

Junctions 9										
ARCADY 9 - Roundabout Module PICADY 9 - Priority Intersection Module										
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Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	A50-Conjunction [Lane Simulation] - 2018 Validation									
1 - A50/Hilden Rd Roundabout - 1 - Hilden Rd	D1	1.4	8.32		A	D9	2.2	10.77		B
1 - A50/Hilden Rd Roundabout - 2 - Orford Rd		3.2	15.13		C		14.3	49.88		E
1 - A50/Hilden Rd Roundabout - 3 - Smith Drive		0.9	7.65		A		0.2	5.40		A
1 - A50/Hilden Rd Roundabout - 4 - A50		1.7	8.23		A		2.0	7.26		A
2 - Poplars Ave/A50 - A - A50 W		0.1	0.70		A		0.1	0.87		A
2 - Poplars Ave/A50 - B - Poplars Ave		1.7	18.41		C		2.5	25.79		D
2 - Poplars Ave/A50 - C - A50 E		0.4	2.51		A		2.6	9.89		A
		A50-Conjunction [Lane Simulation] - 2022 DM								
1 - A50/Hilden Rd Roundabout - 1 - Hilden Rd	D2	1.8	8.91		A	D10	2.4	12.46		B
1 - A50/Hilden Rd Roundabout - 2 - Orford Rd		5.3	18.97		C		23.3	78.03		F
1 - A50/Hilden Rd Roundabout - 3 - Smith Drive		0.9	8.40		A		0.2	5.46		A
1 - A50/Hilden Rd Roundabout - 4 - A50		1.8	8.61		A		2.0	7.66		A
2 - Poplars Ave/A50 - A - A50 W		0.1	0.65		A		0.2	1.29		A
2 - Poplars Ave/A50 - B - Poplars Ave		4.0	31.51		D		4.3	41.33		E
2 - Poplars Ave/A50 - C - A50 E		0.5	2.60		A		2.6	9.81		A
		A50-Conjunction [Lane Simulation] - 2022 DS								
1 - A50/Hilden Rd Roundabout - 1 - Hilden Rd	D3	1.7	9.45		A	D11	2.8	14.53		B
1 - A50/Hilden Rd Roundabout - 2 - Orford Rd		7.8	27.48		D		30.6	96.95		F
1 - A50/Hilden Rd Roundabout - 3 - Smith Drive		1.0	8.74		A		0.2	5.82		A
1 - A50/Hilden Rd Roundabout - 4 - A50		2.1	9.08		A		2.1	7.75		A
2 - Poplars Ave/A50 - A - A50 W		0.1	0.91		A		0.3	1.51		A
2 - Poplars Ave/A50 - B - Poplars Ave		5.8	45.06		E		4.3	44.48		E
2 - Poplars Ave/A50 - C - A50 E		0.6	2.69		A		2.8	10.26		B

	A50-Conjunction [Lane Simulation] - 2022 DS Full							
1 - A50/Hilden Rd Roundabout - 1 - Hilden Rd	D4	3.7	15.18	C	D12	3.5	13.86	B
1 - A50/Hilden Rd Roundabout - 2 - Orford Rd		20.6	65.48	F		54.4	160.96	F
1 - A50/Hilden Rd Roundabout - 3 - Smith Drive		1.2	9.93	A		0.3	6.36	A
1 - A50/Hilden Rd Roundabout - 4 - A50		2.3	9.70	A		2.2	8.39	A
2 - Poplars Ave/A50 - A - A50 W		0.3	1.01	A		0.5	1.96	A
2 - Poplars Ave/A50 - B - Poplars Ave		12.7	83.68	F		7.5	67.47	F
2 - Poplars Ave/A50 - C - A50 E		0.7	2.99	A		2.6	9.94	A
	A50-Conjunction [Lane Simulation] - 2027 DM							
1 - A50/Hilden Rd Roundabout - 1 - Hilden Rd	D5	1.9	10.06	B	D13	3.0	13.71	B
1 - A50/Hilden Rd Roundabout - 2 - Orford Rd		8.3	29.44	D		36.3	112.57	F
1 - A50/Hilden Rd Roundabout - 3 - Smith Drive		1.2	9.24	A		0.2	5.65	A
1 - A50/Hilden Rd Roundabout - 4 - A50		2.1	9.30	A		2.1	7.75	A
2 - Poplars Ave/A50 - A - A50 W		0.2	1.02	A		0.3	1.48	A
2 - Poplars Ave/A50 - B - Poplars Ave		8.0	60.34	F		5.2	53.75	F
2 - Poplars Ave/A50 - C - A50 E		0.8	2.95	A		2.9	9.83	A
	A50-Conjunction [Lane Simulation] - 2027 DS							
1 - A50/Hilden Rd Roundabout - 1 - Hilden Rd	D6	2.6	12.71	B	D14	3.5	16.59	C
1 - A50/Hilden Rd Roundabout - 2 - Orford Rd		26.9	78.74	F		77.7	234.27	F
1 - A50/Hilden Rd Roundabout - 3 - Smith Drive		1.4	11.17	B		0.3	6.34	A
1 - A50/Hilden Rd Roundabout - 4 - A50		2.2	9.89	A		2.3	8.37	A
2 - Poplars Ave/A50 - A - A50 W		0.2	1.17	A		0.4	1.93	A
2 - Poplars Ave/A50 - B - Poplars Ave		22.0	132.23	F		12.8	101.10	F
2 - Poplars Ave/A50 - C - A50 E		0.9	3.50	A		2.9	10.80	B
	A50-Conjunction [Lane Simulation] - 2032 DM							
1 - A50/Hilden Rd Roundabout - 1 - Hilden Rd	D7	2.3	11.11	B	D15	2.9	13.87	B
1 - A50/Hilden Rd Roundabout - 2 - Orford Rd		13.7	46.10	E		52.6	157.29	F
1 - A50/Hilden Rd Roundabout - 3 - Smith Drive		1.5	10.80	B		0.2	6.09	A
1 - A50/Hilden Rd Roundabout - 4 - A50		2.2	9.70	A		2.2	8.06	A
2 - Poplars Ave/A50 - A - A50 W		0.2	1.08	A		0.3	1.63	A
2 - Poplars Ave/A50 - B - Poplars Ave		15.9	100.28	F		9.1	68.68	F
2 - Poplars Ave/A50 - C - A50 E		0.7	2.97	A		2.8	9.29	A
	A50-Conjunction [Lane Simulation] - 2032 DS Full							
1 - A50/Hilden Rd Roundabout - 1 - Hilden Rd	D8	3.5	15.25	C	D16	3.4	15.16	C
1 - A50/Hilden Rd Roundabout - 2 - Orford Rd		48.2	138.79	F		93.3	292.40	F
1 - A50/Hilden Rd Roundabout - 3 - Smith Drive		1.1	10.46	B		0.4	6.69	A
1 - A50/Hilden Rd Roundabout - 4 - A50		2.2	9.49	A		2.4	8.71	A
2 - Poplars Ave/A50 - A - A50 W		0.2	0.97	A		0.7	2.57	A
2 - Poplars Ave/A50 - B - Poplars Ave		25.4	147.79	F		15.8	123.33	F
2 - Poplars Ave/A50 - C - A50 E		0.8	3.07	A		2.7	9.25	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. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	17/10/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
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

Analysis Options

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

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			506243264	101	9.12

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	2018 Validation	AM	ONE HOUR	08:00	09:30	15	✓
D2	2022 DM	AM	ONE HOUR	08:00	09:30	15	✓
D3	2022 DS	AM	ONE HOUR	08:00	09:30	15	✓
D4	2022 DS Full	AM	ONE HOUR	08:00	09:30	15	✓
D5	2027 DM	AM	ONE HOUR	08:00	09:30	15	✓
D6	2027 DS	AM	ONE HOUR	08:00	09:30	15	✓
D7	2032 DM	AM	ONE HOUR	08:00	09:30	15	✓
D8	2032 DS Full	AM	ONE HOUR	08:00	09:30	15	✓
D9	2018 Validation	PM	ONE HOUR	17:00	18:30	15	✓
D10	2022 DM	PM	ONE HOUR	17:00	18:30	15	✓
D11	2022 DS	PM	ONE HOUR	17:00	18:30	15	✓
D12	2022 DS Full	PM	ONE HOUR	17:00	18:30	15	✓
D13	2027 DM	PM	ONE HOUR	17:00	18:30	15	✓
D14	2027 DS	PM	ONE HOUR	17:00	18:30	15	✓
D15	2032 DM	PM	ONE HOUR	17:00	18:30	15	✓
D16	2032 DS Full	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
AV-1	A50-Conjunction	✓	✓	100.000	100.000

A50-Conjunction - 2018 Validation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	10.52	B
2	Poplars Ave/A50	T-Junction	Two-way			5.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Junction	Arm	Name	Description	Arm type
1 - A50/Hilden Rd Roundabout	1	Hilden Rd	Hilden Rd	
	2	Orford Rd		
	3	Smith Drive		
	4	A50		
2 - Poplars Ave/A50	A	A50 W		Major
	B	Poplars Ave		Minor
	C	A50 E		Major

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 - A50/Hilden Rd Roundabout	1 - Hilden Rd	3.70	5.50	11.3	31.3	78.0	54.5	
	2 - Orford Rd	4.35	4.35	0.0	26.8	78.0	25.1	
	3 - Smith Drive	3.60	4.40	3.8	15.0	78.0	32.0	
	4 - A50	3.85	3.85	0.0	48.7	78.0	20.5	

Major Arm Geometry

Junction	Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
2 - Poplars Ave/A50	C - A50 E	11.00		✓	3.00	120.0	✓	3.00

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

Minor Arm Geometry

Junction	Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
2 - Poplars Ave/A50	B - Poplars Ave	One lane	5.00	120	52

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	0.415	1383
	2 - Orford Rd	0.433	1357
	3 - Smith Drive	0.399	1207
	4 - A50	0.423	1239

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

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
2 - Poplars Ave/A50	B-A	651	0.093	0.235	0.148	0.335
	B-C	788	0.095	0.239	-	-
	C-B	699	0.212	0.212	-	-

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.

Lane Simulation: Arm options

Junction	Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Evenly split	10.00
	2 - Orford Rd	Evenly split	10.00
	3 - Smith Drive	Evenly split	10.00
	4 - A50	Evenly split	10.00
2 - Poplars Ave/A50	A - A50 W		
	B - Poplars Ave		
	C - A50 E		

Lanes

Junction	Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4		Infinity		0	99999	
		Exit	1	1			Infinity				
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4		Infinity		0	99999	
		Exit	1	1			Infinity				
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4		Infinity		0	99999	
		Exit	1	1			Infinity				
	4 - A50	Entry	1	1	1, 2, 3, 4	✓	3.00		0	99999	
		Exit	1	1		✓	3.00				
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C		Infinity		0	99999	
		Exit	1	1			Infinity				
	B - Poplars Ave	Entry	1	1	A, C		Infinity		0	99999	
		Exit	1	1			Infinity				
	C - A50 E	Entry	1	1	A	✓	3.00		0	99999	
				2	B	✓	3.00		0	99999	
			2	1	(A, B)	✓	3.00				
		Exit	1	1		✓	3.00				

Entry Lane slope and intercept

Junction	Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	0.415	1383
	2 - Orford Rd	Entry	1	1	0.433	1357
	3 - Smith Drive	Entry	1	1	0.399	1207
	4 - A50	Entry	1	1	0.423	1239

Summary of Entry Lane allowed movements

Junction	Arm	Lane Level	Lane	Destination arm			
				Hilden Rd	Orford Rd	Smith Drive	A50
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	1	1	✓	✓	✓	✓
	2 - Orford Rd	1	1	✓	✓	✓	✓
	3 - Smith Drive	1	1	✓	✓	✓	✓
	4 - A50	1	1	✓	✓	✓	✓

Summary of Entry Lane allowed movements

Junction	Arm	Lane Level	Lane	Destination arm		
				A50 W	Poplars Ave	A50 E
2 - Poplars Ave/A50	A - A50 W	1	1		✓	✓
	B - Poplars Ave	1	1	✓		✓
	C - A50 E	1	1	✓		
			2		✓	
		2	1	✓	✓	

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	2018 Validation	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	527	100.000
	2 - Orford Rd		ONE HOUR	✓	782	100.000
	3 - Smith Drive		ONE HOUR	✓	345	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	490	100.000
	B - Poplars Ave		ONE HOUR	✓	315	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	52	384	91
	2 - Orford Rd	208	0	80	494
	3 - Smith Drive	234	108	0	3
	4 - A50	44	579	19	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
From	A - A50 W	0	164	326
	B - Poplars Ave	0	0	315
	C - A50 E	433	154	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	2	1	1
	2 - Orford Rd	0	0	3	4
	3 - Smith Drive	1	0	0	0
	4 - A50	1	3	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
From	A - A50 W	0	0	3
	B - Poplars Ave	0	0	3
	C - A50 E	3	6	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	8.32	1.4	A	491	736
	2 - Orford Rd	15.13	3.2	C	722	1083
	3 - Smith Drive	7.65	0.9	A	314	471
	4 - A50	8.23	1.7	A	592	888
2 - Poplars Ave/A50	A - A50 W	0.70	0.1	A	452	677
	B - Poplars Ave	18.41	1.7	C	291	436
	C - A50 E	2.51	0.4	A	544	816

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	412	103	536	410	402	358	0.0	0.7	4.691	A
	2 - Orford Rd	585	146	386	584	582	560	0.0	1.1	6.162	A
	3 - Smith Drive	253	63	597	252	255	373	0.0	0.4	4.837	A
	4 - A50	487	122	408	487	479	442	0.0	0.8	5.620	A
2 - Poplars Ave/A50	A - A50 W	370	92		370	371	332	0.0	0.0	0.050	A
	B - Poplars Ave	238	59		241	237	236	0.0	0.5	8.673	A
	C - A50 E	444	111		444	445	485	0.0	0.2	1.926	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	477	119	645	477	475	437	0.7	0.8	5.422	A
	2 - Orford Rd	715	179	447	716	701	676	1.1	1.6	7.983	A
	3 - Smith Drive	308	77	723	307	307	440	0.4	0.5	5.783	A
	4 - A50	591	148	492	590	571	537	0.8	1.2	6.729	A
2 - Poplars Ave/A50	A - A50 W	438	110		439	436	397	0.0	0.0	0.146	A
	B - Poplars Ave	289	72		291	281	279	0.5	0.7	10.620	B
	C - A50 E	538	135		536	525	591	0.2	0.4	2.123	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	590	148	769	592	585	537	0.8	1.4	7.786	A
	2 - Orford Rd	849	212	551	863	862	810	1.6	3.0	13.204	B
	3 - Smith Drive	374	94	877	377	383	536	0.5	0.8	7.647	A
	4 - A50	697	174	609	697	692	645	1.2	1.7	8.226	A
2 - Poplars Ave/A50	A - A50 W	535	134		535	533	474	0.0	0.1	0.613	A
	B - Poplars Ave	347	87		346	346	355	0.7	1.7	17.921	C
	C - A50 E	646	161		646	646	698	0.4	0.3	2.287	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	586	146	790	589	588	546	1.4	1.3	8.320	A
	2 - Orford Rd	874	219	552	883	863	826	3.0	3.2	15.134	C
	3 - Smith Drive	380	95	895	381	378	539	0.8	0.9	7.546	A
	4 - A50	716	179	619	716	709	657	1.7	1.5	8.219	A
2 - Poplars Ave/A50	A - A50 W	544	136		544	541	490	0.1	0.0	0.702	A
	B - Poplars Ave	350	88		353	348	350	1.7	1.6	18.410	C
	C - A50 E	656	164		657	649	715	0.3	0.4	2.514	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	476	119	642	478	475	440	1.3	0.6	5.648	A
	2 - Orford Rd	711	178	449	710	714	671	3.2	1.5	8.755	A
	3 - Smith Drive	315	79	715	317	317	442	0.9	0.4	6.224	A
	4 - A50	577	144	505	577	581	529	1.5	1.3	6.980	A
2 - Poplars Ave/A50	A - A50 W	450	113		451	442	391	0.0	0.0	0.180	A
	B - Poplars Ave	282	71		281	287	293	1.6	0.9	10.304	B
	C - A50 E	531	133		532	538	580	0.4	0.4	2.227	A

09:15 - 09:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	403	101	527	402	400	372	0.6	0.6	4.879	A
	2 - Orford Rd	598	149	375	599	592	554	1.5	1.0	6.080	A
	3 - Smith Drive	253	63	610	255	257	365	0.4	0.3	5.001	A
	4 - A50	484	121	417	482	487	448	1.3	0.8	5.871	A
2 - Poplars Ave/A50	A - A50 W	373	93		373	370	335	0.0	0.0	0.040	A
	B - Poplars Ave	238	60		239	242	238	0.9	0.5	8.332	A
	C - A50 E	450	112		448	442	487	0.4	0.3	2.010	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	412	1160	0.355	410	402	0.0	0.7	4.691	A
		Exit	1	1		358			358	357	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	585	1190	0.491	584	582	0.0	1.1	6.162	A
		Exit	1	1		560			560	549	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	253	969	0.261	252	255	0.0	0.4	4.837	A
		Exit	1	1		373			373	368	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	487	1066	0.457	487	479	0.0	0.8	5.620	A
		Exit	1	1		442			442	443	0.0	0.0	0.021	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	370			370	371	0.0	0.0	0.050	A
		Exit	1	1		332			332	331	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	238			241	237	0.0	0.5	8.673	A
		Exit	1	1		236			236	238	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	332			332	331	0.0	0.0	0.000	A
				2	B	111			112	113	0.0	0.2	7.379	A
			2	1	(A, B)	444			444	446	0.0	0.0	0.075	A
		Exit	1	1		486			485	482	0.0	0.2	0.585	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	477	1115	0.428	477	475	0.7	0.8	5.422	A
		Exit	1	1		437			437	434	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	715	1163	0.615	716	701	1.1	1.6	7.983	A
		Exit	1	1		676			676	658	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	308	919	0.335	307	307	0.4	0.5	5.783	A
		Exit	1	1		440			440	436	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	591	1031	0.574	590	571	0.8	1.2	6.729	A
		Exit	1	1		537			537	526	0.0	0.0	0.005	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	438			439	436	0.0	0.0	0.146	A
		Exit	1	1		397			397	388	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	289			291	281	0.5	0.7	10.620	B
		Exit	1	1		279			279	282	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	397			397	388	0.0	0.0	0.000	A
				2	B	141			139	137	0.2	0.4	8.028	A
			2	1	(A, B)	538			538	526	0.0	0.0	0.063	A
		Exit	1	1		590			591	573	0.2	0.1	1.281	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	590	1064	0.555	592	585	0.8	1.4	7.786	A
		Exit	1	1		537			537	534	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	849	1118	0.759	863	862	1.6	3.0	13.204	B
		Exit	1	1		810			810	808	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	374	857	0.437	377	383	0.5	0.8	7.647	A
		Exit	1	1		536			536	534	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	697	981	0.711	697	692	1.2	1.7	8.226	A
		Exit	1	1		645			645	645	0.0	0.0	0.029	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	535			535	533	0.0	0.1	0.613	A
		Exit	1	1		474			474	477	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	347			346	346	0.7	1.7	17.921	C
		Exit	1	1		355			355	349	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	474			474	477	0.0	0.0	0.000	A
				2	B	172			172	169	0.4	0.3	8.459	A
			2	1	(A, B)	646			646	646	0.0	0.0	0.115	A
		Exit	1	1		698			698	697	0.1	0.6	2.767	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	586	1055	0.555	589	588	1.4	1.3	8.320	A
		Exit	1	1		546			546	534	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	874	1118	0.782	883	863	3.0	3.2	15.134	C
		Exit	1	1		826			826	816	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	380	850	0.447	381	378	0.8	0.9	7.546	A
		Exit	1	1		539			539	539	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	716	977	0.733	716	709	1.7	1.5	8.219	A
		Exit	1	1		657			657	649	0.0	0.0	0.074	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	544			544	541	0.1	0.0	0.702	A
		Exit	1	1		490			490	478	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	350			353	348	1.7	1.6	18.410	C
		Exit	1	1		350			350	351	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	490			490	478	0.0	0.0	0.000	A
				2	B	167			167	170	0.3	0.4	8.853	A
			2	1	(A, B)	656			657	649	0.0	0.0	0.230	A
		Exit	1	1		714			715	710	0.6	0.4	2.781	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	476	1116	0.426	478	475	1.3	0.6	5.648	A
		Exit	1	1		440			440	443	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	711	1163	0.612	710	714	3.2	1.5	8.755	A
		Exit	1	1		671			671	671	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	315	921	0.342	317	317	0.9	0.4	6.224	A
		Exit	1	1		442			442	439	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	577	1025	0.563	577	581	1.5	1.3	6.980	A
		Exit	1	1		529			529	535	0.0	0.0	0.019	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	450			451	442	0.0	0.0	0.180	A
		Exit	1	1		391			391	397	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	282			281	287	1.6	0.9	10.304	B
		Exit	1	1		293			293	289	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	391			391	397	0.0	0.0	0.000	A
				2	B	140			141	141	0.4	0.4	8.351	A
			2	1	(A, B)	531			530	538	0.0	0.0	0.094	A
		Exit	1	1		580			580	582	0.4	0.3	1.360	A

09:15 - 09:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	403	1164	0.346	402	400	0.6	0.6	4.879	A
		Exit	1	1		372			372	365	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	598	1194	0.500	599	592	1.5	1.0	6.080	A
		Exit	1	1		554			554	562	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	253	964	0.263	255	257	0.4	0.3	5.001	A
		Exit	1	1		365			365	368	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	484	1062	0.455	482	487	1.3	0.8	5.871	A
		Exit	1	1		448			448	440	0.0	0.0	0.003	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	373			373	370	0.0	0.0	0.040	A
		Exit	1	1		335			335	327	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	238			239	242	0.9	0.5	8.332	A
		Exit	1	1		238			238	242	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	335			335	327	0.0	0.0	0.000	A
				2	B	115			113	116	0.4	0.3	7.785	A
		Exit	1	1	(A, B)	450			450	442	0.0	0.0	0.037	A
				1		487			487	487	0.3	0.1	0.665	A

