



Project Name: Land at Hanlye Lane, Cuckfield

Project Number: 020.0885

Drawn By: TNP

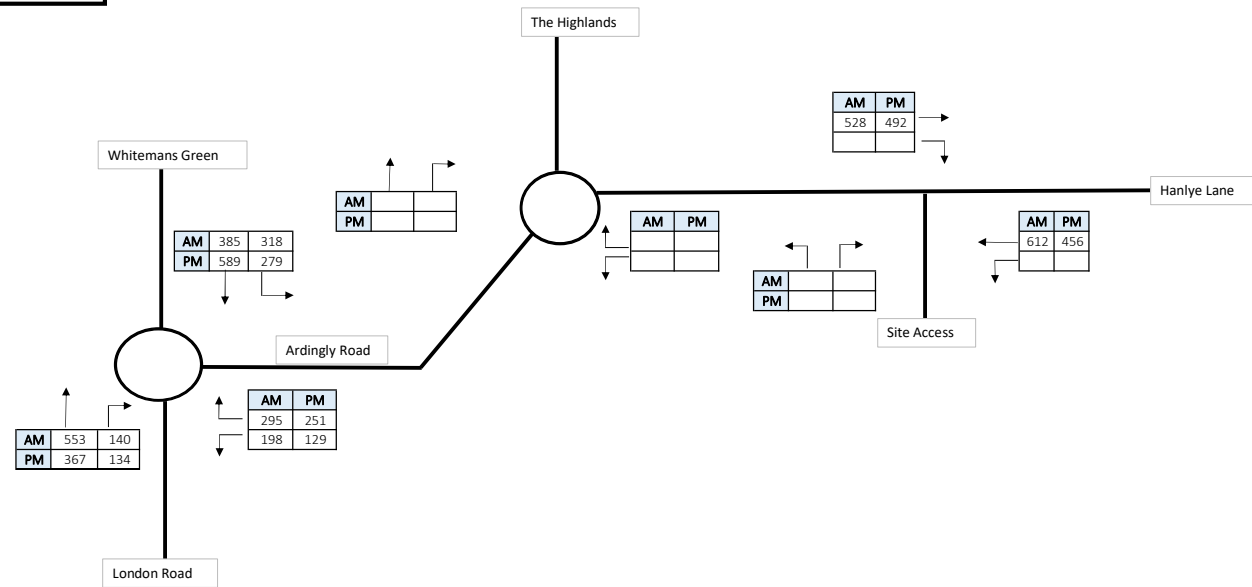
Approved By: CD

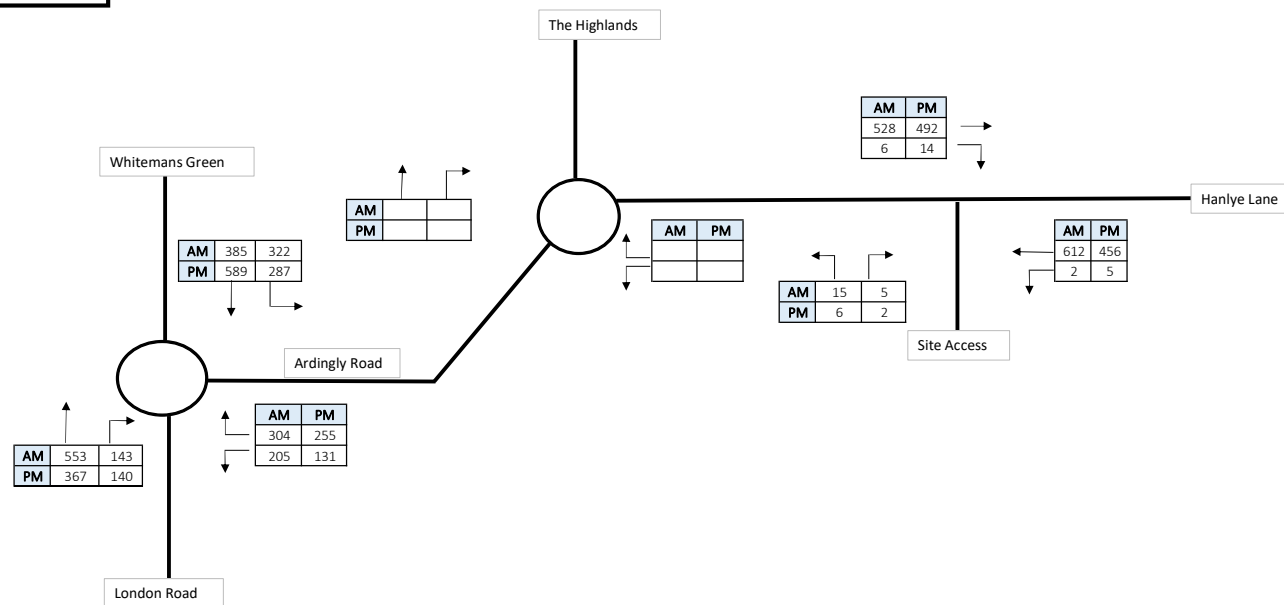
Scenario: Baseline 2030

Growth Factor

AM 1.0718

PM 1.0734





Appendix K

Cuckfield, Tuesday 26th September 2023



From:

