Sources

	Traffic		Source traffic	Destination traffic	Cruise time for	Cruise speed for	Auto turning	Traffic turn	Turning
A	1	1	10/1	A/1	7.22	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	3.00	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	17.07	30.00	✓	Straight	Straight Movement
B	1	1	11/1	B/1	1.80	30.00	✓	Offside	98.84
	2	1	11/1	B/2	1.80	30.00	✓	Offside	96.11
Bx	1	1	A/1	Bx/1	15.68	30.00	✓	Nearside	23.66
Cx	1	1	B/1	Cx/1	17.31	30.00	✓	Nearside	33.73
D	1	1	9/1	D/1	8.33	30.00	✓	Straight	Straight Movement
	2	1	9/1	D/2	8.01	30.00	✓	Straight	Straight Movement
	3	1	9/1	D/3	8.27	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	18.70	30.00	✓	Nearside	25.85
Ax	1	2	D/1	Ax/1	17.07	30.00	✓	Nearside	51.65
Bx	1	2	C/1	Bx/1	15.68	30.00	✓	Offside	43.33
Cx	1	2	A/2	Cx/1	17.31	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	18.70	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	17.07	30.00	✓	Offside	42.21
Bx	1	3	D/2	Bx/1	15.68	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	17.31	30.00	✓	Offside	35.26
Dx	1	3	A/2	Dx/1	18.70	30.00	✓	Offside	74.00

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
B	2	AllTraffic		

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	130	121

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
1	A	(untitled)	7	300	0	0	Traffic
	B	(untitled)	40	300	0	0	Traffic
	C	(untitled)	35	300	0	0	Traffic
	D	(untitled)	7	300	0	0	Traffic
	E	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	0	0
	2	B	1	0	0
	3	C	1	0	0
	4	D	1	0	0
	5	E	1	0	0

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	13, 60, 100, 119, 1	121	
	2	(untitled)	Single	1, 2, 3, 5, 4	23, 51, 79, 102, 125	121	
	3	(untitled)	Single	1, 2, 4, 3, 5	23, 51, 79, 107, 0	121	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 51, 79, 102, 125	121	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 51, 74, 97, 125	121	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 51, 74, 97, 125	121	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 79, 107, 0	121	
	8	(untitled)	Single	1, 3, 2, 5, 4	23, 51, 79, 102, 125	121	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 79, 107, 0	121	
	10	(untitled)	Single	1, 3, 4, 5, 2	23, 51, 79, 102, 125	121	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	6	13	7	1	7
	2	✓	2	B	18	60	42	1	40
	3	✓	3	C	65	100	35	1	35
	4	✓	4	D	105	119	14	1	7
	5	✓	5	E	124	1	7	1	7

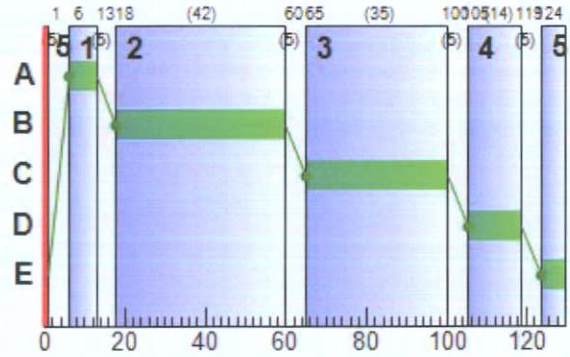
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	6	13	7
	B	1	✓	18	60	42
	C	1	✓	65	100	35
	D	1	✓	105	119	14
	E	1	✓	124	1	7

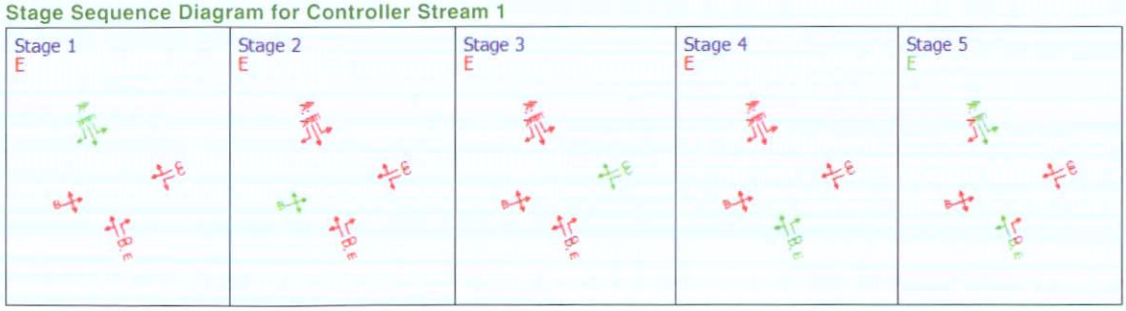
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	65	100	35
A	2	1	1	C	65	100	35
B	1	1	1	D	105	119	14
B	2	1	1	D	105	119	14
C	1	1	1	B	18	60	42
D	1	1	1	A	6	13	7
D	2	1	1	A	6	13	7
D	3	1	1	A	6	13	7

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	24	268	122	1800	35	37.63	3.43	32.75	18.11	1.18	19.29
		2	99	-9	495	1800	35	118.26	27.55	633.72	230.91	9.06	239.97
	Ax	1	0	Unrestricted	725	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	98	-8	311	1800	21	127.89	17.82	683.26	156.89	5.83	162.71
		2	90	0	186	1800	14	112.00	9.47	362.97	82.17	3.16	85.34
	Bx	1	0	Unrestricted	457	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	96	-7	670	2101	42	83.90	31.29	719.78	221.72	10.55	232.27
	Cx	1	0	Unrestricted	371	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	75	20	166	1800	14	75.21	6.59	54.56	49.25	2.33	51.58
		2	32	185	70	1800	14	52.26	2.29	19.73	14.43	0.83	15.26
		3	14	565	15	1800	7	60.28	0.52	4.37	3.57	0.18	3.75
	Dx	1	0	Unrestricted	482	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	14	545	251	1800	130	0.16	0.01	0.13	0.16	0.00	0.16
	10	1	34	163	617	1800	130	0.52	0.09	1.52	1.27	0.00	1.27
	11	1	28	226	497	1800	130	0.38	0.05	0.81	0.75	0.00	0.75

