

Appendix I.3 Road Traffic Data

Traffic Data for ADMS Assessment

Q - Queue, FF - Free Flow

Traffic Flow Information provided by Cannon Consulting Engineers

Without Development

Link	Link Name	Speed Limit (kph)	2015 AADT - Base Year					
			24hr AADT				1hr AADT	
			Total	LGV	HGV	HGV %	LGV	HGV
1&2	Great Billing Way	48	24072	23482	590	2.5	978	25
1AQ	Great Billing Way Slip	25	11980	11681	300	2.5	487	12
1AFF	Great Billing Way Slip	48	11980	11681	300	2.5	487	12
2A	Great Billing Way Slip	48	12092	11802	290	2.4	492	12
3FF	A45 Westbound Slip Off	64	9795	9555	240	2.5	398	10
3Q	A45 Westbound Slip Off	25	9795	9555	240	2.5	398	10
4	A45 Westbound Slip on	64	10264	9802	462	4.5	408	19
5	A45 Eastbound Slip on	64	3738	3484	254	6.8	145	11
6FF	A45 Eastbound Slip off	64	3650	3413	237	6.5	142	10
6Q	A45 Eastbound Slip off	25	3650	3413	237	6.5	142	10
7&8	Crow Lane	48	23545	22109	1436	6.1	921	60
7AQ	Crow Lane Slip	48	12265	11554	711	5.8	481	30
8A	Crow Lane Slip	48	11280	10558	722	6.4	440	30
9	A45 East of roundabout Eastbound	113	29541	26291	3250	11.0	1095	135
10	A45 East of roundabout Westbound	113	29341	26025	3316	11.3	1084	138
11	A45 West of roundabout Eastbound	113	35598	32145	3453	9.7	1339	144
12	A45 West of roundabout Westbound	113	35955	32431	3524	9.8	1351	147
13&14FF	Lower Ecton Lane	64	1189	1125	64	5.4	47	3
13&14Q	Lower Ecton Lane	25	1189	1125	64	5.4	47	3

15&16	Crow Lane	48	21621	19697	1924	8.9	821	80
17&18	Crow Lane	48	17005	14522	2483	14.6	605	103
19&20	Site Access	25	504	428	76	15.1	18	3
21	Roundabout	25	12265	11554	711	5.8	481	30
22	A45 between slip roads eastbound	113	35598	32145	3453	9.7	1339	144
23	A45 between slip roads westbound	113	35955	32431	3524	9.8	1351	147
24	A45 southbound (monitoring)	113	35955	32431	3524	9.8	1351	147
25	A45 northbound (monitoring)	113	35598	32145	3453	9.7	1339	144

Slow down sections and queue zones modelled at 25kph.

Without Development

Link	Link Name	Speed Limit (kph)	2018 AADT - Without Development					
			24hr AADT				1hr AADT	
			Total	LGV	HGV	HGV %	LGV	HGV
1&2	Great Billing Way	48	25486	24862	624	2.5	1036	26
1AQ	Great Billing Way Slip	25	12684	12373	311	2.5	516	13
1AFF	Great Billing Way Slip	48	12684	12373	311	2.5	516	13
2A	Great Billing Way Slip	48	12802	12495	307	2.4	521	13
3FF	A45 Westbound Slip Off	64	10370	9883	487	4.7	412	20
3Q	A45 Westbound Slip Off	25	10370	9883	487	4.7	412	20
4	A45 Westbound Slip on	64	10867	10378	489	4.5	432	20
5	A45 Eastbound Slip on	64	3957	3688	269	6.8	154	11
6FF	A45 Eastbound Slip off	64	3865	3614	251	6.5	151	10
6Q	A45 Eastbound Slip off	25	3865	3614	251	6.5	151	10
7&8	Crow Lane	48	24927	23406	1521	6.1	975	63
7AQ	Crow Lane Slip	48	12985	12232	753	5.8	510	31
8A	Crow Lane Slip	48	11942	11178	764	6.4	466	32
9	A45 East of roundabout Eastbound	113	31275	27835	3440	11.0	1160	143
10	A45 East of roundabout Westbound	113	31064	27554	3510	11.3	1148	146
11	A45 West of roundabout Eastbound	113	37688	34032	3656	9.7	1418	152
12	A45 West of roundabout Westbound	113	38066	34336	3730	9.8	1431	155
13&14FF	Lower Ecton Lane	64	1259	1192	67	5.4	50	3
13&14Q	Lower Ecton Lane	25	1259	1192	67	5.4	50	3
15&16	Crow Lane	48	22890	20853	2037	8.9	869	85
17&18	Crow Lane	48	18003	16509	1494	8.3	688	62