1) 07:45

To:

1) 08:45

Class:

All Vehicles

Show Peak Hour:

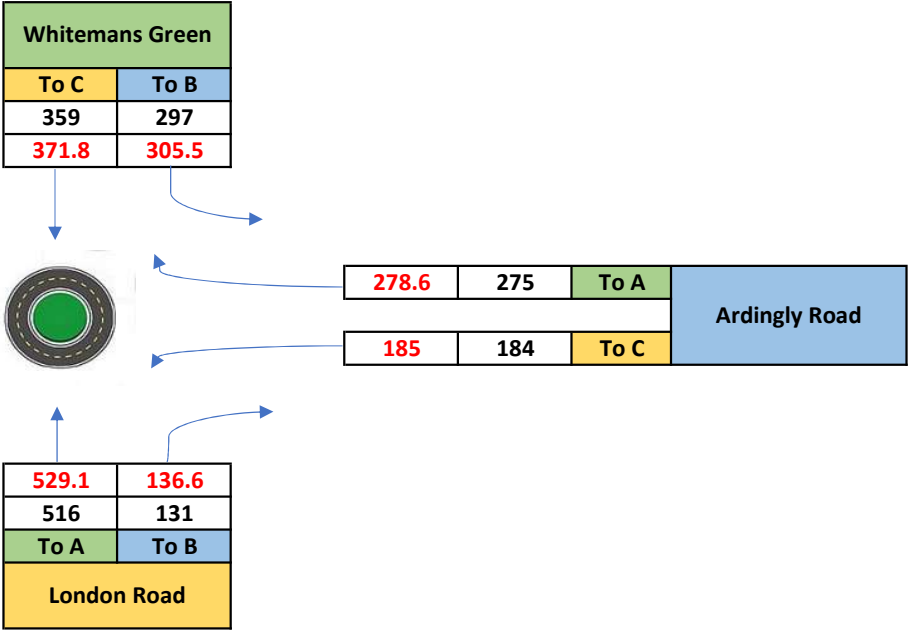
☒

Show PCUs:

☒

Show Session 2

PCUs in red



Cuckfield, Tuesday 26th September 2023

From:

2) 17:00

To:

2) 18:00

Class:

All Vehicles

Show Peak Hour:

☒

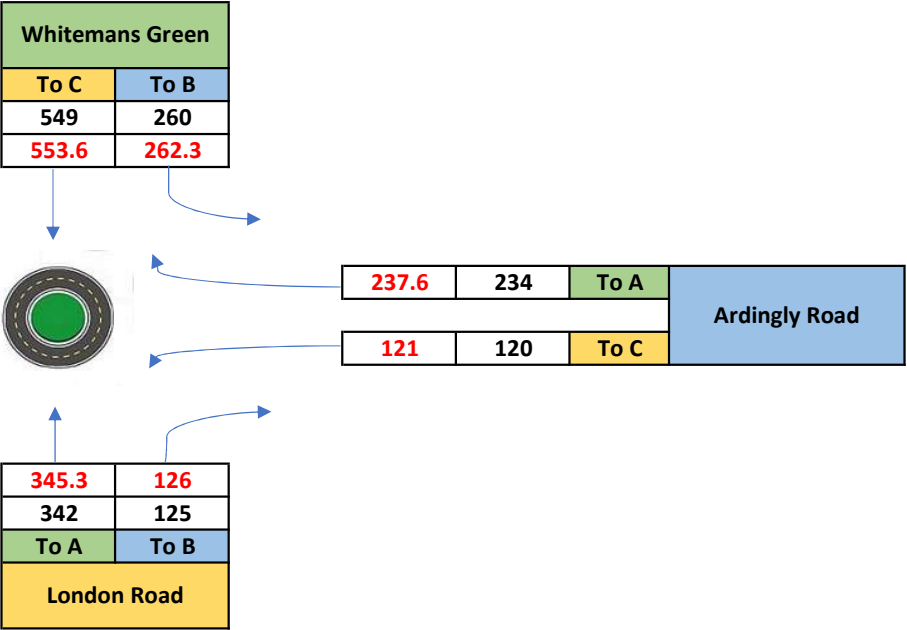
Show PCUs:

