



The Abergelli Power Gas Fired Generating Station Order

6.2 Environmental Statement Appendices - Volume J Traffic

Planning Act 2008
The Infrastructure Planning
(Applications: Prescribed Forms and Procedure) Regulations 2009

PINS Reference Number: EN010069
Document Reference: 6.2
Regulation Number: 5(2)(a) & Infrastructure Planning (Environmental Impact Assessment) Regulations 2009
Author: AECOM

Revision	Date	Description
0	May 2018	Submission Version



Appendix 12.1

Traffic Survey



Sky High

Count On Us

Client:	Parsons Brinkerhoff
Project:	Abergelli Power Station
Job Number:	C0738
Start Date:	16-Oct-14
Site No.:	1
Road:	B4489
Location:	Felindre Tinplate works, Swansea
Directions:	Northbound Southbound

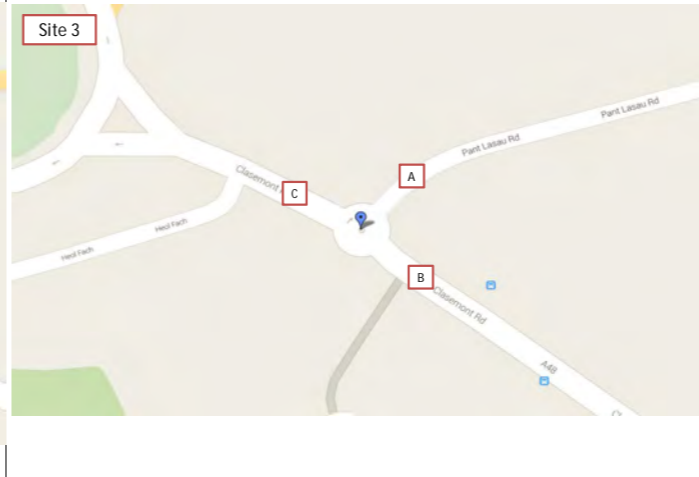
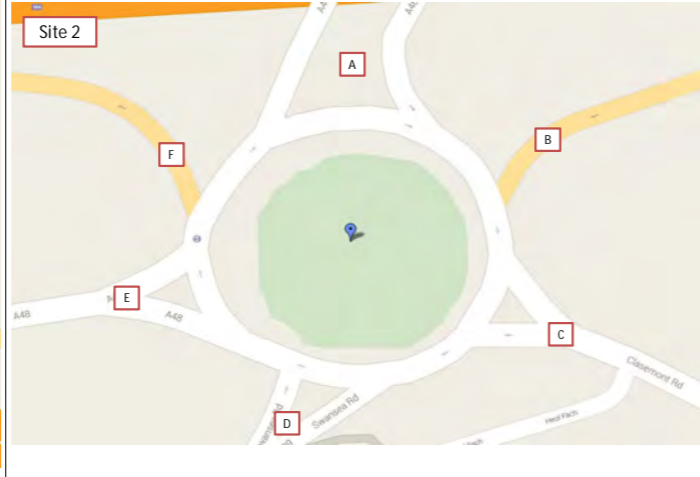
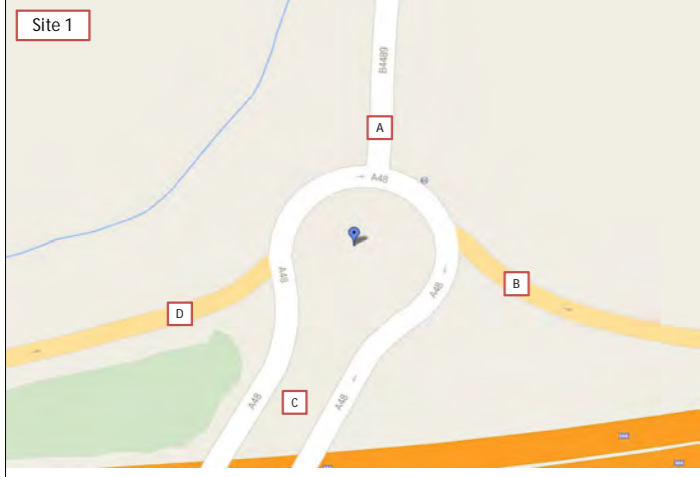
1. B4489 - Felindre Tinplate works, Swansea



Client : Parsons Brinckerhoff
Project : C0738 Abergelli
Site plan for : 1
Date : Thursday 16th October 2014

Client : Parsons Brinckerhoff
Project : C0738 Abergelli
Site plan for : 2
Date : Thursday 16th October 2014

Client : Parsons Brinckerhoff
Project : C0738 Abergelli
Site plan for : 3
Date : Thursday 16th October 2014





Client: Parsons Brinckerhoff
Project: C0738 Abergelli
Site: 2
Date: Thursday 16th October 2014

14:45	91	10	4	0	2	0	107	0	0	0	0	0	0	0	158	16	1	0	2	1	178	82	10	1	0	2	0	95	93	9	3	3	1	0	109	45	5	4	0	0	0	54	543
1 Hr	341	48	17	3	6	0	415	0	0	0	0	0	0	0	584	51	15	0	7	3	660	284	48	7	1	8	1	349	292	36	12	6	3	3	352	136	23	10	2	1	0	172	1948
15:00	140	7	2	5	2	0	156	0	0	0	0	0	0	0	117	10	3	0	1	1	132	76	14	1	0	1	1	93	121	8	2	0	0	0	132	48	6	2	0	0	0	56	569
15:15	150	16	2	0	1	1	170	0	0	0	0	0	0	0	143	12	5	0	2	2	164	84	12	0	0	1	0	97	112	9	0	0	0	0	121	66	2	1	0	0	0	69	621
15:30	149	10	3	2	5	0	169	0	0	0	0	0	0	0	164	11	4	0	5	2	186	90	6	1	1	1	0	99	108	16	2	0	0	0	126	58	10	2	0	0	0	70	650
15:45	138	7	1	0	2	0	148	0	0	0	0	0	0	0	135	13	5	0	2	0	155	69	5	2	0	2	0	78	141	11	3	2	3	0	160	72	3	1	0	0	0	76	617
1 Hr	577	40	8	7	10	1	643	0	0	0	0	0	0	0	559	46	17	0	10	5	637	319	37	4	1	5	1	367	482	44	7	2	3	1	539	244	21	6	0	0	0	271	2457
16:00	171	14	3	0	1	0	189	0	0	0	0	0	0	0	123	10	3	0	7	0	143	85	20	1	0	1	0	107	135	8	3	2	1	0	149	69	5	1	0	0	1	76	664
16:15	140	15	2	1	1	0	159	0	0	0	0	0	0	0	136	13	3	0	1	0	153	94	11	2	0	1	0	108	152	11	3	1	0	0	167	78	1	1	0	0	1	81	668
16:30	172	12	2	2	2	0	190	0	0	0	0	0	0	0	140	17	1	0	3	0	161	95	15	3	0	0	1	114	145	8	1	2	0	0	156	88	13	2	1	0	0	104	725
16:45	151	18	3	1	2	0	175	0	0	0	0	0	0	0	137	22	1	1	1	2	164	94	19	3	0	1	2	119	150	13	0	1	2	1	167	59	7	2	0	0	0	68	693
1 Hr	634	59	10	4	6	0	713	0	0	0	0	0	0	0	536	62	8	1	12	2	621	368	65	9	0	3	3	448	582	40	7	6	3	1	639	294	26	6	1	0	2	329	2750
17:00	176	18	0	1	1	0	196	0	0	0	0	0	0	0	160	19	1	0	3	0	183	104	15	3	0	0	1	123	163	17	5	1	0	2	188	71	5	1	0	1	0	78	768
17:15	155	10	2	1	2	0	170	0	0	0	0	0	0	0	157	18	1	0	1	2	179	107	19	4	2	1	0	133	143	15	4	1	3	3	169	78	6	0	0	0	0	84	735
17:30	145	12	2	0	1	0	160	0	0	0	0	0	0	0	154	11	2	0	2	1	170	94	11	3	1	0	0	109	151	7	1	1	0	0	160	62	5	2	0	0	0	69	668
17:45	109	5	0	0	3	0	117	0	0	0	0	0	0	0	147	10	3	0	4	0	164	92	5	1	0	0	3	101	128	11	0	0	0	1	140	54	0	0	0	0	0	54	576
1 Hr	585	45	4	2	7	0	643	0	0	0	0	0	0	0	618	58	7	0	10	3	696	397	50	11	3	1	4	466	585	50	10	3	3	6	657	265	16	3	0	1	0	285	2747
18:00	91	5	1	0	1	0	98	0	0	0	0	0	0	0	148	13	1	0	3	0	165	90	14	3	0	1	0	108	107	7	0	0	0	0	114	45	2	2	0	0	0	49	534
18:15	99	7	1	1	2	0	110	0	0	0	0	0	0	0	132	7	3	1	1	0	144	91	7	1	0	5	0	104	89	4	1	0	1	3	98	37	0	0	0	0	1	38	494
18:30	65	10	0	2	1	0	78	0	0	0	0	0	0	0	149	5	2	0	1	0	157	96	7	1	0	4	0	108	66	3	0	0	0	0	69	36	4	0	0	0	0	40	452
18:45	45	4	0	0	1	0	50	0	0	0	0	0	0	0	190	6	2	0	0	1	199	92	3	1	0	0	0	96	57	2	0	0	0	0	59	36	4	1	0	0	0	41	445
1 Hr	300	26	2	3	5	0	336	0	0	0	0	0	0	0	619	31	8	1	5	1	665	369	31	6	0	10	0	416	319	16	1	0	1	3	340	154	10	3	0	0	1	168	1925
Total	4314	523	149	44	79	7	5116	0	0	0	0	0	0	0	7911	652	220	8	98	36	8925	3612	550	140	18	47	13	4380	4108	444	132	47	23	20	4774	1832	226	75	12	5	6	2156	25351



Sky High

Count On Us

Client: Parsons Brinckerhoff
 Project: C0738 Abergelli
 Site: 3
 Date: Thursday 16th October 2014