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	122	122	0		1800	498	24		268	0.00	35
		2	495	495	0		1800	498	99	✓	-9	0.00	35
	Ax	1	725	725	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	130
	B	1	311	311	0		1800	318	98	✓	-8	0.00	21
		2	186	186	0		1800	208	90		0	0.00	14
	Bx	1	457	457	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	130
	C	1	670	670	0		2101	695	96	✓	-7	0.00	42
	Cx	1	371	371	0		Unrestricted	Unrestricted	0		Unrestricted	0.81	130
	D	1	166	166	0		1800	222	75		20	0.00	14
		2	70	70	0		1800	222	32		185	0.00	14
		3	15	15	0		1800	111	14		565	0.00	7
	Dx	1	482	482	0		Unrestricted	Unrestricted	0		Unrestricted	0.73	130
	9	1	251	251	0		1800	1800	14		545	0.00	130
	10	1	617	617	0		1800	1800	34		163	0.00	130
	11	1	497	497	0		1800	1800	28		226	0.00	130

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	7.22	37.63	1.24	0.04	18.11	76.91	92.74	1.09	1.18
		2	3.00	118.26	6.45	9.82	230.91	145.99	484.96	237.70	9.06
	Ax	1	17.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	1.80	127.89	4.37	6.68	156.89	149.49	304.89	160.01	5.83
		2	1.80	112.00	2.93	2.86	82.17	135.64	181.06	71.24	3.16
	Bx	1	15.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	3.00	83.90	7.96	7.66	221.72	125.64	645.61	196.16	10.55
	Cx	1	17.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.33	75.21	2.42	1.05	49.25	112.01	158.04	27.88	2.33
		2	8.01	52.26	0.94	0.07	14.43	94.72	62.34	3.96	0.83
		3	8.27	60.28	0.24	0.01	3.57	95.50	14.03	0.29	0.18
	Dx	1	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	5.88	0.16	0.00	0.01	0.16	0.00	0.00	0.00	0.00
	10	1	4.05	0.52	0.00	0.09	1.27	0.00	0.00	0.00	0.00
	11	1	4.47	0.38	0.00	0.05	0.75	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.43	10.47	32.75	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	27.55	4.35	633.72	14.34	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.74	0.00	0.00	0.00	0.00	30.00	0.00	30.00	
	B	1	0.00	17.82	2.61	683.26	9.64	0.00	0.00	0.00	0.00	0.00	
		2	0.00	9.47	2.61	362.97	3.53	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.73	0.00	0.00	0.00	0.00	21.00	0.00	21.00	
	C	1	0.00	31.29	4.35	719.78	14.95	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	25.09	0.00	0.00	0.00	0.00	47.00	0.00	47.00	
	D	1	0.00	6.59	12.07	54.56	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	2.29	11.61	19.73	0.00	0.00	0.00	0.00	0.00	0.00	
		3	0.00	0.52	11.98	4.37	0.00	0.00	0.00	7.00	0.00	7.00	
	Dx	1	0.00	0.00	27.11	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	9	1	0.00	0.01	8.52	0.13	0.00	0.00	0.00	0.00	0.00	0.00	
	10	1	0.00	0.09	5.87	1.52	0.00	0.00	0.00	0.00	130.00	130.00	
	11	1	0.00	0.05	6.47	0.81	0.00	0.00	0.00	0.00	130.00	130.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	7.34	1.52	4.83	44.85
		2	12.38	16.67	0.74	121.26
	Ax	1	103.15	3.44	30.00	17.07
	B	1	4.67	11.20	0.42	129.69
		2	2.79	5.88	0.47	113.80
	Bx	1	59.72	1.99	30.00	15.68
	C	1	16.75	16.17	1.04	86.90
	Cx	1	53.51	1.78	30.00	17.31
	D	1	11.52	3.85	2.99	83.54
		2	4.67	1.17	3.99	60.26
		3	1.03	0.29	3.62	68.54
	Dx	1	75.13	2.50	30.00	18.70
	9	1	12.30	0.42	29.20	6.04
	10	1	20.83	0.78	26.58	4.57
	11	1	18.50	0.67	27.64	4.85

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.43	0.04	3.23	1.00	0.00	19.29
		2	0.00	0.00	✓	31.35	13.61	26.54	1.00	0.00	239.97
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	19.96	11.50	17.71	1.00	0.00	162.71
		2	0.00	0.00	✓	9.84	3.23	9.17	1.00	0.00	85.34
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	32.84	9.20	25.39	1.00	0.00	232.27
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	6.62	2.53	6.16	1.00	0.00	51.58
		2	0.00	0.00	✓	2.29	0.07	2.21	1.00	0.00	15.26
		3	0.00	0.00	✓	0.52	0.01	0.52	1.00	0.00	3.75
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.01			1.00	0.00	0.16
	10	1	0.00	0.00	✓	0.09			1.00	0.00	1.27
	11	1	0.00	0.00	✓	0.05			1.00	0.00	0.75

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item w wors unsignal PRC
4	06/09/2022 14:50:28	06/09/2022 14:50:28	0.90	08:00	130	812.34	54.87	99.31	A/2	3	20	A/2	10/1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	99	-9	5435	1092	36.35	779.21	33.13	812.34

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5435	5435	0		99	✓	-9	1092

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	8.93	36.35	26.54	28.34	779.21	48.61	1943.68	698.34	33.13

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	719.78	0.00	109.00	260.00	369.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	404.30	68.35	5.92