☒

Show Session 1



PCUs in red



Cuckfield, Tuesday 26th September 2023

Junction: 1
Approach: Ardingly Road



TIME	Left to London Road					Right to Whitemans Green				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	15	0	0	15	15.0	37	1	0	38	39.3
07:15 - 07:30	17	0	0	17	17.0	55	1	0	56	57.3
07:30 - 07:45	20	0	1	21	22.0	63	1	0	64	65.3
07:45 - 08:00	23	0	0	23	23.0	60	0	0	60	60.0
Hourly Total	75	0	1	76	77.0	215	3	0	218	221.9
08:00 - 08:15	37	0	0	37	37.0	71	1	0	72	73.3
08:15 - 08:30	61	0	0	61	61.0	67	0	0	67	67.0
08:30 - 08:45	62	0	1	63	64.0	74	1	1	76	78.3
08:45 - 09:00	46	0	1	47	48.0	69	0	0	69	69.0
Hourly Total	206	0	2	208	210.0	281	2	1	284	287.6
09:00 - 09:15	33	0	0	33	33.0	50	0	0	50	50.0
09:15 - 09:30	20	0	0	20	20.0	40	1	1	42	44.3
09:30 - 09:45	22	0	0	22	22.0	37	1	0	38	39.3
09:45 - 10:00	17	0	0	17	17.0	36	0	0	36	36.0
Hourly Total	92	0	0	92	92.0	163	2	1	166	169.6

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	373	0	3	376	379.0	659	7	2	668	679.1
--------------	------------	----------	----------	------------	--------------	------------	----------	----------	------------	--------------

16:00 - 16:15	33	0	0	33	33.0	47	1	0	48	49.3
16:15 - 16:30	35	0	0	35	35.0	44	0	1	45	46.0
16:30 - 16:45	31	0	0	31	31.0	49	0	0	49	49.0
16:45 - 17:00	32	0	0	32	32.0	57	0	0	57	57.0
Hourly Total	131	0	0	131	131.0	197	1	1	199	201.3
17:00 - 17:15	29	0	0	29	29.0	62	1	0	63	64.3
17:15 - 17:30	30	0	1	31	32.0	55	1	1	57	59.3
17:30 - 17:45	27	0	0	27	27.0	55	0	0	55	55.0
17:45 - 18:00	33	0	0	33	33.0	59	0	0	59	59.0
Hourly Total	119	0	1	120	121.0	231	2	1	234	237.6
18:00 - 18:15	29	0	0	29	29.0	50	0	0	50	50.0
18:15 - 18:30	26	0	0	26	26.0	53	0	0	53	53.0
18:30 - 18:45	19	0	0	19	19.0	38	0	0	38	38.0
18:45 - 19:00	22	0	0	22	22.0	30	0	0	30	30.0
Hourly Total	96	0	0	96	96.0	171	0	0	171	171.0

TOTAL	346	0	1	347	348.0	599	3	2	604	609.9
--------------	------------	----------	----------	------------	--------------	------------	----------	----------	------------	--------------

Cuckfield, Tuesday 26th September 2023

Junction: 1
Approach: London Road



TIME	Ahead to Whitemans Green					Right to Ardingly Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	97	0	0	97	97.0	13	0	0	13	13.0
07:15 - 07:30	109	3	1	113	117.9	17	1	0	18	19.3
07:30 - 07:45	139	2	1	142	145.6	21	0	0	21	21.0
07:45 - 08:00	152	3	1	156	160.9	29	1	1	31	33.3
Hourly Total	497	8	3	508	521.4	80	2	1	83	86.6
08:00 - 08:15	128	1	0	129	130.3	27	0	0	27	27.0
08:15 - 08:30	117	0	2	119	121.0	36	0	1	37	38.0
08:30 - 08:45	108	3	1	112	116.9	34	1	1	36	38.3
08:45 - 09:00	107	1	1	109	111.3	40	0	0	40	40.0
Hourly Total	460	5	4	469	479.5	137	1	2	140	143.3
09:00 - 09:15	94	2	0	96	98.6	31	0	0	31	31.0
09:15 - 09:30	78	2	1	81	84.6	31	0	1	32	33.0
09:30 - 09:45	71	2	0	73	75.6	26	1	0	27	28.3
09:45 - 10:00	67	1	1	69	71.3	18	0	0	18	18.0
Hourly Total	310	7	2	319	330.1	106	1	1	108	110.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	1267	20	9	1296	1331.0	323	4	4	331	340.2
--------------	-------------	-----------	----------	-------------	---------------	------------	----------	----------	------------	--------------