Entry : Arm A

	Destination : Arm A							Destination : Arm B							Destination : Arm C							Arm Totals
	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	
07:00	0	0	0	0	0	0	0	7	0	0	0	0	1	8	34	4	0	0	0	0	38	46
07:15	0	0	0	0	0	0	0	7	2	0	0	0	0	9	39	4	2	0	0	0	45	54
07:30	0	0	0	0	0	0	0	9	0	1	0	0	0	10	77	11	2	0	0	0	90	100
07:45	0	0	0	0	0	0	0	5	0	0	0	1	0	6	73	9	1	0	1	1	85	91
1 Hr	0	0	0	0	0	0	0	28	2	1	0	1	1	33	223	28	5	0	1	1	258	291
08:00	0	0	0	0	0	0	0	8	1	0	0	0	0	9	68	4	5	0	1	0	78	87
08:15	0	0	0	0	0	0	0	14	0	2	0	0	0	16	66	7	2	0	2	1	78	94
08:30	0	0	0	0	0	0	0	14	0	0	0	1	0	15	79	6	4	1	0	1	91	106
08:45	0	0	0	0	0	0	0	6	3	0	0	0	1	10	44	6	7	0	0	0	57	67
1 Hr	0	0	0	0	0	0	0	42	4	2	0	1	1	50	257	23	18	1	3	2	304	354
09:00	0	0	0	0	0	0	0	21	1	0	0	0	0	22	62	4	2	0	1	1	70	92
09:15	0	0	0	0	0	0	0	13	2	1	0	0	0	16	51	7	2	0	0	0	60	76
09:30	0	0	0	0	0	0	0	5	0	0	0	0	0	5	48	7	1	0	0	0	56	61
09:45	0	0	0	0	0	0	0	3	2	1	0	0	0	6	37	13	1	0	1	0	52	58
1 Hr	0	0	0	0	0	0	0	42	5	2	0	0	0	49	198	31	6	0	2	1	238	287
10:00	0	0	0	0	0	0	0	10	0	0	0	0	0	10	58	10	1	0	0	0	69	79
10:15	1	0	0	0	0	0	1	5	1	0	0	0	1	7	48	5	2	1	0	0	56	64
10:30	1	0	0	0	0	0	1	8	0	1	0	0	0	9	69	7	6	1	0	0	83	93
10:45	0	0	0	0	0	0	0	6	1	0	0	0	0	7	57	7	3	0	1	0	68	75
1 Hr	2	0	0	0	0	0	2	29	2	1	0	0	1	33	232	29	12	2	1	0	276	311
11:00	0	0	0	0	0	0	0	5	2	1	0	0	0	8	74	9	6	0	0	0	89	97
11:15	0	0	0	0	0	0	0	6	0	0	0	0	0	6	70	6	3	0	0	0	79	85
11:30	0	0	0	0	0	0	0	10	0	0	0	0	0	10	63	2	3	0	0	0	68	78
11:45	0	0	0	0	0	0	0	5	0	0	0	0	0	5	68	3	2	0	1	0	74	79
1 Hr	0	0	0	0	0	0	0	26	2	1	0	0	0	29	275	20	14	0	1	0	310	339
12:00	0	0	0	0	0	0	0	8	0	0	0	0	0	8	60	8	4	1	1	0	74	82
12:15	0	0	0	0	0	0	0	12	0	0	0	0	0	12	69	3	1	0	0	0	73	85
12:30	0	0	0	0	0	0	0	2	0	0	0	0	0	2	57	3	4	0	0	0	64	66
12:45	0	0	0	0	0	0	0	7	1	0	0	0	0	8	50	3	3	0	1	0	57	65
1 Hr	0	0	0	0	0	0	0	29	1	0	0	0	0	30	236	17	12	1	2	0	268	298
13:00	0	0	0	0	0	0	0	6	0	0	0	0	0	6	59	6	3	0	0	0	68	74
13:15	0	0	0	0	0	0	0	3	0	1	0	0	1	5	81	6	2	0	0	0	89	94
13:30	0	0	0	0	0	0	0	5	1	0	0	1	0	7	58	8	2	0	0	0	68	75
13:45	0	0	0	0	0	0	0	8	1	0	0	0	0	9	41	7	2	2	1	0	53	62
1 Hr	0	0	0	0	0	0	0	22	2	1	0	1	1	27	239	27	9	2	1	0	278	305
14:00	0	0	0	0	0	0	0	9	2	1	0	0	0	12	47	12	3	0	0	0	62	74
14:15	0	0	0	0	0	0	0	10	0	1	0	0	0	11	64	9	6	0	0	0	79	90



Sky High

Count On Us

Client: Parsons Brinckerhoff
 Project: C0738 Abergelli
 Site: 3
 Date: Thursday 16th October 2014

14:30	0	0	0	0	0	0	0	11	2	0	0	0	0	13	90	12	2	0	0	1	105	118
14:45	0	0	0	0	0	0	0	7	2	0	0	0	0	9	87	7	3	0	1	0	98	107
1 Hr	0	0	0	0	0	0	0	37	6	2	0	0	0	45	288	40	14	0	1	1	344	389
15:00	0	0	0	0	0	0	0	13	1	1	0	0	0	15	135	8	3	0	0	0	146	161
15:15	0	0	0	0	0	0	0	17	0	0	0	0	0	17	101	5	1	0	0	0	107	124
15:30	0	0	0	0	0	0	0	12	1	0	0	1	0	14	119	6	4	0	0	0	129	143
15:45	0	0	0	0	0	0	0	13	0	0	0	0	0	13	112	4	0	0	1	0	117	130
1 Hr	0	0	0	0	0	0	0	55	2	1	0	1	0	59	467	23	8	0	1	0	499	558
16:00	0	0	0	0	0	0	0	14	0	0	0	1	0	15	172	9	3	0	1	0	185	200
16:15	0	0	0	0	0	0	0	9	2	0	0	0	0	11	140	8	0	0	0	0	148	159
16:30	0	0	0	0	0	0	0	5	1	0	0	1	0	7	112	10	2	0	0	0	124	131
16:45	0	0	0	0	0	0	0	6	0	0	0	0	0	6	89	6	2	0	1	0	98	104
1 Hr	0	0	0	0	0	0	0	34	3	0	0	2	0	39	513	33	7	0	2	0	555	594
17:00	0	0	0	0	0	0	0	8	0	0	0	0	0	8	153	7	0	0	0	3	163	171
17:15	0	0	0	0	0	0	0	12	0	0	0	0	0	12	106	4	0	0	1	0	111	123
17:30	0	0	0	0	0	0	0	1	0	0	0	0	0	1	89	2	1	0	0	0	92	93
17:45	0	0	0	0	0	0	0	9	0	0	0	0	0	9	82	0	1	0	0	0	83	92
1 Hr	0	0	0	0	0	0	0	30	0	0	0	0	0	30	430	13	2	0	1	3	449	479
18:00	0	0	0	0	0	0	0	9	0	0	0	0	0	9	76	5	1	0	1	0	83	92
18:15	0	0	0	0	0	0	0	12	0	0	0	0	0	12	70	1	2	0	4	0	77	89
18:30	0	0	0	0	0	0	0	4	0	0	0	0	0	4	74	2	0	0	2	0	78	82
18:45	0	0	0	0	0	0	0	7	0	0	0	0	0	7	50	3	0	0	0	0	53	60
1 Hr	0	0	0	0	0	0	0	32	0	0	0	0	0	32	270	11	3	0	7	0	291	323
Total	2	0	0	0	0	0	2	406	29	11	0	6	4	456	3628	295	110	6	23	8	4070	4528

Entry : Arm B

	Destination : Arm A							Destination : Arm B							Destination : Arm C							Arm Totals
	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	
07:00	3	0	0	0	0	0	3	0	0	0	0	0	0	0	42	1	1	0	1	0	45	48
07:15	8	1	0	0	0	0	9	0	0	0	0	0	0	0	51	2	1	0	1	0	55	64
07:30	7	0	0	0	0	0	7	0	0	0	0	0	0	0	74	16	7	0	3	0	100	107
07:45	13	0	2	0	1	0	16	0	0	0	0	0	0	0	83	7	3	0	1	0	94	110
1 Hr	31	1	2	0	1	0	35	0	0	0	0	0	0	0	250	26	12	0	6	0	294	329
08:00	11	0	0	0	0	0	11	0	0	0	0	0	0	0	93	14	1	0	4	1	113	124
08:15	26	1	0	0	1	0	28	0	0	0	0	0	0	0	77	12	3	0	2	2	96	124
08:30	19	0	1	0	0	0	20	0	0	0	0	0	0	0	99	6	1	1	2	0	109	129
08:45	16	0	0	0	0	0	16	0	0	0	0	0	0	0	82	19	2	0	3	0	106	122
1 Hr	72	1	1	0	1	0	75	0	0	0	0	0	0	0	351	51	7	1	11	3	424	499
09:00	7	0	0	0	0	0	7	0	0	0	0	0	0	0	64	5	4	0	1	0	74	81



Sky High

Count On Us

Client: Parsons Brinckerhoff
 Project: C0738 Abergelli
 Site: 3
 Date: Thursday 16th October 2014