A50-Conjunction - 2022 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	12.14	B
2	Poplars Ave/A50	T-Junction	Two-way			9.94	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)	Run automatically
D2	2022 DM	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	563	100.000
	2 - Orford Rd		ONE HOUR	✓	823	100.000
	3 - Smith Drive		ONE HOUR	✓	364	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	457	100.000
	B - Poplars Ave		ONE HOUR	✓	403	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	56	423	84
	2 - Orford Rd	215	0	92	516
	3 - Smith Drive	245	115	0	4
	4 - A50	46	614	20	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	180	277
	B - Poplars Ave	0	0	403
	C - A50 E	439	164	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	2	1	1
	2 - Orford Rd	0	0	2	4
	3 - Smith Drive	1	0	0	0
	4 - A50	1	3	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	4
	B - Poplars Ave	0	0	2
	C - A50 E	3	6	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	8.91	1.8	A	517	776
	2 - Orford Rd	18.97	5.3	C	753	1129
	3 - Smith Drive	8.40	0.9	A	336	504
	4 - A50	8.61	1.8	A	624	936
2 - Poplars Ave/A50	A - A50 W	0.65	0.1	A	421	632
	B - Poplars Ave	31.51	4.0	D	370	555
	C - A50 E	2.60	0.5	A	555	832

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	420	105	576	420	420	377	0.0	0.6	5.064	A
	2 - Orford Rd	603	151	390	604	614	607	0.0	1.4	6.638	A
	3 - Smith Drive	275	69	598	275	276	396	0.0	0.4	5.602	A
	4 - A50	522	131	430	524	517	444	0.0	1.0	5.988	A
2 - Poplars Ave/A50	A - A50 W	348	87		348	352	325	0.0	0.0	0.057	A
	B - Poplars Ave	309	77		312	306	258	0.0	0.8	9.245	A
	C - A50 E	446	112		446	449	523	0.0	0.4	2.007	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	501	125	679	503	506	465	0.6	0.7	5.990	A
	2 - Orford Rd	747	187	470	749	742	712	1.4	1.9	8.984	A
	3 - Smith Drive	332	83	739	331	325	480	0.4	0.6	6.051	A
	4 - A50	617	154	527	617	609	543	1.0	1.1	6.729	A
2 - Poplars Ave/A50	A - A50 W	419	105		418	409	397	0.0	0.1	0.122	A
	B - Poplars Ave	367	92		364	361	313	0.8	1.4	11.649	B
	C - A50 E	545	136		545	543	616	0.4	0.3	2.209	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	625	156	822	621	620	562	0.7	1.8	8.788	A
	2 - Orford Rd	915	229	578	914	897	865	1.9	5.3	17.602	C
	3 - Smith Drive	408	102	905	407	396	587	0.6	0.9	7.908	A
	4 - A50	741	185	641	743	736	670	1.1	1.8	8.377	A
2 - Poplars Ave/A50	A - A50 W	499	125		499	502	492	0.1	0.1	0.474	A
	B - Poplars Ave	443	111		437	434	374	1.4	3.8	24.653	C
	C - A50 E	671	168		669	660	740	0.3	0.5	2.586	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	628	157	820	628	625	549	1.8	1.5	8.908	A
	2 - Orford Rd	901	225	590	907	909	858	5.3	4.7	18.966	C
	3 - Smith Drive	401	100	898	402	402	600	0.9	0.9	8.402	A
	4 - A50	735	184	632	737	745	667	1.8	1.7	8.606	A
2 - Poplars Ave/A50	A - A50 W	498	125		499	498	490	0.1	0.1	0.651	A
	B - Poplars Ave	440	110		437	446	381	3.8	4.0	31.506	D
	C - A50 E	672	168		672	670	737	0.5	0.4	2.600	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	496	124	678	497	507	442	1.5	0.9	6.548	A
	2 - Orford Rd	730	182	467	727	743	708	4.7	2.2	9.699	A
	3 - Smith Drive	329	82	721	328	332	473	0.9	0.5	6.306	A
	4 - A50	611	153	509	612	624	540	1.7	1.2	7.360	A
2 - Poplars Ave/A50	A - A50 W	416	104		417	418	395	0.1	0.0	0.251	A
	B - Poplars Ave	356	89		359	369	314	4.0	1.1	15.509	C
	C - A50 E	543	136		544	548	611	0.4	0.2	2.324	A

09:15 - 09:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	436	109	568	435	430	384	0.9	0.6	5.039	A
	2 - Orford Rd	620	155	412	621	631	591	2.2	1.2	7.098	A
	3 - Smith Drive	272	68	614	272	272	419	0.5	0.4	5.152	A
	4 - A50	518	130	435	517	512	450	1.2	0.9	5.989	A
2 - Poplars Ave/A50	A - A50 W	347	87		347	347	326	0.0	0.0	0.053	A
	B - Poplars Ave	306	76		305	301	261	1.1	0.8	8.950	A
	C - A50 E	452	113		452	461	516	0.2	0.3	2.080	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	420	1143	0.367	420	420	0.0	0.6	5.064	A
		Exit	1	1		377			377	379	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	603	1188	0.508	604	614	0.0	1.4	6.638	A
		Exit	1	1		607			607	600	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	275	968	0.284	275	276	0.0	0.4	5.602	A
		Exit	1	1		396			396	397	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	522	1057	0.494	524	517	0.0	1.0	5.988	A
		Exit	1	1		444			444	450	0.0	0.0	0.005	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	348			348	352	0.0	0.0	0.057	A
		Exit	1	1		325			325	327	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	309			312	306	0.0	0.8	9.245	A
		Exit	1	1		258			258	257	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	325			325	327	0.0	0.0	0.000	A
				2	B	121			121	122	0.0	0.3	7.315	A
			2	1	(A, B)	446			446	451	0.0	0.0	0.048	A
		Exit	1	1		523			523	522	0.0	0.2	0.785	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	501	1101	0.455	503	506	0.6	0.7	5.990	A
		Exit	1	1		465			465	454	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	747	1153	0.648	749	742	1.4	1.9	8.984	A
		Exit	1	1		712			712	702	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	332	912	0.364	331	325	0.4	0.6	6.051	A
		Exit	1	1		480			480	485	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	617	1016	0.607	617	609	1.0	1.1	6.729	A
		Exit	1	1		543			543	542	0.0	0.0	0.034	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	419			418	409	0.0	0.1	0.122	A
		Exit	1	1		397			397	395	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	367			364	361	0.8	1.4	11.649	B
		Exit	1	1		313			313	307	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	397			397	395	0.0	0.0	0.000	A
				2	B	148			148	148	0.3	0.3	7.912	A
			2	1	(A, B)	545			545	543	0.0	0.0	0.097	A
		Exit	1	1		617			616	610	0.2	0.3	1.274	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	625	1042	0.600	621	620	0.7	1.8	8.788	A
		Exit	1	1		562			562	546	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	915	1107	0.827	914	897	1.9	5.3	17.602	C
		Exit	1	1		865			865	853	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	408	846	0.482	407	396	0.6	0.9	7.908	A
		Exit	1	1		587			587	589	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	741	968	0.766	743	736	1.1	1.8	8.377	A
		Exit	1	1		670			670	661	0.0	0.0	0.053	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	499			499	502	0.1	0.1	0.474	A
		Exit	1	1		492			492	483	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	443			437	434	1.4	3.8	24.653	C
		Exit	1	1		374			374	373	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	492			492	483	0.0	0.0	0.000	A
				2	B	179			177	177	0.3	0.5	8.990	A
			2	1	(A, B)	671			671	661	0.0	0.0	0.217	A
		Exit	1	1		740			740	738	0.3	0.7	2.808	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	628	1042	0.602	628	625	1.8	1.5	8.908	A
		Exit	1	1		549			549	555	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	901	1101	0.818	907	909	5.3	4.7	18.966	C
		Exit	1	1		858			858	865	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	401	849	0.472	402	402	0.9	0.9	8.402	A
		Exit	1	1		600			600	595	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	735	971	0.757	737	745	1.8	1.7	8.606	A
		Exit	1	1		667			667	667	0.0	0.0	0.056	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	498			499	498	0.1	0.1	0.651	A
		Exit	1	1		490			490	489	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	440			437	446	3.8	4.0	31.506	D
		Exit	1	1		381			381	379	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	490			490	489	0.0	0.0	0.000	A
				2	B	182			182	181	0.5	0.4	9.097	A
			2	1	(A, B)	672			672	670	0.0	0.0	0.208	A
		Exit	1	1		737			737	746	0.7	0.7	3.147	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	496	1101	0.450	497	507	1.5	0.9	6.548	A
		Exit	1	1		442			442	456	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	730	1155	0.632	727	743	4.7	2.2	9.699	A
		Exit	1	1		708			708	720	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	329	919	0.357	328	332	0.9	0.5	6.306	A
		Exit	1	1		473			473	484	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	611	1024	0.597	612	624	1.7	1.2	7.360	A
		Exit	1	1		540			540	545	0.0	0.0	0.026	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	416			417	418	0.1	0.0	0.251	A
		Exit	1	1		395			395	396	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	356			359	369	4.0	1.1	15.509	C
		Exit	1	1		314			314	318	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	395			395	396	0.0	0.0	0.000	A
				2	B	148			149	151	0.4	0.2	8.228	A
			2	1	(A, B)	543			543	547	0.0	0.0	0.119	A
		Exit	1	1		610			611	623	0.7	0.2	1.713	A

09:15 - 09:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	436	1147	0.380	435	430	0.9	0.6	5.039	A
		Exit	1	1		384			384	385	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	620	1178	0.526	621	631	2.2	1.2	7.098	A
		Exit	1	1		591			591	589	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	272	962	0.283	272	272	0.5	0.4	5.152	A
		Exit	1	1		419			419	410	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	518	1055	0.491	517	512	1.2	0.9	5.989	A
		Exit	1	1		450			450	460	0.0	0.0	0.011	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	347			347	347	0.0	0.0	0.053	A
		Exit	1	1		326			326	334	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	306			305	301	1.1	0.8	8.950	A
		Exit	1	1		261			261	264	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	326			326	334	0.0	0.0	0.000	A
				2	B	126			126	127	0.2	0.3	7.474	A
			2	1	(A, B)	452			452	462	0.0	0.0	0.068	A
		Exit	1	1		517			516	511	0.2	0.2	0.744	A

A50-Conjunction - 2022 DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	15.39	C
2	Poplars Ave/A50	T-Junction	Two-way			13.77	B

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)	Run automatically
D3	2022 DS	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	579	100.000
	2 - Orford Rd		ONE HOUR	✓	856	100.000
	3 - Smith Drive		ONE HOUR	✓	370	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	464	100.000
	B - Poplars Ave		ONE HOUR	✓	410	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	61	429	89
	2 - Orford Rd	221	0	95	540
	3 - Smith Drive	251	115	0	4
	4 - A50	47	641	20	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	187	277
	B - Poplars Ave	0	0	410
	C - A50 E	443	167	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	2	2	3
	2 - Orford Rd	1	0	6	8
	3 - Smith Drive	2	1	0	0
	4 - A50	2	6	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	4
	B - Poplars Ave	0	0	2
	C - A50 E	3	6	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	9.45	1.7	A	532	798
	2 - Orford Rd	27.48	7.8	D	786	1179
	3 - Smith Drive	8.74	1.0	A	339	508
	4 - A50	9.08	2.1	A	646	969
2 - Poplars Ave/A50	A - A50 W	0.91	0.1	A	425	637
	B - Poplars Ave	45.06	5.8	E	375	562
	C - A50 E	2.69	0.6	A	566	850

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	438	110	575	437	435	391	0.0	0.7	5.214	A
	2 - Orford Rd	643	161	408	642	638	604	0.0	1.3	7.154	A
	3 - Smith Drive	280	70	638	281	275	413	0.0	0.4	5.400	A
	4 - A50	524	131	442	525	522	477	0.0	1.0	6.164	A
2 - Poplars Ave/A50	A - A50 W	345	86		345	351	342	0.0	0.0	0.095	A
	B - Poplars Ave	304	76		304	305	264	0.0	0.8	9.685	A
	C - A50 E	466	116		467	457	511	0.0	0.2	2.128	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	522	131	697	524	517	466	0.7	0.9	6.256	A
	2 - Orford Rd	758	189	488	759	761	733	1.3	2.1	10.281	B
	3 - Smith Drive	340	85	759	340	337	488	0.4	0.6	6.477	A
	4 - A50	634	159	527	636	631	571	1.0	1.1	7.140	A
2 - Poplars Ave/A50	A - A50 W	416	104		416	415	398	0.0	0.0	0.245	A
	B - Poplars Ave	369	92		370	369	320	0.8	1.3	13.404	B
	C - A50 E	550	138		551	550	618	0.2	0.4	2.275	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	638	159	851	638	635	560	0.9	1.6	8.804	A
	2 - Orford Rd	948	237	592	954	925	897	2.1	6.3	21.671	C
	3 - Smith Drive	397	99	949	398	404	598	0.6	1.0	8.551	A
	4 - A50	775	194	637	774	756	709	1.1	2.1	8.696	A
2 - Poplars Ave/A50	A - A50 W	510	128		511	509	498	0.0	0.1	0.826	A
	B - Poplars Ave	450	113		449	437	389	1.3	4.6	31.501	D
	C - A50 E	684	171		683	665	755	0.4	0.6	2.649	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	637	159	847	637	637	551	1.6	1.7	9.453	A
	2 - Orford Rd	945	236	593	939	936	890	6.3	7.8	27.476	D
	3 - Smith Drive	399	100	931	399	406	601	1.0	1.0	8.743	A
	4 - A50	768	192	630	767	775	701	2.1	2.0	9.080	A
2 - Poplars Ave/A50	A - A50 W	512	128		511	512	491	0.1	0.1	0.914	A
	B - Poplars Ave	446	111		447	448	399	4.6	5.8	45.060	E
	C - A50 E	679	170		681	675	749	0.6	0.4	2.694	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	520	130	702	519	524	471	1.7	1.0	6.914	A
	2 - Orford Rd	772	193	482	775	790	739	7.8	2.5	14.721	B
	3 - Smith Drive	336	84	772	336	335	484	1.0	0.6	6.730	A
	4 - A50	644	161	531	642	664	577	2.0	1.4	7.676	A
2 - Poplars Ave/A50	A - A50 W	426	106		426	423	403	0.1	0.0	0.417	A
	B - Poplars Ave	373	93		377	390	326	5.8	1.4	20.777	C
	C - A50 E	556	139		557	565	630	0.4	0.4	2.344	A

09:15 - 09:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	438	109	584	438	440	395	1.0	0.6	5.483	A
	2 - Orford Rd	648	162	409	649	651	613	2.5	1.3	7.901	A
	3 - Smith Drive	280	70	646	280	282	411	0.6	0.5	5.591	A
	4 - A50	531	133	447	532	540	479	1.4	0.9	6.287	A
2 - Poplars Ave/A50	A - A50 W	340	85		340	344	337	0.0	0.0	0.086	A
	B - Poplars Ave	309	77		311	317	260	1.4	0.6	9.669	A
	C - A50 E	462	116		462	466	517	0.4	0.3	2.067	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	438	1144	0.383	437	435	0.0	0.7	5.214	A
		Exit	1	1		391			391	386	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	643	1180	0.545	642	638	0.0	1.3	7.154	A
		Exit	1	1		604			604	604	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	280	952	0.294	281	275	0.0	0.4	5.400	A
		Exit	1	1		413			413	408	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	524	1052	0.498	525	522	0.0	1.0	6.164	A
		Exit	1	1		477			477	471	0.0	0.0	0.015	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	345			345	351	0.0	0.0	0.095	A
		Exit	1	1		342			342	334	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	304			304	305	0.0	0.8	9.685	A
		Exit	1	1		264			264	266	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	342			342	334	0.0	0.0	0.000	A
				2	B	124			124	123	0.0	0.2	7.730	A
			2	1	(A, B)	466			466	458	0.0	0.0	0.077	A
		Exit	1	1		510			511	512	0.0	0.1	0.929	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	522	1093	0.477	524	517	0.7	0.9	6.256	A
		Exit	1	1		466			466	466	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	758	1146	0.662	759	761	1.3	2.1	10.281	B
		Exit	1	1		733			733	729	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	340	904	0.376	340	337	0.4	0.6	6.477	A
		Exit	1	1		488			488	482	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	634	1016	0.624	636	631	1.0	1.1	7.140	A
		Exit	1	1		571			571	570	0.0	0.0	0.026	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	416			416	415	0.0	0.0	0.245	A
		Exit	1	1		398			398	400	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	369			370	369	0.8	1.3	13.404	B
		Exit	1	1		320			320	319	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	398			398	400	0.0	0.0	0.000	A
				2	B	152			153	150	0.2	0.3	8.034	A
			2	1	(A, B)	550			550	551	0.0	0.0	0.117	A
		Exit	1	1		618			618	615	0.1	0.3	1.760	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	638	1029	0.620	638	635	0.9	1.6	8.804	A
		Exit	1	1		560			560	562	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	948	1100	0.862	954	925	2.1	6.3	21.671	C
		Exit	1	1		897			897	879	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	397	829	0.479	398	404	0.6	1.0	8.551	A
		Exit	1	1		598			598	591	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	775	969	0.800	774	756	1.1	2.1	8.696	A
		Exit	1	1		709			709	688	0.0	0.0	0.057	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	510			511	509	0.0	0.1	0.826	A
		Exit	1	1		498			498	482	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	450			449	437	1.3	4.6	31.501	D
		Exit	1	1		389			389	385	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	498			498	482	0.0	0.0	0.000	A
				2	B	186			186	183	0.3	0.5	9.031	A
			2	1	(A, B)	684			684	666	0.0	0.0	0.210	A
		Exit	1	1		756			755	741	0.3	0.8	3.466	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	637	1031	0.618	637	637	1.6	1.7	9.453	A
		Exit	1	1		551			551	564	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	945	1100	0.859	939	936	6.3	7.8	27.476	D
		Exit	1	1		890			890	893	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	399	835	0.478	399	406	1.0	1.0	8.743	A
		Exit	1	1		601			601	600	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	768	972	0.790	767	775	2.1	2.0	9.080	A
		Exit	1	1		701			701	696	0.0	0.0	0.074	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	512			511	512	0.1	0.1	0.914	A
		Exit	1	1		491			491	488	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	446			447	448	4.6	5.8	45.060	E
		Exit	1	1		399			399	392	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	491			491	488	0.0	0.0	0.000	A
				2	B	189			190	187	0.5	0.4	9.067	A
			2	1	(A, B)	679			679	675	0.0	0.0	0.233	A
		Exit	1	1		750			749	755	0.8	0.9	3.931	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	520	1091	0.476	519	524	1.7	1.0	6.914	A
		Exit	1	1		471			471	474	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	772	1148	0.672	775	790	7.8	2.5	14.721	B
		Exit	1	1		739			739	762	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	336	899	0.374	336	335	1.0	0.6	6.730	A
		Exit	1	1		484			484	492	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	644	1014	0.635	642	664	2.0	1.4	7.676	A
		Exit	1	1		577			577	586	0.0	0.0	0.024	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	426			426	423	0.1	0.0	0.417	A
		Exit	1	1		403			403	410	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	373			377	390	5.8	1.4	20.777	C
		Exit	1	1		326			326	325	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	403			403	410	0.0	0.0	0.000	A
				2	B	153			153	155	0.4	0.3	8.221	A
			2	1	(A, B)	556			556	564	0.0	0.0	0.132	A
		Exit	1	1		631			630	646	0.9	0.3	2.247	A

09:15 - 09:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	438	1140	0.384	438	440	1.0	0.6	5.483	A
		Exit	1	1		395			395	394	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	648	1180	0.549	649	651	2.5	1.3	7.901	A
		Exit	1	1		613			613	623	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	280	949	0.295	280	282	0.6	0.5	5.591	A
		Exit	1	1		411			411	414	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	531	1050	0.506	532	540	1.4	0.9	6.287	A
		Exit	1	1		480			479	482	0.0	0.0	0.007	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	340			340	344	0.0	0.0	0.086	A
		Exit	1	1		337			337	339	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	309			311	317	1.4	0.6	9.669	A
		Exit	1	1		260			260	265	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	337			337	339	0.0	0.0	0.000	A
				2	B	125			126	127	0.3	0.3	7.548	A
			2	1	(A, B)	462			462	466	0.0	0.0	0.054	A
		Exit	1	1		517			517	524	0.3	0.1	1.056	A

A50-Conjunction - 2022 DS Full, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.
Warning	Linked roundabouts	1 - A50/Hilden Rd Roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	30.19	D
2	Poplars Ave/A50	T-Junction	Two-way			24.39	C

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)	Run automatically
D4	2022 DS Full	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	702	100.000
	2 - Orford Rd		ONE HOUR	✓	937	100.000
	3 - Smith Drive		ONE HOUR	✓	371	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	538	100.000
	B - Poplars Ave		ONE HOUR	✓	455	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	139	439	124
	2 - Orford Rd	282	0	91	564
	3 - Smith Drive	266	101	0	4
	4 - A50	69	659	19	1

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
From	A - A50 W	0	266	272
	B - Poplars Ave	0	0	455
	C - A50 E	485	186	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	1	2	2
	2 - Orford Rd	1	0	6	8
	3 - Smith Drive	2	0	0	0
	4 - A50	20	4	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
From	A - A50 W	0	0	4
	B - Poplars Ave	0	0	2
	C - A50 E	3	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	15.18	3.7	C	646	969
	2 - Orford Rd	65.48	20.6	F	863	1295
	3 - Smith Drive	9.93	1.2	A	340	510
	4 - A50	9.70	2.3	A	677	1016
2 - Poplars Ave/A50	A - A50 W	1.01	0.3	A	495	743
	B - Poplars Ave	83.68	12.7	F	417	625
	C - A50 E	2.99	0.7	A	613	920