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	812.34

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To			
		1	2	3	4
From	1	0.0	105.6	104.0	102.6
	2	91.9	0.0	106.7	82.0
	3	143.1	144.5	0.0	65.1
	4	151.8	153.2	135.7	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Normal journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	32	105.60	180.87	0.00	0.00	0.00	32	105.60	180.87
2	1	3	373	103.97	167.28	0.00	0.00	0.00	373	103.97	167.28
3	1	4	265	102.58	155.68	0.00	0.00	0.00	265	102.58	155.68
12	4	1	114	151.85	196.47	0.00	0.00	0.00	114	151.85	196.47
13	3	1	242	143.15	203.00	0.00	0.00	0.00	242	143.15	203.00
14	2	3	166	106.66	260.68	0.00	0.00	0.00	166	106.66	260.68
17	3	4	122	65.11	224.63	0.00	0.00	0.00	122	65.11	224.63
19	4	2	197	153.24	208.10	0.00	0.00	0.00	197	153.24	208.10
20	3	2	253	144.54	214.63	0.00	0.00	0.00	253	144.54	214.63
21	2	4	70	81.99	246.42	0.00	0.00	0.00	70	81.99	246.42
22	2	1	15	91.90	262.16	0.00	0.00	0.00	15	91.90	262.16
23	4	3	186	135.72	194.51	0.00	0.00	0.00	186	135.72	194.51

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	C		122	1800	35	0.00	24	268	44.85	37.63	76.91
	2	(untitled)	1	1	C		495 <	1800	35	0.00	99	-9	121.26	118.26	145.99
Ax	1	(untitled)					725	Unrestricted	130	30.00	0	Unrestricted	17.07	0.00	0.00
B	1	(untitled)	1	1	D	E	311 <	1800	21	0.00	98	-8	129.69	127.89	149.49
	2	(untitled)	1	1	D		186 <	1800	14	0.00	90	0	113.80	112.00	135.64
Bx	1	(untitled)					457	Unrestricted	130	21.00	0	Unrestricted	15.68	0.00	0.00
C	1	(untitled)	1	1	B		670 <	2101	42	0.00	96	-7	86.90	83.90	125.64
Cx	1	(untitled)					371	Unrestricted	130	47.00	0	Unrestricted	17.31	0.00	0.00
D	1	(untitled)	1	1	A	E	166	1800	14	0.00	75	20	83.54	75.21	112.01
	2	(untitled)	1	1	A	E	70	1800	14	0.00	32	185	60.26	52.26	94.72
	3	(untitled)	1	1	A		15	1800	7	7.00	14	565	68.54	60.28	95.50
Dx	1	(untitled)					482	Unrestricted	130	4.00	0	Unrestricted	18.70	0.00	0.00
9	1		1				251	1800	130	0.00	14	545	6.04	0.16	0.00
10	1		1				617	1800	130	130.00	34	163	4.57	0.52	0.00
11	1		1				497	1800	130	130.00	28	226	4.85	0.38	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	404.30	68.35	5.92	26.54	28.34	779.21	33.13	0.00	812.34
Bus									
Tram									
Pedestrians									
TOTAL	404.30	68.35	5.92	26.54	28.34	779.21	33.13	0.00	812.34

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - Scenario 2040 - Masterplan (AM)
D5 - Scenario 2040 - Masterplan (AM),

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item w wors unsignal PRC
5	06/09/2022 14:50:29	06/09/2022 14:50:29	0.98	08:00	130	4305.13	298.46	149.42	C/1	4	27	C/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Include in report	Locked
Scenario 2040 - Masterplan (AM)			✓	D5		✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
Scenario 2040 - Masterplan (AM)					08:00		✓

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	L3120 Kilshane Road (East)		1
Ax	(untitled)		
B	R135 (South)		1
Bx	(untitled)		
C	L3120 Kilshane Road (West)		1
Cx	(untitled)		
D	R135 (North)		1
Dx	(untitled)		
9			1
10			1
11			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	60.19	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			25.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	142.28						Normal	
B	1	(untitled)			15.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			15.00	✓	Sum of lanes	1800	✓	✓	Normal	
Bx	1	(untitled)		✓	130.68						Normal	
C	1	(untitled)			25.00	✓	Sum of lanes	2084	✓		Normal	
Cx	1	(untitled)		✓	144.24						Normal	
D	1	(untitled)		✓	69.40	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)		✓	66.73	✓	Sum of lanes	1800	✓		Normal	
	3	(untitled)		✓	68.90	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	155.87						Normal	
9	1			✓	49.01	✓	Sum of lanes	1800			Normal	
10	1			✓	33.76	✓	Sum of lanes	1800			Normal	
11	1			✓	37.23	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	2	(untitled)											1800
	2	1	(untitled)											1800
Ax	1	1	(untitled)											
B	1	2	(untitled)											1800
	2	1	(untitled)											1800
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	-2	4.00	✓	59	25.85		2084
Cx	1	1	(untitled)											
D	1	3	(untitled)											1800
	2	1	(untitled)											1800
	3	2	(untitled)											1800
Dx	1	1	(untitled)											
9	1	1	(untitled)											1800
10	1	1	(untitled)											1800
11	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	122	122
	2	677	677
Ax	1	770	770
B	1	311	311
	2	186	186
Bx	1	763	763
C	1	1030	1030
Cx	1	553	553
D	1	166	166
	2	70	70
	3	15	15
Dx	1	491	491
9	1	251	251
10	1	799	799
11	1	497	497

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	C		
B	1	1	D	✓	E
	2	1	D		
C	1	1	B		
D	1	1	A	✓	E
	2	1	A	✓	E
	3	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
C	1	3.00	30.00
9	1	5.88	30.00
10	1	4.05	30.00
11	1	4.47	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	10/1	A/1	7.22	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	3.00	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	17.07	30.00	✓	Straight	Straight Movement
B	1	1	11/1	B/1	1.80	30.00	✓	Offside	98.84
	2	1	11/1	B/2	1.80	30.00	✓	Offside	96.11
Bx	1	1	A/1	Bx/1	15.68	30.00	✓	Nearside	23.66
Cx	1	1	B/1	Cx/1	17.31	30.00	✓	Nearside	33.73
D	1	1	9/1	D/1	8.33	30.00	✓	Straight	Straight Movement
	2	1	9/1	D/2	8.01	30.00	✓	Straight	Straight Movement
	3	1	9/1	D/3	8.27	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	18.70	30.00	✓	Nearside	25.85
Ax	1	2	D/1	Ax/1	17.07	30.00	✓	Nearside	51.65
Bx	1	2	C/1	Bx/1	15.68	30.00	✓	Offside	43.33
Cx	1	2	A/2	Cx/1	17.31	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	18.70	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	17.07	30.00	✓	Offside	42.21
Bx	1	3	D/2	Bx/1	15.68	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	17.31	30.00	✓	Offside	35.26
Dx	1	3	A/2	Dx/1	18.70	30.00	✓	Offside	74.00