16:00 - 16:15	90	1	1	92	94.3	17	0	0	17	17.0
16:15 - 16:30	106	0	0	106	106.0	22	1	0	23	24.3
16:30 - 16:45	102	1	0	103	104.3	29	0	1	30	31.0
16:45 - 17:00	93	1	1	95	97.3	24	0	0	24	24.0
Hourly Total	391	3	2	396	401.9	92	1	1	94	96.3
17:00 - 17:15	87	0	0	87	87.0	31	0	0	31	31.0
17:15 - 17:30	91	0	1	92	93.0	28	0	0	28	28.0
17:30 - 17:45	87	1	0	88	89.3	36	0	1	37	38.0
17:45 - 18:00	74	0	1	75	76.0	29	0	0	29	29.0
Hourly Total	339	1	2	342	345.3	124	0	1	125	126.0
18:00 - 18:15	62	0	0	62	62.0	27	0	0	27	27.0
18:15 - 18:30	67	1	1	69	71.3	22	0	0	22	22.0
18:30 - 18:45	63	0	1	64	65.0	20	0	0	20	20.0
18:45 - 19:00	55	0	0	55	55.0	16	0	0	16	16.0
Hourly Total	247	1	2	250	253.3	85	0	0	85	85.0

TOTAL	977	5	6	988	1000.5	301	1	2	304	307.3
--------------	------------	----------	----------	------------	---------------	------------	----------	----------	------------	--------------

Cuckfield, Tuesday 26th September 2023

Junction: 1
Approach: Whitmans Green



TIME	Left to Ardingly Road					Ahead to London Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	33	1	0	34	35.3	53	2	1	56	59.6
07:15 - 07:30	37	0	0	37	37.0	74	2	1	77	80.6
07:30 - 07:45	50	2	1	53	56.6	81	0	0	81	81.0
07:45 - 08:00	64	0	0	64	64.0	90	2	2	94	98.6
Hourly Total	184	3	1	188	192.9	298	6	4	308	319.8
08:00 - 08:15	77	1	0	78	79.3	82	3	1	86	90.9
08:15 - 08:30	69	2	1	72	75.6	96	1	2	99	102.3
08:30 - 08:45	80	2	1	83	86.6	80	0	0	80	80.0
08:45 - 09:00	70	0	1	71	72.0	71	2	1	74	77.6
Hourly Total	296	5	3	304	313.5	329	6	4	339	350.8
09:00 - 09:15	52	0	0	52	52.0	66	1	1	68	70.3
09:15 - 09:30	37	0	1	38	39.0	52	2	0	54	56.6
09:30 - 09:45	33	0	0	33	33.0	57	2	0	59	61.6
09:45 - 10:00	37	1	0	38	39.3	53	1	1	55	57.3
Hourly Total	159	1	1	161	163.3	228	6	2	236	245.8

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TOTAL	639	9	5	653	669.7	855	18	10	883	916.4
-------	-----	---	---	-----	-------	-----	----	----	-----	-------

16:00 - 16:15	44	1	0	45	46.3	66	1	0	67	68.3
16:15 - 16:30	50	0	1	51	52.0	73	1	1	75	77.3
16:30 - 16:45	53	0	0	53	53.0	82	1	0	83	84.3
16:45 - 17:00	60	0	0	60	60.0	104	1	0	105	106.3
Hourly Total	207	1	1	209	211.3	325	4	1	330	336.2
17:00 - 17:15	67	0	0	67	67.0	129	0	1	130	131.0
17:15 - 17:30	74	1	0	75	76.3	136	0	1	137	138.0
17:30 - 17:45	62	0	0	62	62.0	142	2	0	144	146.6
17:45 - 18:00	55	0	1	56	57.0	138	0	0	138	138.0
Hourly Total	258	1	1	260	262.3	545	2	2	549	553.6
18:00 - 18:15	50	0	0	50	50.0	120	1	0	121	122.3
18:15 - 18:30	41	0	0	41	41.0	104	0	1	105	106.0
18:30 - 18:45	46	0	0	46	46.0	87	0	0	87	87.0
18:45 - 19:00	37	0	0	37	37.0	77	1	0	78	79.3
Hourly Total	174	0	0	174	174.0	388	2	1	391	394.6

TOTAL	639	2	2	643	647.6	1258	8	4	1270	1284.4
-------	-----	---	---	-----	-------	------	---	---	------	--------

Cuckfield, Tuesday 26th September 2023



Queues are stationary vehicles each 5 minutes

TIME	Whitemans Green	Ardingly Road	London Road
07:00	0	2	0
07:05	2	3	1
07:10	2	2	0
07:15	2	2	2
07:20	2	2	2
07:25	3	2	0
07:30	2	3	1
07:35	5	2	1
07:40	6	5	0
07:45	3	3	3
07:50	4	4	0
07:55	3	4	1
08:00	5	3	2
08:05	5	6	0
08:10	3	4	2
08:15	3	4	3
08:20	7	4	2
08:25	2	3	2
08:30	5	5	2
08:35	5	6	0
08:40	3	5	2
08:45	4	5	0
08:50	4	5	2
08:55	3	5	2
09:00	2	3	0
09:05	3	2	0
09:10	2	3	0
09:15	2	4	0
09:20	2	4	0
09:25	1	4	2
09:30	2	2	2
09:35	1	0	0
09:40	1	2	3
09:45	1	2	2
09:50	2	2	0
09:55	1	2	2
10:00	2	2	0