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	532	133	589	531	527	474	0.0	0.9	6.037	A
	2 - Orford Rd	717	179	439	718	696	681	0.0	1.7	8.191	A
	3 - Smith Drive	285	71	742	283	284	415	0.0	0.6	5.841	A
	4 - A50	566	142	495	568	556	530	0.0	1.1	6.650	A
2 - Poplars Ave/A50	A - A50 W	411	103		410	408	369	0.0	0.1	0.103	A
	B - Poplars Ave	339	85		342	340	342	0.0	0.9	10.599	B
	C - A50 E	513	128		515	498	556	0.0	0.3	2.191	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	627	157	697	629	623	564	0.9	1.3	7.617	A
	2 - Orford Rd	845	211	519	843	838	807	1.7	3.2	12.750	B
	3 - Smith Drive	332	83	866	332	329	496	0.6	0.7	6.866	A
	4 - A50	675	169	587	675	667	612	1.1	1.5	7.794	A
2 - Poplars Ave/A50	A - A50 W	488	122		488	486	427	0.1	0.0	0.290	A
	B - Poplars Ave	415	104		412	408	411	0.9	2.2	17.555	C
	C - A50 E	593	148		593	598	655	0.3	0.4	2.568	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	796	199	834	784	765	657	1.3	3.7	13.619	B
	2 - Orford Rd	1033	258	650	988	986	968	3.2	15.7	38.089	E
	3 - Smith Drive	401	100	1035	401	402	603	0.7	1.2	9.453	A
	4 - A50	797	199	692	798	780	743	1.5	2.0	9.146	A
2 - Poplars Ave/A50	A - A50 W	598	149		597	590	528	0.0	0.2	1.007	A
	B - Poplars Ave	505	126		477	467	491	2.2	10.6	52.763	F
	C - A50 E	724	181		723	712	777	0.4	0.7	2.819	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	770	193	830	773	781	677	3.7	2.9	15.184	C
	2 - Orford Rd	1040	260	640	1017	1011	963	15.7	20.6	65.480	F
	3 - Smith Drive	412	103	1055	411	410	603	1.2	1.1	9.930	A
	4 - A50	798	200	710	797	802	755	2.0	2.3	9.704	A
2 - Poplars Ave/A50	A - A50 W	589	147		587	591	534	0.2	0.3	0.963	A
	B - Poplars Ave	499	125		484	487	491	10.6	12.7	83.680	F
	C - A50 E	731	183		734	732	781	0.7	0.5	2.986	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	634	159	709	632	639	557	2.9	1.6	9.814	A
	2 - Orford Rd	841	210	527	863	918	814	20.6	3.4	32.528	D
	3 - Smith Drive	333	83	887	331	335	503	1.1	0.7	7.561	A
	4 - A50	681	170	586	681	718	632	2.3	1.5	8.516	A
2 - Poplars Ave/A50	A - A50 W	483	121		483	487	447	0.3	0.1	0.500	A
	B - Poplars Ave	409	102		429	451	409	12.7	2.2	41.589	E
	C - A50 E	613	153		614	648	667	0.5	0.3	2.608	A

09:15 - 09:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	515	129	567	516	524	462	1.6	0.9	6.208	A
	2 - Orford Rd	703	176	426	698	717	656	3.4	1.8	9.054	A
	3 - Smith Drive	280	70	727	281	283	398	0.7	0.4	5.773	A
	4 - A50	546	136	484	545	563	524	1.5	1.0	6.646	A
2 - Poplars Ave/A50	A - A50 W	402	101		402	407	368	0.1	0.0	0.073	A
	B - Poplars Ave	333	83		332	343	333	2.2	1.1	11.623	B
	C - A50 E	504	126		504	514	535	0.3	0.3	2.299	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	532	1138	0.468	531	527	0.0	0.9	6.037	A
		Exit	1	1		474			474	465	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	717	1167	0.614	718	696	0.0	1.7	8.191	A
		Exit	1	1		681			681	669	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	285	911	0.312	283	284	0.0	0.6	5.841	A
		Exit	1	1		415			415	415	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	566	1030	0.550	568	556	0.0	1.1	6.650	A
		Exit	1	1		530			530	515	0.0	0.0	0.012	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	411			410	408	0.0	0.1	0.103	A
		Exit	1	1		369			369	360	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	339			342	340	0.0	0.9	10.599	B
		Exit	1	1		342			342	335	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	369			369	360	0.0	0.0	0.000	A
				2	B	145			146	137	0.0	0.3	7.687	A
			2	1	(A, B)	513			514	499	0.0	0.0	0.079	A
		Exit	1	1		557			556	549	0.0	0.3	1.155	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	627	1093	0.574	629	623	0.9	1.3	7.617	A
		Exit	1	1		564			564	552	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	845	1132	0.746	843	838	1.7	3.2	12.750	B
		Exit	1	1		807			807	796	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	332	861	0.385	332	329	0.6	0.7	6.866	A
		Exit	1	1		496			496	492	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	675	991	0.681	675	667	1.1	1.5	7.794	A
		Exit	1	1		612			612	617	0.0	0.0	0.059	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	488			488	486	0.1	0.0	0.290	A
		Exit	1	1		427			427	437	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	415			412	408	0.9	2.2	17.555	C
		Exit	1	1		411			411	403	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	427			427	437	0.0	0.0	0.000	A
				2	B	167			166	161	0.3	0.4	8.841	A
			2	1	(A, B)	593			594	598	0.0	0.0	0.216	A
		Exit	1	1		656			655	651	0.3	0.6	2.265	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	796	1036	0.768	784	765	1.3	3.7	13.619	B
		Exit	1	1		657			657	657	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1033	1076	0.961	988	986	3.2	15.7	38.089	E
		Exit	1	1		968			968	949	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	401	794	0.505	401	402	0.7	1.2	9.453	A
		Exit	1	1		603			603	593	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	797	946	0.842	798	780	1.5	2.0	9.146	A
		Exit	1	1		743			743	735	0.0	0.0	0.073	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	598			597	590	0.0	0.2	1.007	A
		Exit	1	1		528			528	515	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	505			477	467	2.2	10.6	52.763	F
		Exit	1	1		491			491	489	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	528			528	515	0.0	0.0	0.000	A
				2	B	195			195	197	0.4	0.5	9.322	A
			2	1	(A, B)	724			723	713	0.0	0.1	0.261	A
		Exit	1	1		778			777	764	0.6	1.0	4.107	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	770	1038	0.742	773	781	3.7	2.9	15.184	C
		Exit	1	1		677			677	667	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1040	1080	0.964	1017	1011	15.7	20.6	65.480	F
		Exit	1	1		963			963	972	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	412	786	0.523	411	410	1.2	1.1	9.930	A
		Exit	1	1		603			603	612	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	798	938	0.851	797	802	2.0	2.3	9.704	A
		Exit	1	1		755			755	754	0.0	0.0	0.122	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	589			587	591	0.2	0.3	0.963	A
		Exit	1	1		534			534	531	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	499			484	487	10.6	12.7	83.680	F
		Exit	1	1		491			491	494	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	534			534	531	0.0	0.0	0.000	A
				2	B	198			200	200	0.5	0.5	9.756	A
			2	1	(A, B)	731			732	731	0.1	0.0	0.353	A
		Exit	1	1		781			781	784	1.0	1.0	4.581	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	634	1088	0.583	632	639	2.9	1.6	9.814	A
		Exit	1	1		557			557	580	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	841	1128	0.745	863	918	20.6	3.4	32.528	D
		Exit	1	1		814			814	852	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	333	853	0.390	331	335	1.1	0.7	7.561	A
		Exit	1	1		503			503	509	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	681	991	0.687	681	718	2.3	1.5	8.516	A
		Exit	1	1		632			632	670	0.0	0.0	0.069	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	483			483	487	0.3	0.1	0.500	A
		Exit	1	1		447			447	467	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	409			429	451	12.7	2.2	41.589	E
		Exit	1	1		409			409	423	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	447			447	467	0.0	0.0	0.000	A
				2	B	166			167	181	0.5	0.3	8.678	A
			2	1	(A, B)	613			613	648	0.0	0.0	0.223	A
		Exit	1	1		669			667	697	1.0	0.5	3.153	A

09:15 - 09:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	515	1147	0.448	516	524	1.6	0.9	6.208	A
		Exit	1	1		462			462	470	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	703	1172	0.599	698	717	3.4	1.8	9.054	A
		Exit	1	1		656			656	676	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	280	917	0.305	281	283	0.7	0.4	5.773	A
		Exit	1	1		398			398	408	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	546	1034	0.528	545	563	1.5	1.0	6.646	A
		Exit	1	1		524			524	532	0.0	0.0	0.020	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	402			402	407	0.1	0.0	0.073	A
		Exit	1	1		368			368	372	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	333			332	343	2.2	1.1	11.623	B
		Exit	1	1		333			333	343	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	368			368	372	0.0	0.0	0.000	A
				2	B	135			136	142	0.3	0.3	8.059	A
			2	1	(A, B)	504			503	513	0.0	0.0	0.108	A
		Exit	1	1		537			535	549	0.5	0.3	1.280	A

A50-Conjunction - 2027 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.
Warning	Linked roundabouts	1 - A50/Hilden Rd Roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	16.29	C
2	Poplars Ave/A50	T-Junction	Two-way			18.28	C

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)	Run automatically
D5	2027 DM	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	590	100.000
	2 - Orford Rd		ONE HOUR	✓	871	100.000
	3 - Smith Drive		ONE HOUR	✓	384	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	476	100.000
	B - Poplars Ave		ONE HOUR	✓	439	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	45	431	114
	2 - Orford Rd	230	0	98	543
	3 - Smith Drive	259	121	0	4
	4 - A50	43	659	20	1

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
	From			
	A - A50 W	0	191	285
	B - Poplars Ave	0	0	439
	C - A50 E	472	189	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
	From				
	1 - Hilden Rd	0	2	1	1
	2 - Orford Rd	0	0	2	4
	3 - Smith Drive	1	0	0	0
	4 - A50	1	3	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
	From			
	A - A50 W	0	0	4
	B - Poplars Ave	0	0	2
	C - A50 E	3	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	10.06	1.9	B	541	812
	2 - Orford Rd	29.44	8.3	D	799	1198
	3 - Smith Drive	9.24	1.2	A	354	531
	4 - A50	9.30	2.1	A	663	995
2 - Poplars Ave/A50	A - A50 W	1.02	0.2	A	440	661
	B - Poplars Ave	60.34	8.0	F	402	603
	C - A50 E	2.95	0.8	A	607	911

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	438	110	613	437	437	398	0.0	0.7	5.239	A
	2 - Orford Rd	650	163	421	649	648	628	0.0	1.5	7.370	A
	3 - Smith Drive	290	72	662	289	288	408	0.0	0.4	5.766	A
	4 - A50	555	139	457	554	543	494	0.0	1.2	6.302	A
2 - Poplars Ave/A50	A - A50 W	367	92		367	363	347	0.0	0.0	0.081	A
	B - Poplars Ave	333	83		335	332	292	0.0	0.9	9.799	A
	C - A50 E	493	123		492	493	556	0.0	0.3	2.334	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	540	135	720	538	535	481	0.7	1.1	6.801	A
	2 - Orford Rd	784	196	517	786	782	741	1.5	2.1	9.970	A
	3 - Smith Drive	351	88	804	350	344	499	0.4	0.8	6.608	A
	4 - A50	647	162	553	648	645	600	1.2	1.3	7.283	A
2 - Poplars Ave/A50	A - A50 W	429	107		429	429	427	0.0	0.0	0.251	A
	B - Poplars Ave	389	97		388	389	345	0.9	1.6	14.020	B
	C - A50 E	602	151		601	598	645	0.3	0.5	2.609	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	649	162	872	647	646	581	1.1	1.7	9.240	A
	2 - Orford Rd	968	242	618	966	939	901	2.1	6.7	23.233	C
	3 - Smith Drive	418	105	982	418	423	603	0.8	1.2	8.737	A
	4 - A50	784	196	670	782	766	729	1.3	2.1	8.961	A
2 - Poplars Ave/A50	A - A50 W	533	133		531	524	524	0.0	0.2	0.781	A
	B - Poplars Ave	482	121		468	459	419	1.6	7.3	41.248	E
	C - A50 E	728	182		729	715	785	0.5	0.5	2.899	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	641	160	866	640	647	589	1.7	1.9	10.059	B
	2 - Orford Rd	963	241	612	962	945	895	6.7	8.3	29.443	D
	3 - Smith Drive	429	107	975	426	426	599	1.2	1.2	9.242	A
	4 - A50	780	195	675	780	791	726	2.1	2.1	9.300	A
2 - Poplars Ave/A50	A - A50 W	521	130		522	524	518	0.2	0.1	1.019	A
	B - Poplars Ave	475	119		469	480	416	7.3	8.0	60.344	F
	C - A50 E	727	182		725	720	780	0.5	0.8	2.947	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	530	133	718	530	532	478	1.9	1.0	6.976	A
	2 - Orford Rd	773	193	510	774	807	737	8.3	2.3	13.360	B
	3 - Smith Drive	342	86	791	343	349	493	1.2	0.7	7.192	A
	4 - A50	652	163	546	650	683	589	2.1	1.4	7.840	A
2 - Poplars Ave/A50	A - A50 W	429	107		429	434	420	0.1	0.0	0.415	A
	B - Poplars Ave	393	98		397	420	344	8.0	1.6	27.074	D
	C - A50 E	592	148		592	616	652	0.8	0.4	2.531	A

09:15 - 09:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	451	113	617	450	450	406	1.0	0.7	5.454	A
	2 - Orford Rd	656	164	432	659	655	635	2.3	1.4	7.492	A
	3 - Smith Drive	292	73	674	292	289	416	0.7	0.5	5.528	A
	4 - A50	562	140	464	559	560	502	1.4	1.0	6.324	A
2 - Poplars Ave/A50	A - A50 W	363	91		363	364	357	0.0	0.0	0.117	A
	B - Poplars Ave	340	85		339	336	286	1.6	1.0	10.829	B
	C - A50 E	501	125		501	496	559	0.4	0.4	2.228	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	438	1128	0.388	437	437	0.0	0.7	5.239	A
		Exit	1	1		398			398	395	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	650	1174	0.554	649	648	0.0	1.5	7.370	A
		Exit	1	1		628			628	620	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	290	943	0.307	289	288	0.0	0.4	5.766	A
		Exit	1	1		408			408	407	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	555	1045	0.531	554	543	0.0	1.2	6.302	A
		Exit	1	1		494			494	494	0.0	0.0	0.019	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	367			367	363	0.0	0.0	0.081	A
		Exit	1	1		347			347	351	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	333			335	332	0.0	0.9	9.799	A
		Exit	1	1		292			292	288	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	347			347	351	0.0	0.0	0.000	A
				2	B	146			145	142	0.0	0.3	7.838	A
			2	1	(A, B)	493			493	494	0.0	0.0	0.098	A
		Exit	1	1		555			556	548	0.0	0.2	0.917	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	540	1084	0.498	538	535	0.7	1.1	6.801	A
		Exit	1	1		481			481	478	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	784	1133	0.692	786	782	1.5	2.1	9.970	A
		Exit	1	1		741			741	738	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	351	886	0.396	350	344	0.4	0.8	6.608	A
		Exit	1	1		499			499	494	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	647	1005	0.644	648	645	1.2	1.3	7.283	A
		Exit	1	1		600			600	596	0.0	0.0	0.038	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	429			429	429	0.0	0.0	0.251	A
		Exit	1	1		427			427	425	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	389			388	389	0.9	1.6	14.020	B
		Exit	1	1		345			345	346	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	427			427	425	0.0	0.0	0.000	A
				2	B	175			174	173	0.3	0.4	8.604	A
			2	1	(A, B)	602			602	598	0.0	0.0	0.152	A
		Exit	1	1		646			645	645	0.2	0.3	1.731	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	649	1021	0.636	647	646	1.1	1.7	9.240	A
		Exit	1	1		581			581	575	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	968	1089	0.889	966	939	2.1	6.7	23.233	C
		Exit	1	1		901			901	886	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	418	815	0.513	418	423	0.8	1.2	8.737	A
		Exit	1	1		603			603	597	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	784	955	0.821	782	766	1.3	2.1	8.961	A
		Exit	1	1		729			729	715	0.0	0.0	0.090	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	533			531	524	0.0	0.2	0.781	A
		Exit	1	1		524			524	512	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	482			468	459	1.6	7.3	41.248	E
		Exit	1	1		419			419	416	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	524			524	512	0.0	0.0	0.000	A
				2	B	205			205	203	0.4	0.5	9.259	A
			2	1	(A, B)	728			728	716	0.0	0.0	0.296	A
		Exit	1	1		785			785	769	0.3	0.9	3.684	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	641	1023	0.626	640	647	1.7	1.9	10.059	B
		Exit	1	1		589			589	586	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	963	1092	0.882	962	945	6.7	8.3	29.443	D
		Exit	1	1		895			895	904	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	429	818	0.525	426	426	1.2	1.2	9.242	A
		Exit	1	1		599			599	598	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	780	953	0.818	780	791	2.1	2.1	9.300	A
		Exit	1	1		726			726	721	0.0	0.0	0.094	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	521			522	524	0.2	0.1	1.019	A
		Exit	1	1		518			518	515	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	475			469	480	7.3	8.0	60.344	F
		Exit	1	1		416			416	420	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	518			518	515	0.0	0.0	0.000	A
				2	B	209			207	205	0.5	0.7	9.366	A
			2	1	(A, B)	727			727	721	0.0	0.1	0.302	A
		Exit	1	1		781			780	790	0.9	0.9	4.091	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	530	1085	0.489	530	532	1.9	1.0	6.976	A
		Exit	1	1		478			478	490	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	773	1136	0.680	774	807	8.3	2.3	13.360	B
		Exit	1	1		737			737	772	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	342	891	0.384	343	349	1.2	0.7	7.192	A
		Exit	1	1		493			493	497	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	652	1008	0.647	650	683	2.1	1.4	7.840	A
		Exit	1	1		589			589	612	0.0	0.0	0.036	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	429			429	434	0.1	0.0	0.415	A
		Exit	1	1		420			420	438	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	393			397	420	8.0	1.6	27.074	D
		Exit	1	1		344			344	353	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	420			420	438	0.0	0.0	0.000	A
				2	B	172			172	178	0.7	0.4	8.455	A
			2	1	(A, B)	592			593	614	0.1	0.0	0.145	A
		Exit	1	1		654			652	680	0.9	0.5	2.402	A

09:15 - 09:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	451	1127	0.400	450	450	1.0	0.7	5.454	A
		Exit	1	1		406			406	401	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	656	1170	0.560	659	655	2.3	1.4	7.492	A
		Exit	1	1		635			635	637	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	292	938	0.312	292	289	0.7	0.5	5.528	A
		Exit	1	1		416			416	419	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	562	1043	0.539	559	560	1.4	1.0	6.324	A
		Exit	1	1		502			502	496	0.0	0.0	0.020	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	363			363	364	0.0	0.0	0.117	A
		Exit	1	1		357			357	356	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	340			339	336	1.6	1.0	10.829	B
		Exit	1	1		286			286	286	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	357			357	356	0.0	0.0	0.000	A
				2	B	144			144	140	0.4	0.3	7.716	A
			2	1	(A, B)	501			501	496	0.0	0.0	0.082	A
		Exit	1	1		560			559	556	0.5	0.1	1.043	A

A50-Conjunction - 2027 DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.
Warning	Linked roundabouts	1 - A50/Hilden Rd Roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	34.79	D
2	Poplars Ave/A50	T-Junction	Two-way			39.07	E

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)	Run automatically
D6	2027 DS	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	653	100.000
	2 - Orford Rd		ONE HOUR	✓	967	100.000
	3 - Smith Drive		ONE HOUR	✓	391	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	511	100.000
	B - Poplars Ave		ONE HOUR	✓	486	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	90	420	143
	2 - Orford Rd	261	0	100	606
	3 - Smith Drive	269	117	0	5
	4 - A50	52	694	19	2

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
	From			
	A - A50 W	0	251	260
	B - Poplars Ave	0	0	486
	C - A50 E	515	219	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
	From				
	1 - Hilden Rd	0	1	2	2
	2 - Orford Rd	1	0	5	7
	3 - Smith Drive	2	0	0	0
	4 - A50	27	4	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
	From			
	A - A50 W	0	0	4
	B - Poplars Ave	0	0	2
	C - A50 E	3	4	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	12.71	2.6	B	598	896
	2 - Orford Rd	78.74	26.9	F	888	1332
	3 - Smith Drive	11.17	1.4	B	360	539
	4 - A50	9.89	2.2	A	696	1044
2 - Poplars Ave/A50	A - A50 W	1.17	0.2	A	472	709
	B - Poplars Ave	132.23	22.0	F	447	670
	C - A50 E	3.50	0.9	A	667	1001

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	498	124	622	499	497	442	0.0	0.9	5.975	A
	2 - Orford Rd	733	183	448	737	726	673	0.0	1.8	8.975	A
	3 - Smith Drive	297	74	767	295	296	418	0.0	0.6	6.142	A
	4 - A50	573	143	490	574	563	572	0.0	1.1	6.512	A
2 - Poplars Ave/A50	A - A50 W	387	97		387	385	391	0.0	0.0	0.099	A
	B - Poplars Ave	362	90		362	358	357	0.0	1.4	11.496	B
	C - A50 E	559	140		559	553	559	0.0	0.4	2.558	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	572	143	749	572	581	524	0.9	1.1	7.432	A
	2 - Orford Rd	862	215	511	866	861	809	1.8	3.4	14.201	B
	3 - Smith Drive	347	87	893	347	350	485	0.6	0.6	7.069	A
	4 - A50	693	173	578	695	676	662	1.1	1.5	7.916	A
2 - Poplars Ave/A50	A - A50 W	455	114		456	455	448	0.0	0.0	0.313	A
	B - Poplars Ave	446	112		444	431	420	1.4	2.7	19.477	C
	C - A50 E	642	161		643	650	676	0.4	0.4	2.890	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	733	183	871	734	721	637	1.1	2.6	12.287	B
	2 - Orford Rd	1058	265	652	1023	1005	953	3.4	17.9	44.763	E
	3 - Smith Drive	437	109	1077	439	429	598	0.6	1.3	10.505	B
	4 - A50	792	198	716	792	791	800	1.5	2.2	9.349	A
2 - Poplars Ave/A50	A - A50 W	578	144		578	569	545	0.0	0.2	0.993	A
	B - Poplars Ave	539	135		482	488	523	2.7	13.9	61.224	F
	C - A50 E	780	195		781	769	772	0.4	0.9	3.501	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	710	177	877	713	719	634	2.6	2.2	12.709	B
	2 - Orford Rd	1071	268	635	1029	1033	955	17.9	26.9	78.738	F
	3 - Smith Drive	431	108	1077	430	433	587	1.3	1.4	11.173	B
	4 - A50	808	202	701	810	807	806	2.2	2.2	9.888	A
2 - Poplars Ave/A50	A - A50 W	562	141		562	561	556	0.2	0.2	1.174	A
	B - Poplars Ave	540	135		507	506	512	13.9	22.0	132.230	F
	C - A50 E	787	197		787	793	788	0.9	0.8	3.372	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	584	146	785	586	587	527	2.2	1.3	8.318	A
	2 - Orford Rd	879	220	523	904	956	848	26.9	5.4	42.523	E
	3 - Smith Drive	344	86	938	343	349	489	1.4	0.7	8.163	A
	4 - A50	727	182	581	730	755	700	2.2	1.7	8.796	A
2 - Poplars Ave/A50	A - A50 W	465	116		466	465	475	0.2	0.1	0.623	A
	B - Poplars Ave	430	108		469	494	435	22.0	6.5	86.012	F
	C - A50 E	682	170		682	717	709	0.8	0.5	3.002	A

