

Appendix T – Junction 12: Owl Lane / Site Access 5s /
Dewsbury Rams (Combined)

Junction 12 – existing (2019) design

Junctions 9
PICADY 9 - Priority Intersection Module
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Filename: Junc 12 Owl Lane Site Access 5s Dewsbury Rams 2019 only Nov 2019.j9
Path: P:\133--\A13398-VAA Land at Chidswell\30 Technical\31 Modelling\2019\Off-Site\Junctions9
Report generation date: 28/11/2019 14:25:05

- »2019 Base, AM
- »2019 Base, PM

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
2019 Base										
Stream B-AC	0.0	0.00	0.00	A	57 %	0.0	10.08	0.02	B	104 %
Stream C-B	0.0	12.01	0.02	B	[Stream C-B]	0.0	9.51	0.04	A	[Stream C-B]

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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

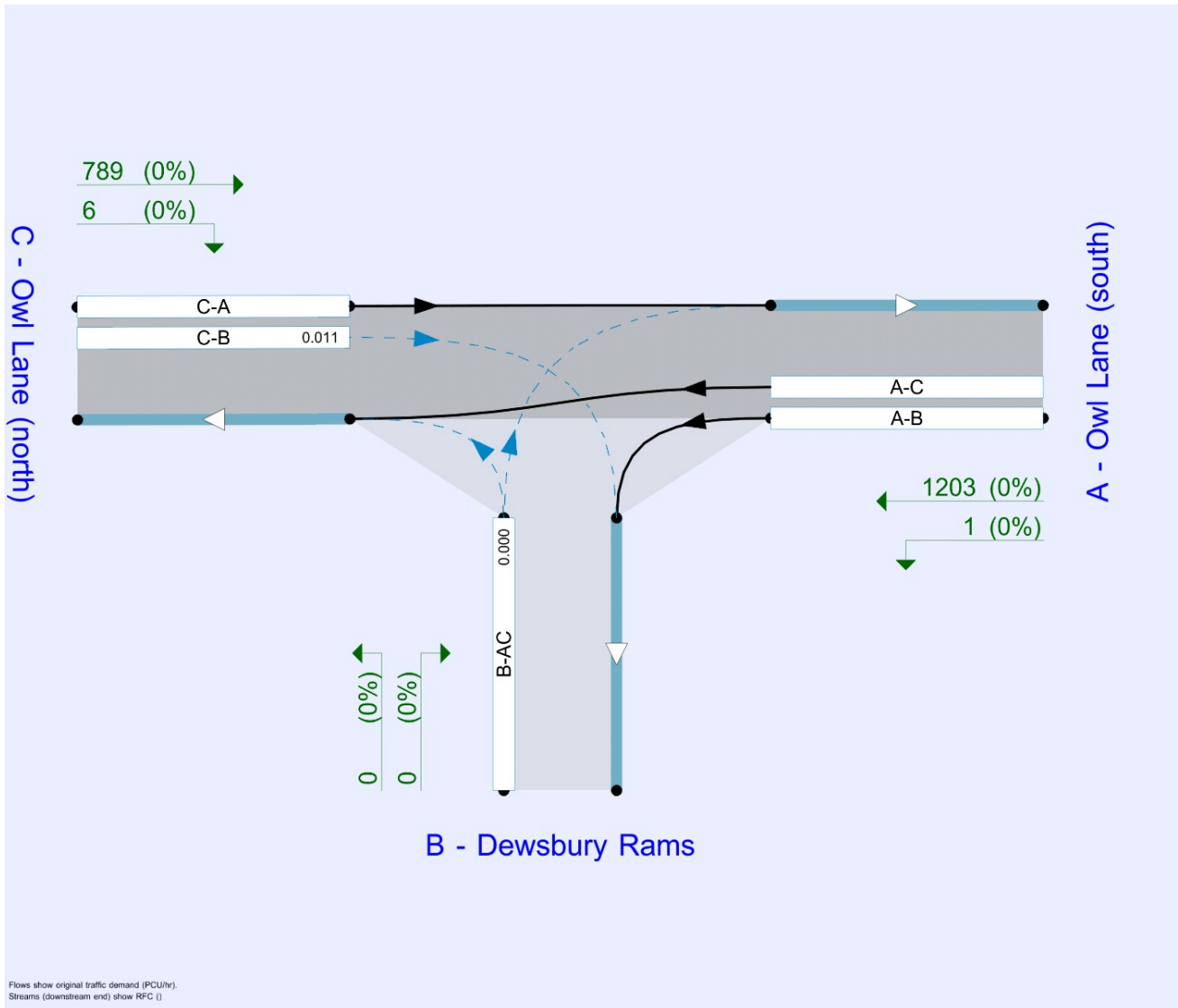
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	18/02/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\csmith
Description	

Units

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



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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
D1	2019 Base	AM	ONE HOUR	07:15	08:45	15	✓
D2	2019 Base	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

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

2019 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Owl Lane (north) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.04	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	57	Stream C-B

Arms

Arms

Arm	Name	Description	Arm type
A	Owl Lane (south)		Major
B	Dewsbury Rams		Minor
C	Owl Lane (north)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Owl Lane (north)	5.50		✓	2.50	87.0		-

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 - Dewsbury Rams	One lane	2.20	25	26

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	459	0.085	0.216	0.136	0.308
1	B-C	589	0.092	0.233	-	-
1	C-B	645	0.255	0.255	-	-

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	2019 Base	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Owl Lane (south)		ONE HOUR	✓	1204	100.000
B - Dewsbury Rams		ONE HOUR	✓	0	100.000
C - Owl Lane (north)		ONE HOUR	✓	795	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - Owl Lane (south)	B - Dewsbury Rams	C - Owl Lane (north)
A - Owl Lane (south)	0	1	1203
B - Dewsbury Rams	0	0	0
C - Owl Lane (north)	789	6	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - Owl Lane (south)	B - Dewsbury Rams	C - Owl Lane (north)
A - Owl Lane (south)	0	0	0
B - Dewsbury Rams	0	0	0
C - Owl Lane (north)	0	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	0.00	0.00	0.0	A	0	0
C-A					724	1086
C-B	0.02	12.01	0.0	B	6	8
A-B					0.92	1
A-C					1104	1656

Main Results for each time segment

07:15 - 07:30

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	0	0	245	0.000	0	0.0	0.0	0.000	A
C-A	594	149			594				
C-B	5	1	413	0.011	4	0.0	0.0	8.802	A
A-B	0.75	0.19			0.75				
A-C	906	226			906				

07:30 - 07:45

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	0	0	185	0.000	0	0.0	0.0	0.000	A
C-A	709	177			709				
C-B	5	1	368	0.015	5	0.0	0.0	9.914	A
A-B	0.90	0.22			0.90				
A-C	1081	270			1081				

07:45 - 08:00

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	0	0	89	0.000	0	0.0	0.0	0.000	A
C-A	869	217			869				
C-B	7	2	306	0.022	7	0.0	0.0	12.008	B
A-B	1	0.28			1				
A-C	1325	331			1325				

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	0	0	89	0.000	0	0.0	0.0	0.000	A
C-A	869	217			869				
C-B	7	2	306	0.022	7	0.0	0.0	12.008	B
A-B	1	0.28			1				
A-C	1325	331			1325				

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	0	0	185	0.000	0	0.0	0.0	0.000	A
C-A	709	177			709				
C-B	5	1	368	0.015	5	0.0	0.0	9.916	A
A-B	0.90	0.22			0.90				
A-C	1081	270			1081				

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	0	0	245	0.000	0	0.0	0.0	0.000	A
C-A	594	149			594				
C-B	5	1	413	0.011	5	0.0	0.0	8.807	A
A-B	0.75	0.19			0.75				
A-C	906	226			906				

2019 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Owl Lane (north) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.10	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	104	Stream C-B

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	2019 Base	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Owl Lane (south)		ONE HOUR	✓	889	100.000
B - Dewsbury Rams		ONE HOUR	✓	5	100.000
C - Owl Lane (north)		ONE HOUR	✓	995	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Owl Lane (south)	B - Dewsbury Rams	C - Owl Lane (north)
From	A - Owl Lane (south)	0	12	877
	B - Dewsbury Rams	0	0	5
	C - Owl Lane (north)	980	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Owl Lane (south)	B - Dewsbury Rams	C - Owl Lane (north)
From	A - Owl Lane (south)	0	0	0
	B - Dewsbury Rams	0	0	0
	C - Owl Lane (north)	0	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	0.02	10.08	0.0	B	5	7
C-A					899	1349
C-B	0.04	9.51	0.0	A	14	21
A-B					11	17
A-C					805	1207

Main Results for each time segment

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	4	0.94	434	0.009	4	0.0	0.0	8.362	A
C-A	738	184			738				
C-B	11	3	474	0.024	11	0.0	0.0	7.778	A
A-B	9	2			9				
A-C	660	165			660				

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	4	1	404	0.011	4	0.0	0.0	9.006	A
C-A	881	220			881				
C-B	13	3	441	0.031	13	0.0	0.0	8.425	A
A-B	11	3			11				
A-C	788	197			788				

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	6	1	363	0.015	5	0.0	0.0	10.079	B
C-A	1079	270			1079				
C-B	17	4	395	0.042	16	0.0	0.0	9.511	A
A-B	13	3			13				
A-C	966	241			966				

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	6	1	363	0.015	6	0.0	0.0	10.079	B
C-A	1079	270			1079				
C-B	17	4	395	0.042	17	0.0	0.0	9.513	A
A-B	13	3			13				
A-C	966	241			966				

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	4	1	404	0.011	5	0.0	0.0	9.009	A
C-A	881	220			881				
C-B	13	3	441	0.031	14	0.0	0.0	8.427	A
A-B	11	3			11				
A-C	788	197			788				

17:30 - 17:45

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	4	0.94	434	0.009	4	0.0	0.0	8.364	A
C-A	738	184			738				
C-B	11	3	474	0.024	11	0.0	0.0	7.782	A
A-B	9	2			9				
A-C	660	165			660				

Junction 12 – Barratt design

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Junc12 Owl Lane-Southern Site Access5-Dewsbury Rams 2024&2030 only Feb 2020_Bar.j9

Path: \\Lon-file-01\engineering\133--\A13398-VAA Land at Chidswell\30 Technical\31 Modelling\2019\Off-Site\Junctions9

Report generation date: 10/03/2020 15:22:24

-
- »2024 DN, AM
 - »2024 DN, PM
 - »2030 DN, AM
 - »2030 DN, PM
 - »2024 DS(A), AM
 - »2024 DS(A), PM
 - »2024 DS(A+B), AM
 - »2024 DS(A+B), PM
 - »2030 DS(A) , AM
 - »2030 DS(A) , PM
 - »2030 DS(A+B), AM
 - »2030 DS(A+B), PM

Summary of junction performance

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Net Res Cap
2024 DN																
1 - Southern Site Access 5	0.1	0.5	3.12	0.12	A	3.96	A	47 % [2 - Owl Lane (East)]	0.1	0.5	3.19	0.07	A	3.53	A	[4 - L (W)
2 - Owl Lane (East)	1.8	3.3	4.56	0.64	A				0.9	1.5	3.01	0.47	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	5.94	0.01	A			
4 - Owl Lane (West)	0.9	1.5	3.22	0.46	A				1.3	1.7	4.02	0.56	A			
2030 DN																
1 - Southern Site Access 5	0.1	0.5	3.27	0.13	A	4.31	A	41 % [2 - Owl Lane (East)]	0.1	0.5	3.25	0.07	A	3.61	A	[4 - L (W)
2 - Owl Lane (East)	2.1	4.2	5.02	0.68	A				0.9	1.5	3.02	0.47	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	5.97	0.01	A			
4 - Owl Lane (West)	1.0	1.5	3.44	0.50	A				1.4	1.9	4.15	0.58	A			
2024 DS(A)																
1 - Southern Site Access 5	0.1	0.5	3.13	0.12	A	3.98	A	47 % [2 - Owl Lane (East)]	0.1	0.5	3.20	0.07	A	3.54	A	[4 - L (W)
2 - Owl Lane (East)	1.8	3.4	4.58	0.65	A				0.9	1.5	3.02	0.47	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	5.96	0.01	A			
4 - Owl Lane (West)	0.9	1.5	3.23	0.46	A				1.3	1.7	4.03	0.57	A			
2024 DS(A+B)																
1 - Southern Site Access 5	0.1	0.5	3.14	0.12	A	4.08	A	45 % [2 - Owl Lane (East)]	0.1	0.5	3.25	0.07	A	3.60	A	[4 - L (W)
2 - Owl Lane (East)	1.9	3.7	4.74	0.66	A				0.9	1.5	3.02	0.47	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	5.98	0.01	A			
4 - Owl Lane (West)	0.9	1.5	3.24	0.47	A				1.4	1.9	4.14	0.58	A			
2030 DS(A)																
1 - Southern Site Access 5	0.1	0.5	3.28	0.13	A	4.33	A	41 % [2 - Owl Lane (East)]	0.1	0.5	3.26	0.07	A	3.63	A	[4 - L (W)
2 - Owl Lane (East)	2.1	4.2	5.03	0.68	A				0.9	1.5	3.04	0.47	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	6.00	0.01	A			
4 - Owl Lane (West)	1.0	1.5	3.46	0.50	A				1.4	1.9	4.17	0.58	A			
2030 DS(A+B)																
1 - Southern Site Access 5	1.2	2.6	6.82	0.54	A	7.56	A	14 % [2 - Owl Lane (East)]	0.6	2.9	5.51	0.38	A	8.76	A	[4 - L (W)
2 - Owl Lane (East)	4.4	18.9	10.04	0.82	B				2.1	3.9	5.34	0.68	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	11.87	0.02	B			
4 - Owl Lane (West)	1.7	3.0	4.86	0.64	A				5.6	27.9	12.41	0.85	B			

