.pdf, Vectos

⁵ VN81125 Wirral Waters Development Trajectory Information Medium Housing PT231018.pdf, Vectos

LCRTM Zone	Baseline Employment 2015-2035	Growth Forecast Employment 2015-2035	Growth Forecast Location	Additional Jobs 2015-2035
297	0	0		0
298	1,039	0		1,039
299	879	0		879
300	0	0		0
301	0	0		0
302	111	0		111
303	0	0		0
304	0	0		0
305	0	0		0
306	1,866	0		1,866
307	0	325	Port Wirral, Eastham	325
308	226	0		226
309	0	0		0
310	0	0		0
311	0	0		0
312	0	0		0
313	0	0		0
314	0	0		0
315	1,040	0		1,040
316	16	0		16
Total	7,733	8,479		16,212

A.2 Option 1A

Table A.3: Housing Forecasts by LCRTM Zone (Additional Dwellings) – Option 1A

LCRTM Zone	Completions 2015-2018	Planning Permissions and SHLAA 2019-2034	Windfall 2018-2033	Demolitions	Additional Housing 2015-2034	Housing 2034-2035	Additional Housing 2015-2035
105	95	284	26	-19	386	21	408
106	0	4,535	1	-1	4,535	26	4,562
107	2	857	4	-3	860	8	868
108	42	1,125	5	-4	1,169	11	1,179
109	151	767	36	-26	928	32	960
110	0	0	0	0	0	0	0
277	3	398	6	-4	403	7	409
278	4	64	29	-21	76	22	98
279	76	420	33	-23	505	27	532
280	102	103	31	-22	214	24	238
281	162	241	53	-38	418	42	460
282	2	2	21	-15	10	15	25
283	16	84	27	-19	108	20	128
284	0	0	0	0	0	0	0
285	0	0	0	0	0	0	0

LCRTM Zone	Completions 2015-2018	Planning Permissions and SHLAA 2019-2034	Windfall 2018-2033	Demolitions	Additional Housing 2015-2034	Housing 2034-2035	Additional Housing 2015-2035
286	2	0	6	-5	4	5	9
287	170	323	22	-16	499	19	519
288	42	59	17	-12	106	14	120
289	19	24	23	-17	50	18	67
290	28	87	25	-18	122	19	142
291	56	25	23	-16	87	17	105
292	1	2	17	-12	8	13	21
293	13	48	23	-16	68	17	85
294	98	30	19	-14	133	15	148
295	49	244	36	-25	303	28	331
296	134	403	27	-20	545	23	568
297	5	95	10	-7	103	8	111
298	246	1,202	5	-3	1,449	12	1,461
299	48	9	5	-4	58	4	63
300	15	7	42	-30	34	32	66
301	4	31	1	-1	35	1	36
302	37	104	35	-25	151	27	178
303	4	0	14	-10	8	11	19
304	50	225	15	-10	279	12	291
305	46	107	40	-29	164	30	195
306	0	161	1	-1	161	2	163
307	81	29	5	-3	111	4	115
308	1	60	3	-2	62	3	64
309	140	103	49	-35	257	38	295
310	63	171	63	-45	252	48	300
311	12	32	14	-10	48	10	58
312	21	11	31	-22	41	23	64
313	174	248	51	-36	437	40	477
314	187	264	60	-43	468	47	515
315	8	435	24	-17	450	20	470
316	141	237	70	-50	398	54	452
Total	2,550	13,656	1,050	-750	16,506	869	17,375

Table A.4: Employment Forecasts by LCRTM Zone (Additional Jobs) – Option 1A

LCRTM Zone	Baseline Employment 2015-2035	Growth Forecast Employment 2015-2035	Additional Jobs 2015-2035
105	103	0	103
106	137	2,149	2,286
107	143	400	543
108	0	0	0
109	0	0	0

LCRTM Zone	Baseline Employment 2015-2035	Growth Forecast Employment 2015-2035	Additional Jobs 2015-2035
110	0	0	0
277	92	2,500	2,592
278	802	0	802
279	0	0	0
280	279	0	279
281	0	0	0
282	0	0	0
283	0	0	0
284	1,487	3,105	4,592
285	1,091	0	1,091
286	121	0	121
287	0	0	0
288	0	0	0
289	0	0	0
290	0	0	0
291	0	0	0
292	0	0	0
293	60	0	60
294	0	0	0
295	0	0	0
296	0	0	0
297	0	0	0
298	274	0	274
299	0	0	0
300	0	0	0
301	0	0	0
302	0	0	0
303	0	0	0
304	0	0	0
305	0	0	0
306	2,645	0	2,645
307	0	325	325
308	0	0	0
309	0	0	0
310	0	0	0
311	0	0	0
312	0	0	0
313	0	0	0
314	0	0	0
315	499	0	499
316	0	0	0
Total	7,733	8,479	16,212

A.3 Option 2A

Table A.5: Housing Forecasts by LCRTM Zone (Additional Dwellings) – Option 2A

LCRTM Zone	Completions 2015-2018	Planning Permissions and SHLAA 2019-2034	Windfall 2018-2034	Demolitions	Green Belt	Additional Housing 2015-2034	Housing 2034-2035	Additional Housing 2015-2035
105	95	194	26	-19	0	296	18	315
106	0	2,435	1	-1	0	2,435	13	2,448
107	2	702	4	-3	0	705	6	711
108	42	910	5	-4	0	954	8	962
109	151	561	36	-26	0	722	27	749
110	0	0	0	0	0	0	0	0
277	3	70	6	-4	0	75	4	79
278	4	45	29	-21	0	57	19	76
279	76	364	33	-23	0	449	23	472
280	102	51	31	-22	0	162	21	183
281	162	105	53	-38	0	282	36	318
282	2	2	21	-15	0	10	13	23
283	16	50	27	-19	0	74	18	91
284	0	0	0	0	0	0	0	0
285	0	0	0	0	0	0	0	0
286	2	0	6	-5	0	4	4	8
287	170	229	22	-16	0	405	16	422
288	42	59	17	-12	0	106	12	118
289	19	24	23	-17	0	50	15	65
290	28	59	25	-18	0	94	17	111
291	56	19	23	-16	0	81	15	97
292	1	2	17	-12	0	8	11	19
293	13	48	23	-16	0	68	15	83
294	98	4	19	-14	0	107	13	120
295	49	237	36	-25	0	296	24	321
296	134	227	27	-20	0	369	20	388
297	5	95	10	-7	0	103	7	110
298	246	144	5	-3	0	391	5	396
299	48	9	5	-4	0	58	4	62
300	15	7	42	-30	0	34	28	62
301	4	31	1	-1	0	35	1	36
302	37	104	35	-25	0	151	23	174
303	4	0	14	-10	0	8	9	17
304	50	219	15	-10	0	273	11	284
305	46	107	40	-29	368	532	28	561
306	0	0	1	-1	0	0	1	1
307	81	29	5	-3	0	111	3	115

LCRTM Zone	Completions 2015-2018	Planning Permissions and SHLAA 2019-2034	Windfall 2018-2034	Demolitions	Green Belt	Additional Housing 2015-2034	Housing 2034-2035	Additional Housing 2015-2035
308	1	10	3	-2	0	12	2	14
309	140	103	49	-35	337	594	35	629
310	63	106	63	-45	1,727	1,914	50	1,964
311	12	32	14	-10	261	309	10	319
312	21	11	31	-22	0	41	20	61
313	174	104	51	-36	0	293	34	327
314	187	245	60	-43	240	689	42	731
315	8	435	24	-17	0	450	18	467
316	141	212	70	-50	0	373	47	420
Total	2,550	8,400	1,050	-750	2,933	14,183	746	14,929

Table A.6: Employment Forecasts by LCRTM Zone (Additional Jobs) – Option 2A

LCRTM Zone	Baseline Employment 2015-2035	Growth Forecast Employment 2015-2035	Additional Jobs 2015-2035
105	73	0	73
106	98	2,149	2,247
107	101	400	501
108	0	0	0
109	0	0	0
110	0	0	0
277	112	2,500	2,612
278	569	0	569
279	0	0	0
280	198	0	198
281	0	0	0
282	0	0	0
283	0	0	0
284	1,055	3,105	4,160
285	774	0	774
286	86	0	86
287	0	0	0
288	0	0	0
289	0	0	0
290	0	0	0
291	0	0	0
292	0	0	0
293	42	0	42
294	0	0	0
295	0	0	0
296	0	0	0

LCRTM Zone	Baseline Employment 2015-2035	Growth Forecast Employment 2015-2035	Additional Jobs 2015-2035
297	0	0	0
298	1,946	0	1,946
299	0	0	0
300	0	0	0
301	0	0	0
302	0	0	0
303	0	0	0
304	0	0	0
305	0	0	0
306	2,325	0	2,325
307	0	325	325
308	0	0	0
309	0	0	0
310	0	0	0
311	0	0	0
312	0	0	0
313	0	0	0
314	0	0	0
315	354	0	354
316	0	0	0
Total	7,733	8,479	16,212

A.4 Option 2B

Table A.7: Housing Forecasts by LCRTM Zone (Additional Dwellings) – Option 2B

LCRTM Zone	Completions 2015-2018	Planning Permissions and SHLAA 2019-2034	Windfall 2018-2034	Demolitions	Green Belt	Additional Housing 2015-2034	Housing 2034-2035	Additional Housing 2015-2035
105	95	194	26	-19	0	296	18	314
106	0	2,435	1	-1	0	2,435	12	2,448
107	2	702	4	-3	0	705	6	711
108	42	910	5	-4	0	954	8	962
109	151	561	36	-26	0	722	26	748
110	0	0	0	0	0	0	0	0
277	3	70	6	-4	0	75	4	79
278	4	45	29	-21	0	57	19	76
279	76	364	33	-23	0	449	23	472
280	102	51	31	-22	0	162	20	182
281	162	105	53	-38	0	282	35	317
282	2	2	21	-15	0	10	13	23
283	16	50	27	-19	0	74	17	91

LCRTM Zone	Completions 2015-2018	Planning Permissions and SHLAA 2019-2034	Windfall 2018-2034	Demolitions	Green Belt	Additional Housing 2015-2034	Housing 2034-2035	Additional Housing 2015-2035
284	0	0	0	0	0	0	0	0
285	0	0	0	0	0	0	0	0
286	2	0	6	-5	0	4	4	8
287	170	229	22	-16	0	405	16	421
288	42	59	17	-12	0	106	12	118
289	19	24	23	-17	0	50	15	65
290	28	59	25	-18	0	94	16	111
291	56	19	23	-16	0	81	15	96
292	1	2	17	-12	0	8	11	19
293	13	48	23	-16	0	68	15	82
294	98	4	19	-14	0	107	13	120
295	49	237	36	-25	0	296	24	320
296	134	227	27	-20	0	369	19	388
297	5	95	10	-7	0	103	7	110
298	246	144	5	-3	0	391	5	396
299	48	9	5	-4	0	58	4	62
300	15	7	42	-30	0	34	27	61
301	4	31	1	-1	0	35	1	36
302	37	104	35	-25	0	151	23	174
303	4	0	14	-10	0	8	9	17
304	50	219	15	-10	0	273	10	284
305	46	107	40	-29	0	164	26	190
306	0	0	1	-1	0	0	1	1
307	81	29	5	-3	0	111	3	115
308	1	10	3	-2	0	12	2	14
309	140	103	49	-35	1,938	2,195	42	2,237
310	63	106	63	-45	646	833	44	877
311	12	32	14	-10	0	48	9	57
312	21	11	31	-22	0	41	20	60
313	174	104	51	-36	0	293	34	326
314	187	245	60	-43	0	449	40	489
315	8	435	24	-17	0	450	17	467
316	141	212	70	-50	0	373	46	419
Total	2,550	8,400	1,050	-750	2,584	13,834	728	14,562

Table A.8: Employment Forecasts by LCRTM Zone (Additional Jobs) – Option 2B

LCRTM Zone	Baseline Employment 2015-2035	Growth Forecast Employment 2015-2035	Additional Jobs 2015-2035
105	73	0	73
106	98	2,149	2,247

LCRTM Zone	Baseline Employment 2015-2035	Growth Forecast Employment 2015-2035	Additional Jobs 2015-2035
107	101	400	501
108	0	0	0
109	0	0	0
110	0	0	0
277	112	2,500	2,612
278	569	0	569
279	0	0	0
280	198	0	198
281	0	0	0
282	0	0	0
283	0	0	0
284	1,055	3,105	4,160
285	774	0	774
286	86	0	86
287	0	0	0
288	0	0	0
289	0	0	0
290	0	0	0
291	0	0	0
292	0	0	0
293	42	0	42
294	0	0	0
295	0	0	0
296	0	0	0
297	0	0	0
298	1,946	0	1,946
299	0	0	0
300	0	0	0
301	0	0	0
302	0	0	0
303	0	0	0
304	0	0	0
305	0	0	0
306	2,325	0	2,325
307	0	325	325
308	0	0	0
309	0	0	0
310	0	0	0
311	0	0	0
312	0	0	0
313	0	0	0
314	0	0	0

LCRTM Zone	Baseline Employment 2015-2035	Growth Forecast Employment 2015-2035	Additional Jobs 2015- 2035
315	354	0	354
316	0	0	0
Total	7,733	8,479	16,212

B. Sites

This appendix presents listings of the future year sites included in the modelling.