09:15	6	0	2	0	0	0	8	0	0	0	0	0	0	45	11	4	1	3	0	64	72
09:30	5	1	0	0	0	0	6	0	0	0	0	0	0	52	7	1	0	2	0	62	68
09:45	5	2	1	0	0	0	8	0	0	0	0	0	0	57	12	2	0	2	1	74	82
1 Hr	23	3	3	0	0	0	29	0	0	0	0	0	0	218	35	11	1	8	1	274	303
10:00	3	0	0	0	2	0	5	0	0	0	0	0	0	38	6	1	0	2	0	47	52
10:15	6	0	0	0	0	0	6	0	0	0	0	0	0	45	7	3	0	1	1	57	63
10:30	8	0	1	0	0	0	9	0	0	0	0	0	0	45	7	4	1	0	1	58	67
10:45	5	0	0	0	0	0	5	1	0	0	0	0	1	60	3	2	0	1	0	66	72
1 Hr	22	0	1	0	2	0	25	1	0	0	0	0	1	188	23	10	1	4	2	228	254
11:00	8	1	1	0	0	0	10	0	0	0	0	0	0	53	6	6	0	0	0	65	75
11:15	7	0	1	0	0	0	8	0	0	0	0	0	0	57	3	1	0	1	1	63	71
11:30	8	2	1	0	0	0	11	0	0	0	0	0	0	57	3	0	1	0	0	61	72
11:45	6	0	2	0	2	0	10	0	0	0	0	0	0	55	8	4	0	1	0	68	78
1 Hr	29	3	5	0	2	0	39	0	0	0	0	0	0	222	20	11	1	2	1	257	296
12:00	5	0	0	0	0	0	5	0	0	0	0	0	0	67	4	1	0	0	1	73	78
12:15	9	0	0	0	0	0	9	0	0	0	0	0	0	64	0	0	0	2	0	66	75
12:30	8	0	0	0	0	0	8	0	0	0	0	0	0	71	3	2	0	0	0	76	84
12:45	11	1	0	0	0	1	13	0	0	0	0	0	0	48	9	2	0	0	0	59	72
1 Hr	33	1	0	0	0	1	35	0	0	0	0	0	0	250	16	5	0	2	1	274	309
13:00	6	1	1	0	0	0	8	0	0	0	0	0	0	84	5	3	1	0	1	94	102
13:15	3	1	1	0	0	0	5	0	0	0	0	0	0	63	5	3	0	1	0	72	77
13:30	7	2	0	0	0	0	9	0	0	0	0	0	0	56	5	3	0	1	0	65	74
13:45	13	0	0	0	0	0	13	0	0	0	0	0	0	66	10	1	0	0	0	77	90
1 Hr	29	4	2	0	0	0	35	0	0	0	0	0	0	269	25	10	1	2	1	308	343
14:00	18	4	1	0	0	0	23	0	0	0	0	0	0	62	5	2	0	2	1	72	95
14:15	3	1	0	0	1	0	5	0	0	0	0	0	0	94	5	1	1	4	0	105	110
14:30	14	3	0	0	0	0	17	0	0	0	0	0	0	85	9	1	1	1	0	97	114
14:45	22	1	0	0	0	0	23	0	0	0	0	0	0	104	7	2	0	1	1	115	138
1 Hr	57	9	1	0	1	0	68	0	0	0	0	0	0	345	26	6	2	8	2	389	457
15:00	14	0	0	0	0	0	14	0	0	0	0	0	0	128	4	0	0	2	2	136	150
15:15	7	0	0	0	0	0	7	0	0	0	0	0	0	178	9	1	0	2	0	190	197
15:30	11	0	0	0	0	0	11	1	0	0	0	0	1	136	8	1	0	3	0	148	160
15:45	10	0	0	0	0	0	10	1	0	0	0	0	1	161	7	0	0	2	0	170	181
1 Hr	42	0	0	0	0	0	42	2	0	0	0	0	2	603	28	2	0	9	2	644	688
16:00	2	0	1	0	0	0	3	0	0	0	0	0	0	114	3	1	0	1	2	121	124
16:15	5	0	0	0	1	0	6	1	0	0	0	0	1	157	3	1	0	2	0	163	170
16:30	7	1	0	0	1	0	9	0	0	0	0	0	0	170	8	1	0	2	0	181	190
16:45	12	1	0	0	0	0	13	0	0	0	0	0	0	184	9	2	0	3	1	199	212
1 Hr	26	2	1	0	2	0	31	1	0	0	0	0	1	625	23	5	0	8	3	664	696
17:00	6	0	0	0	0	0	6	0	0	0	0	0	0	137	18	3	0	1	0	159	165
17:15	5	1	0	0	0	0	6	0	0	0	0	0	0	145	10	3	0	5	3	166	172



Sky High

Count On Us

Client: Parsons Brinckerhoff
 Project: C0738 Abergelli
 Site: 3
 Date: Thursday 16th October 2014

12:15	55	6	3	1	0	0	65	46	10	1	0	0	0	57	0	0	0	0	0	0	0	122
12:30	89	2	2	0	1	0	94	47	6	1	0	1	0	55	0	0	0	0	0	0	0	149
12:45	71	4	3	0	0	0	78	32	5	3	2	0	0	42	0	0	0	0	0	0	0	120
1 Hr	258	17	11	1	1	0	288	196	25	6	3	1	0	231	1	0	0	0	0	0	1	520
13:00	88	12	2	0	0	0	102	51	4	3	0	0	0	58	0	0	0	0	0	0	0	160
13:15	98	8	2	0	1	0	109	57	4	1	0	0	1	63	0	0	0	0	0	0	0	172
13:30	78	11	6	0	1	0	96	45	8	2	0	0	0	55	0	0	0	0	0	0	0	151
13:45	83	10	6	0	0	0	99	44	7	0	1	2	1	55	0	0	0	0	0	0	0	154
1 Hr	347	41	16	0	2	0	406	197	23	6	1	2	2	231	0	0	0	0	0	0	0	637
14:00	89	3	0	0	0	0	92	70	5	2	0	0	1	78	0	0	0	0	0	0	0	170
14:15	74	7	1	0	0	0	82	55	9	0	0	2	1	67	0	0	0	0	0	0	0	149
14:30	85	3	8	0	1	0	97	40	3	1	0	1	0	45	0	0	0	0	0	0	0	142
14:45	89	12	2	0	0	1	104	64	2	0	0	2	0	68	0	0	0	0	0	0	0	172
1 Hr	337	25	11	0	1	1	375	229	19	3	0	5	2	258	0	0	0	0	0	0	0	633
15:00	63	4	1	0	0	0	68	52	4	2	0	1	1	60	0	0	0	0	0	0	0	128
15:15	58	2	2	0	0	0	62	81	6	3	0	2	1	93	0	0	0	0	0	0	0	155
15:30	66	2	3	0	3	0	74	92	10	2	0	2	2	108	0	0	0	0	0	0	0	182
15:45	74	4	1	0	1	0	80	57	4	4	0	1	0	66	0	0	0	0	0	0	0	146
1 Hr	261	12	7	0	4	0	284	282	24	11	0	6	4	327	0	0	0	0	0	0	0	611
16:00	66	3	1	0	0	0	70	54	8	2	0	8	0	72	0	0	0	0	0	0	0	142
16:15	64	7	1	0	0	0	72	64	6	1	0	1	0	72	0	0	0	0	0	0	0	144
16:30	78	9	1	0	1	0	89	58	7	0	0	2	0	67	0	0	0	0	0	0	0	156
16:45	55	9	1	1	0	0	66	73	8	1	0	1	2	85	1	0	0	0	0	0	1	152
1 Hr	263	28	4	1	1	0	297	249	29	4	0	12	2	296	1	0	0	0	0	0	1	594
17:00	74	7	1	0	1	0	83	80	8	0	0	2	0	90	0	0	0	0	0	0	0	173
17:15	61	5	0	0	0	1	67	89	12	0	0	1	0	102	0	0	0	0	0	0	0	169
17:30	76	3	3	0	1	1	84	77	7	0	0	1	0	85	0	0	0	0	0	0	0	169
17:45	84	3	2	0	1	0	90	61	5	1	0	2	1	70	0	0	0	0	0	0	0	160
1 Hr	295	18	6	0	3	2	324	307	32	1	0	6	1	347	0	0	0	0	0	0	0	671
18:00	73	4	1	0	1	0	79	73	7	0	0	1	0	81	0	0	0	0	0	0	0	160
18:15	76	1	2	0	0	0	79	56	5	2	0	1	0	64	0	0	0	0	0	0	0	143
18:30	99	1	2	0	0	0	102	47	3	0	0	1	0	51	0	0	0	0	0	0	0	153
18:45	139	4	1	0	0	0	144	46	3	1	0	0	0	50	0	0	0	0	0	0	0	194
1 Hr	387	10	6	0	1	0	404	222	18	3	0	3	0	246	0	0	0	0	0	0	0	650
Total	4109	300	118	3	27	8	4565	3604	304	94	6	66	30	4104	2	0	0	0	0	0	2	8671

ORIGIN SUMMARY

Origin : Arm A							Origin : Arm B							Origin : Arm C							Origin Totals
Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	



Sky High

Count On Us

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07:00	41	4	0	0	0	1	46	45	1	1	0	1	0	48	240	4	1	0	2	0	247	341
07:15	46	6	2	0	0	0	54	59	3	1	0	1	0	64	304	10	9	0	2	2	327	445
07:30	86	11	3	0	0	0	100	81	16	7	0	3	0	107	285	15	6	0	7	1	314	521
07:45	78	9	1	0	2	1	91	96	7	5	0	2	0	110	319	23	8	0	7	1	358	559
1 Hr	251	30	6	0	2	2	291	281	27	14	0	7	0	329	1148	52	24	0	18	4	1246	1866
08:00	76	5	5	0	1	0	87	104	14	1	0	4	1	124	289	14	7	0	4	2	316	527
08:15	80	7	4	0	2	1	94	103	13	3	0	3	2	124	352	13	4	0	4	3	376	594
08:30	93	6	4	1	1	1	106	118	6	2	1	2	0	129	308	20	5	0	4	6	343	578
08:45	50	9	7	0	0	1	67	98	19	2	0	3	0	122	305	25	5	1	3	2	341	530
1 Hr	299	27	20	1	4	3	354	423	52	8	1	12	3	499	1254	72	21	1	15	13	1376	2229
09:00	83	5	2	0	1	1	92	71	5	4	0	1	0	81	231	21	7	0	2	2	263	436
09:15	64	9	3	0	0	0	76	51	11	6	1	3	0	72	146	16	8	0	1	2	173	321
09:30	53	7	1	0	0	0	61	57	8	1	0	2	0	68	147	14	3	0	3	0	167	296
09:45	40	15	2	0	1	0	58	62	14	3	0	2	1	82	108	16	5	0	2	0	131	271
1 Hr	240	36	8	0	2	1	287	241	38	14	1	8	1	303	632	67	23	0	8	4	734	1324
10:00	68	10	1	0	0	0	79	41	6	1	0	4	0	52	105	10	4	0	1	1	121	252
10:15	54	6	2	1	0	1	64	51	7	3	0	1	1	63	101	12	8	0	0	0	121	248
10:30	78	7	7	1	0	0	93	53	7	5	1	0	1	67	105	17	10	0	1	0	133	293
10:45	63	8	3	0	1	0	75	66	3	2	0	1	0	72	103	17	7	0	0	0	127	274
1 Hr	263	31	13	2	1	1	311	211	23	11	1	6	2	254	414	56	29	0	2	1	502	1067
11:00	79	11	7	0	0	0	97	61	7	7	0	0	0	75	100	11	6	1	0	1	119	291
11:15	76	6	3	0	0	0	85	64	3	2	0	1	1	71	108	10	4	0	0	0	122	278
11:30	73	2	3	0	0	0	78	65	5	1	1	0	0	72	102	7	6	1	1	0	117	267
11:45	73	3	2	0	1	0	79	61	8	6	0	3	0	78	125	8	4	0	1	1	139	296
1 Hr	301	22	15	0	1	0	339	251	23	16	1	4	1	296	435	36	20	2	2	2	497	1132
12:00	68	8	4	1	1	0	82	72	4	1	0	0	1	78	115	9	4	1	0	0	129	289
12:15	81	3	1	0	0	0	85	73	0	0	0	2	0	75	101	16	4	1	0	0	122	282
12:30	59	3	4	0	0	0	66	79	3	2	0	0	0	84	136	8	3	0	2	0	149	299
12:45	57	4	3	0	1	0	65	59	10	2	0	0	1	72	103	9	6	2	0	0	120	257
1 Hr	265	18	12	1	2	0	298	283	17	5	0	2	2	309	455	42	17	4	2	0	520	1127
13:00	65	6	3	0	0	0	74	90	6	4	1	0	1	102	139	16	5	0	0	0	160	336
13:15	84	6	3	0	0	1	94	66	6	4	0	1	0	77	155	12	3	0	1	1	172	343
13:30	63	9	2	0	1	0	75	63	7	3	0	1	0	74	123	19	8	0	1	0	151	300
13:45	49	8	2	2	1	0	62	79	10	1	0	0	0	90	127	17	6	1	2	1	154	306
1 Hr	261	29	10	2	2	1	305	298	29	12	1	2	1	343	544	64	22	1	4	2	637	1285
14:00	56	14	4	0	0	0	74	80	9	3	0	2	1	95	159	8	2	0	0	1	170	339
14:15	74	9	7	0	0	0	90	97	6	1	1	5	0	110	129	16	1	0	2	1	149	349
14:30	101	14	2	0	0	1	118	99	12	1	1	1	0	114	125	6	9	0	2	0	142	374
14:45	94	9	3	0	1	0	107	126	8	2	0	1	1	138	153	14	2	0	2	1	172	417
1 Hr	325	46	16	0	1	1	389	402	35	7	2	9	2	457	566	44	14	0	6	3	633	1479
15:00	148	9	4	0	0	0	161	142	4	0	0	2	2	150	115	8	3	0	1	1	128	439