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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

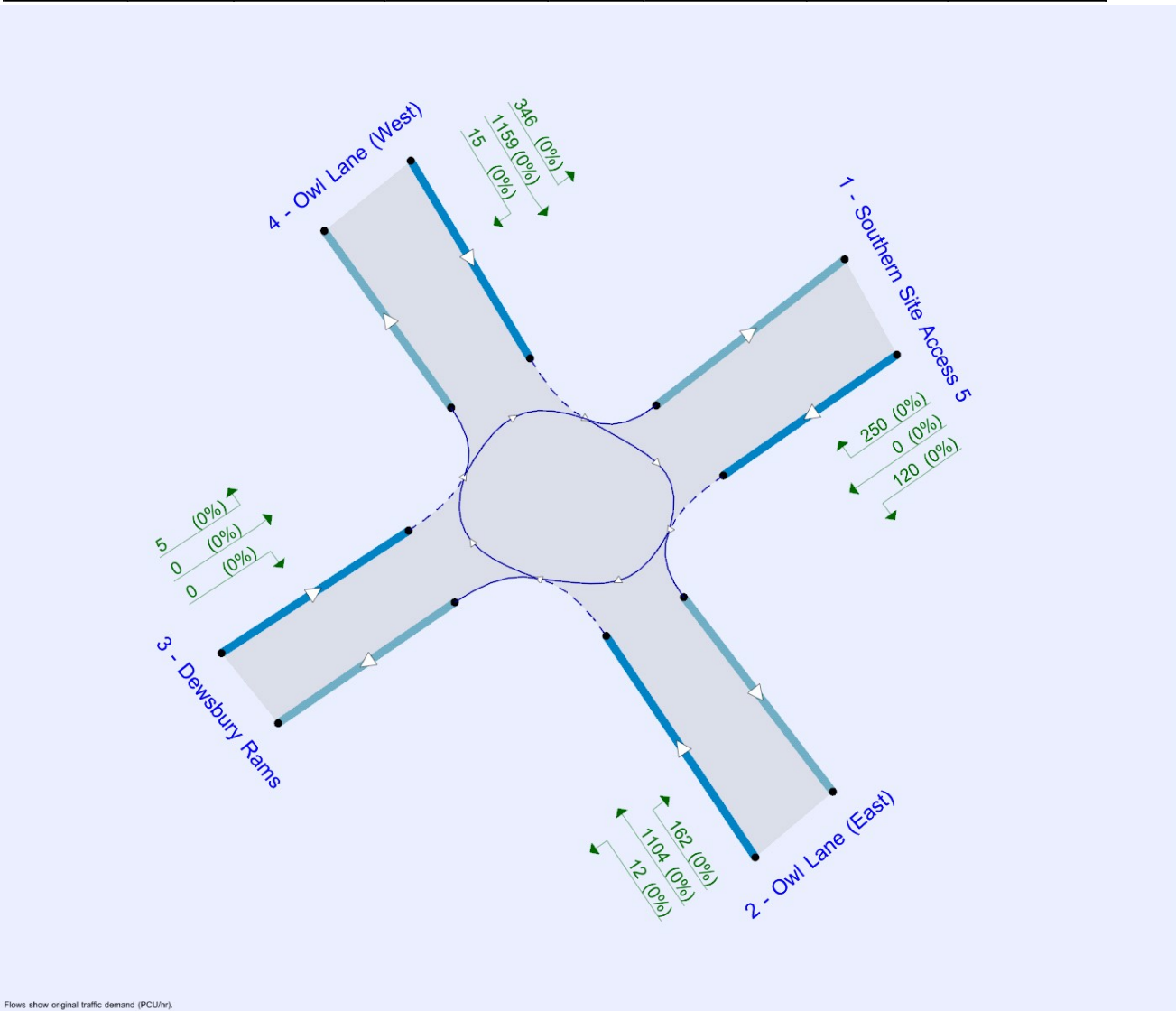
File summary

File Description

Title	
Location	
Site number	
Date	20/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\PAhrens
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	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
D1	2024 DN	AM	ONE HOUR	08:00	09:30	15	✓
D2	2024 DN	PM	ONE HOUR	17:00	18:30	15	✓
D3	2030 DN	AM	ONE HOUR	08:00	09:30	15	✓
D4	2030 DN	PM	ONE HOUR	17:00	18:30	15	✓
D5	2024 DS(A)	AM	ONE HOUR	08:00	09:30	15	✓
D6	2024 DS(A)	PM	ONE HOUR	17:00	18:30	15	✓
D7	2024 DS(A+B)	AM	ONE HOUR	08:00	09:30	15	✓
D8	2024 DS(A+B)	PM	ONE HOUR	17:00	18:30	15	✓
D9	2030 DS(A)	AM	ONE HOUR	08:00	09:30	15	✓
D10	2030 DS(A)	PM	ONE HOUR	17:00	18:30	15	✓
D11	2030 DS(A+B)	AM	ONE HOUR	08:00	09:30	15	✓
D12	2030 DS(A+B)	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2024 DN, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	3.96	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	47	2 - Owl Lane (East)

Arms

Arms

Arm	Name	Description
1	Southern Site Access 5	
2	Owl Lane (East)	
3	Dewsbury Rams	
4	Owl Lane (West)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Southern Site Access 5	4.90	6.52	28.0	21.0	41.0	19.5	
2 - Owl Lane (East)	6.72	7.71	19.0	19.0	41.0	28.0	
3 - Dewsbury Rams	3.70	4.47	2.4	10.0	41.0	28.0	
4 - Owl Lane (West)	4.27	7.49	27.0	22.0	41.0	18.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Southern Site Access 5	0.705	1972
2 - Owl Lane (East)	0.761	2303
3 - Dewsbury Rams	0.524	1184
4 - Owl Lane (West)	0.731	2092

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

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	2024 DN	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1301	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	872	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1284
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	840	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.12	3.12	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.64	4.56	1.8	3.3	A	1194	1791
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.46	3.22	0.9	1.5	A	800	1200

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	635	1524	0.073	111	32	0.0	0.1	2.547	A
2 - Owl Lane (East)	979	245	74	2247	0.436	976	673	0.0	0.8	2.825	A
3 - Dewsbury Rams	0	0	1045	637	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	656	164	12	2083	0.315	655	1033	0.0	0.5	2.516	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	760	1436	0.093	133	38	0.1	0.1	2.761	A
2 - Owl Lane (East)	1170	292	88	2236	0.523	1168	805	0.8	1.1	3.366	A
3 - Dewsbury Rams	0	0	1250	529	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	784	196	14	2082	0.377	783	1236	0.5	0.6	2.771	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	930	1316	0.124	163	46	0.1	0.1	3.120	A
2 - Owl Lane (East)	1432	358	108	2221	0.645	1430	985	1.1	1.8	4.531	A
3 - Dewsbury Rams	0	0	1530	382	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	960	240	18	2079	0.462	959	1512	0.6	0.9	3.210	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	931	1315	0.124	163	46	0.1	0.1	3.122	A
2 - Owl Lane (East)	1432	358	108	2221	0.645	1432	987	1.8	1.8	4.563	A
3 - Dewsbury Rams	0	0	1533	381	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	960	240	18	2079	0.462	960	1515	0.9	0.9	3.215	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	761	1435	0.093	133	38	0.1	0.1	2.764	A
2 - Owl Lane (East)	1170	292	88	2236	0.523	1172	806	1.8	1.1	3.394	A
3 - Dewsbury Rams	0	0	1254	527	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	784	196	14	2082	0.377	785	1240	0.9	0.6	2.777	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	637	1523	0.073	112	32	0.1	0.1	2.552	A
2 - Owl Lane (East)	979	245	74	2247	0.436	981	675	1.1	0.8	2.847	A
3 - Dewsbury Rams	0	0	1049	634	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	656	164	12	2083	0.315	657	1037	0.6	0.5	2.526	A

Queue Variation Results for each time segment
08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.77	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.46	0.00	0.00	0.46	0.46			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - Owl Lane (East)	1.09	0.06	0.67	2.33	3.33			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.60	0.09	0.80	1.36	1.43			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.14	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	1.79	0.03	0.26	1.79	1.79			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.85	0.03	0.25	0.85	0.85			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.14	0.00	0.00	0.14	0.14			N/A	N/A
2 - Owl Lane (East)	1.80	0.03	0.26	1.80	1.80			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.86	0.03	0.27	0.86	1.49			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - Owl Lane (East)	1.11	0.26	1.08	1.55	1.82			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.61	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.78	0.08	0.79	1.43	1.43			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.46	0.00	0.00	0.46	0.46			N/A	N/A

2024 DN, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	3.53	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	69	4 - Owl Lane (West)

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	2024 DN	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	959	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1056	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	905
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	971	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.07	3.19	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.47	3.01	0.9	1.5	A	880	1320
3 - Dewsbury Rams	0.01	5.94	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.56	4.02	1.3	1.7	A	969	1454

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	741	1450	0.037	54	83	0.0	0.0	2.578	A
2 - Owl Lane (East)	722	180	46	2268	0.318	720	749	0.0	0.5	2.322	A
3 - Dewsbury Rams	4	0.94	746	793	0.005	4	20	0.0	0.0	4.558	A
4 - Owl Lane (West)	795	199	32	2069	0.384	793	718	0.0	0.6	2.816	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	886	1347	0.048	65	100	0.0	0.1	2.806	A
2 - Owl Lane (East)	862	216	55	2262	0.381	862	896	0.5	0.6	2.569	A
3 - Dewsbury Rams	4	1	892	717	0.006	4	24	0.0	0.0	5.054	A
4 - Owl Lane (West)	949	237	38	2065	0.460	948	859	0.6	0.8	3.222	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1085	1207	0.066	79	122	0.1	0.1	3.191	A
2 - Owl Lane (East)	1056	264	67	2252	0.469	1055	1097	0.6	0.9	3.003	A
3 - Dewsbury Rams	6	1	1092	612	0.009	5	30	0.0	0.0	5.937	A
4 - Owl Lane (West)	1163	291	46	2058	0.565	1161	1052	0.8	1.3	4.003	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1087	1206	0.066	79	122	0.1	0.1	3.194	A
2 - Owl Lane (East)	1056	264	67	2252	0.469	1056	1099	0.9	0.9	3.008	A
3 - Dewsbury Rams	6	1	1093	611	0.009	6	30	0.0	0.0	5.943	A
4 - Owl Lane (West)	1163	291	46	2058	0.565	1163	1053	1.3	1.3	4.019	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	889	1345	0.048	65	100	0.1	0.1	2.812	A
2 - Owl Lane (East)	862	216	55	2261	0.381	863	899	0.9	0.6	2.575	A
3 - Dewsbury Rams	4	1	894	716	0.006	5	24	0.0	0.0	5.062	A
4 - Owl Lane (West)	949	237	38	2064	0.460	951	860	1.3	0.9	3.237	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	744	1448	0.037	54	84	0.1	0.0	2.582	A
2 - Owl Lane (East)	722	180	46	2268	0.318	723	752	0.6	0.5	2.331	A
3 - Dewsbury Rams	4	0.94	748	792	0.005	4	20	0.0	0.0	4.566	A
4 - Owl Lane (West)	795	199	32	2069	0.384	796	720	0.9	0.6	2.831	A

Queue Variation Results for each time segment
17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.62	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.61	0.08	0.79	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.85	0.07	0.81	1.29	1.74			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.03	0.26	0.47	0.49			N/A	N/A
2 - Owl Lane (East)	0.88	0.03	0.25	0.88	0.88			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.29	0.03	0.26	1.29	1.29			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	0.88	0.03	0.27	0.88	1.28			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.29	0.03	0.26	1.29	1.29			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2 - Owl Lane (East)	0.62	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.86	0.53	0.99	1.40	1.45			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.63	0.09	0.82	1.36	1.43			N/A	N/A

2030 DN, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	4.31	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	41	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2030 DN	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1366	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	938	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1349
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	906	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.13	3.27	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.68	5.02	2.1	4.2	A	1253	1880
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.50	3.44	1.0	1.5	A	861	1291

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	685	1490	0.075	111	32	0.0	0.1	2.611	A
2 - Owl Lane (East)	1028	257	74	2247	0.458	1025	722	0.0	0.8	2.938	A
3 - Dewsbury Rams	0	0	1093	611	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	706	177	12	2083	0.339	704	1081	0.0	0.5	2.607	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	819	1395	0.095	133	38	0.1	0.1	2.852	A
2 - Owl Lane (East)	1228	307	88	2236	0.549	1227	864	0.8	1.2	3.561	A
3 - Dewsbury Rams	0	0	1308	498	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	843	211	14	2082	0.405	843	1294	0.5	0.7	2.904	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	1003	1265	0.129	163	46	0.1	0.1	3.265	A
2 - Owl Lane (East)	1504	376	108	2221	0.677	1501	1058	1.2	2.1	4.971	A
3 - Dewsbury Rams	0	0	1601	345	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1033	258	18	2079	0.497	1032	1583	0.7	1.0	3.433	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	1004	1264	0.129	163	46	0.1	0.1	3.268	A
2 - Owl Lane (East)	1504	376	108	2221	0.677	1504	1059	2.1	2.1	5.019	A
3 - Dewsbury Rams	0	0	1604	343	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1033	258	18	2079	0.497	1033	1587	1.0	1.0	3.439	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	821	1393	0.095	133	38	0.1	0.1	2.858	A
2 - Owl Lane (East)	1228	307	88	2236	0.549	1231	866	2.1	1.2	3.594	A
3 - Dewsbury Rams	0	0	1313	496	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	843	211	14	2082	0.405	844	1299	1.0	0.7	2.912	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	687	1488	0.075	112	32	0.1	0.1	2.615	A
2 - Owl Lane (East)	1028	257	74	2247	0.458	1030	725	1.2	0.8	2.960	A
3 - Dewsbury Rams	0	0	1098	608	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	706	177	12	2083	0.339	707	1086	0.7	0.5	2.616	A