19&20	Site Access	25	504	428	76	15.1	18	3
21	Roundabout	25	12985	12232	753	5.8	510	31
22	A45 between slip roads eastbound	113	37688	34032	3656	9.7	1418	152
23	A45 between slip roads westbound	113	38066	34336	3730	9.8	1431	155
24	A45 southbound (monitoring)	113	38066	34336	3730	9.8	1431	155
25	A45 northbound (monitoring)	113	37688	34032	3656	9.7	1418	152

Slow down sections and queue zones modelled at 25kph.

Without Development

Link	Link Name	Speed Limit (kph)	2030 AADT - Without Development					
			24hr AADT				1hr AADT	
			Total	LGV	HGV	HGV %	LGV	HGV
1&2	Great Billing Way	48	30146	29407	739	2.5	1225	31
1AQ	Great Billing Way Slip	25	15003	14628	375	2.5	609	16
1AFF	Great Billing Way Slip	48	15003	14628	375	2.5	609	16
2A	Great Billing Way Slip	48	15143	14780	363	2.4	616	15
3FF	A45 Westbound Slip Off	64	12267	11690	577	4.7	487	24
3Q	A45 Westbound Slip Off	25	12267	11690	577	4.7	487	24
4	A45 Westbound Slip on	64	12854	12276	578	4.5	511	24
5	A45 Eastbound Slip on	64	4681	4363	318	6.8	182	13
6FF	A45 Eastbound Slip off	64	4572	4275	297	6.5	178	12
6Q	A45 Eastbound Slip off	25	4572	4275	297	6.5	178	12
7&8	Crow Lane	48	29486	27687	1799	6.1	1154	75
7AQ	Crow Lane Slip	48	15360	14469	891	5.8	603	37
8A	Crow Lane Slip	48	14126	13222	904	6.4	551	38
9	A45 East of roundabout Eastbound	113	36994	32925	4069	11.0	1372	170
10	A45 East of roundabout Westbound	113	36744	32592	4152	11.3	1358	173
11	A45 West of roundabout Eastbound	113	44580	40256	4324	9.7	1677	180
12	A45 West of roundabout Westbound	113	45026	40613	4413	9.8	1692	184
13&14FF	Lower Ecton Lane	64	1489	1409	80	5.4	59	3
13&14Q	Lower Ecton Lane	25	1489	1409	80	5.4	59	3
15&16	Crow Lane	48	27076	24666	2410	8.9	1028	100
17&18	Crow Lane	48	21296	19528	1768	8.3	814	74
19&20	Site Access	25	504	428	76	15.1	18	3
21	Roundabout	25	15360	14469	891	5.8	603	37

22	A45 between slip roads eastbound	113	44580	40256	4324	9.7	1677	180
23	A45 between slip roads westbound	113	45026	40613	4413	9.8	1692	184
24	A45 southbound (monitoring)	113	45026	40613	4413	9.8	1692	184
25	A45 northbound (monitoring)	113	44580	40256	4324	9.7	1677	180

Slow down sections and queue zones modelled at 25kph.