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
B	2	AllTraffic		

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	130	121

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
1	A	(untitled)	7	300	0	0	Traffic
	B	(untitled)	40	300	0	0	Traffic
	C	(untitled)	35	300	0	0	Traffic
	D	(untitled)	7	300	0	0	Traffic
	E	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	0	0
	2	B	1	0	0
	3	C	1	0	0
	4	D	1	0	0
	5	E	1	0	0

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	13, 60, 101, 119, 1	121	
	2	(untitled)	Single	1, 2, 3, 5, 4	23, 51, 79, 102, 125	121	
	3	(untitled)	Single	1, 2, 4, 3, 5	23, 51, 79, 107, 0	121	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 51, 79, 102, 125	121	
	5	(untitled)	Single	1, 2, 5, 3, 4	26, 50, 75, 114, 11	121	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 51, 74, 97, 125	121	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 79, 107, 0	121	
	8	(untitled)	Single	1, 3, 2, 5, 4	23, 51, 79, 102, 125	121	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 79, 107, 0	121	
	10	(untitled)	Single	1, 3, 4, 5, 2	23, 51, 79, 102, 125	121	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	6	13	7	1	7
	2	✓	2	B	18	60	42	1	40
	3	✓	3	C	65	101	36	1	35
	4	✓	4	D	106	119	13	1	7
	5	✓	5	E	124	1	7	1	7

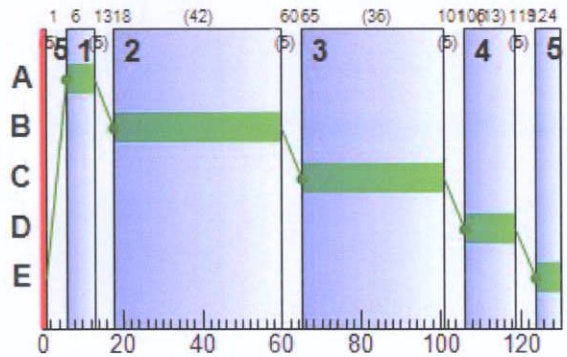
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	6	13	7
	B	1	✓	18	60	42
	C	1	✓	65	101	36
	D	1	✓	106	119	13
	E	1	✓	124	1	7

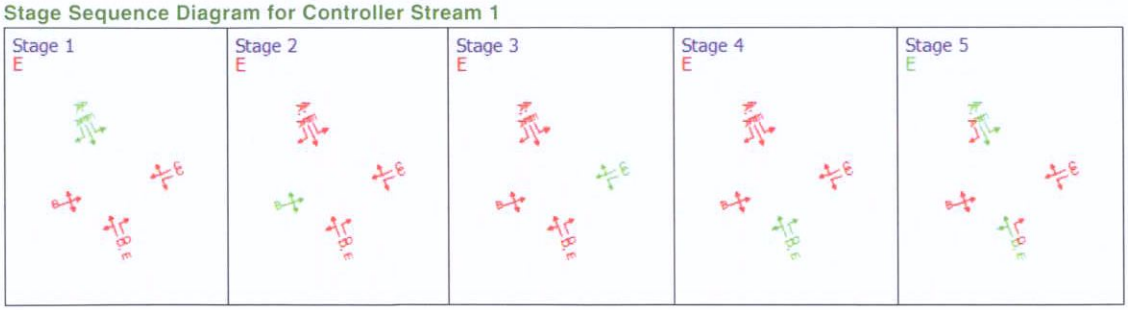
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	65	101	36
A	2	1	1	C	65	101	36
B	1	1	1	D	106	119	13
B	2	1	1	D	106	119	13
C	1	1	1	B	18	60	42
D	1	1	1	A	6	13	7
D	2	1	1	A	6	13	7
D	3	1	1	A	6	13	7

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	24	278	122	1800	36	36.79	3.39	32.40	17.70	1.16	18.87
		2	132	-32	677	1800	36	481.10	102.21	2350.90	1284.71	20.35	1305.06
	Ax	1	0	Unrestricted	632	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	102	-12	311	1800	20	167.08	21.00	804.81	204.96	6.62	211.58
		2	96	-6	186	1800	13	148.28	11.34	434.83	108.79	3.66	112.45
	Bx	1	0	Unrestricted	574	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	149	-40	1030	2084	42	627.96	196.04	4508.90	2551.28	31.89	2583.17
	Cx	1	0	Unrestricted	448	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	75	20	166	1800	14	75.21	6.59	54.56	49.25	2.33	51.58
		2	32	185	70	1800	14	52.26	2.29	19.73	14.43	0.83	15.26
		3	14	565	15	1800	7	60.28	0.52	4.37	3.57	0.18	3.75
	Dx	1	0	Unrestricted	412	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	14	545	251	1800	130	0.16	0.01	0.13	0.16	0.00	0.16
	10	1	44	103	799	1800	130	0.80	0.18	3.01	2.51	0.00	2.51
	11	1	28	226	497	1800	130	0.38	0.05	0.81	0.75	0.00	0.75

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	122	122	0		1800	512	24		278	0.00	36
		2	677	512	0		1800	512	132	✓	-32	0.00	36
	Ax	1	632	632	138	✓	Unrestricted	Unrestricted	0		Unrestricted	0.64	130
	B	1	311	305	0		1800	305	102	✓	-12	0.00	20
		2	186	186	0		1800	194	96	✓	-6	0.00	13
	Bx	1	574	574	189	✓	Unrestricted	Unrestricted	0		Unrestricted	0.76	130
	C	1	1030	689	0		2084	689	149	✓	-40	0.00	42
	Cx	1	448	448	105	✓	Unrestricted	Unrestricted	0		Unrestricted	0.83	130
	D	1	166	166	0		1800	222	75		20	0.00	14
		2	70	70	0		1800	222	32		185	0.00	14
		3	15	15	0		1800	111	14		565	0.00	7
	Dx	1	412	412	79	✓	Unrestricted	Unrestricted	0		Unrestricted	0.71	130
	9	1	251	251	0		1800	1800	14		545	0.00	130
	10	1	799	799	0		1800	1800	44		103	0.00	130
	11	1	497	497	0		1800	1800	28		226	0.00	130