Queue Variation Results for each time segment

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.84	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.51	0.51	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.11	0.00	0.00	0.11	0.11			N/A	N/A
2 - Owl Lane (East)	1.21	0.05	0.56	2.81	4.15			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.68	0.09	0.81	1.37	1.44			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.15	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	2.06	0.03	0.26	2.06	2.06			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.98	0.03	0.25	0.98	0.98			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.15	0.00	0.00	0.15	0.15			N/A	N/A
2 - Owl Lane (East)	2.08	0.03	0.26	2.08	2.08			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.98	0.03	0.27	0.98	1.29			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.11	0.00	0.00	0.11	0.11			N/A	N/A
2 - Owl Lane (East)	1.23	0.17	1.13	1.86	2.33			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.68	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.85	0.07	0.76	1.44	1.85			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.52	0.52	1.00	1.40	1.45			N/A	N/A

2030 DN, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	3.61	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	65	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2030 DN	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	964	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1082	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	910
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	997	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.07	3.25	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.47	3.02	0.9	1.5	A	885	1327
3 - Dewsbury Rams	0.01	5.97	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.58	4.15	1.4	1.9	A	993	1489

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	760	1436	0.038	54	83	0.0	0.0	2.604	A
2 - Owl Lane (East)	726	181	46	2268	0.320	724	768	0.0	0.5	2.327	A
3 - Dewsbury Rams	4	0.94	749	791	0.005	4	20	0.0	0.0	4.569	A
4 - Owl Lane (West)	815	204	32	2069	0.394	812	722	0.0	0.6	2.857	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	910	1331	0.049	65	100	0.0	0.1	2.842	A
2 - Owl Lane (East)	867	217	55	2262	0.383	866	920	0.5	0.6	2.578	A
3 - Dewsbury Rams	4	1	897	714	0.006	4	24	0.0	0.0	5.071	A
4 - Owl Lane (West)	973	243	38	2065	0.471	972	863	0.6	0.9	3.291	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1114	1187	0.067	79	122	0.1	0.1	3.249	A
2 - Owl Lane (East)	1061	265	67	2252	0.471	1060	1126	0.6	0.9	3.017	A
3 - Dewsbury Rams	6	1	1098	609	0.009	5	30	0.0	0.0	5.966	A
4 - Owl Lane (West)	1191	298	46	2058	0.579	1189	1057	0.9	1.4	4.133	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1115	1186	0.067	79	122	0.1	0.1	3.252	A
2 - Owl Lane (East)	1061	265	67	2252	0.471	1061	1127	0.9	0.9	3.022	A
3 - Dewsbury Rams	6	1	1099	608	0.009	6	30	0.0	0.0	5.971	A
4 - Owl Lane (West)	1191	298	46	2058	0.579	1191	1058	1.4	1.4	4.151	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	912	1329	0.049	65	100	0.1	0.1	2.847	A
2 - Owl Lane (East)	867	217	55	2261	0.383	868	922	0.9	0.6	2.586	A
3 - Dewsbury Rams	4	1	898	713	0.006	5	24	0.0	0.0	5.079	A
4 - Owl Lane (West)	973	243	38	2064	0.471	975	865	1.4	0.9	3.307	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	764	1434	0.038	54	84	0.1	0.0	2.608	A
2 - Owl Lane (East)	726	181	46	2268	0.320	726	772	0.6	0.5	2.337	A
3 - Dewsbury Rams	4	0.94	752	790	0.005	4	20	0.0	0.0	4.577	A
4 - Owl Lane (West)	815	204	32	2069	0.394	816	724	0.9	0.7	2.875	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.65	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.62	0.08	0.79	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.88	0.07	0.81	1.49	1.88			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.03	0.26	0.47	0.49			N/A	N/A
2 - Owl Lane (East)	0.89	0.03	0.25	0.89	0.89			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.36	0.03	0.26	1.36	1.36			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	0.89	0.03	0.27	0.89	1.22			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.37	0.03	0.26	1.37	1.37			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2 - Owl Lane (East)	0.62	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.90	0.52	0.99	1.41	1.47			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.65	0.09	0.81	1.37	1.43			N/A	N/A

2024 DS(A), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	3.98	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	47	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 DS(A)	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1303	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	876	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1286
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	844	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.12	3.13	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.65	4.58	1.8	3.4	A	1196	1793
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.46	3.23	0.9	1.5	A	804	1206

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	638	1522	0.073	111	32	0.0	0.1	2.550	A
2 - Owl Lane (East)	981	245	74	2247	0.437	978	676	0.0	0.8	2.828	A
3 - Dewsbury Rams	0	0	1046	636	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	659	165	12	2083	0.317	658	1034	0.0	0.5	2.521	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	764	1434	0.093	133	38	0.1	0.1	2.766	A
2 - Owl Lane (East)	1171	293	88	2236	0.524	1170	808	0.8	1.1	3.371	A
3 - Dewsbury Rams	0	0	1252	528	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	788	197	14	2082	0.378	787	1237	0.5	0.6	2.779	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	935	1313	0.124	163	46	0.1	0.1	3.129	A
2 - Owl Lane (East)	1435	359	108	2221	0.646	1432	990	1.1	1.8	4.543	A
3 - Dewsbury Rams	0	0	1532	381	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	964	241	18	2079	0.464	963	1514	0.6	0.9	3.223	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	936	1312	0.124	163	46	0.1	0.1	3.131	A
2 - Owl Lane (East)	1435	359	108	2221	0.646	1435	991	1.8	1.8	4.576	A
3 - Dewsbury Rams	0	0	1535	380	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	964	241	18	2079	0.464	964	1517	0.9	0.9	3.228	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	765	1433	0.093	133	38	0.1	0.1	2.769	A
2 - Owl Lane (East)	1171	293	88	2236	0.524	1174	810	1.8	1.1	3.400	A
3 - Dewsbury Rams	0	0	1256	526	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	788	197	14	2082	0.378	789	1242	0.9	0.6	2.785	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	640	1521	0.073	112	32	0.1	0.1	2.556	A
2 - Owl Lane (East)	981	245	74	2247	0.437	982	678	1.1	0.8	2.850	A
3 - Dewsbury Rams	0	0	1051	633	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	659	165	12	2083	0.317	660	1039	0.6	0.5	2.530	A

Queue Variation Results for each time segment

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.77	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.46	0.00	0.00	0.46	0.46			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - Owl Lane (East)	1.09	0.06	0.67	2.35	3.36			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.61	0.09	0.80	1.36	1.43			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.14	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	1.80	0.03	0.26	1.80	1.80			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.86	0.03	0.25	0.86	0.86			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.14	0.00	0.00	0.14	0.14			N/A	N/A
2 - Owl Lane (East)	1.81	0.03	0.26	1.81	1.81			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.86	0.03	0.27	0.86	1.44			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - Owl Lane (East)	1.11	0.26	1.08	1.56	1.83			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.61	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.78	0.08	0.79	1.45	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.47	0.00	0.00	0.47	0.47			N/A	N/A

2024 DS(A), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	3.54	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	68	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 DS(A)	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	962	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1058	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	908
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	973	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.07	3.20	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.47	3.02	0.9	1.5	A	883	1324
3 - Dewsbury Rams	0.01	5.96	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.57	4.03	1.3	1.7	A	971	1456

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	742	1449	0.037	54	83	0.0	0.0	2.580	A
2 - Owl Lane (East)	724	181	46	2268	0.319	722	751	0.0	0.5	2.325	A
3 - Dewsbury Rams	4	0.94	748	792	0.005	4	20	0.0	0.0	4.565	A
4 - Owl Lane (West)	797	199	32	2069	0.385	794	720	0.0	0.6	2.819	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	888	1346	0.048	65	100	0.0	0.1	2.809	A
2 - Owl Lane (East)	865	216	55	2262	0.382	864	898	0.5	0.6	2.574	A
3 - Dewsbury Rams	4	1	895	715	0.006	4	24	0.0	0.0	5.064	A
4 - Owl Lane (West)	951	238	38	2065	0.461	950	862	0.6	0.8	3.227	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1087	1206	0.066	79	122	0.1	0.1	3.195	A
2 - Owl Lane (East)	1059	265	67	2252	0.470	1058	1099	0.6	0.9	3.012	A
3 - Dewsbury Rams	6	1	1096	610	0.009	5	30	0.0	0.0	5.954	A
4 - Owl Lane (West)	1165	291	46	2058	0.566	1163	1055	0.8	1.3	4.013	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1089	1204	0.066	79	122	0.1	0.1	3.198	A
2 - Owl Lane (East)	1059	265	67	2252	0.470	1059	1101	0.9	0.9	3.016	A
3 - Dewsbury Rams	6	1	1097	609	0.009	6	30	0.0	0.0	5.960	A
4 - Owl Lane (West)	1165	291	46	2058	0.566	1165	1056	1.3	1.3	4.029	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	891	1344	0.048	65	100	0.1	0.1	2.815	A
2 - Owl Lane (East)	865	216	55	2261	0.382	866	901	0.9	0.6	2.580	A
3 - Dewsbury Rams	4	1	896	714	0.006	5	24	0.0	0.0	5.073	A
4 - Owl Lane (West)	951	238	38	2064	0.461	953	863	1.3	0.9	3.242	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	745	1447	0.037	54	84	0.1	0.0	2.586	A
2 - Owl Lane (East)	724	181	46	2268	0.319	725	754	0.6	0.5	2.332	A
3 - Dewsbury Rams	4	0.94	750	791	0.005	4	20	0.0	0.0	4.575	A
4 - Owl Lane (West)	797	199	32	2069	0.385	797	723	0.9	0.6	2.834	A

Queue Variation Results for each time segment
17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.62	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.62	0.08	0.79	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.85	0.07	0.81	1.31	1.75			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.03	0.26	0.47	0.49			N/A	N/A
2 - Owl Lane (East)	0.88	0.03	0.25	0.88	0.88			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.29	0.03	0.26	1.29	1.29			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	0.89	0.03	0.27	0.89	1.24			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.30	0.03	0.26	1.30	1.30			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2 - Owl Lane (East)	0.62	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.86	0.53	0.99	1.40	1.45			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.63	0.09	0.82	1.36	1.43			N/A	N/A

2024 DS(A+B), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	4.08	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	45	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 DS(A+B)	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1328	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	879	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1311
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	847	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.12	3.14	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.66	4.74	1.9	3.7	A	1219	1828
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.47	3.24	0.9	1.5	A	807	1210

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	640	1521	0.073	111	32	0.0	0.1	2.553	A
2 - Owl Lane (East)	1000	250	74	2247	0.445	997	678	0.0	0.8	2.871	A
3 - Dewsbury Rams	0	0	1065	626	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	662	165	12	2083	0.318	660	1053	0.0	0.5	2.525	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	766	1432	0.093	133	38	0.1	0.1	2.770	A
2 - Owl Lane (East)	1194	298	88	2236	0.534	1192	811	0.8	1.1	3.444	A
3 - Dewsbury Rams	0	0	1274	516	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	790	198	14	2082	0.380	790	1260	0.5	0.6	2.784	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	938	1311	0.124	163	46	0.1	0.1	3.135	A
2 - Owl Lane (East)	1462	366	108	2221	0.658	1459	993	1.1	1.9	4.704	A
3 - Dewsbury Rams	0	0	1559	367	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	968	242	18	2079	0.465	967	1542	0.6	0.9	3.233	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	939	1310	0.124	163	46	0.1	0.1	3.137	A
2 - Owl Lane (East)	1462	366	108	2221	0.658	1462	994	1.9	1.9	4.742	A
3 - Dewsbury Rams	0	0	1562	365	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	968	242	18	2079	0.465	968	1545	0.9	0.9	3.238	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	768	1431	0.093	133	38	0.1	0.1	2.776	A
2 - Owl Lane (East)	1194	298	88	2236	0.534	1197	813	1.9	1.2	3.473	A
3 - Dewsbury Rams	0	0	1279	514	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	790	198	14	2082	0.380	791	1264	0.9	0.6	2.793	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	643	1519	0.073	112	32	0.1	0.1	2.557	A
2 - Owl Lane (East)	1000	250	74	2247	0.445	1001	680	1.2	0.8	2.892	A
3 - Dewsbury Rams	0	0	1070	624	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	662	165	12	2083	0.318	662	1058	0.6	0.5	2.536	A

Queue Variation Results for each time segment
08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.80	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.46	0.00	0.00	0.46	0.46			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - Owl Lane (East)	1.14	0.05	0.63	2.55	3.68			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.61	0.09	0.80	1.36	1.43			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.14	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	1.90	0.03	0.26	1.90	1.90			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.86	0.03	0.25	0.86	0.86			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.14	0.00	0.00	0.14	0.14			N/A	N/A
2 - Owl Lane (East)	1.91	0.03	0.26	1.91	1.91			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.87	0.03	0.27	0.87	1.40			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.10	0.00	0.00	0.10	0.10			N/A	N/A
2 - Owl Lane (East)	1.15	0.21	1.10	1.69	1.92			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.61	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.81	0.07	0.78	1.13	1.64			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.47	0.00	0.00	0.47	0.47			N/A	N/A