B.1 2035 Baseline

Table B.9: Forecast Housing per Site (dwellings) – Baseline Scenario

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
1659	SHLAA 1659 South of 109 Thorsway, Rock Ferry	296	2	SHLAA 2018 Category 1
1041	SHLAA 1041 Adjacent 168 Dock Road North, Bromborough	298	9	SHLAA 2018 Category 1
2071	SHLAA 2071 277 Telegraph Road, Heswall	309	5	SHLAA 2018 Category 1
2075	SHLAA 2075 Land at 16 Barnston Road, Heswall	309	2	SHLAA 2018 Category 1
3022	SHLAA 3022 West of 10 Anthony's Way, Gayton	309	1	SHLAA 2018 Category 1
3030	SHLAA 3030 South of 19 Farr Hall Drive, Heswall	309	1	SHLAA 2018 Category 1
758	SHLAA 0758 93 Chester Street, Birkenhead	107	28	SHLAA 2018 Category 1
3025	SHLAA 3025 Rear of 46 Croft Drive East, Caldy	311	2	SHLAA 2018 Category 1
3042	SHLAA 3042 Rear of Majestic Wine, Column Road, West Kirby	316	3	SHLAA 2018 Category 1
1868	SHLAA 1868 Rear 376a to 378 Pensby Road, Heswall	310	1	SHLAA 2018 Category 1
1827	SHLAA 1827 Former Foxfield School, Moreton	314	43	SHLAA 2018 Category 1
1594	SHLAA 1594 Land at Royden Road, Overchurch	313	10	SHLAA 2018 Category 1
1292	SHLAA 1292 Girtrell Court, Saughall Massie	313	78	SHLAA 2018 Category 1
937	SHLAA 0937 Eastham Home Guard Club, Park Road	305	8	SHLAA 2018 Category 1
2034	SHLAA 2034 Land at Delamere Avenue, Eastham	305	10	SHLAA 2018 Category 1
3033	SHLAA 3033 Land at Mallowdale Close, Eastham	305	7	SHLAA 2018 Category 1
667	SHLAA 0667 South of 6 Darlington Close, Egremont	279	10	SHLAA 2018 Category 1
2028	SHLAA 2028 West of 84 Liscard Road, Seacombe	279	6	SHLAA 2018 Category 1
775	SHLAA 0775 Former 165 to 169 Bedford Road, Rock Ferry	295	10	SHLAA 2018 Category 1
1665	SHLAA 1665 Former Rock Ferry High School, Ravenswood Avenue	295	66	SHLAA 2018 Category 1
1832	SHLAA 1832 9-11 Highfield Road, Rock Ferry	295	8	SHLAA 2018 Category 1

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
1685	SHLAA 1685 Rear of 36 to 40 Stanley Avenue, Prenton	293	3	SHLAA 2018 Category 1
1691	SHLAA 1691 Former Brooklands, Brook Street, Birkenhead	108	12	SHLAA 2018 Category 1
3040	SHLAA 3040 Former Education Resource Centre, Bromborough	305	217	SHLAA 2018 Category 1
492	SHLAA 0492 Land at Rock Lane East, Rock Ferry	296	2	SHLAA 2018 Category 2
763	SHLAA 0763 Former Nelson House, Rock Ferry	296	9	SHLAA 2018 Category 2
1621	SHLAA 1621 Land at Howson Street, Rock Ferry	296	23	SHLAA 2018 Category 2
1833	SHLAA 1833 43 Bebington Road, New Ferry	296	6	SHLAA 2018 Category 2
2041	SHLAA 2041 East of 34 to 36 St Peter's Mews, Rock Ferry	296	5	SHLAA 2018 Category 2
3032	SHLAA 3032 Former 56 to 66 Bebington Road, New Ferry	296	6	SHLAA 2018 Category 2
3036	SHLAA 3036 Woodhead Street Car Park, New Ferry	296	10	SHLAA 2018 Category 2
684	SHLAA 0684 East of 216 Allport Road, Bromborough	303	2	SHLAA 2018 Category 2
1032	SHLAA 1032 Rear of Lyndhurst, 54 Dibbinsdale Road, Bebington	303	1	SHLAA 2018 Category 2
306	SHLAA 0306 North of 88C Downham Road South, Heswall	309	1	SHLAA 2018 Category 2
313	SHLAA 0313 Adjacent 37 Rhodesway, Heswall	309	2	SHLAA 2018 Category 2
898	SHLAA 0898 Builders Merchant, 8 Berwyn Drive, Pensby	309	6	SHLAA 2018 Category 2
982	SHLAA 0982 North of 22 Heythrop Drive, Heswall	309	1	SHLAA 2018 Category 2
1072	SHLAA 1072 Adjacent 21 Lightfoot Lane, Heswall	309	3	SHLAA 2018 Category 2
1083	SHLAA 1083 Adjacent White House, Grange Road, Heswall	309	1	SHLAA 2018 Category 2
1101	SHLAA 1101 Adjacent 9 Queens Drive, Heswall	309	1	SHLAA 2018 Category 2
1989	SHLAA 1989 11 Barnston Road, Barnston	309	1	SHLAA 2018 Category 2
1991	SHLAA 1991 Adjacent 23 Buffs Lane, Barnston	309	1	SHLAA 2018 Category 2
1858	SHLAA 1858 Former 11 Dawstone Road, Lower Heswall	309	1	SHLAA 2018 Category 2
2074	SHLAA 2074 Heswall Police Station	309	8	SHLAA 2018 Category 2
3013	SHLAA 3013 West of 28 North Drive, Gayton	309	1	SHLAA 2018 Category 2
3014	SHLAA 3014 Rear of 6 Cottage Lane, Gayton	309	1	SHLAA 2018 Category 2
3020	SHLAA 3020 North of 42 Thurstaston Road	309	1	SHLAA 2018 Category 2

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
3026	SHLAA 3026 East of 1 Quarry Road East, Heswall	309	1	SHLAA 2018 Category 2
3029	SHLAA 3029 Silverdale Medical Centre, Heswall	309	3	SHLAA 2018 Category 2
1075	SHLAA 1075 West of 4 Rylands Hey, Greasby	312	1	SHLAA 2018 Category 2
936	SHLAA 0936 West Wallasey Van Hire, Leasowe	283	6	SHLAA 2018 Category 2
2047	SHLAA 2047 215 to 223 Wallasey Village	283	4	SHLAA 2018 Category 2
689	SHLAA 0689 Gladstone Liberals, Dial Road, Tranmere	109	12	SHLAA 2018 Category 2
617	SHLAA 0617 Former Rank Bingo, Conway Street, Birkenhead	108	132	SHLAA 2018 Category 2
1127	SHLAA 1127 Former St John's Church, Liscard Road	278	28	SHLAA 2018 Category 2
126	SHLAA 0126 Rear of Phoenix House, Upton	289	1	SHLAA 2018 Category 2
694	SHLAA 0694 South of Moira Sephton Court, Noctorum	289	5	SHLAA 2018 Category 2
1197	SHLAA 1197 The Paddock, Noctorum Lane	289	1	SHLAA 2018 Category 2
475	SHLAA 0475 South of 6 to 36 New Street, Seacombe	277	21	SHLAA 2018 Category 2
1518	SHLAA 1518 Former Seacombe Ferry Hotel, Seacombe View	277	20	SHLAA 2018 Category 2
557	SHLAA 0557 Land at Beaufort Road, Birkenhead	287	40	SHLAA 2018 Category 2
2029	SHLAA 2029 Former Riverside Day Centre, Birkenhead	105	13	SHLAA 2018 Category 2
1672	SHLAA 1672 South of Chelwood, Pine Walks, Prenton	293	1	SHLAA 2018 Category 2
1813	SHLAA 1813 Rear of 24 Pine Walks, Prenton	293	6	SHLAA 2018 Category 2
1044	SHLAA 1044 Adjacent 18 Croft Drive, Caldy	311	1	SHLAA 2018 Category 2
1047	SHLAA 1047 Rear of 64 Caldy Road, Caldy	311	1	SHLAA 2018 Category 2
888	SHLAA 0888 Cooleen, 1 Riversdale Road, West Kirby	316	5	SHLAA 2018 Category 2
916	SHLAA 0916 Land at Grange Hill Farm, West Kirby	316	10	SHLAA 2018 Category 2
1094	SHLAA 1094 Adjacent 2 Cable Road, Hoylake	316	1	SHLAA 2018 Category 2
1183	SHLAA 1183 Adjacent 4 Hillside Road, Newton	316	1	SHLAA 2018 Category 2
1409	SHLAA 1409 22A Shaw Street, Hoylake	316	1	SHLAA 2018 Category 2
1641	SHLAA 1641 Land at Alderley Road, Hoylake	316	1	SHLAA 2018 Category 2
1931	SHLAA 1931 Grosvenor House, Albert Road, Hoylake	316	40	SHLAA 2018 Category 2

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
2035	SHLAA 2035 Rear of Paton Close, West Kirby	316	10	SHLAA 2018 Category 2
2042	SHLAA 2042 1 to 11 Ashton Court, West Kirby	316	7	SHLAA 2018 Category 2
2043	SHLAA 2043 12 to 22 Ashton Court, West Kirby	316	7	SHLAA 2018 Category 2
3009	SHLAA 3009 Grange Hill Farm West, West Kirby	316	2	SHLAA 2018 Category 2
3021	SHLAA 3021 North of 12 Hawthorne Drive, Newton	316	1	SHLAA 2018 Category 2
935	SHLAA 0935 West Wallasey Van Hire, Thingwall	310	6	SHLAA 2018 Category 2
1110	SHLAA 1110 Adjacent 20 Coombe Road, Irby	310	1	SHLAA 2018 Category 2
1742	SHLAA 1742 Rear of Pensby Childrens Centre, Fishers Lane	310	30	SHLAA 2018 Category 2
1267	SHLAA 1267 Rear of 1 to 3 Mill Road, Thingwall	310	3	SHLAA 2018 Category 2
1146	SHLAA 1146 Adjacent 58 Bermuda Road, Moreton	314	1	SHLAA 2018 Category 2
1645	SHLAA 1645 North of 67 Pasture Road, Moreton	314	4	SHLAA 2018 Category 2
1646	SHLAA 1646 West of 61 Harvest Lane, Moreton	314	2	SHLAA 2018 Category 2
1992	SHLAA 1992 White Gates, 12 Carr Lane, Moreton	314	4	SHLAA 2018 Category 2
2007	SHLAA 2007 Land at Knutsford Road, Moreton	314	47	SHLAA 2018 Category 2
3017	SHLAA 3017 Land at 8 Rone Close, Moreton	314	6	SHLAA 2018 Category 2
1319	SHLAA 1319 Adjacent 51 Grasswood Road, Woodchurch	313	11	SHLAA 2018 Category 2
1290	SHLAA 1290 Rear of 38A Ford Road, Upton	313	1	SHLAA 2018 Category 2
1994	SHLAA 1994 64 Big Meadow Road, Woodchurch	313	1	SHLAA 2018 Category 2
3016	SHLAA 3016 Rear of 53 Birch Avenue, Upton	313	1	SHLAA 2018 Category 2
3018	SHLAA 3018 Rear of 22 Mount Road, Upton	313	2	SHLAA 2018 Category 2
3019	SHLAA 3019 Adjacent 65 Big Meadow Road, Woodchurch	313	1	SHLAA 2018 Category 2
1610	SHLAA 1610 Land at Civic Way, Bebington	302	34	SHLAA 2018 Category 2
683	SHLAA 0683 Land at The Rake/Park View, Bromborough	304	16	SHLAA 2018 Category 2
1628	SHLAA 1628 East of 35 The Rake, Bromborough	304	2	SHLAA 2018 Category 2
2025	SHLAA 2025 Allport Lane Car Park, Bromborough	304	5	SHLAA 2018 Category 2
2024	SHLAA 2024 Bromborough Civic Centre, Bromborough	304	5	SHLAA 2018 Category 2