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	7.22	36.79	1.21	0.04	17.70	76.09	91.80	1.03	1.16
		2	3.00	481.10	6.62	83.86	1284.71	316.73	512.31	1110.34	20.35
	Ax	1	17.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	1.80	167.08	4.35	10.08	204.96	173.40	303.30	224.90	6.62
		2	1.80	148.28	2.98	4.68	108.79	157.01	182.63	109.40	3.66
	Bx	1	15.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	3.00	627.96	8.33	171.34	2551.28	368.98	689.32	1854.14	31.89
	Cx	1	17.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.33	75.21	2.42	1.05	49.25	112.01	158.04	27.88	2.33
		2	8.01	52.26	0.94	0.07	14.43	94.72	62.34	3.96	0.83
		3	8.27	60.28	0.24	0.01	3.57	95.50	14.03	0.29	0.18
	Dx	1	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	5.88	0.16	0.00	0.01	0.16	0.00	0.00	0.00	0.00
	10	1	4.05	0.80	0.00	0.18	2.51	0.00	0.00	0.00	0.00
	11	1	4.47	0.38	0.00	0.05	0.75	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.39	10.47	32.40	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	102.21	4.35	2350.90	88.69	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.74	0.00	0.00	0.00	0.00	32.00	0.00	32.00	
	B	1	0.00	21.00	2.61	804.81	12.93	0.00	0.00	0.00	0.00	0.00	
		2	0.00	11.34	2.61	434.83	5.40	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.73	0.00	0.00	0.00	0.00	20.00	0.00	20.00	
	C	1	0.00	196.04	4.35	4508.90	179.34	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	25.09	0.00	0.00	0.00	0.00	46.00	0.00	46.00	
	D	1	0.00	6.59	12.07	54.56	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	2.29	11.61	19.73	0.00	0.00	0.00	0.00	0.00	0.00	
		3	0.00	0.52	11.98	4.37	0.00	0.00	0.00	7.00	0.00	7.00	
	Dx	1	0.00	0.00	27.11	0.00	0.00	0.00	0.00	3.00	0.00	3.00	
	9	1	0.00	0.01	8.52	0.13	0.00	0.00	0.00	0.00	0.00	0.00	
	10	1	0.00	0.18	5.87	3.01	0.00	0.00	0.00	0.00	130.00	130.00	
	11	1	0.00	0.05	6.47	0.81	0.00	0.00	0.00	0.00	130.00	130.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	7.34	1.49	4.92	44.01
		2	16.93	91.04	0.19	484.10
	Ax	1	89.88	3.00	30.00	17.07
	B	1	4.67	14.59	0.32	168.88
		2	2.79	7.75	0.36	150.08
	Bx	1	75.03	2.50	30.00	15.68
	C	1	25.75	180.53	0.14	630.96
	Cx	1	64.55	2.15	30.00	17.31
	D	1	11.52	3.85	2.99	83.54
		2	4.67	1.17	3.99	60.26
		3	1.03	0.29	3.62	68.54
	Dx	1	64.19	2.14	30.00	18.70
	9	1	12.30	0.42	29.20	6.04
	10	1	26.98	1.08	25.07	4.85
	11	1	18.50	0.67	27.64	4.85

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.39	0.04	3.19	1.00	0.00	18.87
		2	0.00	0.00	✓	184.58	166.22	179.46	1.00	0.00	1305.06
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	26.49	18.56	24.38	1.00	0.00	211.58
		2	0.00	0.00	✓	12.69	6.02	12.02	1.00	0.00	112.45
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	366.38	341.68	358.34	1.00	0.00	2583.17
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	6.62	2.53	6.16	1.00	0.00	51.58
		2	0.00	0.00	✓	2.29	0.07	2.21	1.00	0.00	15.26
		3	0.00	0.00	✓	0.52	0.01	0.52	1.00	0.00	3.75
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.01			1.00	0.00	0.16
	10	1	0.00	0.00	✓	0.18			1.00	0.00	2.51
	11	1	0.00	0.00	✓	0.05			1.00	0.00	0.75

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item w wors unsignal PRC
5	06/09/2022 14:50:29	06/09/2022 14:50:29	0.98	08:00	130	4305.13	298.46	149.42	C/1	4	27	C/1	10/1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	149	-40	6189	1092	173.60	4238.10	67.03	4305.13

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6189	5677	512	✓	149	✓	-40	1092

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	8.26	173.60	27.09	271.37	4238.10	115.29	2013.77	3331.95	67.03

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	4508.90	0.00	108.00	260.00	368.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	426.13	312.66	1.36

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	4305.13

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To			
		1	2	3	4
From	1	0.0	649.7	648.0	646.6
	2	91.9	0.0	106.7	82.0
	3	506.3	507.6	0.0	64.5
	4	191.0	192.4	172.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Normal journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	41	649.67	180.87	0.00	0.00	0.00	41	649.67	180.87
2	1	3	418	648.04	167.28	0.00	0.00	0.00	418	648.04	167.28
3	1	4	571	646.65	155.68	0.00	0.00	0.00	571	646.65	155.68
12	4	1	114	191.03	196.47	0.00	0.00	0.00	114	191.03	196.47
13	3	1	424	506.25	203.00	0.00	0.00	0.00	424	506.25	203.00
14	2	3	166	106.66	260.68	0.00	0.00	0.00	166	106.66	260.68
17	3	4	122	64.54	224.63	0.00	0.00	0.00	122	64.54	224.63
19	4	2	197	192.43	208.10	0.00	0.00	0.00	197	192.43	208.10
20	3	2	253	507.65	214.63	0.00	0.00	0.00	253	507.65	214.63
21	2	4	70	81.99	246.42	0.00	0.00	0.00	70	81.99	246.42
22	2	1	15	91.90	262.16	0.00	0.00	0.00	15	91.90	262.16
23	4	3	186	172.00	194.51	0.00	0.00	0.00	186	172.00	194.51