2024 DS(A+B), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	3.60	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	65	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 DS(A+B)	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	965	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1079	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	911
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	994	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.07	3.25	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.47	3.02	0.9	1.5	A	886	1328
3 - Dewsbury Rams	0.01	5.98	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.58	4.14	1.4	1.9	A	990	1485

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	758	1438	0.038	54	83	0.0	0.0	2.601	A
2 - Owl Lane (East)	727	182	46	2268	0.320	725	766	0.0	0.5	2.328	A
3 - Dewsbury Rams	4	0.94	750	791	0.005	4	20	0.0	0.0	4.572	A
4 - Owl Lane (West)	812	203	32	2069	0.393	810	722	0.0	0.6	2.852	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	907	1333	0.049	65	100	0.0	0.1	2.838	A
2 - Owl Lane (East)	868	217	55	2262	0.384	867	917	0.5	0.6	2.579	A
3 - Dewsbury Rams	4	1	897	714	0.006	4	24	0.0	0.0	5.074	A
4 - Owl Lane (West)	970	242	38	2065	0.470	969	864	0.6	0.9	3.283	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1110	1189	0.067	79	122	0.1	0.1	3.242	A
2 - Owl Lane (East)	1062	266	67	2252	0.472	1061	1122	0.6	0.9	3.020	A
3 - Dewsbury Rams	6	1	1099	608	0.009	5	30	0.0	0.0	5.971	A
4 - Owl Lane (West)	1188	297	46	2058	0.577	1186	1058	0.9	1.4	4.118	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1112	1188	0.067	79	122	0.1	0.1	3.245	A
2 - Owl Lane (East)	1062	266	67	2252	0.472	1062	1124	0.9	0.9	3.025	A
3 - Dewsbury Rams	6	1	1100	608	0.009	6	30	0.0	0.0	5.977	A
4 - Owl Lane (West)	1188	297	46	2058	0.577	1188	1059	1.4	1.4	4.136	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	910	1331	0.049	65	100	0.1	0.1	2.845	A
2 - Owl Lane (East)	868	217	55	2261	0.384	869	920	0.9	0.6	2.587	A
3 - Dewsbury Rams	4	1	899	713	0.006	5	24	0.0	0.0	5.081	A
4 - Owl Lane (West)	970	242	38	2064	0.470	972	866	1.4	0.9	3.299	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	761	1436	0.038	54	84	0.1	0.0	2.605	A
2 - Owl Lane (East)	727	182	46	2268	0.320	727	770	0.6	0.5	2.338	A
3 - Dewsbury Rams	4	0.94	753	790	0.005	4	20	0.0	0.0	4.581	A
4 - Owl Lane (West)	812	203	32	2069	0.393	813	725	0.9	0.6	2.870	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.64	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.62	0.08	0.79	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.88	0.07	0.81	1.47	1.86			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.03	0.26	0.47	0.49			N/A	N/A
2 - Owl Lane (East)	0.89	0.03	0.25	0.89	0.89			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.35	0.03	0.26	1.35	1.35			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	0.89	0.03	0.27	0.89	1.21			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.36	0.03	0.26	1.36	1.36			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2 - Owl Lane (East)	0.63	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.89	0.52	0.99	1.41	1.46			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.65	0.09	0.81	1.37	1.43			N/A	N/A

2030 DS(A) , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	4.33	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	41	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2030 DS(A)	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1368	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	945	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1351
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	913	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.13	3.28	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.68	5.03	2.1	4.2	A	1255	1883
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.50	3.46	1.0	1.5	A	867	1301

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	690	1486	0.075	111	32	0.0	0.1	2.618	A
2 - Owl Lane (East)	1030	257	74	2247	0.458	1027	727	0.0	0.8	2.942	A
3 - Dewsbury Rams	0	0	1095	610	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	711	178	12	2083	0.341	709	1083	0.0	0.5	2.617	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	826	1390	0.096	133	38	0.1	0.1	2.862	A
2 - Owl Lane (East)	1230	307	88	2236	0.550	1228	870	0.8	1.2	3.567	A
3 - Dewsbury Rams	0	0	1310	498	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	850	212	14	2082	0.408	849	1296	0.5	0.7	2.918	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	1011	1260	0.129	163	46	0.1	0.1	3.281	A
2 - Owl Lane (East)	1506	377	108	2221	0.678	1503	1066	1.2	2.1	4.986	A
3 - Dewsbury Rams	0	0	1603	344	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1040	260	18	2079	0.500	1039	1585	0.7	1.0	3.456	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	1012	1259	0.129	163	46	0.1	0.1	3.284	A
2 - Owl Lane (East)	1506	377	108	2221	0.678	1506	1067	2.1	2.1	5.034	A
3 - Dewsbury Rams	0	0	1606	342	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1040	260	18	2079	0.500	1040	1589	1.0	1.0	3.464	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	827	1389	0.096	133	38	0.1	0.1	2.868	A
2 - Owl Lane (East)	1230	307	88	2236	0.550	1233	872	2.1	1.2	3.600	A
3 - Dewsbury Rams	0	0	1315	495	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	850	212	14	2082	0.408	851	1301	1.0	0.7	2.929	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	693	1484	0.075	112	32	0.1	0.1	2.622	A
2 - Owl Lane (East)	1030	257	74	2247	0.458	1031	730	1.2	0.9	2.964	A
3 - Dewsbury Rams	0	0	1100	608	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	711	178	12	2083	0.342	712	1088	0.7	0.5	2.626	A

Queue Variation Results for each time segment

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.84	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.52	0.52	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.11	0.00	0.00	0.11	0.11			N/A	N/A
2 - Owl Lane (East)	1.21	0.05	0.56	2.82	4.19			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.69	0.09	0.81	1.37	1.45			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.15	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	2.07	0.03	0.26	2.07	2.07			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.99	0.03	0.25	0.99	0.99			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.15	0.00	0.00	0.15	0.15			N/A	N/A
2 - Owl Lane (East)	2.09	0.03	0.26	2.09	2.09			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.00	0.03	0.27	1.00	1.24			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.11	0.00	0.00	0.11	0.11			N/A	N/A
2 - Owl Lane (East)	1.23	0.16	1.13	1.87	2.36			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.69	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2 - Owl Lane (East)	0.85	0.07	0.75	1.45	1.86			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.52	0.52	1.00	1.40	1.45			N/A	N/A

2030 DS(A) , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	3.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	64	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2030 DS(A)	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	969	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1086	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	915
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	1001	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.07	3.26	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.47	3.04	0.9	1.5	A	889	1334
3 - Dewsbury Rams	0.01	6.00	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.58	4.17	1.4	1.9	A	997	1495

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	763	1434	0.038	54	83	0.0	0.0	2.608	A
2 - Owl Lane (East)	730	182	46	2268	0.322	728	771	0.0	0.5	2.333	A
3 - Dewsbury Rams	4	0.94	753	789	0.005	4	20	0.0	0.0	4.581	A
4 - Owl Lane (West)	818	204	32	2069	0.395	815	725	0.0	0.6	2.864	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	913	1328	0.049	65	100	0.0	0.1	2.848	A
2 - Owl Lane (East)	871	218	55	2262	0.385	871	923	0.5	0.6	2.586	A
3 - Dewsbury Rams	4	1	901	712	0.006	4	24	0.0	0.0	5.088	A
4 - Owl Lane (West)	976	244	38	2065	0.473	975	868	0.6	0.9	3.302	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1118	1184	0.067	79	122	0.1	0.1	3.258	A
2 - Owl Lane (East)	1067	267	67	2252	0.474	1066	1130	0.6	0.9	3.031	A
3 - Dewsbury Rams	6	1	1103	606	0.009	5	30	0.0	0.0	5.994	A
4 - Owl Lane (West)	1196	299	46	2058	0.581	1194	1062	0.9	1.4	4.154	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1120	1183	0.067	79	122	0.1	0.1	3.261	A
2 - Owl Lane (East)	1067	267	67	2252	0.474	1067	1132	0.9	0.9	3.036	A
3 - Dewsbury Rams	6	1	1104	605	0.009	6	30	0.0	0.0	6.000	A
4 - Owl Lane (West)	1196	299	46	2058	0.581	1196	1064	1.4	1.4	4.173	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	916	1326	0.049	65	100	0.1	0.1	2.855	A
2 - Owl Lane (East)	871	218	55	2261	0.385	872	926	0.9	0.6	2.592	A
3 - Dewsbury Rams	4	1	903	711	0.006	5	24	0.0	0.0	5.094	A
4 - Owl Lane (West)	976	244	38	2064	0.473	978	869	1.4	0.9	3.318	A

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	767	1432	0.038	54	84	0.1	0.0	2.614	A
2 - Owl Lane (East)	730	182	46	2268	0.322	730	775	0.6	0.5	2.342	A
3 - Dewsbury Rams	4	0.94	756	788	0.005	4	20	0.0	0.0	4.589	A
4 - Owl Lane (West)	818	204	32	2069	0.395	819	728	0.9	0.7	2.880	A

Queue Variation Results for each time segment
17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.65	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.62	0.08	0.79	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.89	0.07	0.80	1.51	1.90			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.03	0.26	0.47	0.49			N/A	N/A
2 - Owl Lane (East)	0.89	0.03	0.25	0.89	0.89			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.37	0.03	0.26	1.37	1.37			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	0.90	0.03	0.27	0.90	1.15			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.38	0.03	0.26	1.38	1.38			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2 - Owl Lane (East)	0.63	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.90	0.51	0.99	1.42	1.47			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.48	0.00	0.00	0.48	0.48			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.66	0.09	0.81	1.37	1.43			N/A	N/A

2030 DS(A+B), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	7.56	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	14	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2030 DS(A+B)	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	563	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1466	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1186	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	172	0	391
	2 - Owl Lane (East)	56	0	1	1409
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	124	1056	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.54	6.82	1.2	2.6	A	517	775
2 - Owl Lane (East)	0.82	10.04	4.4	18.9	B	1345	2018
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.64	4.86	1.7	3.0	A	1088	1632

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	424	106	797	1410	0.301	422	135	0.0	0.4	3.636	A
2 - Owl Lane (East)	1104	276	298	2077	0.531	1099	921	0.0	1.1	3.666	A
3 - Dewsbury Rams	0	0	1392	455	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	893	223	42	2061	0.433	890	1350	0.0	0.8	3.065	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	506	127	954	1300	0.389	505	162	0.4	0.6	4.526	A
2 - Owl Lane (East)	1318	329	356	2032	0.649	1315	1103	1.1	1.8	5.002	A
3 - Dewsbury Rams	0	0	1665	311	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	1066	267	50	2055	0.519	1065	1615	0.8	1.1	3.629	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	620	155	1167	1149	0.539	618	198	0.6	1.2	6.751	A
2 - Owl Lane (East)	1614	404	436	1972	0.819	1604	1349	1.8	4.3	9.547	A
3 - Dewsbury Rams	0	0	2032	119	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1306	326	61	2047	0.638	1303	1971	1.1	1.7	4.820	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	620	155	1169	1148	0.540	620	198	1.2	1.2	6.818	A
2 - Owl Lane (East)	1614	404	437	1971	0.819	1614	1352	4.3	4.4	10.041	B
3 - Dewsbury Rams	0	0	2043	113	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1306	326	62	2047	0.638	1306	1981	1.7	1.7	4.856	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	506	127	957	1297	0.390	508	162	1.2	0.6	4.574	A
2 - Owl Lane (East)	1318	329	358	2031	0.649	1328	1107	4.4	1.9	5.193	A
3 - Dewsbury Rams	0	0	1680	304	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	1066	267	51	2055	0.519	1069	1629	1.7	1.1	3.662	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	424	106	801	1408	0.301	425	136	0.6	0.4	3.664	A
2 - Owl Lane (East)	1104	276	299	2075	0.532	1107	926	1.9	1.1	3.728	A
3 - Dewsbury Rams	0	0	1401	450	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	893	223	42	2061	0.433	894	1359	1.1	0.8	3.087	A

Queue Variation Results for each time segment
08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - Owl Lane (East)	1.12	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.76	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.63	0.08	0.76	1.36	1.43			N/A	N/A
2 - Owl Lane (East)	1.82	0.04	0.44	4.88	8.23			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.07	0.06	0.74	2.16	3.00			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	1.15	0.03	0.26	1.15	1.15			N/A	N/A
2 - Owl Lane (East)	4.27	0.03	0.30	4.27	18.92			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.74	0.03	0.26	1.74	1.74			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	1.16	0.03	0.27	1.16	2.59			N/A	N/A
2 - Owl Lane (East)	4.39	0.03	0.28	4.39	7.73			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.75	0.03	0.26	1.75	1.75			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.64	0.12	0.87	1.37	1.44			N/A	N/A
2 - Owl Lane (East)	1.88	0.06	0.76	4.78	7.20			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.09	0.24	1.06	1.53	1.81			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.43	0.04	0.36	1.17	1.34			N/A	N/A
2 - Owl Lane (East)	1.15	0.04	0.37	2.88	5.28			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.77	0.07	0.78	1.41	1.41			N/A	N/A

2030 DS(A+B), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	8.76	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	12	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2030 DS(A+B)	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	370	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1278	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1521	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	120	0	250
	2 - Owl Lane (East)	162	0	12	1104
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	346	1159	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.38	5.51	0.6	2.9	A	340	509
2 - Owl Lane (East)	0.68	5.34	2.1	3.9	A	1173	1759
3 - Dewsbury Rams	0.02	11.87	0.0	0.5	B	5	7
4 - Owl Lane (West)	0.85	12.41	5.6	27.9	B	1396	2094

