

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	9	5
	2	5	0	5	5	5
	3	5	6	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	159	36	37	1	30
	2	✓	2	B	41	85	44	1	25
	3	✓	3	C	90	135	45	1	45
	4	✓	4	D	140	145	5	1	5
	5	✓	5	E	150	154	4	1	4

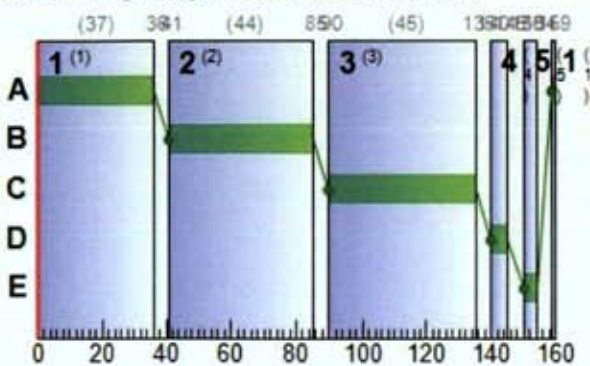
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	159	36	37
	B	1	✓	41	85	44
	C	1	✓	90	135	45
	D	1	✓	140	145	5
	E	1	✓	150	154	4

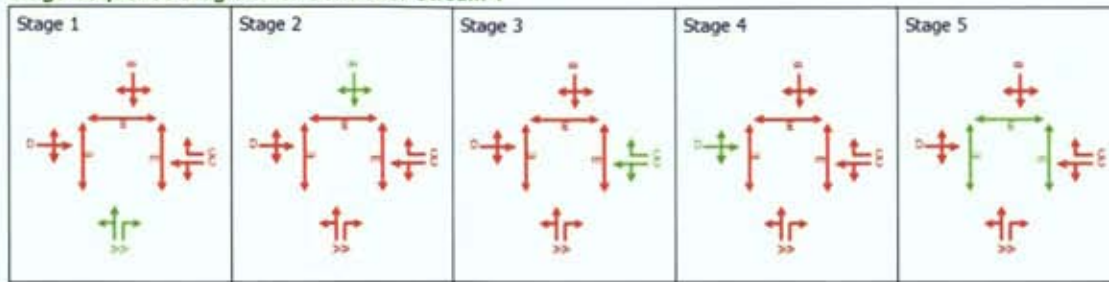
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	90	135	45
A	2	1	1	C	90	135	45
B	1	1	1	A	159	36	37
B	2	1	1	A	159	36	37
C	1	1	1	D	140	145	5
D	1	1	1	B	41	85	44

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)
17:00-18:00	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)	
17:00-18:00	A	1	48	107	264	1900	45	36.63	4.03	23.19	38.14	1.14	39.28	
		2	52	92	269	1800	45	21.05	2.28	114.16	22.33	0.67	23.00	
	Ax	1	0	Unrestricted	349	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	74	36	358	2049	37	63.83	15.38	88.42	90.13	4.18	94.31	
	B	1	30	231	143	1994	37	49.82	4.07	101.64	28.10	1.27	29.37	
		2	0	Unrestricted	493	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0	Unrestricted	493	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	31	226	23	1999	5	85.50	1.06	6.08	7.76	0.30	8.05	
	C	1	0	Unrestricted	55	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	79	27	446	2019	44	64.25	19.60	112.70	113.03	5.47	118.50	
D	1	0	Unrestricted	606	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	2	33	203	501	1800	160	3.27	4.81	64.00	6.46	1.29	7.75		
9	1	69	46	533	1800	160	41.53	19.84	180.95	87.31	5.49	92.80		
	2													

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)
17:00-18:00	A	1	264	264	0		1900	546	48		107	1.13	45
		2	269	269	0		1800	518	52		92	1.13	45
	Ax	1	349	349	0		Unrestricted	Unrestricted	0		Unrestricted	0.99	160
		2	358	358	0		2049	487	74		36	0.27	37
	B	1	143	143	0		1994	474	30		231	0.30	37
		2	493	493	0		Unrestricted	Unrestricted	0		Unrestricted	0.75	160
	Bx	1	23	23	0		1999	75	31		226	0.00	5
		2	55	55	0		Unrestricted	Unrestricted	0		Unrestricted	0.53	160
	C	1	446	446	0		2019	568	79		27	0.00	44
		2	606	606	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	160
D	1	501	501	0		1800	1519	33		203	0.00	160	
	2	533	533	0		1800	777	69		46	0.00	160	

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)	
17:00-18:00	A	1	12.00	36.63	2.46	0.22	36.14	34.37	85.69	5.04	1.14	
		2	1.68	21.05	1.28	0.29	22.33	19.87	47.11	6.33	0.67	
	Ax	1	16.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		1	12.00	63.83	5.35	1.00	90.13	93.16	311.44	22.08	4.18	
	B	2	2.16	49.82	1.89	0.09	28.10	70.84	99.83	1.47	1.27	
		1	16.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	85.50	0.48	0.07	7.76	102.58	22.11	1.48	0.30	
	Cx	1	16.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	12.00	64.25	6.57	1.39	113.03	97.81	405.56	30.69	5.47	
	Dx	1	16.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g	1	5.19	3.27	0.37	0.08	6.46	20.51	100.92	1.82	1.29		
10	1	7.56	41.53	5.41	0.74	87.31	82.13	421.21	16.51	5.49		

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
17:00-18:00	A	1	0.00	4.03	17.39	23.19	0.00	0.00	0.00	6.00	0.00	6.00	
		2	2.00	2.28	2.00	114.16	0.16	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	23.57	0.00	0.00	0.00	0.00	60.00	0.00	60.00	
		1	0.00	15.38	17.39	88.42	0.00	7.50	0.00	0.00	0.00	0.00	
	B	2	4.00	4.07	4.00	101.64	0.01	0.00	0.00	0.00	0.00	0.00	
		1	0.00	0.00	24.23	0.00	0.00	0.00	0.00	48.00	0.00	48.00	
	C	1	0.00	1.06	17.39	6.08	0.00	0.00	0.00	4.00	0.00	4.00	
	Cx	1	0.00	0.00	24.14	0.00	0.00	0.00	0.00	106.00	0.00	106.00	
	D	1	0.00	19.60	17.39	112.70	0.13	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.26	0.00	0.00	0.00	0.00	52.00	0.00	52.00	
g	1	0.00	4.81	7.52	64.00	0.00	0.00	0.00	0.00	24.97	24.97		
10	1	0.00	19.84	10.96	180.95	1.69	0.00	0.00	0.00	94.00	94.00		

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)
17:00-18:00	A	1	26.40	3.57	7.40	48.63
		2	3.77	1.69	2.23	22.65
	Ax	1	47.29	1.58	30.00	16.26
		1	35.80	7.54	4.75	75.83
	B	2	2.57	2.04	1.26	51.39
		1	68.69	2.29	30.00	16.72
	C	1	2.30	0.62	3.69	97.50
	Cx	1	7.64	0.25	30.00	16.66
	D	1	44.60	9.45	4.72	76.25
	Dx	1	81.05	2.70	30.00	16.05
g	1	21.66	1.18	18.40	8.46	
10	1	33.60	7.27	4.62	49.09	

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)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	4.03	0.23	4.03	1.00	0.00	39.28
		2	0.00	0.00	✓	2.28	0.28	2.28	1.00	0.00	23.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
		1	0.00	0.00	✓	15.39	1.01	12.09	1.00	0.00	94.31
	B	2	0.00	0.00	✓	4.07	0.07	4.07	1.00	0.00	29.37
		1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.06	0.07	1.05	1.00	0.00	8.05
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	19.62	1.41	15.66	1.00	0.00	118.50
Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	
G	1	0.00	0.00	✓	4.81			1.00	0.00	7.75	
10	1	0.00	0.00	✓	19.84			1.00	0.00	92.80	

Pedestrian Crossing Results
Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	36	100	11000	4	76.83	4.33	30.31	30.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)
17:00-18:00	(ALL)	(ALL)	100	100	0		11000	275	36		175	0.00	4

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	2	1	6.33	76.83	2.13	0.00	30.31
		2	6.33	76.83	2.13	0.00	30.31
	3	1	6.33	76.83	2.13	0.00	30.31
		2	6.33	76.83	2.13	0.00	30.31
	4	1	5.67	76.83	2.13	0.00	30.31
		2	5.67	76.83	2.13	0.00	30.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	4.33	10.00	43.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	2	1	0.90	2.31	0.39	83.16
		2	0.90	2.31	0.39	83.16
	3	1	0.90	2.31	0.39	83.16
		2	0.90	2.31	0.39	83.16
	4	1	0.80	2.29	0.35	82.50
		2	0.80	2.29	0.35	82.50

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	4.33	1.00	0.00	30.31

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	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 with worst unsignalised PRC	Item worst over PR
2	05/10/2022 16:40:14	05/10/2022 16:40:16	17:00	160	594.90	40.50	78.54	D/1	0	0	D/1	10/1	D/

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)
17:00-18:00	79	0	4040	1173	24.68	393.27	19.80	413.07

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	36	600	24	76.83	181.83	181.83

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)
17:00-18:00	4640	4640	0		79		27	1197

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)
17:00-18:00	10.50	31.42	36.62	3.88	575.10	34.04	1493.88	85.43	19.80

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)
17:00-18:00	180.95	0.00	276.00	118.97	394.97

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	380.57	54.00	7.05

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)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	594.90

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

	To								
	1	2	3	4	5	6	7	8	
From	1	0.0	113.5	113.8	114.2	0.0	0.0	0.0	0.0
	2	92.9	0.0	92.5	93.0	0.0	0.0	0.0	0.0
	3	114.4	87.8	0.0	114.4	0.0	0.0	0.0	0.0
	4	100.9	100.3	76.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	83.2	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.2
	7	0.0	0.0	0.0	0.0	83.2	0.0	0.0	82.5
	8	0.0	0.0	0.0	0.0	0.0	83.2	82.5	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		113.55		6	113.55
2	1	3	6		113.76		6	113.76
3	1	4	11		114.22		11	114.22
5	2	3	200		92.51		200	92.51
6	2	4	232		92.97		232	92.97
7	2	1	14		92.91		14	92.91
16	4	2	331		100.34		331	100.34
17	8	7		100		82.50	100	82.50
18	8	6		100		83.16	100	83.16
22	5	7		100		83.16	100	83.16
34	6	8		100		83.16	100	83.16
41	7	8		100		82.50	100	82.50
42	7	5		100		83.16	100	83.16
49	4	1	27		100.94		27	100.94
50	4	3	143		76.11		143	76.11
51	3	2	269		87.79		269	87.79
52	3	4	250		114.44		250	114.44
53	3	1	14		114.38		14	114.38

Final Prediction Table

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
				Controller stream	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 (%)	Mean max queue (Veh)
A	1	(untitled)	1	1	C	264	1900	45	6.00	48	107	48.63	36.63	34.37	4.03
	2		1	1	C	269 <	1800	45	0.00	52	92	22.65	21.05	19.87	2.28 +
Ax	1	(untitled)				349	Unrestricted	160	60.00	0	Unrestricted	16.26	0.00	0.00	0.00
B	1	(untitled)	1	1	A	358	2049	37	0.00	74	36	75.83	63.83	93.16	15.38
	2		1	1	A	143 <	1994	37	0.00	30	231	51.39	49.82	70.84	4.07 +
Bx	1	(untitled)				493	Unrestricted	160	48.00	0	Unrestricted	16.72	0.00	0.00	0.00
C	1	(untitled)	1	1	D	23	1999	5	4.00	31	226	97.50	85.50	102.56	1.06
Cx	1	(untitled)				55	Unrestricted	160	106.00	0	Unrestricted	16.66	0.00	0.00	0.00
D	1	(untitled)	1	1	B	446 <	2019	44	0.00	79	27	76.25	64.25	97.81	19.60 +
Dx	1	(untitled)				606	Unrestricted	160	52.00	0	Unrestricted	16.05	0.00	0.00	0.00
9	1		1			501	1800	160	24.97	33	203	8.46	3.27	20.51	4.81
10	1		1			533 <	1800	160	94.00	69	46	49.09	41.53	82.13	19.84 +

Pedestrian Crossing Results

Pedestrian	Side	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
				Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p)
2	1	(untitled)	1	1	E	100	11000	4	36	175	83.16	76.83	4.33	100	0
	2	(untitled)	1	1	E	100	11000	4	36	175	83.16	76.83	4.33	100	0
3	1	(untitled)	1	1	E	100	11000	4	36	175	83.16	76.83	4.33	100	0
	2	(untitled)	1	1	E	100	11000	4	36	175	83.16	76.83	4.33	100	0
4	1	(untitled)	1	1	E	100	11000	4	36	175	82.50	76.83	4.33	100	0
	2	(untitled)	1	1	E	100	11000	4	36	175	82.50	76.83	4.33	100	0

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	375.37	40.18	9.34	23.82	3.88	393.27	19.80	0.00	413.07
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	5.20	13.62	0.38	12.81	0.00	181.83	0.00	0.00	181.83
TOTAL	380.57	54.00	7.05	36.62	3.88	575.10	19.80	0.00	594.90

- < = 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

A3 - DO SOMETHING - 2041 (OPENING YEAR + 15 YEARS)

D3 - DO SOMETHING - 2041 (OPENING YEAR + 15 YEARS), *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	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 with worst unsignalised PRC	Item with worst PRC
3	05/10/2022 16:40:16	05/10/2022 16:40:17	17:00	160	594.41	40.46	77.87	D/1	0	0	D/1	10/1	D/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO SOMETHING - 2041 (OPENING YEAR + 15 YEARS)		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO SOMETHING - 2041 (OPENING YEAR + 15 YEARS)				17:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			100.00	✓	Sum of lanes	1901	✓	1800	✓		Normal	
	2				14.00	✓	Sum of lanes	1800			✓		Normal	
Ax	1	(untitled)		✓	135.51								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	2050			✓		Normal	
	2				18.00	✓	Sum of lanes	1994			✓	✓	Normal	
Bx	1	(untitled)		✓	139.32								Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1999			✓		Normal	
Cx	1	(untitled)		✓	138.82								Normal	
D	1	(untitled)			100.00	✓	Sum of lanes	2022			✓		Normal	
Dx	1	(untitled)		✓	133.75								Normal	
9	1			✓	43.24	✓	Sum of lanes	1800					Normal	
10	1			✓	63.04	✓	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	1	(untitled)		✓	N/A	N/A	2	3.00	✓	94	38.14		1901
	2	1	(untitled)											1800
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	-2	3.00	✓	7	43.06		2050
	2	1	(untitled)		✓	N/A	N/A	-2	3.00	✓	100	48.94		1994
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	-10	3.00	✓	74	39.69		1999
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	-2	3.00	✓	44	40.00		2022
Dx	1	1	(untitled)											
9	1	1	(untitled)											1800
10	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	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	CTM	100	100	100		0.00				
	2	Flare	100	100	100		2.00				
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	PDM	100	100	100		0.00	✓	0.00	0.00	
	2	Flare	100	100	100		4.00				
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	PDM	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	PDM	100	100	100		0.00				
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	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
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
	2	2.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	160

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	246	246
	2	281	281
Ax	1	331	331
B	1	372	372
	2	149	149
Bx	1	486	486
C	1	23	23
Cx	1	55	55
D	1	433	433
Dx	1	632	632
9	1	521	521
10	1	527	527

Signals

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

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
C	1	12.00	30.00
D	1	12.00	30.00
9	1	5.19	30.00
10	1	7.56	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	12.00	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	1.68	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	16.26	30.00	✓	Straight	Straight Movement
B	1	1	9/1	B/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	B/2	2.16	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.72	30.00	✓	Nearside	38.14
Cx	1	1	A/1	Cx/1	16.66	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	16.05	30.00	✓	Nearside	39.69
Ax	1	2	D/1	Ax/1	16.26	30.00	✓	Nearside	40.00
Bx	1	2	D/1	Bx/1	16.72	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	16.66	30.00	✓	Nearside	43.06
Dx	1	2	B/1	Dx/1	16.05	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	16.26	30.00	✓	Offside	48.94
Bx	1	3	C/1	Bx/1	16.72	30.00	✓	Offside	60.00
Cx	1	3	D/1	Cx/1	16.66	30.00	✓	Offside	55.00
Dx	1	3	A/2	Dx/1	16.05	30.00	✓	Offside	47.36

Give Way Data

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

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
2		TrafficStream	A/2	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 160s cycle time; 160 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	160

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Splits	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	30	300	0	0	Traffic	
	B	(untitled)	25	300	0	0	Traffic	
	C	(untitled)	45	300	0	0	Traffic	
	D	(untitled)	5	5	0	0	Traffic	
	E	(untitled)	4	4	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	37, 85, 135, 145, 154
	2	(untitled)	Single	1, 2, 3, 5, 4	37, 73, 124, 139, 155
	3	(untitled)	Single	1, 2, 4, 3, 5	37, 73, 89, 140, 155
	4	(untitled)	Single	1, 2, 4, 5, 3	37, 73, 89, 104, 155
	5	(untitled)	Single	1, 2, 5, 3, 4	37, 73, 88, 139, 155
	6	(untitled)	Single	1, 2, 5, 4, 3	37, 73, 88, 104, 155
	7	(untitled)	Single	1, 3, 2, 4, 5	36, 87, 124, 140, 155
	8	(untitled)	Single	1, 3, 2, 5, 4	36, 87, 124, 139, 155
	9	(untitled)	Single	1, 3, 4, 2, 5	37, 88, 104, 140, 155
	10	(untitled)	Single	1, 3, 4, 5, 2	37, 88, 104, 119, 155

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	9	5
	B	5		5	5	5
	C	5	6		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	9	5
	2	5	0	5	5	5
	3	5	6	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	159	37	38	1	30
	2	✓	2	B	42	85	43	1	25
	3	✓	3	C	90	135	45	1	45
	4	✓	4	D	140	145	5	1	5
	5	✓	5	E	150	154	4	1	4

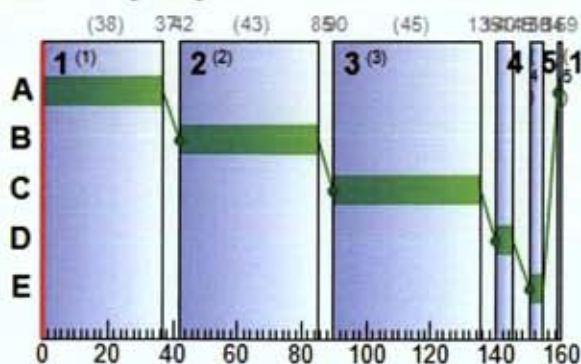
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	159	37	38
	B	1	✓	42	85	43
	C	1	✓	90	135	45
	D	1	✓	140	145	5
	E	1	✓	150	154	4

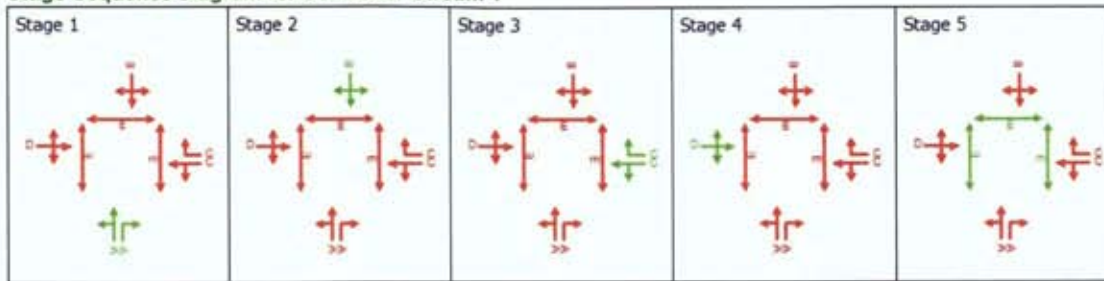
Traffic Stream Green Times

Am	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	90	135	45
A	2	1	1	C	90	135	45
B	1	1	1	A	159	37	38
B	2	1	1	A	159	37	38
C	1	1	1	D	140	145	5
D	1	1	1	B	42	85	43

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)
17:00-18:00	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)
17:00-18:00	A	1	45	122	246	1901	45	35.51	3.65	20.98	34.45	1.03	35.48
		2	54	84	281	1800	45	20.77	2.32	116.25	23.03	0.68	23.71
	Ax	1	0	Unrestricted	331	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00
		2	74	34	372	2050	38	62.82	15.94	91.68	92.18	4.29	96.47
	B	1	31	226	149	1994	38	48.48	4.07	101.70	28.49	1.27	29.76
		2	0	Unrestricted	486	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00
	Bx	1	0	Unrestricted	486	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00
		2	31	226	23	1999	5	85.50	1.06	6.08	7.76	0.30	8.05
	Cx	1	0	Unrestricted	55	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00
		2	78	28	433	2022	43	64.53	19.01	109.28	110.21	5.30	115.51
Dx	1	0	Unrestricted	632	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00	
	2	35	185	521	1800	160	4.09	5.74	76.31	8.41	1.54	9.96	
9	1	69	45	527	1800	160	42.41	19.64	179.10	88.17	5.47	93.64	
	2	0	Unrestricted	486	Unrestricted	160	0.00	0.00	0.00	0.00	0.00	0.00	

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)
17:00-18:00	A	1	246	246	0		1901	547	45		122	1.15	45
		2	281	281	0		1800	518	54		84	1.14	45
	Ax	1	331	331	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	160
		2	372	372	0		2050	500	74		34	0.31	38
	B	1	149	149	0		1994	486	31		226	0.34	38
		2	486	486	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	160
	Bx	1	23	23	0		1999	75	31		226	0.00	5
		2	55	55	0		Unrestricted	Unrestricted	0		Unrestricted	0.53	160
	Cx	1	433	433	0		2022	556	78		28	0.00	43
		2	632	632	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	160
	Dx	1	521	521	0		1800	1485	35		185	0.00	160
		2	527	527	0		1800	765	69		45	0.00	160

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)
17:00-18:00	A	1	12.00	35.51	2.24	0.18	34.45	33.36	77.96	4.11	1.03
		2	1.68	20.77	1.29	0.33	23.03	19.39	47.23	7.26	0.68
	Ax	1	16.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	62.82	5.44	1.05	92.18	91.93	318.62	23.36	4.29
		2	2.16	48.48	1.92	0.09	28.49	68.04	99.86	1.52	1.27
	Bx	1	16.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	85.50	0.48	0.07	7.76	102.58	22.11	1.48	0.30
	Cx	1	16.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	12.00	64.53	6.44	1.32	110.21	97.71	393.79	29.30	5.30
	Dx	1	16.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	5.19	4.09	0.50	0.09	8.41	23.59	120.79	2.13	1.54
10	1	7.56	42.41	5.46	0.75	88.17	82.79	419.53	16.78	5.47	

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
17:00-18:00	A	1	0.00	3.65	17.39	20.98	0.00	0.00	0.00	7.00	0.00	7.00	
		2	2.00	2.32	2.00	116.25	0.18	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	23.57	0.00	0.00	0.00	0.00	61.00	0.00	61.00	
	B	1	0.00	15.94	17.39	91.68	0.00	7.74	0.00	0.00	0.00	0.00	
		2	4.00	4.07	4.00	101.70	0.01	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.23	0.00	0.00	0.00	0.00	49.00	0.00	49.00	
	C	1	0.00	1.06	17.39	6.08	0.00	0.00	0.00	4.00	0.00	4.00	
	Cx	1	0.00	0.00	24.14	0.00	0.00	0.00	0.00	103.00	0.00	103.00	
	D	1	0.00	19.01	17.39	109.28	0.07	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.26	0.00	0.00	0.00	0.00	51.00	0.00	51.00	
	9	1	0.00	5.74	7.52	76.31	0.00	0.00	0.00	0.00	27.99	27.99	
10	1	0.00	19.64	10.96	179.10	1.63	0.00	0.00	0.00	95.00	95.00		

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)
17:00-18:00	A	1	24.60	3.25	7.58	47.51
		2	3.93	1.75	2.25	22.38
	Ax	1	44.86	1.50	30.00	16.26
	B	1	37.20	7.73	4.81	74.82
		2	2.68	2.07	1.29	50.09
	Bx	1	67.71	2.26	30.00	16.72
	C	1	2.30	0.62	3.69	97.50
	Cx	1	7.64	0.25	30.00	16.66
	D	1	43.30	9.20	4.70	76.53
	Dx	1	84.53	2.82	30.00	16.05
	9	1	22.53	1.34	16.77	9.28
10	1	33.22	7.32	4.54	49.98	