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	C		122	1800	36	0.00	24	278	44.01	36.79	76.09
	2	(untitled)	1	1	C		677 <	1800	36	0.00	132	-32	484.10	481.10	316.73
Ax	1	(untitled)					632	Unrestricted	130	32.00	0	Unrestricted	17.07	0.00	0.00
B	1	(untitled)	1	1	D	E	311 <	1800	20	0.00	102	-12	168.88	167.08	173.40
	2	(untitled)	1	1	D		186 <	1800	13	0.00	96	-6	150.08	148.28	157.01
Bx	1	(untitled)					574	Unrestricted	130	20.00	0	Unrestricted	15.68	0.00	0.00
C	1	(untitled)	1	1	B		1030 <	2084	42	0.00	149	-40	630.96	627.96	368.98
Cx	1	(untitled)					448	Unrestricted	130	46.00	0	Unrestricted	17.31	0.00	0.00
D	1	(untitled)	1	1	A	E	166	1800	14	0.00	75	20	83.54	75.21	112.01
	2	(untitled)	1	1	A	E	70	1800	14	0.00	32	185	60.26	52.26	94.72
	3	(untitled)	1	1	A		15	1800	7	7.00	14	565	68.54	60.28	95.50
Dx	1	(untitled)					412	Unrestricted	130	3.00	0	Unrestricted	18.70	0.00	0.00
9	1		1				251	1800	130	0.00	14	545	6.04	0.16	0.00
10	1		1				799	1800	130	130.00	44	103	4.85	0.80	0.00
11	1		1				497	1800	130	130.00	28	226	4.85	0.38	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	426.13	312.66	1.36	27.09	271.37	4238.10	67.03	0.00	4305.13
Bus									
Tram									
Pedestrians									
TOTAL	426.13	312.66	1.36	27.09	271.37	4238.10	67.03	0.00	4305.13

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Version: 16.0.1.8473

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Results are NOT up to date. You should run the file and then refresh this report.

Filename: Kilshane Cross Junction_Rev2 - AM.t16
Path: M:\Projects\21\21-099 - Kilshane Lands\Design\Civil\Traffic\Junction Modelling - EIAR\Kilshane Cross Junction
Report generation date: 06/09/2022 14:48:20

»A1 - Do Nothing 2022 : D1 - Do Nothing 2022, :
»A2 - Scenario 2024 - Construction Phase (AM) : D2 - Scenario 2024 - Construction Phase (AM), :
»A3 - Do Nothing 2040 : D3 - Do Nothing 2040, :
»A4 - Scenario 2040 - Operational Phase (AM) : D4 - Scenario 2040 - Operational Phase (AM), :
»A5 - Scenario 2040 - Masterplan (AM) : D5 - Scenario 2040 - Masterplan (AM), :

Summary of network performance

	Set ID	PI (£ per hr)	Total delay (Veh-hr/hr)	Highest DOS	Number oversaturated
	Do Nothing 2022 - Do Nothing 2022				
Network	A1 D1	542.74	36.42	92% (TS B/1)	2 (13%)

	Set ID	PI (£ per hr)	Total delay (Veh-hr/hr)	Highest DOS	Number oversaturated
	Scenario 2024 - Construction Phase (AM) - Scenario 2024 - Construction Phase (AM)				
Network	A2 D2	886.35	60.02	106% (TS C/1)	2 (13%)

	Set ID	PI (£ per hr)	Total delay (Veh-hr/hr)	Highest DOS	Number oversaturated
	Do Nothing 2040 - Do Nothing 2040				
Network	A3 D3	577.27	38.62	94% (TS C/1)	2 (13%)

	Set ID	PI (£ per hr)	Total delay (Veh-hr/hr)	Highest DOS	Number oversaturated
	Scenario 2040 - Operational Phase (AM) - Scenario 2040 - Operational Phase (AM)				
Network	A4 D4	616.97	41.33	96% (TS C/1)	2 (13%)

	Set ID	PI (£ per hr)	Total delay (Veh-hr/hr)	Highest DOS	Number oversaturated
	Scenario 2040 - Masterplan (AM) - Scenario 2040 - Masterplan (AM)				
Network	A5 D5	2086.80	143.30	124% (TS A/2)	3 (20%)

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

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\l.byrne
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	c m
			✓			✓		✓	✓						