09:15 - 09:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	489	122	634	489	495	439	1.3	0.8	6.310	A
	2 - Orford Rd	724	181	439	720	746	684	5.4	1.9	10.620	B
	3 - Smith Drive	301	75	757	300	300	403	0.7	0.6	6.147	A
	4 - A50	581	145	491	583	601	566	1.7	1.1	7.050	A
2 - Poplars Ave/A50	A - A50 W	388	97		387	383	391	0.1	0.0	0.178	A
	B - Poplars Ave	364	91		366	385	349	6.5	1.1	18.757	C
	C - A50 E	552	138		552	565	564	0.5	0.4	2.551	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	498	1125	0.443	499	497	0.0	0.9	5.975	A
		Exit	1	1		442			442	437	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	733	1163	0.631	737	726	0.0	1.8	8.975	A
		Exit	1	1		673			673	666	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	297	901	0.329	295	296	0.0	0.6	6.142	A
		Exit	1	1		418			418	411	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	573	1031	0.556	574	563	0.0	1.1	6.512	A
		Exit	1	1		572			572	567	0.0	0.0	0.027	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	387			387	385	0.0	0.0	0.099	A
		Exit	1	1		391			391	388	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	362			362	358	0.0	1.4	11.496	B
		Exit	1	1		357			357	354	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	391			391	388	0.0	0.0	0.000	A
				2	B	168			168	165	0.0	0.3	8.208	A
			2	1	(A, B)	559			559	554	0.0	0.0	0.123	A
		Exit	1	1		559			559	552	0.0	0.2	1.162	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	572	1072	0.534	572	581	0.9	1.1	7.432	A
		Exit	1	1		524			524	524	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	862	1135	0.759	866	861	1.8	3.4	14.201	B
		Exit	1	1		809			809	792	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	347	851	0.408	347	350	0.6	0.6	7.069	A
		Exit	1	1		485			485	484	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	693	994	0.697	695	676	1.1	1.5	7.916	A
		Exit	1	1		662			662	668	0.0	0.0	0.053	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	455			456	455	0.0	0.0	0.313	A
		Exit	1	1		448			448	458	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	446			444	431	1.4	2.7	19.477	C
		Exit	1	1		420			420	416	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	448			448	458	0.0	0.0	0.000	A
				2	B	195			195	192	0.3	0.4	9.060	A
			2	1	(A, B)	642			642	650	0.0	0.0	0.229	A
		Exit	1	1		674			676	661	0.2	0.4	2.389	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	733	1021	0.718	734	721	1.1	2.6	12.287	B
		Exit	1	1		637			637	626	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1058	1075	0.985	1023	1005	3.4	17.9	44.763	E
		Exit	1	1		953			953	942	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	437	777	0.563	439	429	0.6	1.3	10.505	B
		Exit	1	1		598			598	588	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	792	936	0.847	792	791	1.5	2.2	9.349	A
		Exit	1	1		799			800	791	0.0	0.0	0.142	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	578			578	569	0.0	0.2	0.993	A
		Exit	1	1		545			545	539	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	539			482	488	2.7	13.9	61.224	F
		Exit	1	1		523			523	510	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	545			545	539	0.0	0.0	0.000	A
				2	B	236			236	230	0.4	0.7	10.208	B
			2	1	(A, B)	780			781	770	0.0	0.2	0.456	A
		Exit	1	1		773			772	774	0.4	1.0	4.207	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	710	1019	0.697	713	719	2.6	2.2	12.709	B
		Exit	1	1		634			634	631	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1071	1082	0.990	1029	1033	17.9	26.9	78.738	F
		Exit	1	1		955			955	960	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	431	777	0.555	430	433	1.3	1.4	11.173	B
		Exit	1	1		587			587	589	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	808	942	0.857	810	807	2.2	2.2	9.888	A
		Exit	1	1		806			806	812	0.0	0.0	0.137	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	562			562	561	0.2	0.2	1.174	A
		Exit	1	1		556			556	558	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	540			507	506	13.9	22.0	132.230	F
		Exit	1	1		512			512	514	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	556			556	558	0.0	0.0	0.000	A
				2	B	231			231	235	0.7	0.7	9.916	A
		Exit	1	1	(A, B)	787			787	793	0.2	0.1	0.449	A
				1		788			788	788	1.0	1.1	4.963	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	584	1057	0.552	586	587	2.2	1.3	8.318	A
		Exit	1	1		527			527	545	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	879	1130	0.778	904	956	26.9	5.4	42.523	E
		Exit	1	1		848			848	869	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	344	833	0.413	343	349	1.4	0.7	8.163	A
		Exit	1	1		489			489	497	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	727	993	0.732	730	755	2.2	1.7	8.796	A
		Exit	1	1		700			700	735	0.0	0.0	0.095	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	465			466	465	0.2	0.1	0.623	A
		Exit	1	1		475			475	504	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	430			469	494	22.0	6.5	86.012	F
		Exit	1	1		435			435	439	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	475			475	504	0.0	0.0	0.000	A
				2	B	207			207	212	0.7	0.4	9.153	A
			2	1	(A, B)	682			681	715	0.1	0.1	0.317	A
		Exit	1	1		708			709	734	1.1	0.6	3.519	A

09:15 - 09:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	489	1119	0.436	489	495	1.3	0.8	6.310	A
		Exit	1	1		439			439	450	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	724	1167	0.621	720	746	5.4	1.9	10.620	B
		Exit	1	1		684			684	700	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	301	905	0.333	300	300	0.7	0.6	6.147	A
		Exit	1	1		403			403	412	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	581	1031	0.564	583	601	1.7	1.1	7.050	A
		Exit	1	1		566			566	580	0.0	0.0	0.024	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	388			387	383	0.1	0.0	0.178	A
		Exit	1	1		391			391	399	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	364			366	385	6.5	1.1	18.757	C
		Exit	1	1		349			349	353	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	391			391	399	0.0	0.0	0.000	A
				2	B	161			161	166	0.4	0.4	8.298	A
			2	1	(A, B)	552			552	565	0.1	0.0	0.140	A
		Exit	1	1		565			564	582	0.6	0.3	1.636	A

A50-Conjunction - 2032 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.
Warning	Linked roundabouts	1 - A50/Hilden Rd Roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	22.59	C
2	Poplars Ave/A50	T-Junction	Two-way			29.92	D

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)	Run automatically
D7	2032 DM	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	613	100.000
	2 - Orford Rd		ONE HOUR	✓	913	100.000
	3 - Smith Drive		ONE HOUR	✓	408	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	479	100.000
	B - Poplars Ave		ONE HOUR	✓	474	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	47	406	160
	2 - Orford Rd	239	0	107	567
	3 - Smith Drive	277	127	0	4
	4 - A50	36	688	20	3

Demand (PCU/hr)

2 - Poplars Ave/A50

From	To			
		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	205	274
	B - Poplars Ave	0	0	474
	C - A50 E	531	204	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

From	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
	1 - Hilden Rd	0	2	1	1
	2 - Orford Rd	0	0	3	4
	3 - Smith Drive	1	0	0	0
	4 - A50	1	3	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

From	To			
		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	4
	B - Poplars Ave	0	0	2
	C - A50 E	2	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	11.11	2.3	B	563	844
	2 - Orford Rd	46.10	13.7	E	840	1260
	3 - Smith Drive	10.80	1.5	B	377	566
	4 - A50	9.70	2.2	A	686	1029
2 - Poplars Ave/A50	A - A50 W	1.08	0.2	A	439	658
	B - Poplars Ave	100.28	15.9	F	436	654
	C - A50 E	2.97	0.7	A	669	1003

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	462	115	635	462	463	419	0.0	0.7	5.458	A
	2 - Orford Rd	688	172	446	687	681	652	0.0	1.6	7.793	A
	3 - Smith Drive	309	77	729	309	310	403	0.0	0.5	5.937	A
	4 - A50	564	141	489	565	561	549	0.0	1.0	6.524	A
2 - Poplars Ave/A50	A - A50 W	365	91		365	364	395	0.0	0.0	0.080	A
	B - Poplars Ave	354	88		355	356	310	0.0	1.1	11.004	B
	C - A50 E	548	137		549	544	564	0.0	0.3	2.211	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	553	138	759	552	551	500	0.7	1.2	6.955	A
	2 - Orford Rd	826	207	532	827	817	779	1.6	2.6	11.753	B
	3 - Smith Drive	369	92	878	369	367	481	0.5	0.8	7.195	A
	4 - A50	678	169	582	678	666	666	1.0	1.5	7.630	A
2 - Poplars Ave/A50	A - A50 W	432	108		432	431	481	0.0	0.1	0.273	A
	B - Poplars Ave	431	108		429	422	369	1.1	2.3	17.392	C
	C - A50 E	663	166		664	654	677	0.3	0.5	2.512	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	675	169	896	671	670	604	1.2	2.3	10.750	B
	2 - Orford Rd	1009	252	645	988	969	922	2.6	11.7	31.969	D
	3 - Smith Drive	451	113	1048	451	447	585	0.8	1.4	10.173	B
	4 - A50	798	200	703	797	785	795	1.5	2.2	9.234	A
2 - Poplars Ave/A50	A - A50 W	520	130		520	526	574	0.1	0.1	0.858	A
	B - Poplars Ave	521	130		501	489	437	2.3	10.7	54.581	F
	C - A50 E	791	198		790	781	799	0.5	0.7	2.889	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	670	167	911	669	676	600	2.3	2.3	11.107	B
	2 - Orford Rd	1004	251	641	992	994	939	11.7	13.7	46.101	E
	3 - Smith Drive	449	112	1056	445	447	577	1.4	1.5	10.800	B
	4 - A50	810	202	700	811	805	800	2.2	2.2	9.701	A
2 - Poplars Ave/A50	A - A50 W	528	132		528	527	573	0.1	0.2	1.077	A
	B - Poplars Ave	524	131		511	503	446	10.7	15.9	100.282	F
	C - A50 E	796	199		794	797	813	0.7	0.7	2.967	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	556	139	784	557	560	497	2.3	1.1	7.834	A
	2 - Orford Rd	824	206	537	827	867	803	13.7	3.2	21.319	C
	3 - Smith Drive	371	93	873	371	371	491	1.5	0.8	8.012	A
	4 - A50	702	175	580	701	729	663	2.2	1.7	8.514	A
2 - Poplars Ave/A50	A - A50 W	427	107		427	434	478	0.2	0.0	0.520	A
	B - Poplars Ave	433	108		457	476	367	15.9	3.7	55.082	F
	C - A50 E	660	165		662	690	702	0.7	0.5	2.634	A

09:15 - 09:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	461	115	632	461	466	423	1.1	0.8	5.703	A
	2 - Orford Rd	689	172	444	689	697	650	3.2	1.5	8.354	A
	3 - Smith Drive	312	78	733	313	313	400	0.8	0.5	6.068	A
	4 - A50	564	141	491	564	579	556	1.7	1.0	6.709	A
2 - Poplars Ave/A50	A - A50 W	362	90		362	363	401	0.0	0.0	0.119	A
	B - Poplars Ave	354	89		357	367	307	3.7	1.1	13.618	B
	C - A50 E	553	138		554	557	563	0.5	0.3	2.230	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	462	1119	0.413	462	463	0.0	0.7	5.458	A
		Exit	1	1		419			419	417	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	688	1164	0.591	687	681	0.0	1.6	7.793	A
		Exit	1	1		652			652	647	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	309	916	0.337	309	310	0.0	0.5	5.937	A
		Exit	1	1		403			403	404	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	564	1032	0.547	565	561	0.0	1.0	6.524	A
		Exit	1	1		549			549	547	0.0	0.0	0.023	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	365			365	364	0.0	0.0	0.080	A
		Exit	1	1		395			395	393	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	354			355	356	0.0	1.1	11.004	B
		Exit	1	1		310			310	306	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	395			395	393	0.0	0.0	0.000	A
				2	B	153			155	150	0.0	0.3	7.745	A
			2	1	(A, B)	548			548	545	0.0	0.0	0.099	A
		Exit	1	1		564			564	564	0.0	0.2	1.057	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	553	1067	0.518	552	551	0.7	1.2	6.955	A
		Exit	1	1		500			500	494	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	826	1127	0.734	827	817	1.6	2.6	11.753	B
		Exit	1	1		779			779	770	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	369	857	0.431	369	367	0.5	0.8	7.195	A
		Exit	1	1		481			481	479	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	678	993	0.683	678	666	1.0	1.5	7.630	A
		Exit	1	1		666			666	657	0.0	0.0	0.056	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	432			432	431	0.0	0.1	0.273	A
		Exit	1	1		481			481	474	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	431			429	422	1.1	2.3	17.392	C
		Exit	1	1		369			369	364	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	481			481	474	0.0	0.0	0.000	A
				2	B	183			184	180	0.3	0.4	8.574	A
			2	1	(A, B)	663			663	654	0.0	0.0	0.194	A
		Exit	1	1		677			677	668	0.2	0.4	2.039	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	675	1011	0.668	671	670	1.2	2.3	10.750	B
		Exit	1	1		604			604	593	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1009	1077	0.936	988	969	2.6	11.7	31.969	D
		Exit	1	1		922			922	914	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	451	789	0.572	451	447	0.8	1.4	10.173	B
		Exit	1	1		585			585	579	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	798	941	0.848	797	785	1.5	2.2	9.234	A
		Exit	1	1		795			795	785	0.0	0.0	0.112	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	520			520	526	0.1	0.1	0.858	A
		Exit	1	1		574			574	566	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	521			501	489	2.3	10.7	54.581	F
		Exit	1	1		437			437	439	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	574			574	566	0.0	0.0	0.000	A
				2	B	216			216	215	0.4	0.6	9.467	A
			2	1	(A, B)	791			791	782	0.0	0.1	0.334	A
		Exit	1	1		800			799	788	0.4	1.0	3.960	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	670	1005	0.667	669	676	2.3	2.3	11.107	B
		Exit	1	1		600			600	605	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1004	1079	0.930	992	994	11.7	13.7	46.101	E
		Exit	1	1		939			939	932	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	449	786	0.572	445	447	1.4	1.5	10.800	B
		Exit	1	1		577			577	584	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	810	943	0.859	811	805	2.2	2.2	9.701	A
		Exit	1	1		801			800	801	0.0	0.1	0.117	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	528			528	527	0.1	0.2	1.077	A
		Exit	1	1		573			573	576	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	524			511	503	10.7	15.9	100.282	F
		Exit	1	1		446			446	445	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	573			573	576	0.0	0.0	0.000	A
				2	B	222			221	221	0.6	0.6	9.646	A
			2	1	(A, B)	796			795	797	0.1	0.1	0.347	A
		Exit	1	1		813			813	806	1.0	1.0	4.531	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	556	1057	0.526	557	560	2.3	1.1	7.834	A
		Exit	1	1		497			497	511	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	824	1124	0.733	827	867	13.7	3.2	21.319	C
		Exit	1	1		803			803	831	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	371	859	0.432	371	371	1.5	0.8	8.012	A
		Exit	1	1		491			491	493	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	702	993	0.706	701	729	2.2	1.7	8.514	A
		Exit	1	1		663			663	692	0.1	0.0	0.060	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	427			427	434	0.2	0.0	0.520	A
		Exit	1	1		478			478	498	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	433			457	476	15.9	3.7	55.082	F
		Exit	1	1		367			367	377	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	478			478	498	0.0	0.0	0.000	A
				2	B	183			184	192	0.6	0.4	8.849	A
			2	1	(A, B)	660			661	689	0.1	0.0	0.234	A
		Exit	1	1		701			702	726	1.0	0.5	3.036	A

09:15 - 09:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	461	1120	0.412	461	466	1.1	0.8	5.703	A
		Exit	1	1		423			423	425	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	689	1165	0.591	689	697	3.2	1.5	8.354	A
		Exit	1	1		650			650	666	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	312	914	0.342	313	313	0.8	0.5	6.068	A
		Exit	1	1		400			400	405	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	564	1031	0.547	564	579	1.7	1.0	6.709	A
		Exit	1	1		555			556	560	0.0	0.0	0.023	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	362			362	363	0.0	0.0	0.119	A
		Exit	1	1		401			401	402	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	354			357	367	3.7	1.1	13.618	B
		Exit	1	1		307			307	312	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	401			401	402	0.0	0.0	0.000	A
				2	B	152			152	156	0.4	0.3	7.804	A
			2	1	(A, B)	553			553	557	0.0	0.0	0.108	A
		Exit	1	1		564			563	576	0.5	0.2	1.301	A

A50-Conjunction - 2032 DS Full, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.
Warning	Linked roundabouts	1 - A50/Hilden Rd Roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	56.57	F
2	Poplars Ave/A50	T-Junction	Two-way			41.43	E

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)	Run automatically
D8	2032 DS Full	AM	ONE HOUR	08:00	09:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	738	100.000
	2 - Orford Rd		ONE HOUR	✓	1020	100.000
	3 - Smith Drive		ONE HOUR	✓	358	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	579	100.000
	B - Poplars Ave		ONE HOUR	✓	514	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	143	403	192
	2 - Orford Rd	298	0	109	613
	3 - Smith Drive	291	61	0	6
	4 - A50	100	663	17	5

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
	From			
	A - A50 W	0	330	249
	B - Poplars Ave	0	0	514
	C - A50 E	581	213	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
	From				
	1 - Hilden Rd	0	0	0	1
	2 - Orford Rd	1	0	9	5
	3 - Smith Drive	2	0	0	14
	4 - A50	14	3	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
	From			
	A - A50 W	0	0	4
	B - Poplars Ave	0	0	2
	C - A50 E	2	4	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	15.25	3.5	C	678	1017
	2 - Orford Rd	138.79	48.2	F	928	1392
	3 - Smith Drive	10.46	1.1	B	329	493
	4 - A50	9.49	2.2	A	704	1056
2 - Poplars Ave/A50	A - A50 W	0.97	0.2	A	532	798
	B - Poplars Ave	147.79	25.4	F	466	699
	C - A50 E	3.07	0.8	A	731	1096

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	556	139	554	555	556	515	0.0	1.0	5.993	A
	2 - Orford Rd	758	189	465	757	761	644	0.0	2.2	9.826	A
	3 - Smith Drive	265	66	824	265	268	398	0.0	0.4	6.087	A
	4 - A50	585	146	483	586	572	606	0.0	1.1	6.737	A
2 - Poplars Ave/A50	A - A50 W	436	109		436	440	439	0.0	0.0	0.094	A
	B - Poplars Ave	383	96		385	379	408	0.0	1.2	12.168	B
	C - A50 E	599	150		599	602	574	0.0	0.4	2.338	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	670	168	648	666	657	622	1.0	1.7	7.837	A
	2 - Orford Rd	903	226	557	902	898	757	2.2	5.0	18.233	C
	3 - Smith Drive	324	81	986	325	324	474	0.4	0.7	7.486	A
	4 - A50	683	171	586	684	679	724	1.1	1.4	7.771	A
2 - Poplars Ave/A50	A - A50 W	520	130		520	519	524	0.0	0.0	0.282	A
	B - Poplars Ave	449	112		451	448	486	1.2	2.8	20.246	C
	C - A50 E	714	179		715	713	675	0.4	0.5	2.630	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	817	204	773	815	803	726	1.7	3.5	14.091	B
	2 - Orford Rd	1119	280	679	1032	1025	909	5.0	28.9	64.382	F
	3 - Smith Drive	393	98	1143	396	391	568	0.7	1.0	9.818	A
	4 - A50	806	202	692	807	794	848	1.4	2.2	9.260	A
2 - Poplars Ave/A50	A - A50 W	641	160		641	641	618	0.0	0.2	0.756	A
	B - Poplars Ave	560	140		514	511	577	2.8	16.3	73.890	F
	C - A50 E	837	209		836	823	796	0.5	0.8	3.070	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	809	202	771	808	814	734	3.5	3.5	15.253	C
	2 - Orford Rd	1117	279	671	1055	1041	908	28.9	48.2	138.789	F
	3 - Smith Drive	396	99	1156	397	392	571	1.0	1.1	10.458	B
	4 - A50	813	203	694	812	811	860	2.2	2.2	9.489	A
2 - Poplars Ave/A50	A - A50 W	640	160		640	636	619	0.2	0.2	0.973	A
	B - Poplars Ave	557	139		528	528	595	16.3	25.4	147.792	F
	C - A50 E	845	211		845	836	799	0.8	0.7	3.070	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	664	166	701	660	670	660	3.5	1.8	9.326	A
	2 - Orford Rd	911	228	548	1014	1039	812	48.2	16.7	104.990	F
	3 - Smith Drive	325	81	1084	325	327	478	1.1	0.8	8.643	A
	4 - A50	747	187	613	748	764	795	2.2	1.8	8.809	A
2 - Poplars Ave/A50	A - A50 W	524	131		524	520	573	0.2	0.0	0.495	A
	B - Poplars Ave	465	116		510	528	511	25.4	9.3	105.978	F
	C - A50 E	786	197		785	799	735	0.7	0.7	2.832	A