Without Development

Link	Link Name	Speed Limit (kph)	2037 AADT - Without Development					
			24hr AADT				1hr AADT	
			Total	LGV	HGV	HGV %	LGV	HGV
1&2	Great Billing Way	48	31968	31185	783	2.5	1299	33
1AQ	Great Billing Way Slip	25	15910	15512	398	2.5	646	17
1AFF	Great Billing Way Slip	48	15910	15512	398	2.5	646	17
2A	Great Billing Way Slip	48	16058	15673	385	2.4	653	16
3FF	A45 Westbound Slip Off	64	13008	12397	611	4.7	517	25
3Q	A45 Westbound Slip Off	25	13008	12397	611	4.7	517	25
4	A45 Westbound Slip on	64	13631	13018	613	4.5	542	26
5	A45 Eastbound Slip on	64	4964	4626	338	6.8	193	14
6FF	A45 Eastbound Slip off	64	4848	4533	315	6.5	189	13
6Q	A45 Eastbound Slip off	25	4848	4533	315	6.5	189	13
7&8	Crow Lane	48	31268	29361	1907	6.1	1223	79
7AQ	Crow Lane Slip	48	16288	15343	945	5.8	639	39
8A	Crow Lane Slip	48	14980	14021	959	6.4	584	40
9	A45 East of roundabout Eastbound	113	39230	34915	4315	11.0	1455	180
10	A45 East of roundabout Westbound	113	38966	34563	4403	11.3	1440	183
11	A45 West of roundabout Eastbound	113	47275	42689	4586	9.7	1779	191
12	A45 West of roundabout Westbound	113	47748	43069	4679	9.8	1795	195
13&14FF	Lower Ecton Lane	64	1579	1495	84	5.4	62	4
13&14Q	Lower Ecton Lane	25	1579	1495	84	5.4	62	4
15&16	Crow Lane	48	28712	26157	2555	8.9	1090	106
17&18	Crow Lane	48	22582	20708	1874	8.3	863	78

19&20	Site Access	25	504	428	76	15.1	18	3
21	Roundabout	25	16288	15343	945	5.8	639	39
22	A45 between slip roads eastbound	113	47275	42689	4586	9.7	1779	191
23	A45 between slip roads westbound	113	47748	43069	4679	9.8	1795	195
24	A45 southbound (monitoring)	113	47748	43069	4679	9.8	1795	195
25	A45 northbound (monitoring)	113	47275	42689	4586	9.7	1779	191

Slow down sections and queue zones modelled at 25kph.

With Development

Link	Link Name	Speed Limit (kph)	2018 AADT - With Development					
			24hr AADT				1hr AADT	
			Total	LGV	HGV	HGV %	LGV	HGV
1&2	Great Billing Way	48	25498	24874	624	0.0	1036	26
1AQ	Great Billing Way Slip	25	12690	12379	311	0.0	516	13
1AFF	Great Billing Way Slip	48	12690	12379	311	0.0	516	13
2A	Great Billing Way Slip	48	12808	12501	307	0.0	521	13
3FF	A45 Westbound Slip Off	64	10430	9888	542	90.6	412	23
3Q	A45 Westbound Slip Off	25	10430	9888	542	90.6	412	23
4	A45 Westbound Slip on	64	10927	10384	543	90.6	433	23
5	A45 Eastbound Slip on	64	3982	3690	292	92.2	154	12
6FF	A45 Eastbound Slip off	64	3890	3616	274	92.2	151	11
6Q	A45 Eastbound Slip off	25	3890	3616	274	92.2	151	11
7&8	Crow Lane	48	25109	23434	1675	84.6	976	70
7AQ	Crow Lane Slip	48	13076	12246	830	84.6	510	35
8A	Crow Lane Slip	48	12033	11192	841	84.6	466	35
9	A45 East of roundabout Eastbound	113	31300	27837	3463	92.2	1160	144
10	A45 East of roundabout Westbound	113	31089	27556	3533	92.2	1148	147
11	A45 West of roundabout Eastbound	113	37748	34039	3709	89.3	1418	155
12	A45 West of roundabout Westbound	113	38126	34342	3784	89.3	1431	158
13&14FF	Lower Ecton Lane	64	1259	1192	67	0.0	50	3
13&14Q	Lower Ecton Lane	25	1259	1192	67	0.0	50	3
15&16	Crow Lane	48	23072	20881	2191	84.6	870	91
17&18	Crow Lane	48	18003	16509	1494	0.0	688	62
19&20	Site Access	25	686	444	242	91.0	19	10
21	Roundabout	25	13076	12246	830	84.6	510	35