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	279	70	881	1351	0.206	278	381	0.0	0.3	3.349	A
2 - Owl Lane (East)	962	241	200	2151	0.447	959	959	0.0	0.8	3.011	A
3 - Dewsbury Rams	4	0.94	1138	588	0.006	4	20	0.0	0.0	6.165	A
4 - Owl Lane (West)	1145	286	122	2003	0.572	1140	1020	0.0	1.3	4.145	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	333	83	1054	1229	0.271	332	456	0.3	0.4	4.011	A
2 - Owl Lane (East)	1149	287	239	2122	0.542	1147	1147	0.8	1.2	3.691	A
3 - Dewsbury Rams	4	1	1362	470	0.010	4	24	0.0	0.0	7.728	A
4 - Owl Lane (West)	1367	342	145	1986	0.689	1364	1221	1.3	2.2	5.756	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	407	102	1284	1067	0.382	406	556	0.4	0.6	5.442	A
2 - Owl Lane (East)	1407	352	292	2081	0.676	1404	1398	1.2	2.1	5.286	A
3 - Dewsbury Rams	6	1	1666	311	0.018	5	30	0.0	0.0	11.786	B
4 - Owl Lane (West)	1675	419	178	1962	0.854	1662	1494	2.2	5.4	11.528	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	407	102	1293	1060	0.384	407	559	0.6	0.6	5.511	A
2 - Owl Lane (East)	1407	352	293	2080	0.676	1407	1408	2.1	2.1	5.343	A
3 - Dewsbury Rams	6	1	1670	309	0.018	6	30	0.0	0.0	11.871	B
4 - Owl Lane (West)	1675	419	178	1962	0.854	1674	1497	5.4	5.6	12.405	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	333	83	1067	1220	0.273	334	460	0.6	0.4	4.066	A
2 - Owl Lane (East)	1149	287	240	2121	0.542	1152	1160	2.1	1.2	3.733	A
3 - Dewsbury Rams	4	1	1368	467	0.010	5	24	0.0	0.0	7.781	A
4 - Owl Lane (West)	1367	342	146	1985	0.689	1381	1226	5.6	2.3	6.081	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	279	70	887	1347	0.207	279	383	0.4	0.3	3.375	A
2 - Owl Lane (East)	962	241	201	2151	0.447	964	966	1.2	0.8	3.038	A
3 - Dewsbury Rams	4	0.94	1144	585	0.006	4	20	0.0	0.0	6.197	A
4 - Owl Lane (West)	1145	286	122	2003	0.572	1149	1026	2.3	1.3	4.234	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2 - Owl Lane (East)	0.80	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.32	0.57	1.18	1.63	1.82			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - Owl Lane (East)	1.17	0.05	0.59	2.68	3.90			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	2.17	0.04	0.44	5.92	10.05			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.61	0.03	0.25	0.61	0.61			N/A	N/A
2 - Owl Lane (East)	2.05	0.03	0.27	2.05	2.05			N/A	N/A
3 - Dewsbury Rams	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - Owl Lane (West)	5.36	0.03	0.33	8.96	27.89			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.62	0.03	0.30	1.46	2.92			N/A	N/A
2 - Owl Lane (East)	2.07	0.03	0.26	2.07	2.07			N/A	N/A
3 - Dewsbury Rams	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - Owl Lane (West)	5.58	0.03	0.29	5.58	17.06			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - Owl Lane (East)	1.19	0.15	1.10	1.83	2.26			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	2.26	0.05	0.51	6.10	9.77			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2 - Owl Lane (East)	0.81	0.06	0.71	1.38	1.82			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.35	0.04	0.35	3.32	6.75			N/A	N/A



Junction 12 – Pell Frischmann design

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896

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Filename: Junc12 Owl Lane-Southern Site Access5-Dewsbury Rams 2024&2030 only Feb 2020_PF.j9

Path: \\Lon-file-01\engineering\133--\A13398-VAA Land at Chidswell\30 Technical\31 Modelling\2019\Off-Site\Junctions9

Report generation date: 10/03/2020 15:14:03

-
- »2024 DN, AM
 - »2024 DN, PM
 - »2030 DN, AM
 - »2030 DN, PM
 - »2024 DS(A), AM
 - »2024 DS(A), PM
 - »2024 DS(A+B), AM
 - »2024 DS(A+B), PM
 - »2030 DS(A), AM
 - »2030 DS(A), PM
 - »2030 DS(A+B), AM
 - »2030 DS(A+B), PM

Summary of junction performance

	AM							PM							Net Res Cap	
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)		Junction LOS
2024 DN																
1 - Southern Site Access 5	0.1	0.5	2.65	0.11	A	5.55	A	28 %	0.1	0.5	2.72	0.06	A	4.25	A	5
2 - Owl Lane (East)	2.8	5.9	7.21	0.74	A				1.2	1.5	3.98	0.54	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	6.77	0.01	A			
4 - Owl Lane (West)	0.9	1.5	3.57	0.49	A				1.5	2.1	4.58	0.60	A			
2030 DN																
1 - Southern Site Access 5	0.1	0.5	2.76	0.11	A	6.32	A	22 %	0.1	0.5	2.76	0.06	A	4.35	A	5
2 - Owl Lane (East)	3.4	11.2	8.41	0.78	A				1.2	1.5	4.01	0.54	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	6.81	0.01	A			
4 - Owl Lane (West)	1.1	1.5	3.84	0.52	A				1.6	2.5	4.75	0.61	A			
2024 DS(A)																
1 - Southern Site Access 5	0.1	0.5	2.66	0.11	A	5.57	A	28 %	0.1	0.5	2.72	0.06	A	4.26	A	5
2 - Owl Lane (East)	2.8	6.0	7.24	0.74	A				1.2	1.5	4.00	0.54	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	6.79	0.01	A			
4 - Owl Lane (West)	1.0	1.5	3.58	0.49	A				1.5	2.1	4.59	0.60	A			
2024 DS(A+B)																
1 - Southern Site Access 5	0.1	0.5	2.66	0.11	A	5.83	A	25 %	0.1	0.5	2.76	0.06	A	4.34	A	5
2 - Owl Lane (East)	3.1	7.8	7.66	0.76	A				1.2	1.5	4.01	0.54	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	6.81	0.01	A			
4 - Owl Lane (West)	1.0	1.5	3.59	0.49	A				1.6	2.4	4.73	0.61	A			
2030 DS(A)																
1 - Southern Site Access 5	0.1	0.5	2.78	0.11	A	6.35	A	22 %	0.1	0.5	2.77	0.06	A	4.38	A	5
2 - Owl Lane (East)	3.5	11.4	8.45	0.78	A				1.2	1.5	4.03	0.54	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	6.84	0.01	A			
4 - Owl Lane (West)	1.1	1.5	3.87	0.53	A				1.6	2.5	4.78	0.61	A			
2030 DS(A+B)																
1 - Southern Site Access 5	0.9	2.9	4.99	0.46	A	18.19	C	0 %	0.5	1.9	4.28	0.33	A	13.42	B	5
2 - Owl Lane (East)	14.1	74.0	33.38	0.95	D				3.5	12.5	9.12	0.78	A			
3 - Dewsbury Rams	0.0	~1	0.00	0.00	A				0.0	0.5	15.41	0.02	C			
4 - Owl Lane (West)	2.0	3.9	5.69	0.67	A				8.5	43.7	19.26	0.90	C			

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

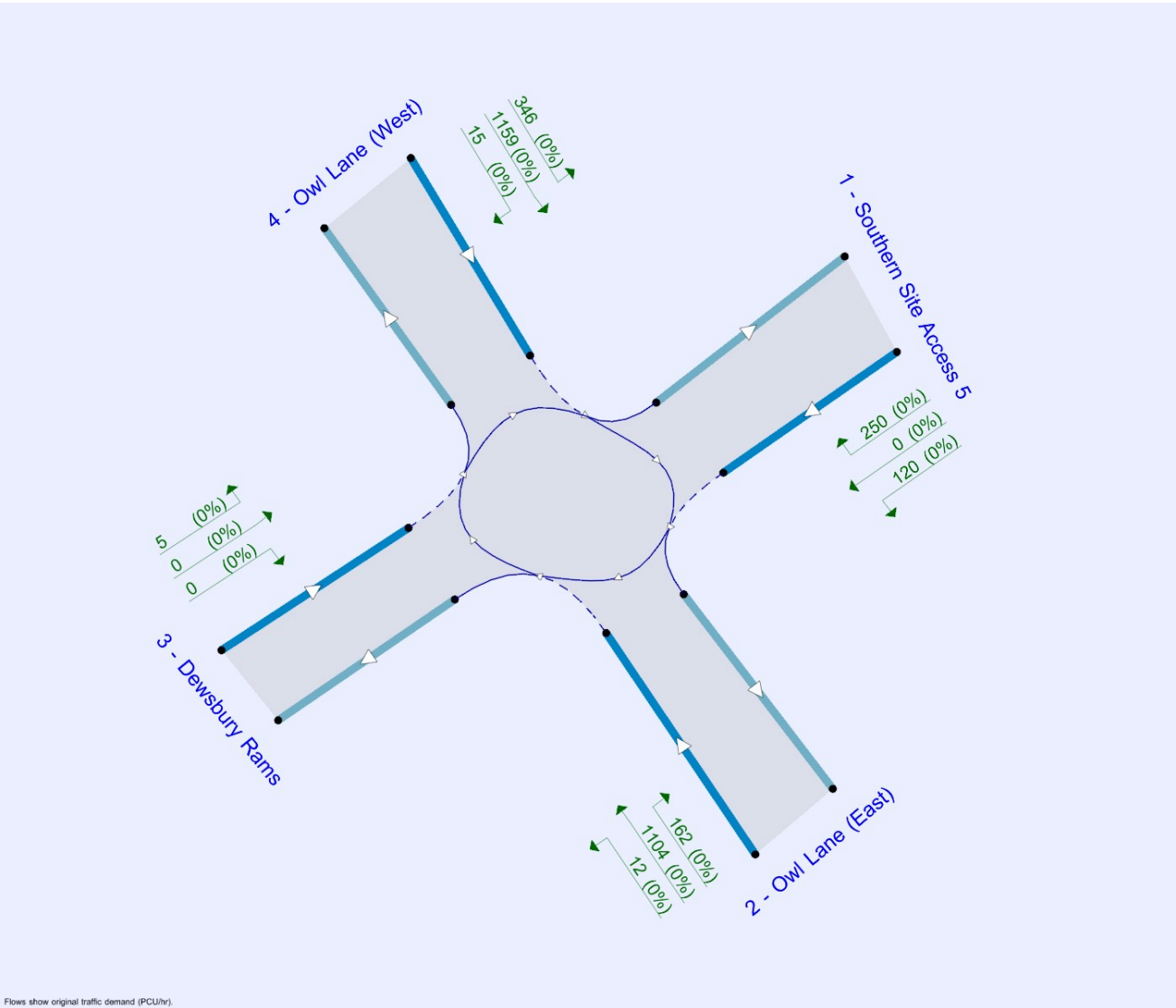
File summary

File Description

Title	
Location	
Site number	
Date	20/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\PAhrens
Description	

Units

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



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	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
D1	2024 DN	AM	ONE HOUR	08:00	09:30	15	✓
D2	2024 DN	PM	ONE HOUR	17:00	18:30	15	✓
D3	2030 DN	AM	ONE HOUR	08:00	09:30	15	✓
D4	2030 DN	PM	ONE HOUR	17:00	18:30	15	✓
D5	2024 DS(A)	AM	ONE HOUR	08:00	09:30	15	✓
D6	2024 DS(A)	PM	ONE HOUR	17:00	18:30	15	✓
D7	2024 DS(A+B)	AM	ONE HOUR	08:00	09:30	15	✓
D8	2024 DS(A+B)	PM	ONE HOUR	17:00	18:30	15	✓
D9	2030 DS(A)	AM	ONE HOUR	08:00	09:30	15	✓
D10	2030 DS(A)	PM	ONE HOUR	17:00	18:30	15	✓
D11	2030 DS(A+B)	AM	ONE HOUR	08:00	09:30	15	✓
D12	2030 DS(A+B)	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2024 DN, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	5.55	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	28	2 - Owl Lane (East)

Arms

Arms

Arm	Name	Description
1	Southern Site Access 5	
2	Owl Lane (East)	
3	Dewsbury Rams	
4	Owl Lane (West)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Southern Site Access 5	6.75	7.31	80.7	20.1	38.0	29.0	
2 - Owl Lane (East)	3.83	7.31	51.9	23.1	38.0	35.0	
3 - Dewsbury Rams	3.75	4.17	0.0	12.9	38.0	31.0	
4 - Owl Lane (West)	4.19	7.07	18.8	27.3	38.0	14.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Southern Site Access 5	0.752	2220
2 - Owl Lane (East)	0.705	2007
3 - Dewsbury Rams	0.517	1102
4 - Owl Lane (West)	0.724	1982

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

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	2024 DN	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1301	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	872	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1284
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	840	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.11	2.65	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.74	7.21	2.8	5.9	A	1194	1791
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.49	3.57	0.9	1.5	A	800	1200