09:15 - 09:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	553	138	567	553	552	516	1.8	1.0	6.276	A
	2 - Orford Rd	763	191	461	769	823	660	16.7	2.2	21.071	C
	3 - Smith Drive	269	67	835	269	270	394	0.8	0.5	6.550	A
	4 - A50	592	148	490	593	619	614	1.8	1.1	7.235	A
2 - Poplars Ave/A50	A - A50 W	432	108		432	439	446	0.0	0.0	0.137	A
	B - Poplars Ave	383	96		397	417	407	9.3	1.4	27.965	D
	C - A50 E	604	151		605	635	581	0.7	0.4	2.304	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	556	1152	0.482	555	556	0.0	1.0	5.993	A
		Exit	1	1		515			515	514	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	758	1155	0.656	757	761	0.0	2.2	9.826	A
		Exit	1	1		644			644	634	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	265	878	0.302	265	268	0.0	0.4	6.087	A
		Exit	1	1		398			398	397	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	585	1034	0.565	586	572	0.0	1.1	6.737	A
		Exit	1	1		606			606	612	0.0	0.0	0.028	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	436			436	440	0.0	0.0	0.094	A
		Exit	1	1		439			439	442	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	383			385	379	0.0	1.2	12.168	B
		Exit	1	1		408			408	411	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	439			439	442	0.0	0.0	0.000	A
				2	B	160			160	159	0.0	0.4	8.400	A
			2	1	(A, B)	599			599	603	0.0	0.0	0.125	A
		Exit	1	1		573			574	567	0.0	0.2	1.239	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	670	1113	0.602	666	657	1.0	1.7	7.837	A
		Exit	1	1		622			622	612	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	903	1116	0.809	902	898	2.2	5.0	18.233	C
		Exit	1	1		757			757	752	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	324	814	0.398	325	324	0.4	0.7	7.486	A
		Exit	1	1		474			474	471	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	683	991	0.690	684	679	1.1	1.4	7.771	A
		Exit	1	1		724			724	723	0.0	0.0	0.070	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	520			520	519	0.0	0.0	0.282	A
		Exit	1	1		524			524	522	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	449			451	448	1.2	2.8	20.246	C
		Exit	1	1		486			486	487	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	524			524	522	0.0	0.0	0.000	A
				2	B	190			190	191	0.4	0.5	9.076	A
			2	1	(A, B)	714			715	713	0.0	0.1	0.231	A
		Exit	1	1		676			675	671	0.2	0.4	2.212	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	817	1062	0.769	815	803	1.7	3.5	14.091	B
		Exit	1	1		726			726	718	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1119	1063	1.053	1032	1025	5.0	28.9	64.382	F
		Exit	1	1		909			909	894	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	393	751	0.523	396	391	0.7	1.0	9.818	A
		Exit	1	1		568			568	566	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	806	946	0.852	807	794	1.4	2.2	9.260	A
		Exit	1	1		848			848	835	0.0	0.1	0.154	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	641			641	641	0.0	0.2	0.756	A
		Exit	1	1		618			618	604	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	560			514	511	2.8	16.3	73.890	F
		Exit	1	1		577			577	582	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	618			618	604	0.0	0.0	0.000	A
				2	B	219			218	219	0.5	0.7	10.091	B
			2	1	(A, B)	837			837	824	0.1	0.1	0.412	A
		Exit	1	1		796			796	787	0.4	0.9	3.997	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	809	1062	0.761	808	814	3.5	3.5	15.253	C
		Exit	1	1		734			734	728	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1117	1066	1.047	1055	1041	28.9	48.2	138.789	F
		Exit	1	1		908			908	906	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	396	746	0.531	397	392	1.0	1.1	10.458	B
		Exit	1	1		571			571	573	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	813	945	0.860	812	811	2.2	2.2	9.489	A
		Exit	1	1		859			860	850	0.1	0.0	0.121	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	640			640	636	0.2	0.2	0.973	A
		Exit	1	1		619			619	613	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	557			528	528	16.3	25.4	147.792	F
		Exit	1	1		595			595	589	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	619			619	613	0.0	0.0	0.000	A
				2	B	226			226	223	0.7	0.7	10.213	B
		Exit	1	1	(A, B)	845			846	836	0.1	0.1	0.382	A
				1		799			799	798	0.9	1.0	4.391	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	664	1092	0.608	660	670	3.5	1.8	9.326	A
		Exit	1	1		660			660	667	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	911	1119	0.814	1014	1039	48.2	16.7	104.990	F
		Exit	1	1		812			812	835	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	325	775	0.419	325	327	1.1	0.8	8.643	A
		Exit	1	1		478			478	487	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	747	979	0.762	748	764	2.2	1.8	8.809	A
		Exit	1	1		795			795	812	0.0	0.0	0.099	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	524			524	520	0.2	0.0	0.495	A
		Exit	1	1		573			573	584	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	465			510	528	25.4	9.3	105.978	F
		Exit	1	1		511			511	513	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	573			573	584	0.0	0.0	0.000	A
				2	B	213			212	216	0.7	0.6	9.509	A
			2	1	(A, B)	786			786	799	0.1	0.1	0.305	A
		Exit	1	1		736			735	751	1.0	0.6	3.442	A

09:15 - 09:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	553	1147	0.482	553	552	1.8	1.0	6.276	A
		Exit	1	1		516			516	537	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	763	1157	0.659	769	823	16.7	2.2	21.071	C
		Exit	1	1		660			660	678	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	269	874	0.308	269	270	0.8	0.5	6.550	A
		Exit	1	1		394			394	404	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	592	1032	0.574	593	619	1.8	1.1	7.235	A
		Exit	1	1		614			614	645	0.0	0.0	0.033	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	432			432	439	0.0	0.0	0.137	A
		Exit	1	1		446			446	465	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	383			397	417	9.3	1.4	27.965	D
		Exit	1	1		407			407	422	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	446			446	465	0.0	0.0	0.000	A
				2	B	158			159	170	0.6	0.4	8.291	A
			2	1	(A, B)	604			604	634	0.1	0.0	0.133	A
		Exit	1	1		581			581	606	0.6	0.2	1.713	A

A50-Conjunction - 2018 Validation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	23.39	C
2	Poplars Ave/A50	T-Junction	Two-way			9.89	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)	Run automatically
D9	2018 Validation	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	600	100.000
	2 - Orford Rd		ONE HOUR	✓	836	100.000
	3 - Smith Drive		ONE HOUR	✓	88	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	535	100.000
	B - Poplars Ave		ONE HOUR	✓	306	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
From		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
	1 - Hilden Rd	0	49	314	237
	2 - Orford Rd	90	0	117	629
	3 - Smith Drive	83	5	0	0
	4 - A50	277	500	13	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	51	484
	B - Poplars Ave	0	0	306
	C - A50 E	467	393	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	4	3	4
	2 - Orford Rd	0	0	0	1
	3 - Smith Drive	4	0	0	0
	4 - A50	3	2	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	2
	B - Poplars Ave	0	0	2
	C - A50 E	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	10.77	2.2	B	551	826
	2 - Orford Rd	49.88	14.3	E	763	1145
	3 - Smith Drive	5.40	0.2	A	82	123
	4 - A50	7.26	2.0	A	730	1095
2 - Poplars Ave/A50	A - A50 W	0.87	0.1	A	494	741
	B - Poplars Ave	25.79	2.5	D	280	420
	C - A50 E	9.89	2.6	A	788	1183

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	453	113	392	453	452	340	0.0	0.7	5.005	A
	2 - Orford Rd	629	157	426	627	626	419	0.0	1.5	7.031	A
	3 - Smith Drive	64	16	722	64	66	331	0.0	0.0	4.321	A
	4 - A50	599	150	134	598	592	652	0.0	0.9	5.524	A
2 - Poplars Ave/A50	A - A50 W	409	102		409	406	349	0.0	0.0	0.068	A
	B - Poplars Ave	226	56		227	228	344	0.0	0.5	8.358	A
	C - A50 E	654	163		653	649	596	0.0	1.1	5.547	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	530	133	461	531	533	400	0.7	0.9	6.080	A
	2 - Orford Rd	737	184	502	744	746	490	1.5	2.2	10.981	B
	3 - Smith Drive	82	21	846	82	78	400	0.0	0.1	4.890	A
	4 - A50	705	176	157	703	699	771	0.9	1.2	6.006	A
2 - Poplars Ave/A50	A - A50 W	480	120		480	476	414	0.0	0.0	0.194	A
	B - Poplars Ave	272	68		272	270	408	0.5	0.8	10.322	B
	C - A50 E	771	193		774	773	704	1.1	1.5	7.032	A

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	664	166	571	661	653	502	0.9	2.1	10.042	B
	2 - Orford Rd	913	228	621	893	879	611	2.2	10.9	33.194	D
	3 - Smith Drive	100	25	1025	100	95	490	0.1	0.1	5.193	A
	4 - A50	876	219	198	875	857	927	1.2	1.7	7.010	A
2 - Poplars Ave/A50	A - A50 W	587	147		588	582	507	0.0	0.1	0.650	A
	B - Poplars Ave	336	84		339	333	478	0.8	1.9	19.290	C
	C - A50 E	930	233		929	916	872	1.5	2.5	9.168	A

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	663	166	573	658	661	500	2.1	2.2	10.768	B
	2 - Orford Rd	927	232	620	913	911	611	10.9	14.3	49.879	E
	3 - Smith Drive	99	25	1045	99	95	488	0.1	0.2	5.399	A
	4 - A50	879	220	197	876	872	946	1.7	2.0	7.261	A
2 - Poplars Ave/A50	A - A50 W	594	148		593	590	513	0.1	0.1	0.867	A
	B - Poplars Ave	337	84		340	337	492	1.9	2.5	25.794	D
	C - A50 E	948	237		949	946	876	2.5	2.6	9.890	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	547	137	471	548	550	406	2.2	1.0	7.253	A
	2 - Orford Rd	747	187	517	752	801	502	14.3	3.0	24.317	C
	3 - Smith Drive	81	20	866	81	80	403	0.2	0.1	4.945	A
	4 - A50	716	179	161	717	728	786	2.0	1.3	6.228	A
2 - Poplars Ave/A50	A - A50 W	483	121		482	481	430	0.1	0.1	0.265	A
	B - Poplars Ave	277	69		277	286	403	2.5	0.8	12.046	B
	C - A50 E	786	196		787	825	715	2.6	1.7	7.637	A

18:15 - 18:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	449	112	396	450	450	348	1.0	0.5	5.015	A
	2 - Orford Rd	626	156	422	620	636	423	3.0	1.5	7.698	A
	3 - Smith Drive	68	17	712	67	69	330	0.1	0.1	4.570	A
	4 - A50	606	152	136	608	606	643	1.3	0.9	5.578	A
2 - Poplars Ave/A50	A - A50 W	412	103		412	411	343	0.1	0.0	0.100	A
	B - Poplars Ave	233	58		234	231	335	0.8	0.5	8.520	A
	C - A50 E	641	160		638	656	606	1.7	1.1	5.509	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	453	1220	0.371	453	452	0.0	0.7	5.005	A
		Exit	1	1		340			340	339	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	629	1172	0.536	627	626	0.0	1.5	7.031	A
		Exit	1	1		419			419	412	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	64	919	0.069	64	66	0.0	0.0	4.321	A
		Exit	1	1		331			331	332	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	599	1182	0.506	598	592	0.0	0.9	5.524	A
		Exit	1	1		652			652	652	0.0	0.0	0.273	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	409			409	406	0.0	0.0	0.068	A
		Exit	1	1		349			349	353	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	226			227	228	0.0	0.5	8.358	A
		Exit	1	1		344			344	336	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	349			349	353	0.0	0.0	0.000	A
				2	B	305			304	296	0.0	0.9	10.201	B
			2	1	(A, B)	654			654	653	0.0	0.2	0.866	A
		Exit	1	1		596			596	593	0.0	0.1	0.727	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	530	1191	0.445	531	533	0.7	0.9	6.080	A
		Exit	1	1		400			400	398	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	737	1140	0.647	744	746	1.5	2.2	10.981	B
		Exit	1	1		490			490	488	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	82	870	0.095	82	78	0.0	0.1	4.890	A
		Exit	1	1		400			400	397	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	705	1172	0.601	703	699	0.9	1.2	6.006	A
		Exit	1	1		770			771	774	0.0	0.1	0.587	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	480			480	476	0.0	0.0	0.194	A
		Exit	1	1		414			414	421	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	272			272	270	0.5	0.8	10.322	B
		Exit	1	1		408			408	398	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	414			414	421	0.0	0.0	0.000	A
				2	B	358			359	352	0.9	1.1	11.900	B
			2	1	(A, B)	771			772	774	0.2	0.3	1.596	A
		Exit	1	1		704			704	699	0.1	0.2	1.237	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	664	1146	0.580	661	653	0.9	2.1	10.042	B
		Exit	1	1		502			502	484	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	913	1088	0.839	893	879	2.2	10.9	33.194	D
		Exit	1	1		611			611	600	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	100	798	0.125	100	95	0.1	0.1	5.193	A
		Exit	1	1		490			490	480	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	876	1155	0.758	875	857	1.2	1.7	7.010	A
		Exit	1	1		927			927	917	0.1	0.4	1.320	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	587			588	582	0.0	0.1	0.650	A
		Exit	1	1		507			507	501	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	336			339	333	0.8	1.9	19.290	C
		Exit	1	1		478			478	472	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	507			507	501	0.0	0.0	0.000	A
				2	B	424			422	415	1.1	1.8	13.839	B
			2	1	(A, B)	930			931	918	0.3	0.8	2.876	A
		Exit	1	1		872			872	858	0.2	0.5	2.476	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	663	1145	0.580	658	661	2.1	2.2	10.768	B
		Exit	1	1		500			500	496	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	927	1088	0.852	913	911	10.9	14.3	49.879	E
		Exit	1	1		611			611	610	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	99	790	0.125	99	95	0.1	0.2	5.399	A
		Exit	1	1		488			488	488	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	879	1155	0.761	876	872	1.7	2.0	7.261	A
		Exit	1	1		947			946	944	0.4	0.5	1.564	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	594			593	590	0.1	0.1	0.867	A
		Exit	1	1		513			513	513	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	337			340	337	1.9	2.5	25.794	D
		Exit	1	1		492			492	488	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	513			513	513	0.0	0.0	0.000	A
				2	B	435			436	432	1.8	1.7	14.377	B
			2	1	(A, B)	948			948	945	0.8	1.0	3.307	A
		Exit	1	1		877			876	871	0.5	0.7	2.827	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	547	1187	0.461	548	550	2.2	1.0	7.253	A
		Exit	1	1		406			406	418	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	747	1133	0.659	752	801	14.3	3.0	24.317	C
		Exit	1	1		502			502	509	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	81	862	0.094	81	80	0.2	0.1	4.945	A
		Exit	1	1		403			403	413	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	716	1171	0.612	717	728	2.0	1.3	6.228	A
		Exit	1	1		786			786	820	0.5	0.2	0.873	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	483			482	481	0.1	0.1	0.265	A
		Exit	1	1		430			430	448	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	277			277	286	2.5	0.8	12.046	B
		Exit	1	1		403			403	422	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	430			430	448	0.0	0.0	0.000	A
				2	B	356			357	377	1.7	1.3	12.378	B
			2	1	(A, B)	786			786	824	1.0	0.4	2.024	A
		Exit	1	1		713			715	723	0.7	0.3	1.508	A

18:15 - 18:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	449	1218	0.368	450	450	1.0	0.5	5.015	A
		Exit	1	1		348			348	349	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	626	1174	0.533	620	636	3.0	1.5	7.698	A
		Exit	1	1		423			423	423	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	68	923	0.073	67	69	0.1	0.1	4.570	A
		Exit	1	1		330			330	335	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	606	1181	0.513	608	606	1.3	0.9	5.578	A
		Exit	1	1		643			643	654	0.2	0.1	0.235	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	412			412	411	0.1	0.0	0.100	A
		Exit	1	1		343			343	353	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	233			234	231	0.8	0.5	8.520	A
		Exit	1	1		335			335	342	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	343			343	353	0.0	0.0	0.000	A
				2	B	297			295	302	1.3	0.8	10.199	B
			2	1	(A, B)	641			639	654	0.4	0.2	0.859	A
		Exit	1	1		606			606	603	0.3	0.1	0.834	A

A50-Conjunction - 2022 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	34.26	D
2	Poplars Ave/A50	T-Junction	Two-way			12.85	B

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)	Run automatically
D10	2022 DM	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	625	100.000
	2 - Orford Rd		ONE HOUR	✓	882	100.000
	3 - Smith Drive		ONE HOUR	✓	91	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	566	100.000
	B - Poplars Ave		ONE HOUR	✓	326	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	52	340	233
	2 - Orford Rd	95	0	121	666
	3 - Smith Drive	84	6	0	1
	4 - A50	295	529	14	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	55	511
	B - Poplars Ave	0	0	326
	C - A50 E	491	402	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
From		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
	1 - Hilden Rd	0	4	2	4
	2 - Orford Rd	0	0	0	1
	3 - Smith Drive	3	0	0	0
	4 - A50	3	2	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	2
	B - Poplars Ave	0	0	2
	C - A50 E	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	12.46	2.4	B	570	855
	2 - Orford Rd	78.03	23.3	F	809	1214
	3 - Smith Drive	5.46	0.2	A	84	127
	4 - A50	7.66	2.0	A	773	1159
2 - Poplars Ave/A50	A - A50 W	1.29	0.2	A	520	781
	B - Poplars Ave	41.33	4.3	E	299	449
	C - A50 E	9.81	2.6	A	820	1230

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	470	117	414	472	468	359	0.0	0.7	5.154	A
	2 - Orford Rd	661	165	445	664	660	442	0.0	1.3	7.882	A
	3 - Smith Drive	70	18	746	70	70	362	0.0	0.1	4.436	A
	4 - A50	631	158	141	632	629	675	0.0	1.0	5.643	A
2 - Poplars Ave/A50	A - A50 W	426	106		426	426	372	0.0	0.0	0.128	A
	B - Poplars Ave	244	61		245	247	346	0.0	0.5	9.152	A
	C - A50 E	677	169		677	670	630	0.0	1.0	5.607	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	555	139	499	551	555	428	0.7	1.1	6.494	A
	2 - Orford Rd	787	197	517	785	780	533	1.3	2.8	12.115	B
	3 - Smith Drive	84	21	885	84	81	418	0.1	0.1	4.593	A
	4 - A50	758	189	169	758	747	799	1.0	1.3	6.272	A
2 - Poplars Ave/A50	A - A50 W	510	127		510	506	440	0.0	0.0	0.288	A
	B - Poplars Ave	291	73		292	288	411	0.5	1.1	12.416	B
	C - A50 E	800	200		804	794	755	1.0	1.6	6.998	A

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	679	170	603	680	681	523	1.1	2.0	10.663	B
	2 - Orford Rd	973	243	641	931	917	642	2.8	16.3	41.317	E
	3 - Smith Drive	103	26	1059	103	102	513	0.1	0.2	5.459	A
	4 - A50	925	231	201	924	912	959	1.3	2.0	7.458	A
2 - Poplars Ave/A50	A - A50 W	630	157		630	627	531	0.0	0.2	1.088	A
	B - Poplars Ave	360	90		350	347	488	1.1	4.3	33.055	D
	C - A50 E	962	240		960	948	921	1.6	2.6	9.203	A

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	684	171	615	684	688	516	2.0	2.4	12.459	B
	2 - Orford Rd	969	242	641	941	938	657	16.3	23.3	78.034	F
	3 - Smith Drive	98	24	1061	98	99	521	0.2	0.2	5.438	A
	4 - A50	932	233	198	933	932	960	2.0	1.9	7.660	A
2 - Poplars Ave/A50	A - A50 W	622	155		621	625	528	0.2	0.2	1.293	A
	B - Poplars Ave	360	90		365	364	496	4.3	3.9	41.326	E
	C - A50 E	962	241		963	964	926	2.6	2.5	9.806	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	557	139	503	558	566	428	2.4	1.0	8.015	A
	2 - Orford Rd	794	199	525	821	869	536	23.3	5.6	45.227	E
	3 - Smith Drive	83	21	914	83	83	432	0.2	0.1	5.119	A
	4 - A50	760	190	169	762	773	828	1.9	1.3	6.544	A
2 - Poplars Ave/A50	A - A50 W	516	129		517	513	456	0.2	0.0	0.403	A
	B - Poplars Ave	290	72		289	303	426	3.9	1.1	16.145	C
	C - A50 E	829	207		831	872	757	2.5	1.8	8.246	A

18:15 - 18:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	475	119	411	477	474	360	1.0	0.6	5.219	A
	2 - Orford Rd	669	167	451	669	686	438	5.6	1.4	9.998	A
	3 - Smith Drive	69	17	759	68	70	360	0.1	0.1	4.456	A
	4 - A50	631	158	140	632	636	688	1.3	0.9	5.681	A
2 - Poplars Ave/A50	A - A50 W	419	105		419	424	380	0.0	0.0	0.122	A
	B - Poplars Ave	250	62		251	250	353	1.1	0.5	8.972	A
	C - A50 E	691	173		693	702	630	1.8	1.0	5.808	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	470	1211	0.388	472	468	0.0	0.7	5.154	A
		Exit	1	1		359			359	358	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	661	1164	0.568	664	660	0.0	1.3	7.882	A
		Exit	1	1		442			442	440	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	70	909	0.077	70	70	0.0	0.1	4.436	A
		Exit	1	1		362			362	357	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	631	1179	0.535	632	629	0.0	1.0	5.643	A
		Exit	1	1		675			675	673	0.0	0.1	0.252	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	426			426	426	0.0	0.0	0.128	A
		Exit	1	1		372			372	372	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	244			245	247	0.0	0.5	9.152	A
		Exit	1	1		346			346	339	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	372			372	372	0.0	0.0	0.000	A
				2	B	305			305	298	0.0	0.9	10.561	B
			2	1	(A, B)	677			677	673	0.0	0.2	0.878	A
		Exit	1	1		630			630	631	0.0	0.2	0.903	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	555	1175	0.472	551	555	0.7	1.1	6.494	A
		Exit	1	1		428			428	423	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	787	1133	0.695	785	780	1.3	2.8	12.115	B
		Exit	1	1		533			533	524	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	84	854	0.098	84	81	0.1	0.1	4.593	A
		Exit	1	1		418			418	421	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	758	1167	0.649	758	747	1.0	1.3	6.272	A
		Exit	1	1		800			799	795	0.1	0.2	0.610	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	510			510	506	0.0	0.0	0.288	A
		Exit	1	1		440			440	438	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	291			292	288	0.5	1.1	12.416	B
		Exit	1	1		411			411	403	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	440			440	438	0.0	0.0	0.000	A
				2	B	361			363	356	0.9	1.2	12.001	B
			2	1	(A, B)	800			801	796	0.2	0.4	1.604	A
		Exit	1	1		754			755	746	0.2	0.3	1.542	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	679	1132	0.599	680	681	1.1	2.0	10.63	B
		Exit	1	1		523			523	512	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	973	1079	0.902	931	917	2.8	16.3	41.317	E
		Exit	1	1		642			642	639	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	103	785	0.132	103	102	0.1	0.2	5.459	A
		Exit	1	1		513			513	512	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	925	1153	0.802	924	912	1.3	2.0	7.458	A
		Exit	1	1		961			959	949	0.2	0.5	1.345	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	630			630	627	0.0	0.2	1.088	A
		Exit	1	1		531			531	523	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	360			350	347	1.1	4.3	33.055	D
		Exit	1	1		488			488	484	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	531			531	523	0.0	0.0	0.000	A
				2	B	429			429	424	1.2	1.7	14.007	B
			2	1	(A, B)	962			960	950	0.4	0.9	2.908	A
		Exit	1	1		921			921	911	0.3	0.8	3.134	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	684	1127	0.607	684	688	2.0	2.4	12.459	B
		Exit	1	1		516			516	519	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	969	1079	0.898	941	938	16.3	23.3	78.034	F
		Exit	1	1		657			657	654	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	98	784	0.125	98	99	0.2	0.2	5.438	A
		Exit	1	1		521			521	521	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	932	1155	0.807	933	932	2.0	1.9	7.660	A
		Exit	1	1		961			960	962	0.5	0.4	1.577	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	622			621	625	0.2	0.2	1.293	A
		Exit	1	1		528			528	529	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	360			365	364	4.3	3.9	41.326	E
		Exit	1	1		496			496	497	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	528			528	529	0.0	0.0	0.000	A
				2	B	434			434	435	1.7	1.7	14.462	B
			2	1	(A, B)	962			962	964	0.9	0.9	3.291	A
		Exit	1	1		925			926	927	0.8	0.8	3.404	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	557	1174	0.475	558	566	2.4	1.0	8.015	A
		Exit	1	1		428			428	441	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	794	1130	0.703	821	869	23.3	5.6	45.227	E
		Exit	1	1		536			536	543	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	83	842	0.099	83	83	0.2	0.1	5.119	A
		Exit	1	1		432			432	441	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	760	1167	0.651	762	773	1.9	1.3	6.544	A
		Exit	1	1		828			828	867	0.4	0.2	1.037	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	516			517	513	0.2	0.0	0.403	A
		Exit	1	1		456			456	479	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	290			289	303	3.9	1.1	16.145	C
		Exit	1	1		426			426	444	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	456			456	479	0.0	0.0	0.000	A
				2	B	374			375	393	1.7	1.4	13.061	B
			2	1	(A, B)	829			830	871	0.9	0.5	2.375	A
		Exit	1	1		755			757	768	0.8	0.3	1.810	A