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
299	SHLAA 0299 Rear of 49 Dearnford Avenue, Bromborough	305	1	SHLAA 2018 Category 2
510	SHLAA 0510 Adjacent 24 Swaledale Close, Eastham	305	5	SHLAA 2018 Category 2
685	SHLAA 0685 North of 1 Archers Green, Eastham	305	4	SHLAA 2018 Category 2
980	SHLAA 0980 North of 11 Crosthwaite Avenue, Eastham	305	1	SHLAA 2018 Category 2
1033	SHLAA 1033 Rear of 38 Plymyard Avenue, Bromborough	305	1	SHLAA 2018 Category 2
1974	SHLAA 1974 Eastham Youth Centre, Lyndale Avenue	305	11	SHLAA 2018 Category 2
1850	SHLAA 1850 Former Lyndale School, Eastham	305	24	SHLAA 2018 Category 2
3024	SHLAA 3024 East of 32 Berwick Avenue, Eastham	305	1	SHLAA 2018 Category 2
32	SHLAA 0032 Adjacent 60 Albion Street, New Brighton	281	1	SHLAA 2018 Category 2
663	SHLAA 0663 South of 16 Magazine Brow, New Brighton	281	2	SHLAA 2018 Category 2
913	SHLAA 0913 North of 8 Linksway, Wallasey	281	1	SHLAA 2018 Category 2
1172	SHLAA 1172 Adjacent 51 Mount Road, New Brighton	281	1	SHLAA 2018 Category 2
1654	SHLAA 1654 South of 1 Seymour Street, New Brighton	281	1	SHLAA 2018 Category 2
463	SHLAA 0463 Former Seacombe House, Demesne Street, Seacombe	279	18	SHLAA 2018 Category 2
468	SHLAA 0468 Former 22 to 40 Borough Way, Seacombe	279	10	SHLAA 2018 Category 2
1259	SHLAA 1259 Seacombe Community Centre, Ferry View Road	279	6	SHLAA 2018 Category 2
2006	SHLAA 2006 Rear of Gibson House, Maddock Road, Egremont	279	11	SHLAA 2018 Category 2
1988	SHLAA 1988 11 Moss Grove, Prenton	294	1	SHLAA 2018 Category 2
1922	SHLAA 1922 Former 42 to 44 Egerton Park, Rock Ferry	295	12	SHLAA 2018 Category 2
3011	SHLAA 3011 Rear of 14 Village Road, Higher Bebington	300	1	SHLAA 2018 Category 2
517	SHLAA 0517 Rear of 86 to 140 Ferny Brown Road, Woodchurch	310	16	SHLAA 2018 Category 2
1187	SHLAA 1187 Adjacent 20 Aldford Close, Oxton	292	2	SHLAA 2018 Category 3
1225	SHLAA 1225 Holmlands Drive Car Park, Prenton	292	1	SHLAA 2018 Category 3
255	SHLAA 0255 South of 706 New Chester Road, Rock Ferry	296	10	SHLAA 2018 Category 3
500	SHLAA 0500 North of 2-4 Thorburn Close, Rock Ferry	296	3	SHLAA 2018 Category 3

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
502	SHLAA 0502 Adjacent 33-35 New Chester Road, New Ferry	296	1	SHLAA 2018 Category 3
785	SHLAA 0785 101 to 103 New Chester Road, New Ferry	296	8	SHLAA 2018 Category 3
806	SHLAA 0806 99c New Chester Road, New Ferry	296	9	SHLAA 2018 Category 3
965	SHLAA 0965 7 New Chester Road, New Ferry	296	2	SHLAA 2018 Category 3
1249	SHLAA 1249 North of 70 Mersey Road, Rock Ferry	296	8	SHLAA 2018 Category 3
1250	SHLAA 1250 Rear of 72 to 88 Bedford Road, Rock Ferry	296	8	SHLAA 2018 Category 3
1362	SHLAA 1362 103 Beaconsfield Road, New Ferry	296	10	SHLAA 2018 Category 3
1418	SHLAA 1418 Former Bedford Gardens, Rock Ferry	296	10	SHLAA 2018 Category 3
1658	SHLAA 1658 Olinda Street Car Park, New Ferry	296	8	SHLAA 2018 Category 3
1671	SHLAA 1671 156 to 162 Bedford Place, Rock Ferry	296	9	SHLAA 2018 Category 3
1998	SHLAA 1998 South of 560 New Chester Road, Rock Ferry	296	2	SHLAA 2018 Category 3
2049	SHLAA 2049 North of 91 Russell Road, Rock Ferry	296	6	SHLAA 2018 Category 3
2099	SHLAA 2099 Former 550 to 558 New Chester Road, Tranmere	296	3	SHLAA 2018 Category 3
1558	SHLAA 1558 576 to 578 New Chester Road, Rock Ferry	296	7	SHLAA 2018 Category 3
3038	SHLAA 3038 South of 728 New Chester Road, New Ferry	296	2	SHLAA 2018 Category 3
3034	SHLAA 3034 Rear of 91 to 99 Russell Road, Rock Ferry	296	2	SHLAA 2018 Category 3
3035	SHLAA 3035 Former 25 to 107 Thorsway	296	5	SHLAA 2018 Category 3
1895	SHLAA 1895 Land and Marine Depot, Dock Road North, Bromborough Pool	298	78	SHLAA 2018 Category 3
1896	SHLAA 1896 Plant Hire Depot, Dock Road North, Bromborough	298	16	SHLAA 2018 Category 3
1555	SHLAA 1555 Adjacent 28 Carlton Road, Tranmere	291	2	SHLAA 2018 Category 3
218	SHLAA 0218 Former 65 to 67, Woodchurch Road, Prenton	291	4	SHLAA 2018 Category 3
2040	SHLAA 2040 North of 34 Telegraph Road, Heswall	309	2	SHLAA 2018 Category 3
1088	SHLAA 1088 Adjacent 35 Farr Hall Drive, Heswall	309	1	SHLAA 2018 Category 3
1408	SHLAA 1408 69 Pipers Lane, Heswall	309	2	SHLAA 2018 Category 3
1440	SHLAA 1440 Springfield, Wallrake, Heswall	309	2	SHLAA 2018 Category 3
1457	SHLAA 1457 344 Telegraph Road, Heswall	309	1	SHLAA 2018 Category 3

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
1883	SHLAA 1883 Land at 39 Quarry Road East, Heswall	309	2	SHLAA 2018 Category 3
131	SHLAA 0131 123 Reeds Lane, Moreton	315	9	SHLAA 2018 Category 3
2068	SHLAA 2068 East of Typhoo, Moreton	315	56	SHLAA 2018 Category 3
732	SHLAA 0732 Rear of 1 Birket Square, Leasowe	315	4	SHLAA 2018 Category 3
1472	SHLAA 1472 Former Fernleigh Care Home, Leasowe	315	18	SHLAA 2018 Category 3
1328	SHLAA 1328 280 to 282 Greasby Road, Greasby	312	1	SHLAA 2018 Category 3
449	SHLAA 0449 Rear of 88 Wallasey Village, Wallasey	283	34	SHLAA 2018 Category 3
651	SHLAA 0651 Rear of Lighthouse Public House, Wallasey Village	283	8	SHLAA 2018 Category 3
1297	SHLAA 1297 Rear of Granthorpe, St George's Road, Wallasey	283	1	SHLAA 2018 Category 3
483	SHLAA 0483 13 Green Lane, Tranmere	109	26	SHLAA 2018 Category 3
485	SHLAA 0485 Adjacent to 47 Agnes Road, Tranmere	109	3	SHLAA 2018 Category 3
608	SHLAA 0608 East of 40 Beech Road, Tranmere	109	1	SHLAA 2018 Category 3
776	SHLAA 0776 Former Crooked Billet Public House, Tranmere	109	5	SHLAA 2018 Category 3
1027	SHLAA 1027 1 Jackson Street, Tranmere	109	2	SHLAA 2018 Category 3
1272	SHLAA 1272 Adjacent 11 Marquis Street, Tranmere	109	1	SHLAA 2018 Category 3
1283	SHLAA 1283 Adjacent 38 Church Road, Tranmere	109	3	SHLAA 2018 Category 3
1284	SHLAA 1284 Rear of 1 to 5 Holt Hill, Tranmere	109	5	SHLAA 2018 Category 3
1285	SHLAA 1285 Adjacent 135 Whetstone Lane, Tranmere	109	4	SHLAA 2018 Category 3
2094	SHLAA 2094 South of 41 Thomas Street, Tranmere	109	2	SHLAA 2018 Category 3
1358	SHLAA 1358 Rear of 127 to 165 Hinderton Road	109	11	SHLAA 2018 Category 3
1391	SHLAA 1391 13 Hampden Road, Tranmere	109	1	SHLAA 2018 Category 3
1561	SHLAA 1561 96 to 100 Rodney Street, Tranmere	109	6	SHLAA 2018 Category 3
1686	SHLAA 1686 Former 62 to 66 and 68 Derby Road, Tranmere	109	9	SHLAA 2018 Category 3
1990	SHLAA 1990 South of 1 Poplar Grove, Tranmere	109	1	SHLAA 2018 Category 3
1993	SHLAA 1993 Former 90 Sidney Terrace, Tranmere	109	1	SHLAA 2018 Category 3
2084	SHLAA 2084 Former Mollington Street Depot, Tranmere	109	60	SHLAA 2018 Category 3

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
2085	SHLAA 2085 Former Hind Street Gas Depot, Tranmere	109	71	SHLAA 2018 Category 3
2098	SHLAA 2098 77 Old Chester Road, Tranmere	109	5	SHLAA 2018 Category 3
3023	SHLAA 3023 Church and Hall, 61 Wilmer Road, Tranmere	109	11	SHLAA 2018 Category 3
958	SHLAA 0958 Former 22-24A St Anne Street, Birkenhead	108	3	SHLAA 2018 Category 3
1023	SHLAA 1023 Argyle Street Car Park, Birkenhead	108	1	SHLAA 2018 Category 3
1550	SHLAA 1550 22 Lorn Street, Birkenhead	108	4	SHLAA 2018 Category 3
1576	SHLAA 1576 11 to 17 Dacre Street, Birkenhead	108	1	SHLAA 2018 Category 3
1619	SHLAA 1619 West of 43 Price Street, Birkenhead	108	2	SHLAA 2018 Category 3
1620	SHLAA 1620 Car Park, west of 22 Lorn Street, Birkenhead	108	7	SHLAA 2018 Category 3
1663	SHLAA 1663 East of Florence Street, Birkenhead	108	2	SHLAA 2018 Category 3
1664	SHLAA 1664 East of 198 Conway Street, Birkenhead	108	9	SHLAA 2018 Category 3
1887	SHLAA 1887 30 to 32 Conway Street, Birkenhead	108	2	SHLAA 2018 Category 3
2036	SHLAA 2036 Elgin Way Car Park, Birkenhead	108	4	SHLAA 2018 Category 3
2069	SHLAA 2069 Hinson Street Car Park	108	9	SHLAA 2018 Category 3
3041	SHLAA 3401 West of Florence Street, Birkenhead	108	2	SHLAA 2018 Category 3
545	SHLAA 0545 Former 1 to 53, Bluewood Drive, Bidston	286	30	SHLAA 2018 Category 3
546	SHLAA 0546 Former 2 to 104, Bluewood Drive, Bidston	286	26	SHLAA 2018 Category 3
1660	SHLAA 1660 Rear of Wildbrook Drive, Birkenhead	286	72	SHLAA 2018 Category 3
478	SHLAA 0478 Former Rose Brae, Church Street, Birkenhead	107	130	SHLAA 2018 Category 3
752	SHLAA 0752 Land at Woodside, Chester Street, Birkenhead	107	104	SHLAA 2018 Category 3
47	SHLAA 0047 37A Hartismere Road, Seacombe	278	7	SHLAA 2018 Category 3
571	SHLAA 0571 Former 6-8 The Grove, Liscard	278	2	SHLAA 2018 Category 3
1651	SHLAA 1651 Rear of 3 to 43 Naples Road, Seacombe	278	7	SHLAA 2018 Category 3
1876	SHLAA 1876 22 Drayton Road, Wallasey	278	2	SHLAA 2018 Category 3
1564	SHLAA 1564 Adjacent 2 Worcester Road, Bidston	288	2	SHLAA 2018 Category 3
3005	SHLAA 3005 25 Eleanor Road, Upton	288	1	SHLAA 2018 Category 3
127	SHLAA 0127 North of Phoenix House, Upton	289	2	SHLAA 2018 Category 3