Sky High

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15:15	118	5	1	0	0	0	124	185	9	1	0	2	0	197	139	8	5	0	2	1	155	476
15:30	131	7	4	0	1	0	143	148	8	1	0	3	0	160	158	12	5	0	5	2	182	485
15:45	125	4	0	0	1	0	130	172	7	0	0	2	0	181	131	8	5	0	2	0	146	457
1 Hr	522	25	9	0	2	0	558	647	28	2	0	9	2	688	543	36	18	0	10	4	611	1857
16:00	186	9	3	0	2	0	200	116	3	2	0	1	2	124	120	11	3	0	8	0	142	466
16:15	149	10	0	0	0	0	159	163	3	1	0	3	0	170	128	13	2	0	1	0	144	473
16:30	117	11	2	0	1	0	131	177	9	1	0	3	0	190	136	16	1	0	3	0	156	477
16:45	95	6	2	0	1	0	104	196	10	2	0	3	1	212	129	17	2	1	1	2	152	468
1 Hr	547	36	7	0	4	0	594	652	25	6	0	10	3	696	513	57	8	1	13	2	594	1884
17:00	161	7	0	0	0	3	171	143	18	3	0	1	0	165	154	15	1	0	3	0	173	509
17:15	118	4	0	0	1	0	123	150	11	3	0	5	3	172	150	17	0	0	1	1	169	464
17:30	90	2	1	0	0	0	93	162	9	0	0	1	0	172	153	10	3	0	2	1	169	434
17:45	91	0	1	0	0	0	92	133	5	0	0	3	4	145	145	8	3	0	3	1	160	397
1 Hr	460	13	2	0	1	3	479	588	43	6	0	10	7	654	602	50	7	0	9	3	671	1804
18:00	85	5	1	0	1	0	92	94	5	0	0	1	0	100	146	11	1	0	2	0	160	352
18:15	82	1	2	0	4	0	89	91	5	0	0	4	1	101	132	6	4	0	1	0	143	333
18:30	78	2	0	0	2	0	82	84	6	0	1	1	0	92	146	4	2	0	1	0	153	327
18:45	57	3	0	0	0	0	60	67	3	1	0	1	1	73	185	7	2	0	0	0	194	327
1 Hr	302	11	3	0	7	0	323	336	19	1	1	7	2	366	609	28	9	0	4	0	650	1339
Total	4036	324	121	6	29	12	4528	4613	359	102	8	86	26	5194	7715	604	212	9	93	38	8671	18393

DESTINATION SUMMARY

	Destination : Arm A							Destination : Arm B							Destination : Arm C							Dest Totals
	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	Car	Lgv	Ogv1	Ogv2	Psv	Mc	Total	
07:00	57	0	0	0	1	0	58	193	4	1	0	1	1	200	76	5	1	0	1	0	83	341
07:15	115	7	4	0	2	2	130	204	6	5	0	0	0	215	90	6	3	0	1	0	100	445
07:30	123	9	3	0	2	0	137	178	6	4	0	5	1	194	151	27	9	0	3	0	190	521
07:45	215	13	4	0	3	0	235	122	10	6	0	6	1	145	156	16	4	0	2	1	179	559
1 Hr	510	29	11	0	8	2	560	697	26	16	0	12	3	754	473	54	17	0	7	1	552	1866
08:00	162	7	5	0	2	0	176	146	8	2	0	2	2	160	161	18	6	0	5	1	191	527
08:15	234	6	3	0	2	2	247	158	8	3	0	3	1	173	143	19	5	0	4	3	174	594
08:30	198	10	2	0	0	1	211	143	10	4	0	5	5	167	178	12	5	2	2	1	200	578
08:45	174	11	2	0	1	0	188	153	17	3	1	2	3	179	126	25	9	0	3	0	163	530
1 Hr	768	34	12	0	5	3	822	600	43	12	1	12	11	679	608	74	25	2	14	5	728	2229
09:00	109	12	4	0	0	0	125	150	10	3	0	2	2	167	126	9	6	0	2	1	144	436
09:15	94	8	3	0	0	0	105	71	10	8	0	1	2	92	96	18	6	1	3	0	124	321
09:30	85	7	1	0	1	0	94	72	8	2	0	2	0	84	100	14	2	0	2	0	118	296
09:45	59	11	3	0	0	0	73	57	9	4	0	2	0	72	94	25	3	0	3	1	126	271
1 Hr	347	38	11	0	1	0	397	350	37	17	0	7	4	415	416	66	17	1	10	2	512	1324



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10:00	63	9	4	0	2	0	78	55	1	0	0	1	1	58	96	16	2	0	2	0	116	252
10:15	59	8	4	0	0	0	71	54	5	4	0	0	1	64	93	12	5	1	1	1	113	248
10:30	77	9	6	0	1	0	93	45	8	6	0	0	0	59	114	14	10	2	0	1	141	293
10:45	62	7	5	0	0	0	74	53	11	2	0	0	0	66	117	10	5	0	2	0	134	274
1 Hr	261	33	19	0	3	0	316	207	25	12	0	1	2	247	420	52	22	3	5	2	504	1067
11:00	50	8	6	0	0	0	64	63	6	2	1	0	1	73	127	15	12	0	0	0	154	291
11:15	64	7	2	0	0	0	73	57	3	3	0	0	0	63	127	9	4	0	1	1	142	278
11:30	70	6	4	1	1	0	82	50	3	3	0	0	0	56	120	5	3	1	0	0	129	267
11:45	70	2	4	0	2	0	78	66	6	2	0	1	1	76	123	11	6	0	2	0	142	296
1 Hr	254	23	16	1	3	0	297	236	18	10	1	1	2	268	497	40	25	1	3	1	567	1132
12:00	48	5	3	0	0	0	56	79	4	1	1	0	0	85	128	12	5	1	1	1	148	289
12:15	64	6	3	1	0	0	74	58	10	1	0	0	0	69	133	3	1	0	2	0	139	282
12:30	97	2	2	0	1	0	102	49	6	1	0	1	0	57	128	6	6	0	0	0	140	299
12:45	82	5	3	0	0	1	91	39	6	3	2	0	0	50	98	12	5	0	1	0	116	257
1 Hr	291	18	11	1	1	1	323	225	26	6	3	1	0	261	487	33	17	1	4	1	543	1127
13:00	94	13	3	0	0	0	110	57	4	3	0	0	0	64	143	11	6	1	0	1	162	336
13:15	101	9	3	0	1	0	114	60	4	2	0	0	2	68	144	11	5	0	1	0	161	343
13:30	85	13	6	0	1	0	105	50	9	2	0	1	0	62	114	13	5	0	1	0	133	300
13:45	96	10	6	0	0	0	112	52	8	0	1	2	1	64	107	17	3	2	1	0	130	306
1 Hr	376	45	18	0	2	0	441	219	25	7	1	3	3	258	508	52	19	3	3	1	586	1285
14:00	107	7	1	0	0	0	115	79	7	3	0	0	1	90	109	17	5	0	2	1	134	339
14:15	77	8	1	0	1	0	87	65	9	1	0	2	1	78	158	14	7	1	4	0	184	349
14:30	99	6	8	0	1	0	114	51	5	1	0	1	0	58	175	21	3	1	1	1	202	374
14:45	111	13	2	0	0	1	127	71	4	0	0	2	0	77	191	14	5	0	2	1	213	417
1 Hr	394	34	12	0	2	1	443	266	25	5	0	5	2	303	633	66	20	2	9	3	733	1479
15:00	77	4	1	0	0	0	82	65	5	3	0	1	1	75	263	12	3	0	2	2	282	439
15:15	65	2	2	0	0	0	69	98	6	3	0	2	1	110	279	14	2	0	2	0	297	476
15:30	77	2	3	0	3	0	85	105	11	2	0	3	2	123	255	14	5	0	3	0	277	485
15:45	84	4	1	0	1	0	90	71	4	4	0	1	0	80	273	11	0	0	3	0	287	457
1 Hr	303	12	7	0	4	0	326	339	26	12	0	7	4	388	1070	51	10	0	10	2	1143	1857
16:00	68	3	2	0	0	0	73	68	8	2	0	9	0	87	286	12	4	0	2	2	306	466
16:15	69	7	1	0	1	0	78	74	8	1	0	1	0	84	297	11	1	0	2	0	311	473
16:30	85	10	1	0	2	0	98	63	8	0	0	3	0	74	282	18	3	0	2	0	305	477
16:45	67	10	1	1	0	0	79	79	8	1	0	1	2	91	274	15	4	0	4	1	298	468
1 Hr	289	30	5	1	3	0	328	284	32	4	0	14	2	336	1139	56	12	0	10	3	1220	1884
17:00	80	7	1	0	1	0	89	88	8	0	0	2	0	98	290	25	3	0	1	3	322	509
17:15	66	6	0	0	0	1	73	101	12	0	0	1	0	114	251	14	3	0	6	3	277	464
17:30	92	3	3	0	1	1	100	78	7	0	0	1	0	86	235	11	1	0	1	0	248	434
17:45	94	5	2	0	1	0	102	70	5	1	0	2	1	79	205	3	1	0	3	4	216	397
1 Hr	332	21	6	0	3	2	364	337	32	1	0	6	1	377	981	53	8	0	11	10	1063	1804
18:00	78	4	1	0	1	0	84	82	7	0	0	1	0	90	165	10	1	0	2	0	178	352