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)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	3.65	0.18	3.65	1.00	0.00	35.48
		2	0.00	0.00	✓	2.32	0.32	2.32	1.00	0.00	23.71
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	15.96	1.07	12.17	1.00	0.00	96.47
		2	0.00	0.00	✓	4.07	0.07	4.07	1.00	0.00	29.76
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.06	0.07	1.05	1.00	0.00	8.05
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	19.03	1.35	15.30	1.00	0.00	115.51
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	G	1	0.00	0.00	✓	5.74			1.00	0.00	9.96
	10	1	0.00	0.00	✓	19.64			1.00	0.00	93.64

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	36	100	11000	4	76.83	4.33	30.31	30.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	100	100	0		11000	275	36		175	0.00	4

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	2	1	6.33	76.83	2.13	0.00	30.31
		2	6.33	76.83	2.13	0.00	30.31
	3	1	6.33	76.83	2.13	0.00	30.31
		2	6.33	76.83	2.13	0.00	30.31
	4	1	5.67	76.83	2.13	0.00	30.31
		2	5.67	76.83	2.13	0.00	30.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	4.33	10.00	43.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	2	1	0.90	2.31	0.39	83.16
		2	0.90	2.31	0.39	83.16
	3	1	0.90	2.31	0.39	83.16
		2	0.90	2.31	0.39	83.16
	4	1	0.80	2.29	0.35	82.50
		2	0.80	2.29	0.35	82.50

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	4.33	1.00	0.00	30.31

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	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 with worst unsignalised PRC	Item with worst over PR
3	05/10/2022 16:40:16	05/10/2022 16:40:17	17:00	160	594.41	40.46	77.87	D/1	0	0	D/1	10/1	D/

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)
17:00-18:00	78	0	4056	1174	24.55	392.69	19.88	412.58

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	36	600	24	76.83	181.83	181.83

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)
17:00-18:00	4656	4656	0		78		28	1198

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)
17:00-18:00	10.44	31.28	36.56	3.90	574.53	34.06	1499.88	85.94	19.88

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)
17:00-18:00	179.10	0.00	275.00	122.99	397.99

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	379.70	53.93	7.04

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)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	594.41

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	113.5	113.8	114.2	0.0	0.0	0.0	0.0
	2	93.2	0.0	92.8	93.2	0.0	0.0	0.0	0.0
From	4	100.8	100.2	75.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	83.2	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.2
	7	0.0	0.0	0.0	0.0	83.2	0.0	0.0	82.5
	8	0.0	0.0	0.0	0.0	0.0	83.2	82.5	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		113.55		6	113.55
2	1	3	6		113.76		6	113.76
3	1	4	11		114.22		11	114.22
5	2	3	176		92.79		176	92.79
6	2	4	243		93.24		243	93.24
7	2	1	14		93.18		14	93.18
16	4	2	345		100.15		345	100.15
17	8	7		100		82.50	100	82.50
18	8	6		100		83.16	100	83.16
22	5	7		100		83.16	100	83.16
34	6	8		100		83.16	100	83.16
41	7	8		100		82.50	100	82.50
42	7	5		100		83.16	100	83.16
49	4	1	27		100.76		27	100.76
50	4	3	149		75.63		149	75.63
51	3	2	281		88.41		281	88.41
52	3	4	232		114.20		232	114.20
53	3	1	14		114.14		14	114.14

Final Prediction Table

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
				Controller stream	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 (%)	Mean max queue (Veh)
A	1	(untitled)	1	1	C	246	1901	45	7.00	45	122	47.51	35.51	33.36	3.65
	2		1	1	C	281 <	1800	45	0.00	54	84	22.38	20.77	19.39	2.32 +
Ax	1	(untitled)				331	Unrestricted	160	61.00	0	Unrestricted	16.26	0.00	0.00	0.00
B	1	(untitled)	1	1	A	372	2050	38	0.00	74	34	74.82	62.82	91.93	15.94
	2		1	1	A	149 <	1994	38	0.00	31	226	50.09	48.48	68.04	4.07 +
Bx	1	(untitled)				486	Unrestricted	160	49.00	0	Unrestricted	16.72	0.00	0.00	0.00
C	1	(untitled)	1	1	D	23	1999	5	4.00	31	226	97.50	85.50	102.58	1.06
Cx	1	(untitled)				55	Unrestricted	160	103.00	0	Unrestricted	16.66	0.00	0.00	0.00
D	1	(untitled)	1	1	B	433 <	2022	43	0.00	78	28	76.53	64.53	97.71	19.01 +
Dx	1	(untitled)				632	Unrestricted	160	51.00	0	Unrestricted	16.05	0.00	0.00	0.00
9	1		1			521	1800	160	27.99	35	185	9.28	4.09	23.59	5.74
10	1		1			527 <	1800	160	95.00	69	45	49.98	42.41	82.79	19.64 +

Pedestrian Crossing Results

Pedestrian	Side	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
				Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p)
2	1	(untitled)	1	1	E	100	11000	4	36	175	83.16	76.83	4.33	100	0
	2	(untitled)	1	1	E	100	11000	4	36	175	83.16	76.83	4.33	100	0
3	1	(untitled)	1	1	E	100	11000	4	36	175	83.16	76.83	4.33	100	0
	2	(untitled)	1	1	E	100	11000	4	36	175	83.16	76.83	4.33	100	0
4	1	(untitled)	1	1	E	100	11000	4	36	175	82.50	76.83	4.33	100	0
	2	(untitled)	1	1	E	100	11000	4	36	175	82.50	76.83	4.33	100	0

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	374.50	40.11	9.34	23.76	3.90	392.69	19.88	0.00	412.58
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	5.20	13.82	0.38	12.81	0.00	181.83	0.00	0.00	181.83
TOTAL	379.70	53.93	7.04	36.56	3.90	574.53	19.88	0.00	594.41

- < = 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



<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: Junction 2_AM and PM.j9

Path: M:\Projects\19\19-020 - Malahide Road\Design\Traffic\Junction Analysis - Streamstown\Junction 2

Report generation date: 30/09/2022 08:57:28

- »Junction 3 - 2022, AM
- »Junction 3 - 2022, PM
- »Junction 3 - 2026, AM
- »Junction 3 - 2026, PM
- »Junction 3 - 2031, AM
- »Junction 3 - 2031, PM
- »Junction 3 - 2041, AM
- »Junction 3 - 2041, PM
- »Junction 3 - DO SOMETHING 2026, AM
- »Junction 3 - DO SOMETHING 2026, PM
- »Junction 3 - DO SOMETHING 2031, AM
- »Junction 3 - DO SOMETHING 2031, PM
- »Junction 3 - DO SOMETHING 2041, AM
- »Junction 3 - DO SOMETHING 2041, PM

Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
Junction 3 - 2022				
Stream B-AC	0.3	0.22	0.1	0.09
Stream C-AB	0.3	0.12	0.2	0.10
Junction 3 - 2026				
Stream B-AC	0.3	0.24	0.1	0.10
Stream C-AB	0.3	0.13	0.2	0.11
Junction 3 - 2031				
Stream B-AC	0.4	0.26	0.1	0.11
Stream C-AB	0.3	0.14	0.3	0.13
Junction 3 - 2041				
Stream B-AC	0.4	0.27	0.1	0.11
Stream C-AB	0.4	0.15	0.3	0.14
Junction 3 - DO SOMETHING 2026				
Stream B-AC	0.4	0.29	0.2	0.16
Stream C-AB	0.4	0.17	0.3	0.16
Junction 3 - DO SOMETHING 2031				
Stream B-AC	0.5	0.32	0.3	0.20
Stream C-AB	0.6	0.23	0.4	0.19
Junction 3 - DO SOMETHING 2041				
Stream B-AC	0.5	0.33	0.2	0.19
Stream C-AB	0.6	0.25	0.6	0.23

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

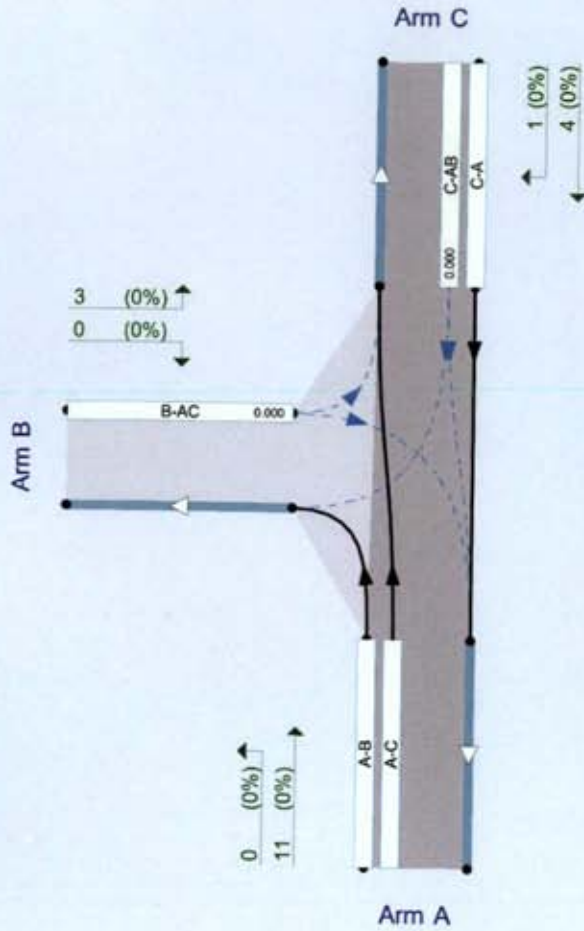
File summary

File Description

Title	
Location	
Site number	
Date	01/12/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINI.byrne
Description	

Units

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



Flows show original traffic element (PCUs)
 Boxes (darkish and) show RFC

The junction diagram reflects the last run of Junctions.

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

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	Relationship type	Relationship
D1	2022	AM	ONE HOUR	08:00	09:30	15	✓		
D2	2022	PM	ONE HOUR	16:00	17:30	15	✓		
D3	2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G1
D4	2026	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G1
D5	2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G2
D6	2031	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G2
D7	2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G3
D8	2041	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G3
D9	Proposed Dev. - Trips Generated	AM	ONE HOUR	08:00	09:30	15			
D10	Proposed Dev. - Trips Generated	PM	ONE HOUR	16:00	17:30	15			
D11	DO SOMETHING 2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G1) + D9+D17+D21+D23
D12	DO SOMETHING 2026	PM	ONE HOUR	16:00	17:30	15	✓	Simple	(D2*G1) +D10+D18+D22+D24
D13	DO SOMETHING 2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G2)+D9+D17 +D19+D21+D23
D14	DO SOMETHING 2031	PM	ONE HOUR	16:00	17:30	15	✓	Simple	(D2*G2) +D10+D18+D20+D23+D24
D15	DO SOMETHING 2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G3) + D9+D17 + D19+D21+D23
D16	DO SOMETHING 2041	PM	ONE HOUR	16:00	17:30	15	✓	Simple	(D2*G3) +D10+D18+D19+D22+D24
D17	Broomfield Phase 1	AM	ONE HOUR	08:00	09:30	15			
D18	Broomfield Phase 1	PM	ONE HOUR	16:00	17:30	15			
D19	Broomfield Phase 2	AM	ONE HOUR	08:00	09:30	15			
D20	Broomfield Phase 2	PM	ONE HOUR	16:00	17:30	15			
D21	Backfield	AM	ONE HOUR	08:00	09:30	15			
D22	Backfield	PM	ONE HOUR	16:00	17:30	15			
D23	The Avenue	AM	ONE HOUR	08:00	09:30	15			
D24	The Avenue	PM	ONE HOUR	16:00	17:30	15			

Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	2026		1.0660
G2	2030		1.1430
G3	2040		1.1960

Growth factors are only active if the Demand Set references them in a Relationship.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 3	✓	100.000	100.000

Junction 3 - 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.72	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.76			247.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	574	0.092	0.232	0.146	0.332
B-C	749	0.101	0.255	-	-
C-B	717	0.244	0.244	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022	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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	254	100.000
B		ONE HOUR	✓	131	100.000
C		ONE HOUR	✓	434	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	3	251
	B	9	0	122
	C	381	53	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	5	10
	B	5	0	5
	C	10	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.22	7.45	0.3	A	120	180
C-AB	0.12	4.87	0.3	A	82	123
C-A					316	474
A-B					3	4
A-C					230	345

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99	25	678	0.145	98	0.0	0.2	6.506	A
C-AB	60	15	850	0.071	60	0.0	0.1	4.854	A
C-A	267	67			267				
A-B	2	0.56			2				
A-C	189	47			189				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118	29	667	0.177	118	0.2	0.2	6.876	A
C-AB	78	20	878	0.089	78	0.1	0.2	4.807	A
C-A	312	78			312				
A-B	3	0.67			3				
A-C	226	56			226				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	144	36	652	0.221	144	0.2	0.3	7.439	A
C-AB	108	27	917	0.118	108	0.2	0.3	4.764	A
C-A	370	92			370				
A-B	3	0.83			3				
A-C	276	69			276				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	144	36	652	0.221	144	0.3	0.3	7.445	A
C-AB	108	27	917	0.118	108	0.3	0.3	4.775	A
C-A	370	92			370				
A-B	3	0.83			3				
A-C	276	69			276				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118	29	667	0.177	118	0.3	0.2	6.886	A
C-AB	78	20	878	0.089	79	0.3	0.2	4.830	A
C-A	312	78			312				
A-B	3	0.67			3				
A-C	226	56			226				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99	25	678	0.145	99	0.2	0.2	6.528	A
C-AB	60	15	850	0.071	61	0.2	0.1	4.873	A
C-A	266	67			266				
A-B	2	0.56			2				
A-C	189	47			189				

Junction 3 - 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.86	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	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	360	100.000
B		ONE HOUR	✓	50	100.000
C		ONE HOUR	✓	388	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	4	356
	B	7	0	43
	C	342	46	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	6.61	0.1	A	46	69
C-AB	0.10	4.79	0.2	A	69	103
C-A					287	431
A-B					4	6
A-C					327	490

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	9	638	0.059	37	0.0	0.1	5.991	A
C-AB	51	13	815	0.062	50	0.0	0.1	4.778	A
C-A	241	60			241				
A-B	3	0.75			3				
A-C	268	67			268				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	622	0.072	45	0.1	0.1	6.238	A
C-AB	66	16	836	0.078	65	0.1	0.1	4.747	A
C-A	283	71			283				
A-B	4	0.90			4				
A-C	320	80			320				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	14	600	0.092	55	0.1	0.1	6.610	A
C-AB	90	22	867	0.104	90	0.1	0.2	4.725	A
C-A	337	84			337				
A-B	4	1			4				
A-C	392	98			392				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	14	600	0.092	55	0.1	0.1	6.610	A
C-AB	90	22	867	0.104	90	0.2	0.2	4.733	A
C-A	337	84			337				
A-B	4	1			4				
A-C	392	98			392				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	622	0.072	45	0.1	0.1	6.240	A
C-AB	66	16	837	0.078	66	0.2	0.1	4.768	A
C-A	283	71			283				
A-B	4	0.90			4				
A-C	320	80			320				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	9	638	0.059	38	0.1	0.1	6.000	A
C-AB	51	13	815	0.062	51	0.1	0.1	4.792	A
C-A	241	60			241				
A-B	3	0.75			3				
A-C	268	67			268				

Junction 3 - 2026, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.78	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	Relationship type	Relationship
D3	2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G1

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	271	100.000
B		ONE HOUR	✓	140	100.000
C		ONE HOUR	✓	463	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	3	268
	B	10	0	130
	C	406	56	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	5	10
	B	5	0	5
	C	10	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.24	7.67	0.3	A	128	192
C-AB	0.13	4.85	0.3	A	91	136
C-A					334	500
A-B					3	4
A-C					246	368

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	674	0.156	104	0.0	0.2	6.623	A
C-AB	66	17	860	0.077	65	0.0	0.1	4.837	A
C-A	282	71			282				
A-B	2	0.60			2				
A-C	201	50			201				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	126	31	663	0.189	125	0.2	0.2	7.034	A
C-AB	86	22	889	0.097	86	0.1	0.2	4.794	A
C-A	329	82			329				
A-B	3	0.72			3				
A-C	241	60			241				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	154	38	646	0.238	153	0.2	0.3	7.664	A
C-AB	120	30	931	0.129	120	0.2	0.3	4.758	A
C-A	389	97			389				
A-B	4	0.88			4				
A-C	295	74			295				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	154	38	646	0.238	154	0.3	0.3	7.673	A
C-AB	120	30	932	0.129	120	0.3	0.3	4.770	A
C-A	389	97			389				
A-B	4	0.88			4				
A-C	295	74			295				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	126	31	663	0.189	126	0.3	0.2	7.047	A
C-AB	87	22	890	0.097	87	0.3	0.2	4.816	A
C-A	329	82			329				
A-B	3	0.72			3				
A-C	241	60			241				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	674	0.156	105	0.2	0.2	6.646	A
C-AB	66	17	860	0.077	66	0.2	0.1	4.854	A
C-A	282	71			282				
A-B	2	0.60			2				
A-C	201	50			201				

Junction 3 - 2026, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.89	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	Relationship type	Relationship
D4	2026	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2-G1

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	384	100.000
B		ONE HOUR	✓	53	100.000
C		ONE HOUR	✓	414	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	4	379
	B	7	0	46
	C	365	49	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	6.76	0.1	A	49	73
C-AB	0.11	4.78	0.2	A	76	114
C-A					304	455
A-B					4	6
A-C					348	522

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	633	0.063	40	0.0	0.1	6.071	A
C-AB	55	14	822	0.067	55	0.0	0.1	4.767	A
C-A	256	64			256				
A-B	3	0.80			3				
A-C	286	71			286				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	615	0.078	48	0.1	0.1	6.342	A
C-AB	72	18	845	0.085	72	0.1	0.2	4.740	A
C-A	300	75			300				
A-B	4	0.96			4				
A-C	341	85			341				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	591	0.099	59	0.1	0.1	6.756	A
C-AB	100	25	878	0.114	99	0.2	0.2	4.721	A
C-A	356	89			356				
A-B	5	1			5				
A-C	418	104			418				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	591	0.099	59	0.1	0.1	6.756	A
C-AB	100	25	879	0.114	100	0.2	0.2	4.731	A
C-A	356	89			356				
A-B	5	1			5				
A-C	418	104			418				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	615	0.078	48	0.1	0.1	6.345	A
C-AB	72	18	845	0.086	73	0.2	0.2	4.760	A
C-A	299	75			299				
A-B	4	0.96			4				
A-C	341	85			341				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	632	0.063	40	0.1	0.1	6.078	A
C-AB	56	14	822	0.068	56	0.2	0.1	4.784	A
C-A	256	64			256				
A-B	3	0.80			3				
A-C	286	71			286				

Junction 3 - 2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G2

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	290	100.000
B		ONE HOUR	✓	150	100.000
C		ONE HOUR	✓	496	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	3	287
	B	10	0	139
	C	435	61	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	5	10
	B	5	0	5
	C	10	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.26	7.96	0.4	A	137	206
C-AB	0.14	4.84	0.3	A	102	153
C-A					353	530
A-B					3	5
A-C					263	395

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	113	28	670	0.168	112	0.0	0.2	6.762	A
C-AB	73	18	871	0.084	73	0.0	0.2	4.818	A
C-A	300	75			300				
A-B	3	0.65			3				
A-C	216	54			216				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	135	34	657	0.205	134	0.2	0.3	7.223	A
C-AB	96	24	903	0.107	96	0.2	0.2	4.779	A
C-A	349	87			349				
A-B	3	0.77			3				
A-C	258	64			258				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	165	41	640	0.258	164	0.3	0.4	7.947	A
C-AB	135	34	948	0.143	135	0.2	0.3	4.755	A
C-A	411	103			411				
A-B	4	0.94			4				
A-C	316	79			316				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	165	41	640	0.258	165	0.4	0.4	7.959	A
C-AB	136	34	949	0.143	136	0.3	0.3	4.765	A
C-A	411	103			411				
A-B	4	0.94			4				
A-C	316	79			316				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	135	34	657	0.205	135	0.4	0.3	7.239	A
C-AB	97	24	903	0.107	97	0.3	0.2	4.803	A
C-A	349	87			349				
AB	3	0.77			3				
AC	258	64			258				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	113	28	670	0.168	113	0.3	0.2	6.787	A
C-AB	73	18	871	0.084	74	0.2	0.2	4.839	A
C-A	300	75			300				
AB	3	0.65			3				
AC	216	54			216				

Junction 3 - 2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.92	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	Relationship type	Relationship
D6	2031	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G2

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	411	100.000
B		ONE HOUR	✓	57	100.000
C		ONE HOUR	✓	443	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	5	407
	B	8	0	49
	C	391	53	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	6.94	0.1	A	52	79
C-AB	0.13	4.77	0.3	A	85	127
C-A					322	483
A-B					4	6
A-C					373	560

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	626	0.069	43	0.0	0.1	6.167	A
C-AB	61	15	831	0.074	61	0.0	0.1	4.754	A
C-A	273	68			273				
A-B	3	0.86			3				
A-C	306	77			306				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	608	0.085	51	0.1	0.1	6.469	A
C-AB	80	20	856	0.094	80	0.1	0.2	4.730	A
C-A	318	80			318				
A-B	4	1			4				
A-C	366	91			366				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	16	582	0.108	63	0.1	0.1	6.933	A
C-AB	112	28	892	0.126	112	0.2	0.3	4.722	A
C-A	376	94			376				
A-B	5	1			5				
A-C	448	112			448				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	16	582	0.108	63	0.1	0.1	6.936	A
C-AB	112	28	892	0.126	112	0.3	0.3	4.734	A
C-A	376	94			376				
A-B	5	1			5				
A-C	448	112			448				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	608	0.085	51	0.1	0.1	6.475	A
C-AB	81	20	856	0.094	81	0.3	0.2	4.754	A
C-A	318	80			318				
A-B	4	1			4				
A-C	366	91			366				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	626	0.069	43	0.1	0.1	6.174	A
C-AB	62	15	831	0.074	62	0.2	0.1	4.772	A
C-A	272	68			272				
A-B	3	0.86			3				
A-C	306	77			306				

Junction 3 - 2041, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.90	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	Relationship type	Relationship
D7	2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G3

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	304	100.000
B		ONE HOUR	✓	157	100.000
C		ONE HOUR	✓	519	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	4	300
	B	11	0	146
	C	456	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	5	10
	B	5	0	5
	C	10	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.27	8.17	0.4	A	144	218
C-AB	0.15	4.83	0.4	A	110	165
C-A					367	550
A-B					3	5
A-C					275	413

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118	29	667	0.177	117	0.0	0.2	6.861	A
C-AB	78	20	878	0.089	78	0.0	0.2	4.807	A
C-A	312	78			312				
A-B	3	0.68			3				
A-C	226	57			226				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	141	35	654	0.215	141	0.2	0.3	7.362	A
C-AB	104	26	912	0.114	104	0.2	0.2	4.771	A
C-A	363	91			363				
A-B	3	0.81			3				
A-C	270	67			270				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	173	43	635	0.272	172	0.3	0.4	8.154	A
C-AB	147	37	960	0.153	146	0.2	0.4	4.756	A
C-A	425	106			425				
A-B	4	0.99			4				
A-C	331	83			331				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	173	43	635	0.272	172	0.4	0.4	8.169	A
C-AB	147	37	960	0.153	147	0.4	0.4	4.768	A
C-A	424	106			424				
A-B	4	0.99			4				
A-C	331	83			331				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	141	35	654	0.215	141	0.4	0.3	7.382	A
C-AB	104	26	912	0.114	104	0.4	0.2	4.795	A
C-A	363	91			363				
A-B	3	0.81			3				
A-C	270	67			270				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118	29	667	0.177	118	0.3	0.2	6.889	A
C-AB	79	20	878	0.090	79	0.2	0.2	4.828	A
C-A	312	78			312				
A-B	3	0.68			3				
A-C	226	57			226				

Junction 3 - 2041, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.94	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	Relationship type	Relationship
D8	2041	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G3