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
893	SHLAA 0893 The Coppice, 65 Vyner Road South	289	1	SHLAA 2018 Category 3
111	SHLAA 0111 East of 2 Devonshire Road, Oxton	290	8	SHLAA 2018 Category 3
604	SHLAA 0604 North of 20 Balls Road, Birkenhead	290	1	SHLAA 2018 Category 3
889	SHLAA 0889 2 Palm Grove, Oxton	290	1	SHLAA 2018 Category 3
1030	SHLAA 1030 Grosvenor Buildings, 1 Grosvenor Road, Birkenhead	290	9	SHLAA 2018 Category 3
1049	SHLAA 1049 Grosvenor Place Car Park, Claughton	290	4	SHLAA 2018 Category 3
1191	SHLAA 1191 23 Beresford Road, Oxton	290	3	SHLAA 2018 Category 3
1738	SHLAA 1738 25 Slatey Road, Oxton	290	1	SHLAA 2018 Category 3
1987	SHLAA 1987 Rear of 3 Devonshire Road, Oxton	290	1	SHLAA 2018 Category 3
2077	SHLAA 2077 Hamilton Memorial Church, Claughton	290	10	SHLAA 2018 Category 3
476	SHLAA 0476 Former 1-17 Montrose Avenue, Seacombe	277	2	SHLAA 2018 Category 3
1261	SHLAA 1261 Rear of Mona Castle, Wheatland Lane, Seacombe	277	1	SHLAA 2018 Category 3
1835	SHLAA 1835 Former Great Float Hotel, Seacombe	277	3	SHLAA 2018 Category 3
572	SHLAA 0572 Rear of 70 to 100 Brassey Street, Birkenhead	287	19	SHLAA 2018 Category 3
621	SHLAA 0621 Former 31 to 35 Mona Street, Claughton	287	2	SHLAA 2018 Category 3
735	SHLAA 0735 Rear of 24 to 38 Arkle Road, Bidston	287	2	SHLAA 2018 Category 3
736	SHLAA 0736 Rear of 2 to 22 Deakin Street, Bidston	287	10	SHLAA 2018 Category 3
1003	SHLAA 1003 Rear of 7-11 Beaufort Road, Birkenhead	287	1	SHLAA 2018 Category 3
1050	SHLAA 1050 Scotts Place Garage, Claughton	287	3	SHLAA 2018 Category 3
1893	SHLAA 1893 Former 327 Laird Street, Birkenhead	287	2	SHLAA 2018 Category 3
1831	SHLAA 1831 Rear of 57 to 61 Norman Street, Birkenhead	287	11	SHLAA 2018 Category 3
3039	SHLAA 3039 Crossways Demolition Area, Naylor Road, Bidston	287	50	SHLAA 2018 Category 3
146	SHLAA 0146 Adjacent 5 Claughton Place, Claughton	105	1	SHLAA 2018 Category 3
574	SHLAA 0574 Land at Stoke Street, Birkenhead	105	2	SHLAA 2018 Category 3
600	SHLAA 0600 Adjacent 95 Craven Street, Birkenhead	105	2	SHLAA 2018 Category 3
602	SHLAA 0602 120-126 Bentnick Street, Birkenhead	105	17	SHLAA 2018 Category 3

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
761	SHLAA 0761 Former Great Float Public House, Birkenhead	105	4	SHLAA 2018 Category 3
996	SHLAA 0996 Former Christ Church, Park Road South, Birkenhead	105	2	SHLAA 2018 Category 3
1019	SHLAA 1019 Quarrybank Car Park, Birkenhead	105	6	SHLAA 2018 Category 3
1402	SHLAA 1402 Opposite 89 to 99 Park Road East, Birkenhead	105	4	SHLAA 2018 Category 3
152	SHLAA 0152 Adjacent 575 Price Street, Birkenhead	105	1	SHLAA 2018 Category 3
1797	SHLAA 1797 1 to 3 Westbourne Road, Birkenhead	105	1	SHLAA 2018 Category 3
1911	SHLAA 1911 South of 81 Duke Street, Birkenhead	105	6	SHLAA 2018 Category 3
3008	SHLAA 3008 North of 21 Patten Street	105	1	SHLAA 2018 Category 3
189	SHLAA 0189 North of 155 Durley Drive, Prenton	293	1	SHLAA 2018 Category 3
933	SHLAA 0933 Grange Water Treatment Works, West Kirby	311	0	SHLAA 2018 Category 3
1899	SHLAA 1899 North of 1 and 2 Beatty Close, Caldy	311	4	SHLAA 2018 Category 3
369	SHLAA 0369 Birchlea Cottage, Pinetree Drive, Caldy	316	1	SHLAA 2018 Category 3
716	SHLAA 0716 North of 90 to 92 Grange Road, West Kirby	316	30	SHLAA 2018 Category 3
718	SHLAA 0718 East of 92 Grange Road, West Kirby	316	13	SHLAA 2018 Category 3
743	SHLAA 0743 East of 72 Barn Hey Crescent, Meols	316	10	SHLAA 2018 Category 3
1105	SHLAA 1105 Plasterers Arms Car Park, Back Sea View, Hoylake	316	1	SHLAA 2018 Category 3
1106	SHLAA 1106 Rear of 26 School Lane, Hoylake	316	1	SHLAA 2018 Category 3
1136	SHLAA 1136 Adjacent 2 Bennetts Lane, Meols	316	1	SHLAA 2018 Category 3
1182	SHLAA 1182 Rear of 94 Newton Cross Lane, West Kirby	316	2	SHLAA 2018 Category 3
1301	SHLAA 1301 Adjacent 1 Cholmondeley Road, West Kirby	316	1	SHLAA 2018 Category 3
1302	SHLAA 1302 Adjacent 11 Groveside, West Kirby	316	1	SHLAA 2018 Category 3
1315	SHLAA 1315 Adjacent 3 Townfield Road, West Kirby	316	1	SHLAA 2018 Category 3
1417	SHLAA 1417 2 Charles Road, Hoylake	316	2	SHLAA 2018 Category 3
136	SHLAA 0136 North of 41 Eltham Green, Woodchurch	310	4	SHLAA 2018 Category 3
516	SHLAA 0516 Adjacent 44, Schoolfield Road, Woodchurch	310	4	SHLAA 2018 Category 3
696	SHLAA 0696 South of Meadowside School, Woodchurch	310	10	SHLAA 2018 Category 3

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
703	SHLAA 0703 Rear of 1 Martin Close, Irby	310	3	SHLAA 2018 Category 3
705	SHLAA 0705 East of 51 Thingwall Road, Irby	310	5	SHLAA 2018 Category 3
1109	SHLAA 1109 274 Irby Road, Irby	310	1	SHLAA 2018 Category 3
1439	SHLAA 1439 23 Oaklea Road, Irby	310	2	SHLAA 2018 Category 3
1489	SHLAA 1489 Adjacent 14 Private Drive, Barnston	310	2	SHLAA 2018 Category 3
1595	SHLAA 1595 Between 86 and 136 Ferny Brow Road, Woodchurch	310	4	SHLAA 2018 Category 3
2031	SHLAA 2031 Fishers Lane Car Park, Pensby	310	3	SHLAA 2018 Category 3
2039	SHLAA 2039 North of 67 Glenwood Drive, Irby	310	2	SHLAA 2018 Category 3
534	SHLAA 0534 Rear of 83 to 91, Hoylake Road, Moreton	314	2	SHLAA 2018 Category 3
726	SHLAA 0726 North of 14 Birchfield, Moreton	314	2	SHLAA 2018 Category 3
729	SHLAA 0729 North of 39 Millhouse Lane, Moreton	314	2	SHLAA 2018 Category 3
1145	SHLAA 1145 Adjacent 12 Hoylake Road, Moreton	314	2	SHLAA 2018 Category 3
1151	SHLAA 1151 East of 58 Cobham Road, Moreton	314	1	SHLAA 2018 Category 3
1255	SHLAA 1255 Between 31 and 37 Acton Lane, Saughall Massie	314	0	SHLAA 2018 Category 3
1513	SHLAA 1513 91 Bermuda Road, Moreton	314	6	SHLAA 2018 Category 3
1794	SHLAA 1794 South of 28 Litherland Avenue, Moreton	314	1	SHLAA 2018 Category 3
2096	SHLAA 2096 Former Moreton Centre and Car Park, Pasture Road	314	13	SHLAA 2018 Category 3
1997	SHLAA 1997 South of 19 Barnston Lane, Moreton	314	2	SHLAA 2018 Category 3
2008	SHLAA 2008 Moreton Family Centre, Pasture Road	314	18	SHLAA 2018 Category 3
2009	SHLAA 2009 Moreton Youth Club, Pasture Road	314	4	SHLAA 2018 Category 3
2010	SHLAA 2010 Moreton Municipal Building, Knutsford Road	314	13	SHLAA 2018 Category 3
2097	SHLAA 2097 Moreton Library, Pasture Road	314	14	SHLAA 2018 Category 3
698	SHLAA 0698 East of Fender Court, Woodchurch	313	7	SHLAA 2018 Category 3
1295	SHLAA 1295 Former 20 Elm Avenue, Moreton	313	4	SHLAA 2018 Category 3
1454	SHLAA 1454 Rear of 5 Larkhill Avenue, Upton	313	1	SHLAA 2018 Category 3
1996	SHLAA 1996 West of 198 Saughall Massie Road, Saughall Massie	313	3	SHLAA 2018 Category 3

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
693	SHLAA 0693 Paddock north of Upton Cricket Club, Upton By-Pass	313	15	SHLAA 2018 Category 3
1612	SHLAA 1612 Between 4 and 6 Henley Close, Spital	302	2	SHLAA 2018 Category 3
1615	SHLAA 1615 Land at Monks Way, Bebington	302	5	SHLAA 2018 Category 3
1616	SHLAA 1616 Rear of 31 to 47 Dutton Drive, Poulton-Spital	302	5	SHLAA 2018 Category 3
5	SHLAA 0005 West of 71 Warren Drive, New Brighton	281	1	SHLAA 2018 Category 3
20	SHLAA 0020 Former Grand Hotel, Marine Promenade	281	16	SHLAA 2018 Category 3
454	SHLAA 0454 26A Sandfield Road, New Brighton	281	3	SHLAA 2018 Category 3
1156	SHLAA 1156 20A Sandfield Road, New Brighton	281	1	SHLAA 2018 Category 3
1171	SHLAA 1171 Egerton Street Playground, New Brighton	281	6	SHLAA 2018 Category 3
1436	SHLAA 1436 1A Clywyd Street, New Brighton	281	1	SHLAA 2018 Category 3
1599	SHLAA 1599 Albert Street Car Park, New Brighton	281	3	SHLAA 2018 Category 3
1603	SHLAA 1603 Egerton Street Car Park, New Brighton	281	2	SHLAA 2018 Category 3
1656	SHLAA 1656 Mount Pleasant Road Car Park, New Brighton	281	2	SHLAA 2018 Category 3
1866	SHLAA 1866 114 Rake Lane, Wallasey	281	4	SHLAA 2018 Category 3
2046	SHLAA 2046 16 Magazine Lane, New Brighton	281	8	SHLAA 2018 Category 3
1170	SHLAA 1170 Field Road Car Park, New Brighton	281	2	SHLAA 2018 Category 3
3031	SHLAA 3031 Rear of 1 Sandfield Road, New Brighton	281	1	SHLAA 2018 Category 3
3010	SHLAA 3010 15-25 Field Road, New Brighton	281	13	SHLAA 2018 Category 3
1134	SHLAA 1134 Adjacent 15 Claremount Road, Wallasey	282	1	SHLAA 2018 Category 3
1129	SHLAA 1129 Adjacent Wallasey Fire Station, Liscard	280	8	SHLAA 2018 Category 3
418	SHLAA 0418 Former Waste Transfer Station, Limekiln Lane	280	42	SHLAA 2018 Category 3
560	SHLAA 0560 Adjacent 1, Austin Street, Poulton	280	1	SHLAA 2018 Category 3
561	SHLAA 0561 Adjacent 8, Sherlock Lane, Liscard	280	1	SHLAA 2018 Category 3
562	SHLAA 0562 Former St Lukes Church Hall, Poulton	280	9	SHLAA 2018 Category 3
967	SHLAA 0967 Former Pool Inn, Poulton Road, Wallasey	280	4	SHLAA 2018 Category 3
1131	SHLAA 1131 Manor Road Car Park, Liscard	280	2	SHLAA 2018 Category 3