Client: Parsons Brinckerhoff
Project: C0738 Abergelli
Site: 3
Date: Thursday 16th October 2014

18:15	92	2	2	0	1	0	97	68	5	2	0	1	0	76	145	5	2	0	7	1	160	333
18:30	110	3	2	0	0	0	115	51	3	0	0	1	0	55	147	6	0	1	3	0	157	327
18:45	149	4	1	0	0	0	154	53	3	1	0	0	0	57	107	6	1	0	1	1	116	327
1 Hr	429	13	6	0	2	0	450	254	18	3	0	3	0	278	564	27	4	1	13	2	611	1339
Total	4554	330	134	3	37	9	5067	4014	333	105	6	72	34	4564	7796	624	196	14	99	33	8762	18393

Appendix 12.2

Capacity Assessment Output Report

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947

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Filename: Network Model.j9

Path: F:\\$Development Planning\Abergelli Power Station, Swansea\Modelling

Report generation date: 30/11/2017 12:31:58

-
- »2017 Base, AM Peak Hour
 - »2017 Base, PM Peak Hour
 - »2022 Do Minimum, AM Peak Hour
 - »2022 Do Minimum, PM Peak Hour
 - »2022 Do Something, AM Peak Hour
 - »2022 Do Something, PM Peak Hour
 - »2022 Do Something + Cumulative Development, AM Peak Hour
 - »2022 Do Something + Cumulative Development, PM Peak Hour

Summary of junction performance

	AM Peak Hour				PM Peak Hour			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
[Lane Simulation] - 2017 Base								
Junction 1 - Arm A	1.3	34.12		D	0.3	5.43		A
Junction 1 - Arm C	0.5	3.10		A	0.7	3.87		A
Junction 1 - Arm D	110.7	813.95		F	0.6	6.04		A
Junction 2 - Arm A	22.1	174.69		F	0.5	3.37		A
Junction 2 - Arm B	208.0	878.20		F	1.0	5.81		A
Junction 2 - Arm C	1.6	6.82		A	4.9	12.90		B
Junction 2 - Arm D	35.5	182.47		F	1.3	7.83		A
Junction 2 - Arm E	58.5	638.48		F	0.3	5.54		A
Junction 3 - Arm A	5.6	45.08		E	23.5	130.04		F
Junction 3 - Arm B	2.3	16.59		C	74.4	359.91		F
Junction 3 - Arm C	16.6	52.87		F	2.9	13.37		B
[Lane Simulation] - 2022 Do Minimum								
Junction 1 - Arm A	1.6	35.48		E	0.3	5.67		A
Junction 1 - Arm C	0.5	3.12		A	0.9	3.92		A
Junction 1 - Arm D	158.1	1026.88		F	0.7	6.41		A
Junction 2 - Arm A	22.1	176.37		F	0.5	3.38		A
Junction 2 - Arm B	261.6	1038.45		F	1.1	6.33		A
Junction 2 - Arm C	1.8	7.40		A	4.8	13.66		B
Junction 2 - Arm D	59.0	297.89		F	1.6	8.86		A
Junction 2 - Arm E	84.2	874.71		F	0.4	5.71		A
Junction 3 - Arm A	7.3	54.91		F	44.1	229.30		F
Junction 3 - Arm B	3.2	19.39		C	110.3	548.72		F
Junction 3 - Arm C	16.6	52.76		F	3.6	14.40		B
[Lane Simulation] - 2022 Do Something								
Junction 1 - Arm A	1.8	39.27		E	0.5	6.40		A
Junction 1 - Arm C	0.6	3.16		A	0.9	3.95		A
Junction 1 - Arm D	150.0	954.24		F	0.8	6.37		A
Junction 2 - Arm A	21.9	170.25		F	0.5	3.53		A
Junction 2 - Arm B	255.6	997.37		F	1.3	6.81		A
Junction 2 - Arm C	2.2	8.17		A	5.2	14.41		B
Junction 2 - Arm D	70.5	378.35		F	1.8	9.22		A
Junction 2 - Arm E	89.5	919.66		F	0.5	5.89		A
Junction 3 - Arm A	9.3	67.07		F	45.3	235.07		F
Junction 3 - Arm B	4.0	23.34		C	111.5	557.18		F
Junction 3 - Arm C	16.5	52.54		F	3.7	15.05		C
[Lane Simulation] - 2022 Do Something + Cumulative Development								
Junction 1 - Arm A	4.0	60.44		F	0.8	7.39		A
Junction 1 - Arm C	0.8	3.29		A	1.1	4.27		A
Junction 1 - Arm D	196.2	1098.13		F	0.8	7.21		A
Junction 2 - Arm A	21.9	160.46		F	0.7	3.71		A
Junction 2 - Arm B	289.6	1106.92		F	2.2	9.49		A
Junction 2 - Arm C	2.2	8.59		A	6.6	18.83		C
Junction 2 - Arm D	139.1	703.20		F	2.9	13.06		B
Junction 2 - Arm E	102.2	1013.28		F	0.4	6.40		A
Junction 3 - Arm A	8.9	65.30		F	55.0	304.44		F
Junction 3 - Arm B	4.1	23.49		C	115.0	580.23		F
Junction 3 - Arm C	16.6	52.43		F	4.2	15.98		C

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

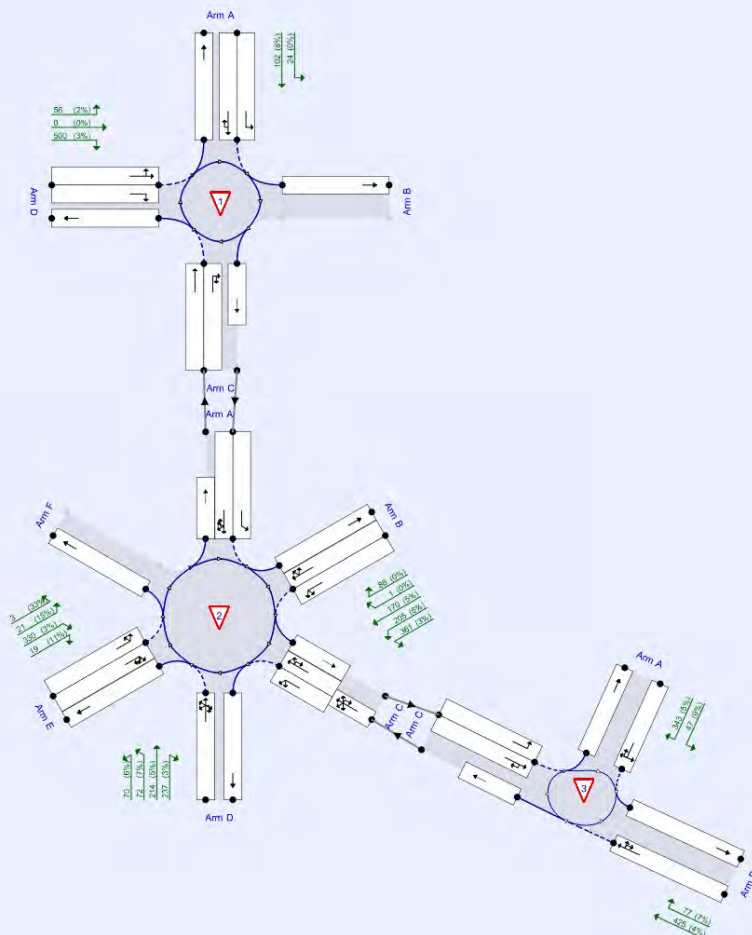
File summary

File Description

Title	M4 Junction 46 and A48/Pant Lasau Road Mini-Roundabout Network
Location	Swansea, Wales
Site number	
Date	30/11/2017
Version	
Status	
Identifier	
Client	Stag Energy
Jobnumber	60542910
Enumerator	EU\Matthew.Davies
Description	Geometric parameters for approach road half-width and entry width have been measured on-site. All other measurements are based on OS mapping.

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Flows show original traffic demand (Veh/hr)
 Lane simulation visualisation time: 07:30:00

The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Lane Simulation options

Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Use crossings quick response	Last run random seed	Last run number of trials	Last run time taken (s)
1.00	100000	100000	-1	3	1	✓	1238323674	486	251.32

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017 Base	AM Peak Hour	ONE HOUR	07:30	09:00	15	✓
D2	2017 Base	PM Peak Hour	ONE HOUR	16:15	17:45	15	✓
D3	2022 Do Minimum	AM Peak Hour	ONE HOUR	07:30	09:00	15	✓
D4	2022 Do Minimum	PM Peak Hour	ONE HOUR	16:15	17:45	15	✓
D5	2022 Do Something	AM Peak Hour	ONE HOUR	07:30	09:00	15	✓
D6	2022 Do Something	PM Peak Hour	ONE HOUR	16:15	17:45	15	✓
D7	2022 Do Something + Cumulative Development	AM Peak Hour	ONE HOUR	07:30	09:00	15	✓
D8	2022 Do Something + Cumulative Development	PM Peak Hour	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	100.000	100.000

2017 Base, AM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm D - Lane Simulation	Arm D: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm A - Lane Simulation	Arm A: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm B - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm E - Lane Simulation	Arm E: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 3 - Arm C - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 3	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms B and C have 83% of the total flow for the roundabout for one or more time segments]
Warning	Linked junction	Junction 1 - Arm C	Linked arm: Junction 1 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 2 - Arm A	Linked arm: Junction 2 Arm A has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 3 - Arm C	Linked arm: Junction 3 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Large Roundabout	Junction 1 - Arm C - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	M4 J46 Northern Dumbell Roundabout	Large Roundabout	A, B, C, D	367.03	F
2	M4 J46 Southern Dumbell Roundabout	Large Roundabout	A, B, C, D, E, F	379.00	F
3	A48/Pant Lasau Road Mini-Roundabout	Mini-roundabout	A, B, C	42.78	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Name	Description
1	A	B4489	
	B	M4 EB On-Slip	
	C	A48 Internal	
	D	M4 EB Off-Slip	
2	A	A48 Internal	
	B	M4 WB Off-Slip	
	C	A48 Southeast	
	D	B4489 South	
	E	A48 Southwest	
	F	M4 WB On-Slip	
3	A	Pant Lasau Road	
	B	A48 Southeast	
	C	A48 Northwest	

Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	A	7.30	7.30	0.0	20.0	60.0	43.0	
	B							✓
	C	7.30	7.30	0.0	38.0	60.0	0.0	
	D	7.30	7.30	0.0	30.0	60.0	49.0	
2	A	6.90	9.85	10.0	19.0	97.0	46.0	
	B	7.45	7.45	0.0	27.0	97.0	32.0	
	C	4.00	8.35	15.0	40.0	97.0	31.0	
	D	3.85	6.05	10.5	19.0	97.0	45.0	
	E	6.45	8.10	5.0	20.0	97.0	38.0	
	F							

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
3	A	5.00	3.20	7.80	4.0	11.00	8.00	0.0	✓
	B	4.50	3.50	4.70	1.0	17.00	18.00	0.0	✓
	C	6.30	6.30	7.50	3.0	12.00	9.00	0.0	✓

Large Roundabout Data

Junction	Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	A	868	20.00
	B	603	33.00
	C	0	50.00
	D	546	12.00
2	A	586	41.00
	B	1193	41.00
	C	576	26.00
	D	883	22.00
	E	965	22.00
	F	902	21.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1	A	1.114	2737
	B		
	C	1.558	3256
	D	1.185	2819
2	A	1.029	3048
	B	0.896	2775
	C	0.938	2614
	D	0.736	2095
	E	0.896	2735
	F		
3	A	0.525	819
	B	0.619	1069
	C	0.626	1384

The slope and intercept shown above include any corrections and adjustments.