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	431	100.000
B		ONE HOUR	✓	60	100.000
C		ONE HOUR	✓	464	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	5	426
	B	8	0	51
	C	409	55	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	7.07	0.1	A	55	82
C-AB	0.14	4.77	0.3	A	91	137
C-A					335	502
A-B					4	7
A-C					391	586

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	622	0.072	45	0.0	0.1	6.235	A
C-AB	66	16	837	0.078	65	0.0	0.1	4.748	A
C-A	284	71			284				
A-B	4	0.90			4				
A-C	321	80			321				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	13	602	0.089	54	0.1	0.1	6.560	A
C-AB	86	22	863	0.100	86	0.1	0.2	4.728	A
C-A	331	83			331				
A-B	4	1			4				
A-C	383	96			383				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	66	16	575	0.114	66	0.1	0.1	7.063	A
C-AB	122	30	901	0.135	121	0.2	0.3	4.725	A
C-A	389	97			389				
A-B	5	1			5				
A-C	469	117			469				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	66	16	575	0.114	66	0.1	0.1	7.066	A
C-AB	122	30	901	0.135	122	0.3	0.3	4.737	A
C-A	389	97			389				
A-B	5	1			5				
A-C	469	117			469				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	13	602	0.089	54	0.1	0.1	6.566	A
C-AB	87	22	863	0.100	87	0.3	0.2	4.752	A
C-A	331	83			331				
AB	4	1			4				
AC	383	96			383				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	622	0.072	45	0.1	0.1	6.243	A
C-AB	66	16	837	0.079	66	0.2	0.1	4.768	A
C-A	284	71			284				
AB	4	0.90			4				
AC	321	80			321				

Junction 3 - DO SOMETHING 2026, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.08	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	Relationship type	Relationship
D11	DO SOMETHING 2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G1) + D9+D17+D21+D23

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	285	100.000
B		ONE HOUR	✓	164	100.000
C		ONE HOUR	✓	521	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	5	280
	B	17	0	147
	C	449	71	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	10
	B	3	0	4
	C	9	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.29	8.39	0.4	A	150	225
C-AB	0.17	4.84	0.4	A	122	183
C-A					355	533
A-B					5	7
A-C					257	385

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	123	31	660	0.187	122	0.0	0.2	6.968	A
C-AB	88	22	878	0.100	87	0.0	0.2	4.814	A
C-A	304	76			304				
A-B	4	0.98			4				
A-C	210	53			210				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	147	37	646	0.228	147	0.2	0.3	7.507	A
C-AB	116	29	912	0.127	116	0.2	0.3	4.794	A
C-A	352	88			352				
A-B	5	1			5				
A-C	251	63			251				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	180	45	628	0.287	180	0.3	0.4	8.371	A
C-AB	163	41	959	0.170	163	0.3	0.4	4.807	A
C-A	410	103			410				
A-B	6	1			6				
A-C	308	77			308				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	180	45	628	0.287	180	0.4	0.4	8.388	A
C-AB	163	41	959	0.170	163	0.4	0.4	4.824	A
C-A	410	102			410				
A-B	6	1			6				
A-C	308	77			308				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	147	37	646	0.228	148	0.4	0.3	7.530	A
C-AB	116	29	912	0.127	117	0.4	0.3	4.823	A
C-A	352	88			352				
AB	5	1			5				
AC	251	63			251				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	123	31	660	0.187	123	0.3	0.2	7.001	A
C-AB	88	22	878	0.100	88	0.3	0.2	4.835	A
C-A	304	76			304				
AB	4	0.98			4				
AC	210	53			210				

Junction 3 - DO SOMETHING 2026, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	DO SOMETHING 2026	PM	ONE HOUR	16:00	17:30	15	✓	Simple	(D2*G1) +D10+D18+D22+D24

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	423	100.000
B		ONE HOUR	✓	84	100.000
C		ONE HOUR	✓	456	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	9	413
	B	15	0	69
	C	391	65	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.16	7.65	0.2	A	77	116
C-AB	0.16	4.91	0.3	A	105	158
C-A					313	470
A-B					9	13
A-C					379	569

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	16	611	0.104	63	0.0	0.1	6.564	A
C-AB	76	19	829	0.092	75	0.0	0.2	4.853	A
C-A	267	67			267				
A-B	7	2			7				
A-C	311	78			311				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	591	0.128	76	0.1	0.1	6.982	A
C-AB	100	25	854	0.117	99	0.2	0.2	4.858	A
C-A	310	77			310				
A-B	8	2			8				
A-C	372	93			372				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	93	23	563	0.165	93	0.1	0.2	7.646	A
C-AB	139	35	889	0.157	139	0.2	0.3	4.899	A
C-A	362	91			362				
A-B	10	3			10				
A-C	455	114			455				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	93	23	563	0.165	93	0.2	0.2	7.653	A
C-AB	139	35	890	0.157	139	0.3	0.3	4.911	A
C-A	362	91			362				
A-B	10	3			10				
A-C	455	114			455				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	591	0.128	76	0.2	0.1	6.990	A
C-AB	100	25	854	0.117	100	0.3	0.2	4.883	A
C-A	310	77			310				
AB	8	2			8				
AC	372	93			372				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	16	611	0.104	64	0.1	0.1	6.578	A
C-AB	76	19	829	0.092	76	0.2	0.2	4.874	A
C-A	267	67			267				
AB	7	2			7				
AC	311	78			311				

Junction 3 - DO SOMETHING 2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.28	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	Relationship type	Relationship
D13	DO SOMETHING 2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G2)+D9+D17 +D19+D21+D23

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	318	100.000
B		ONE HOUR	✓	179	100.000
C		ONE HOUR	✓	613	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	5	313
	B	17	0	161
	C	522	91	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	9
	B	3	0	4
	C	8	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.32	8.96	0.5	A	164	246
C-AB	0.23	4.97	0.6	A	172	259
C-A					390	585
A-B					5	7
A-C					287	431

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	135	34	652	0.206	133	0.0	0.3	7.212	A
C-AB	120	30	908	0.133	119	0.0	0.3	4.808	A
C-A	341	85			341				
A-B	4	1			4				
A-C	236	59			236				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	161	40	637	0.252	160	0.3	0.3	7.861	A
C-AB	162	41	948	0.171	162	0.3	0.4	4.835	A
C-A	389	97			389				
A-B	5	1			5				
A-C	281	70			281				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	197	49	615	0.320	196	0.3	0.5	8.939	A
C-AB	234	59	1005	0.233	234	0.4	0.6	4.947	A
C-A	441	110			441				
A-B	6	1			6				
A-C	345	86			345				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	197	49	615	0.320	197	0.5	0.5	8.962	A
C-AB	235	59	1006	0.233	235	0.6	0.6	4.967	A
C-A	440	110			440				
A-B	6	1			6				
A-C	345	86			345				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	161	40	637	0.252	161	0.5	0.4	7.891	A
C-AB	162	41	949	0.171	163	0.6	0.4	4.870	A
C-A	389	97			389				
A-B	5	1			5				
A-C	281	70			281				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	135	34	652	0.206	135	0.4	0.3	7.254	A
C-AB	121	30	908	0.133	121	0.4	0.3	4.839	A
C-A	341	85			341				
A-B	4	1			4				
A-C	236	59			236				

Junction 3 - DO SOMETHING 2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.40	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	Relationship type	Relationship
D14	DO SOMETHING 2031	PM	ONE HOUR	16:00	17:30	15	✓	Simple	(D2*G2) +D10+D18+D20+D23+D24

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	483	100.000
B		ONE HOUR	✓	101	100.000
C		ONE HOUR	✓	511	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	10	474
	B	16	0	85
	C	437	75	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.20	8.20	0.3	A	93	139
C-AB	0.19	5.01	0.4	A	130	195
C-A					339	509
AB					9	13
AC					435	652

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	604	0.126	76	0.0	0.1	6.802	A
C-AB	92	23	842	0.109	91	0.0	0.2	4.874	A
C-A	293	73			293				
AB	7	2			7				
AC	357	89			357				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	23	582	0.156	91	0.1	0.2	7.328	A
C-AB	123	31	870	0.141	122	0.2	0.3	4.905	A
C-A	337	84			337				
AB	9	2			9				
AC	426	107			426				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	28	550	0.202	111	0.2	0.3	8.192	A
C-AB	175	44	911	0.192	174	0.3	0.4	4.994	A
C-A	388	97			388				
AB	11	3			11				
AC	522	130			522				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	28	550	0.202	111	0.3	0.3	8.202	A
C-AB	175	44	912	0.192	175	0.4	0.4	5.009	A
C-A	388	97			388				
AB	11	3			11				
AC	522	130			522				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	23	582	0.156	91	0.3	0.2	7.343	A
C-AB	123	31	871	0.141	124	0.4	0.3	4.933	A
C-A	337	84			337				
A-B	9	2			9				
A-C	426	107			426				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	604	0.126	76	0.2	0.1	6.821	A
C-AB	93	23	843	0.110	93	0.3	0.2	4.898	A
C-A	293	73			293				
A-B	7	2			7				
A-C	357	89			357				

Junction 3 - DO SOMETHING 2041, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.35	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	Relationship type	Relationship
D15	DO SOMETHING 2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G3) + D9+D17 + D19+D21+D23

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	332	100.000
B		ONE HOUR	✓	186	100.000
C		ONE HOUR	✓	636	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	6	326
	B	18	0	168
	C	543	93	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	9
	B	3	0	4
	C	8	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.33	9.23	0.5	A	170	256
C-AB	0.25	5.00	0.6	A	183	275
C-A					400	600
A-B					5	8
A-C					299	449

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	140	35	649	0.215	139	0.0	0.3	7.326	A
C-AB	127	32	916	0.139	126	0.0	0.3	4.806	A
C-A	352	88			352				
A-B	4	1			4				
A-C	246	61			246				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	42	633	0.264	167	0.3	0.4	8.028	A
C-AB	172	43	958	0.179	171	0.3	0.4	4.843	A
C-A	400	100			400				
A-B	5	1			5				
A-C	293	73			293				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	51	611	0.335	204	0.4	0.5	9.205	A
C-AB	251	63	1017	0.246	250	0.4	0.6	4.979	A
C-A	450	112			450				
A-B	6	2			6				
A-C	359	90			359				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	51	611	0.335	204	0.5	0.5	9.233	A
C-AB	251	63	1018	0.247	251	0.6	0.6	5.001	A
C-A	449	112			449				
A-B	6	2			6				
A-C	359	90			359				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	42	633	0.264	167	0.5	0.4	8.060	A
C-AB	172	43	958	0.180	173	0.6	0.4	4.878	A
C-A	399	100			399				
A-B	5	1			5				
A-C	293	73			293				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	140	35	649	0.215	140	0.4	0.3	7.369	A
C-AB	128	32	916	0.139	128	0.4	0.3	4.837	A
C-A	351	88			351				
A-B	4	1			4				
A-C	246	61			246				

Junction 3 - DO SOMETHING 2041, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.46	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	Relationship type	Relationship
D16	DO SOMETHING 2041	PM	ONE HOUR	16:00	17:30	15	✓	Simple	(D2*G3) +D10+D18+D19+D22+D24

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	484	100.000
B		ONE HOUR	✓	96	100.000
C		ONE HOUR	✓	565	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	10	474
	B	16	0	79
	C	479	86	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.19	8.26	0.2	A	88	132
C-AB	0.23	5.08	0.6	A	159	239
C-A					359	539
A-B					9	13
A-C					435	652

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	18	598	0.121	72	0.0	0.1	6.834	A
C-AB	111	28	863	0.129	110	0.0	0.2	4.861	A
C-A	314	79			314				
A-B	7	2			7				
A-C	357	89			357				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	22	574	0.150	86	0.1	0.2	7.369	A
C-AB	150	37	896	0.167	149	0.2	0.4	4.919	A
C-A	358	90			358				
A-B	9	2			9				
A-C	426	106			426				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	541	0.195	105	0.2	0.2	8.253	A
C-AB	216	54	943	0.229	215	0.4	0.6	5.065	A
C-A	406	102			406				
A-B	11	3			11				
A-C	522	130			522				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	541	0.195	105	0.2	0.2	8.264	A
C-AB	216	54	943	0.229	216	0.6	0.6	5.082	A
C-A	406	101			406				
A-B	11	3			11				
A-C	522	130			522				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	22	574	0.150	86	0.2	0.2	7.384	A
C-AB	150	37	896	0.167	151	0.6	0.4	4.951	A
C-A	358	89			358				
A-B	9	2			9				
A-C	426	106			426				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	18	598	0.121	72	0.2	0.1	6.853	A
C-AB	112	28	863	0.130	112	0.4	0.3	4.894	A
C-A	314	78			314				
A-B	7	2			7				
A-C	357	89			357				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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Filename: Junction 3 - AM-PM.j9

Path: M:\Projects\19\19-020 - Malahide Road\Design\Traffic\Junction Analysis - Streamstown\Junction 3

Report generation date: 30/09/2022 09:14:48

- »JUNCTION 2 - 2022, AM
- »JUNCTION 2 - 2022, PM
- »JUNCTION 2 - 2026, AM
- »JUNCTION 2 - 2026, PM
- »JUNCTION 2 - 2031, AM
- »JUNCTION 2 - 2031, PM
- »JUNCTION 2 - 2041, AM
- »JUNCTION 2 - 2041, PM
- »JUNCTION 2 - DO SOMETHING 2026, AM
- »JUNCTION 2 - DO SOMETHING 2026, PM
- »JUNCTION 2 - DO SOMETHING 2031, AM
- »JUNCTION 2 - DO SOMETHING 2031, PM
- »JUNCTION 2 - DO SOMETHING 2041, AM
- »JUNCTION 2 - DO SOMETHING 2041, PM

Summary of junction performance

	AM		PM	
	Queue (Veh)	RFC	Queue (Veh)	RFC
JUNCTION 2 - 2022				
Stream B-AC	0.1	0.08	0.1	0.06
Stream C-AB	0.0	0.02	0.0	0.03
JUNCTION 2 - 2026				
Stream B-AC	0.1	0.08	0.1	0.06
Stream C-AB	0.0	0.02	0.0	0.03
JUNCTION 2 - 2031				
Stream B-AC	0.1	0.09	0.1	0.09
Stream C-AB	0.0	0.03	0.0	0.03
JUNCTION 2 - 2041				
Stream B-AC	0.1	0.10	0.1	0.07
Stream C-AB	0.0	0.03	0.0	0.04
JUNCTION 2 - DO SOMETHING 2026				
Stream B-AC	0.2	0.14	0.1	0.13
Stream C-AB	0.0	0.03	0.1	0.06
JUNCTION 2 - DO SOMETHING 2031				
Stream B-AC	0.2	0.15	0.2	0.13
Stream C-AB	0.0	0.04	0.1	0.06
JUNCTION 2 - DO SOMETHING 2041				
Stream B-AC	0.2	0.15	0.2	0.14
Stream C-AB	0.0	0.04	0.1	0.07

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

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

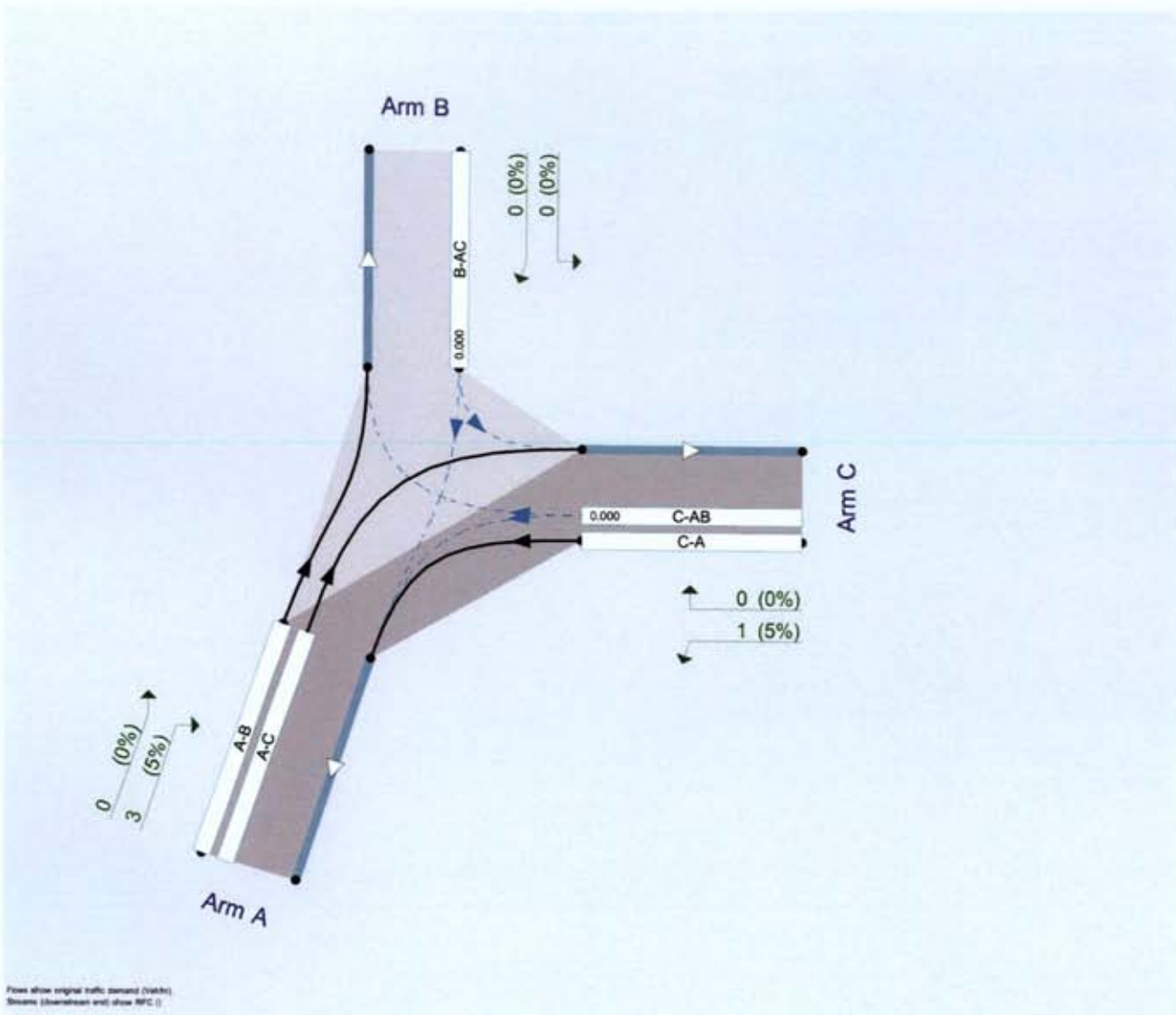
File summary

File Description

Title	
Location	
Site number	
Date	27/02/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN.f.silva
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	Veh	Veh	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

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	Relationship type	Relationship
D1	2022	AM	ONE HOUR	08:00	09:30	15	✓		
D2	2022	PM	ONE HOUR	18:00	19:30	15	✓		
D3	2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G1
D4	2026	PM	ONE HOUR	18:00	19:30	15	✓	Simple	D2*G1
D5	2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G2
D6	2031	PM	ONE HOUR	18:00	19:30	15	✓	Simple	D1*G2
D7	2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G3
D8	2041	PM	ONE HOUR	18:00	19:30	15	✓	Simple	D2*G3
D9	Proposed Dev. - Trips Generated	AM	ONE HOUR	08:00	09:30	15			
D10	Proposed Dev. - Trips Generated	PM	ONE HOUR	18:00	19:30	15			
D11	Broomfield Ph1	AM	ONE HOUR	08:00	09:30	15			
D12	Broomfield Ph1	PM	ONE HOUR	18:00	19:30	15			
D13	Broomfield Ph2	AM	ONE HOUR	08:00	09:30	15			
D14	Broomfield Ph2	PM	ONE HOUR	18:00	19:30	15			
D15	DO SOMETHING 2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G1) + D9+D11
D16	DO SOMETHING 2026	PM	ONE HOUR	18:00	19:30	15	✓	Simple	(D2*G1) +D10+D12
D17	DO SOMETHING 2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G2) + D9+D11+D13
D18	DO SOMETHING 2031	PM	ONE HOUR	18:00	19:30	15	✓	Simple	(D2*G2) +D10+D12+D14
D19	DO SOMETHING 2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G3) + D9+D11+D13
D20	DO SOMETHING 2041	PM	ONE HOUR	18:00	19:30	15	✓	Simple	(D2*G3) +D10+D12+D14
D21	Backfield	AM	ONE HOUR	08:00	09:30	15			
D22	Backfield	PM	ONE HOUR	18:00	19:30	15			
D23	The Avenue	AM	ONE HOUR	08:00	09:30	15			
D24	The Avenue	PM	ONE HOUR	18:00	19:30	15			

Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	2026		1.0840
G2	2031		1.1620
G3	2041		1.2150

Growth factors are only active if the Demand Set references them in a Relationship.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	JUNCTION 2	✓	100.000	100.000

JUNCTION 2 - 2022, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Streamstown Lane (S)		Major
B	Carrey's Lane (N)		Minor
C	Streamstown Lane (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.50			20.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.50	90	55

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	508	0.094	0.239	0.150	0.341
B-C	626	0.098	0.248	-	-
C-B	586	0.232	0.232	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022	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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	105	100.000
B		ONE HOUR	✓	39	100.000
C		ONE HOUR	✓	56	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	5	100
	B	11	0	28
	C	45	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.08	7.05	0.1	A	36	54
C-AB	0.02	6.23	0.0	A	11	16
C-A					41	61
A-B					5	7
A-C					92	138

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	29	7	564	0.052	29	0.0	0.1	6.726	A
C-AB	9	2	589	0.015	9	0.0	0.0	6.203	A
C-A	33	8			33				
A-B	4	0.94			4				
A-C	75	19			75				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	560	0.063	35	0.1	0.1	6.862	A
C-AB	11	3	590	0.018	11	0.0	0.0	6.213	A
C-A	40	10			40				
A-B	4	1			4				
A-C	90	22			90				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	43	11	553	0.078	43	0.1	0.1	7.052	A
C-AB	13	3	591	0.022	13	0.0	0.0	6.229	A
C-A	48	12			48				
A-B	6	1			6				
A-C	110	28			110				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	43	11	553	0.078	43	0.1	0.1	7.052	A
C-AB	13	3	591	0.022	13	0.0	0.0	6.231	A
C-A	48	12			48				
A-B	6	1			6				
A-C	110	28			110				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	560	0.063	35	0.1	0.1	6.864	A
C-AB	11	3	590	0.018	11	0.0	0.0	6.221	A
C-A	40	10			40				
A-B	4	1			4				
A-C	90	22			90				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	29	7	564	0.052	29	0.1	0.1	6.735	A
C-AB	9	2	589	0.015	9	0.0	0.0	6.208	A
C-A	33	8			33				
A-B	4	0.94			4				
A-C	75	19			75				

JUNCTION 2 - 2022, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.14	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	PM	ONE HOUR	18:00	19:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	56	100.000
B		ONE HOUR	✓	29	100.000
C		ONE HOUR	✓	53	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	17	39
	B	10	0	19
	C	37	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.06	6.81	0.1	A	27	40
C-AB	0.03	6.22	0.0	A	16	23
C-A					33	50
A-B					16	23
A-C					36	54

Main Results for each time segment

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	5	566	0.039	22	0.0	0.0	6.606	A
C-AB	13	3	594	0.021	13	0.0	0.0	6.192	A
C-A	27	7			27				
A-B	13	3			13				
A-C	29	7			29				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	7	564	0.046	26	0.0	0.0	6.692	A
C-AB	15	4	596	0.026	15	0.0	0.0	6.201	A
C-A	32	8			32				
A-B	15	4			15				
A-C	35	9			35				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	561	0.057	32	0.0	0.1	6.809	A
C-AB	19	5	598	0.032	19	0.0	0.0	6.215	A
C-A	39	10			39				
A-B	19	5			19				
A-C	43	11			43				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	561	0.057	32	0.1	0.1	6.809	A
C-AB	19	5	598	0.032	19	0.0	0.0	6.219	A
C-A	39	10			39				
A-B	19	5			19				
A-C	43	11			43				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	7	564	0.046	26	0.1	0.0	6.696	A
C-AB	15	4	596	0.026	15	0.0	0.0	6.205	A
C-A	32	8			32				
AB	15	4			15				
AC	35	9			35				