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

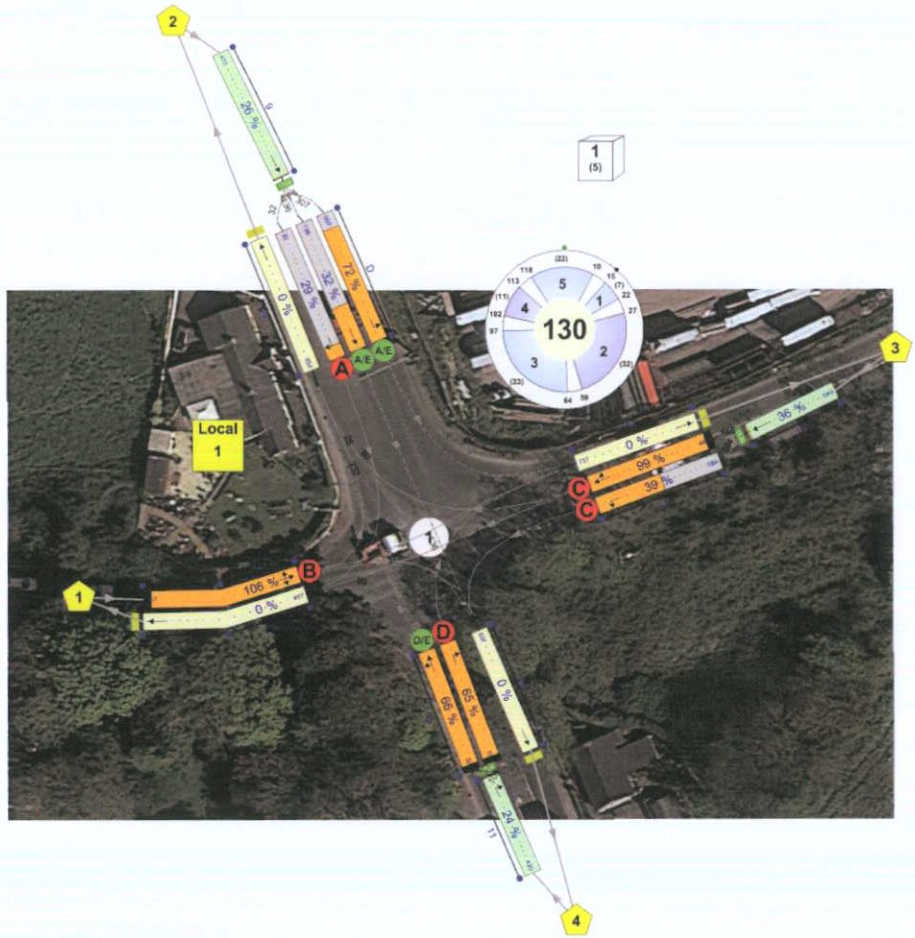
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
Diagram produced using TRANSYT 16.0.1.8473

A1 - Do Nothing 2022
D1 - Do Nothing 2022,

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Traffic Stream Signals	Arm D - Traffic Stream 1 - Signals (1, A/E)	Traffic Stream 1 controlling phase E never runs in the current stage sequence.
Warning	Traffic Stream Signals	Arm D - Traffic Stream 2 - Signals (1, A/E)	Traffic Stream 2 controlling phase E never runs in the current stage sequence.
Warning	Traffic Stream Signals	Arm B - Traffic Stream 1 - Signals (1, D/E)	Traffic Stream 1 controlling phase E never runs in the current stage sequence.
Info	Traffic Stream Signals	Arm D - Traffic Stream 1 - Signals (1, A/E)	Traffic Stream 1 controlling phase E never runs in stage sequence 1,2,3,4,5,6.
Info	Traffic Stream Signals	Arm D - Traffic Stream 2 - Signals (1, A/E)	Traffic Stream 2 controlling phase E never runs in stage sequence 1,2,3,4,5,6.
Info	Traffic Stream Signals	Arm B - Traffic Stream 1 - Signals (1, D/E)	Traffic Stream 1 controlling phase E never runs in stage sequence 1,2,3,4,5,6.

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item w wors unsignal PRC
1	06/09/2022 14:48:00	06/09/2022 14:48:01	1.70	08:00	130	542.74	36.42	92.28	B/1	2	13	B/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Specific Demand Set (s)	Optimise specific Demand Set (s)	Include in report	Locked
Do Nothing 2022			✓	D1		✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
Do Nothing 2022					08:00		✓

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	L3120 Kilshane Road (East)		1
Ax	(untitled)		
B	R135 (South)		1
Bx	(untitled)		
C	L3120 Kilshane Road (West)		1
Cx	(untitled)		
D	R135 (North)		1
Dx	(untitled)		
9			1
10			1
11			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	59.92	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)		✓	58.48	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	142.28						Normal	
B	1	(untitled)			15.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			15.00	✓	Sum of lanes	1800	✓	✓	Normal	
Bx	1	(untitled)		✓	130.77						Normal	
C	1	(untitled)			25.00	✓	Sum of lanes	2105	✓		Normal	
Cx	1	(untitled)		✓	144.33						Normal	
D	1	(untitled)		✓	69.40	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)		✓	66.73	✓	Sum of lanes	1800	✓		Normal	
	3	(untitled)		✓	68.90	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	155.96						Normal	
9	1			✓	49.01	✓	Sum of lanes	1800			Normal	
10	1			✓	33.76	✓	Sum of lanes	1800			Normal	
11	1			✓	37.23	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	2	(untitled)											1800
	2	1	(untitled)											1800
Ax	1	1	(untitled)											
B	1	2	(untitled)											1800
	2	1	(untitled)											1800
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	-2	4.00	✓	41	25.85		2105
Cx	1	1	(untitled)											
D	1	3	(untitled)											1800
	2	1	(untitled)											1800
	3	2	(untitled)											1800
Dx	1	1	(untitled)											
9	1	1	(untitled)											1800
10	1	1	(untitled)											1800
11	1	1	(untitled)											1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	187	187
	2	452	452
Ax	1	608	608
B	1	345	345
	2	114	114
Bx	1	440	440
C	1	323	323
Cx	1	628	628
D	1	303	303
	2	139	139
	3	30	30
Dx	1	217	217
9	1	472	472
10	1	639	639
11	1	459	459

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	C		
B	1	1	D	✓	E
	2	1	D		
C	1	1	B		
D	1	1	A	✓	E
	2	1	A	✓	E
	3	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
C	1	3.00	30.00
9	1	5.88	30.00
10	1	4.05	30.00
11	1	4.47	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	10/1	A/1	7.19	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	7.02	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	17.07	30.00	✓	Straight	Straight Movement
B	1	1	11/1	B/1	1.80	30.00	✓	Offside	98.84
	2	1	11/1	B/2	1.80	30.00	✓	Offside	96.11
Bx	1	1	A/1	Bx/1	15.69	30.00	✓	Nearside	23.54
Cx	1	1	B/1	Cx/1	17.32	30.00	✓	Nearside	33.73
D	1	1	9/1	D/1	8.33	30.00	✓	Straight	Straight Movement
	2	1	9/1	D/2	8.01	30.00	✓	Straight	Straight Movement
	3	1	9/1	D/3	8.27	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	18.72	30.00	✓	Nearside	25.85
Ax	1	2	D/1	Ax/1	17.07	30.00	✓	Nearside	51.65
Bx	1	2	C/1	Bx/1	15.69	30.00	✓	Offside	43.33
Cx	1	2	A/2	Cx/1	17.32	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	18.72	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	17.07	30.00	✓	Offside	42.21
Bx	1	3	D/2	Bx/1	15.69	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	17.32	30.00	✓	Offside	35.26
Dx	1	3	A/2	Dx/1	18.72	30.00	✓	Offside	74.12