Lane Simulation: Arm options

Junction	Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
1	A	Evenly split	10.00
	B	Evenly split	10.00
	C	Evenly split	10.00
	D	Evenly split	10.00
2	A	Evenly split	10.00
	B	Evenly split	10.00
	C	Evenly split	10.00
	D	Evenly split	10.00
	E	Evenly split	10.00
	F	Evenly split	10.00
3	A	Evenly split	10.00
	B	Evenly split	10.00
	C	Evenly split	10.00

Lanes

Junction	Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	
1	A	1 [Give-way line]	1	B		Infinity	0	99999	
			2	A, C		Infinity	0	99999	
	C	1 [Give-way line]	1	A	✓	21.00	0	99999	
			2	B, C	✓	21.00	0	99999	
	D	1 [Give-way line]	1	A, B		Infinity	0	99999	
			2	C		Infinity	0	99999	
2	A	1 [Give-way line]	1	C	✓	23.00	0	99999	
			2	A, D, E, F	✓	23.00	0	99999	
	B	1 [Give-way line]	1	C, D		Infinity	0	99999	
			2	A, E, F		Infinity	0	99999	
	C	1 [Give-way line]	1	D, E	✓	3.00	0	99999	
			2	A, C, F	✓	3.00	0	99999	
			2	1	(A, C, D, E, F)	✓	10.00		
	D	1 [Give-way line]	1	A, C, D, E, F		Infinity	0	99999	
	E	1 [Give-way line]	1	A, F		Infinity	0	99999	
2			C, D, E		Infinity	0	99999		
3	A	1 [Give-way line]	1	A, B, C		Infinity	0	99999	
	B	1 [Give-way line]	1	A, B, C		Infinity	0	99999	
C	1 [Give-way line]	1	A	✓	13.00	0	99999		
		2	B, C	✓	13.00	0	99999		

Entry Lane slope and intercept

Junction	Arm	Lane Level	Lane	Final slope	Final intercept (PCU/hr)
1	A	1 [Give-way line]	1	0.557	1368
			2	0.557	1368
	C	1 [Give-way line]	1	0.779	1628
			2	0.779	1628
	D	1 [Give-way line]	1	0.592	1409
			2	0.592	1409
2	A	1 [Give-way line]	1	0.514	1524
			2	0.514	1524
	B	1 [Give-way line]	1	0.448	1388
			2	0.448	1388
	C	1 [Give-way line]	1	0.469	1307
			2	0.469	1307
	D	1 [Give-way line]	1	0.736	2095
			2	0.736	2095
	E	1 [Give-way line]	1	0.448	1367
			2	0.448	1367
3	A	1 [Give-way line]	1	0.525	819
			2	0.525	819
	B	1 [Give-way line]	1	0.619	1069
			2	0.619	1069
	C	1 [Give-way line]	1	0.313	692
			2	0.313	692

Lane Movements

Junction	Arm	Lane Level	Lane	Destination arm			
				A	B	C	D
1	A	1 [Give-way line]	1		✓		
			2	✓		✓	
	C	1 [Give-way line]	1	✓			
			2		✓	✓	
	D	1 [Give-way line]	1	✓	✓		
			2			✓	

Lane Movements

Junction	Arm	Lane Level	Lane	Destination arm					
				A	B	C	D	E	F
2	A	1 [Give-way line]	1			✓			
			2	✓			✓	✓	✓
	B	1 [Give-way line]	1			✓	✓		
			2	✓				✓	✓
	C	1 [Give-way line]	1				✓	✓	
			2	✓		✓			✓
		2	1	✓		✓	✓	✓	✓
			2	✓		✓	✓	✓	✓
	D	1 [Give-way line]	1	✓		✓	✓	✓	✓
			2	✓					✓
E	1 [Give-way line]	1	✓					✓	
		2			✓	✓	✓		

Lane Movements

Junction	Arm	Lane Level	Lane	Destination arm		
				A	B	C
3	A	1 [Give-way line]	1	✓	✓	✓
			2	✓	✓	✓
	C	1 [Give-way line]	1	✓		
			2		✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017 Base	AM Peak Hour	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	C	2	A	Queue limited	Normal	0	100.00	21.00
2	A	1	C	Queue limited	Normal	0	100.00	23.00
	C	3	C	Queue limited	Normal	0	100.00	13.00
3	C	2	C	Queue limited	Normal	0	100.00	13.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1	A		ONE HOUR	✓	126	100.000
	B					
	C	✓				
	D		ONE HOUR	✓	556	100.000
2	A	✓				
	B		ONE HOUR	✓	825	100.000
	C	✓				
	D		ONE HOUR	✓	593	100.000
	E		ONE HOUR	✓	373	100.000
	F					
3	A		ONE HOUR	✓	390	100.000
	B		ONE HOUR	✓	502	100.000
	C	✓				

Origin-Destination Data

Demand (Veh/hr)

Junction 1

		To			
		A	B	C	D
From	A	0	24	102	0
	B	0	0	0	0
	C	178	367	0	0
	D	56	0	500	0

Demand (Veh/hr)

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	514	80	10	2
	B	88	0	361	205	170	1
	C	231	0	0	151	261	120
	D	214	0	237	0	70	72
	E	21	0	330	19	0	3
	F	0	0	0	0	0	0

Demand (Veh/hr)

Junction 3

		To		
		A	B	C
From	A	0	47	343
	B	77	0	425
	C	819	618	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

		To			
		A	B	C	D
From	A	0	0	8	0
	B	0	0	0	0
	C	5	5	0	0
	D	2	0	3	0

Heavy Vehicle Percentages

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	4	3	10	0
	B	0	0	3	6	5	0
	C	8	0	0	5	2	3
	D	5	0	3	0	6	7
	E	15	0	3	11	0	33
	F	0	0	0	0	0	0

Heavy Vehicle Percentages

Junction 3

		To		
		A	B	C
From	A	0	9	5
	B	7	0	4
	C	2	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	A	34.12	1.3	D	116	174
	B					
	C	3.10	0.5	A	507	760
	D	813.95	110.7	F	511	766
2	A	174.69	22.1	F	474	711
	B	878.20	208.0	F	760	1139
	C	6.82	1.6	A	704	1056
	D	182.47	35.5	F	542	813
	E	638.48	58.5	F	342	512
	F					
3	A	45.08	5.6	E	358	537
	B	16.59	2.3	C	461	691
	C	52.87	16.6	F	1126	1689

2017 Base, PM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 3 - Arm B - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Linked junction	Junction 1 - Arm C	Linked arm: Junction 1 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 2 - Arm A	Linked arm: Junction 2 Arm A has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 3 - Arm C	Linked arm: Junction 3 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Large Roundabout	Junction 1 - Arm C - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	M4 J46 Northern Dumbell Roundabout	Large Roundabout	A, B, C, D	4.68	A
2	M4 J46 Southern Dumbell Roundabout	Large Roundabout	A, B, C, D, E, F	8.77	A
3	A48/Pant Lasau Road Mini-Roundabout	Mini-roundabout	A, B, C	177.12	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Mini Roundabout Geometry

[same as above]

Large Roundabout Data

Junction	Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	A	1027	20.00
	B	400	33.00
	C	0	50.00
	D	768	12.00
2	A	290	41.00
	B	692	41.00
	C	555	26.00
	D	1290	22.00
	E	1143	22.00
	F	855	21.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017 Base	PM Peak Hour	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	C	2	A	Queue limited	Normal	0	100.00	21.00
2	A	1	C	Queue limited	Normal	0	100.00	23.00
	C	3	C	Queue limited	Normal	0	100.00	13.00
3	C	2	C	Queue limited	Normal	0	100.00	13.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1	A		ONE HOUR	✓	167	100.000
	B					
	C	✓				
	D		ONE HOUR	✓	320	100.000
2	A	✓				
	B		ONE HOUR	✓	573	100.000
	C	✓				
	D		ONE HOUR	✓	556	100.000
	E		ONE HOUR	✓	192	100.000
	F					
3	A		ONE HOUR	✓	547	100.000
	B		ONE HOUR	✓	763	100.000
	C	✓				

Origin-Destination Data

Demand (Veh/hr)

Junction 1

		To			
		A	B	C	D
From	A	0	76	91	0
	B	0	0	0	0
	C	50	718	0	0
	D	11	0	309	0

Demand (Veh/hr)

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	261	114	4	23
	B	22	0	184	223	141	3
	C	399	0	0	143	472	226
	D	249	0	135	0	86	86
	E	30	0	129	26	0	7
	F	0	0	0	0	0	0

Demand (Veh/hr)

Junction 3

		To		
		A	B	C
From	A	0	34	513
	B	35	0	728
	C	315	355	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

		To			
		A	B	C	D
From	A	0	0	7	0
	B	0	0	0	0
	C	17	2	0	0
	D	0	0	2	0

Heavy Vehicle Percentages

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	2	5	0	0
	B	0	0	2	4	4	0
	C	3	0	0	2	2	1
	D	2	0	3	0	5	6
	E	14	0	0	4	0	0
	F	0	0	0	0	0	0

Heavy Vehicle Percentages

Junction 3

		To		
		A	B	C
From	A	0	3	1
	B	3	0	3
	C	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	A	5.43	0.3	A	155	233
	B					
	C	3.87	0.7	A	639	958
	D	6.04	0.6	A	295	443
2	A	3.37	0.5	A	371	556
	B	5.81	1.0	A	525	788
	C	12.90	4.9	B	1123	1684
	D	7.83	1.3	A	513	769
	E	5.54	0.3	A	176	264
	F					
3	A	130.04	23.5	F	502	752
	B	359.91	74.4	F	705	1057
	C	13.37	2.9	B	652	977