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	5	566	0.039	22	0.0	0.0	6.610	A
C-AB	13	3	594	0.021	13	0.0	0.0	6.194	A
C-A	27	7			27				
AB	13	3			13				
AC	29	7			29				

JUNCTION 2 - 2026, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.70	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	Relationship type	Relationship
D3	2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G1

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	114	100.000
B		ONE HOUR	✓	42	100.000
C		ONE HOUR	✓	61	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	5	108
	B	12	0	30
	C	49	12	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.08	7.14	0.1	A	39	58
C-AB	0.02	6.24	0.0	A	12	18
C-A					44	66
A-B					5	7
A-C					99	149

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	562	0.057	32	0.0	0.1	6.782	A
C-AB	10	2	589	0.016	9	0.0	0.0	6.208	A
C-A	36	9			36				
A-B	4	1			4				
A-C	82	20			82				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	38	10	557	0.068	38	0.1	0.1	6.932	A
C-AB	12	3	590	0.020	12	0.0	0.0	6.219	A
C-A	43	11			43				
A-B	5	1			5				
A-C	97	24			97				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	12	551	0.085	46	0.1	0.1	7.142	A
C-AB	14	4	591	0.024	14	0.0	0.0	6.236	A
C-A	52	13			52				
A-B	6	1			6				
A-C	119	30			119				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	12	551	0.085	47	0.1	0.1	7.142	A
C-AB	14	4	591	0.024	14	0.0	0.0	6.239	A
C-A	52	13			52				
A-B	6	1			6				
A-C	119	30			119				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	38	10	557	0.068	38	0.1	0.1	6.934	A
C-AB	12	3	590	0.020	12	0.0	0.0	6.224	A
C-A	43	11			43				
AB	5	1			5				
AC	97	24			97				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	562	0.057	32	0.1	0.1	6.789	A
C-AB	10	2	589	0.016	10	0.0	0.0	6.211	A
C-A	36	9			36				
AB	4	1			4				
AC	82	20			82				

JUNCTION 2 - 2026, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.16	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	Relationship type	Relationship
D4	2026	PM	ONE HOUR	18:00	19:30	15	✓	Simple	D2*G1

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	61	100.000
B		ONE HOUR	✓	31	100.000
C		ONE HOUR	✓	57	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	18	42
	B	11	0	21
	C	40	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.06	6.86	0.1	A	29	43
C-AB	0.03	6.22	0.0	A	17	25
C-A					36	54
A-B					17	25
A-C					39	58

Main Results for each time segment

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	24	6	565	0.042	23	0.0	0.0	6.642	A
C-AB	14	3	595	0.023	14	0.0	0.0	6.196	A
C-A	29	7			29				
A-B	14	3			14				
A-C	32	8			32				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	28	7	563	0.050	28	0.0	0.1	6.735	A
C-AB	17	4	596	0.028	17	0.0	0.0	6.206	A
C-A	35	9			35				
A-B	17	4			17				
A-C	38	10			38				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	559	0.062	35	0.1	0.1	6.865	A
C-AB	21	5	599	0.034	21	0.0	0.0	6.221	A
C-A	43	11			43				
A-B	20	5			20				
A-C	47	12			47				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	559	0.062	35	0.1	0.1	6.865	A
C-AB	21	5	599	0.034	21	0.0	0.0	6.224	A
C-A	43	11			43				
A-B	20	5			20				
A-C	47	12			47				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	28	7	563	0.050	28	0.1	0.1	6.739	A
C-AB	17	4	596	0.028	17	0.0	0.0	6.213	A
C-A	35	9			35				
A-B	17	4			17				
A-C	38	10			38				

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	24	6	565	0.042	24	0.1	0.0	6.646	A
C-AB	14	3	595	0.023	14	0.0	0.0	6.201	A
C-A	29	7			29				
A-B	14	3			14				
A-C	32	8			32				

JUNCTION 2 - 2031, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.72	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	Relationship type	Relationship
D5	2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G2

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	122	100.000
B		ONE HOUR	✓	45	100.000
C		ONE HOUR	✓	65	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	6	116
	B	13	0	33
	C	52	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.09	7.23	0.1	A	42	62
C-AB	0.03	6.25	0.0	A	13	19
C-A					47	70
A-B					5	8
A-C					107	160

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	34	9	560	0.061	34	0.0	0.1	6.835	A
C-AB	10	3	590	0.017	10	0.0	0.0	6.213	A
C-A	39	10			39				
A-B	4	1			4				
A-C	87	22			87				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	555	0.073	41	0.1	0.1	6.998	A
C-AB	12	3	591	0.021	12	0.0	0.0	6.224	A
C-A	46	12			46				
A-B	5	1			5				
A-C	104	26			104				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	548	0.091	50	0.1	0.1	7.228	A
C-AB	16	4	592	0.026	16	0.0	0.0	6.243	A
C-A	56	14			56				
A-B	6	2			6				
A-C	128	32			128				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	548	0.091	50	0.1	0.1	7.228	A
C-AB	16	4	592	0.026	16	0.0	0.0	6.248	A
C-A	56	14			56				
A-B	6	2			6				
A-C	128	32			128				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	555	0.073	41	0.1	0.1	7.000	A
C-AB	12	3	591	0.021	13	0.0	0.0	6.230	A
C-A	46	12			46				
AB	5	1			5				
AC	104	26			104				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	34	9	560	0.061	34	0.1	0.1	6.842	A
C-AB	10	3	590	0.018	10	0.0	0.0	6.216	A
C-A	39	10			39				
AB	4	1			4				
AC	87	22			87				

JUNCTION 2 - 2031, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.72	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	Relationship type	Relationship
D6	2031	PM	ONE HOUR	18:00	19:30	15	✓	Simple	D1*G2

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	122	100.000
B		ONE HOUR	✓	45	100.000
C		ONE HOUR	✓	65	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	6	116
	B	13	0	33
	C	52	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.09	7.23	0.1	A	42	62
C-AB	0.03	6.25	0.0	A	13	19
C-A					47	70
AB					5	8
AC					107	160

Main Results for each time segment

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	34	9	560	0.061	34	0.0	0.1	6.835	A
C-AB	10	3	590	0.017	10	0.0	0.0	6.213	A
C-A	39	10			39				
AB	4	1			4				
AC	87	22			87				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	555	0.073	41	0.1	0.1	6.998	A
C-AB	12	3	591	0.021	12	0.0	0.0	6.224	A
C-A	46	12			46				
AB	5	1			5				
AC	104	26			104				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	548	0.091	50	0.1	0.1	7.228	A
C-AB	16	4	592	0.026	16	0.0	0.0	6.243	A
C-A	56	14			56				
AB	6	2			6				
AC	128	32			128				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	548	0.091	50	0.1	0.1	7.228	A
C-AB	16	4	592	0.026	16	0.0	0.0	6.248	A
C-A	56	14			56				
AB	6	2			6				
AC	128	32			128				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	555	0.073	41	0.1	0.1	7.000	A
C-AB	12	3	591	0.021	13	0.0	0.0	6.230	A
C-A	46	12			46				
A-B	5	1			5				
A-C	104	26			104				

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	34	9	560	0.061	34	0.1	0.1	6.842	A
C-AB	10	3	590	0.018	10	0.0	0.0	6.216	A
C-A	39	10			39				
A-B	4	1			4				
A-C	87	22			87				

JUNCTION 2 - 2041, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.74	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	Relationship type	Relationship
D7	2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G3

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	128	100.000
B		ONE HOUR	✓	47	100.000
C		ONE HOUR	✓	68	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	6	122
	B	13	0	34
	C	55	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.10	7.29	0.1	A	43	65
C-AB	0.03	6.25	0.0	A	13	20
C-A					49	73
A-B					6	8
A-C					111	167

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	559	0.064	35	0.0	0.1	6.871	A
C-AB	11	3	590	0.018	11	0.0	0.0	6.216	A
C-A	40	10			40				
A-B	5	1			5				
A-C	91	23			91				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	43	11	554	0.077	43	0.1	0.1	7.043	A
C-AB	13	3	591	0.022	13	0.0	0.0	6.228	A
C-A	48	12			48				
A-B	5	1			5				
A-C	109	27			109				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	13	546	0.096	52	0.1	0.1	7.287	A
C-AB	16	4	592	0.028	16	0.0	0.0	6.248	A
C-A	59	15			59				
A-B	7	2			7				
A-C	134	33			134				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	13	546	0.096	52	0.1	0.1	7.288	A
C-AB	16	4	592	0.028	16	0.0	0.0	6.251	A
C-A	59	15			59				
A-B	7	2			7				
A-C	134	33			134				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	43	11	554	0.077	43	0.1	0.1	7.046	A
C-AB	13	3	591	0.022	13	0.0	0.0	6.234	A
C-A	48	12			48				
AB	5	1			5				
AC	109	27			109				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	559	0.064	36	0.1	0.1	6.881	A
C-AB	11	3	590	0.018	11	0.0	0.0	6.221	A
C-A	40	10			40				
AB	5	1			5				
AC	91	23			91				

JUNCTION 2 - 2041, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.18	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	Relationship type	Relationship
D8	2041	PM	ONE HOUR	18:00	19:30	15	✓	Simple	D2*G3

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	68	100.000
B		ONE HOUR	✓	35	100.000
C		ONE HOUR	✓	64	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	21	47
	B	12	0	23
	C	45	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.07	6.95	0.1	A	32	48
C-AB	0.04	6.24	0.0	A	19	29
C-A					40	60
A-B					19	28
A-C					43	65

Main Results for each time segment

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	564	0.047	26	0.0	0.0	6.698	A
C-AB	16	4	596	0.026	15	0.0	0.0	6.203	A
C-A	33	8			33				
A-B	16	4			16				
A-C	36	9			36				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	561	0.057	32	0.0	0.1	6.804	A
C-AB	19	5	598	0.031	19	0.0	0.0	6.214	A
C-A	39	10			39				
A-B	19	5			19				
A-C	43	11			43				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	556	0.070	39	0.1	0.1	6.953	A
C-AB	23	6	601	0.039	23	0.0	0.0	6.232	A
C-A	48	12			48				
A-B	23	6			23				
A-C	52	13			52				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	556	0.070	39	0.1	0.1	6.953	A
C-AB	23	6	601	0.039	23	0.0	0.0	6.237	A
C-A	48	12			48				
A-B	23	6			23				
A-C	52	13			52				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	561	0.057	32	0.1	0.1	6.806	A
C-AB	19	5	598	0.031	19	0.0	0.0	6.220	A
C-A	39	10			39				
A-B	19	5			19				
A-C	43	11			43				

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	564	0.047	27	0.1	0.0	6.705	A
C-AB	16	4	596	0.026	16	0.0	0.0	6.206	A
C-A	33	8			33				
A-B	16	4			16				
A-C	36	9			36				

JUNCTION 2 - DO SOMETHING 2026, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.44	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	Relationship type	Relationship
D15	DO SOMETHING 2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G1) + D9+D11

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	118	100.000
B		ONE HOUR	✓	70	100.000
C		ONE HOUR	✓	69	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	7	110
	B	20	0	50
	C	53	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.14	7.64	0.2	A	64	97
C-AB	0.03	6.27	0.0	A	16	24
C-A					47	71
AB					7	10
AC					101	152

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	53	13	561	0.094	52	0.0	0.1	7.076	A
C-AB	13	3	591	0.022	13	0.0	0.0	6.229	A
C-A	39	10			39				
AB	6	1			6				
AC	83	21			83				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	556	0.114	63	0.1	0.1	7.305	A
C-AB	16	4	592	0.026	16	0.0	0.0	6.245	A
C-A	46	12			46				
AB	7	2			7				
AC	99	25			99				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	77	19	549	0.141	77	0.1	0.2	7.635	A
C-AB	19	5	593	0.033	19	0.0	0.0	6.269	A
C-A	56	14			56				
AB	8	2			8				
AC	122	30			122				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	77	19	549	0.141	77	0.2	0.2	7.638	A
C-AB	19	5	593	0.033	19	0.0	0.0	6.272	A
C-A	56	14			56				
AB	8	2			8				
AC	122	30			122				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	556	0.114	63	0.2	0.1	7.315	A
C-AB	16	4	592	0.026	16	0.0	0.0	6.253	A
C-A	46	12			46				
AB	7	2			7				
AC	99	25			99				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	53	13	561	0.094	53	0.1	0.1	7.093	A
C-AB	13	3	591	0.022	13	0.0	0.0	6.235	A
C-A	39	10			39				
AB	6	1			6				
AC	83	21			83				

JUNCTION 2 - DO SOMETHING 2026, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.23	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	Relationship type	Relationship
D16	DO SOMETHING 2026	PM	ONE HOUR	18:00	19:30	15	✓	Simple	(D2'G1) +D10+D12

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	71	100.000
B		ONE HOUR	✓	64	100.000
C		ONE HOUR	✓	72	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	24	46
	B	21	0	44
	C	42	30	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.13	7.39	0.1	A	59	89
C-AB	0.06	6.41	0.1	A	30	45
C-A					37	55
A-B					22	34
A-C					42	64

Main Results for each time segment

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	49	12	565	0.086	48	0.0	0.1	6.954	A
C-AB	24	6	594	0.041	24	0.0	0.0	6.315	A
C-A	30	8			30				
A-B	18	5			18				
A-C	35	9			35				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	14	562	0.103	58	0.1	0.1	7.137	A
C-AB	29	7	596	0.049	29	0.0	0.1	6.353	A
C-A	36	9			36				
A-B	22	5			22				
A-C	42	10			42				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	71	18	558	0.127	71	0.1	0.1	7.390	A
C-AB	36	9	598	0.061	36	0.1	0.1	6.406	A
C-A	44	11			44				
A-B	27	7			27				
A-C	51	13			51				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	71	18	558	0.127	71	0.1	0.1	7.393	A
C-AB	36	9	598	0.061	36	0.1	0.1	6.411	A
C-A	44	11			44				
A-B	27	7			27				
A-C	51	13			51				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	14	562	0.103	58	0.1	0.1	7.143	A
C-AB	29	7	596	0.049	29	0.1	0.1	6.359	A
C-A	36	9			36				
A-B	22	5			22				
A-C	42	10			42				

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	49	12	565	0.086	49	0.1	0.1	6.965	A
C-AB	24	6	594	0.041	24	0.1	0.0	6.323	A
C-A	30	8			30				
A-B	18	5			18				
A-C	35	9			35				

JUNCTION 2 - DO SOMETHING 2031, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.28	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	Relationship type	Relationship
D17	DO SOMETHING 2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1*G2) + D9+D11+D13

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	131	100.000
B		ONE HOUR	✓	73	100.000
C		ONE HOUR	✓	88	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	8	123
	B	21	0	53
	C	71	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.15	7.78	0.2	A	67	101
C-AB	0.04	6.18	0.0	A	17	26
C-A					63	95
A-B					7	11
A-C					113	170

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	14	557	0.099	55	0.0	0.1	7.157	A
C-AB	14	3	598	0.023	14	0.0	0.0	6.165	A
C-A	52	13			52				
A-B	6	1			6				
A-C	93	23			93				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	16	552	0.120	66	0.1	0.1	7.409	A
C-AB	17	4	600	0.028	17	0.0	0.0	6.168	A
C-A	62	16			62				
A-B	7	2			7				
A-C	111	28			111				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	81	20	544	0.149	81	0.1	0.2	7.774	A
C-AB	21	5	604	0.035	21	0.0	0.0	6.175	A
C-A	76	19			76				
A-B	9	2			9				
A-C	136	34			136				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	81	20	544	0.149	81	0.2	0.2	7.778	A
C-AB	21	5	604	0.035	21	0.0	0.0	6.179	A
C-A	76	19			76				
A-B	9	2			9				
A-C	136	34			136				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	16	552	0.120	66	0.2	0.1	7.417	A
C-AB	17	4	600	0.028	17	0.0	0.0	6.176	A
C-A	62	16			62				
AB	7	2			7				
AC	111	28			111				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	14	557	0.099	55	0.1	0.1	7.171	A
C-AB	14	3	598	0.023	14	0.0	0.0	6.172	A
C-A	52	13			52				
AB	6	1			6				
AC	93	23			93				

JUNCTION 2 - DO SOMETHING 2031, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.97	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	Relationship type	Relationship
D18	DO SOMETHING 2031	PM	ONE HOUR	18:00	19:30	15	✓	Simple	(D2*G2) +D10+D12+D14

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	88	100.000
B		ONE HOUR	✓	67	100.000
C		ONE HOUR	✓	83	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	26	62
	B	22	0	45
	C	51	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.13	7.52	0.2	A	61	92
C-AB	0.06	6.41	0.1	A	32	47
C-A					44	66
A-B					24	35
A-C					57	86

Main Results for each time segment

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	13	562	0.089	50	0.0	0.1	7.031	A
C-AB	25	6	595	0.043	25	0.0	0.0	6.314	A
C-A	37	9			37				
A-B	19	5			19				
A-C	47	12			47				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	60	15	558	0.108	60	0.1	0.1	7.234	A
C-AB	31	8	597	0.052	31	0.0	0.1	6.352	A
C-A	43	11			43				
A-B	23	6			23				
A-C	56	14			56				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	18	552	0.133	73	0.1	0.2	7.517	A
C-AB	38	10	600	0.064	38	0.1	0.1	6.406	A
C-A	53	13			53				
A-B	28	7			28				
A-C	69	17			69				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	18	552	0.133	73	0.2	0.2	7.520	A
C-AB	38	10	600	0.064	38	0.1	0.1	6.412	A
C-A	53	13			53				
A-B	28	7			28				
A-C	69	17			69				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	60	15	558	0.108	60	0.2	0.1	7.237	A
C-AB	31	8	597	0.052	31	0.1	0.1	6.359	A
C-A	43	11			43				
A-B	23	6			23				
A-C	56	14			56				

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	13	561	0.089	50	0.1	0.1	7.045	A
C-AB	25	6	595	0.043	25	0.1	0.1	6.320	A
C-A	37	9			37				
A-B	19	5			19				
A-C	47	12			47				

JUNCTION 2 - DO SOMETHING 2041, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.28	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	Relationship type	Relationship
D19	DO SOMETHING 2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	(D1'G3) + D9+D11+D13

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	137	100.000
B		ONE HOUR	✓	75	100.000
C		ONE HOUR	✓	91	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	8	129
	B	21	0	54
	C	74	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.15	7.85	0.2	A	69	104
C-AB	0.04	6.18	0.0	A	18	27
C-A					66	98
AB					7	11
AC					118	177

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	57	14	556	0.102	56	0.0	0.1	7.197	A
C-AB	14	4	598	0.024	14	0.0	0.0	6.168	A
C-A	54	14			54				
AB	6	2			6				
AC	97	24			97				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	17	550	0.123	68	0.1	0.1	7.460	A
C-AB	18	4	600	0.029	18	0.0	0.0	6.172	A
C-A	64	16			64				
AB	7	2			7				
AC	116	29			116				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	542	0.153	83	0.1	0.2	7.843	A
C-AB	22	6	604	0.037	22	0.0	0.0	6.180	A
C-A	78	20			78				
AB	9	2			9				
AC	141	35			141				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	542	0.153	83	0.2	0.2	7.847	A
C-AB	22	6	604	0.037	22	0.0	0.0	6.184	A
C-A	78	20			78				
AB	9	2			9				
AC	141	35			141				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	17	550	0.123	68	0.2	0.1	7.471	A
C-AB	18	4	600	0.029	18	0.0	0.0	6.183	A
C-A	64	16			64				
AB	7	2			7				
AC	116	29			116				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	57	14	556	0.102	57	0.1	0.1	7.212	A
C-AB	14	4	596	0.024	14	0.0	0.0	6.175	A
C-A	54	14			54				
AB	6	2			6				
AC	97	24			97				

JUNCTION 2 - DO SOMETHING 2041, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.97	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	Relationship type	Relationship
D20	DO SOMETHING 2041	PM	ONE HOUR	18:00	19:30	15	✓	Simple	(D2*G3) +D10+D12+D14

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	91	100.000
B		ONE HOUR	✓	68	100.000
C		ONE HOUR	✓	85	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	27	64
	B	22	0	46
	C	53	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.14	7.56	0.2	A	63	94
C-AB	0.07	6.42	0.1	A	32	49
C-A					46	69
A-B					24	37
A-C					59	89

Main Results for each time segment

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	51	13	561	0.092	51	0.0	0.1	7.061	A
C-AB	26	7	596	0.044	26	0.0	0.1	6.317	A
C-A	38	10			38				
A-B	20	5			20				
A-C	48	12			48				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	61	15	557	0.110	61	0.1	0.1	7.266	A
C-AB	32	8	598	0.053	32	0.1	0.1	6.356	A
C-A	45	11			45				
A-B	24	6			24				
A-C	58	14			58				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	75	19	551	0.136	75	0.1	0.2	7.561	A
C-AB	40	10	601	0.066	40	0.1	0.1	6.412	A
C-A	54	14			54				
A-B	29	7			29				
A-C	71	18			71				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	75	19	551	0.136	75	0.2	0.2	7.564	A
C-AB	40	10	601	0.066	40	0.1	0.1	6.418	A
C-A	54	14			54				
A-B	29	7			29				
A-C	71	18			71				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	61	15	557	0.110	61	0.2	0.1	7.271	A
C-AB	32	8	598	0.053	32	0.1	0.1	6.366	A
C-A	45	11			45				
AB	24	6			24				
AC	58	14			58				

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	51	13	561	0.092	51	0.1	0.1	7.071	A
C-AB	26	7	596	0.044	26	0.1	0.1	6.324	A
C-A	38	10			38				
AB	20	5			20				
AC	48	12			48				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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Filename: Junction 4.j9

Path: M:\Projects\19\19-020 - Malahide Road\Design\Traffic\Auburn Masterplan - 2022\Junction Analysis\Junction 4

Report generation date: 06/10/2022 10:58:28

- »Junction 4 - 2022, AM
- »Junction 4 - 2022, PM
- »Junction 4 - 2026, AM
- »Junction 4 - 2026, PM
- »Junction 4 - 2031, AM
- »Junction 4 - 2031, PM
- »Junction 4 - 2041, AM
- »Junction 4 - 2041, PM
- »Junction 4 - DO SOMETHING 2026, AM
- »Junction 4 - DO SOMETHING 2026, PM
- »Junction 4 - DO SOMETHING 2031, AM
- »Junction 4 - DO SOMETHING 2031, PM
- »Junction 4 - DO SOMETHING 2041, AM
- »Junction 4 - DO SOMETHING 2041, PM

Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
Junction 4 - 2022				
Stream B-C	0.0	0.02	0.0	0.01
Stream B-A	0.2	0.17	0.2	0.15
Stream C-AB	0.0	0.02	0.0	0.01
Junction 4 - 2026				
Stream B-C	0.0	0.02	0.0	0.02
Stream B-A	0.3	0.19	0.2	0.16
Stream C-AB	0.0	0.03	0.0	0.01
Junction 4 - 2031				
Stream B-C	0.0	0.02	0.0	0.02
Stream B-A	0.3	0.22	0.2	0.18
Stream C-AB	0.0	0.03	0.0	0.01
Junction 4 - 2041				
Stream B-C	0.0	0.02	0.0	0.02
Stream B-A	0.3	0.24	0.3	0.19
Stream C-AB	0.0	0.03	0.0	0.01
Junction 4 - DO SOMETHING 2026				
Stream B-C	0.0	0.03	0.0	0.03
Stream B-A	0.5	0.30	0.3	0.20
Stream C-AB	0.0	0.03	0.0	0.02
Junction 4 - DO SOMETHING 2031				
Stream B-C	0.0	0.03	0.0	0.03
Stream B-A	0.5	0.34	0.3	0.22
Stream C-AB	0.0	0.03	0.0	0.02
Junction 4 - DO SOMETHING 2041				
Stream B-C	0.0	0.03	0.0	0.03
Stream B-A	0.6	0.36	0.3	0.24
Stream C-AB	0.1	0.04	0.0	0.02