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
B	2	AllTraffic		

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	130	64

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
1	A	(untitled)	7	300	0	0	Traffic
	B	(untitled)	23	300	0	0	Traffic
	C	(untitled)	7	300	0	0	Traffic
	D	(untitled)	7	300	0	0	Traffic
	E	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	0	0
	2	B	1	0	0
	3	C	1	0	0
	4	D	1	0	0

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	38, 66, 106, 7	64	
	2	(untitled)	Single	1, 2, 4, 3	21, 49, 70, 90	64	
	3	(untitled)	Single	1, 3, 2, 4	20, 50, 80, 0	64	
	4	(untitled)	Single	1, 3, 4, 2	21, 52, 73, 93	64	
	5	(untitled)	Single	1, 4, 2, 3	20, 40, 60, 90	64	
	6	(untitled)	Single	1, 4, 3, 2	21, 42, 63, 93	64	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	12	38	26	1	7
	2	✓	2	B	43	66	23	1	23
	3	✓	3	C	71	106	35	1	7
	4	✓	4	D	111	7	26	1	7

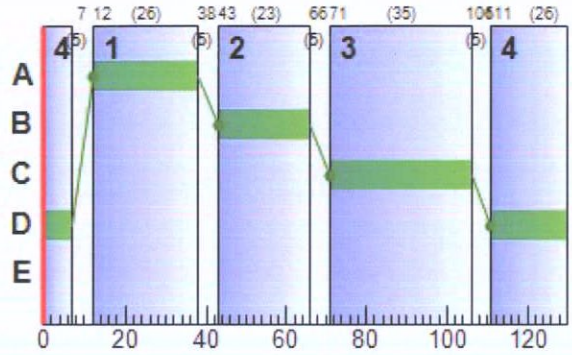
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	12	38	26
	B	1	✓	43	66	23
	C	1	✓	71	106	35
	D	1	✓	111	7	26

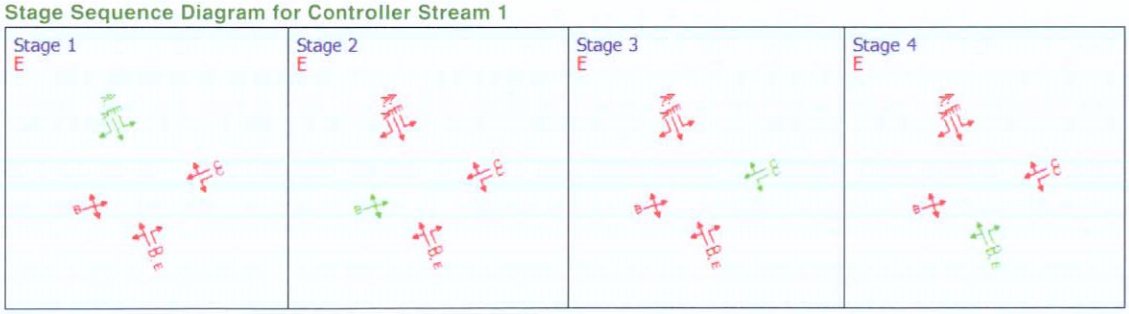
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	71	106	35
A	2	1	1	C	71	106	35
B	1	1	1	D	111	7	26
B	2	1	1	D	111	7	26
C	1	1	1	B	43	66	23
D	1	1	1	A	12	38	26
D	2	1	1	A	12	38	26
D	3	1	1	A	12	38	26

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	38	140	187	1800	35	40.09	5.51	52.92	29.57	1.89	31.46
		2	91	-1	452	1800	35	74.72	19.38	190.54	133.23	6.59	139.81
	Ax	1	0	Unrestricted	608	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	92	-2	345	1800	26	93.23	16.27	623.57	126.87	5.49	132.35
		2	30	195	114	1800	26	45.67	3.52	134.87	20.54	1.21	21.75
	Bx	1	0	Unrestricted	440	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	83	8	323	2105	23	72.11	13.10	301.41	91.87	4.47	96.35
	Cx	1	0	Unrestricted	628	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	81	11	303	1800	26	68.34	11.97	99.22	81.67	4.10	85.77
		2	37	142	139	1800	26	47.07	4.40	37.87	25.81	1.51	27.32
		3	8	1022	30	1800	26	41.96	0.87	7.26	4.97	0.30	5.26
	Dx	1	0	Unrestricted	217	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	26	243	472	1800	130	0.36	0.05	0.55	0.66	0.00	0.66
	10	1	36	154	639	1800	130	0.55	0.10	1.66	1.39	0.00	1.39
	11	1	26	253	459	1800	130	0.34	0.04	0.67	0.62	0.00	0.62

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	187	187	0		1800	498	38		140	0.00	35
		2	452	452	0		1800	498	91	✓	-1	0.00	35
	Ax	1	608	608	0		Unrestricted	Unrestricted	0		Unrestricted	0.82	130
	B	1	345	345	0		1800	374	92	✓	-2	0.00	26
		2	114	114	0		1800	374	30		195	0.00	26
	Bx	1	440	440	0		Unrestricted	Unrestricted	0		Unrestricted	0.80	130
	C	1	323	323	0		2105	389	83		8	0.00	23
	Cx	1	628	628	0		Unrestricted	Unrestricted	0		Unrestricted	0.81	130
	D	1	303	303	0		1800	374	81		11	0.00	26
		2	139	139	0		1800	374	37		142	0.00	26
		3	30	30	0		1800	374	8		1022	0.00	26
	Dx	1	217	217	0		Unrestricted	Unrestricted	0		Unrestricted	0.73	130
	9	1	472	472	0		1800	1800	26		243	0.00	130
	10	1	639	639	0		1800	1800	36		154	0.00	130
	11	1	459	459	0		1800	1800	26		253	0.00	130