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	635	1742	0.064	111	32	0.0	0.1	2.206	A
2 - Owl Lane (East)	979	245	74	1955	0.501	975	673	0.0	1.0	3.659	A
3 - Dewsbury Rams	0	0	1044	563	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	656	164	12	1973	0.333	655	1032	0.0	0.5	2.726	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	760	1648	0.081	133	38	0.1	0.1	2.375	A
2 - Owl Lane (East)	1170	292	88	1945	0.601	1168	805	1.0	1.5	4.617	A
3 - Dewsbury Rams	0	0	1249	456	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	784	196	14	1972	0.398	783	1235	0.5	0.7	3.027	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	930	1520	0.107	163	46	0.1	0.1	2.651	A
2 - Owl Lane (East)	1432	358	108	1931	0.742	1427	985	1.5	2.8	7.070	A
3 - Dewsbury Rams	0	0	1527	313	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	960	240	18	1969	0.487	959	1510	0.7	0.9	3.560	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	931	1519	0.107	163	46	0.1	0.1	2.653	A
2 - Owl Lane (East)	1432	358	108	1931	0.742	1432	987	2.8	2.8	7.209	A
3 - Dewsbury Rams	0	0	1532	310	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	960	240	18	1969	0.488	960	1515	0.9	0.9	3.565	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	762	1647	0.081	133	38	0.1	0.1	2.377	A
2 - Owl Lane (East)	1170	292	88	1945	0.601	1175	807	2.8	1.5	4.704	A
3 - Dewsbury Rams	0	0	1257	453	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	784	196	14	1972	0.398	785	1242	0.9	0.7	3.035	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	638	1741	0.064	112	32	0.1	0.1	2.211	A
2 - Owl Lane (East)	979	245	74	1955	0.501	982	675	1.5	1.0	3.707	A
3 - Dewsbury Rams	0	0	1050	559	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	656	164	12	1973	0.333	657	1038	0.7	0.5	2.735	A

Queue Variation Results for each time segment

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.00	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.50	0.00	0.00	0.50	0.50			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.03	0.26	0.47	0.50			N/A	N/A
2 - Owl Lane (East)	1.49	0.05	0.49	3.77	5.84			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.66	0.09	0.82	1.37	1.44			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.12	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	2.79	0.03	0.28	2.79	5.87			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.94	0.03	0.25	0.94	0.94			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.12	0.00	0.00	0.12	0.12			N/A	N/A
2 - Owl Lane (East)	2.83	0.03	0.27	2.83	2.83			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.95	0.03	0.27	0.95	1.46			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.00	0.00	0.09	0.09			N/A	N/A
2 - Owl Lane (East)	1.53	0.08	1.08	3.18	4.39			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.66	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.01	0.05	0.47	2.31	3.50			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.50	0.50	1.00	1.40	1.45			N/A	N/A

2024 DN, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	4.25	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	59	4 - Owl Lane (West)

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	2024 DN	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	959	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1056	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	905
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	971	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.06	2.72	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.54	3.98	1.2	1.5	A	880	1320
3 - Dewsbury Rams	0.01	6.77	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.60	4.58	1.5	2.1	A	969	1454

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	741	1663	0.033	54	83	0.0	0.0	2.237	A
2 - Owl Lane (East)	722	180	46	1975	0.366	720	749	0.0	0.6	2.863	A
3 - Dewsbury Rams	4	0.94	745	717	0.005	4	20	0.0	0.0	5.047	A
4 - Owl Lane (West)	795	199	32	1959	0.406	792	717	0.0	0.7	3.079	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	886	1553	0.042	65	100	0.0	0.0	2.417	A
2 - Owl Lane (East)	862	216	55	1969	0.438	861	896	0.6	0.8	3.250	A
3 - Dewsbury Rams	4	1	892	641	0.007	4	24	0.0	0.0	5.653	A
4 - Owl Lane (West)	949	237	38	1955	0.486	948	859	0.7	0.9	3.573	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1085	1404	0.056	79	122	0.0	0.1	2.716	A
2 - Owl Lane (East)	1056	264	67	1960	0.539	1054	1097	0.8	1.2	3.969	A
3 - Dewsbury Rams	6	1	1092	538	0.010	5	30	0.0	0.0	6.761	A
4 - Owl Lane (West)	1163	291	46	1949	0.597	1161	1051	0.9	1.5	4.556	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1087	1403	0.057	79	122	0.1	0.1	2.719	A
2 - Owl Lane (East)	1056	264	67	1960	0.539	1056	1099	1.2	1.2	3.982	A
3 - Dewsbury Rams	6	1	1093	537	0.010	6	30	0.0	0.0	6.771	A
4 - Owl Lane (West)	1163	291	46	1949	0.597	1163	1053	1.5	1.5	4.579	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	889	1551	0.042	65	100	0.1	0.0	2.423	A
2 - Owl Lane (East)	862	216	55	1968	0.438	864	899	1.2	0.8	3.262	A
3 - Dewsbury Rams	4	1	894	640	0.007	5	24	0.0	0.0	5.667	A
4 - Owl Lane (West)	949	237	38	1955	0.486	951	861	1.5	1.0	3.597	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	744	1660	0.033	54	84	0.0	0.0	2.241	A
2 - Owl Lane (East)	722	180	46	1975	0.366	723	752	0.8	0.6	2.879	A
3 - Dewsbury Rams	4	0.94	748	715	0.005	4	20	0.0	0.0	5.061	A
4 - Owl Lane (West)	795	199	32	1959	0.406	796	721	1.0	0.7	3.097	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.68	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.77	0.08	0.82	1.29	1.29			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.94	0.07	0.81	1.66	2.08			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	1.16	0.03	0.26	1.16	1.16			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.46	0.03	0.26	1.46	1.46			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - Owl Lane (East)	1.16	0.03	0.26	1.16	1.16			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.47	0.03	0.26	1.47	1.47			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.78	0.53	0.99	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.95	0.40	1.00	1.24	1.24			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.58	0.08	0.78	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.69	0.08	0.79	1.38	1.45			N/A	N/A

2030 DN, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	6.32	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2030 DN	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1366	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	938	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1349
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	906	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.11	2.76	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.78	8.41	3.4	11.2	A	1253	1880
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.52	3.84	1.1	1.5	A	861	1291

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	684	1705	0.065	111	32	0.0	0.1	2.258	A
2 - Owl Lane (East)	1028	257	74	1955	0.526	1024	722	0.0	1.1	3.848	A
3 - Dewsbury Rams	0	0	1092	538	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	706	177	12	1973	0.358	704	1080	0.0	0.6	2.831	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	819	1604	0.083	133	38	0.1	0.1	2.447	A
2 - Owl Lane (East)	1228	307	88	1945	0.631	1226	864	1.1	1.7	4.988	A
3 - Dewsbury Rams	0	0	1307	426	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	843	211	14	1972	0.428	842	1293	0.6	0.7	3.186	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	1003	1466	0.111	163	46	0.1	0.1	2.762	A
2 - Owl Lane (East)	1504	376	108	1931	0.779	1497	1058	1.7	3.4	8.168	A
3 - Dewsbury Rams	0	0	1597	277	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1033	258	18	1969	0.524	1031	1580	0.7	1.1	3.832	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	1004	1465	0.111	163	46	0.1	0.1	2.764	A
2 - Owl Lane (East)	1504	376	108	1931	0.779	1504	1059	3.4	3.4	8.408	A
3 - Dewsbury Rams	0	0	1604	273	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1033	258	18	1969	0.524	1033	1586	1.1	1.1	3.843	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	821	1602	0.083	133	38	0.1	0.1	2.450	A
2 - Owl Lane (East)	1228	307	88	1945	0.631	1235	866	3.4	1.7	5.116	A
3 - Dewsbury Rams	0	0	1317	422	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	843	211	14	1972	0.428	845	1302	1.1	0.8	3.199	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	687	1703	0.065	112	32	0.1	0.1	2.261	A
2 - Owl Lane (East)	1028	257	74	1955	0.526	1031	725	1.7	1.1	3.906	A
3 - Dewsbury Rams	0	0	1099	534	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	706	177	12	1973	0.358	707	1087	0.8	0.6	2.843	A

Queue Variation Results for each time segment

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.10	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.55	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.03	0.25	0.46	0.48			N/A	N/A
2 - Owl Lane (East)	1.69	0.05	0.47	4.44	7.09			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.74	0.09	0.82	1.41	1.49			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.12	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	3.38	0.03	0.29	3.38	11.19			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.09	0.03	0.26	1.09	1.09			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.12	0.00	0.00	0.12	0.12			N/A	N/A
2 - Owl Lane (East)	3.45	0.03	0.27	3.45	3.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.10	0.03	0.26	1.10	1.10			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.00	0.00	0.09	0.09			N/A	N/A
2 - Owl Lane (East)	1.74	0.07	0.97	4.08	5.89			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.75	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.12	0.04	0.42	2.79	4.54			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.56	0.08	0.77	1.35	1.43			N/A	N/A

2030 DN, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	4.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	56	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2030 DN	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	964	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1082	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	910
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	997	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.06	2.76	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.54	4.01	1.2	1.5	A	885	1327
3 - Dewsbury Rams	0.01	6.81	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.61	4.75	1.6	2.5	A	993	1489

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	760	1648	0.033	54	83	0.0	0.0	2.257	A
2 - Owl Lane (East)	726	181	46	1975	0.367	723	768	0.0	0.6	2.872	A
3 - Dewsbury Rams	4	0.94	749	715	0.005	4	20	0.0	0.0	5.060	A
4 - Owl Lane (West)	815	204	32	1959	0.416	812	721	0.0	0.7	3.129	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	910	1536	0.042	65	100	0.0	0.0	2.446	A
2 - Owl Lane (East)	867	217	55	1969	0.440	866	920	0.6	0.8	3.263	A
3 - Dewsbury Rams	4	1	896	639	0.007	4	24	0.0	0.0	5.674	A
4 - Owl Lane (West)	973	243	38	1955	0.498	972	863	0.7	1.0	3.658	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1113	1383	0.057	79	122	0.0	0.1	2.761	A
2 - Owl Lane (East)	1061	265	67	1960	0.542	1060	1125	0.8	1.2	3.993	A
3 - Dewsbury Rams	6	1	1097	535	0.010	5	30	0.0	0.0	6.797	A
4 - Owl Lane (West)	1191	298	46	1949	0.611	1189	1057	1.0	1.6	4.724	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1115	1381	0.057	79	122	0.1	0.1	2.764	A
2 - Owl Lane (East)	1061	265	67	1960	0.542	1061	1127	1.2	1.2	4.006	A
3 - Dewsbury Rams	6	1	1099	534	0.010	6	30	0.0	0.0	6.807	A
4 - Owl Lane (West)	1191	298	46	1949	0.611	1191	1058	1.6	1.6	4.752	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	913	1534	0.042	65	100	0.1	0.0	2.452	A
2 - Owl Lane (East)	867	217	55	1968	0.440	868	923	1.2	0.8	3.278	A
3 - Dewsbury Rams	4	1	899	638	0.007	5	24	0.0	0.0	5.685	A
4 - Owl Lane (West)	973	243	38	1955	0.498	975	865	1.6	1.0	3.684	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	764	1646	0.033	54	84	0.0	0.0	2.261	A
2 - Owl Lane (East)	726	181	46	1975	0.368	727	772	0.8	0.6	2.887	A
3 - Dewsbury Rams	4	0.94	752	713	0.005	4	20	0.0	0.0	5.074	A
4 - Owl Lane (West)	815	204	32	1959	0.416	816	724	1.0	0.7	3.150	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.71	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.78	0.08	0.82	1.35	1.35			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.98	0.07	0.80	1.81	2.47			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	1.17	0.03	0.26	1.17	1.17			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.55	0.03	0.26	1.55	1.55			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - Owl Lane (East)	1.18	0.03	0.26	1.18	1.18			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.56	0.03	0.26	1.56	1.56			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.79	0.53	0.99	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.00	0.31	1.02	1.12	1.57			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.58	0.08	0.79	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.72	0.08	0.79	1.40	1.48			N/A	N/A

2024 DS(A), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	5.57	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	28	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 DS(A)	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1303	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	876	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1286
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	844	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.11	2.66	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.74	7.24	2.8	6.0	A	1196	1793
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.49	3.58	1.0	1.5	A	804	1206

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	638	1740	0.064	111	32	0.0	0.1	2.209	A
2 - Owl Lane (East)	981	245	74	1955	0.502	977	676	0.0	1.0	3.665	A
3 - Dewsbury Rams	0	0	1045	562	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	659	165	12	1973	0.334	658	1033	0.0	0.5	2.732	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	764	1646	0.081	133	38	0.1	0.1	2.379	A
2 - Owl Lane (East)	1171	293	88	1945	0.602	1169	808	1.0	1.5	4.628	A
3 - Dewsbury Rams	0	0	1251	455	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	788	197	14	1972	0.399	787	1237	0.5	0.7	3.036	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	935	1517	0.107	163	46	0.1	0.1	2.658	A
2 - Owl Lane (East)	1435	359	108	1931	0.743	1429	990	1.5	2.8	7.098	A
3 - Dewsbury Rams	0	0	1530	312	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	964	241	18	1969	0.490	963	1512	0.7	1.0	3.575	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	936	1516	0.107	163	46	0.1	0.1	2.659	A
2 - Owl Lane (East)	1435	359	108	1931	0.743	1434	991	2.8	2.8	7.241	A
3 - Dewsbury Rams	0	0	1535	309	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	964	241	18	1969	0.490	964	1517	1.0	1.0	3.581	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	765	1644	0.081	133	38	0.1	0.1	2.381	A
2 - Owl Lane (East)	1171	293	88	1945	0.602	1177	810	2.8	1.5	4.716	A
3 - Dewsbury Rams	0	0	1259	452	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	788	197	14	1972	0.399	789	1244	1.0	0.7	3.045	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	641	1738	0.064	112	32	0.1	0.1	2.212	A
2 - Owl Lane (East)	981	245	74	1955	0.502	983	678	1.5	1.0	3.713	A
3 - Dewsbury Rams	0	0	1052	559	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	659	165	12	1973	0.334	660	1040	0.7	0.5	2.742	A