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

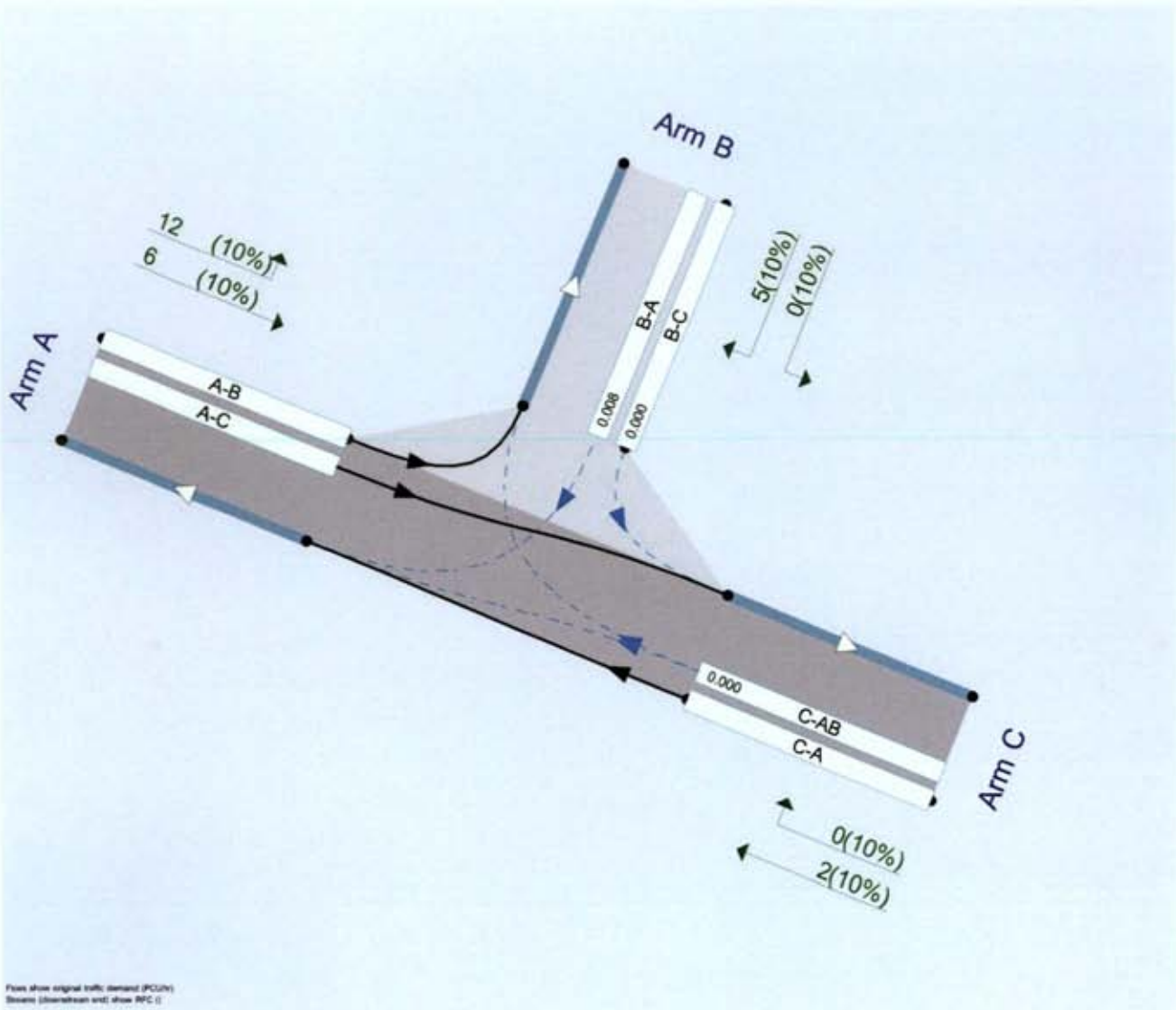
File summary

File Description

Title	
Location	
Site number	
Date	01/12/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINI.byrne
Description	

Units

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



Flows show original traffic demand (PCU/h)
 Values (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2022	AM	ONE HOUR	08:00	09:30	15	✓		
D2	2022	PM	ONE HOUR	16:00	17:30	15	✓		
D3	2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G1
D4	2026	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G1
D5	2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G2
D6	2031	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G2
D7	2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G3
D8	2041	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G3
D9	Proposed Dev. - Trips Generated	AM	ONE HOUR	08:00	09:30	15			
D10	Proposed Dev. - Trips Generated	PM	ONE HOUR	16:00	17:30	15			
D11	Broomfield Ph1	AM	ONE HOUR	08:00	09:30	15			
D12	Broomfield Ph1	PM	ONE HOUR	16:00	17:30	15			
D13	Broomfield Ph2	AM	ONE HOUR	08:00	09:30	15			
D14	Broomfield Ph2	PM	ONE HOUR	16:00	17:30	15			
D15	DO SOMETHING 2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G1+D9+D11+D13+D21+D23
D16	DO SOMETHING 2026	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G1+D10+D12+D14+D22+D24
D17	DO SOMETHING 2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G2+D9+D11+D13+D21+D23
D18	DO SOMETHING 2031	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G2+D10+D12+D14+D22+D24
D19	DO SOMETHING 2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G3+D9+D11+D13+D21+D23
D20	DO SOMETHING 2041	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G3+D10+D12+D14+D22+D24
D21	Backfield	AM	ONE HOUR	08:00	09:30	15			
D22	Backfield	PM	ONE HOUR	16:00	17:30	15			
D23	Avenue	AM	ONE HOUR	08:00	09:30	15			
D24	Avenue	PM	ONE HOUR	16:00	17:30	15			

Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	2026		1.0660
G2	2031		1.1430
G3	2041		1.1960

Growth factors are only active if the Demand Set references them in a Relationship.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 4	✓	100.000	100.000

Junction 4 - 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.30			148.2	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.48	6.48	6.48	6.48		1.00	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	574	0.103	0.261	0.164	0.372
B-C	573	0.087	0.219	-	-
C-B	660	0.252	0.252	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022	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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	558	100.000
B		ONE HOUR	✓	61	100.000
C		ONE HOUR	✓	434	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	97	461
	B	55	0	6
	C	426	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	9.35	0.0	A	6	8
B-A	0.17	13.68	0.2	B	50	76
C-AB	0.02	5.17	0.0	A	15	22
C-A					384	575
A-B					89	134
A-C					423	635

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	478	0.009	4	0.0	0.0	8.363	A
B-A	41	10	421	0.098	41	0.0	0.1	10.414	B
C-AB	10	3	776	0.013	10	0.0	0.0	5.172	A
C-A	316	79			316				
A-B	73	18			73				
A-C	347	87			347				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	458	0.012	5	0.0	0.0	8.741	A
B-A	49	12	391	0.126	49	0.1	0.2	11.582	B
C-AB	14	3	803	0.017	14	0.0	0.0	5.018	A
C-A	376	94			376				
AB	87	22			87				
AC	414	104			414				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	430	0.015	7	0.0	0.0	9.348	A
B-A	61	15	350	0.173	60	0.2	0.2	13.656	B
C-AB	20	5	842	0.024	20	0.0	0.0	4.814	A
C-A	458	114			458				
AB	107	27			107				
AC	508	127			508				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	430	0.015	7	0.0	0.0	9.351	A
B-A	61	15	350	0.173	61	0.2	0.2	13.679	B
C-AB	20	5	842	0.024	20	0.0	0.0	4.816	A
C-A	458	114			458				
AB	107	27			107				
AC	508	127			508				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	458	0.012	5	0.0	0.0	8.747	A
B-A	49	12	391	0.126	50	0.2	0.2	11.612	B
C-AB	14	3	803	0.017	14	0.0	0.0	5.019	A
C-A	376	94			376				
AB	87	22			87				
AC	414	104			414				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	478	0.009	5	0.0	0.0	8.369	A
B-A	41	10	421	0.098	42	0.2	0.1	10.448	B
C-AB	10	3	776	0.013	10	0.0	0.0	5.174	A
C-A	316	79			316				
AB	73	18			73				
AC	347	87			347				

Junction 4 - 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.80	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	PM	ONE HOUR	16:00	17:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	392	100.000
B		ONE HOUR	✓	58	100.000
C		ONE HOUR	✓	410	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	48	344
	B	52	0	6
	C	407	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.01	8.62	0.0	A	6	8
B-A	0.15	11.74	0.2	B	48	72
C-AB	0.01	5.02	0.0	A	5	8
C-A					371	557
A-B					44	66
A-C					316	473

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	502	0.009	4	0.0	0.0	7.966	A
B-A	39	10	451	0.087	39	0.0	0.1	9.590	A
C-AB	4	0.92	792	0.005	4	0.0	0.0	5.022	A
C-A	305	76			305				
A-B	36	9			36				
A-C	259	65			259				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	487	0.011	5	0.0	0.0	8.224	A
B-A	47	12	427	0.109	47	0.1	0.1	10.393	B
C-AB	5	1	821	0.006	5	0.0	0.0	4.853	A
C-A	364	91			364				
A-B	43	11			43				
A-C	309	77			309				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	466	0.014	7	0.0	0.0	8.619	A
B-A	57	14	395	0.145	57	0.1	0.2	11.721	B
C-AB	7	2	862	0.008	7	0.0	0.0	4.631	A
C-A	445	111			445				
A-B	53	13			53				
A-C	379	95			379				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	466	0.014	7	0.0	0.0	8.621	A
B-A	57	14	395	0.145	57	0.2	0.2	11.735	B
C-AB	7	2	862	0.008	7	0.0	0.0	4.633	A
C-A	445	111			445				
A-B	53	13			53				
A-C	379	95			379				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	487	0.011	5	0.0	0.0	8.227	A
B-A	47	12	427	0.109	47	0.2	0.1	10.412	B
C-AB	5	1	821	0.006	5	0.0	0.0	4.853	A
C-A	364	91			364				
A-B	43	11			43				
A-C	309	77			309				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	501	0.009	5	0.0	0.0	7.969	A
B-A	39	10	451	0.087	39	0.1	0.1	9.616	A
C-AB	4	0.92	792	0.005	4	0.0	0.0	5.022	A
C-A	305	76			305				
A-B	36	9			36				
A-C	259	65			259				

Junction 4 - 2026, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.90	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	Relationship type	Relationship
D3	2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G1

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	595	100.000
B		ONE HOUR	✓	65	100.000
C		ONE HOUR	✓	463	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	103	491
	B	59	0	6
	C	454	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	9.60	0.0	A	6	9
B-A	0.19	14.63	0.3	B	54	81
C-AB	0.03	5.12	0.0	A	16	25
C-A					408	612
A-B					95	142
A-C					451	676

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	471	0.010	5	0.0	0.0	8.485	A
B-A	44	11	411	0.107	44	0.0	0.1	10.774	B
C-AB	11	3	785	0.014	11	0.0	0.0	5.119	A
C-A	337	84			337				
A-B	78	19			78				
A-C	370	92			370				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	1	450	0.013	6	0.0	0.0	8.907	A
B-A	53	13	379	0.139	53	0.1	0.2	12.123	B
C-AB	15	4	814	0.019	15	0.0	0.0	4.957	A
C-A	400	100			400				
A-B	93	23			93				
A-C	442	110			442				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	420	0.017	7	0.0	0.0	9.599	A
B-A	65	16	335	0.193	64	0.2	0.3	14.591	B
C-AB	23	6	857	0.026	23	0.0	0.0	4.744	A
C-A	487	122			487				
A-B	114	28			114				
A-C	541	135			541				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	419	0.017	7	0.0	0.0	9.603	A
B-A	65	16	335	0.193	65	0.3	0.3	14.628	B
C-AB	23	6	857	0.026	23	0.0	0.0	4.746	A
C-A	487	122			487				
A-B	114	28			114				
A-C	541	135			541				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	1	450	0.013	6	0.0	0.0	8.914	A
B-A	53	13	379	0.139	53	0.3	0.2	12.161	B
C-AB	15	4	814	0.019	15	0.0	0.0	4.960	A
C-A	400	100			400				
A-B	93	23			93				
A-C	442	110			442				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	471	0.010	5	0.0	0.0	8.492	A
B-A	44	11	411	0.107	44	0.2	0.1	10.817	B
C-AB	11	3	785	0.015	11	0.0	0.0	5.121	A
C-A	337	84			337				
A-B	78	19			78				
A-C	370	92			370				

Junction 4 - 2026, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.84	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	Relationship type	Relationship
D4	2026	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G1

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	418	100.000
B		ONE HOUR	✓	62	100.000
C		ONE HOUR	✓	437	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	51	367
	B	55	0	6
	C	434	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	8.78	0.0	A	6	9
B-A	0.16	12.30	0.2	B	51	76
C-AB	0.01	4.97	0.0	A	6	9
C-A					395	593
A-B					47	70
A-C					336	505

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	497	0.010	5	0.0	0.0	8.050	A
B-A	42	10	443	0.094	41	0.0	0.1	9.842	A
C-AB	4	1	802	0.005	4	0.0	0.0	4.963	A
C-A	325	81			325				
A-B	39	10			39				
A-C	276	69			276				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	1	481	0.012	6	0.0	0.0	8.334	A
B-A	50	12	418	0.119	50	0.1	0.1	10.753	B
C-AB	5	1	833	0.007	5	0.0	0.0	4.786	A
C-A	387	97			387				
A-B	46	11			46				
A-C	330	82			330				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	458	0.015	7	0.0	0.0	8.776	A
B-A	61	15	383	0.159	61	0.1	0.2	12.287	B
C-AB	8	2	877	0.009	8	0.0	0.0	4.554	A
C-A	473	118			473				
A-B	56	14			56				
A-C	404	101			404				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	458	0.015	7	0.0	0.0	8.778	A
B-A	61	15	383	0.159	61	0.2	0.2	12.304	B
C-AB	8	2	877	0.009	8	0.0	0.0	4.554	A
C-A	473	118			473				
A-B	56	14			56				
A-C	404	101			404				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	1	481	0.012	6	0.0	0.0	8.339	A
B-A	50	12	418	0.119	50	0.2	0.2	10.772	B
C-AB	5	1	833	0.007	5	0.0	0.0	4.788	A
C-A	387	97			387				
AB	46	11			46				
AC	330	82			330				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	496	0.010	5	0.0	0.0	8.054	A
B-A	42	10	443	0.094	42	0.2	0.1	9.871	A
C-AB	4	1	802	0.005	4	0.0	0.0	4.966	A
C-A	325	81			325				
AB	39	10			39				
AC	276	69			276				

Junction 4 - 2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G2

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	638	100.000
B		ONE HOUR	✓	70	100.000
C		ONE HOUR	✓	496	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	111	527
	B	63	0	7
	C	487	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	9.93	0.0	A	6	9
B-A	0.22	15.91	0.3	C	58	87
C-AB	0.03	5.06	0.0	A	19	28
C-A					436	655
A-B					102	153
A-C					484	725

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	464	0.011	5	0.0	0.0	8.633	A
B-A	47	12	399	0.119	47	0.0	0.1	11.228	B
C-AB	13	3	796	0.016	13	0.0	0.0	5.058	A
C-A	361	90			361				
A-B	83	21			83				
A-C	397	99			397				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	441	0.014	6	0.0	0.0	9.113	A
B-A	57	14	365	0.155	56	0.1	0.2	12.820	B
C-AB	17	4	828	0.021	17	0.0	0.0	4.887	A
C-A	428	107			428				
A-B	100	25			100				
A-C	474	118			474				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	407	0.019	8	0.0	0.0	9.923	A
B-A	69	17	318	0.218	69	0.2	0.3	15.861	C
C-AB	26	7	875	0.030	26	0.0	0.0	4.664	A
C-A	520	130			520				
A-B	122	31			122				
A-C	580	145			580				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	406	0.019	8	0.0	0.0	9.928	A
B-A	69	17	318	0.218	69	0.3	0.3	15.909	C
C-AB	26	7	875	0.030	26	0.0	0.0	4.664	A
C-A	520	130			520				
A-B	122	31			122				
A-C	580	145			580				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	440	0.014	6	0.0	0.0	9.121	A
B-A	57	14	365	0.155	57	0.3	0.2	12.871	B
C-AB	18	4	828	0.021	18	0.0	0.0	4.890	A
C-A	428	107			428				
A-B	100	25			100				
A-C	474	118			474				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	463	0.011	5	0.0	0.0	8.641	A
B-A	47	12	399	0.119	48	0.2	0.2	11.280	B
C-AB	13	3	796	0.016	13	0.0	0.0	5.059	A
C-A	361	90			361				
A-B	83	21			83				
A-C	397	99			397				

Junction 4 - 2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.89	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	Relationship type	Relationship
D6	2031	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G2

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	448	100.000
B		ONE HOUR	✓	66	100.000
C		ONE HOUR	✓	469	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	55	393
	B	59	0	7
	C	465	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	8.97	0.0	A	6	9
B-A	0.18	13.04	0.2	B	55	82
C-AB	0.01	4.90	0.0	A	6	10
C-A					424	635
AB					50	76
AC					361	541

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	491	0.011	5	0.0	0.0	8.152	A
B-A	45	11	434	0.103	44	0.0	0.1	10.155	B
C-AB	5	1	813	0.006	5	0.0	0.0	4.897	A
C-A	348	87			348				
AB	41	10			41				
AC	296	74			296				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	474	0.013	6	0.0	0.0	8.469	A
B-A	53	13	407	0.131	53	0.1	0.2	11.203	B
C-AB	6	2	847	0.007	6	0.0	0.0	4.710	A
C-A	415	104			415				
AB	49	12			49				
AC	353	88			353				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	449	0.017	8	0.0	0.0	8.972	A
B-A	65	16	369	0.177	65	0.2	0.2	13.017	B
C-AB	9	2	895	0.010	9	0.0	0.0	4.467	A
C-A	507	127			507				
AB	60	15			60				
AC	433	108			433				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	449	0.017	8	0.0	0.0	8.975	A
B-A	65	16	369	0.177	65	0.2	0.2	13.041	B
C-AB	9	2	895	0.010	9	0.0	0.0	4.467	A
C-A	507	127			507				
AB	60	15			60				
AC	433	108			433				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	474	0.013	6	0.0	0.0	8.474	A
B-A	53	13	407	0.131	54	0.2	0.2	11.229	B
C-AB	6	2	847	0.007	6	0.0	0.0	4.712	A
C-A	415	104			415				
AB	49	12			49				
AC	353	88			353				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	491	0.011	5	0.0	0.0	8.158	A
B-A	45	11	434	0.103	45	0.2	0.1	10.188	B
C-AB	5	1	813	0.006	5	0.0	0.0	4.899	A
C-A	348	87			348				
AB	41	10			41				
AC	296	74			296				

Junction 4 - 2041, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.03	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	Relationship type	Relationship
D7	2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G3

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	667	100.000
B		ONE HOUR	✓	73	100.000
C		ONE HOUR	✓	519	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	116	551
	B	66	0	7
	C	509	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	10.18	0.0	B	7	10
B-A	0.24	16.94	0.3	C	60	91
C-AB	0.03	5.02	0.0	A	21	31
C-A					456	684
A-B					106	160
A-C					506	759

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	458	0.012	5	0.0	0.0	8.740	A
B-A	50	12	391	0.127	49	0.0	0.2	11.562	B
C-AB	14	3	803	0.017	14	0.0	0.0	5.017	A
C-A	377	94			377				
A-B	87	22			87				
A-C	415	104			415				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	434	0.015	6	0.0	0.0	9.263	A
B-A	59	15	355	0.166	59	0.2	0.2	13.349	B
C-AB	19	5	837	0.023	19	0.0	0.0	4.840	A
C-A	448	112			448				
A-B	104	26			104				
A-C	496	124			496				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	397	0.020	8	0.0	0.0	10.168	B
B-A	72	18	306	0.237	72	0.2	0.3	16.870	C
C-AB	29	7	888	0.032	29	0.0	0.0	4.610	A
C-A	543	136			543				
A-B	128	32			128				
A-C	607	152			607				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	397	0.020	8	0.0	0.0	10.175	B
B-A	72	18	306	0.237	72	0.3	0.3	16.935	C
C-AB	29	7	888	0.032	29	0.0	0.0	4.610	A
C-A	543	136			543				
A-B	128	32			128				
A-C	607	152			607				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	434	0.015	6	0.0	0.0	9.271	A
B-A	59	15	355	0.166	60	0.3	0.2	13.415	B
C-AB	19	5	837	0.023	19	0.0	0.0	4.843	A
C-A	448	112			448				
A-B	104	26			104				
A-C	496	124			496				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	458	0.012	5	0.0	0.0	8.750	A
B-A	50	12	391	0.127	50	0.2	0.2	11.623	B
C-AB	14	3	803	0.017	14	0.0	0.0	5.017	A
C-A	377	94			377				
A-B	87	22			87				
A-C	415	104			415				

Junction 4 - 2041, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.92	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	Relationship type	Relationship
D8	2041	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G3

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	469	100.000
B		ONE HOUR	✓	69	100.000
C		ONE HOUR	✓	490	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	57	411
	B	62	0	7
	C	487	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	9.12	0.0	A	7	10
B-A	0.19	13.60	0.3	B	57	86
C-AB	0.01	4.85	0.0	A	7	11
C-A					443	664
A-B					53	79
A-C					378	566

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	487	0.011	5	0.0	0.0	8.222	A
B-A	47	12	427	0.110	46	0.0	0.1	10.379	B
C-AB	5	1	821	0.006	5	0.0	0.0	4.851	A
C-A	364	91			364				
A-B	43	11			43				
A-C	310	77			310				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	469	0.014	6	0.0	0.0	8.565	A
B-A	56	14	399	0.140	56	0.1	0.2	11.534	B
C-AB	7	2	857	0.008	7	0.0	0.0	4.658	A
C-A	434	109			434				
A-B	52	13			52				
A-C	370	92			370				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	442	0.018	8	0.0	0.0	9.116	A
B-A	68	17	360	0.190	68	0.2	0.3	13.572	B
C-AB	10	2	908	0.011	10	0.0	0.0	4.408	A
C-A	530	133			530				
A-B	63	16			63				
A-C	453	113			453				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	442	0.018	8	0.0	0.0	9.119	A
B-A	68	17	360	0.190	68	0.3	0.3	13.601	B
C-AB	10	2	908	0.011	10	0.0	0.0	4.408	A
C-A	530	133			530				
A-B	63	16			63				
A-C	453	113			453				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	469	0.014	6	0.0	0.0	8.570	A
B-A	56	14	399	0.140	56	0.3	0.2	11.568	B
C-AB	7	2	857	0.008	7	0.0	0.0	4.660	A
C-A	434	109			434				
AB	52	13			52				
AC	370	92			370				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	487	0.011	5	0.0	0.0	8.230	A
B-A	47	12	427	0.110	47	0.2	0.1	10.420	B
C-AB	5	1	821	0.006	5	0.0	0.0	4.851	A
C-A	364	91			364				
AB	43	11			43				
AC	310	77			310				

Junction 4 - DO SOMETHING 2026, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.51	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	Relationship type	Relationship
D15	DO SOMETHING 2026	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G1+D9+D11+D13+D21+D23

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	605	100.000
B		ONE HOUR	✓	102	100.000
C		ONE HOUR	✓	476	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	111	493
	B	92	0	10
	C	466	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	10.29	0.0	B	10	14
B-A	0.30	17.19	0.5	C	84	126
C-AB	0.03	5.10	0.0	A	19	28
C-A					418	626
A-B					102	153
A-C					453	679

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	461	0.017	8	0.0	0.0	8.729	A
B-A	69	17	408	0.169	68	0.0	0.2	11.625	B
C-AB	13	3	790	0.016	13	0.0	0.0	5.098	A
C-A	345	86			345				
A-B	84	21			84				
A-C	371	93			371				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	436	0.021	9	0.0	0.0	9.279	A
B-A	82	21	376	0.219	82	0.2	0.3	13.472	B
C-AB	18	4	820	0.021	18	0.0	0.0	4.934	A
C-A	410	103			410				
A-B	100	25			100				
A-C	444	111			444				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	397	0.029	11	0.0	0.0	10.279	B
B-A	101	25	331	0.305	100	0.3	0.5	17.101	C
C-AB	26	6	865	0.030	26	0.0	0.0	4.719	A
C-A	498	124			498				
A-B	123	31			123				
A-C	543	136			543				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	396	0.029	11	0.0	0.0	10.291	B
B-A	101	25	331	0.305	101	0.5	0.5	17.192	C
C-AB	26	6	865	0.030	26	0.0	0.0	4.722	A
C-A	498	124			498				
A-B	123	31			123				
A-C	543	136			543				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	436	0.021	9	0.0	0.0	9.291	A
B-A	82	21	376	0.219	83	0.5	0.3	13.564	B
C-AB	18	4	820	0.021	18	0.0	0.0	4.937	A
C-A	410	103			410				
AB	100	25			100				
AC	444	111			444				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	461	0.017	8	0.0	0.0	8.741	A
B-A	69	17	408	0.169	69	0.3	0.2	11.710	B
C-AB	13	3	790	0.016	13	0.0	0.0	5.100	A
C-A	345	86			345				
AB	84	21			84				
AC	371	93			371				