2022 Do Minimum, AM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm D - Lane Simulation	Arm D: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm A - Lane Simulation	Arm A: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm B - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm D - Lane Simulation	Arm D: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm E - Lane Simulation	Arm E: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 3 - Arm C - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 3	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms B and C have 83% of the total flow for the roundabout for one or more time segments]
Warning	Linked junction	Junction 1 - Arm C	Linked arm: Junction 1 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 2 - Arm A	Linked arm: Junction 2 Arm A has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 3 - Arm C	Linked arm: Junction 3 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Large Roundabout	Junction 1 - Arm C - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	M4 J46 Northern Dumbell Roundabout	Large Roundabout	A, B, C, D	462.87	F
2	M4 J46 Southern Dumbell Roundabout	Large Roundabout	A, B, C, D, E, F	476.81	F
3	A48/Pant Lasau Road Mini-Roundabout	Mini-roundabout	A, B, C	45.02	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Mini Roundabout Geometry

[same as above]

Large Roundabout Data

Junction	Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	A	921	20.00
	B	639	33.00
	C	0	50.00
	D	579	12.00
2	A	622	41.00
	B	1265	41.00
	C	611	26.00
	D	937	22.00
	E	1023	22.00
	F	957	21.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2022 Do Minimum	AM Peak Hour	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	C	2	A	Queue limited	Normal	0	100.00	21.00
2	A	1	C	Queue limited	Normal	0	100.00	23.00
	C	3	C	Queue limited	Normal	0	100.00	13.00
3	C	2	C	Queue limited	Normal	0	100.00	13.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1	A		ONE HOUR	✓	133	100.000
	B					
	C	✓				
	D		ONE HOUR	✓	590	100.000
2	A	✓				
	B		ONE HOUR	✓	876	100.000
	C	✓				
	D		ONE HOUR	✓	630	100.000
	E		ONE HOUR	✓	395	100.000
	F					
3	A		ONE HOUR	✓	413	100.000
	B		ONE HOUR	✓	533	100.000
	C	✓				

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	
Junction 1	From	A	0	25	108	0
		B	0	0	0	0
		C	189	390	0	0
		D	59	0	531	0

Demand (Veh/hr)

		To						
		A	B	C	D	E	F	
Junction 2	From	A	0	0	545	85	11	2
		B	93	0	383	218	181	1
		C	245	0	0	160	277	127
		D	227	0	252	0	74	77
		E	22	0	350	20	0	3
		F	0	0	0	0	0	0

Demand (Veh/hr)

		To			
		A	B	C	
Junction 3	From	A	0	50	363
		B	82	0	451
		C	869	656	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	
Junction 1	From	A	0	0	8	0
		B	0	0	0	0
		C	5	5	0	0
		D	2	0	3	0

Heavy Vehicle Percentages

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	4	3	10	0
	B	0	0	3	6	5	0
	C	8	0	0	5	2	3
	D	5	0	3	0	6	7
	E	15	0	3	11	0	33
	F	0	0	0	0	0	0

Heavy Vehicle Percentages

Junction 3

		To		
		A	B	C
From	A	0	9	5
	B	7	0	4
	C	2	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	A	35.48	1.6	E	122	184
	B					
	C	3.12	0.5	A	532	798
	D	1026.88	158.1	F	539	808
2	A	176.37	22.1	F	470	704
	B	1038.45	261.6	F	805	1207
	C	7.40	1.8	A	741	1112
	D	297.89	59.0	F	577	866
	E	874.71	84.2	F	360	540
	F					
3	A	54.91	7.3	F	378	567
	B	19.39	3.2	C	485	728
	C	52.76	16.6	F	1130	1695

2022 Do Minimum, PM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 3 - Arm B - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Linked junction	Junction 1 - Arm C	Linked arm: Junction 1 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 2 - Arm A	Linked arm: Junction 2 Arm A has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 3 - Arm C	Linked arm: Junction 3 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Large Roundabout	Junction 1 - Arm C - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	M4 J46 Northern Dumbell Roundabout	Large Roundabout	A, B, C, D	4.85	A
2	M4 J46 Southern Dumbell Roundabout	Large Roundabout	A, B, C, D, E, F	9.34	A
3	A48/Pant Lasau Road Mini-Roundabout	Mini-roundabout	A, B, C	275.70	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Mini Roundabout Geometry

[same as above]

Large Roundabout Data

Junction	Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	A	1088	20.00
	B	424	33.00
	C	0	50.00
	D	813	12.00
2	A	308	41.00
	B	733	41.00
	C	588	26.00
	D	1366	22.00
	E	1210	22.00
	F	905	21.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2022 Do Minimum	PM Peak Hour	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	C	2	A	Queue limited	Normal	0	100.00	21.00
2	A	1	C	Queue limited	Normal	0	100.00	23.00
	C	3	C	Queue limited	Normal	0	100.00	13.00
3	C	2	C	Queue limited	Normal	0	100.00	13.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1	A		ONE HOUR	✓	177	100.000
	B					
	C	✓				
	D		ONE HOUR	✓	339	100.000
2	A	✓				
	B		ONE HOUR	✓	606	100.000
	C	✓				
	D		ONE HOUR	✓	589	100.000
	E		ONE HOUR	✓	204	100.000
	F					
3	A		ONE HOUR	✓	579	100.000
	B		ONE HOUR	✓	809	100.000
	C	✓				

Origin-Destination Data

Demand (Veh/hr)

Junction 1

		To			
		A	B	C	D
From	A	0	81	96	0
	B	0	0	0	0
	C	53	761	0	0
	D	12	0	327	0

Demand (Veh/hr)

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	277	120	4	24
	B	23	0	195	236	149	3
	C	422	0	0	151	500	240
	D	264	0	143	0	91	91
	E	32	0	137	27	0	8
	F	0	0	0	0	0	0

Demand (Veh/hr)

Junction 3

		To		
		A	B	C
From	A	0	36	543
	B	37	0	772
	C	334	376	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

		To			
		A	B	C	D
From	A	0	0	7	0
	B	0	0	0	0
	C	17	2	0	0
	D	0	0	2	0

Heavy Vehicle Percentages

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	2	5	0	0
	B	0	0	2	4	4	0
	C	3	0	0	2	2	1
	D	2	0	3	0	5	6
	E	14	0	0	4	0	0
	F	0	0	0	0	0	0

Heavy Vehicle Percentages

Junction 3

		To		
		A	B	C
From	A	0	3	1
	B	3	0	3
	C	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	A	5.67	0.3	A	164	247
	B					
	C	3.92	0.9	A	662	993
	D	6.41	0.7	A	312	469
2	A	3.38	0.5	A	390	585
	B	6.33	1.1	A	554	831
	C	13.66	4.8	B	1152	1727
	D	8.86	1.6	A	540	811
	E	5.71	0.4	A	190	284
	F					
3	A	229.30	44.1	F	531	796
	B	548.72	110.3	F	742	1113
	C	14.40	3.6	B	689	1033

2022 Do Something, AM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm D - Lane Simulation	Arm D: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm A - Lane Simulation	Arm A: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm B - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm D - Lane Simulation	Arm D: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm E - Lane Simulation	Arm E: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 3 - Arm C - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 3	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms B and C have 82% of the total flow for the roundabout for one or more time segments]
Warning	Linked junction	Junction 1 - Arm C	Linked arm: Junction 1 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 2 - Arm A	Linked arm: Junction 2 Arm A has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 3 - Arm C	Linked arm: Junction 3 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Large Roundabout	Junction 1 - Arm C - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	M4 J46 Northern Dumbell Roundabout	Large Roundabout	A, B, C, D	415.48	F
2	M4 J46 Southern Dumbell Roundabout	Large Roundabout	A, B, C, D, E, F	484.17	F
3	A48/Pant Lasau Road Mini-Roundabout	Mini-roundabout	A, B, C	48.13	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Mini Roundabout Geometry

[same as above]

Large Roundabout Data

Junction	Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	A	921	20.00
	B	647	33.00
	C	0	50.00
	D	635	12.00
2	A	622	41.00
	B	1273	41.00
	C	633	26.00
	D	980	22.00
	E	1085	22.00
	F	1012	21.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2022 Do Something	AM Peak Hour	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	C	2	A	Queue limited	Normal	0	100.00	21.00
2	A	1	C	Queue limited	Normal	0	100.00	23.00
	C	3	C	Queue limited	Normal	0	100.00	13.00
3	C	2	C	Queue limited	Normal	0	100.00	13.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1	A		ONE HOUR	✓	149	100.000
	B					
	C	✓				
	D		ONE HOUR	✓	613	100.000
2	A	✓				
	B		ONE HOUR	✓	891	100.000
	C	✓				
	D		ONE HOUR	✓	648	100.000
	E		ONE HOUR	✓	397	100.000
	F					
3	A		ONE HOUR	✓	422	100.000
	B		ONE HOUR	✓	544	100.000
	C	✓				

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	
Junction 1	From	A	0	33	116	0
		B	0	0	0	0
		C	245	390	0	0
		D	82	0	531	0

Demand (Veh/hr)

		To						
		A	B	C	D	E	F	
Junction 2	From	A	0	0	545	85	11	10
		B	108	0	383	218	181	1
		C	265	0	0	160	277	127
		D	245	0	252	0	74	77
		E	24	0	350	20	0	3
		F	0	0	0	0	0	0

Demand (Veh/hr)

		To			
		A	B	C	
Junction 3	From	A	0	50	372
		B	82	0	462
		C	869	656	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	
Junction 1	From	A	0	23	14	0
		B	0	0	0	0
		C	7	5	0	0
		D	11	0	3	0

Heavy Vehicle Percentages

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	4	3	10	77
	B	7	0	3	6	5	0
	C	7	0	0	5	2	3
	D	4	0	3	0	6	7
	E	14	0	3	11	0	33
	F	0	0	0	0	0	0

Heavy Vehicle Percentages

Junction 3

		To		
		A	B	C
From	A	0	9	5
	B	7	0	4
	C	2	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	A	39.27	1.8	E	136	205
	B					
	C	3.16	0.6	A	585	877
	D	954.24	150.0	F	559	839
2	A	170.25	21.9	F	485	727
	B	997.37	255.6	F	818	1227
	C	8.17	2.2	A	765	1147
	D	378.35	70.5	F	596	894
	E	919.66	89.5	F	364	547
	F					
3	A	67.07	9.3	F	388	582
	B	23.34	4.0	C	498	747
	C	52.54	16.5	F	1129	1693