22	A45 between slip roads eastbound	113	37748	34039	3709	89.3	1418	155
23	A45 between slip roads westbound	113	38126	34342	3784	89.3	1431	158
24	A45 southbound (monitoring)	113	38126	34342	3784	89.3	1431	158
25	A45 northbound (monitoring)	113	37748	34039	3709	89.3	1418	155

Slow down sections and queue zones modelled at 25kph.

With Development

Link	Link Name	Speed Limit (kph)	2030 AADT - With Development					
			24hr AADT				1hr AADT	
			Total	LGV	HGV	HGV %	LGV	HGV
1&2	Great Billing Way	48	30158	29419	739	0.0	1226	31
1AQ	Great Billing Way Slip	25	15009	14634	375	0.0	610	16
1AFF	Great Billing Way Slip	48	15009	14634	375	0.0	610	16
2A	Great Billing Way Slip	48	15149	14786	363	0.0	616	15
3FF	A45 Westbound Slip Off	64	12327	11696	631	90.6	487	26
3Q	A45 Westbound Slip Off	25	12327	11696	631	90.6	487	26
4	A45 Westbound Slip on	64	12914	12281	633	90.6	512	26
5	A45 Eastbound Slip on	64	4706	4365	341	92.2	182	14
6FF	A45 Eastbound Slip off	64	4597	4277	320	92.2	178	13
6Q	A45 Eastbound Slip off	25	4597	4277	320	92.2	178	13
7&8	Crow Lane	48	29668	27715	1953	84.6	1155	81
7AQ	Crow Lane Slip	48	15451	14483	968	84.6	603	40
8A	Crow Lane Slip	48	14217	13236	981	84.6	551	41
9	A45 East of roundabout Eastbound	113	37019	32927	4092	92.2	1372	171
10	A45 East of roundabout Westbound	113	36769	32594	4175	92.2	1358	174
11	A45 West of roundabout Eastbound	113	44640	40262	4378	89.3	1678	182
12	A45 West of roundabout Westbound	113	45086	40620	4466	89.3	1692	186
13&14FF	Lower Ecton Lane	64	1489	1409	80	0.0	59	3
13&14Q	Lower Ecton Lane	25	1489	1409	80	0.0	59	3
15&16	Crow Lane	48	27258	24694	2564	84.6	1029	107
17&18	Crow Lane	48	21296	19528	1768	0.0	814	74
19&20	Site Access	25	686	444	242	91.0	19	10
21	Roundabout	25	15451	14483	968	84.6	603	40

22	A45 between slip roads eastbound	113	44640	40262	4378	89.3	1678	182
23	A45 between slip roads westbound	113	45086	40620	4466	89.3	1692	186
24	A45 southbound (monitoring)	113	45086	40620	4466	89.3	1692	186
25	A45 northbound (monitoring)	113	44640	40262	4378	89.3	1678	182

Slow down sections and queue zones modelled at 25kph.