16:00	2	3	1
16:05	0	3	0
16:10	2	3	2
16:15	3	2	1
16:20	2	3	1
16:25	5	5	0
16:30	6	2	3
16:35	3	3	2
16:40	3	3	3
16:45	4	4	2
16:50	4	4	3
16:55	5	3	2
17:00	3	6	0
17:05	3	3	2
17:10	7	3	2
17:15	3	4	0
17:20	5	6	3
17:25	4	6	0
17:30	3	3	2
17:35	2	4	0
17:40	3	3	2
17:45	2	5	2
17:50	0	3	2
17:55	2	3	0
18:00	2	2	0
18:05	3	3	0
18:10	1	4	0
18:15	2	4	2
18:20	2	3	0
18:25	0	2	0
18:30	2	3	2
18:35	2	3	2
18:40	3	3	0
18:45	2	2	3
18:50	0	0	0
18:55	2	2	0
19:00	2	3	0

Appendix L

Junctions 9							
PICADY 9 - Priority Intersection Module							
Version: 9.0.2.5947 © Copyright TRL Limited, 2017							
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk							
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution							

Filename: Site Access.j9

Path: P:\Southern\020-029\020 Misc\801-900\020.0885 Land south of Hanlye Lane, Cuckfields\03 Technical\TPL\Modelling

Report generation date: 04/10/2023 15:37:26

»Baseline 2025 + Dev, AM

»Baseline 2025 + Dev, PM

»Baseline 2030 + Dev , AM

»Baseline 2030 + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Baseline 2025 + Dev								
Stream B-AC	0.1	10.38	0.05	B	0.0	8.99	0.02	A
Stream C-AB	0.0	5.10	0.02	A	0.1	5.15	0.04	A
Baseline 2030 + Dev								
Stream B-AC	0.1	10.62	0.06	B	0.0	9.13	0.02	A
Stream C-AB	0.0	5.05	0.02	A	0.1	5.11	0.04	A

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.

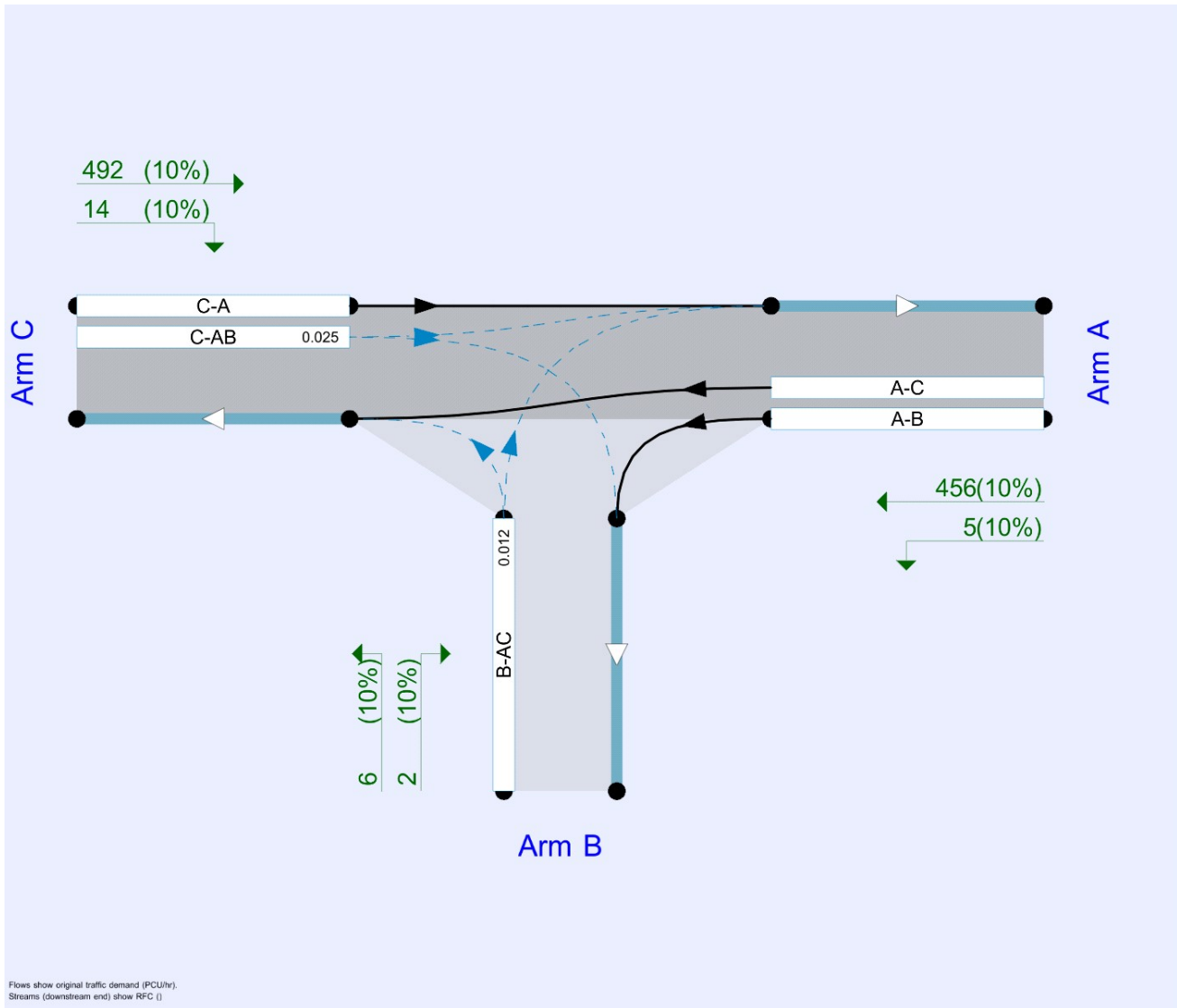
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	04/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AD\model.pc
Description	