18:15 - 18:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	475	1212	0.392	477	474	1.0	0.6	5.219	A
		Exit	1	1		360			360	365	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	669	1162	0.576	669	686	5.6	1.4	9.998	A
		Exit	1	1		438			438	443	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	69	904	0.076	68	70	0.1	0.1	4.456	A
		Exit	1	1		360			360	362	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	631	1179	0.535	632	636	1.3	0.9	5.681	A
		Exit	1	1		688			688	696	0.2	0.0	0.347	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	419			419	424	0.0	0.0	0.122	A
		Exit	1	1		380			380	385	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	250			251	250	1.1	0.5	8.972	A
		Exit	1	1		353			353	358	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	380			380	385	0.0	0.0	0.000	A
				2	B	312			312	317	1.4	0.9	10.681	B
			2	1	(A, B)	691			692	700	0.5	0.1	1.027	A
		Exit	1	1		630			630	633	0.3	0.2	0.923	A

A50-Conjunction - 2022 DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	41.16	E
2	Poplars Ave/A50	T-Junction	Two-way			13.69	B

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)	Run automatically
D11	2022 DS	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	646	100.000
	2 - Orford Rd		ONE HOUR	✓	893	100.000
	3 - Smith Drive		ONE HOUR	✓	99	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	571	100.000
	B - Poplars Ave		ONE HOUR	✓	328	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	54	344	248
	2 - Orford Rd	100	0	122	671
	3 - Smith Drive	92	6	0	1
	4 - A50	310	535	14	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	57	514
	B - Poplars Ave	0	0	328
	C - A50 E	491	404	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	4	3	9
	2 - Orford Rd	0	0	0	2
	3 - Smith Drive	8	0	0	0
	4 - A50	7	2	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	2
	B - Poplars Ave	0	0	2
	C - A50 E	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	14.53	2.8	B	595	893
	2 - Orford Rd	96.95	30.6	F	813	1219
	3 - Smith Drive	5.82	0.2	A	90	135
	4 - A50	7.75	2.1	A	788	1182
2 - Poplars Ave/A50	A - A50 W	1.51	0.3	A	525	788
	B - Poplars Ave	44.48	4.3	E	299	449
	C - A50 E	10.26	2.8	B	819	1229

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	486	121	417	485	486	381	0.0	0.8	5.350	A
	2 - Orford Rd	660	165	455	661	668	447	0.0	1.6	8.077	A
	3 - Smith Drive	76	19	757	76	77	359	0.0	0.1	4.623	A
	4 - A50	648	162	149	648	641	683	0.0	1.0	5.695	A
2 - Poplars Ave/A50	A - A50 W	432	108		433	434	368	0.0	0.0	0.155	A
	B - Poplars Ave	245	61		246	245	342	0.0	0.6	9.171	A
	C - A50 E	671	168		669	674	638	0.0	1.2	5.775	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	584	146	496	585	582	455	0.8	1.1	7.126	A
	2 - Orford Rd	794	199	548	791	789	533	1.6	3.6	13.775	B
	3 - Smith Drive	85	21	905	85	87	434	0.1	0.1	5.104	A
	4 - A50	777	194	173	777	763	816	1.0	1.4	6.527	A
2 - Poplars Ave/A50	A - A50 W	515	129		515	510	433	0.0	0.0	0.400	A
	B - Poplars Ave	300	75		300	294	413	0.6	1.1	12.904	B
	C - A50 E	799	200		796	799	764	1.2	1.8	7.053	A

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	709	177	606	706	697	552	1.1	2.8	12.658	B
	2 - Orford Rd	986	246	662	933	920	650	3.6	18.5	47.150	E
	3 - Smith Drive	110	27	1075	110	108	520	0.1	0.2	5.815	A
	4 - A50	946	237	213	946	923	973	1.4	2.0	7.592	A
2 - Poplars Ave/A50	A - A50 W	636	159		636	627	522	0.0	0.3	1.297	A
	B - Poplars Ave	360	90		353	347	493	1.1	4.0	32.238	D
	C - A50 E	954	238		953	937	929	1.8	2.7	9.461	A

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	711	178	611	716	713	549	2.8	2.5	14.529	B
	2 - Orford Rd	976	244	673	926	937	655	18.5	30.6	96.955	F
	3 - Smith Drive	108	27	1077	109	109	521	0.2	0.2	5.726	A
	4 - A50	947	237	213	948	944	975	2.0	2.1	7.745	A
2 - Poplars Ave/A50	A - A50 W	627	157		627	628	522	0.3	0.3	1.506	A
	B - Poplars Ave	356	89		363	360	498	4.0	4.3	44.476	E
	C - A50 E	959	240		959	961	931	2.7	2.8	10.260	B

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	590	148	499	586	585	454	2.5	1.5	8.446	A
	2 - Orford Rd	790	198	548	845	890	537	30.6	7.0	61.115	F
	3 - Smith Drive	86	22	951	87	89	442	0.2	0.1	5.345	A
	4 - A50	774	193	178	775	793	860	2.1	1.3	6.815	A
2 - Poplars Ave/A50	A - A50 W	517	129		517	518	467	0.3	0.0	0.624	A
	B - Poplars Ave	295	74		299	309	442	4.3	1.1	20.320	C
	C - A50 E	848	212		853	882	759	2.8	1.8	8.402	A

18:15 - 18:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	492	123	412	493	489	370	1.5	0.7	5.837	A
	2 - Orford Rd	671	168	460	673	694	445	7.0	1.4	12.221	B
	3 - Smith Drive	74	18	768	74	75	365	0.1	0.1	4.863	A
	4 - A50	635	159	148	634	647	694	1.3	1.0	5.782	A
2 - Poplars Ave/A50	A - A50 W	424	106		425	427	377	0.0	0.0	0.157	A
	B - Poplars Ave	239	60		241	250	350	1.1	0.5	9.319	A
	C - A50 E	683	171		684	700	622	1.8	1.0	5.944	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	486	1210	0.402	485	486	0.0	0.8	5.350	A
		Exit	1	1		381			381	377	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	660	1160	0.569	661	668	0.0	1.6	8.077	A
		Exit	1	1		447			447	444	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	76	905	0.084	76	77	0.0	0.1	4.623	A
		Exit	1	1		359			359	359	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	648	1175	0.551	648	641	0.0	1.0	5.695	A
		Exit	1	1		683			683	692	0.0	0.1	0.268	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	432			433	434	0.0	0.0	0.155	A
		Exit	1	1		368			368	373	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	245			246	245	0.0	0.6	9.171	A
		Exit	1	1		342			342	345	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	368			368	373	0.0	0.0	0.000	A
				2	B	303			301	302	0.0	1.0	10.706	B
			2	1	(A, B)	671			671	678	0.0	0.2	0.946	A
		Exit	1	1		638			638	635	0.0	0.1	1.027	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	584	1177	0.496	585	582	0.8	1.1	7.126	A
		Exit	1	1		455			455	446	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	794	1119	0.710	791	789	1.6	3.6	13.775	B
		Exit	1	1		533			533	529	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	85	846	0.100	85	87	0.1	0.1	5.104	A
		Exit	1	1		434			434	430	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	777	1165	0.666	777	763	1.0	1.4	6.527	A
		Exit	1	1		817			816	816	0.1	0.1	0.658	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	515			515	510	0.0	0.0	0.400	A
		Exit	1	1		433			433	438	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	300			300	294	0.6	1.1	12.904	B
		Exit	1	1		413			413	411	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	433			433	438	0.0	0.0	0.000	A
				2	B	364			363	361	1.0	1.3	11.903	B
			2	1	(A, B)	799			797	800	0.2	0.5	1.661	A
		Exit	1	1		765			764	753	0.1	0.4	1.783	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	709	1131	0.627	706	697	1.1	2.8	12.658	B
		Exit	1	1		552			552	538	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	986	1070	0.921	933	920	3.6	18.5	47.150	E
		Exit	1	1		650			650	637	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	110	778	0.141	110	108	0.1	0.2	5.815	A
		Exit	1	1		520			520	514	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	946	1149	0.824	946	923	1.4	2.0	7.592	A
		Exit	1	1		972			973	958	0.1	0.5	1.400	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	636			636	627	0.0	0.3	1.297	A
		Exit	1	1		522			522	514	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	360			353	347	1.1	4.0	32.238	D
		Exit	1	1		493			493	485	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	522			522	514	0.0	0.0	0.000	A
				2	B	432			431	424	1.3	1.8	14.114	B
			2	1	(A, B)	954			954	939	0.5	0.9	3.047	A
		Exit	1	1		927			929	910	0.4	0.8	3.451	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	711	1129	0.630	716	713	2.8	2.5	14.529	B
		Exit	1	1		549			549	549	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	976	1066	0.916	926	937	18.5	30.6	96.955	F
		Exit	1	1		655			655	653	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	108	777	0.140	109	109	0.2	0.2	5.726	A
		Exit	1	1		521			521	522	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	947	1149	0.824	948	944	2.0	2.1	7.745	A
		Exit	1	1		974			975	980	0.5	0.4	1.681	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	627			627	628	0.3	0.3	1.506	A
		Exit	1	1		522			522	526	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	356			363	360	4.0	4.3	44.476	E
		Exit	1	1		498			498	497	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	522			522	526	0.0	0.0	0.000	A
				2	B	437			436	436	1.8	1.9	14.868	B
			2	1	(A, B)	959			959	962	0.9	1.0	3.526	A
		Exit	1	1		929			931	927	0.8	0.9	3.678	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	590	1176	0.502	586	585	2.5	1.5	8.446	A
		Exit	1	1		454			454	470	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	790	1119	0.706	845	890	30.6	7.0	61.115	F
		Exit	1	1		537			537	548	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	86	828	0.104	87	89	0.2	0.1	5.345	A
		Exit	1	1		442			442	450	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	774	1163	0.665	775	793	2.1	1.3	6.815	A
		Exit	1	1		859			860	890	0.4	0.2	1.113	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	517			517	518	0.3	0.0	0.624	A
		Exit	1	1		467			467	482	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	295			299	309	4.3	1.1	20.320	C
		Exit	1	1		442			442	454	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	467			467	482	0.0	0.0	0.000	A
				2	B	384			386	401	1.9	1.3	13.052	B
			2	1	(A, B)	848			850	880	1.0	0.5	2.503	A
		Exit	1	1		759			759	776	0.9	0.4	2.237	A

18:15 - 18:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	492	1212	0.406	493	489	1.5	0.7	5.837	A
		Exit	1	1		370			370	381	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	671	1158	0.580	673	694	7.0	1.4	12.221	B
		Exit	1	1		445			445	451	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	74	901	0.082	74	75	0.1	0.1	4.863	A
		Exit	1	1		365			365	366	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	635	1176	0.540	634	647	1.3	1.0	5.782	A
		Exit	1	1		694			694	709	0.2	0.0	0.393	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	424			425	427	0.0	0.0	0.157	A
		Exit	1	1		377			377	385	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	239			241	250	1.1	0.5	9.319	A
		Exit	1	1		350			350	357	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	377			377	385	0.0	0.0	0.000	A
				2	B	306			307	315	1.3	0.8	10.819	B
			2	1	(A, B)	683			683	698	0.5	0.1	1.126	A
		Exit	1	1		622			622	635	0.4	0.2	1.055	A

A50-Conjunction - 2022 DS Full, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	65.69	F
2	Poplars Ave/A50	T-Junction	Two-way			17.81	C

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)	Run automatically
D12	2022 DS Full	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	663	100.000
	2 - Orford Rd		ONE HOUR	✓	974	100.000
	3 - Smith Drive		ONE HOUR	✓	145	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	612	100.000
	B - Poplars Ave		ONE HOUR	✓	337	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	73	368	222
	2 - Orford Rd	155	0	117	702
	3 - Smith Drive	138	6	0	1
	4 - A50	314	544	14	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	95	517
	B - Poplars Ave	0	0	337
	C - A50 E	492	409	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	3	3	11
	2 - Orford Rd	0	0	0	2
	3 - Smith Drive	5	0	0	0
	4 - A50	7	2	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	2
	B - Poplars Ave	0	0	2
	C - A50 E	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	13.86	3.5	B	608	912
	2 - Orford Rd	160.96	54.4	F	891	1337
	3 - Smith Drive	6.36	0.3	A	133	199
	4 - A50	8.39	2.2	A	794	1191
2 - Poplars Ave/A50	A - A50 W	1.96	0.5	A	560	840
	B - Poplars Ave	67.47	7.5	F	309	463
	C - A50 E	9.94	2.6	A	821	1231

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	496	124	428	497	497	469	0.0	0.7	5.631	A
	2 - Orford Rd	736	184	452	735	725	473	0.0	2.2	8.985	A
	3 - Smith Drive	111	28	816	111	112	371	0.0	0.2	5.009	A
	4 - A50	665	166	233	664	652	693	0.0	1.1	5.935	A
2 - Poplars Ave/A50	A - A50 W	472	118		472	467	367	0.0	0.0	0.170	A
	B - Poplars Ave	258	64		258	253	383	0.0	0.8	9.690	A
	C - A50 E	679	170		676	668	656	0.0	1.2	5.926	A

17:15 – 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 – A50/Hilden Rd Roundabout	1 – Hilden Rd	590	147	491	593	590	541	0.7	1.0	6.855	A
	2 – Orford Rd	874	218	539	876	867	544	2.2	4.7	17.817	C
	3 – Smith Drive	128	32	970	127	129	445	0.2	0.2	5.401	A
	4 – A50	767	192	266	766	768	832	1.1	1.6	6.898	A
2 – Poplars Ave/A50	A – A50 W	545	136		545	547	445	0.0	0.1	0.508	A
	B – Poplars Ave	294	73		295	298	457	0.8	1.3	14.526	B
	C – A50 E	815	204		814	802	751	1.2	1.8	7.341	A

17:30 – 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 – A50/Hilden Rd Roundabout	1 – Hilden Rd	724	181	614	718	719	660	1.0	3.5	12.759	B
	2 – Orford Rd	1072	268	656	968	962	676	4.7	31.2	70.483	F
	3 – Smith Drive	161	40	1098	161	156	526	0.2	0.3	6.248	A
	4 – A50	949	237	324	950	925	936	1.6	2.2	8.195	A
2 – Poplars Ave/A50	A – A50 W	669	167		671	670	502	0.1	0.3	1.761	A
	B – Poplars Ave	370	93		368	348	515	1.3	5.8	48.260	E
	C – A50 E	912	228		911	909	932	1.8	2.6	9.678	A

17:45 – 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 – A50/Hilden Rd Roundabout	1 – Hilden Rd	730	182	616	736	742	660	3.5	2.3	13.858	B
	2 – Orford Rd	1077	269	673	985	983	678	31.2	54.4	160.959	F
	3 – Smith Drive	157	39	1114	157	160	544	0.3	0.3	6.362	A
	4 – A50	958	239	318	958	949	954	2.2	2.2	8.392	A
2 – Poplars Ave/A50	A – A50 W	675	169		672	672	516	0.3	0.5	1.962	A
	B – Poplars Ave	376	94		373	364	526	5.8	7.5	67.469	F
	C – A50 E	935	234		939	938	943	2.6	2.6	9.936	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	599	150	511	597	595	562	2.3	1.5	8.987	A
	2 - Orford Rd	860	215	545	968	999	563	54.4	22.3	133.653	F
	3 - Smith Drive	134	33	1054	134	134	458	0.3	0.2	6.038	A
	4 - A50	786	196	285	788	813	902	2.2	1.6	7.412	A
2 - Poplars Ave/A50	A - A50 W	553	138		553	556	480	0.5	0.1	0.759	A
	B - Poplars Ave	299	75		304	324	483	7.5	1.5	29.006	D
	C - A50 E	883	221		880	904	773	2.6	2.2	8.793	A

18:15 - 18:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	508	127	416	511	504	452	1.5	0.8	5.879	A
	2 - Orford Rd	729	182	464	755	807	462	22.3	2.5	31.652	D
	3 - Smith Drive	108	27	834	108	109	385	0.2	0.2	5.307	A
	4 - A50	640	160	227	640	655	714	1.6	1.2	6.207	A
2 - Poplars Ave/A50	A - A50 W	446	112		447	458	380	0.1	0.0	0.221	A
	B - Poplars Ave	254	64		253	254	391	1.5	0.8	10.295	B
	C - A50 E	701	175		701	741	630	2.2	1.1	6.585	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	496	1205	0.412	497	497	0.0	0.7	5.631	A
		Exit	1	1		469			469	462	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	736	1161	0.634	735	725	0.0	2.2	8.985	A
		Exit	1	1		473			473	466	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	111	882	0.126	111	112	0.0	0.2	5.009	A
		Exit	1	1		371			371	374	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	665	1140	0.583	664	652	0.0	1.1	5.935	A
		Exit	1	1		693			693	685	0.0	0.0	0.296	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	472			472	467	0.0	0.0	0.170	A
		Exit	1	1		367			367	366	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	258			258	253	0.0	0.8	9.690	A
		Exit	1	1		383			383	375	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	367			367	366	0.0	0.0	0.000	A
				2	B	310			309	302	0.0	1.0	10.802	B
			2	1	(A, B)	679			677	672	0.0	0.2	0.995	A
		Exit	1	1		656			656	647	0.0	0.2	1.158	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	590	1179	0.500	593	590	0.7	1.0	6.855	A
		Exit	1	1		541			541	540	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	874	1123	0.778	876	867	2.2	4.7	17.817	C
		Exit	1	1		544			544	547	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	128	820	0.156	127	129	0.2	0.2	5.401	A
		Exit	1	1		445			445	447	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	767	1126	0.681	766	768	1.1	1.6	6.898	A
		Exit	1	1		832			832	820	0.0	0.2	0.652	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	545			545	547	0.0	0.1	0.508	A
		Exit	1	1		445			445	441	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	294			295	298	0.8	1.3	14.526	B
		Exit	1	1		457			457	450	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	445			445	441	0.0	0.0	0.000	A
				2	B	369			369	362	1.0	1.3	12.331	B
			2	1	(A, B)	815			814	804	0.2	0.5	1.757	A
		Exit	1	1		751			751	756	0.2	0.5	2.132	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	724	1128	0.642	718	719	1.0	3.5	12.759	B
		Exit	1	1		660			660	636	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1072	1073	1.000	968	962	4.7	31.2	70.483	F
		Exit	1	1		676			676	662	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	161	769	0.209	161	156	0.2	0.3	6.248	A
		Exit	1	1		526			526	528	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	949	1102	0.862	950	925	1.6	2.2	8.195	A
		Exit	1	1		936			936	934	0.2	0.4	1.412	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	669			671	670	0.1	0.3	1.761	A
		Exit	1	1		502			502	499	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	370			368	348	1.3	5.8	48.260	E
		Exit	1	1		515			515	514	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	502			502	499	0.0	0.0	0.000	A
				2	B	409			409	410	1.3	1.7	14.565	B
			2	1	(A, B)	912			911	911	0.5	0.9	3.104	A
		Exit	1	1		934			932	910	0.5	1.3	4.215	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	730	1127	0.648	736	742	3.5	2.3	13.858	B
		Exit	1	1		660			660	653	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1077	1065	1.011	985	983	31.2	54.4	160.959	F
		Exit	1	1		678			678	677	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	157	763	0.206	157	160	0.3	0.3	6.362	A
		Exit	1	1		544			544	544	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	958	1104	0.867	958	949	2.2	2.2	8.392	A
		Exit	1	1		953			954	960	0.4	0.4	1.528	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	675			672	672	0.3	0.5	1.962	A
		Exit	1	1		516			516	517	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	376			373	364	5.8	7.5	67.469	F
		Exit	1	1		526			526	524	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	516			516	517	0.0	0.0	0.000	A
				2	B	422			424	420	1.7	1.8	14.782	B
		Exit	1	1	(A, B)	935			937	938	0.9	0.8	3.299	A
				1		942			943	934	1.3	1.1	4.468	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	599	1170	0.512	597	595	2.3	1.5	8.987	A
		Exit	1	1		562			562	578	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	860	1121	0.767	968	999	54.4	22.3	133.653	F
		Exit	1	1		563			563	580	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	134	786	0.170	134	134	0.3	0.2	6.038	A
		Exit	1	1		458			458	463	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	786	1118	0.703	788	813	2.2	1.6	7.412	A
		Exit	1	1		903			902	920	0.4	0.3	1.182	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	553			553	556	0.5	0.1	0.759	A
		Exit	1	1		480			480	495	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	299			304	324	7.5	1.5	29.006	D
		Exit	1	1		483			483	493	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	480			480	495	0.0	0.0	0.000	A
				2	B	401			400	409	1.8	1.6	13.587	B
		Exit	1	1	(A, B)	883			881	903	0.8	0.7	2.655	A
				1		774			773	799	1.1	0.6	2.837	A