Queue Variation Results for each time segment
08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.00	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.50	0.00	0.00	0.50	0.50			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.03	0.26	0.47	0.50			N/A	N/A
2 - Owl Lane (East)	1.49	0.05	0.49	3.79	5.87			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.66	0.09	0.82	1.37	1.44			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.12	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	2.81	0.03	0.28	2.81	6.00			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.95	0.03	0.25	0.95	0.95			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.12	0.00	0.00	0.12	0.12			N/A	N/A
2 - Owl Lane (East)	2.85	0.03	0.27	2.85	2.85			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.96	0.03	0.27	0.96	1.43			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.00	0.00	0.09	0.09			N/A	N/A
2 - Owl Lane (East)	1.53	0.08	1.08	3.21	4.43			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.67	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.02	0.05	0.47	2.33	3.53			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.50	0.50	1.00	1.40	1.45			N/A	N/A

2024 DS(A), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	4.26	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	59	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 DS(A)	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	962	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1058	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	908
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	973	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.06	2.72	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.54	4.00	1.2	1.5	A	883	1324
3 - Dewsbury Rams	0.01	6.79	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.60	4.59	1.5	2.1	A	971	1456

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	742	1662	0.033	54	83	0.0	0.0	2.238	A
2 - Owl Lane (East)	724	181	46	1975	0.367	722	750	0.0	0.6	2.868	A
3 - Dewsbury Rams	4	0.94	747	716	0.005	4	20	0.0	0.0	5.055	A
4 - Owl Lane (West)	797	199	32	1959	0.407	794	720	0.0	0.7	3.083	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	888	1552	0.042	65	100	0.0	0.0	2.419	A
2 - Owl Lane (East)	865	216	55	1969	0.439	864	898	0.6	0.8	3.258	A
3 - Dewsbury Rams	4	1	895	640	0.007	4	24	0.0	0.0	5.666	A
4 - Owl Lane (West)	951	238	38	1955	0.487	950	861	0.7	0.9	3.580	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1087	1403	0.057	79	122	0.0	0.1	2.719	A
2 - Owl Lane (East)	1059	265	67	1960	0.540	1058	1099	0.8	1.2	3.984	A
3 - Dewsbury Rams	6	1	1095	536	0.010	5	30	0.0	0.0	6.783	A
4 - Owl Lane (West)	1165	291	46	1949	0.598	1163	1054	0.9	1.5	4.568	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1089	1401	0.057	79	122	0.1	0.1	2.722	A
2 - Owl Lane (East)	1059	265	67	1960	0.540	1059	1101	1.2	1.2	3.996	A
3 - Dewsbury Rams	6	1	1097	535	0.010	6	30	0.0	0.0	6.793	A
4 - Owl Lane (West)	1165	291	46	1949	0.598	1165	1056	1.5	1.5	4.592	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	891	1550	0.042	65	100	0.1	0.0	2.423	A
2 - Owl Lane (East)	865	216	55	1968	0.439	866	901	1.2	0.8	3.272	A
3 - Dewsbury Rams	4	1	897	639	0.007	5	24	0.0	0.0	5.679	A
4 - Owl Lane (West)	951	238	38	1955	0.487	953	864	1.5	1.0	3.600	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	746	1659	0.033	54	84	0.0	0.0	2.244	A
2 - Owl Lane (East)	724	181	46	1975	0.367	725	754	0.8	0.6	2.884	A
3 - Dewsbury Rams	4	0.94	751	714	0.005	4	20	0.0	0.0	5.067	A
4 - Owl Lane (West)	797	199	32	1959	0.407	798	723	1.0	0.7	3.103	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.68	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.78	0.08	0.82	1.33	1.33			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.94	0.07	0.81	1.67	2.11			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	1.16	0.03	0.26	1.16	1.16			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.47	0.03	0.26	1.47	1.47			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - Owl Lane (East)	1.17	0.03	0.26	1.17	1.17			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.48	0.03	0.26	1.48	1.48			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.79	0.53	0.99	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.95	0.39	1.00	1.27	1.27			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.58	0.08	0.78	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.69	0.08	0.79	1.38	1.45			N/A	N/A

2024 DS(A+B), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	5.83	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	25	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 DS(A+B)	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1328	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	879	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1311
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	847	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.11	2.66	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.76	7.66	3.1	7.8	A	1219	1828
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.49	3.59	1.0	1.5	A	807	1210

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	640	1738	0.064	111	32	0.0	0.1	2.212	A
2 - Owl Lane (East)	1000	250	74	1955	0.511	996	678	0.0	1.0	3.737	A
3 - Dewsbury Rams	0	0	1064	552	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	662	165	12	1973	0.335	660	1052	0.0	0.5	2.737	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	766	1644	0.081	133	38	0.1	0.1	2.382	A
2 - Owl Lane (East)	1194	298	88	1945	0.614	1192	811	1.0	1.6	4.765	A
3 - Dewsbury Rams	0	0	1273	444	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	790	198	14	1972	0.401	790	1259	0.5	0.7	3.043	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	938	1515	0.108	163	46	0.1	0.1	2.662	A
2 - Owl Lane (East)	1462	366	108	1931	0.757	1456	993	1.6	3.0	7.491	A
3 - Dewsbury Rams	0	0	1556	298	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	968	242	18	1969	0.491	967	1539	0.7	1.0	3.584	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	939	1514	0.108	163	46	0.1	0.1	2.664	A
2 - Owl Lane (East)	1462	366	108	1931	0.757	1462	994	3.0	3.1	7.663	A
3 - Dewsbury Rams	0	0	1562	295	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	968	242	18	1969	0.491	968	1545	1.0	1.0	3.593	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	768	1642	0.081	133	38	0.1	0.1	2.386	A
2 - Owl Lane (East)	1194	298	88	1945	0.614	1200	813	3.1	1.6	4.866	A
3 - Dewsbury Rams	0	0	1282	440	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	790	198	14	1972	0.401	791	1267	1.0	0.7	3.054	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	643	1737	0.064	112	32	0.1	0.1	2.216	A
2 - Owl Lane (East)	1000	250	74	1955	0.511	1002	680	1.6	1.1	3.784	A
3 - Dewsbury Rams	0	0	1071	549	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	662	165	12	1973	0.335	662	1058	0.7	0.5	2.748	A

Queue Variation Results for each time segment
08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.04	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.50	0.50	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.03	0.26	0.47	0.50			N/A	N/A
2 - Owl Lane (East)	1.57	0.05	0.48	4.01	6.37			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.67	0.09	0.82	1.37	1.44			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.12	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	3.02	0.03	0.28	3.02	7.84			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.96	0.03	0.25	0.96	0.96			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.12	0.00	0.00	0.12	0.12			N/A	N/A
2 - Owl Lane (East)	3.07	0.03	0.27	3.07	3.07			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.96	0.03	0.27	0.96	1.41			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.00	0.00	0.09	0.09			N/A	N/A
2 - Owl Lane (East)	1.61	0.07	1.05	3.58	4.94			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.67	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.06	0.04	0.45	2.53	3.89			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.51	0.51	1.00	1.40	1.45			N/A	N/A

2024 DS(A+B), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	4.34	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	56	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 DS(A+B)	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	965	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1079	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	911
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	994	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.06	2.76	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.54	4.01	1.2	1.5	A	886	1328
3 - Dewsbury Rams	0.01	6.81	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.61	4.73	1.6	2.4	A	990	1485

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	758	1650	0.033	54	83	0.0	0.0	2.255	A
2 - Owl Lane (East)	727	182	46	1975	0.368	724	766	0.0	0.6	2.874	A
3 - Dewsbury Rams	4	0.94	750	715	0.005	4	20	0.0	0.0	5.063	A
4 - Owl Lane (West)	812	203	32	1959	0.415	810	722	0.0	0.7	3.123	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	907	1538	0.042	65	100	0.0	0.0	2.443	A
2 - Owl Lane (East)	868	217	55	1969	0.441	867	917	0.6	0.8	3.266	A
3 - Dewsbury Rams	4	1	897	638	0.007	4	24	0.0	0.0	5.678	A
4 - Owl Lane (West)	970	242	38	1955	0.496	969	864	0.7	1.0	3.648	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1110	1385	0.057	79	122	0.0	0.1	2.755	A
2 - Owl Lane (East)	1062	266	67	1960	0.542	1061	1122	0.8	1.2	3.998	A
3 - Dewsbury Rams	6	1	1098	534	0.010	5	30	0.0	0.0	6.804	A
4 - Owl Lane (West)	1188	297	46	1949	0.610	1186	1058	1.0	1.5	4.704	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1112	1384	0.057	79	122	0.1	0.1	2.759	A
2 - Owl Lane (East)	1062	266	67	1960	0.542	1062	1124	1.2	1.2	4.011	A
3 - Dewsbury Rams	6	1	1100	534	0.010	6	30	0.0	0.0	6.815	A
4 - Owl Lane (West)	1188	297	46	1949	0.610	1188	1059	1.5	1.6	4.732	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	910	1536	0.042	65	100	0.1	0.0	2.447	A
2 - Owl Lane (East)	868	217	55	1968	0.441	869	920	1.2	0.8	3.278	A
3 - Dewsbury Rams	4	1	900	637	0.007	5	24	0.0	0.0	5.692	A
4 - Owl Lane (West)	970	242	38	1955	0.496	972	866	1.6	1.0	3.674	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	761	1647	0.033	54	84	0.0	0.0	2.259	A
2 - Owl Lane (East)	727	182	46	1975	0.368	727	770	0.8	0.6	2.887	A
3 - Dewsbury Rams	4	0.94	753	713	0.005	4	20	0.0	0.0	5.077	A
4 - Owl Lane (West)	812	203	32	1959	0.415	813	725	1.0	0.7	3.146	A

Queue Variation Results for each time segment
17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.70	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.78	0.08	0.82	1.37	1.37			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.98	0.07	0.80	1.79	2.43			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	1.17	0.03	0.26	1.17	1.17			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.54	0.03	0.26	1.54	1.54			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - Owl Lane (East)	1.18	0.03	0.26	1.18	1.18			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.55	0.03	0.26	1.55	1.55			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.79	0.53	0.99	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.99	0.32	1.02	1.06	1.54			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.58	0.08	0.79	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.71	0.08	0.79	1.40	1.47			N/A	N/A

2030 DS(A) , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	6.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2030 DS(A)	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	148	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1368	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	945	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	56	0	92
	2 - Owl Lane (East)	16	0	1	1351
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	26	913	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.11	2.78	0.1	0.5	A	136	204
2 - Owl Lane (East)	0.78	8.45	3.5	11.4	A	1255	1883
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.53	3.87	1.1	1.5	A	867	1301

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	690	1701	0.065	111	32	0.0	0.1	2.263	A
2 - Owl Lane (East)	1030	257	74	1955	0.527	1025	727	0.0	1.1	3.855	A
3 - Dewsbury Rams	0	0	1094	537	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	711	178	12	1973	0.361	709	1082	0.0	0.6	2.843	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	825	1599	0.083	133	38	0.1	0.1	2.454	A
2 - Owl Lane (East)	1230	307	88	1945	0.632	1227	870	1.1	1.7	4.998	A
3 - Dewsbury Rams	0	0	1309	425	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	850	212	14	1972	0.431	849	1295	0.6	0.8	3.204	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	1010	1460	0.112	163	46	0.1	0.1	2.774	A
2 - Owl Lane (East)	1506	377	108	1931	0.780	1499	1065	1.7	3.4	8.207	A
3 - Dewsbury Rams	0	0	1599	275	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1040	260	18	1969	0.528	1039	1582	0.8	1.1	3.864	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	163	41	1012	1459	0.112	163	46	0.1	0.1	2.776	A
2 - Owl Lane (East)	1506	377	108	1931	0.780	1506	1067	3.4	3.5	8.451	A
3 - Dewsbury Rams	0	0	1606	272	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1040	260	18	1969	0.528	1040	1589	1.1	1.1	3.875	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	133	33	828	1598	0.083	133	38	0.1	0.1	2.458	A
2 - Owl Lane (East)	1230	307	88	1945	0.632	1237	873	3.5	1.7	5.130	A
3 - Dewsbury Rams	0	0	1319	421	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	850	212	14	1972	0.431	851	1304	1.1	0.8	3.217	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	111	28	693	1699	0.066	112	32	0.1	0.1	2.267	A
2 - Owl Lane (East)	1030	257	74	1955	0.527	1032	730	1.7	1.1	3.911	A
3 - Dewsbury Rams	0	0	1101	533	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	711	178	12	1973	0.361	712	1089	0.8	0.6	2.857	A

Queue Variation Results for each time segment
08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.10	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.56	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	1.69	0.05	0.47	4.47	7.14			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.75	0.09	0.82	1.42	1.50			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.13	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	3.41	0.03	0.29	3.41	11.39			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.11	0.03	0.26	1.11	1.11			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.13	0.00	0.00	0.13	0.13			N/A	N/A
2 - Owl Lane (East)	3.47	0.03	0.27	3.47	3.47			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.12	0.03	0.26	1.12	1.12			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.09	0.00	0.00	0.09	0.09			N/A	N/A
2 - Owl Lane (East)	1.75	0.07	0.97	4.12	5.93			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.76	0.55	1.00	1.40	1.45			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.07	0.00	0.00	0.07	0.07			N/A	N/A
2 - Owl Lane (East)	1.12	0.04	0.42	2.80	4.58			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.57	0.08	0.78	1.36	1.43			N/A	N/A