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
1846	SHLAA 1846 81A Withens Lane, Liscard	280	1	SHLAA 2018 Category 3
2051	SHLAA 2051 Sycamore Lodge, Greenheys Road, Liscard	280	14	SHLAA 2018 Category 3
457	SHLAA 0457 Former 19-21 Trafalgar Road, Egremont	279	2	SHLAA 2018 Category 3
459	SHLAA 0459 Former 40 to 44 Rice Lane, Liscard	279	3	SHLAA 2018 Category 3
460	SHLAA 0460 Former 60 Union Street, Liscard	279	1	SHLAA 2018 Category 3
462	SHLAA 0462 Rappart Road Car Park, Seacombe	279	8	SHLAA 2018 Category 3
464	SHLAA 0464 West of 45 Brougham Road, Seacombe	279	1	SHLAA 2018 Category 3
465	SHLAA 0465 Former 174 to 178 Borough Road, Seacombe	279	2	SHLAA 2018 Category 3
1070	SHLAA 1070 22 to 28 Littledale Road, Seacombe	279	3	SHLAA 2018 Category 3
1257	SHLAA 1257 East of 5 Brougham Road, Seacombe	279	1	SHLAA 2018 Category 3
1503	SHLAA 1503 Former 23 to 37 Trafalgar Road, Egremont	279	6	SHLAA 2018 Category 3
1562	SHLAA 1562 142 Borough Road, Seacombe	279	1	SHLAA 2018 Category 3
1570	SHLAA 1570 Former 85 to 89 King Street, Egremont	279	9	SHLAA 2018 Category 3
1605	SHLAA 1605 Bell Road Car Park, Wallasey	279	2	SHLAA 2018 Category 3
1647	SHLAA 1647 North of 117 Brighton Street, Seacombe	279	3	SHLAA 2018 Category 3
1744	SHLAA 1744 Land at Kenilworth Road, Seacombe	279	5	SHLAA 2018 Category 3
1357	SHLAA 1357 Former 108 to 108A King Street, Egremont	279	4	SHLAA 2018 Category 3
2005	SHLAA 2005 Gibson House, Seabank Road, Egremont	279	45	SHLAA 2018 Category 3
2022	SHLAA 2022 Wallasey Town Hall North Annexe, Egremont	279	10	SHLAA 2018 Category 3
2023	SHLAA 2023 Wallasey Town Hall South Annexe, Egremont	279	11	SHLAA 2018 Category 3
2083	SHLAA 2083 North of 8 Darlington Street, Seacombe	279	2	SHLAA 2018 Category 3
2076	SHLAA 2076 Manor Road Church, Egremont	279	0	SHLAA 2018 Category 3
466	SHLAA 0466 East of 1 Leopold Street, Seacombe	279	3	SHLAA 2018 Category 3
1280	SHLAA 1280 Dial Road Warehouse, Tranmere	294	6	SHLAA 2018 Category 3
1282	SHLAA 1282 Rear of 144 Church Road, Tranmere	294	2	SHLAA 2018 Category 3
1753	SHLAA 1753 100 Church Road, Tranmere	294	1	SHLAA 2018 Category 3
3001	SHLAA 3001 Birch Tree Public House, Prenton	294	11	SHLAA 2018 Category 3

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
495	SHLAA 0495 Former 1-17 Highfield Court, Rock Ferry	295	10	SHLAA 2018 Category 3
672	SHLAA 0672 Rear of 19 to 37 Bedford Avenue, Rock Ferry	295	6	SHLAA 2018 Category 3
820	SHLAA 0820 Rear 29 to 33 Ravenswood Avenue, Rock Ferry	295	1	SHLAA 2018 Category 3
1232	SHLAA 1232 Former 46 to 48 Egerton Park, Rock Ferry	295	7	SHLAA 2018 Category 3
1269	SHLAA 1269 Southwick Road Car Park, Old Chester Road	295	2	SHLAA 2018 Category 3
1507	SHLAA 1507 77 Egerton Park, Rock Ferry	295	4	SHLAA 2018 Category 3
1622	SHLAA 1622 St Pauls Road Car Park, Tranmere	295	5	SHLAA 2018 Category 3
1834	SHLAA 1834 108 Egerton Park, Rock Ferry	295	10	SHLAA 2018 Category 3
2032	SHLAA 2032 Gladstone Road Car Park, Tranmere	295	2	SHLAA 2018 Category 3
686	SHLAA 0686 South of 52, Shallmarch Road, Bebington	300	1	SHLAA 2018 Category 3
1450	SHLAA 1450 10 Acres Road, Bromborough	300	1	SHLAA 2018 Category 3
1613	SHLAA 1613 North of Broomleigh Close, Bebington	300	12	SHLAA 2018 Category 3
1634	SHLAA 1634 Kingsway Car Park, Higher Bebington	300	3	SHLAA 2018 Category 3
134	SHLAA 0134 West of 100 Brassey Street, Birkenhead	287	2	SHLAA 2018 Category 3
441	SHLAA 0441 West of Tunnel Road, Birkenhead	108	22	SHLAA 2018 Category 3
974	SHLAA 0974 Land at Oxton Road, Birkenhead	290	16	SHLAA 2018 Category 3
1014	SHLAA 1014 Adjacent 34 Wood Street, Birkenhead	108	4	SHLAA 2018 Category 3
1337	SHLAA 1337 West of Town Station, Jackson Street	108	4	SHLAA 2018 Category 3
1571	SHLAA 1571 Rear 3 to 17 Duncan Street, Birkenhead	107	9	SHLAA 2018 Category 3
1604	SHLAA 1604 Borough Road Car Park, Wallasey	278	1	SHLAA 2018 Category 3
1618	SHLAA 1618 North of 62 to 68 Brassey Street, Birkenhead	287	9	SHLAA 2018 Category 3
467	SHLAA 0467 East of 74 Borough Road, Seacombe	279	28	SHLAA 2018 Category 3
2002	SHLAA 2002 Duncan Street Car Park, Birkenhead	107	4	SHLAA 2018 Category 3
	East Float, Wirral Waters	106	4100	

Table B.10: Employment Site Locations – Baseline Scenario

ID	Address	LCRTM Zone	Area (Hectare)
100	East of Lubrizol, Bromborough Coast	298	9.63

101	Quest International, Bromborough Coast	298	0.59
263	Riverbank Road, Magazine Lane	298	1.78
254	Rear of AP Refractory (Grammont Properties)	298	1.88
324	Former Croda/ Uniqema site	298	5.01
334	Former UML Power Station (balance of site 75)	298	2.77
255	Village Road (2-2A)	291	0.1
78	Lever Faberge - Former BOCM Silcock Animal Feeds	299	6.42
82	Levers - Bromborough Road	299	11.91
343	Chester Road Industrial Units	309	0.01
24	Premier Brands, Reeds Lane - North of Access Road	315	1.45
8	Premier Brands, Reeds Lane - South of Access Road	315	5
70	Peninsula Business Park, Moreton	315	1.26
65	Former Burtons Biscuits, Pasture Road	315	12.47
125	Tarran IE - Tarran Way North	315	0.24
248	Tarran IE - Tarran Way North (Rear 30a)	315	0.2
251	Rear Nextdom Complex, Harvey Road	315	0.64
300	Tarran IE - Selwyn Construction	315	0.14
358	Forge Engineering Ltd	315	0.3
45	British Gas Depot, Hind Street	109	2.7
15	Former Railway Depot, Mollington Street	109	3.44
29	Conway Park - North of Station	108	1.24
148	Conway Park - Cinema Frontage	108	0.1
239	Conway Park - NE of Crown Hotel	108	0.16
247	Former Rank Bingo	108	0.24
355	5 Thomas Street	108	0.16
64	Former TRFC Training Ground, Valley Road	286	1.27
31	Twelve Quays - Morpeth Waterfront	107	1.5
259	Cleveland Street (adj 52)	107	0.11
108	Rose Brae Phase 2, Church Street	107	1.96
327	George Street / Lord Street	107	0.04
35	North of Oakdale Road - West of New Way	278	0.78
229	Former Stone Manganese Marine Dock Road	278	6.86
97	Former Royal Swan Hotel, Dock Road	277	0.23
123	Wheatland Lane, Seacombe	277	0.5
328	Former Pallet yard, Birkenhead Road	277	0.63
392	Land at Riverside House, East Street	277	0.38
66	Former River Streets, Beaufort Road	287	4.01
342	57A-59 Norman Street	287	0.18
400	Land at Corporation Road	287	0.01
309	Adj 45 Old Bidston Road	105	0.13
403	E of 54 Old Bidston Road	105	0.02
72	North Cheshire TE - North of PK Commercial	293	0.47
57	North Cheshire TE - S of Avalon Funeral Supplies	293	0.21
94	North Cheshire TE - Former Horticultural Training Centre	293	0.47

252	Carr Lane IE - New Hall Lane (20)	316	0.2
356	Royston Dental Laboratory	316	0.07
359	Pemway Enterprise Centre	316	0.05
360	Punch Bowl Inn	316	0.01
54	Clatterbridge Hospital, Clatterbridge Road	308	4.72
329	URL south site	302	2.31
50	Former Tank Farm, Commercial Road	306	0.97
74	Former MOD Tank Farm, Old Hall Road	306	8.05
17	Riverview Road - East of Tulip	306	2.93
43	Centuria Business Park, Stadium Road	306	8.05
234	Former Spectrum Adhesives, Caldbeck Road	306	2.35
242	Slack Wood, Riverview Road	306	2.02
49	Riverside Park (Phases 2b - 4)	306	3.36
330	Tulip expansion	306	2.29
341	Arnwood Phase 2 (balance of 241)	306	0.16
364	Former Epichem, Power Road	306	3.85
415	Former Eastham Sand, Riverbank Road	306	3.88
365	Former Hurstwoods International	281	0.57
110	West Float Industrial Estate, Dock Road	280	0.34
133	Former Waste Transfer, Limekiln Lane	280	1.58
417	Former Gas Holders, Dock Road	280	2.32
60	Kern's Warehouse, Cleveland Street	105	0.98
79	Birkenhead Dock Estate - Bidston Dock	285	17.49
84	Former Town Station, Borough Road East	108	1.26
116	Former Builders Yard, Magazine Lane	306	1.01
308	E of 491 Cleveland Street	105	0.07
332	Jackson Street	108	0.31
391	Car Park, Alabama Way	110	0.49

B.2 Option 1A

Table B.11: Forecast Housing per Site (dwellings) – Option 1A

SHLAA/PP Ref	Address	LCRTM Zone	Dwellings	Category
SHLAA 4085	Sevenoaks Extra Care	296	83	Extra Accelerated
SHLAA 0754	Sky City	106	0	Extra Accelerated
SHLAA 0763	Nelson House	296	12	Extra Accelerated
SHLAA 3039	Crossways	287	50	Extra Accelerated
SHLAA 3000	Church Lane	310	10	Extra Accelerated
SHLAA 4087	Dodds Builders Merchants	314	15	Extra Accelerated
SHLAA 2050	Clatterbridge Hospital	308	50	Extra Accelerated
SHLAA 4084	Wirral Business Park	313	127	Extra Accelerated
SHLAA 0756	Northern Case	277	172	Extra Accelerated
SHLAA 0769	Kelvin Road	277	156	Extra Accelerated
SHLAA 4083	Pilgrim Street Arts	107	15	Extra Accelerated

SHLAA 0468	Borough Road (22 to 40)	279	10	Extra Accelerated
SHLAA 1503	Trafalgar Road	279	8	Extra Accelerated
SHLAA 4071	Kingsmead	316	25	Extra Accelerated
SHLAA 2013	Hamilton Building	108	30	Extra Accelerated
SHLAA 1691	Brooklands	105	12	Extra Accelerated
SHLAA 2016	Wilbraham Street CP	108	15	Extra Accelerated
SHLAA 1908	Arrowe Hill Primary	310	5	Extra Accelerated
SHLAA 1864	Liscard Municipal	280	20	Extra Accelerated
SHLAA 4086	New Palace Amusements	281	120	Extra Accelerated
SHLAA 0020	Former Grand Hotel	281	16	Extra Accelerated
SHLAA 2072	Prices Way	298	108	Extra Accelerated
SHLAA 0047	Hartismere Road	278	7	Extra Accelerated
SHLAA 0111	Devonshire Road	290	8	Extra Accelerated
SHLAA 1030	Grosvenor Buildings	290	9	Extra Accelerated
SHLAA 0134	Brassey Street	105	2	Extra Accelerated
SHLAA 0255	Hassal Road	296	10	Extra Accelerated
SHLAA 0449	North of Black Horse PH	283	34	Extra Accelerated
SHLAA 0517	Ferny Brow Road	310	16	Extra Accelerated
SHLAA 0758	Chester Street	107	28	Extra Accelerated
SHLAA 0776	Former Crooked Billet PH	109	5	Extra Accelerated
SHLAA 0785	101 New Chester Road	296	8	Extra Accelerated
SHLAA 0806	99 New Chester Road	296	9	Extra Accelerated
SHLAA 1070	Littledale Road	279	3	Extra Accelerated
SHLAA 1127	Rear of St Johns	278	12	Extra Accelerated
SHLAA 1129	Mill Lane	280	8	Extra Accelerated
SHLAA 1232	46 Egerton Park	295	7	Extra Accelerated
SHLAA 1267	Mill Road	310	3	Extra Accelerated
SHLAA 1280	Dial Road	294	8	Extra Accelerated
SHLAA 1295	Elm Avenue	313	3	Extra Accelerated
SHLAA 1358	Pearson Road	109	11	Extra Accelerated
SHLAA 1362	Beaconsfield Road	296	10	Extra Accelerated
SHLAA 1513	Bermuda Road	314	4	Extra Accelerated
SHLAA 1561	Rodney Street	109	6	Extra Accelerated
SHLAA 1571	Duncan Street	107	9	Extra Accelerated
SHLAA 1671	156 Bedford Road	296	9	Extra Accelerated
SHLAA 1621	Howson Street	296	23	Extra Accelerated
SHLAA 1686	Derby Road	109	9	Extra Accelerated
SHLAA 2051	Sycamore Lodge	280	24	Extra Accelerated
SHLAA 3001	Birch Tree PH	294	18	Extra Accelerated
SHLAA 3035	Thorsway	296	5	Extra Accelerated
SHLAA 0463	Former Seacombe House	279	21	Extra Accelerated
SHLAA 0974	Oxton Road	105	20	Extra Accelerated
SHLAA 1558	Rock Lane West	296	7	Extra Accelerated
SHLAA 4089	Wallasey RBL	279	14	Extra Accelerated