18:15 - 18:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	508	1210	0.420	511	504	1.5	0.8	5.879	A
		Exit	1	1		452			452	470	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	729	1156	0.631	755	807	22.3	2.5	31.652	D
		Exit	1	1		462			462	469	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	108	874	0.123	108	109	0.2	0.2	5.307	A
		Exit	1	1		385			385	387	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	640	1143	0.560	640	655	1.6	1.2	6.207	A
		Exit	1	1		714			714	750	0.3	0.1	0.531	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	446			447	458	0.1	0.0	0.221	A
		Exit	1	1		380			380	400	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	254			253	254	1.5	0.8	10.295	B
		Exit	1	1		391			391	411	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	380			380	400	0.0	0.0	0.000	A
				2	B	321			321	340	1.6	1.0	11.332	B
			2	1	(A, B)	701			701	738	0.7	0.2	1.447	A
		Exit	1	1		630			630	643	0.6	0.3	1.311	A

A50-Conjunction - 2027 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	47.18	E
2	Poplars Ave/A50	T-Junction	Two-way			15.36	C

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)	Run automatically
D13	2027 DM	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	641	100.000
	2 - Orford Rd		ONE HOUR	✓	920	100.000
	3 - Smith Drive		ONE HOUR	✓	102	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	588	100.000
	B - Poplars Ave		ONE HOUR	✓	344	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	55	356	230
	2 - Orford Rd	100	0	125	695
	3 - Smith Drive	95	6	0	1
	4 - A50	300	557	15	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	60	528
	B - Poplars Ave	0	0	344
	C - A50 E	514	407	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	4	2	4
	2 - Orford Rd	0	0	0	1
	3 - Smith Drive	3	0	0	0
	4 - A50	3	2	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	2
	B - Poplars Ave	0	0	2
	C - A50 E	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	13.71	3.0	B	585	877
	2 - Orford Rd	112.57	36.3	F	841	1261
	3 - Smith Drive	5.65	0.2	A	94	141
	4 - A50	7.75	2.1	A	800	1199
2 - Poplars Ave/A50	A - A50 W	1.48	0.3	A	537	806
	B - Poplars Ave	53.75	5.2	F	316	474
	C - A50 E	9.83	2.9	A	844	1266

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	476	119	437	477	475	371	0.0	0.7	5.417	A
	2 - Orford Rd	691	173	447	694	687	466	0.0	1.5	8.286	A
	3 - Smith Drive	75	19	772	75	79	369	0.0	0.1	4.296	A
	4 - A50	660	165	151	657	651	696	0.0	1.2	5.723	A
2 - Poplars Ave/A50	A - A50 W	447	112		447	443	390	0.0	0.0	0.118	A
	B - Poplars Ave	259	65		257	256	351	0.0	1.0	9.435	A
	C - A50 E	698	174		697	692	658	0.0	1.1	5.626	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	570	143	524	569	570	445	0.7	1.2	7.135	A
	2 - Orford Rd	832	208	532	830	824	562	1.5	4.0	16.254	C
	3 - Smith Drive	95	24	917	94	92	445	0.1	0.2	4.862	A
	4 - A50	788	197	181	788	780	829	1.2	1.4	6.580	A
2 - Poplars Ave/A50	A - A50 W	529	132		529	525	460	0.0	0.0	0.435	A
	B - Poplars Ave	316	79		314	308	427	1.0	1.4	14.098	B
	C - A50 E	833	208		831	828	789	1.1	1.7	7.240	A

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	704	176	642	709	705	527	1.2	2.1	11.501	B
	2 - Orford Rd	1012	253	667	946	933	685	4.0	22.8	55.488	F
	3 - Smith Drive	111	28	1072	111	110	541	0.2	0.2	5.488	A
	4 - A50	959	240	212	958	942	972	1.4	2.1	7.753	A
2 - Poplars Ave/A50	A - A50 W	655	164		654	647	556	0.0	0.3	1.297	A
	B - Poplars Ave	382	95		370	364	488	1.4	5.2	40.033	E
	C - A50 E	975	244		978	960	955	1.7	2.4	9.528	A

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	698	175	639	693	704	533	2.1	3.0	13.711	B
	2 - Orford Rd	1010	253	645	966	961	687	22.8	36.3	112.571	F
	3 - Smith Drive	110	27	1084	109	113	527	0.2	0.2	5.648	A
	4 - A50	959	240	213	959	966	977	2.1	2.1	7.701	A
2 - Poplars Ave/A50	A - A50 W	637	159		636	647	543	0.3	0.3	1.482	A
	B - Poplars Ave	371	93		381	380	496	5.2	5.2	53.752	F
	C - A50 E	978	245		975	981	955	2.4	2.9	9.828	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	575	144	519	573	588	458	3.0	1.2	8.363	A
	2 - Orford Rd	810	202	538	899	925	555	36.3	9.0	79.886	F
	3 - Smith Drive	97	24	979	97	94	457	0.2	0.1	5.232	A
	4 - A50	780	195	196	780	806	882	2.1	1.4	6.816	A
2 - Poplars Ave/A50	A - A50 W	525	131		525	528	492	0.3	0.1	0.527	A
	B - Poplars Ave	310	77		310	325	452	5.2	1.3	21.193	C
	C - A50 E	882	221		887	916	778	2.9	1.8	8.568	A

18:15 - 18:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	485	121	431	484	484	374	1.2	0.8	5.581	A
	2 - Orford Rd	691	173	453	694	720	462	9.0	1.8	13.120	B
	3 - Smith Drive	75	19	775	75	77	372	0.1	0.1	4.639	A
	4 - A50	653	163	151	654	658	699	1.4	1.0	5.929	A
2 - Poplars Ave/A50	A - A50 W	432	108		432	436	384	0.1	0.0	0.146	A
	B - Poplars Ave	260	65		261	260	357	1.3	0.6	9.806	A
	C - A50 E	699	175		699	720	651	1.8	1.1	6.121	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	476	1201	0.396	477	475	0.0	0.7	5.417	A
		Exit	1	1		371			371	372	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	691	1163	0.594	694	687	0.0	1.5	8.286	A
		Exit	1	1		466			466	460	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	75	899	0.083	75	79	0.0	0.1	4.296	A
		Exit	1	1		369			369	367	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	660	1175	0.562	657	651	0.0	1.2	5.723	A
		Exit	1	1		696			696	694	0.0	0.0	0.306	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	447			447	443	0.0	0.0	0.118	A
		Exit	1	1		390			390	390	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	259			257	256	0.0	1.0	9.435	A
		Exit	1	1		351			351	346	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	390			390	390	0.0	0.0	0.000	A
				2	B	308			307	302	0.0	0.9	10.675	B
			2	1	(A, B)	698			697	695	0.0	0.2	0.938	A
		Exit	1	1		659			658	653	0.0	0.2	0.936	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	570	1165	0.490	569	570	0.7	1.2	7.135	A
		Exit	1	1		445			445	442	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	832	1127	0.739	830	824	1.5	4.0	16.254	C
		Exit	1	1		562			562	557	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	95	841	0.113	94	92	0.1	0.2	4.862	A
		Exit	1	1		445			445	439	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	788	1162	0.678	788	780	1.2	1.4	6.580	A
		Exit	1	1		829			829	828	0.0	0.1	0.718	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	529			529	525	0.0	0.0	0.435	A
		Exit	1	1		460			460	464	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	316			314	308	1.0	1.4	14.098	B
		Exit	1	1		427			427	417	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	460			460	464	0.0	0.0	0.000	A
				2	B	372			371	364	0.9	1.3	12.294	B
			2	1	(A, B)	833			832	830	0.2	0.4	1.809	A
		Exit	1	1		788			789	779	0.2	0.3	1.883	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	704	1116	0.631	709	705	1.2	2.1	11.501	B
		Exit	1	1		527			527	526	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1012	1068	0.948	946	933	4.0	22.8	55.488	F
		Exit	1	1		685			685	669	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	111	779	0.143	111	110	0.2	0.2	5.488	A
		Exit	1	1		541			541	534	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	959	1149	0.834	958	942	1.4	2.1	7.753	A
		Exit	1	1		972			972	961	0.1	0.4	1.458	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	655			654	647	0.0	0.3	1.297	A
		Exit	1	1		556			556	541	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	382			370	364	1.4	5.2	40.033	E
		Exit	1	1		488			488	486	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	556			556	541	0.0	0.0	0.000	A
				2	B	420			422	420	1.3	1.6	14.603	B
			2	1	(A, B)	975			977	962	0.4	0.8	3.123	A
		Exit	1	1		958			955	942	0.3	1.1	3.551	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	698	1117	0.625	693	704	2.1	3.0	13.711	B
		Exit	1	1		533			533	538	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1010	1078	0.937	966	961	22.8	36.3	112.571	F
		Exit	1	1		687			687	689	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	110	775	0.142	109	113	0.2	0.2	5.648	A
		Exit	1	1		527			527	537	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	959	1148	0.835	959	966	2.1	2.1	7.701	A
		Exit	1	1		979			977	980	0.4	0.6	1.640	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	637			636	647	0.3	0.3	1.482	A
		Exit	1	1		543			543	547	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	371			381	380	5.2	5.2	53.752	F
		Exit	1	1		496			496	500	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	543			543	547	0.0	0.0	0.000	A
				2	B	432			433	434	1.6	1.8	14.670	B
		Exit	1	1	(A, B)	978			975	982	0.8	1.1	3.336	A
				1		954			955	961	1.1	1.1	3.720	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	575	1167	0.493	573	588	3.0	1.2	8.363	A
		Exit	1	1		458			458	465	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	810	1124	0.720	899	925	36.3	9.0	79.886	F
		Exit	1	1		555			555	573	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	97	816	0.119	97	94	0.2	0.1	5.232	A
		Exit	1	1		457			457	466	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	780	1156	0.675	780	806	2.1	1.4	6.816	A
		Exit	1	1		880			882	910	0.6	0.2	1.163	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	525			525	528	0.3	0.1	0.527	A
		Exit	1	1		492			492	506	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	310			310	325	5.2	1.3	21.193	C
		Exit	1	1		452			452	464	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	492			492	506	0.0	0.0	0.000	A
				2	B	393			396	410	1.8	1.3	13.384	B
			2	1	(A, B)	882			885	914	1.1	0.5	2.605	A
		Exit	1	1		778			778	800	1.1	0.5	2.139	A

18:15 - 18:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	485	1204	0.403	484	484	1.2	0.8	5.581	A
		Exit	1	1		374			374	378	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	691	1161	0.595	694	720	9.0	1.8	13.120	B
		Exit	1	1		462			462	465	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	75	898	0.084	75	77	0.1	0.1	4.639	A
		Exit	1	1		372			372	378	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	653	1175	0.556	654	658	1.4	1.0	5.929	A
		Exit	1	1		699			699	718	0.2	0.1	0.447	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	432			432	436	0.1	0.0	0.146	A
		Exit	1	1		384			384	402	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	260			261	260	1.3	0.6	9.806	A
		Exit	1	1		357			357	362	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	384			384	402	0.0	0.0	0.000	A
				2	B	314			315	318	1.3	0.9	11.110	B
			2	1	(A, B)	699			698	719	0.5	0.2	1.258	A
		Exit	1	1		651			651	654	0.5	0.1	1.124	A

A50-Conjunction - 2027 DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	93.35	F
2	Poplars Ave/A50	T-Junction	Two-way			25.28	D

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)	Run automatically
D14	2027 DS	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	671	100.000
	2 - Orford Rd		ONE HOUR	✓	998	100.000
	3 - Smith Drive		ONE HOUR	✓	146	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	608	100.000
	B - Poplars Ave		ONE HOUR	✓	370	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	65	371	235
	2 - Orford Rd	130	0	123	745
	3 - Smith Drive	139	6	0	1
	4 - A50	304	585	15	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	90	518
	B - Poplars Ave	0	0	370
	C - A50 E	518	438	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	3	3	10
	2 - Orford Rd	0	0	0	2
	3 - Smith Drive	5	0	0	0
	4 - A50	7	2	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	2
	B - Poplars Ave	0	0	2
	C - A50 E	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	16.59	3.5	C	618	927
	2 - Orford Rd	234.27	77.7	F	915	1372
	3 - Smith Drive	6.34	0.3	A	135	203
	4 - A50	8.37	2.3	A	820	1230
2 - Poplars Ave/A50	A - A50 W	1.93	0.4	A	555	833
	B - Poplars Ave	101.10	12.8	F	338	507
	C - A50 E	10.80	2.9	B	876	1314

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delat y (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	509	127	453	506	502	432	0.0	0.9	5.813	A
	2 - Orford Rd	762	191	468	763	748	491	0.0	2.0	9.556	A
	3 - Smith Drive	111	28	848	112	110	383	0.0	0.1	5.098	A
	4 - A50	672	168	213	673	673	746	0.0	1.1	6.056	A
2 - Poplars Ave/A50	A - A50 W	453	113		453	458	397	0.0	0.0	0.160	A
	B - Poplars Ave	279	70		279	279	399	0.0	0.7	10.373	B
	C - A50 E	732	183		729	715	664	0.0	1.4	6.134	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	600	150	545	600	599	520	0.9	1.4	7.907	A
	2 - Orford Rd	897	224	557	889	879	588	2.0	6.8	22.578	C
	3 - Smith Drive	132	33	992	133	131	454	0.1	0.2	5.546	A
	4 - A50	814	204	249	816	803	875	1.1	1.5	6.853	A
2 - Poplars Ave/A50	A - A50 W	551	138		551	548	463	0.0	0.1	0.467	A
	B - Poplars Ave	333	83		335	328	482	0.7	1.4	16.013	C
	C - A50 E	859	215		862	850	803	1.4	1.9	8.261	A

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	744	186	646	730	726	600	1.4	3.5	13.385	B
	2 - Orford Rd	1089	272	675	944	953	702	6.8	42.3	95.004	F
	3 - Smith Drive	155	39	1081	156	153	538	0.2	0.3	6.283	A
	4 - A50	971	243	275	971	949	961	1.5	2.3	8.112	A
2 - Poplars Ave/A50	A - A50 W	676	169		677	670	508	0.1	0.4	1.797	A
	B - Poplars Ave	404	101		375	372	532	1.4	9.5	60.775	F
	C - A50 E	945	236		942	941	955	1.9	2.9	10.154	B

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	735	184	655	737	738	614	3.5	3.1	16.589	C
	2 - Orford Rd	1108	277	681	959	955	711	42.3	77.7	227.885	F
	3 - Smith Drive	164	41	1102	164	161	537	0.3	0.3	6.341	A
	4 - A50	975	244	292	977	976	975	2.3	2.3	8.369	A
2 - Poplars Ave/A50	A - A50 W	657	164		656	662	527	0.4	0.3	1.929	A
	B - Poplars Ave	408	102		396	397	531	9.5	12.8	101.104	F
	C - A50 E	960	240		963	958	960	2.9	2.6	10.804	B

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	611	153	547	615	616	538	3.1	1.4	9.913	A
	2 - Orford Rd	890	223	570	1015	1006	592	77.7	50.8	234.273	F
	3 - Smith Drive	138	34	1109	138	134	477	0.3	0.2	6.077	A
	4 - A50	813	203	271	814	855	977	2.3	1.6	7.413	A
2 - Poplars Ave/A50	A - A50 W	544	136		544	546	517	0.3	0.1	0.811	A
	B - Poplars Ave	325	81		341	374	530	12.8	2.0	45.523	E
	C - A50 E	959	240		963	954	801	2.6	2.4	9.497	A

18:15 - 18:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	509	127	452	510	511	447	1.4	0.8	6.380	A
	2 - Orford Rd	743	186	470	856	917	492	50.8	7.8	86.353	F
	3 - Smith Drive	111	28	928	111	112	399	0.2	0.2	5.555	A
	4 - A50	676	169	224	676	686	815	1.6	1.3	6.291	A
2 - Poplars Ave/A50	A - A50 W	453	113		453	456	435	0.1	0.0	0.232	A
	B - Poplars Ave	281	70		281	283	438	2.0	0.9	11.684	B
	C - A50 E	801	200		804	854	666	2.4	1.4	7.721	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	509	1194	0.426	506	502	0.0	0.9	5.813	A
		Exit	1	1		432			432	429	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	762	1154	0.660	763	748	0.0	2.0	9.556	A
		Exit	1	1		491			491	489	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	111	869	0.128	112	110	0.0	0.1	5.098	A
		Exit	1	1		383			383	381	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	672	1149	0.585	673	673	0.0	1.1	6.056	A
		Exit	1	1		746			746	733	0.0	0.1	0.384	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	453			453	458	0.0	0.0	0.160	A
		Exit	1	1		397			397	393	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	279			279	279	0.0	0.7	10.373	B
		Exit	1	1		399			399	390	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	397			397	393	0.0	0.0	0.000	A
				2	B	334			332	322	0.0	1.1	10.918	B
			2	1	(A, B)	732			732	720	0.0	0.3	1.176	A
		Exit	1	1		664			664	669	0.0	0.2	1.197	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	600	1156	0.519	600	599	0.9	1.4	7.907	A
		Exit	1	1		520			520	510	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	897	1116	0.804	889	879	2.0	6.8	22.578	C
		Exit	1	1		588			588	582	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	132	811	0.162	133	131	0.1	0.2	5.546	A
		Exit	1	1		454			454	452	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	814	1133	0.719	816	803	1.1	1.5	6.853	A
		Exit	1	1		875			875	868	0.1	0.2	0.951	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	551			551	548	0.0	0.1	0.467	A
		Exit	1	1		463			463	460	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	333			335	328	0.7	1.4	16.013	C
		Exit	1	1		482			482	473	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	463			463	460	0.0	0.0	0.000	A
				2	B	397			398	390	1.1	1.4	12.979	B
			2	1	(A, B)	859			860	851	0.3	0.5	2.299	A
		Exit	1	1		802			803	792	0.2	0.4	2.150	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	744	1114	0.68	730	726	1.4	3.5	13.385	B
		Exit	1	1		600			600	587	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1089	1065	1.023	944	953	6.8	42.3	95.004	F
		Exit	1	1		702			702	692	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	155	776	0.200	156	153	0.2	0.3	6.283	A
		Exit	1	1		538			538	537	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	971	1122	0.865	971	949	1.5	2.3	8.112	A
		Exit	1	1		961			961	963	0.2	0.4	1.602	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	676			677	670	0.1	0.4	1.797	A
		Exit	1	1		508			508	509	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	404			375	372	1.4	9.5	60.775	F
		Exit	1	1		532			532	532	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	508			508	509	0.0	0.0	0.000	A
				2	B	436			435	432	1.4	1.9	14.695	B
			2	1	(A, B)	945			944	943	0.5	1.0	3.387	A
		Exit	1	1		954			955	939	0.4	1.2	4.154	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	735	1111	0.662	737	738	3.5	3.1	16.589	C
		Exit	1	1		614			614	606	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1108	1062	1.043	959	955	42.3	77.7	227.885	F
		Exit	1	1		711			711	713	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	164	767	0.214	164	161	0.3	0.3	6.341	A
		Exit	1	1		537			537	539	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	975	1115	0.874	977	976	2.3	2.3	8.369	A
		Exit	1	1		974			975	973	0.4	0.5	1.876	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	657			656	662	0.4	0.3	1.929	A
		Exit	1	1		527			527	517	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	408			396	397	9.5	12.8	101.104	F
		Exit	1	1		531			531	538	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	527			527	517	0.0	0.0	0.000	A
				2	B	436			436	441	1.9	1.8	15.165	C
		Exit	1	1	(A, B)	960			962	957	1.0	0.9	3.823	A
				1		957			960	962	1.2	1.1	4.526	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	611	1156	0.529	615	616	3.1	1.4	9.913	A
		Exit	1	1		538			538	547	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	890	1110	0.802	1015	1006	77.7	50.8	234.273	F
		Exit	1	1		592			592	618	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	138	765	0.180	138	134	0.3	0.2	6.077	A
		Exit	1	1		477			477	477	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	813	1124	0.723	814	855	2.3	1.6	7.413	A
		Exit	1	1		976			977	969	0.5	0.4	1.400	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	544			544	546	0.3	0.1	0.811	A
		Exit	1	1		517			517	515	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	325			341	374	12.8	2.0	45.523	E
		Exit	1	1		530			530	521	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	517			517	515	0.0	0.0	0.000	A
				2	B	444			446	439	1.8	1.6	13.954	B
		Exit	1	1	(A, B)	959			961	953	0.9	0.7	3.079	A
				1		801			801	839	1.1	0.6	2.928	A

18:15 - 18:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	509	1195	0.426	510	511	1.4	0.8	6.380	A
		Exit	1	1		447			447	460	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	743	1153	0.644	856	917	50.8	7.8	86.353	F
		Exit	1	1		492			492	497	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	111	837	0.133	111	112	0.2	0.2	5.555	A
		Exit	1	1		399			399	407	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	676	1144	0.591	676	686	1.6	1.3	6.291	A
		Exit	1	1		815			815	863	0.4	0.1	0.843	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	453			453	456	0.1	0.0	0.232	A
		Exit	1	1		435			435	460	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	281			281	283	2.0	0.9	11.684	B
		Exit	1	1		438			438	461	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	435			435	460	0.0	0.0	0.000	A
				2	B	367			369	393	1.6	1.1	12.326	B
			2	1	(A, B)	801			802	852	0.7	0.3	2.098	A
		Exit	1	1		665			666	673	0.6	0.2	1.447	A

A50-Conjunction - 2032 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	63.79	F
2	Poplars Ave/A50	T-Junction	Two-way			18.16	C