Junction 4 - DO SOMETHING 2026, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.11	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	Relationship type	Relationship
D16	DO SOMETHING 2026	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G1+D10+D12+D14+D22+D24

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	451	100.000
B		ONE HOUR	✓	81	100.000
C		ONE HOUR	✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	76	375
	B	69	0	11
	C	438	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	9.12	0.0	A	10	16
B-A	0.20	13.23	0.3	B	64	96
C-AB	0.02	5.01	0.0	A	11	17
C-A					396	594
AB					70	105
AC					344	516

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	490	0.018	9	0.0	0.0	8.220	A
B-A	52	13	438	0.119	52	0.0	0.1	10.227	B
C-AB	8	2	799	0.010	8	0.0	0.0	5.007	A
C-A	326	82			326				
AB	57	14			57				
AC	282	71			282				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	3	473	0.022	10	0.0	0.0	8.565	A
B-A	62	16	412	0.151	62	0.1	0.2	11.315	B
C-AB	11	3	829	0.013	11	0.0	0.0	4.836	A
C-A	389	97			389				
AB	68	17			68				
AC	337	84			337				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	447	0.028	13	0.0	0.0	9.119	A
B-A	76	19	376	0.203	76	0.2	0.3	13.203	B
C-AB	15	4	874	0.017	15	0.0	0.0	4.613	A
C-A	474	118			474				
AB	84	21			84				
AC	413	103			413				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	447	0.028	13	0.0	0.0	9.123	A
B-A	76	19	376	0.203	76	0.3	0.3	13.232	B
C-AB	15	4	874	0.017	15	0.0	0.0	4.615	A
C-A	474	118			474				
AB	84	21			84				
AC	413	103			413				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	3	472	0.022	10	0.0	0.0	8.572	A
B-A	62	16	412	0.151	63	0.3	0.2	11.349	B
C-AB	11	3	829	0.013	11	0.0	0.0	4.837	A
C-A	389	97			389				
A-B	68	17			68				
A-C	337	84			337				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	490	0.018	9	0.0	0.0	8.227	A
B-A	52	13	438	0.119	52	0.2	0.2	10.270	B
C-AB	8	2	799	0.010	8	0.0	0.0	5.009	A
C-A	326	82			326				
A-B	57	14			57				
A-C	282	71			282				

Junction 4 - DO SOMETHING 2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.63	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	Relationship type	Relationship
D17	DO SOMETHING 2031	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G2+D9+D11+D13+D21+D23

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	648	100.000
B		ONE HOUR	✓	107	100.000
C		ONE HOUR	✓	509	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	119	529
	B	96	0	11
	C	499	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	10.75	0.0	B	10	15
B-A	0.34	18.99	0.5	C	88	132
C-AB	0.03	5.04	0.0	A	21	32
C-A					446	669
A-B					109	164
A-C					485	728

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	453	0.018	8	0.0	0.0	8.896	A
B-A	72	18	396	0.182	71	0.0	0.2	12.155	B
C-AB	14	4	800	0.018	14	0.0	0.0	5.037	A
C-A	369	92			369				
A-B	89	22			89				
A-C	398	100			398				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	425	0.023	10	0.0	0.0	9.526	A
B-A	86	22	362	0.238	86	0.2	0.3	14.338	B
C-AB	20	5	834	0.024	20	0.0	0.0	4.865	A
C-A	438	109			438				
A-B	107	27			107				
A-C	475	119			475				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	381	0.031	12	0.0	0.0	10.730	B
B-A	106	26	314	0.336	105	0.3	0.5	18.856	C
C-AB	30	7	883	0.034	30	0.0	0.0	4.641	A
C-A	531	133			531				
A-B	131	33			131				
A-C	582	146			582				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	380	0.031	12	0.0	0.0	10.750	B
B-A	106	26	314	0.336	106	0.5	0.5	18.994	C
C-AB	30	7	883	0.034	30	0.0	0.0	4.641	A
C-A	531	133			531				
A-B	131	33			131				
A-C	582	146			582				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	425	0.023	10	0.0	0.0	9.545	A
B-A	86	22	362	0.238	87	0.5	0.4	14.463	B
C-AB	20	5	834	0.024	20	0.0	0.0	4.868	A
C-A	438	109			438				
AB	107	27			107				
AC	475	119			475				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	453	0.018	8	0.0	0.0	8.911	A
B-A	72	18	396	0.182	73	0.4	0.2	12.257	B
C-AB	14	4	800	0.018	14	0.0	0.0	5.040	A
C-A	369	92			369				
AB	89	22			89				
AC	398	100			398				

Junction 4 - DO SOMETHING 2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.16	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	Relationship type	Relationship
D18	DO SOMETHING 2031	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G2+D10+D12+D14+D22+D24

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	481	100.000
B		ONE HOUR	✓	85	100.000
C		ONE HOUR	✓	476	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	80	401
	B	73	0	12
	C	469	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	9.35	0.0	A	11	16
B-A	0.22	14.09	0.3	B	67	101
C-AB	0.02	4.94	0.0	A	12	19
C-A					424	636
A-B					73	110
A-C					368	552

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	484	0.018	9	0.0	0.0	8.328	A
B-A	55	14	429	0.129	55	0.0	0.2	10.563	B
C-AB	9	2	810	0.011	9	0.0	0.0	4.940	A
C-A	349	87			349				
A-B	60	15			60				
A-C	302	76			302				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	465	0.023	11	0.0	0.0	8.713	A
B-A	66	17	401	0.165	66	0.2	0.2	11.814	B
C-AB	12	3	843	0.014	12	0.0	0.0	4.759	A
C-A	416	104			416				
A-B	72	18			72				
A-C	361	90			361				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	437	0.030	13	0.0	0.0	9.345	A
B-A	81	20	362	0.223	80	0.2	0.3	14.049	B
C-AB	17	4	892	0.019	17	0.0	0.0	4.525	A
C-A	507	127			507				
A-B	88	22			88				
A-C	442	110			442				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	437	0.030	13	0.0	0.0	9.349	A
B-A	81	20	362	0.223	81	0.3	0.3	14.088	B
C-AB	17	4	892	0.019	17	0.0	0.0	4.527	A
C-A	507	127			507				
A-B	88	22			88				
A-C	442	110			442				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	465	0.023	11	0.0	0.0	8.719	A
B-A	66	17	401	0.165	66	0.3	0.2	11.855	B
C-AB	12	3	843	0.014	12	0.0	0.0	4.760	A
C-A	416	104			416				
A-B	72	18			72				
A-C	361	90			361				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	484	0.018	9	0.0	0.0	8.338	A
B-A	55	14	429	0.129	56	0.2	0.2	10.614	B
C-AB	9	2	810	0.011	9	0.0	0.0	4.942	A
C-A	349	87			349				
A-B	60	15			60				
A-C	302	76			302				

Junction 4 - DO SOMETHING 2041, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1,72	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	Relationship type	Relationship
D19	DO SOMETHING 2041	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D1*G3+D9+D11+D13+D21+D23

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	677	100.000
B		ONE HOUR	✓	110	100.000
C		ONE HOUR	✓	532	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	124	553
	B	99	0	11
	C	521	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	11.12	0.0	B	10	15
B-A	0.36	20.47	0.6	C	91	136
C-AB	0.04	5.00	0.1	A	23	35
C-A					465	698
A-B					114	171
A-C					508	762

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	447	0.019	8	0.0	0.0	9.018	A
B-A	74	19	388	0.192	73	0.0	0.3	12.547	B
C-AB	15	4	808	0.019	15	0.0	0.0	4.996	A
C-A	385	96			385				
A-B	93	23			93				
A-C	417	104			417				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	3	418	0.024	10	0.0	0.0	9.710	A
B-A	89	22	352	0.252	88	0.3	0.4	14.999	B
C-AB	21	5	843	0.025	21	0.0	0.0	4.818	A
C-A	457	114			457				
A-B	111	28			111				
A-C	497	124			497				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	369	0.033	12	0.0	0.0	11.090	B
B-A	109	27	302	0.360	108	0.4	0.6	20.287	C
C-AB	33	8	895	0.036	32	0.0	0.1	4.588	A
C-A	553	138			553				
A-B	137	34			137				
A-C	609	152			609				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	368	0.033	12	0.0	0.0	11.117	B
B-A	109	27	302	0.360	109	0.6	0.6	20.466	C
C-AB	33	8	895	0.036	33	0.1	0.1	4.589	A
C-A	553	138			553				
A-B	137	34			137				
A-C	609	152			609				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	3	417	0.024	10	0.0	0.0	9.733	A
B-A	89	22	352	0.252	90	0.6	0.4	15.158	C
C-AB	21	5	843	0.025	22	0.1	0.0	4.819	A
C-A	457	114			457				
A-B	111	28			111				
A-C	497	124			497				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	447	0.019	8	0.0	0.0	9.035	A
B-A	74	19	388	0.192	75	0.4	0.3	12.667	B
C-AB	16	4	808	0.019	16	0.0	0.0	4.999	A
C-A	385	96			385				
A-B	93	23			93				
A-C	417	104			417				

Junction 4 - DO SOMETHING 2041, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.20	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	Relationship type	Relationship
D20	DO SOMETHING 2041	PM	ONE HOUR	16:00	17:30	15	✓	Simple	D2*G3+D10+D12+D14+D22+D24

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	502	100.000
B		ONE HOUR	✓	88	100.000
C		ONE HOUR	✓	497	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	82	419
	B	76	0	12
	C	491	7	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	9.52	0.0	A	11	17
B-A	0.24	14.74	0.3	B	70	105
C-AB	0.02	4.89	0.0	A	13	20
C-A					443	665
AB					76	113
AC					385	577

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	480	0.019	9	0.0	0.0	8.405	A
B-A	57	14	422	0.136	57	0.0	0.2	10.809	B
C-AB	9	2	818	0.011	9	0.0	0.0	4.894	A
C-A	365	91			365				
AB	62	16			62				
AC	316	79			316				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	460	0.024	11	0.0	0.0	8.819	A
B-A	68	17	393	0.174	68	0.2	0.2	12.184	B
C-AB	12	3	853	0.014	12	0.0	0.0	4.707	A
C-A	435	109			435				
AB	74	19			74				
AC	377	94			377				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	430	0.031	13	0.0	0.0	9.512	A
B-A	84	21	352	0.238	83	0.2	0.3	14.699	B
C-AB	18	5	905	0.020	18	0.0	0.0	4.466	A
C-A	530	132			530				
AB	91	23			91				
AC	462	115			462				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	429	0.031	13	0.0	0.0	9.518	A
B-A	84	21	352	0.238	84	0.3	0.3	14.742	B
C-AB	18	5	905	0.020	18	0.0	0.0	4.466	A
C-A	530	132			530				
AB	91	23			91				
AC	462	115			462				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	460	0.024	11	0.0	0.0	8.626	A
B-A	68	17	393	0.174	69	0.3	0.2	12.233	B
C-AB	12	3	853	0.014	12	0.0	0.0	4.708	A
C-A	435	109			435				
AB	74	19			74				
AC	377	94			377				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	480	0.019	9	0.0	0.0	8.414	A
B-A	57	14	422	0.136	58	0.2	0.2	10.864	B
C-AB	9	2	818	0.011	9	0.0	0.0	4.894	A
C-A	365	91			365				
AB	62	16			62				
AC	316	79			316				

APPENDIX 14.1 SUMMARY OF RELEVANT LEGISLATION

National Monuments Legislation 1930-2004

All archaeological sites have the full protection of the national monuments legislation (Principal Act 1930; Amendments 1954, 1987, 1994 and 2004). In the 1987 Amendment of Section 2 of the Principal Act (1930), the definition of a national monument is specified as:

any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections:

- any artificial cave, stone or natural product, whether forming part of the ground, that has been artificially carved, sculptured or worked upon or which (where it does not form part of the place where it is) appears to have been purposely put or arranged in position, any, or any part of any, prehistoric or ancient (i) tomb, grave or burial deposit, or (ii) ritual, industrial or habitation site, and
- any place comprising the remains or traces of any such building, structure or erection, any cave, stone or natural product or any such tomb, grave, burial deposit or ritual, industrial or habitation site...

Under Section 14 of the Principal Act (1930):

It shall be unlawful...

to demolish or remove wholly or in part or to disfigure, deface, alter, or in any manner injure or interfere with any such national monument without or otherwise than in accordance with the consent hereinafter mentioned (a licence issued by the Office of Public Works National Monuments Branch), or

to excavate, dig, plough or otherwise disturb the ground within, around, or in the proximity to any such national monument without or otherwise than in accordance...

Under Amendment to Section 23 of the Principal Act (1930),

A person who finds an archaeological object shall, within four days after the finding, make a report of it to a member of the Garda Síochána...or the Director of the National Museum...

The latter is of relevance to any finds made during a watching brief.

In the 1994 Amendment of Section 12 of the Principal Act (1930), all of the sites and 'places' recorded by the Sites and Monuments Record of the Office of Public Works are provided with a new status in law. This new status provides a level of protection to the listed sites that is equivalent to that accorded to 'registered' sites [Section 8(1), National Monuments Amendment Act 1954] as follows:

- The Commissioners shall establish and maintain a record of monuments and places where they believe there are monuments, and the record shall be comprised of a list of monuments and such places and a map or maps showing each monument and such place in respect of each county in the State.

- The Commissioners shall cause to be exhibited in a prescribed manner in each county the list and map or maps of the county drawn up and publish in a prescribed manner information about when and where the lists and maps may be consulted.

In addition, when the owner or occupier (not being the Commissioners) of a monument or place which has been recorded, or any person proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such monument or place, he shall give notice in writing of his proposal to carry out the work to the Commissioners and shall not, except in the case of urgent necessity and with the consent of the Commissioners, commence the work for a period of two months after having given the notice.

The National Monuments Amendment Act 2004

The National Monuments Amendment Act enacted in 2004 provides clarification in relation to the division of responsibilities between the Minister of Environment, Heritage and Local Government, Finance and Arts, Sports and Tourism together with the Commissioners of Public Works. The Minister of Environment, Heritage and Local Government will issue directions relating to archaeological works and will be advised by the National Monuments Section and the National Museum of Ireland.

The Act gives discretion to the Minister of Environment, Heritage and Local Government to grant consent or issue directions in relation to road developments (Section 49 and 51) approved by An Bord Pleanála and/or in relation to the discovery of National Monuments

14A. (1) The consent of the Minister under section 14 of this Act and any further consent or licence under any other provision of the National Monuments Acts 1930 to 2004 shall not be required where the works involved are connected with an approved road development.

(2) Any works of an archaeological nature that are carried out in respect of an approved road development shall be carried out in accordance with the directions of the Minister, which directions shall be issued following consultation by the minister with the Director of the National Museum of Ireland.

Subsection 14A (4) Where a national monument has been discovered to which subsection (3) of this section relates, then

the road authority carrying out the road development shall report the discovery to the Minister subject to subsection (7) of this section, and pending any directions by the minister under paragraph (d) of this subsection, no works which would interfere with the monument shall be carried out, except works urgently required to secure its preservation carried out in accordance with such measures as may be specified by the Minister

The Minister will consult with the Director of the National Museum of Ireland for a period not longer than 14 days before issuing further directions in relation to the national monument.

The Minister will not be restricted to archaeological considerations alone, but will also consider the wider public interest.

Planning and Development Act, 2000

Structures of architectural, cultural, scientific, historical or archaeological interest can also be protected under the Planning and Development Act, 2000.

This act provides for the inclusion of protected structures into the planning authorities' development plans and sets out statutory regulations regarding works affecting such structures. Under the new legislation, no distinction is made between buildings formerly classified under development plans as List 1 and List 2. Such buildings are now all regarded as 'protected structures'.

The act defines a 'protected structure' as follows:

(a) a structure, or

(b) a specified part of a structure, which is included in a record of protected structures, and, where that record so indicates, includes any specified feature which is within the attendant grounds of the structure and which would not otherwise be included in this definition.

'Protection', in relation to a structure or part of a structure, includes conservation, preservation, and improvement compatible with maintaining the character and interest of the structure or part; Part IV of the act deals with architectural heritage, and Section 57 deals specifically with works affecting the character of protected structures or proposed protected structures.

...the carrying out of works to a protected structure, or a proposed protected structure, shall be exempted development only if those works would not materially affect the character of— (a) the structure, or

(b) any element of the structure which contributes to its special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.

Section 58, subsection 4 states that: Any person who, without lawful authority, causes damage to a protected structure or a proposed protected structure shall be guilty of an offence.

APPENDIX 14.2 GLOSSARY OF IMPACT ASSESSMENT

Glossary of Impacts

Types of Impacts

Potential impacts on the receiving archaeological and cultural heritage environment can be described as direct physical impacts, indirect physical impacts, and impacts on setting (i.e., the surroundings in which an archaeological / cultural heritage asset can be experienced; Historic England 2017).

Direct physical impacts are those development activities that directly cause damage to the fabric of an archaeological / cultural heritage asset. Typically, these activities are related to construction works; e.g. they could include excavation of foundations, earthmoving / site preparation creation of access roads, cycle paths, and the excavation of service trenches.

Indirect physical impacts are those processes, triggered by development activity, that lead to the degradation of archaeological / cultural heritage assets.

Impacts on the setting of archaeological / cultural heritage assets describe how the presence of a development changes the surroundings of an asset in such a way that it affects (positively or negatively) the heritage significance of that asset. Visual impacts are most commonly encountered. Such impacts may be encountered at all stages in the life cycle of a development, but they are only likely to be considered significant during the prolonged operational life of the development.

Types of impact, as defined by the Draft EPA Guidelines on Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2017):

Cumulative Impact – The addition of many small impacts to create one larger, more significant, impact.

Do Nothing Impact – The environment as it would be in the future should no development of any kind be carried out.

Indeterminable Impact – When the full consequences of a change in the environment cannot be described.

Irreversible Impact – When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.

Residual Impact – The degree of environmental change that will occur after the proposed mitigation measures have taken impact.

'Worst case' Impact – The impacts arising from a development in the case where mitigation measures substantially fail.

Indirect or Secondary Impacts – Impacts that arise off-site or are caused by other parties that are not under the control of the developer. Impacts which are caused by the interaction of impacts, or by associated or off-site projects.

Quality of Impacts

Impacts on the archaeological and cultural heritage environment are assessed in terms of their quality, i.e., positive, negative, neutral:

- Negative Impact: A change that will detract from or permanently remove an archaeological monument / cultural heritage asset from the landscape;
- Neutral Impact: A change that does not affect archaeological and cultural heritage heritage; and
- Positive Impact: A change that improves or enhances the setting of an archaeological / cultural heritage asset.

Duration of Impacts

The duration of an impact can be as follows:

- | | |
|----------------------|--|
| • Temporary Impact | Impact lasting for one year or less; |
| • Short-term Impacts | Impact lasting one to seven years; |
| • Medium-term Impact | Impact lasting seven to fifteen years; |
| • Long-term Impact | Impact lasting fifteen to sixty years; and |
| • Permanent Impact | Impact lasting over sixty years. |

Assessment Criteria

Introduction

This assessment methodology has regard to the EPA assessment criteria (EPA 2017) and to the National Roads Authority (NRA) Guidelines for the Assessment of Archaeological Heritage Impact of National Road Schemes (hereafter referred to as the NRA Guidelines) (NRA 2005).

Archaeological and cultural heritage sites are a non-renewable resource and such assets are generally considered to be location sensitive. In this context, any change to their environment, such as construction activity and ground disturbance works, could adversely affect these sites.

Significance / Sensitivity Criteria

In accordance with EPA Guidelines (EPA 2017), the context, character, significance and sensitivity of each archaeological / cultural heritage asset requires evaluation and the significance of the impact is then determined by considering the significance / sensitivity of the asset and the predicted magnitude of the impact.

In accordance with the NRA Guidelines (NRA 2005), the significance criteria used to evaluate an archaeological site, monument or complex take into account the character and integrity of the asset and any available data regarding it. This can be ascertained by looking at the following criteria cited in the NRA Guidelines (NRA 2005): the existing status (level of protection), condition or preservation, documentation or historical significance, group value, rarity, visibility in the landscape, fragility or vulnerability, and amenity value (Table 1). While these criteria contribute to the significance of a feature they should not be treated as definitive. These criteria are indicators which contribute to a wider judgement based on the individual circumstances of these archaeological/cultural heritage assets.

Table 1: Explanation of Archaeology and Cultural Heritage Asset Assessment Criteria

Criteria	Explanation
Existing Status	The level of protection associated with an archaeological / cultural heritage asset is an important consideration.
Condition / Preservation / Integrity	The survival of an archaeological / cultural heritage asset's archaeological potential both above and below ground is an important consideration and should be assessed in relation to its present condition and surviving features. Well-preserved sites should be highlighted, this assessment can only be based on a field inspection.
Documentation / Data	The significance of a an archaeological / cultural heritage asset may be enhanced by the existence of records of previous investigations or contemporary documentation supported by written evidence or historic maps. Sites with a definite historical association or an example of a notable event or person should be highlighted.
Group Value / Character	The value of a single an archaeological / cultural heritage asset may be greatly enhanced by its association with related contemporary monuments or with monuments from different periods indicating an extended time presence in any specific area. In some cases, it may be preferable to protect the complete group, including associated and adjacent land, rather than to protect isolated monuments within that group.
Rarity / Character	The rarity of some an archaeological / cultural heritage asset types can be a central factor affecting response strategies for development, whatever the condition of the individual feature. It is important to recognise sites that have a limited distribution.
Visibility in the landscape/ Character / Integrity	Archaeological / cultural heritage assets that are highly visible in the landscape have a heightened physical presence. The inter-visibility between monuments may also be explored in this category.
Fragility / Vulnerability / Integrity	It is important to assess the level of threat to an archaeological / cultural heritage asset from erosion, natural degradation, agricultural activity, land clearance, neglect, careless treatment or development.
Amenity Value / Character	Regard should be taken of the existing and potential amenity value of a an archaeological / cultural heritage asset.

An evaluation of the significance / sensitivity of archaeological / cultural heritage assets is based on their designation and on the extent to which these assets contribute to the archaeological or cultural heritage environment, though their individual or group qualities, either directly or potentially. Table 2 presents the scale of significance / sensitivity together with criteria. It has been compiled by Courtney Deery Heritage Consultancy Ltd, based on standard authorities and guidelines. Undesignated archaeological or cultural heritage sites can be assigned a low, medium or high sensitivity value, taking into consideration the criteria cited in Table 1 (e.g., condition, character, integrity or preservation, data, group value, rarity, visibility in the landscape, fragility or vulnerability, and amenity value).

Table 2: Significance / Sensitivity Criteria

Sensitivity / Significance	Criteria
High	Sites of international significance: World Heritage Sites. National Monuments. Protected Structures (assessed by the NIAH to be of international and national importance), where these are also National Monuments. Undesignated archaeological and cultural heritage sites.
Medium	Recorded Monuments (RMP sites & SMR sites scheduled for inclusion in the next revision of the RMP) Protected Structures / NIAH sites (assessed by the NIAH to be of regional importance), where these are also Recorded Monuments. Newly identified archaeological sites, confirmed through archaeological investigation, to be added to the SMR. Undesignated archaeological and cultural heritage sites.
Low	Industrial Heritage Sites and National Inventory of Architectural Heritage (NIAH) Building sites for which there are no upstanding remains. Undisturbed greenfield areas and riverine environs, which have an inherent archaeological potential. Undesignated archaeological and cultural heritage sites.
Negligible	Assets with very little or no surviving archaeological and / or cultural heritage interest.

National Monument

The National Monuments Act (1930, Section 2) defines a 'National Monument' as '*a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto*'.

The National Monuments legislation legally protects access to and the visual amenity associated with National Monuments and requires consent from the Minister for invasive works in their vicinity.