SHLAA 4088	Maple Grove	304	6	Extra Accelerated
SHLAA 2081	Legacy	106	500	SHLAA Accelerated
SHLAA 2080	Tower Road	106	150	SHLAA Accelerated
SHLAA 2079	Belong	106	34	SHLAA Accelerated
SHLAA 2078	Urban Splash 1	106	120	SHLAA Accelerated
SHLAA 2082	Urban Splash 2	106	230	SHLAA Accelerated
SHLAA 0753	Marina View	106	1795	SHLAA Accelerated
SHLAA 0755	Vittoria Studios	106	1705	SHLAA Accelerated
SHLAA 0424	Europa Car Park	108	170	SHLAA Accelerated
SHLAA 0957	Europa South	108	50	SHLAA Accelerated
SHLAA 0956	Europa North	108	55	SHLAA Accelerated
SHLAA 1827	Foxfield	314	69	SHLAA Accelerated
SHLAA 1610	Civic Way	302	60	SHLAA Accelerated
SHLAA 2008	Moreton Family Centre	314	60	SHLAA Accelerated
SHLAA 2007	Pasture Road	314	38	SHLAA Accelerated
SHLAA 1974	Eastham Youth Centre	305	20	SHLAA Accelerated
SHLAA 2010	Knutsford Road	314	8	SHLAA Accelerated
SHLAA 2022	North Annexe	279	19	SHLAA Accelerated
SHLAA 2023	South Annexe	279	45	SHLAA Accelerated
SHLAA 1665	Rock Ferry High	295	178	SHLAA Accelerated
SHLAA 0475	New Street	277	32	SHLAA Accelerated
SHLAA 1472	Fernleigh	315	30	SHLAA Accelerated
SHLAA 1850	Lyndale	305	28	SHLAA Accelerated
SHLAA 2034	Delamere Ave	305	12	SHLAA Accelerated
SHLAA 2035	Paton Close	316	11	SHLAA Accelerated
SHLAA 0766	Greenacres	288	10	SHLAA Accelerated
SHLAA 0557	Beaufort Road	287	178	SHLAA Accelerated
SHLAA 2068	Typhoo	315	100	SHLAA Accelerated
SHLAA 2006	Rear of Gibson House	279	87	SHLAA Accelerated
SHLAA 2005	Gibson House	279	15	SHLAA Accelerated
SHLAA 3095	Greenfield Estate	316	50	SHLAA Accelerated
SHLAA 4072	Trafalgar Garage	302	26	SHLAA Accelerated
SHLAA 1832	Rock Station PH	295	25	SHLAA Accelerated
SHLAA 0916	Grange Hill Farm	316	17	SHLAA Accelerated
SHLAA 4074	Pensby Hall Residential Home	310	15	SHLAA Accelerated
SHLAA 4014	The Stirrup PH	310	46	SHLAA Accelerated
SHLAA 0689	Gladstone Liberals	109	12	SHLAA Accelerated
SHLAA 1171	Egerton Street Play Area	281	12	SHLAA Accelerated
SHLAA 2042	Ashton Court	316	14	SHLAA Accelerated
SHLAA 3029	Silverdale Medical	309	7	SHLAA Accelerated
SHLAA 0218	Woodchurch Road (65 to 67)	291	5	SHLAA Accelerated
SHLAA 1301	1 Cholmondeley Road	316	1	SHLAA Accelerated
SHLAA 1409	22A Shaw Street	316	1	SHLAA Accelerated
SHLAA 4081	Europa Pools	108	130	SHLAA Accelerated

SHLAA 4082	Vue Cinema	108	110	SHLAA Accelerated
SHLAA 2069	Hinson Street CP	108	20	SHLAA Accelerated
SHLAA 2026	Treasury Building	107	65	SHLAA Accelerated
SHLAA 2036	Elgin Way CP	108	25	SHLAA Accelerated
SHLAA 4080	Olinda Street	296	23	SHLAA Accelerated
SHLAA 1833	Bebington Road	296	11	SHLAA Accelerated
SHLAA 4079	Woodhead Street CP	296	45	SHLAA Accelerated
SHLAA 0752	Woodside	107	370	SHLAA Accelerated
SHLAA 0478	Rose Brae	107	119	SHLAA Accelerated
SHLAA 4078	Hind Street	109	580	SHLAA Accelerated
SHLAA 2047	Wallasey Village	283	10	SHLAA Accelerated
SHLAA 0651	Lighthouse PH	283	9	SHLAA Accelerated
SHLAA 1109	274 Irby Road	310	1	SHLAA Accelerated
SHLAA 3042	Majestic Wine	316	3	SHLAA Accelerated
SHLAA 1620	Lorn Street	108	50	SHLAA Accelerated
SHLAA 2014	Conway Building	108	40	SHLAA Accelerated
SHLAA 2002	Duncan St CP	107	20	SHLAA Accelerated
HLA 549700	Former Rocky's Gym	108	38	Other Accelerated
HLA 586000	Former Livingstone PH	105	16	Other Accelerated
HLA 667700	Holt Road, Tranmere	109	18	Other Accelerated
HLA 671300	Former Open Arms PH	287	42	Other Accelerated
HLA 682500	Land at Old Chester Road	109	20	Other Accelerated
HLA 685500	Former ESWA	105	39	Other Accelerated
HLA 691300	Former Rank Bingo	108	132	Other Accelerated
HLA 703900	Grasswood Road	313	14	Other Accelerated
HLA 540500	Atlantic House	107	3	Other Accelerated
HLA 602700	32 Harland Road	109	1	Other Accelerated
HLA 673400	Singelton Avenue	291	6	Other Accelerated
HLA 677200	Livingston Street	105	1	Other Accelerated
HLA 680800	Westbourne Road	290	9	Other Accelerated
HLA 683500	107 Church Road	109	1	Other Accelerated
HLA 687500	Hampden Grove	109	2	Other Accelerated
HLA 691200	37 Clifton Road	109	2	Other Accelerated
HLA 699700	7-9, Marquis Street	109	1	Other Accelerated
HLA 700000	98 Upton Road	287	2	Other Accelerated
HLA 702700	25 Slaty Road	290	2	Other Accelerated

Table B.12: Employment Site Locations – Option 1A

ID	Address	LCRTM Zone	Area (Hectare)
SHLAA 0407	Peninsula Business Park	315	1.13
SHLAA 0420	Oakdale Road	278	0.78
SHLAA 0429	Former Royal Swan PH	277	0.38
SHLAA 0432	Wheatland Lane	277	0.5
SHLAA 0564	SMM Business Park	278	6.86

SHLAA 0587	Berner Street	106	0.98
SHLAA 0595	Lynas Street	106	0.33
SHLAA 0953	Bidston Dock	285	10.4
SHLAA 1724	Caldbeck Road	306	2.36
SHLAA 1727	Thermal Road	298	1.6
SHLAA 1716	East of Tulip	306	1.91
SHLAA 0428	Morpeth Waterfront	107	1.36
SHLAA 1714	Commercial Road	306	0.97
SHLAA 1725	Slack Wood	306	1.35
SHLAA 1861	Plantation Road	306	2.18
SHLAA 2061	Power Road	306	1.83
SHLAA 2063	East of Riverbank Road	306	1.94
SHLAA 1718	Riverbank Road	298	1.01
SHLAA 0549	Valley Road	286	1.15
SHLAA 0417	West Float IE	280	0.34
SHLAA 1717	East of Georgia Avenue	306	8.05
SHLAA 2064	Former Gas Holders	280	2.32
SHLAA 2066	North of Beaufort Road	284	14.17
SHLAA 0425	Cleveland Street Warehouse	105	0.98
SHLAA 1978	West of Reeds Lane	315	1.46
SHLAA 0411	Tarran Way North	315	0.24
SHLAA 0401	Prenton Way	293	0.57
SHLAA 2068	East of Typhoo	315	1.93
SHLAA 1715	Old Hall Road	306	4.62

B.3 Option 2A

Table B.13: Forecast Housing per Site (dwellings) – Option 2A

SHLAA/PP Ref	Address	LCRTM Zone	Dwellings	Category
SP060	-	310	1106	Green Belt Option 2A Sites
SP004	-	314	193	Green Belt Option 2A Sites
SP005	-	314	47	Green Belt Option 2A Sites
SP009	-	310	92	Green Belt Option 2A Sites
SP059C	-	310	16	Green Belt Option 2A Sites
SP059B	-	310	18	Green Belt Option 2A Sites
SP059D	-	310	14	Green Belt Option 2A Sites
SP013	-	311	261	Green Belt Option 2A Sites
SP071	-	309	337	Green Belt Option 2A Sites
SP061	-	310	326	Green Belt Option 2A Sites
SP049	-	305	368	Green Belt Option 2A Sites
SP065	-	310	155	Green Belt Option 2A Sites
SHLAA 2081	Legacy	106	500	SHLAA Current Sites
SHLAA 2080	Tower Road	106	150	SHLAA Current Sites
SHLAA 2079	Belong	106	34	SHLAA Current Sites

SHLAA 2078	Urban Splash 1	106	120	SHLAA Current Sites
SHLAA 2082	Urban Splash 2	106	230	SHLAA Current Sites
SHLAA 0753	Marina View	106	700	SHLAA Current Sites
SHLAA 0755	Vittoria Studios	106	700	SHLAA Current Sites
SHLAA 0424	Europa Car Park	108	170	SHLAA Current Sites
SHLAA 0957	Europa South	108	50	SHLAA Current Sites
SHLAA 0956	Europa North	108	55	SHLAA Current Sites
SHLAA 1827	Foxfield	314	69	SHLAA Current Sites
SHLAA 1610	Civic Way	302	60	SHLAA Current Sites
SHLAA 2008	Moreton Family Centre	314	60	SHLAA Current Sites
SHLAA 2007	Pasture Road	314	38	SHLAA Current Sites
SHLAA 1974	Eastham Youth Centre	305	20	SHLAA Current Sites
SHLAA 2010	Knutsford Road	314	8	SHLAA Current Sites
SHLAA 2022	North Annexe	279	19	SHLAA Current Sites
SHLAA 2023	South Annexe	279	45	SHLAA Current Sites
SHLAA 1665	Rock Ferry High	295	178	SHLAA Current Sites
SHLAA 0475	New Street	277	32	SHLAA Current Sites
SHLAA 1472	Fernleigh	315	30	SHLAA Current Sites
SHLAA 1850	Lyndale	305	28	SHLAA Current Sites
SHLAA 2034	Delamere Ave	305	12	SHLAA Current Sites
SHLAA 2035	Paton Close	316	11	SHLAA Current Sites
SHLAA 0766	Greenacres	288	10	SHLAA Current Sites
SHLAA 0557	Beaufort Road	287	178	SHLAA Current Sites
SHLAA 2068	Typhoo	315	100	SHLAA Current Sites
SHLAA 2006	Rear of Gibson House	279	87	SHLAA Current Sites
SHLAA 2005	Gibson House	279	15	SHLAA Current Sites
SHLAA 3095	Greenfield Estate	316	50	SHLAA Current Sites
SHLAA 4072	Trafalgar Garage	302	26	SHLAA Current Sites
SHLAA 1832	Rock Station PH	295	25	SHLAA Current Sites
SHLAA 0916	Grange Hill Farm	316	17	SHLAA Current Sites
SHLAA 4074	Pensby Hall Residential Home	310	15	SHLAA Current Sites
SHLAA 4014	The Stirrup PH	310	15	SHLAA Current Sites
SHLAA 0689	Gladstone Liberals	109	12	SHLAA Current Sites
SHLAA 1171	Egerton Street Play Area	281	12	SHLAA Current Sites
SHLAA 2042	Ashton Court	316	14	SHLAA Current Sites
SHLAA 3029	Silverdale Medical	309	7	SHLAA Current Sites
SHLAA 0218	Woodchurch Road (65 to 67)	291	5	SHLAA Current Sites
SHLAA 1301	1 Cholmondeley Road	316	1	SHLAA Current Sites
SHLAA 1409	22A Shaw Street	316	1	SHLAA Current Sites
SHLAA 4081	Europa Pools	108	130	SHLAA Current Sites
SHLAA 4082	Vue Cinema	108	110	SHLAA Current Sites
SHLAA 2069	Hinson Street CP	108	20	SHLAA Current Sites
SHLAA 2026	Treasury Building	107	65	SHLAA Current Sites
SHLAA 2036	Elgin Way CP	108	25	SHLAA Current Sites