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	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Baseline 2025 + Dev	AM	ONE HOUR	07:45	09:15	15
D2	Baseline 2025 + Dev	PM	ONE HOUR	16:45	18:15	15
D3	Baseline 2030 + Dev	AM	ONE HOUR	07:45	09:15	15
D4	Baseline 2030 + Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Baseline 2025 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Hanlye Lane (E)		Major
B	Site Access		Minor
C	Hanlye Lane (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.50			80.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	44	44

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	514	0.096	0.242	0.152	0.345
1	B-C	652	0.102	0.258	-	-
1	C-B	620	0.246	0.246	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

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)
D1	Baseline 2025 + Dev	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	591	100.000
B		✓	20	100.000
C		✓	515	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	2	589
	B	5	0	15
	C	509	6	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	10.38	0.1	B
C-AB	0.02	5.10	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	15	472	0.032	15	0.0	8.657	A
C-AB	9	785	0.011	9	0.0	5.098	A
C-A	379			379			
A-B	2			2			
A-C	443			443			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	444	0.041	18	0.0	9.295	A
C-AB	12	823	0.015	12	0.0	4.884	A
C-A	451			451			
A-B	2			2			
A-C	529			529			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	22	404	0.055	22	0.1	10.375	B
C-AB	18	878	0.021	18	0.0	4.608	A
C-A	549			549			
A-B	2			2			
A-C	649			649			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	22	404	0.055	22	0.1	10.378	B
C-AB	18	878	0.021	18	0.0	4.608	A
C-A	549			549			
A-B	2			2			
A-C	649			649			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	444	0.041	18	0.0	9.301	A
C-AB	12	823	0.015	12	0.0	4.886	A
C-A	451			451			
A-B	2			2			
A-C	529			529			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	15	472	0.032	15	0.0	8.666	A
C-AB	9	785	0.011	9	0.0	5.100	A
C-A	379			379			
A-B	2			2			
A-C	443			443			

Baseline 2025 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D2	Baseline 2025 + Dev	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	444	100.000
B		✓	8	100.000
C		✓	487	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	5	439
	B	2	0	6
	C	473	14	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	8.99	0.0	A
C-AB	0.04	5.15	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	6	502	0.012	6	0.0	7.977	A
C-AB	19	788	0.024	19	0.0	5.151	A
C-A	347			347			
A-B	4			4			
A-C	331			331			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	7	480	0.015	7	0.0	8.369	A
C-AB	26	824	0.032	26	0.0	4.961	A
C-A	412			412			
A-B	4			4			
A-C	395			395			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	449	0.020	9	0.0	8.993	A
C-AB	38	876	0.044	38	0.1	4.723	A
C-A	498			498			
A-B	6			6			
A-C	483			483			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	449	0.020	9	0.0	8.994	A
C-AB	38	876	0.044	38	0.1	4.726	A
C-A	498			498			
A-B	6			6			
A-C	483			483			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	7	480	0.015	7	0.0	8.372	A
C-AB	26	824	0.032	26	0.0	4.964	A
C-A	412			412			
A-B	4			4			
A-C	395			395			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	6	502	0.012	6	0.0	7.979	A
C-AB	19	788	0.025	19	0.0	5.152	A
C-A	347			347			
A-B	4			4			
A-C	331			331			