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)	Run automatically
D15	2032 DM	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	663	100.000
	2 - Orford Rd		ONE HOUR	✓	961	100.000
	3 - Smith Drive		ONE HOUR	✓	133	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	593	100.000
	B - Poplars Ave		ONE HOUR	✓	363	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	58	377	228
	2 - Orford Rd	106	0	130	725
	3 - Smith Drive	123	6	0	4
	4 - A50	281	587	16	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	71	522
	B - Poplars Ave	0	0	363
	C - A50 E	540	413	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	4	2	4
	2 - Orford Rd	0	0	0	1
	3 - Smith Drive	2	0	0	0
	4 - A50	3	1	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
From		A - A50 W	B - Poplars Ave	C - A50 E
	A - A50 W	0	0	2
	B - Poplars Ave	0	0	2
	C - A50 E	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	13.87	2.9	B	610	914
	2 - Orford Rd	157.29	52.6	F	882	1323
	3 - Smith Drive	6.09	0.2	A	123	185
	4 - A50	8.06	2.2	A	806	1209
2 - Poplars Ave/A50	A - A50 W	1.63	0.3	A	546	819
	B - Poplars Ave	68.68	9.1	F	331	497
	C - A50 E	9.29	2.8	A	870	1304

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	506	126	454	505	495	394	0.0	0.9	5.483	A
	2 - Orford Rd	722	180	474	724	721	485	0.0	1.8	8.829	A
	3 - Smith Drive	101	25	794	101	103	404	0.0	0.1	4.617	A
	4 - A50	665	166	181	666	663	714	0.0	1.0	5.797	A
2 - Poplars Ave/A50	A - A50 W	453	113		453	454	407	0.0	0.0	0.163	A
	B - Poplars Ave	270	68		270	273	364	0.0	0.8	9.999	A
	C - A50 E	714	179		713	706	667	0.0	1.4	5.868	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	598	150	554	599	600	453	0.9	1.1	7.464	A
	2 - Orford Rd	871	218	564	862	853	590	1.8	4.8	16.757	C
	3 - Smith Drive	121	30	953	122	117	472	0.1	0.1	4.994	A
	4 - A50	793	198	213	794	782	861	1.0	1.5	6.718	A
2 - Poplars Ave/A50	A - A50 W	537	134		537	531	487	0.0	0.1	0.384	A
	B - Poplars Ave	321	80		321	320	436	0.8	1.4	14.947	B
	C - A50 E	863	216		860	851	796	1.4	1.7	7.121	A

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	722	181	667	718	723	547	1.1	2.6	12.515	B
	2 - Orford Rd	1056	264	674	963	953	712	4.8	30.8	72.182	F
	3 - Smith Drive	143	36	1082	144	145	555	0.1	0.2	5.805	A
	4 - A50	964	241	247	967	941	978	1.5	2.0	7.800	A
2 - Poplars Ave/A50	A - A50 W	654	164		657	652	549	0.1	0.1	1.312	A
	B - Poplars Ave	394	99		379	373	503	1.4	6.2	42.014	E
	C - A50 E	981	245		978	970	965	1.7	2.8	9.140	A

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrival s (PCU)	Circulating flow (PCU/hr)	Through put (PCU/hr)	Average through put (PCU/hr)	Through put (exit side) (PCU/hr)	Start que ue (PC U)	End que ue (PC U)	Delay (s)	Unsignali sed level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	736	184	668	734	730	559	2.6	2.9	13.870	B
	2 - Orford Rd	1056	264	686	969	972	716	30.8	52.6	157.295	F
	3 - Smith Drive	152	38	1086	153	152	569	0.2	0.2	6.090	A
	4 - A50	969	242	258	969	959	981	2.0	2.2	8.064	A
2 - Poplars Ave/A50	A - A50 W	662	166		662	651	560	0.1	0.3	1.631	A
	B - Poplars Ave	407	102		390	393	501	6.2	9.1	68.682	F
	C - A50 E	986	246		984	991	975	2.8	2.8	9.287	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	591	148	542	588	604	460	2.9	1.4	9.055	A
	2 - Orford Rd	874	219	550	961	981	581	52.6	24.1	135.360	F
	3 - Smith Drive	121	30	1033	120	119	478	0.2	0.2	5.598	A
	4 - A50	783	196	219	783	825	935	2.2	1.5	7.057	A
2 - Poplars Ave/A50	A - A50 W	527	132		527	531	533	0.3	0.1	0.536	A
	B - Poplars Ave	320	80		322	354	471	9.1	1.5	28.834	D
	C - A50 E	940	235		943	961	786	2.8	2.1	8.568	A

18:15 - 18:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	504	126	456	503	504	388	1.4	0.8	5.805	A
	2 - Orford Rd	710	178	470	737	800	490	24.1	3.4	36.856	E
	3 - Smith Drive	101	25	808	101	102	398	0.2	0.2	4.998	A
	4 - A50	662	166	181	663	676	728	1.5	1.0	6.022	A
2 - Poplars Ave/A50	A - A50 W	440	110		440	447	419	0.1	0.0	0.213	A
	B - Poplars Ave	275	69		274	281	366	1.5	0.8	10.879	B
	C - A50 E	734	183		736	785	665	2.1	1.1	6.395	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	506	1194	0.423	505	495	0.0	0.9	5.483	A
		Exit	1	1		394			394	387	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	722	1152	0.627	724	721	0.0	1.8	8.829	A
		Exit	1	1		485			485	489	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	101	890	0.114	101	103	0.0	0.1	4.617	A
		Exit	1	1		404			404	395	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	665	1162	0.572	666	663	0.0	1.0	5.797	A
		Exit	1	1		714			714	711	0.0	0.1	0.336	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	453			453	454	0.0	0.0	0.163	A
		Exit	1	1		407			407	404	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	270			270	273	0.0	0.8	9.999	A
		Exit	1	1		364			364	359	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	407			407	404	0.0	0.0	0.000	A
				2	B	307			306	302	0.0	1.1	11.130	B
			2	1	(A, B)	714			714	711	0.0	0.3	1.058	A
		Exit	1	1		666			667	670	0.0	0.2	1.015	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	598	1153	0.519	599	600	0.9	1.1	7.464	A
		Exit	1	1		453			453	448	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	871	1113	0.782	862	853	1.8	4.8	16.757	C
		Exit	1	1		590			590	581	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	121	827	0.147	122	117	0.1	0.1	4.994	A
		Exit	1	1		472			472	473	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	793	1149	0.691	794	782	1.0	1.5	6.718	A
		Exit	1	1		861			861	850	0.1	0.2	0.688	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	537			537	531	0.0	0.1	0.384	A
		Exit	1	1		487			487	482	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	321			321	320	0.8	1.4	14.947	B
		Exit	1	1		436			436	433	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	487			487	482	0.0	0.0	0.000	A
				2	B	375			373	369	1.1	1.3	12.305	B
			2	1	(A, B)	863			862	852	0.3	0.4	1.776	A
		Exit	1	1		795			796	787	0.2	0.4	1.938	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	722	1106	0.653	718	723	1.1	2.6	12.515	B
		Exit	1	1		547			547	540	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1056	1065	0.992	963	953	4.8	30.8	72.182	F
		Exit	1	1		712			712	694	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	143	775	0.184	144	145	0.1	0.2	5.805	A
		Exit	1	1		555			555	555	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	964	1134	0.850	967	941	1.5	2.0	7.800	A
		Exit	1	1		979			978	971	0.2	0.4	1.362	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	654			657	652	0.1	0.1	1.312	A
		Exit	1	1		549			549	550	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	394			379	373	1.4	6.2	42.014	E
		Exit	1	1		503			503	497	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	549			549	550	0.0	0.0	0.000	A
				2	B	430			429	420	1.3	1.8	14.302	B
			2	1	(A, B)	981			979	972	0.4	0.9	2.932	A
		Exit	1	1		961			965	946	0.4	0.7	3.588	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	736	1105	0.666	734	730	2.6	2.9	13.870	B
		Exit	1	1		559			559	552	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1056	1060	0.997	969	972	30.8	52.6	157.295	F
		Exit	1	1		716			716	709	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	152	774	0.196	153	152	0.2	0.2	6.090	A
		Exit	1	1		569			569	565	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	969	1130	0.858	969	959	2.0	2.2	8.064	A
		Exit	1	1		980			981	988	0.4	0.4	1.444	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	662			662	651	0.1	0.3	1.631	A
		Exit	1	1		560			560	565	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	407			390	393	6.2	9.1	68.682	F
		Exit	1	1		501			501	505	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	560			560	565	0.0	0.0	0.000	A
				2	B	425			424	426	1.8	1.9	14.420	B
			2	1	(A, B)	986			985	991	0.9	0.9	3.078	A
		Exit	1	1		975			975	964	0.7	1.2	4.002	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	591	1157	0.511	588	604	2.9	1.4	9.055	A
		Exit	1	1		460			460	477	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	874	1119	0.781	961	981	52.6	24.1	135.360	F
		Exit	1	1		581			581	605	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	121	795	0.152	120	119	0.2	0.2	5.598	A
		Exit	1	1		478			478	493	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	783	1146	0.683	783	825	2.2	1.5	7.057	A
		Exit	1	1		934			935	953	0.4	0.3	1.212	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	527			527	531	0.3	0.1	0.536	A
		Exit	1	1		533			533	541	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	320			322	354	9.1	1.5	28.834	D
		Exit	1	1		471			471	483	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	533			533	541	0.0	0.0	0.000	A
				2	B	409			409	420	1.9	1.5	13.552	B
			2	1	(A, B)	940			942	959	0.9	0.6	2.659	A
		Exit	1	1		787			786	825	1.2	0.5	2.313	A

18:15 - 18:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	504	1193	0.423	503	504	1.4	0.8	5.805	A
		Exit	1	1		388			388	397	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	710	1154	0.616	737	800	24.1	3.4	36.856	E
		Exit	1	1		490			490	500	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	101	885	0.115	101	102	0.2	0.2	4.998	A
		Exit	1	1		398			398	409	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	662	1162	0.570	663	676	1.5	1.0	6.022	A
		Exit	1	1		728			728	777	0.3	0.1	0.556	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	440			440	447	0.1	0.0	0.213	A
		Exit	1	1		419			419	442	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	275			274	281	1.5	0.8	10.879	B
		Exit	1	1		366			366	395	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	419			419	442	0.0	0.0	0.000	A
				2	B	316			316	343	1.5	0.9	11.401	B
		Exit	1	1	(A, B)	734			735	783	0.6	0.2	1.460	A
				1		664			665	676	0.5	0.2	1.242	A

A50-Conjunction - 2032 DS Full, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	AV-1 - A50-Conjunction [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	1 - A50/Hilden Rd Roundabout - 2 - Orford Rd - Lane Simulation	Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A50/Hilden Rd Roundabout	Standard Roundabout			1, 2, 3, 4	115.31	F
2	Poplars Ave/A50	T-Junction	Two-way			28.81	D

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)	Run automatically
D16	2032 DS Full	PM	ONE HOUR	17:00	18:30	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 (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A50/Hilden Rd Roundabout	4 - A50	2	C	Simple (vertical queueing)	Normal	0	100.00	
2 - Poplars Ave/A50	C - A50 E	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd		ONE HOUR	✓	707	100.000
	2 - Orford Rd		ONE HOUR	✓	1050	100.000
	3 - Smith Drive		ONE HOUR	✓	172	100.000
	4 - A50	✓				
2 - Poplars Ave/A50	A - A50 W		ONE HOUR	✓	643	100.000
	B - Poplars Ave		ONE HOUR	✓	375	100.000
	C - A50 E	✓				

Origin-Destination Data

Demand (PCU/hr)

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	78	402	227
	2 - Orford Rd	165	0	131	754
	3 - Smith Drive	165	6	0	1
	4 - A50	294	602	16	0

Demand (PCU/hr)

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
From	A - A50 W	0	123	520
	B - Poplars Ave	0	0	375
	C - A50 E	546	414	0

Vehicle Mix

Heavy Vehicle Percentages

1 - A50/Hilden Rd Roundabout

	To				
		1 - Hilden Rd	2 - Orford Rd	3 - Smith Drive	4 - A50
From	1 - Hilden Rd	0	0	1	10
	2 - Orford Rd	0	0	0	1
	3 - Smith Drive	4	0	0	0
	4 - A50	7	1	0	0

Heavy Vehicle Percentages

2 - Poplars Ave/A50

	To			
		A - A50 W	B - Poplars Ave	C - A50 E
From	A - A50 W	0	0	2
	B - Poplars Ave	0	0	2
	C - A50 E	2	2	0

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	15.16	3.4	C	648	972
	2 - Orford Rd	292.40	93.3	F	958	1437
	3 - Smith Drive	6.69	0.4	A	159	239
	4 - A50	8.71	2.4	A	820	1230
2 - Poplars Ave/A50	A - A50 W	2.57	0.7	A	589	883
	B - Poplars Ave	123.33	15.8	F	344	517
	C - A50 E	9.25	2.7	A	875	1312

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	530	132	462	530	530	473	0.0	1.1	5.953	A
	2 - Orford Rd	792	198	482	790	779	510	0.0	2.3	10.347	B
	3 - Smith Drive	135	34	863	136	133	409	0.0	0.2	5.123	A
	4 - A50	677	169	259	676	672	742	0.0	1.3	6.171	A
2 - Poplars Ave/A50	A - A50 W	482	120		481	482	413	0.0	0.1	0.199	A
	B - Poplars Ave	286	72		284	283	414	0.0	0.9	10.412	B
	C - A50 E	733	183		734	722	672	0.0	1.2	5.714	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	637	159	553	643	630	552	1.1	1.2	7.683	A
	2 - Orford Rd	929	232	587	920	916	610	2.3	7.7	23.607	C
	3 - Smith Drive	160	40	1007	160	156	499	0.2	0.3	6.020	A
	4 - A50	807	202	300	806	805	868	1.3	1.7	7.239	A
2 - Poplars Ave/A50	A - A50 W	575	144		574	575	483	0.1	0.2	0.675	A
	B - Poplars Ave	336	84		334	336	485	0.9	1.9	19.334	C
	C - A50 E	855	214		860	852	801	1.2	1.7	7.067	A

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	770	192	659	769	767	643	1.2	3.3	13.438	B
	2 - Orford Rd	1148	287	702	972	976	725	7.7	52.9	114.587	F
	3 - Smith Drive	193	48	1099	194	191	576	0.3	0.4	6.454	A
	4 - A50	956	239	345	956	946	948	1.7	2.3	8.465	A
2 - Poplars Ave/A50	A - A50 W	713	178		710	704	534	0.2	0.7	1.915	A
	B - Poplars Ave	409	102		381	376	547	1.9	10.6	71.012	F
	C - A50 E	940	235		941	933	950	1.7	2.3	8.618	A

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	780	195	663	784	782	651	3.3	3.4	15.156	C
	2 - Orford Rd	1141	285	716	988	981	733	52.9	93.3	275.093	F
	3 - Smith Drive	188	47	1110	187	190	594	0.4	0.4	6.688	A
	4 - A50	977	244	339	976	970	957	2.3	2.4	8.708	A
2 - Poplars Ave/A50	A - A50 W	712	178		714	711	537	0.7	0.5	2.567	A
	B - Poplars Ave	412	103		396	392	545	10.6	15.8	123.332	F
	C - A50 E	947	237		943	945	971	2.3	2.7	9.253	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	636	159	569	635	646	575	3.4	1.7	10.273	B
	2 - Orford Rd	950	237	581	1041	1027	623	93.3	72.7	292.403	F
	3 - Smith Drive	154	38	1108	154	158	513	0.4	0.3	6.184	A
	4 - A50	823	206	318	826	865	942	2.4	1.6	7.850	A
2 - Poplars Ave/A50	A - A50 W	571	143		570	578	522	0.5	0.1	0.969	A
	B - Poplars Ave	339	85		358	386	519	15.8	3.2	60.973	F
	C - A50 E	938	234		930	937	818	2.7	2.6	8.756	A

18:15 - 18:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignaled level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	535	134	468	537	541	483	1.7	0.8	6.833	A
	2 - Orford Rd	787	197	488	930	998	517	72.7	20.2	143.837	F
	3 - Smith Drive	125	31	985	124	130	433	0.3	0.3	5.780	A
	4 - A50	680	170	270	680	687	841	1.6	1.2	6.479	A
2 - Poplars Ave/A50	A - A50 W	481	120		481	478	475	0.1	0.0	0.238	A
	B - Poplars Ave	284	71		282	294	457	3.2	1.1	12.840	B
	C - A50 E	836	209		841	891	673	2.6	1.5	7.251	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	530	1191	0.445	530	530	0.0	1.1	5.953	A
		Exit	1	1		473			473	470	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	792	1148	0.690	790	779	0.0	2.3	10.347	B
		Exit	1	1		510			510	506	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	135	863	0.157	136	133	0.0	0.2	5.123	A
		Exit	1	1		409			409	404	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	677	1129	0.599	676	672	0.0	1.3	6.171	A
		Exit	1	1		741			742	735	0.0	0.0	0.302	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	482			481	482	0.0	0.1	0.199	A
		Exit	1	1		413			413	415	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	286			284	283	0.0	0.9	10.412	B
		Exit	1	1		414			414	401	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	413			413	415	0.0	0.0	0.000	A
				2	B	320			321	307	0.0	1.0	11.074	B
			2	1	(A, B)	733			733	726	0.0	0.2	0.961	A
		Exit	1	1		672			672	670	0.0	0.2	1.273	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	637	1153	0.553	643	630	1.1	1.2	7.683	A
		Exit	1	1		552			552	550	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	929	1103	0.843	920	916	2.3	7.7	23.607	C
		Exit	1	1		610			610	605	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	160	805	0.199	160	156	0.2	0.3	6.020	A
		Exit	1	1		499			499	492	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	807	1112	0.725	806	805	1.3	1.7	7.239	A
		Exit	1	1		868			868	861	0.0	0.2	0.666	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	575			574	575	0.1	0.2	0.675	A
		Exit	1	1		483			483	484	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	336			334	336	0.9	1.9	19.334	C
		Exit	1	1		485			485	476	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	483			483	484	0.0	0.0	0.000	A
				2	B	374			377	367	1.0	1.3	12.332	B
			2	1	(A, B)	855			857	853	0.2	0.4	1.726	A
		Exit	1	1		801			801	800	0.2	0.7	2.529	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	770	1109	0.694	769	767	1.2	3.3	13.438	B
		Exit	1	1		643			643	637	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1148	1053	1.090	972	976	7.7	52.9	114.587	F
		Exit	1	1		725			725	717	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	193	769	0.251	194	191	0.3	0.4	6.454	A
		Exit	1	1		576			576	579	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	956	1093	0.875	956	946	1.7	2.3	8.465	A
		Exit	1	1		947			948	946	0.2	0.3	1.182	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	713			710	704	0.2	0.7	1.915	A
		Exit	1	1		534			534	532	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	409			381	376	1.9	10.6	71.012	F
		Exit	1	1		547			547	538	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	534			534	532	0.0	0.0	0.000	A
				2	B	408			407	401	1.3	1.6	13.960	B
		Exit	1	1	(A, B)	940			941	934	0.4	0.7	2.595	A
				1		951			950	940	0.7	1.3	4.502	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	780	1107	0.705	784	782	3.3	3.4	15.156	C
		Exit	1	1		651			651	647	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	1141	1047	1.090	988	981	52.9	93.3	275.093	F
		Exit	1	1		733			733	732	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	188	764	0.246	187	190	0.4	0.4	6.688	A
		Exit	1	1		594			594	588	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	977	1095	0.892	976	970	2.3	2.4	8.708	A
		Exit	1	1		958			957	956	0.3	0.5	1.301	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	712			714	711	0.7	0.5	2.567	A
		Exit	1	1		537			537	538	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	412			396	392	10.6	15.8	123.332	F
		Exit	1	1		545			545	547	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	537			537	538	0.0	0.0	0.000	A
				2	B	409			406	407	1.6	1.8	14.643	B
		Exit	1	1	(A, B)	947			946	945	0.7	0.8	2.927	A
				1		970			971	963	1.3	1.3	4.972	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	636	1146	0.555	635	646	3.4	1.7	10.273	B
		Exit	1	1		575			575	592	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	950	1105	0.859	1041	1027	93.3	72.7	292.403	F
		Exit	1	1		623			623	645	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	154	765	0.201	154	158	0.4	0.3	6.184	A
		Exit	1	1		513			513	516	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	823	1104	0.745	826	865	2.4	1.6	7.850	A
		Exit	1	1		944			942	942	0.5	0.5	1.164	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	571			570	578	0.5	0.1	0.969	A
		Exit	1	1		522			522	527	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	339			358	386	15.8	3.2	60.973	F
		Exit	1	1		519			519	522	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	522			522	527	0.0	0.0	0.000	A
				2	B	411			408	409	1.8	1.7	13.844	B
		Exit	1	1	(A, B)	938			933	937	0.8	0.9	2.709	A
				1		817			818	855	1.3	0.5	3.339	A

18:15 - 18:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RF C	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A50/Hilden Rd Roundabout	1 - Hilden Rd	Entry	1	1	1, 2, 3, 4	535	1188	0.450	537	541	1.7	0.8	6.833	A
		Exit	1	1		483			483	501	0.0	0.0	0.000	A
	2 - Orford Rd	Entry	1	1	1, 2, 3, 4	787	1146	0.687	930	998	72.7	20.2	143.837	F
		Exit	1	1		517			517	519	0.0	0.0	0.000	A
	3 - Smith Drive	Entry	1	1	1, 2, 3, 4	125	814	0.153	124	130	0.3	0.3	5.780	A
		Exit	1	1		433			433	445	0.0	0.0	0.000	A
	4 - A50	Entry	1	1	1, 2, 3, 4	680	1124	0.604	680	687	1.6	1.2	6.479	A
		Exit	1	1		839			841	893	0.5	0.1	0.798	A
2 - Poplars Ave/A50	A - A50 W	Entry	1	1	B, C	481			481	478	0.1	0.0	0.238	A
		Exit	1	1		475			475	506	0.0	0.0	0.000	A
	B - Poplars Ave	Entry	1	1	A, C	284			282	294	3.2	1.1	12.840	B
		Exit	1	1		457			457	478	0.0	0.0	0.000	A
	C - A50 E	Entry	1	1	A	475			475	506	0.0	0.0	0.000	A
				2	B	364			366	385	1.7	1.2	12.389	B
		Exit	1	1	(A, B)	836			838	889	0.9	0.3	1.967	A
				1		673			673	680	0.5	0.2	1.500	A