With Development

Link	Link Name	Speed Limit (kph)	2037 AADT - With Development					
			24hr AADT				1hr AADT	
			Total	LGV	HGV	HGV %	LGV	HGV
1&2	Great Billing Way	48	31980	31197	783	0.0	1300	33
1AQ	Great Billing Way Slip	25	15916	15518	398	0.0	647	17
1AFF	Great Billing Way Slip	48	15916	15518	398	0.0	647	17
2A	Great Billing Way Slip	48	16064	15679	385	0.0	653	16
3FF	A45 Westbound Slip Off	64	13068	12402	666	90.6	517	28
3Q	A45 Westbound Slip Off	25	13068	12402	666	90.6	517	28
4	A45 Westbound Slip on	64	13691	13023	668	90.6	543	28
5	A45 Eastbound Slip on	64	4989	4628	361	92.2	193	15
6FF	A45 Eastbound Slip off	64	4873	4535	338	92.2	189	14
6Q	A45 Eastbound Slip off	25	4873	4535	338	92.2	189	14
7&8	Crow Lane	48	31450	29389	2061	84.6	1225	86
7AQ	Crow Lane Slip	48	16379	15357	1022	84.6	640	43
8A	Crow Lane Slip	48	15071	14035	1036	84.6	585	43
9	A45 East of roundabout Eastbound	113	39255	34917	4338	92.2	1455	181
10	A45 East of roundabout Westbound	113	38991	34565	4426	92.2	1440	184
11	A45 West of roundabout Eastbound	113	47335	42696	4639	89.3	1779	193
12	A45 West of roundabout Westbound	113	47808	43075	4733	89.3	1795	197
13&14FF	Lower Ecton Lane	64	1579	1495	84	0.0	62	4
13&14Q	Lower Ecton Lane	25	1579	1495	84	0.0	62	4
15&16	Crow Lane	48	28894	26185	2709	84.6	1091	113
17&18	Crow Lane	48	22582	20708	1874	0.0	863	78
19&20	Site Access	25	686	444	242	91.0	19	10



21	Roundabout	25	16379	15357	1022	84.6	640	43
22	A45 between slip roads eastbound	113	47335	42696	4639	89.3	1779	193
23	A45 between slip roads westbound	113	47808	43075	4733	89.3	1795	197
24	A45 southbound (monitoring)	113	47808	43075	4733	89.3	1795	197
25	A45 northbound (monitoring)	113	47335	42696	4639	89.3	1779	193

Slow down sections and queue zones modelled at 25kph.



5. TRAFFIC - DK Symes Associates information presented within the EIA Scoping

5.1 Based on the above volumes the traffic movements for the development can be assessed. Again, it is emphasised that the volumes are estimates which are considered to be reasonably based.

5.2 The traffic movements for the minerals are divided into 150,000 t.p.a. as aggregate sales and 50,000 t.p.a. being supplied to the concrete plant. In terms of lorry size, the aggregate vehicles will be principally four axle lorries with a payload of 20 tonnes and articulated lorries with a payload of 30 tonnes. In assessing the traffic movements the average payload has been assumed to be 20 tonnes which is a conservative view.

5.3 Concrete truck mixers are normally 8 cubic metre capacity. The 'aggregate' proportion of the mix will vary but for the traffic calculation it is assumed there will be 12.5 tonnes of 'aggregate'.

5.4 Based on the above the traffic movements will be,

Aggregate

150,000 tpa ÷ 250 working days ÷ 20 tonnes/lorry x 2 = 60 movements (30 in, 30 out)

Concrete

50,000 tpa ÷ 250 working days ÷ 12.5 tonnes/lorry x 2 = 32 movements (16 in, 16 out)

Total = 92 movements (46 in, 46 out)

5.5 In addition to the aggregates and concrete, there are the lorry movements associated with the import of the reclamation material. This is almost exclusively delivered by four axle lorries, and whilst the individual loads will vary the general average is that each load will 'use up' 9.5 cubic metres of void space.

5.6 Based on the maximum expected annual import of 70,000 cubic metres the traffic movements will be,

$$70,000 \text{ cu.m. pa} \div 250 \text{ working days} \div 9.5 \text{ cu.m./lorry} \times 2 = 58 \text{ movements (29 in, 29 out)}$$

5.7 The logistics of lorry management is that it makes good sense to try to utilise the vehicles for both legs of the journey, i.e. loaded in and loaded out. This is referred to as 'back haul'. Current practice is where minerals are extracted and the void is being infilled the current level of 'back haul' for the infill vehicles is in the order of 25% but it is expected that this will increase into the future. This will reduce the vehicle movements by 14.

5.8 In addition to the aggregate and concrete lorries, there will be regular deliveries of cement and fuel. These are at a much lower level and a figure of 2/4 additional movements per day would be generous.

5.9 The expected level of employment will be 12 to 14 (which includes concrete truck drivers) which will give rise to 24 - 28 car/van movements daily.