SHLAA 4080	Olinda Street	296	23	SHLAA Current Sites
SHLAA 1833	Bebington Road	296	11	SHLAA Current Sites
SHLAA 4079	Woodhead Street CP	296	45	SHLAA Current Sites
SHLAA 0752	Woodside	107	270	SHLAA Current Sites
SHLAA 0478	Rose Brae	107	119	SHLAA Current Sites
SHLAA 4078	Hind Street	109	450	SHLAA Current Sites
SHLAA 2047	Wallasey Village	283	10	SHLAA Current Sites
SHLAA 0651	Lighthouse PH	283	9	SHLAA Current Sites
SHLAA 1109	274 Irby Road	310	1	SHLAA Current Sites
SHLAA 3042	Majestic Wine	316	3	SHLAA Current Sites
SHLAA 1620	Lorn Street	108	50	SHLAA Current Sites
SHLAA 2014	Conway Building	108	40	SHLAA Current Sites
SHLAA 2002	Duncan St CP	107	20	SHLAA Current Sites

Table B.14: Employment Site Locations (Baseline) – Option 2A

ID	Address	LCRTM Zone	Area (Hectare)
SHLAA 0407	Peninsula Business Park	315	1.13
SHLAA 0420	Oakdale Road	278	0.78
SHLAA 0429	Former Royal Swan PH	277	0.38
SHLAA 0432	Wheatland Lane	277	0.5
SHLAA 0564	SMM Business Park	278	6.86
SHLAA 0587	Berner Street	106	0.98
SHLAA 0595	Lynas Street	106	0.33
SHLAA 0953	Bidston Dock	285	10.4
SHLAA 1724	Caldbeck Road	306	2.36
SHLAA 1727	Thermal Road	298	1.6
SHLAA 1716	East of Tulip	306	1.91
SHLAA 0428	Morpeth Waterfront	107	1.36
SHLAA 1714	Commercial Road	306	0.97
SHLAA 1725	Slack Wood	306	1.35
SHLAA 1861	Plantation Road	306	2.18
SHLAA 2061	Power Road	306	1.83
SHLAA 2063	East of Riverbank Road	306	1.94
SHLAA 1718	Riverbank Road	298	1.01
SHLAA 0549	Valley Road	286	1.15
SHLAA 0417	West Float IE	280	0.34
SHLAA 1717	East of Georgia Avenue	306	8.05
SHLAA 2064	Former Gas Holders	280	2.32
SHLAA 2066	North of Beaufort Road	284	14.17
SHLAA 0425	Cleveland Street Warehouse	105	0.98
SHLAA 1978	West of Reeds Lane	315	1.46
SHLAA 0411	Tarran Way North	315	0.24
SHLAA 0401	Prenton Way	293	0.57
SHLAA 2068	East of Typhoo	315	1.93

SHLAA 1715	Old Hall Road	306	6.85
SHLAA 1719	Southwood Road	306	3.79
SHLAA 2072	Prices Way	298	3.43
SHLAA 1713	Southern Reclamation Area	298	9.63
SHLAA 0756	Birkenhead Road	277	0.63
SHLAA 3043	Dock Road South	298	10.47

B.4 Option 2B

Table B.15: Forecast Housing per Site (dwellings) – Option 2B

SHLAA/PP Ref	Address	LCRTM Zone	Dwellings	Category
SP062A	-	310	320	Green Belt Option 2B Sites
SP062	-	309	1938	Green Belt Option 2B Sites
SP061	-	310	326	Green Belt Option 2B Sites
SHLAA 2081	Legacy	106	500	SHLAA Current Sites
SHLAA 2080	Tower Road	106	150	SHLAA Current Sites
SHLAA 2079	Belong	106	34	SHLAA Current Sites
SHLAA 2078	Urban Splash 1	106	120	SHLAA Current Sites
SHLAA 2082	Urban Splash 2	106	230	SHLAA Current Sites
SHLAA 0753	Marina View	106	700	SHLAA Current Sites
SHLAA 0755	Vittoria Studios	106	700	SHLAA Current Sites
SHLAA 0424	Europa Car Park	108	170	SHLAA Current Sites
SHLAA 0957	Europa South	108	50	SHLAA Current Sites
SHLAA 0956	Europa North	108	55	SHLAA Current Sites
SHLAA 1827	Foxfield	314	69	SHLAA Current Sites
SHLAA 1610	Civic Way	302	60	SHLAA Current Sites
SHLAA 2008	Moreton Family Centre	314	60	SHLAA Current Sites
SHLAA 2007	Pasture Road	314	38	SHLAA Current Sites
SHLAA 1974	Eastham Youth Centre	305	20	SHLAA Current Sites
SHLAA 2010	Knutsford Road	314	8	SHLAA Current Sites
SHLAA 2022	North Annexe	279	19	SHLAA Current Sites
SHLAA 2023	South Annexe	279	45	SHLAA Current Sites
SHLAA 1665	Rock Ferry High	295	178	SHLAA Current Sites
SHLAA 0475	New Street	277	32	SHLAA Current Sites
SHLAA 1472	Fernleigh	315	30	SHLAA Current Sites
SHLAA 1850	Lyndale	305	28	SHLAA Current Sites
SHLAA 2034	Delamere Ave	305	12	SHLAA Current Sites
SHLAA 2035	Paton Close	316	11	SHLAA Current Sites
SHLAA 0766	Greenacres	288	10	SHLAA Current Sites
SHLAA 0557	Beaufort Road	287	178	SHLAA Current Sites
SHLAA 2068	Typhoo	315	100	SHLAA Current Sites
SHLAA 2006	Rear of Gibson House	279	87	SHLAA Current Sites
SHLAA 2005	Gibson House	279	15	SHLAA Current Sites

SHLAA 3095	Greenfield Estate	316	50	SHLAA Current Sites
SHLAA 4072	Trafalgar Garage	302	26	SHLAA Current Sites
SHLAA 1832	Rock Station PH	295	25	SHLAA Current Sites
SHLAA 0916	Grange Hill Farm	316	17	SHLAA Current Sites
SHLAA 4074	Pensby Hall Residential Home	310	15	SHLAA Current Sites
SHLAA 4014	The Stirrup PH	310	15	SHLAA Current Sites
SHLAA 0689	Gladstone Liberals	109	12	SHLAA Current Sites
SHLAA 1171	Egerton Street Play Area	281	12	SHLAA Current Sites
SHLAA 2042	Ashton Court	316	14	SHLAA Current Sites
SHLAA 3029	Silverdale Medical	309	7	SHLAA Current Sites
SHLAA 0218	Woodchurch Road (65 to 67)	291	5	SHLAA Current Sites
SHLAA 1301	1 Cholmondeley Road	316	1	SHLAA Current Sites
SHLAA 1409	22A Shaw Street	316	1	SHLAA Current Sites
SHLAA 4081	Europa Pools	108	130	SHLAA Current Sites
SHLAA 4082	Vue Cinema	108	110	SHLAA Current Sites
SHLAA 2069	Hinson Street CP	108	20	SHLAA Current Sites
SHLAA 2026	Treasury Building	107	65	SHLAA Current Sites
SHLAA 2036	Elgin Way CP	108	25	SHLAA Current Sites
SHLAA 4080	Olinda Street	296	23	SHLAA Current Sites
SHLAA 1833	Bebington Road	296	11	SHLAA Current Sites
SHLAA 4079	Woodhead Street CP	296	45	SHLAA Current Sites
SHLAA 0752	Woodside	107	270	SHLAA Current Sites
SHLAA 0478	Rose Brae	107	119	SHLAA Current Sites
SHLAA 4078	Hind Street	109	450	SHLAA Current Sites
SHLAA 2047	Wallasey Village	283	10	SHLAA Current Sites
SHLAA 0651	Lighthouse PH	283	9	SHLAA Current Sites
SHLAA 1109	274 Irby Road	310	1	SHLAA Current Sites
SHLAA 3042	Majestic Wine	316	3	SHLAA Current Sites
SHLAA 1620	Lorn Street	108	50	SHLAA Current Sites
SHLAA 2014	Conway Building	108	40	SHLAA Current Sites
SHLAA 2002	Duncan St CP	107	20	SHLAA Current Sites

Table B.16: Employment Site Locations –Option 2B

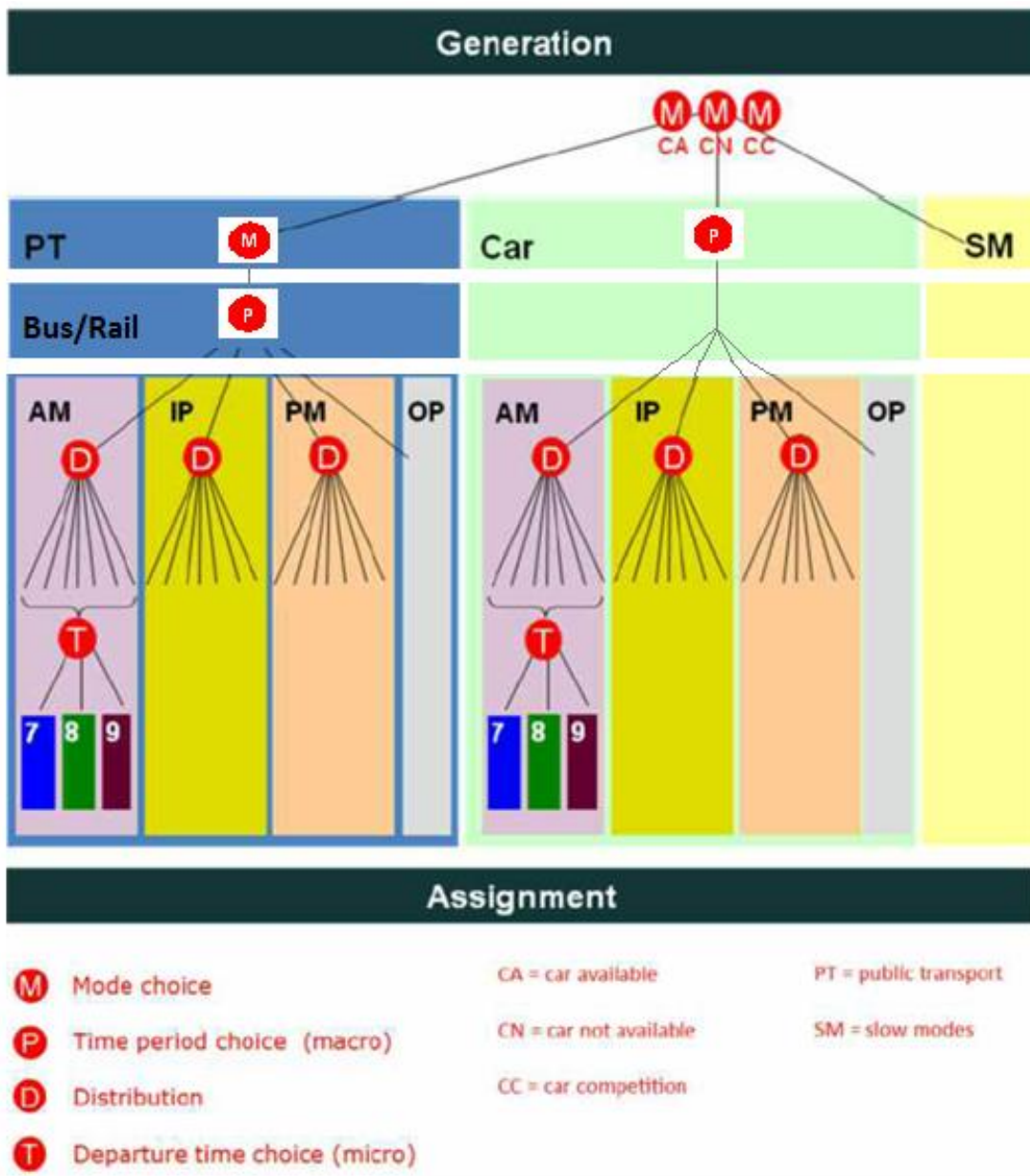
ID	Address	LCRTM Zone	Area (Hectare)
SHLAA 0407	Peninsula Business Park	315	1.13
SHLAA 0420	Oakdale Road	278	0.78
SHLAA 0429	Former Royal Swan PH	277	0.38
SHLAA 0432	Wheatland Lane	277	0.5
SHLAA 0564	SMM Business Park	278	6.86
SHLAA 0587	Berner Street	106	0.98
SHLAA 0595	Lynas Street	106	0.33
SHLAA 0953	Bidston Dock	285	10.4
SHLAA 1724	Caldbeck Road	306	2.36
SHLAA 1727	Thermal Road	298	1.6

SHLAA 1716	East of Tulip	306	1.91
SHLAA 0428	Morpeth Waterfront	107	1.36
SHLAA 1714	Commercial Road	306	0.97
SHLAA 1725	Slack Wood	306	1.35
SHLAA 1861	Plantation Road	306	2.18
SHLAA 2061	Power Road	306	1.83
SHLAA 2063	East of Riverbank Road	306	1.94
SHLAA 1718	Riverbank Road	298	1.01
SHLAA 0549	Valley Road	286	1.15
SHLAA 0417	West Float IE	280	0.34
SHLAA 1717	East of Georgia Avenue	306	8.05
SHLAA 2064	Former Gas Holders	280	2.32
SHLAA 2066	North of Beaufort Road	284	14.17
SHLAA 0425	Cleveland Street Warehouse	105	0.98
SHLAA 1978	West of Reeds Lane	315	1.46
SHLAA 0411	Tarran Way North	315	0.24
SHLAA 0401	Prenton Way	293	0.57
SHLAA 2068	East of Typhoo	315	1.93
SHLAA 1715	Old Hall Road	306	6.85
SHLAA 1719	Southwood Road	306	3.79
SHLAA 2072	Prices Way	298	3.43
SHLAA 1713	Southern Reclamation Area	298	9.63
SHLAA 0756	Birkenhead Road	277	0.63
SHLAA 3043	Dock Road South	298	10.47

C. Trip Generation

This section of the report provides details of how forecast trip ends are produced for LCRTM. Trip generation is dealt with exogenously to the demand model, by means of the external forecasting module (EFM), which is a bespoke tool developed in MS Access. The position of the trip generation element in terms of the overall model structure is shown below in Figure C.2.