The defences / town walls of medieval Dublin are a National Monument in accordance with national policy on town defences (Department of Environment, Heritage and Local Government 2008).

Recorded Monuments

The primary source of information for archaeology is the Record of Monuments and Places (RMP) maintained by the Department of Housing, Local Government and Heritage (DHLGH). The RMP documents known upstanding archaeological monuments, their original location (in cases of destroyed monuments) and the position of possible sites in rural areas identified as cropmarks on vertical aerial photographs dating to before 1700 AD (with some later ones also being included). It is based on a comprehensive range of published and publicly available documentary and cartographic sources.

For the purpose of the assessment, the Sites and Monument Record (SMR) data and mapping as updated by the Archaeological Survey of Ireland (www.archaeology.ie) was examined so it could be used within an interactive identification and mapping system developed for Proposed Project.

Zones of Archaeological Potential

Zones of archaeological potential (ZAP) can be defined as areas within the urban and rural landscape that possess the potential to contain archaeological remains due to the settlement history of a place and or to the presence of topographical features such as rivers, lakes and high, defensible ground. An example of this is the RMP designated Historic City of Dublin, which is designated as a zone of archaeological potential covering an extensive area (RMP DU018-020). Other examples include historic settlements recorded at Donnybrook, Bray, Finglas, Kilmainham, Chapelizod and Tallaght. For the purpose of the assessment, ZAPs with statutory protection (i.e., contained in the RMP) were considered.

Non-Designated Sites

Newly identified archaeological sites that have been confirmed through archaeological investigation (monitoring, testing, excavation, geophysical survey) are considered to be of medium importance. Such sites are undesignated as they have yet to be added to the SMR.

Potential or undesignated archaeological sites identified through aerial photography, historic mapping, stray finds are considered to be of low sensitivity, as they have yet to be ground-truthed through archaeological investigation. Similarly, undisturbed greenfield areas and riverine environs, which have an inherent but as yet unproven archaeological potential are considered to be of low sensitivity.

Where there are no upstanding remains of industrial heritage sites, the survival of below-ground sites cannot be confirmed; as such the sensitivity is considered to be low.

Magnitude of Impact

When assessing the impact magnitude, the following criteria need to be considered:

- Extent – size, scale and spatial distributions of the impact;
- Duration – period of time over which the impact will occur;
- Frequency – how often the impact will occur; and
- Context – how will the extent, duration and frequency contrast with the accepted baseline conditions (see Table 1).

Table 3: Magnitude of Impact Criteria

Impact Magnitude	Criteria
High	These impacts arise where an archaeological / cultural heritage asset is completely and irreversibly destroyed by a proposed development. A change such that the value of the asset is totally altered or destroyed, leading to a complete loss of character, integrity and data about the site.
Medium	An impact which, by its magnitude, duration or intensity alters an important / significant aspect of the environment. An impact like this would be where an archaeological / cultural heritage asset would be impacted upon leading to a significant loss of character, integrity and data about the site. Or an impact which by its magnitude results in the partial loss of a historic structure (including fabric loss or alteration) or grounds including the part removal of buildings or features or part

Impact Magnitude	Criteria
	removal of demesne land (e.g. severance, visual intrusion or degradation of setting and amenity). A permanent positive impact that enhances or restores the character and / or setting of a cultural heritage site or upstanding archaeological heritage site in a clearly noticeable manner.
Low	A low impact arises where a change to the site is proposed which though noticeable is not such that the archaeological / cultural heritage character / integrity of the site is significantly compromised, and where there is no significant loss of data about the site. A positive impact that results in partial enhancement of the character and / or setting of a cultural heritage site or upstanding archaeological heritage site in the medium to long-term.
Negligible	An impact which causes very minor changes in the character of the environment and does not directly impact an archaeological / cultural heritage asset, or affect the appreciation or significance of the asset. There would be very minor changes to the character and integrity of the asset and no loss of data about the site.

Significance of Impact

The Draft EPA Revised Guidelines on the Information to be Contained in Environmental Impact Statements (EIS) (EPA 2015) added the two additional levels of significance of impact: Very Significant and Not Significant (Table 4 and Image 1).

Table 4: Significance of Impacts (EPA 2015)

Significance of Impact	Description
Very Significant	An impact which by its character, magnitude, duration or intensity significantly alters the majority of a sensitive aspect of the environment, for example in this case a monument
Not Significant	An impact which causes noticeable changes in the character of the environment but without noticeable consequences.

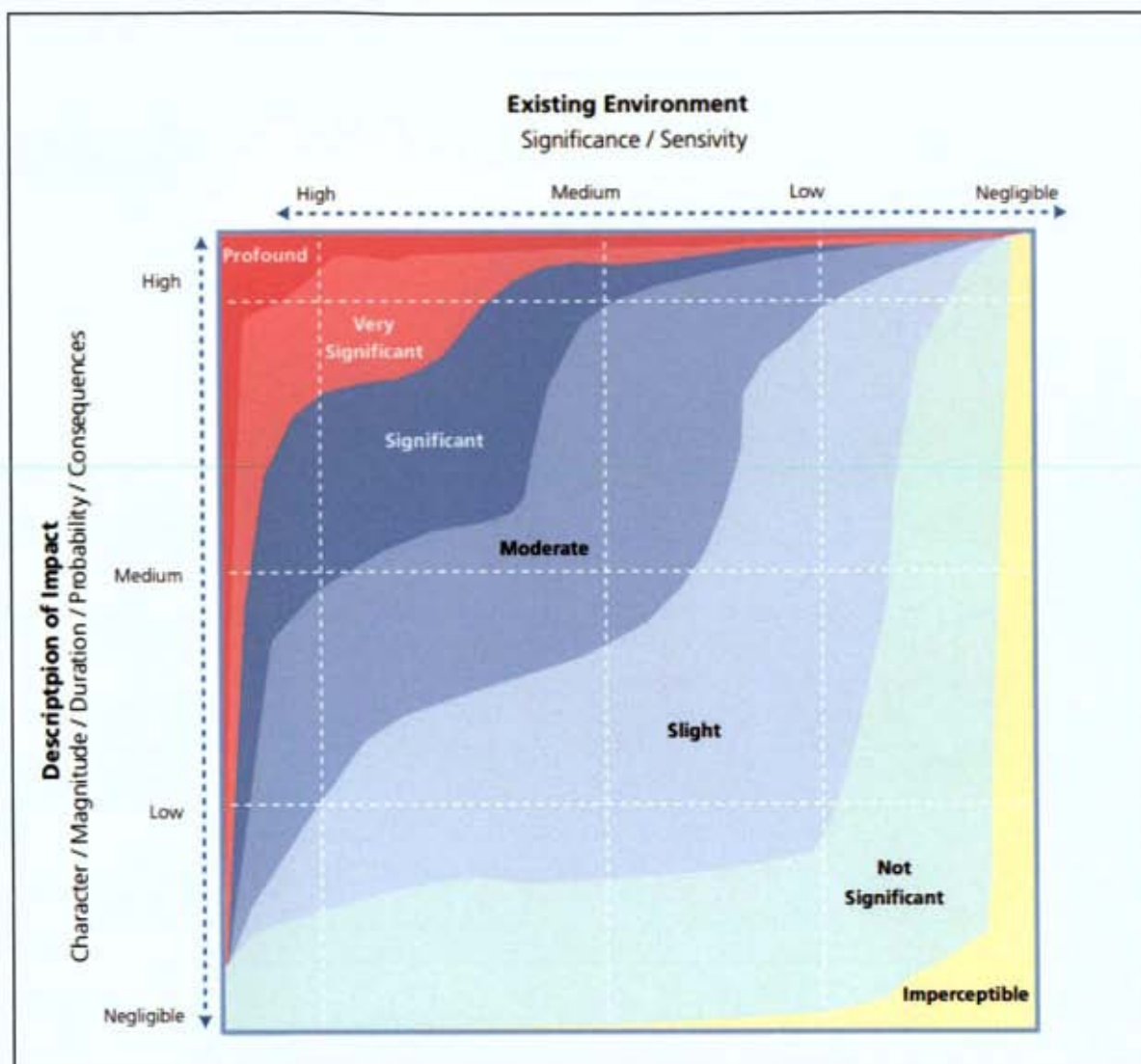


Image 1: Figure 3.5 Description of Impacts from the Draft EPA Revised Guidelines on Information to be Contained in EIS (EPA 2015)

The likely significance of impacts is determined by considering the baseline rating or sensitivity value of the asset upon which the impact has an impact and the magnitude of the impact (Image 1). The impact significance is defined as Imperceptible, Not Significant, Slight, Moderate, Significant, Very Significant, or Profound (Table 5).

Table 5: Defining Significance of Impacts

Impact	Definition
Imperceptible	An impact capable of measurement but without noticeable consequences.
Not Significant	An impact which causes noticeable changes in the character of the environment but without significant consequences.
Slight	An impact which causes minor changes in the character of the environment and does not affect an archaeological / cultural heritage asset in a moderate or significant manner.

Moderate	A moderate impact arises where a change to the site is proposed which though noticeable, does not lead to a significant loss of character, integrity and data about the archaeological / cultural heritage asset.
Significant	An impact which, by its magnitude, duration or intensity, alters an important aspect of the environment. An impact like this would be where part or all of a site would be permanently impacted upon, leading to a significant loss of character, integrity and data about the archaeological / cultural heritage asset.
Very Significant	An impact which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
Profound	Applies where mitigation would be unlikely to remove adverse impacts. Reserved for adverse, negative impacts only. These impacts arise where an archaeological / cultural heritage asset is completely and irreversibly destroyed by a proposed development.

APPENDIX 14.3 FINGAL COUNTY COUNCIL DEVELOPMENT PLAN 2017-2023 – CHAPTER 10: CULTURAL HERITAGE

Built and Cultural Heritage Policy Objective

Objective CH01 Support the implementation of the Fingal Heritage Plan in relation to the promotion and protection of Fingal's Cultural Heritage.

Archaeological Heritage Objectives

Protection of the Archaeological Resource

Objective CH02 Favour the preservation in situ or at a minimum preservation by record, of archaeological sites, monuments, features or objects in their settings. In securing such preservation the Council will have regard to the advice and recommendations of the National Monuments Service of the Department of the Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

Objective CH03 Protect all archaeological sites and monuments, underwater archaeology, and archaeological objects, which are listed in the Record of Monuments and Places and all sites and features of archaeological and historic interest discovered subsequent to the publication of the Record of Monuments and Places, and to seek their preservation in situ (or at a minimum, preservation by record) through the planning process.

Objective CH04 Encourage and promote the appropriate management and maintenance of the County's archaeological heritage, including historical burial grounds, in accordance with conservation principles and best practice guidelines.

Development and the Archaeological Resource

Objective CH05 Ensure archaeological remains are identified and fully considered at the very earliest stages of the development process, that schemes are designed to avoid impacting on the archaeological heritage.

Objective CH06 Require that proposals for linear development over one kilometre in length; proposals for development involving ground clearance of more than half a hectare; or developments in proximity to areas with a density of known archaeological monuments and history of discovery; to include an Archaeological Impact Assessment and refer such applications to the relevant Prescribed Bodies.

Objective CH07 Ensure that development within the vicinity of a Recorded Monument or Zone of Archaeological Notification does not seriously detract from the setting of the feature, and is sited and designed appropriately.

Objective CH08 Develop a policy in relation to the treatment of archaeological monuments within open space of developments. A different designation from that of open space will be applied where subsurface archaeological remains are incorporated to differentiate the area.

Objective CH09 Recognise the importance of archaeology or historic landscapes and the connectivity between sites, where it exists, in order to safeguard them from developments that would unduly sever or disrupt the relationship and/or inter-visibility between sites.

Objective CH10 Co-operate with other agencies in the assessment of the potential for climate change to impact on coastal, riverine, inter-tidal and sub-tidal sites and their environments including shipwreck sites.

Objective CH11 Encourage reference to or incorporation of significant archaeological finds into development schemes, where appropriate and sensitively designed, through layout, displays, signage, plaques, information panels and by using historic place names and the Irish language where appropriate.

Awareness and the Archaeological Resource

Objective CH12 Promote best practice for archaeological excavation by ensuring that they are undertaken according to best practice as outlined by the National Monuments Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, The National Museum and the Institute of Archaeologists of Ireland.

Objective CH13 Actively support the dissemination of the findings of archaeological investigations and excavations through the publication of excavation reports thereby promoting public awareness and appreciation of the value of archaeological resources.

Objective CH14 Identify Zones of Archaeological Notification that contain clusters of Recorded Monuments or have a significant history of the discovery of archaeological sites, features and objects in order to allow for their designation, protection of their setting and environs.

Objective CH15 Raise public awareness of the cultural heritage and improve legibility by providing appropriate signage or interpretation in areas, sites, villages, and buildings of archaeological and historic significance.

Objective CH16 Develop and implement the findings of the Community Archaeology Strategy for Fingal.

Objective CH17 Support the growth of cultural tourism in the County, including the potential for niche heritagebased tourism products by facilitating the development of heritage events, infrastructure such as heritage trails, walkways and cycleways etc. and activities such as community excavation.

Objective CH18 Manage the archaeological sites and monuments that Fingal County Council owns or is responsible for according to best practice and according to Conservation Plans where they exist

Architectural Heritage

Record of Protected Structures

Objective CH19 Review the Record of Protected Structures on an on-going basis and add structures of special interest as appropriate, including significant elements of industrial, maritime or vernacular heritage and any twentieth century structures of merit.

Objective CH20 Ensure that any development, modification, alteration, or extension affecting a Protected Structure and/or its setting is sensitively sited and designed, is compatible with the special character, and is appropriate in terms of the proposed scale, mass, height, density, layout, materials, impact on architectural or historic features, and junction with the existing Protected Structure.

Objective CH21 Seek that the form and structural integrity of the Protected Structure is retained in any redevelopment and that the relationship between the Protected Structure and any complex of adjoining buildings, designed landscape features, or designed views or vistas from or to the structure is conserved.

Objective CH22 Encourage the sympathetic and appropriate reuse, rehabilitation and retention of Protected Structures and their grounds including public access seeking that the Protected Structure is conserved to a high standard, and the special interest, character and setting of the building preserved. In certain cases the relaxation of site zoning restrictions may be considered in order to secure the preservation and conservation of the Protected Structure where the use proposed is compatible with the existing structure and this will only be permitted where the development is consistent with conservation policies and the proper planning and sustainable development of the area.

Objective CH23 Support, in accordance with CH22, the development of an integrated tourism and recreational complex on Abbeville Demesne, incorporating facilities which may include: Hotel / Conference Centre, Golf Course, Fitness Centre and at least one other extensive tourist/recreational facility. A strictly limited number of dwelling units, grouped in a courtyard type configuration, the majority of which shall be reserved for tourism use may be considered. The nature and extent of the facilities to be provided shall be determined primarily by the need to conserve and rehabilitate the house and its surroundings, which are of major architectural importance, and the special landscape character and heritage features of the demesne.

Objective CH24 Promote the use or reuse of all the Protected Structures at St. Ita's Hospital complex and demesne in Portrane as a priority for Fingal County Council. Notwithstanding the use class 'HA' Zoning matrix, appropriate uses within the Protected Structures and within the ancillary land areas within the complex including uses which also relate to and are consistent with the historic use of the overall historic complex (established prior to the foundation of the Irish State) will be actively promoted and allowed to proceed subject to appropriate consent where such activities will secure viable sustainable re use of the complex into the future and which will provide for the proper conservation and sustainable development of St. Ita's.

Objective CH25 Ensure that proposals for large scale developments and infrastructure projects consider the impacts on the architectural heritage and seek to avoid them. The extent, route, services and signage for such projects should be sited at a distance from Protected Structures, outside the boundaries of historic designed landscapes, and not interrupt specifically designed vistas. Where this

is not possible the visual impact must be minimised through appropriate mitigation measures such as high quality design and/or use of screen planting.

Objective CH26 Prevent the demolition or inappropriate alteration of Protected Structures.

Objective CH27 Demonstrate best practice in relation to the management, care and maintenance of Protected Structures by continuing the programme of commissioning Conservation Plans for the principal heritage properties in the Council's ownership and implementing the policies and actions of these Conservation Plans where they already exist.

Objective CH28 Carry out an audit and assess the condition of all Protected Structures within the Council's ownership and devise a management/maintenance plan for these structures.

Objective CH29 Ensure that measures to up-grade the energy efficiency of Protected Structures and historic buildings are sensitive to traditional construction methods and materials and do not have a detrimental physical, aesthetic or visual impact on the structure. They should follow the principles and direction given in the Department of Arts, Heritage and the Gaeltacht's publication Energy Efficiency in Traditional Buildings.

Architectural Conservation Areas

Objective CH30 Identify any potential new Architectural Conservation Areas and evaluate and modify existing Architectural Conservation Areas where necessary during the lifetime of the Plan.

Objective CH31 Produce, and review where necessary, detailed guidance for each Architectural Conservation Area in the form of Statements of Character that identify the specific special character of each area and give direction on works that would impact on this.

Objective CH32 Avoid the removal of structures and distinctive elements (such as boundary treatments, street furniture, paving and landscaping) that positively contribute to the character of an Architectural Conservation Area.

Historic Building Stock and Vernacular Heritage

Objective CH33 Promote the sympathetic maintenance, adaptation and re-use of the historic building stock and encourage the retention of the original fabric such as windows, doors, wall renders, roof coverings, shopfronts, pub fronts and other significant features of historic buildings, whether protected or not.

Objective CH34 Seek the retention of surviving historic plot sizes and street patterns in the villages and towns of Fingal and incorporate ancient boundaries or layouts, such as burgage plots and townland boundaries, into re-developments.

Objective CH35 Require that proposed infrastructural and public utility works within Fingal do not remove historic street furniture such as limestone or granite kerbs, cobblestones, cast-iron postboxes,

waterpumps, milestones and street lighting, except where an exceptional need has been clearly established.

Objective CH36 Sensitively design, locate and rationalise modern street furniture and elements such as utility boxes, cables, posts, antenna and signage.

Objective CH37 Seek the retention, appreciation and appropriate revitalisation of the historic building stock and vernacular heritage of Fingal in both the towns and rural areas of the County by deterring the replacement of good quality older buildings with modern structures and by protecting (through the use of Architectural Conservation Areas and the Record of Public Structures and in the normal course of Development Management) these buildings where they contribute to the character of an area or town and/or where they are rare examples of a structure type.

Objective CH38 Require that the size, scale, design, form, layout and materials of extensions to vernacular dwellings or conversions of historic outbuildings take direction from the historic building stock of Fingal and are in keeping and sympathetic with the existing structure.

Objective CH39 Commission a study on the thatched buildings of Fingal to examine how to ensure their continued survival.

Cultural Quarters

Objective CH40 Support the cultural development of Swords Castle Cultural Quarter.

Objective CH41 Protect where appropriate industrial heritage structures or elements of significance identified in the Fingal Industrial Heritage Survey by adding them to the Record of Protected Structures during the lifetime of the Development Plan.

Objective CH42 Utilise the information provided within the Fingal Industrial Heritage Survey when assessing development proposals for surviving industrial heritage sites.

Objective CH43 Protect and enhance the built and natural heritage of the Royal Canal and ensure that development within its vicinity is sensitively designed and does not have a detrimental effect on the character of the Canal, its built elements and its natural heritage values and that it adheres to the Waterways Irelands Heritage Plan 2016-2020.

Objective CH44 Seek the retention and appropriate repair/maintenance of the historic bridges and harbours of the County whether Protected Structures or not.

Designed Landscapes - Historic Gardens, Demesnes and Country Estates

Objective CH45 Utilise existing surveys to identify and evaluate the surviving historic designed landscapes in Fingal and promote the conservation of their essential character, both built and natural.

Objective CH46 Require that proposals for development within historic designed landscapes include an appraisal of the designed landscape (including an ecological assessment) prior to the initial design

of any development, in order for this evaluation to inform the design which must be sensitive to and respect the built heritage elements and green space values of the site.

Objective CH47 Ensure that development within Fingal along the perimeter of the Phoenix Park adheres to the Office of Public Works's (OPW), Phoenix Park Conservation Management Plan, does not have a detrimental impact on the Park, does not damage any of the built elements along its boundary, or interrupt any important vistas into or out of it.

Objective CH48 A feasibility study of St Ita's has been completed jointly by Fingal County Council and the Health Service Executive (HSE) to determine the optimal future sustainable use of this complex and to consider the development of new modern psychiatric health care and ancillary facilities (which can include the provision of a National Forensic Mental Health Service Hospital), having regard to the cultural, visual and ecological sensitivities of the site. It is an objective of Fingal County Council to secure the implementation of the objectives laid down in this feasibility study that relate to: the re-use of the existing Protected Structures and historic building stock for appropriate uses together with the ongoing maintenance and management of these structures; the ongoing maintenance and management of existing trees and woodland and the maintenance and provision for an appropriate level of public accessibility through the site.

Awareness and Architectural Heritage

Objective CH49 Promote and enhance the understanding of the archaeological and architectural heritage of Fingal through the development of cultural tourism products, talks, exhibitions and publications.

Objective CH50 Provide universal access to archaeological and architectural heritage sites where appropriate. Ensure the archaeological and architectural heritage significance of the site is taken into account when providing such access.

Objective CH51 Endeavour to accommodate and improve universal access to Council owned archaeological and architectural heritage sites open to the general public through the dissemination of information on the Council website outlining the accessibility of these sites and, where appropriate, after an evaluation has been carried out that the significance of the site will not be damaged, establishing a programme of works to improve physical access to Council owned property following best conservation principles.

APPENDIX 14.4 GEOPHYSICAL SURVEY REPORT

APPENDIX 14.5 ARCHAEOLOGICAL TEST REPORT

GEOPHYSICAL SURVEY

REPORT

Auburn House,
Auburn, Streamstown,
Malahide,
Co. Dublin

Date:
13/02/2020

Licence: 20R0002

J. M. Leigh Surveys Ltd.
124 Oaklawn West
Leixlip
County Kildare
www.jmlsurveys.com
01 615 4647

**GEOPHYSICAL SURVEY SUMMARY SHEET
AUBURN HOUSE, STREAMSTOWN, MALAHIDE, CO. DUBLIN**

Site Name	Auburn House	Ref No.	19066
Townland	Auburn, Streamstown	Licence No.	20-R-0002
County	Co. Dublin	Licence Holder	Joanna Leigh
ITM (centre)	E720985, N745234	Purpose	Pre-planning investigation
Client	Courtney Deery Heritage Consultancy Ltd.	Reference No.	N/A

Ground Conditions Survey was conducted within several fields distributed across the application area. Ground conditions comprised short pasture with the exception of Areas D and F which comprised more overgrown ground cover strewn with modern litter and debris.

Survey Type Detailed gradiometer survey totalling c. 6.4 hectares.

Summary of Results

Buried modern services are evident in the northern part of the application area. Former agricultural activity is suggested by the identification of plough trends and possible field divisions. Several curvilinear trends have been identified, some of which may represent the fragmented remains of ditched features; although their archaeological potential is tentative given the level of modern disturbance and litter across the application area. Several isolated responses have been identified; again, interpretation is extremely cautious given the modern disturbance. They may equally represent more deeply buried ferrous debris. Possible pathways have been identified in relation to the upstanding remains at Little Auburn.

Field Staff Susan Curran & Joanna Leigh

Report Date 13/02/2020

Report Author Susan Curran

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3. Survey Methodology	2
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5. Survey Results	4
6. Conclusion	6

Geophysical Survey Report

Auburn House, Streamstown, Malahide, Co. Dublin

1 Introduction

- 1.1 A geophysical survey has been conducted by J. M. Leigh Surveys at a site in the townlands of Auburn and Streamstown, Malahide, Co. Dublin. The survey was requested by Courtney Deery Heritage Consultancy Ltd. on behalf of Hatley Homes. The survey forms part of a pre-planning investigation.
- 1.2 The application area is contained within and around the grounds of Auburn House, comprising six fields on the southern side of Malahide, Co. Dublin. Figure 1 presents the site and survey location at a scale of 1:3,000.
- 1.3 There are no recorded monuments within the application area but several recorded monuments are located within the environs of the site, particularly within the grounds of Malahide Demesne which lies c. 500m to the north-east. These comprise a castle-tower house (DU012-030), an earthwork (DU012-029), and a church (DU012-031001). A graveyard (DU012-031006), two architectural fragments (DU012-031004 & DU012-031005) and two Sheela-na-gigs (DU012-031002 & DU012-031003) are associated with the church. A 16th/17th century house (DU012-024001) and associated Sheela-na-gig (DU012-024002) lie c. 980m to the north-west. A subcircular enclosure (DU012-078) is situated c. 330m to the south-west and a mound (DU012-028) is located c. 470m to the south.
- 1.4 The main aim of the survey was to identify any responses which may represent previously unknown archaeological remains within the application area. It is the objective of the survey to identify the location, nature and extent of any responses of potential archaeological interest.
- 1.5 The detailed gradiometer survey was conducted under licence 20R0002 issued by the Department of Culture, Heritage and the Gaeltacht.