2030 DS(A) , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	4.38	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	55	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2030 DS(A)	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	72	100.000
2 - Owl Lane (East)		ONE HOUR	✓	969	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1086	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	27	0	45
	2 - Owl Lane (East)	42	0	12	915
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	69	1001	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.06	2.77	0.1	0.5	A	66	99
2 - Owl Lane (East)	0.54	4.03	1.2	1.5	A	889	1334
3 - Dewsbury Rams	0.01	6.84	0.0	0.5	A	5	7
4 - Owl Lane (West)	0.61	4.78	1.6	2.5	A	997	1495

Main Results for each time segment

17:00 - 17:15

Arm	Demand (PCU/hr)	Arrivals (PCU)	flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	queue (PCU)	queue (PCU)	Delay (s)	level of service
1 - Southern Site Access 5	54	14	763	1646	0.033	54	83	0.0	0.0	2.260	A
2 - Owl Lane (East)	730	182	46	1975	0.369	727	771	0.0	0.6	2.881	A
3 - Dewsbury Rams	4	0.94	753	713	0.005	4	20	0.0	0.0	5.074	A
4 - Owl Lane (West)	818	204	32	1959	0.417	815	725	0.0	0.7	3.137	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	913	1533	0.042	65	100	0.0	0.0	2.451	A
2 - Owl Lane (East)	871	218	55	1969	0.443	870	923	0.6	0.8	3.277	A
3 - Dewsbury Rams	4	1	901	637	0.007	4	24	0.0	0.0	5.695	A
4 - Owl Lane (West)	976	244	38	1955	0.499	975	868	0.7	1.0	3.672	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1118	1380	0.057	79	122	0.0	0.1	2.768	A
2 - Owl Lane (East)	1067	267	67	1960	0.544	1065	1130	0.8	1.2	4.016	A
3 - Dewsbury Rams	6	1	1103	532	0.010	5	30	0.0	0.0	6.834	A
4 - Owl Lane (West)	1196	299	46	1949	0.614	1193	1062	1.0	1.6	4.752	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	79	20	1120	1378	0.058	79	122	0.1	0.1	2.771	A
2 - Owl Lane (East)	1067	267	67	1960	0.544	1067	1132	1.2	1.2	4.031	A
3 - Dewsbury Rams	6	1	1104	531	0.010	6	30	0.0	0.0	6.844	A
4 - Owl Lane (West)	1196	299	46	1949	0.614	1196	1064	1.6	1.6	4.780	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	65	16	916	1531	0.042	65	100	0.1	0.0	2.457	A
2 - Owl Lane (East)	871	218	55	1968	0.443	873	926	1.2	0.8	3.289	A
3 - Dewsbury Rams	4	1	903	635	0.007	5	24	0.0	0.0	5.706	A
4 - Owl Lane (West)	976	244	38	1955	0.499	979	870	1.6	1.0	3.695	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	54	14	767	1643	0.033	54	84	0.0	0.0	2.265	A
2 - Owl Lane (East)	730	182	46	1975	0.369	730	775	0.8	0.6	2.894	A
3 - Dewsbury Rams	4	0.94	756	711	0.005	4	20	0.0	0.0	5.086	A
4 - Owl Lane (West)	818	204	32	1959	0.417	819	728	1.0	0.7	3.161	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.71	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.03	0.25	0.45	0.48			N/A	N/A
2 - Owl Lane (East)	0.79	0.08	0.82	1.41	1.41			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	0.99	0.07	0.80	1.83	2.52			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.03	0.26	0.46	0.49			N/A	N/A
2 - Owl Lane (East)	1.18	0.03	0.26	1.18	1.18			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.57	0.03	0.26	1.57	1.57			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2 - Owl Lane (East)	1.19	0.03	0.26	1.19	1.19			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.58	0.03	0.26	1.58	1.58			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2 - Owl Lane (East)	0.80	0.53	0.99	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.01	0.30	1.02	1.17	1.60			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2 - Owl Lane (East)	0.59	0.08	0.79	1.36	1.43			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	0.72	0.08	0.78	1.41	1.48			N/A	N/A

2030 DS(A+B), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	18.19	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	0	2 - Owl Lane (East)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2030 DS(A+B)	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 (%)
1 - Southern Site Access 5		ONE HOUR	✓	563	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1466	100.000
3 - Dewsbury Rams		ONE HOUR	✓	0	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1186	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	172	0	391
	2 - Owl Lane (East)	56	0	1	1409
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	124	1056	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.46	4.99	0.9	2.9	A	517	775
2 - Owl Lane (East)	0.95	33.38	14.1	74.0	D	1345	2018
3 - Dewsbury Rams	0.00	0.00	0.0	~1	A	0	0
4 - Owl Lane (West)	0.67	5.69	2.0	3.9	A	1088	1632

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	424	106	797	1621	0.261	422	135	0.0	0.4	3.001	A
2 - Owl Lane (East)	1104	276	298	1797	0.614	1097	921	0.0	1.6	5.100	A
3 - Dewsbury Rams	0	0	1390	384	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	893	223	42	1952	0.457	890	1348	0.0	0.8	3.389	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	506	127	953	1503	0.337	506	161	0.4	0.5	3.607	A
2 - Owl Lane (East)	1318	329	356	1756	0.751	1313	1102	1.6	2.9	8.022	A
3 - Dewsbury Rams	0	0	1663	243	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	1066	267	50	1946	0.548	1065	1613	0.8	1.2	4.079	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	620	155	1166	1343	0.462	618	196	0.5	0.8	4.961	A
2 - Owl Lane (East)	1614	404	436	1700	0.950	1578	1349	2.9	11.9	24.495	C
3 - Dewsbury Rams	0	0	2007	65	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1306	326	60	1939	0.674	1303	1946	1.2	2.0	5.631	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	620	155	1169	1341	0.462	620	198	0.8	0.9	4.993	A
2 - Owl Lane (East)	1614	404	437	1699	0.950	1605	1352	11.9	14.1	33.378	D
3 - Dewsbury Rams	0	0	2035	50	0.000	0	8	0.0	0.0	0.000	A
4 - Owl Lane (West)	1306	326	61	1938	0.674	1306	1974	2.0	2.0	5.693	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	506	127	958	1500	0.337	507	164	0.9	0.5	3.632	A
2 - Owl Lane (East)	1318	329	358	1755	0.751	1362	1107	14.1	3.1	10.110	B
3 - Dewsbury Rams	0	0	1713	217	0.000	0	6	0.0	0.0	0.000	A
4 - Owl Lane (West)	1066	267	52	1945	0.548	1069	1661	2.0	1.2	4.130	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	424	106	801	1618	0.262	424	136	0.5	0.4	3.020	A
2 - Owl Lane (East)	1104	276	299	1796	0.614	1110	926	3.1	1.6	5.290	A
3 - Dewsbury Rams	0	0	1404	377	0.000	0	5	0.0	0.0	0.000	A
4 - Owl Lane (West)	893	223	42	1951	0.458	894	1361	1.2	0.8	3.409	A

Queue Variation Results for each time segment

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2 - Owl Lane (East)	1.57	0.53	1.44	2.16	2.68			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.84	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.50	0.05	0.50	1.30	1.40			N/A	N/A
2 - Owl Lane (East)	2.91	0.05	0.47	8.12	13.77			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.20	0.06	0.68	2.69	3.86			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.85	0.03	0.25	0.85	0.85			N/A	N/A
2 - Owl Lane (East)	11.90	0.08	2.02	34.61	54.65			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	2.03	0.03	0.27	2.03	2.03			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.86	0.03	0.28	0.86	2.93			N/A	N/A
2 - Owl Lane (East)	14.05	0.05	0.69	40.31	73.99			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	2.05	0.03	0.26	2.05	2.05			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - Owl Lane (East)	3.13	0.04	0.41	8.57	15.92			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	1.23	0.14	1.11	1.91	2.49			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - Owl Lane (East)	1.62	0.03	0.30	2.29	7.95			N/A	N/A
3 - Dewsbury Rams	0.00	0.00	0.00	0.00	0.00			N/A	N/A
4 - Owl Lane (West)	0.85	0.06	0.72	1.50	1.91			N/A	N/A

2030 DS(A+B), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Southern Site Access 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Owl Lane (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access 5	Standard Roundabout		1, 2, 3, 4	13.42	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	4 - Owl Lane (West)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2030 DS(A+B)	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Southern Site Access 5		ONE HOUR	✓	370	100.000
2 - Owl Lane (East)		ONE HOUR	✓	1278	100.000
3 - Dewsbury Rams		ONE HOUR	✓	5	100.000
4 - Owl Lane (West)		ONE HOUR	✓	1521	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	120	0	250
	2 - Owl Lane (East)	162	0	12	1104
	3 - Dewsbury Rams	0	0	0	5
	4 - Owl Lane (West)	346	1159	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Southern Site Access 5	2 - Owl Lane (East)	3 - Dewsbury Rams	4 - Owl Lane (West)
From	1 - Southern Site Access 5	0	0	0	0
	2 - Owl Lane (East)	0	0	0	0
	3 - Dewsbury Rams	0	0	0	0
	4 - Owl Lane (West)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Southern Site Access 5	0.33	4.28	0.5	1.9	A	340	509
2 - Owl Lane (East)	0.78	9.12	3.5	12.5	A	1173	1759
3 - Dewsbury Rams	0.02	15.41	0.0	0.5	C	5	7
4 - Owl Lane (West)	0.90	19.26	8.5	43.7	C	1396	2094

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	279	70	880	1558	0.179	278	381	0.0	0.2	2.810	A
2 - Owl Lane (East)	962	241	200	1866	0.515	958	958	0.0	1.1	3.944	A
3 - Dewsbury Rams	4	0.94	1137	514	0.007	4	20	0.0	0.0	7.050	A
4 - Owl Lane (West)	1145	286	121	1894	0.605	1139	1020	0.0	1.5	4.729	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	333	83	1053	1428	0.233	332	455	0.2	0.3	3.285	A
2 - Owl Lane (East)	1149	287	239	1839	0.625	1147	1146	1.1	1.6	5.182	A
3 - Dewsbury Rams	4	1	1361	399	0.011	4	24	0.0	0.0	9.133	A
4 - Owl Lane (West)	1367	342	145	1877	0.729	1363	1220	1.5	2.6	6.944	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	407	102	1278	1259	0.324	407	554	0.3	0.5	4.219	A
2 - Owl Lane (East)	1407	352	292	1801	0.781	1400	1392	1.6	3.4	8.817	A
3 - Dewsbury Rams	6	1	1663	243	0.023	5	29	0.0	0.0	15.168	C
4 - Owl Lane (West)	1675	419	177	1854	0.903	1654	1491	2.6	7.8	16.504	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	407	102	1292	1249	0.326	407	559	0.5	0.5	4.279	A
2 - Owl Lane (East)	1407	352	293	1801	0.781	1407	1406	3.4	3.5	9.118	A
3 - Dewsbury Rams	6	1	1670	239	0.023	6	30	0.0	0.0	15.413	C
4 - Owl Lane (West)	1675	419	178	1853	0.904	1672	1497	7.8	8.5	19.259	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	333	83	1074	1412	0.236	333	463	0.5	0.3	3.337	A
2 - Owl Lane (East)	1149	287	240	1838	0.625	1156	1167	3.5	1.7	5.332	A
3 - Dewsbury Rams	4	1	1371	393	0.011	5	25	0.0	0.0	9.259	A
4 - Owl Lane (West)	1367	342	147	1876	0.729	1390	1229	8.5	2.8	7.741	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Southern Site Access 5	279	70	888	1552	0.179	279	384	0.3	0.2	2.828	A
2 - Owl Lane (East)	962	241	201	1866	0.516	965	967	1.7	1.1	4.006	A
3 - Dewsbury Rams	4	0.94	1145	510	0.007	4	20	0.0	0.0	7.107	A
4 - Owl Lane (West)	1145	286	122	1894	0.605	1150	1026	2.8	1.5	4.871	A

Queue Variation Results for each time segment
17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2 - Owl Lane (East)	1.05	0.55	1.00	1.40	1.45			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.51	0.58	1.42	1.88	2.00			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - Owl Lane (East)	1.64	0.05	0.47	4.28	6.81			N/A	N/A
3 - Dewsbury Rams	0.01	0.01	0.25	0.45	0.48			N/A	N/A
4 - Owl Lane (West)	2.61	0.05	0.46	7.25	12.29			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.47	0.03	0.25	0.47	0.48			N/A	N/A
2 - Owl Lane (East)	3.42	0.03	0.29	3.42	12.45			N/A	N/A
3 - Dewsbury Rams	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - Owl Lane (West)	7.85	0.04	0.42	21.12	42.61			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.48	0.03	0.32	1.45	1.93			N/A	N/A
2 - Owl Lane (East)	3.49	0.03	0.27	3.49	3.71			N/A	N/A
3 - Dewsbury Rams	0.02	0.00	0.00	0.02	0.02			N/A	N/A
4 - Owl Lane (West)	8.49	0.03	0.33	13.53	43.70			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - Owl Lane (East)	1.69	0.06	0.91	4.00	5.84			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	2.77	0.04	0.45	7.67	13.26			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Southern Site Access 5	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2 - Owl Lane (East)	1.07	0.04	0.41	2.69	4.48			N/A	N/A
3 - Dewsbury Rams	0.01	0.00	0.00	0.01	0.01			N/A	N/A
4 - Owl Lane (West)	1.55	0.03	0.33	3.19	8.07			N/A	N/A