2022 Do Something, PM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 3 - Arm B - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Linked junction	Junction 1 - Arm C	Linked arm: Junction 1 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 2 - Arm A	Linked arm: Junction 2 Arm A has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 3 - Arm C	Linked arm: Junction 3 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Large Roundabout	Junction 1 - Arm C - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	M4 J46 Northern Dumbell Roundabout	Large Roundabout	A, B, C, D	5.06	A
2	M4 J46 Southern Dumbell Roundabout	Large Roundabout	A, B, C, D, E, F	9.74	A
3	A48/Pant Lasau Road Mini-Roundabout	Mini-roundabout	A, B, C	278.15	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Mini Roundabout Geometry

[same as above]

Large Roundabout Data

Junction	Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	A	1088	20.00
	B	465	33.00
	C	0	50.00
	D	821	12.00
2	A	308	41.00
	B	775	41.00
	C	615	26.00
	D	1383	22.00
	E	1227	22.00
	F	913	21.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2022 Do Something	PM Peak Hour	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	C	2	A	Queue limited	Normal	0	100.00	21.00
2	A	1	C	Queue limited	Normal	0	100.00	23.00
	C	3	C	Queue limited	Normal	0	100.00	13.00
3	C	2	C	Queue limited	Normal	0	100.00	13.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1	A		ONE HOUR	✓	255	100.000
	B					
	C	✓				
	D		ONE HOUR	✓	347	100.000
2	A	✓				
	B		ONE HOUR	✓	613	100.000
	C	✓				
	D		ONE HOUR	✓	589	100.000
	E		ONE HOUR	✓	204	100.000
	F					
3	A		ONE HOUR	✓	579	100.000
	B		ONE HOUR	✓	809	100.000
	C	✓				

Origin-Destination Data

Demand (Veh/hr)

Junction 1

		To			
		A	B	C	D
From	A	0	117	138	0
	B	0	0	0	0
	C	60	761	0	0
	D	20	0	327	0

Demand (Veh/hr)

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	299	130	5	34
	B	30	0	195	236	149	3
	C	422	0	0	151	500	240
	D	264	0	143	0	91	91
	E	32	0	137	27	0	8
	F	0	0	0	0	0	0

Demand (Veh/hr)

Junction 3

		To		
		A	B	C
From	A	0	36	543
	B	37	0	772
	C	344	388	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

		To			
		A	B	C	D
From	A	0	6	10	0
	B	0	0	0	0
	C	27	2	0	0
	D	38	0	2	0

Heavy Vehicle Percentages

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	2	4	0	22
	B	25	0	2	4	4	0
	C	3	0	0	2	2	1
	D	2	0	3	0	5	6
	E	14	0	0	4	0	0
	F	0	0	0	0	0	0

Heavy Vehicle Percentages

Junction 3

		To		
		A	B	C
From	A	0	3	1
	B	3	0	3
	C	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	A	6.40	0.5	A	235	352
	B					
	C	3.95	0.9	A	667	1001
	D	6.37	0.8	A	316	475
2	A	3.53	0.5	A	426	639
	B	6.81	1.3	A	563	844
	C	14.41	5.2	B	1152	1729
	D	9.22	1.8	A	541	811
	E	5.89	0.5	A	187	280
	F					
3	A	235.07	45.3	F	531	797
	B	557.18	111.5	F	741	1111
	C	15.05	3.7	C	707	1061

2022 Do Something + Cumulative Development, AM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm D - Lane Simulation	Arm D: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm A - Lane Simulation	Arm A: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm B - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm D - Lane Simulation	Arm D: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm E - Lane Simulation	Arm E: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 3 - Arm C - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 3	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms B and C have 83% of the total flow for the roundabout for one or more time segments]
Warning	Linked junction	Junction 1 - Arm C	Linked arm: Junction 1 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 2 - Arm A	Linked arm: Junction 2 Arm A has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 3 - Arm C	Linked arm: Junction 3 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Large Roundabout	Junction 1 - Arm C - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	M4 J46 Northern Dumbell Roundabout	Large Roundabout	A, B, C, D	447.64	F
2	M4 J46 Southern Dumbell Roundabout	Large Roundabout	A, B, C, D, E, F	595.35	F
3	A48/Pant Lasau Road Mini-Roundabout	Mini-roundabout	A, B, C	47.71	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Mini Roundabout Geometry

[same as above]

Large Roundabout Data

Junction	Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	A	1024	20.00
	B	709	33.00
	C	0	50.00
	D	749	12.00
2	A	657	41.00
	B	1370	41.00
	C	705	26.00
	D	996	22.00
	E	1232	22.00
	F	1142	21.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2022 Do Something + Cumulative Development	AM Peak Hour	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	C	2	A	Queue limited	Normal	0	100.00	21.00
2	A	1	C	Queue limited	Normal	0	100.00	23.00
	C	3	C	Queue limited	Normal	0	100.00	13.00
3	C	2	C	Queue limited	Normal	0	100.00	13.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1	A		ONE HOUR	✓	214	100.000
	B					
	C	✓				
	D		ONE HOUR	✓	632	100.000
2	A	✓				
	B		ONE HOUR	✓	939	100.000
	C	✓				
	D		ONE HOUR	✓	789	100.000
	E		ONE HOUR	✓	412	100.000
	F					
3	A		ONE HOUR	✓	428	100.000
	B		ONE HOUR	✓	552	100.000
	C	✓				

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	
Junction 1	From	A	0	47	167	0
		B	0	0	0	0
		C	268	481	0	0
		D	90	0	542	0

Demand (Veh/hr)

		To						
		A	B	C	D	E	F	
Junction 2	From	A	0	0	588	104	12	10
		B	116	0	383	258	181	1
		C	273	0	0	166	277	127
		D	344	0	272	0	83	90
		E	24	0	362	23	0	3
		F	0	0	0	0	0	0

Demand (Veh/hr)

		To			
		A	B	C	
Junction 3	From	A	0	50	378
		B	82	0	470
		C	912	688	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	
Junction 1	From	A	0	20	10	0
		B	0	0	0	0
		C	7	4	0	0
		D	10	0	4	0

Heavy Vehicle Percentages

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	4	4	9	76
	B	9	0	3	5	5	0
	C	7	0	0	5	2	3
	D	4	0	3	0	5	8
	E	13	0	2	9	0	33
	F	0	0	0	0	0	0

Heavy Vehicle Percentages

Junction 3

		To		
		A	B	C
From	A	0	9	5
	B	7	0	4
	C	2	4	0

Results

Results Summary for whole modelled period

Junction	Arm	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	A	60.44	4.0	F	196	293
	B					
	C	3.29	0.8	A	666	999
	D	1098.13	196.2	F	579	868
2	A	160.46	21.9	F	508	762
	B	1106.92	289.6	F	858	1287
	C	8.59	2.2	A	775	1162
	D	703.20	139.1	F	724	1086
	E	1013.28	102.2	F	379	569
	F					
3	A	65.30	8.9	F	393	589
	B	23.49	4.1	C	505	758
	C	52.43	16.6	F	1134	1701

2022 Do Something + Cumulative Development, PM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 3 - Arm A - Lane Simulation	Arm A: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 3 - Arm B - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Linked junction	Junction 1 - Arm C	Linked arm: Junction 1 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 2 - Arm A	Linked arm: Junction 2 Arm A has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Linked junction	Junction 3 - Arm C	Linked arm: Junction 3 Arm C has more than one lane at its upstream end. It is recommended that the upstream lane level for a linked arm should have only one lane (if necessary add a dummy lane level to do this)
Warning	Large Roundabout	Junction 1 - Arm C - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	M4 J46 Northern Dumbell Roundabout	Large Roundabout	A, B, C, D	5.69	A
2	M4 J46 Southern Dumbell Roundabout	Large Roundabout	A, B, C, D, E, F	12.55	B
3	A48/Pant Lasau Road Mini-Roundabout	Mini-roundabout	A, B, C	300.73	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Mini Roundabout Geometry

[same as above]

Large Roundabout Data

Junction	Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	A	1185	20.00
	B	515	33.00
	C	0	50.00
	D	903	12.00
2	A	335	41.00
	B	852	41.00
	C	770	26.00
	D	1410	22.00
	E	1348	22.00
	F	1006	21.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2022 Do Something + Cumulative Development	PM Peak Hour	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	C	2	A	Queue limited	Normal	0	100.00	21.00
2	A	1	C	Queue limited	Normal	0	100.00	23.00
	C	3	C	Queue limited	Normal	0	100.00	13.00
3	C	2	C	Queue limited	Normal	0	100.00	13.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1	A		ONE HOUR	✓	319	100.000
	B					
	C	✓				
	D		ONE HOUR	✓	364	100.000
2	A	✓				
	B		ONE HOUR	✓	728	100.000
	C	✓				
	D		ONE HOUR	✓	713	100.000
	E		ONE HOUR	✓	215	100.000
	F					
3	A		ONE HOUR	✓	579	100.000
	B		ONE HOUR	✓	809	100.000
	C	✓				

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	
Junction 1	From	A	0	148	171	0
		B	0	0	0	0
		C	62	841	0	0
		D	20	0	344	0

Demand (Veh/hr)

		To						
		A	B	C	D	E	F	
Junction 2	From	A	0	0	319	155	5	38
		B	32	0	195	349	149	3
		C	422	0	0	176	520	240
		D	344	0	159	0	102	108
		E	32	0	137	38	0	8
		F	0	0	0	0	0	0

Demand (Veh/hr)

		To			
		A	B	C	
Junction 3	From	A	0	36	543
		B	37	0	772
		C	344	388	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	
Junction 1	From	A	0	7	8	0
		B	0	0	0	0
		C	29	2	0	0
		D	38	0	2	0

Heavy Vehicle Percentages

Junction 2

		To					
		A	B	C	D	E	F
From	A	0	0	2	4	0	21
	B	29	0	2	3	4	0
	C	3	0	0	2	2	1
	D	2	0	3	0	4	6
	E	14	0	0	3	0	0
	F	0	0	0	0	0	0

Heavy Vehicle Percentages

Junction 3

		To		
		A	B	C
From	A	0	3	1
	B	3	0	3
	C	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	A	7.39	0.8	A	293	440
	B					
	C	4.27	1.1	A	726	1089
	D	7.21	0.8	A	333	500
2	A	3.71	0.7	A	473	709
	B	9.49	2.2	A	662	994
	C	18.83	6.6	C	1145	1717
	D	13.06	2.9	B	651	977
	E	6.40	0.4	A	196	294
	F					
3	A	304.44	55.0	F	532	798
	B	580.23	115.0	F	741	1111
	C	15.98	4.2	C	742	1112