2 Survey ground conditions and further information

- 2.1 Areas available for detailed survey within the application area were limited due to dense tree cover, landscaping, buildings and roadways. Detailed survey was contained within six fields (Areas A-F) of varying dimensions which are distributed across the application area. Areas A-F comprised pasture and were suitable for survey.

- 2.2 Areas A and B are located immediately to the north and east of Auburn House. Both comprised short pasture.
- 2.3 Areas C, D and E are located in the grounds of Little Auburn and constitute its gardens. As such, there was considerable magnetic disturbance in these areas. Area C comprised somewhat overgrown vegetation as well as modern litter and debris.
- 2.4 Area F is located to the south of Auburn House and is surrounded by modern housing. As with Area C, ground conditions comprised overgrown vegetation as well as modern litter and debris. The remains of a greenhouse (or polytunnel) and recent bonfire were evident on site.
- 2.5 Gates and metal fencing around the field perimeters produced magnetic disturbance; however, this has not affected interpretation of the results.
- 2.6 Numerous manhole covers and electricity poles were present across the application area and magnetic disturbance is prominent. Metal fencing around a tree in Area B also produced strong localised magnetic disturbance. The magnetic disturbance may mask any subtle responses resulting from archaeological features.

3 Survey Methodology

- 3.1 A detailed gradiometer survey detects subtle variations in the local magnetic field and measurements are recorded in nano-Tesla (nT). Some archaeological features such as ditches, large pits and fired features have an enhanced magnetic signal and can be detected through recorded survey.
- 3.2 Data was collected with a Bartington Grad 601-2 instrument. This is a specifically designed gradiometer for use in archaeological prospection. The gradiometer operates with a dual sensor capacity making survey fast and effective.
- 3.3 The instrument is calibrated in the field to ensure a constant high quality of data. Extremely sensitive, these instruments can detect variations in soil magnetism to 0.01nT, affording diverse application throughout a variety of archaeological, soil morphological and geological conditions.
- 3.4 All data was collected in 'zigzag' traverses. Grid orientation was positioned to facilitate fieldwork.
- 3.5 Data was collected with a sample interval of 0.25m and a traverse interval of 1m, providing 6400 readings per 40m x 40m grid. The survey grid was set-out using a GPS VRS unit. Survey tie-in information is available upon request.

- 3.6 The survey methodology, data presentation and report content adheres to the European Archaeological Council (EAC) (2016) 'Guidelines for the use of Geophysics in Archaeology'.

4 Data display

- 4.1 Summary greyscale images and accompanying interpretation diagrams are presented in Figures 2-5, all at a scale of 1:1,250.
- 4.2 Numbers in parenthesis in the text refer to specific responses highlighted in the interpretation diagrams (Figures 3 & 5).
- 4.3 Isolated ferrous responses highlighted in the interpretation diagram most likely represent modern ferrous litter and debris and are not of archaeological interest. These are not discussed in the text unless considered relevant.
- 4.4 The raw gradiometer data is presented in archive format in Appendix A1.01 (Areas A & B) & A1.02 (Areas C, D, E & F). The raw data is displayed as a greyscale image and xy-trace plot, both at a scale of 1:625. The archive plots are used to aid interpretation of the results and are used for reference only. These are available as PDF images upon request.
- 4.5 The display formats referred to above and the interpretation categories are discussed in the summary technical information section at the end of this report.

5 Survey Results

Areas A & B (Figures 2 & 3)

- 5.1 Several strong magnetic linear responses are evident in both Areas A and B which correspond to buried modern services. These pipes run approximately east-west and north-south across both areas and contribute to much magnetic disturbance along their paths.
- 5.2 Several curvilinear trends (1) have been identified within the south-eastern portion of Area A. These may be of archaeological potential and may represent the partial remains of ditched features. However, interpretation is extremely tentative here given the level of modern disturbance at the site.
- 5.3 Several discrete positive magnetic responses (2) are evident across both Areas A and B. Archaeological interpretation is tentative as there is no clear pattern. These responses may equally represent more deeply buried ferrous debris.
- 5.4 Two linear trends (3) are evident in the north of Area B, just to the east of a large tree which is surrounded by metal fencing. These do not form a coherent pattern and may be the remains of (possibly modern) agricultural activity.
- 5.5 Several linear trends and broad negative responses (4) have been identified in the southern half of area B. There is no clear pattern, and these may represent natural variations. However, it is possible that these represent plough damaged remains of former landscaped features. The incoherent nature of the responses makes interpretation cautious.
- 5.6 Parallel trends visible in the south-eastern corner of this area are indicative of ploughing activity.
- 5.7 A small area of increased magnetic response (5) has been identified in the western half of Area B and in proximity to the linear trends (4). This comprises several positive magnetic responses in addition to ferrous responses. Although it is possible that this represents a spread of burnt material, there are no further responses of potential interest here. An archaeological interpretation is highly tentative given the level of modern ferrous disturbance at the site.

Areas C, D, E & F (Figures 4 & 5)

- 5.8 Areas C and E are largely dominated by modern magnetic disturbance with the exception of a possible single isolated response (2) in the north-eastern corner of Area C. Similar isolated responses are also evident in Area F. However, an archaeological interpretation is extremely cautious given the volume of modern litter

- and magnetic disturbance in these areas. There is no clear archaeological pattern and these may equally represent ferrous debris.
- 5.9 Two linear trends are evident in Area D, both running east-west across the garden in front of the dwelling of Little Auburn. Given its proximity to the house, the more northerly trend (6) may represent the remains of a buried pathway or structure associated with the house. The second trend (7) corresponds with the location of a shallow brick pathway which is marked on the mapping. The two positive magnetic responses found along this feature are likely to be associated with the pathway.
- 5.10 A fragmented magnetic linear trend (8) is evident running approximately north-south from in the southern half of Area F. This is defined by multiple ferrous and other magnetic responses. A field boundary is depicted in this approximate location on the historic Cassini 6inch mapping and it is possible that (8) is representative of its remains.
- 5.11 Further linear trends (9) are also evident in this area and may be associated with the nearby housing (to the south and north) and/or the gardening activities for which there is visible evidence.
- 5.12 A curvilinear positive magnetic trend (10) is evident to the east of (8). This may represent the remains of a curvilinear ditched feature. The response is at the limits of instrument detection and this lies within an area which has undergone much modern disturbance. As a result, an archaeological interpretation is cautious.

6 Conclusion

- 6.1 The dataset is dominated by modern disturbance which may obscure any potential archaeological remains, in particular the buried modern services which crisscross Areas A and B.
- 6.2 Several possible isolated pit-type responses have been identified in the dataset. However, interpretation is extremely cautious given the level of modern disturbance and debris at the site. The responses are isolated, and no clear archaeological pattern is evident.
- 6.3 Several curvilinear trends have been identified within the survey areas. Archaeological interpretation is cautious. There are no clear responses and the trends most likely represent more recent agricultural activity or modern ground disturbance.
- 6.4 Former agricultural activity is indicated by the presence of plough trends in the southern half of Area B.
- 6.5 Probable former field divisions have been identified, particularly in Areas B and F, one of which may correspond with a field boundary depicted on historic mapping.
- 6.6 An area of increased magnetic response in Area B may represent a spread of burnt material. However, an archaeological interpretation is highly tentative given the level of modern ferrous disturbance at the site. This may represent modern ground disturbance.
- 6.7 A linear trend identified in the immediate environs of Little Auburn corresponds to the location of a shallow brick pathway, while a second trend which lies closer to the house may represent an associated structure or feature. The trends recorded here reflect the landscaping features associated with the house.
- 6.8 Consultation with a licensed archaeologist and with the Department of Culture, Heritage and the Gaeltacht is recommended to establish if any additional archaeological works are required.

Technical Information Section

Instrumentation & Methodology

Detailed Gradiometer Survey

This is conducted to clearly define any responses detected during scanning, or can be applied as a stand-alone methodology. Detailed survey is often applied with a sample interval of 0.25m and a traverse interval of 1m. This allows detection of potential archaeological responses. Data is collected in grids 40m x 40m, and data is displayed accordingly. A more detailed survey methodology may be applied where archaeological remains are thought likely. A survey with a grid size of 10m x 10m and a traverse interval of 0.5m will provide a data set with high resolution.



Bartington GRAD 601-2

The Bartington Grad 601-2 instrument is a specifically designed gradiometer for use in archaeological prospection. The gradiometer operates with a dual sensor capacity making survey very fast and effective. The sensors have a separation of 1m allowing greater sensitivity.

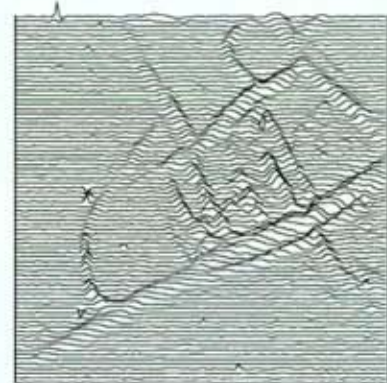
Frequent realignment of the instruments and zero drift correction; ensure a constant high quality of data. Extremely sensitive, these instruments can detect variations in soil magnetism to 0.1nT, affording diverse application throughout a variety of archaeological, soil morphological and geological conditions.



Gradiometer Data Display & Presentation

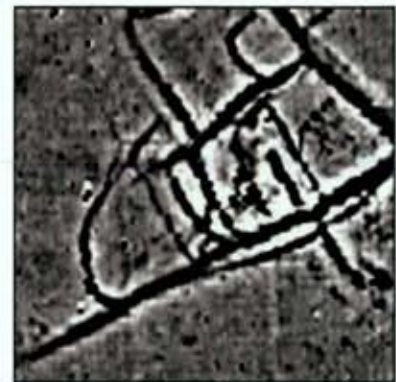
XY Trace

The data are presented as a series of linear traces, enabling a semi-profile display of the respective anomalies along the X and Y-axes. This display option is essential for distinguishing between modern ferrous materials (buried metal debris) and potential archaeological responses. The XY trace plot provides a linear display of the magnitude of the response within a given data set.



Greyscale*

As with dot density plots, the greyscale format assigns a cell to each datum according to its location on the grid. The display of each data point is conducted at very fine increments, allowing the full range of values to be displayed within the given data set. This display method also enables the identification of discrete responses that may be at the limits of instrument detection. In the summary diagrams processed, interpolated data is presented. Raw un-interpolated data is presented in the archive drawings along with the xy-trace plots.



Interpretation

An interpretation of the data is made using many of the plots presented in the final report, in addition to examination of the raw and processed data. The project managers' knowledge and experience allows a detailed interpretation of the survey results with respect to archaeological potential.



**XY Trace and raw greyscale plots are presented in archive form for display of the raw survey data. Summary greyscale images of the interpolated data are included for presentation purposes and to assist interpretation.*

Glossary of Interpretation Terms

Archaeology

This category refers to responses which are interpreted as of clear archaeological potential, and are supported by further archaeological evidence such as aerial photography or excavation. The term is generally associated with significant concentrations of former settlement, such as ditched enclosures, storage pits and associated features.

? Archaeology

This term corresponds to anomalies that display typical archaeological patterns where no record of comparative archaeological evidence is available. In some cases, it may prove difficult to distinguish between these and evidence of more recent activity also visible in the data.

? Industrial

Such anomalies generally possess a strong magnetic response and may equate with archaeological features such as kilns, furnaces, concentrations of fired debris and associated industrial material.

Area of Increased Magnetic Response

These responses often lack any distinctive archaeological form, and it is therefore difficult to assign any specific interpretation. The resulting responses are site specific, possibly associated with concentrations of archaeological debris or more recent disturbance to underlying archaeological features.

Trend

This category refers to low-level magnetic responses barely visible above the magnetic background of the soil. Interpretation is tentative, as these anomalies are often at the limits of instrument detection.

Ploughing/Ridge & Furrow

Visible as a series of linear responses, these anomalies equate with recent or archaeological cultivation activity.

? Natural

A broad response resulting from localised natural variations in the magnetic background of the subsoil; presenting as broad amorphous responses most likely resulting from geological features.

Ferrous Response

These anomalies exhibit a typically strong magnetic response, often referred to as 'iron spikes,' and are the result of modern metal debris located within the topsoil.

Area of Magnetic Disturbance

This term refers to large-scale magnetic interference from existing services or structures. The extent of this interference may in some cases obscure anomalies of potential archaeological interest.

Bibliography

European Archaeological Council (EAC) (2016) '*Guidelines for the use of Geophysics in Archaeology*' by Armin Schmidt, Paul Linford, Neil Linford, Andrew David, Chris Gaffney, Apostolos Sarris and Jörg Fassbinder.

English Heritage (2008) '*Geophysical guidelines: Geophysical Survey in Archaeological Field Evaluation.*' Second Edition.

Gaffney, C. Gater, J. & Ovenden, S. (2006) '*The use of Geophysical Techniques in Archaeological Evaluations.*' IFA Paper No. 6.

Gaffney, C & Gater, J (2003). '*Revealing the buried past: Geophysics for Archaeologists.*' Tempus Publishing Limited.

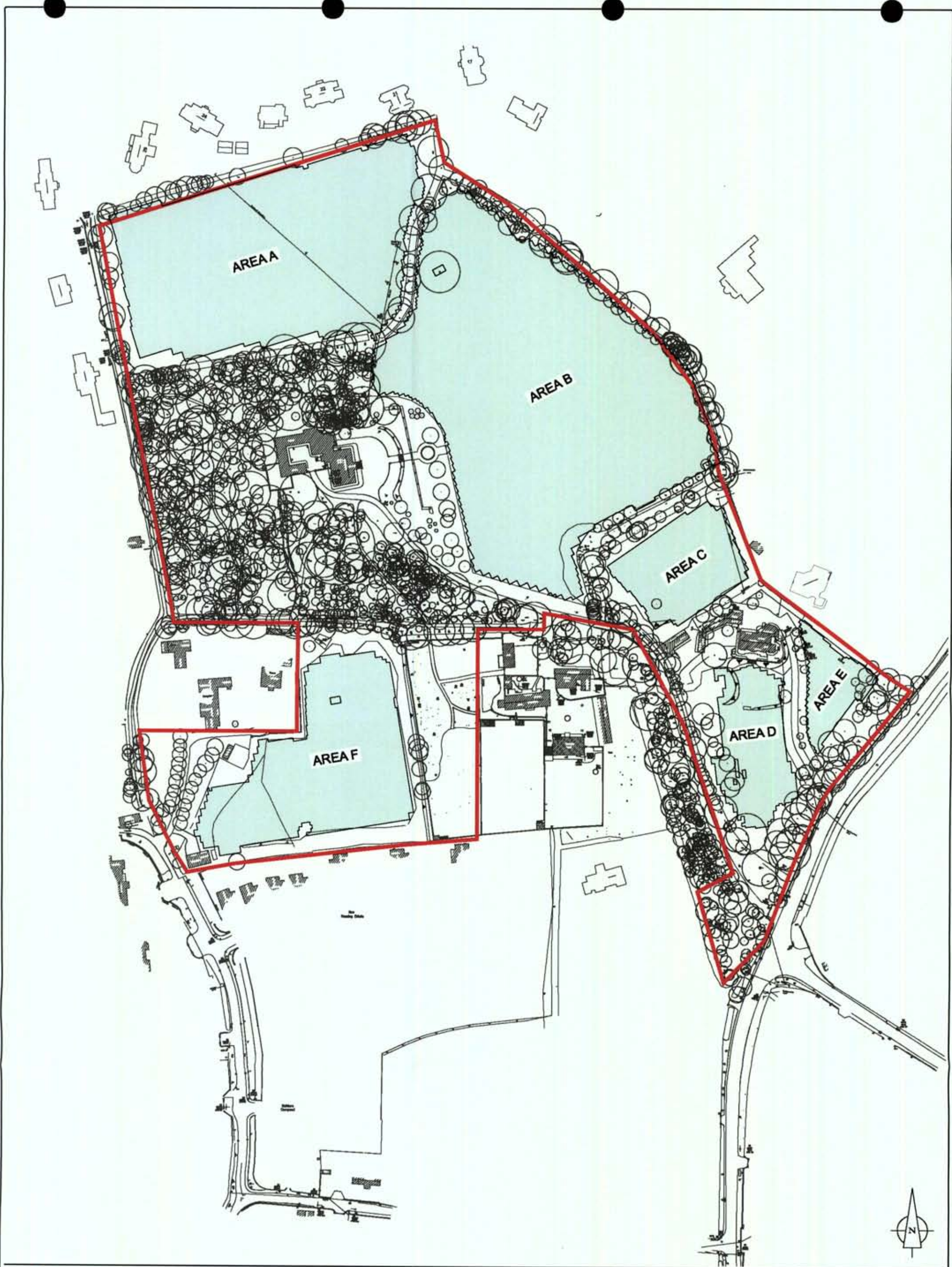
National Soil Survey of Ireland (1980) *General soil map second edition (1:575,000)*. An Foras Taluntais.

List of Figures

Figure	Description	Paper Size	Scale
Figure 1	Site & survey location diagram	A4	1:3,000
Figure 2	Summary greyscale image (A & B)	A3	1:1,250
Figure 3	Summary interpretation diagram (A & B)	A3	1:1,250
Figure 4	Summary greyscale image (C, D, E & F)	A3	1:1,250
Figure 5	Summary interpretation diagram (C, D, E & F)	A3	1:1,250

Archive Data Supplied as a PDF Upon Request

A1.01	Raw data XY-Trace plot & greyscale image (Areas A & B)	A0	1:625
A1.02	Raw data XY-Trace plot & greyscale image (Areas C, D, E & F)	A0	1:625



Client:
**Courtney Deery Heritage
 Consultancy Ltd.**

Project:
**Geophysical Survey
 Auburn House, Streamstown,
 Malahide, County Dublin**

Title:
Site & Survey Location

**J.M.Leigh
 surveys**
 www.jmlsurveys.com

Scale @ A4: **1:3,000**
 Figure: **1**
 Licence No.: **20R0002**
 Issue Date: **13.02.2020**



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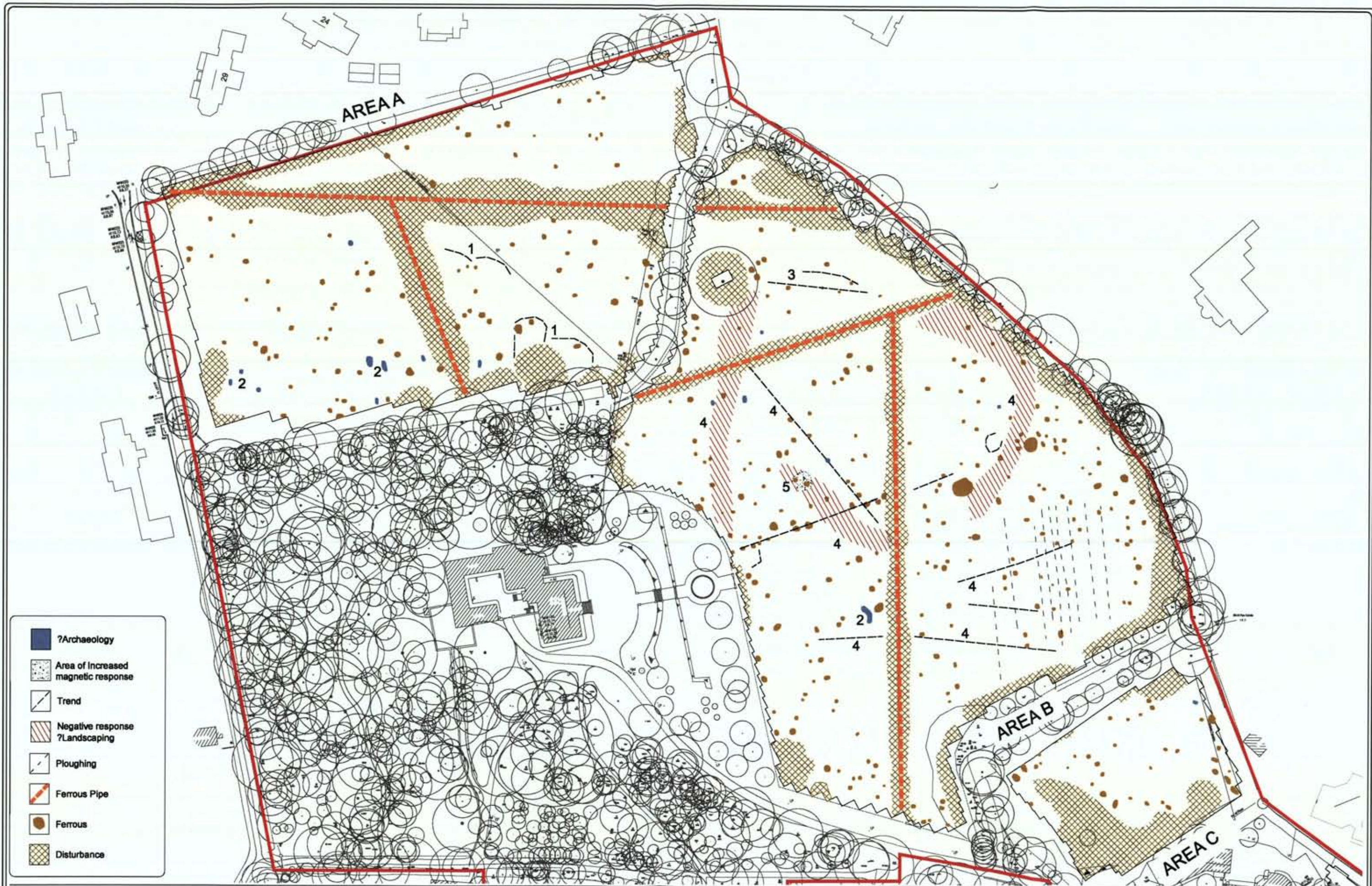
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Courtney Deery Heritage Consultancy Ltd.

Project:
Geophysical Survey
Auburn House, Streamstown
Malahide, County Dublin

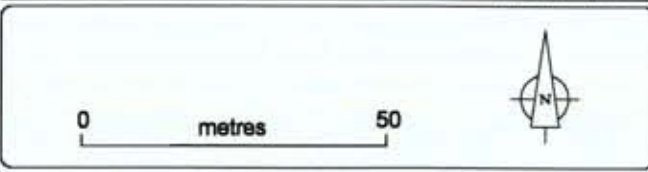
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Areas A & B:
Summary Greyscale Image

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Scale @ A3: 1:1,250
Figure: 2
Licence No.: 20R0002
Issue Date: 13/02/2020



- ?Archaeology
- Area of Increased magnetic response
- Trend
- Negative response ?Landscaping
- Ploughing
- Ferrous Pipe
- Ferrous
- Disturbance



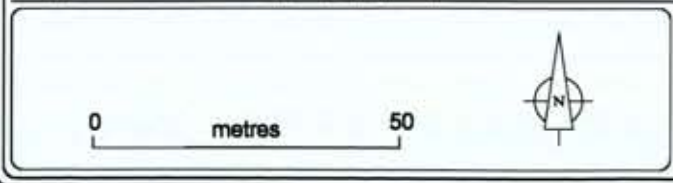
Client:
Courtney Deery Heritage Consultancy Ltd.

Project:
Geophysical Survey
Auburn House, Streamstown
Malahide, County Dublin

Title:
Areas A & B:
Summary Interpretation

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Figure: 3
Licence No.: 20R0002
Issue Date: 13.02.2020



Client:
Courtney Deery Heritage Consultancy Ltd.

Project:
**Geophysical Survey
 Auburn House, Streamstown
 Malahide, County Dublin**

Title:
**Areas C, D, E & F:
 Summary Greyscale Image**

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 Issue Date: 13/02/2020