Baseline 2030 + Dev , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D3	Baseline 2030 + Dev	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	614	100.000
B		✓	20	100.000
C		✓	534	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	2	612
	B	5	0	15
	C	528	6	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.06	10.62	0.1	B
C-AB	0.02	5.05	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	15	467	0.032	15	0.0	8.764	A
C-AB	9	792	0.011	9	0.0	5.055	A
C-A	393			393			
A-B	2			2			
A-C	461			461			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	437	0.041	18	0.0	9.445	A
C-AB	13	832	0.015	13	0.0	4.834	A
C-A	467			467			
A-B	2			2			
A-C	550			550			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	22	395	0.056	22	0.1	10.618	B
C-AB	19	889	0.022	19	0.0	4.552	A
C-A	569			569			
A-B	2			2			
A-C	674			674			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	22	395	0.056	22	0.1	10.619	B
C-AB	19	889	0.022	19	0.0	4.552	A
C-A	569			569			
A-B	2			2			
A-C	674			674			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	437	0.041	18	0.0	9.452	A
C-AB	13	832	0.015	13	0.0	4.837	A
C-A	467			467			
A-B	2			2			
A-C	550			550			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	15	467	0.032	15	0.0	8.771	A
C-AB	9	792	0.011	9	0.0	5.055	A
C-A	393			393			
A-B	2			2			
A-C	461			461			

Baseline 2030 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D4	Baseline 2030 + Dev	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	461	100.000
B		✓	8	100.000
C		✓	506	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0	5	456
	B	2	0	6
	C	492	14	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	9.13	0.0	A
C-AB	0.04	5.11	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	6	498	0.012	6	0.0	8.047	A
C-AB	20	795	0.025	20	0.0	5.104	A
C-A	361			361			
A-B	4			4			
A-C	343			343			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	7	475	0.015	7	0.0	8.463	A
C-AB	27	833	0.032	27	0.0	4.909	A
C-A	428			428			
A-B	4			4			
A-C	410			410			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	442	0.020	9	0.0	9.131	A
C-AB	40	888	0.045	40	0.1	4.666	A
C-A	517			517			
A-B	6			6			
A-C	502			502			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	442	0.020	9	0.0	9.132	A
C-AB	40	888	0.045	40	0.1	4.666	A
C-A	517			517			
A-B	6			6			
A-C	502			502			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	7	475	0.015	7	0.0	8.466	A
C-AB	27	834	0.032	27	0.0	4.910	A
C-A	428			428			
A-B	4			4			
A-C	410			410			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	6	498	0.012	6	0.0	8.050	A
C-AB	20	795	0.025	20	0.0	5.108	A
C-A	361			361			
A-B	4			4			
A-C	343			343			

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.0.2.5947 © Copyright TRL Limited, 2017			
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk			
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution			

Filename: Ardingly Road Rbt - CD Edit - Validated.j9

Path: P:\Southern\020-029\020 Misc\801-900\020.0885 Land south of Hanlye Lane, Cuckfields\03 Technical\TPL\Modelling

Report generation date: 05/10/2023 16:54:41

«2030 + Dev, PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Baseline 2023								
1 - Ardingly Road	4.2	24.57	0.80	C	3.4	23.12	0.77	C
2 - London Road	2.2	13.60	0.67	B	1.4	9.95	0.56	A
3 - Whitemans Green	3.6	14.47	0.77	B	3.5	14.64	0.77	B
Baseline 2025								
1 - Ardingly Road	4.2	24.94	0.80	C	4.1	27.08	0.80	D
2 - London Road	2.5	14.66	0.70	B	1.5	10.54	0.59	B
3 - Whitemans Green	4.0	15.90	0.79	C	4.1	16.53	0.79	C
2025 + Dev								
1 - Ardingly Road	4.7	27.64	0.82	D	4.2	28.06	0.81	D
2 - London Road	2.6	15.21	0.71	C	1.6	10.79	0.59	B
3 - Whitemans Green	4.2	16.32	0.80	C	4.3	17.48	0.81	C
Baseline 2030								
1 - Ardingly Road	5.2	30.40	0.84	D	5.1	33.74	0.84	D
2 - London Road	3.0	16.91	0.74	C	1.7	11.36	0.61	B
3 - Whitemans Green	4.7	18.28	0.82	C	5.0	19.73	0.83	C
2030 + Dev								
1 - Ardingly Road	6.0	34.58	0.86	D	5.5	35.48	0.85	E
2 - London Road	4.4	23.10	0.81	C	1.8	11.68	0.62	B
3 - Whitemans Green	4.9	18.83	0.83	C	5.4	21.05	0.84	C