Figure C.2: LCRTM Structure



Trip generation is primarily a household based forecast, which includes household category analysis to model household car availability and income changes, and allows the integration of central household forecasts with local land use forecasts.

The building of future year trip end growth has a segmented land use forecast using central TEMPRO car ownership and UK's Household Projections database (HOPS) central growth and local development information. The application of trip end growth converts land use forecasts to trip growth and caters for Non-Home Based (NHB) trips, such as a trip between the workplace and the shops.

The EFM has the functionality to control forecasts to national projections, or to use locally derived data to develop trip end forecasts that take into account local forecasts of growth in households and employment.

C.1 Overview

The EFM derives future year household changes using household category analysis to model changes in household composition and car ownership, which predicts future year car availability and income splits. Future year household developments are combined with the household structure changes and these are used to derive Home Based (HB) productions using the product of households and HB trip rates.

Trip attraction forecasts can be defined by central growth forecasts, commercial economic forecasts and development control information. A number of control mechanisms are applied to the future year production and attraction trip ends. Base year trip ends are used with the future year trip ends to derive a trip end growth. This is then applied to calibrated and fully segmented base year matrix trip ends to provide future year trip ends. These are used to growth the calibrated segmented base year matrices.

For this study the following base year matrices are used as the input:

- The highway matrix has been taken from the calibrated 2015 LCH model⁶, converted to LCRTM model zones⁷.
- The public transport matrix has been taken from the calibrated 2015 LCRTM PT model developed for this study⁸.
- The walk cycle matrix has been growthed from the 2012 LCRTM matrix using land use data.

The resulting HB matrices are used to derive future year growth in NHB trips, which are assumed solely dependent on HB trips.

C.2 Method

C.2.1 Home Based Production Growth

LCRTM productions are determined by households. Households are input for each zone and split into car ownership and household composition categories.

Production growth is calculated in two steps:

1. Base Year households are re-distributed within each zone in line with future year Household Composition (from HOPS) and Car Ownership changes (from TEMPRO)

⁶ LCH LMVR

⁷ LCCC_ModelIntegrationReport_RevA_v1

⁸ LCCC_2015LCRTMPTModelUpdate_RevA_v3.docx (2107244862)

2. Additional future year households are added

The default EFM option is to run step 1, although this can be switched off using the EFM form.

The total future year households are multiplied by trip rates to calculate future year productions. This is divided by the base year productions to calculate production growth.

C.2.2 Home Based Attraction Growth

Attraction growth is calculated by LCRTM zone, directly from the input forecasting data. Four measures are used:

- Total Employment – Commute and EB
- Retail Employment – Shopping
- Other Employment – Other
- Pupils – Education

C.2.3 Application of Home Based Growth

Home based production and attraction growth is applied to the segmented calibrated base year matrices, and is constrained to production growth. – i.e. when the growth is applied it gives different total trip ends for productions and attractions, so we constrain to productions.

The base year matrices are in Origin-Destination format; therefore the attraction growth is applied to the From Home Destinations and the To Home Origins, the production growth is applied to the From Home Origins and the To Home Destinations.

To ensure growth is constrained to productions the growth is applied using the following method:

1. Future year production trip-end values are calculated
2. Attraction growth applied to base year matrix
3. Revised production growth factors are calculated based on the future year production trip-end values (1) and the attraction balanced matrix (2)
4. Production growth is applied to the attraction balanced matrix (3)

The below example illustrates this process:

INPUTS				Attraction Growth				Production Growth							
Base Matrix															
	1	2	Total	1	1.1	1	1.05	1	1.05	1	1.05				
1	100	200	300	2	1.2	2	1.5	2	1.5	2	1.5				
2	300	400	700												
Total	400	600	1000												
PROCESS															
a) Base Year Attractions * Attraction Growth				b) Calculate new Production Growth				c) Matrix a) * New Production Growth				d) Check Growth			
	1	2	Total	1	0.9	1	99	216	315	1	0.99	1.08	1.05		
1	110	240	350	2	1.296296	2	427.78	622.22	1050	2	1.43	1.56	1.5		
2	330	480	810			Total	526.78	838.22	1365	Total	1.32	1.40	1.365		
Total	440	720	1160												

C.2.4 Non-Home Based Trips

Future year non-home based trips (NHB) are calculated through the application of production growth to the NHB segmented calibrated base year matrix. The NHB future year productions are calculated by the sum of the future year home based attractions multiplied by the propensity to make an NHB trip (calculated from Household Interview data). These are divided by the base year productions to calculate NHB production growth.

C.2.5 Freight

Freight matrices are generated using DfT National Road Traffic Forecasts 2015 (NRTF).

NRTF growth factors are applied to all trips. For trips with a start or end point in the LCRTM study area the North West forecast is applied. For all other trips i.e. within the buffer/external areas, the forecasts for England are applied.

Note, LCRTM is not a freight forecasting tool, and this process simply provides a background level of freight growth.

C.3 Major Developments

It is accepted that where a major development is proposed, the default LCRTM forecasting mechanism may not produce realistic results due to the scale of the change in land-use from the base year. This could take two forms. inaccurate representation of trips, or inaccurate distribution of trips (i.e. where trips to or from the development start or finish).

To account for this there is an option to replace the base distribution of trips with a new distribution based on a gravity model, utilising future year trip ends and costs for specific zones. There is also the option to superimpose a trip generation for specific zones.

C.4 TEMPRO Constraint

There are three constraints of the forecast matrices available within EFM. These are applied on an Origin-Destination basis to the EFM outputs.

- i) None – this is the default option. This applies a constraint to the buffer area only (to ensure car ownership changes are taken into account for each mode)
- ii) LCRTM Study Area – this applies a constraint across the entire study area and buffer area (as in i)
- iii) District – this applies a constraint to each study area district and buffer area (as in i)

For this study the district level constraint has been applied. Overall TEMPRO study area growth is input by mode and purpose, this is compared to the study area growth in EFM and the EFM matrices adjusted accordingly.

D. Demand Model

The full LCRTM system includes components representing six travel responses comprising: trip generation, mode choice, time period choice, trip distribution, departure time choice and highways assignment and public transport assignment. The demand model estimation focuses on four of these responses, which are: mode choice, time period choice, trip distribution and departure time choice.

The main features of the demand model include the assumed hierarchy of travel responses. the different dimensions of demand segmentation. the input data. geographical coverage. matrix format. the generalised cost functions used in the model. the use of the logit formulation and adjustment process post model estimation.

A.1 The Hierarchy of Responses

The different components of a demand model form a hierarchy, so that each level of the hierarchy represents a specific type of choice individuals make. The hierarchy of responses represent the level of flexibility travellers demonstrate when making travel choices. At the bottom of the hierarchy is the choice that travellers are most sensitive to. In this case this is route choice (assignment).

The hierarchy of the LCRTM model, which accords with the DfT TAG⁹ recommended structure, is shown below:

- Trip Generation
- Mode Choice
- Time Period Choice
- Trip Distribution
- Departure Time Choice
- Assignment

D.1 Demand Segmentation

Several dimensions are used in the model for segmenting demand, but some of them are only used for specific parts of the model. These different dimensions are described in the following paragraphs.

- **Journey Purpose:** The demand model uses three purposes, complying with the requirement defined in TAG.
- **Car Availability:** This dimension of segmentation appreciates that although travel behaviour is modelled by individual traveller, the availability of a car is often a key feature of the household that the person belongs to.
- **Period of Travel:** The different categories are the morning peak, inter-peak, afternoon peak or off-peak.
- **Hour of Travel:** This allows the impacts of morning peak spreading to be examined.
- **Mode:** The trip rates used at the generation stage do not distinguish between trips made by different modes. From the mode choice stage the split by mode is retained throughout the model.

⁹ Transport Analysis Guidance: <https://www.gov.uk/guidance/transport-analysis-guidance-webtag>

D.2 Geographical Coverage

Due to level of validity and detail of the network and the base year data, it was not feasible to estimate the demand model parameters for the whole of the area that is covered by the model. Rather model estimation is done only within a defined area, consistent with the Liverpool City Region.

D.3 Matrix Formats

Information in travel demand models can be stored either in a Production/Attraction (PA) format or in an origin-destination (OD) format. PA formats are more consistent with methodologies for trip generation, as they store any home-based trip at the home end (i.e. the production end), whatever the direction of the trip. OD formats are more straightforwardly associated with the assignment model and with the format of traffic count data, as they store trips based on their direction.

For this study, the amount of inputs at a PA format was not sufficient for the estimation of credible mode choice and time choice models. It has been critical to also exhaust the traffic count data during the estimation of these models. Since this can only be done at an OD format, the process is based on conversion from PA to OD format after the trip generation stage, and work with an OD format from that point.

D.4 The Input Data

The inputs for the estimation of the demand included detailed information about all components of the generalised costs for travel. These all came in the form of origin-destination matrices. For car trips, typical components of the generalised cost are the travel time and the distance travelled.

For public transport trips, typical components of the generalised cost are the fare, travel time, access time to the boarding stop, egress time from the alighting stop, waiting time and the time associated with transfer.

D.5 Generalised Cost Functions

The mode choice, time period choice, distribution and departure time choice models are all logit models. The use of logit models, in general, is the standard practice in travel demand modelling. In each one of these models there are a given number of alternatives, and a generalised cost is associated with each one of them. When the model is applied, the logit model converts the set of generalised costs into an estimate of the proportion of travellers choosing each alternative.

D.6 Compliance with WebTAG

All major features of the demand model are designed to comply with the Department for Transport guidance for travel demand modelling, as specified in WebTAG.

D.7 The Model Estimation Approach

The demand model parameters have been estimated using household interviews from the Merseyside Countywide Household Travel Survey (CWS) data collected in 2008, 2010 and 2013 and level of service (travel cost) information from LCRTM.

Comparisons of the CWS data to independent data-sets produce close comparisons for mode, purpose and car availability proportions, demonstrating that this data-set provides a strong basis for the estimation.

The estimation has been undertaken using the Biogeme 2.4¹⁰ software and has concentrated on estimation of demand model parameters. A set of sequential nested logit models have been developed for each stage of the choice hierarchy, and socio-economic constants and attraction variables have been included to improve fit. Access weights have been fixed to those estimated in earlier versions of the model. Values of time and vehicle operating costs have been taken from TAG¹¹.

The parameters have been estimated for all modes, for commute and other trips. There has been no estimation of business parameters as home-based business is not an allowed response in CWS. The business segment equates to less than 5% of the total matrix, therefore the current LCRTM parameters have been retained.

The estimation has been undertaken at origin-destination (OD) level, to be consistent with the current LCRTM demand model.

A limited calibration estimation exercise has been undertaken on the parameters to improve the response in the TAG realism tests.

The results have been checked against:

- Illustrative TAG parameters.
- Relative strength of the parameters at each level of the hierarchy (i.e. decreasing through the hierarchy).
- TAG fuel and fare realism testing.
- Run of an absolute demand model to check outputs match observed data.
- Elasticities from sensitivity tests, and
- Implied values of time.

These checks have all produced sensible results, and where applicable the model meets TAG criteria.

D.8 Demand Model Summary

The demand model developed for LCRTM has in summary the following characteristics:

- A hierarchy in line with WebTAG expectations.
- Makes best use of existing data sources in model development and estimation.
- Has elasticities to fuel price and public transport fares that are in line with WebTAG expectations.
- Generalised cost coefficients are in line with expectations, and
- Average modelled trip lengths match observed values sufficiently well.

¹⁰Bierlaire, M. (2003). BIOGEME: A free package for the estimation of discrete choice models, Proceedings of the 3rd Swiss Transportation Research Conference, Ascona, Switzerland.

¹¹ Department for Transport Transport Analysis Guidance (TAG), December 2015.