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

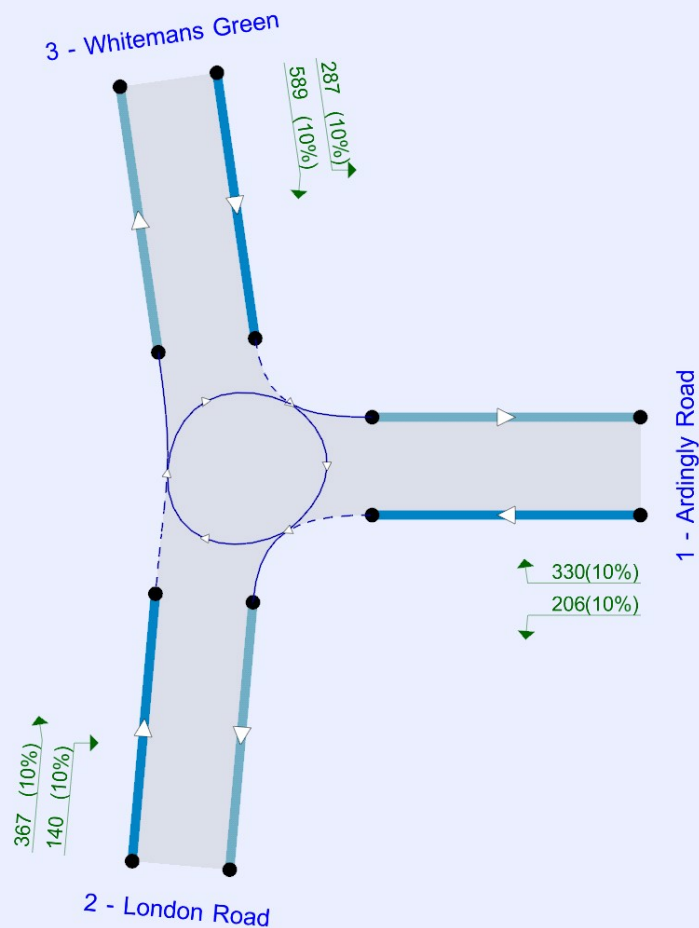
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	04/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AD\model.pc
Description	

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	PCU	PCU	perHour	s	-Min	perMin



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2030 + Dev	PM	ONE HOUR	16:45	18:15	15

2030 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	22.61	C

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Ardingly Road	
2	London Road	
3	Whitemans Green	

Mini Roundabout Geometry

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
1 - Ardingly Road	3.20	3.20	8.00	8.0	10.10	4.90	0.0	
2 - London Road	4.40	4.40	5.20	10.0	14.00	12.80	0.0	
3 - Whitemans Green	4.00	4.00	7.00	7.5	12.20	3.60	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Ardingly Road	0.660	1123
2 - London Road	0.676	1141
3 - Whitemans Green	0.678	1253

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

Traffic Demand

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Ardingly Road		✓	536	100.000
2 - London Road		✓	507	100.000
3 - Whitemans Green		✓	876	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Ardingly Road	2 - London Road	3 - Whitemans Green
From	1 - Ardingly Road	0	206	330
	2 - London Road	140	0	367
	3 - Whitemans Green	287	589	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Ardingly Road	2 - London Road	3 - Whitemans Green
From	1 - Ardingly Road	10	10	10
	2 - London Road	10	10	10
	3 - Whitemans Green	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Ardingly Road	0.85	35.48	5.5	E
2 - London Road	0.62	11.68	1.8	B
3 - Whitemans Green	0.84	21.05	5.4	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Ardingly Road	404	440	832	0.485	399	1.0	9.068	A
2 - London Road	382	246	975	0.391	379	0.7	6.611	A
3 - Whitemans Green	659	105	1182	0.558	654	1.4	7.427	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Ardingly Road	482	527	775	0.622	479	1.7	13.263	B
2 - London Road	456	295	942	0.484	455	1.0	8.100	A
3 - Whitemans Green	788	126	1168	0.674	784	2.2	10.229	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Ardingly Road	590	641	700	0.844	578	4.9	29.781	D
2 - London Road	558	356	901	0.619	555	1.7	11.355	B
3 - Whitemans Green	964	153	1149	0.839	953	5.1	19.143	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Ardingly Road	590	648	695	0.849	588	5.5	35.481	E
2 - London Road	558	362	897	0.622	558	1.8	11.676	B
3 - Whitemans Green	964	154	1148	0.840	963	5.4	21.055	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Ardingly Road	482	538	768	0.628	496	1.9	15.271	C
2 - London Road	456	305	935	0.487	459	1.1	8.360	A
3 - Whitemans Green	788	127	1167	0.675	800	2.4	11.110	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Ardingly Road	404	446	828	0.487	407	1.1	9.478	A
2 - London Road	382	251	972	0.393	383	0.7	6.740	A
3 - Whitemans Green	659	106	1181	0.558	663	1.4	7.700	A