

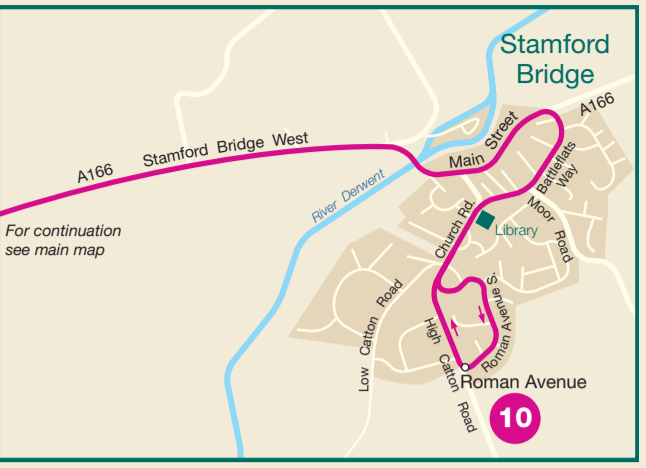
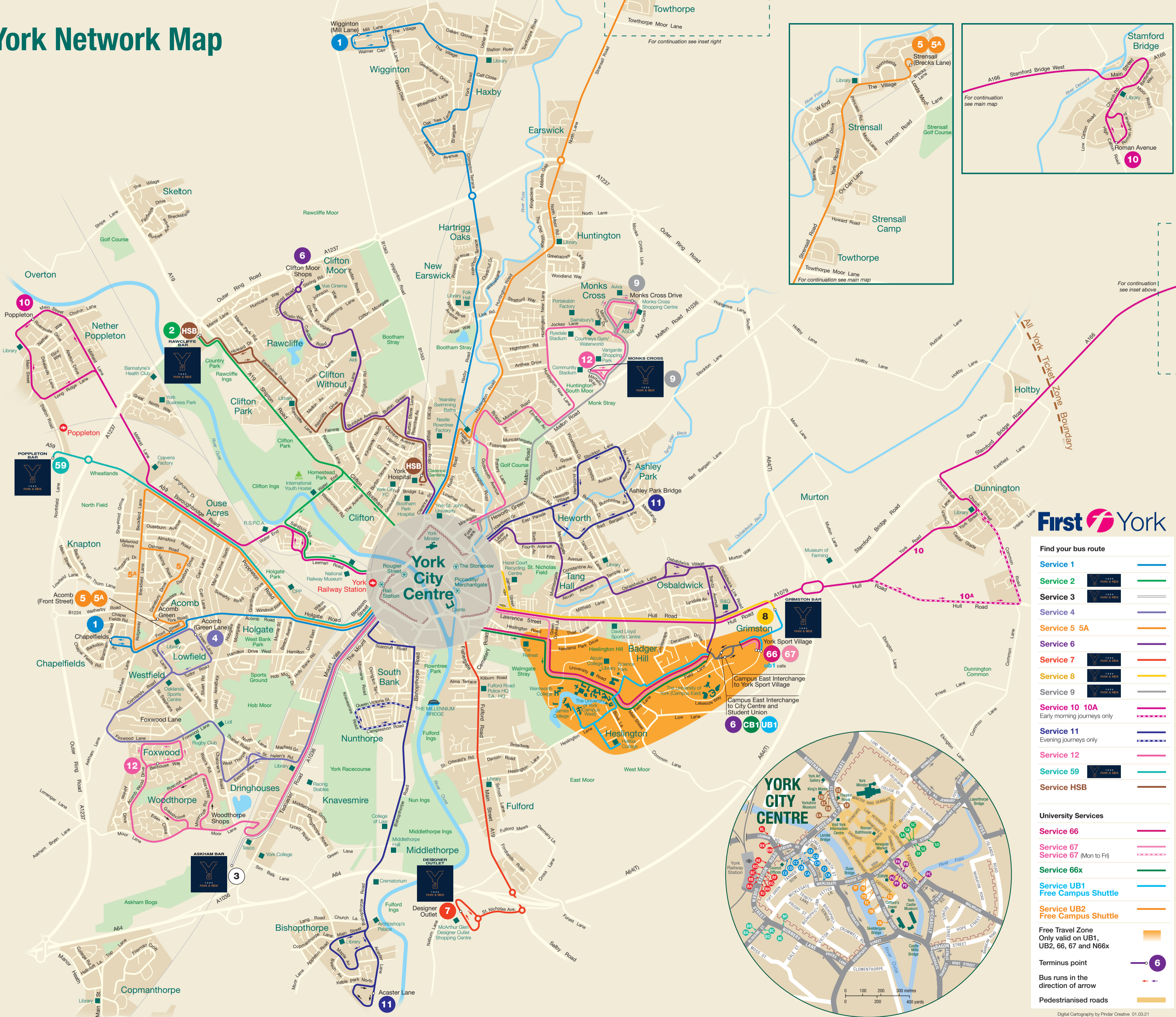
# **23-329-001.02 TRANSPORT ASSESSMENT**

**APPENDICES BGH9 – BGH17**

# **APPENDIX BGH 9**



# York Network Map



## First York

**Find your bus route**

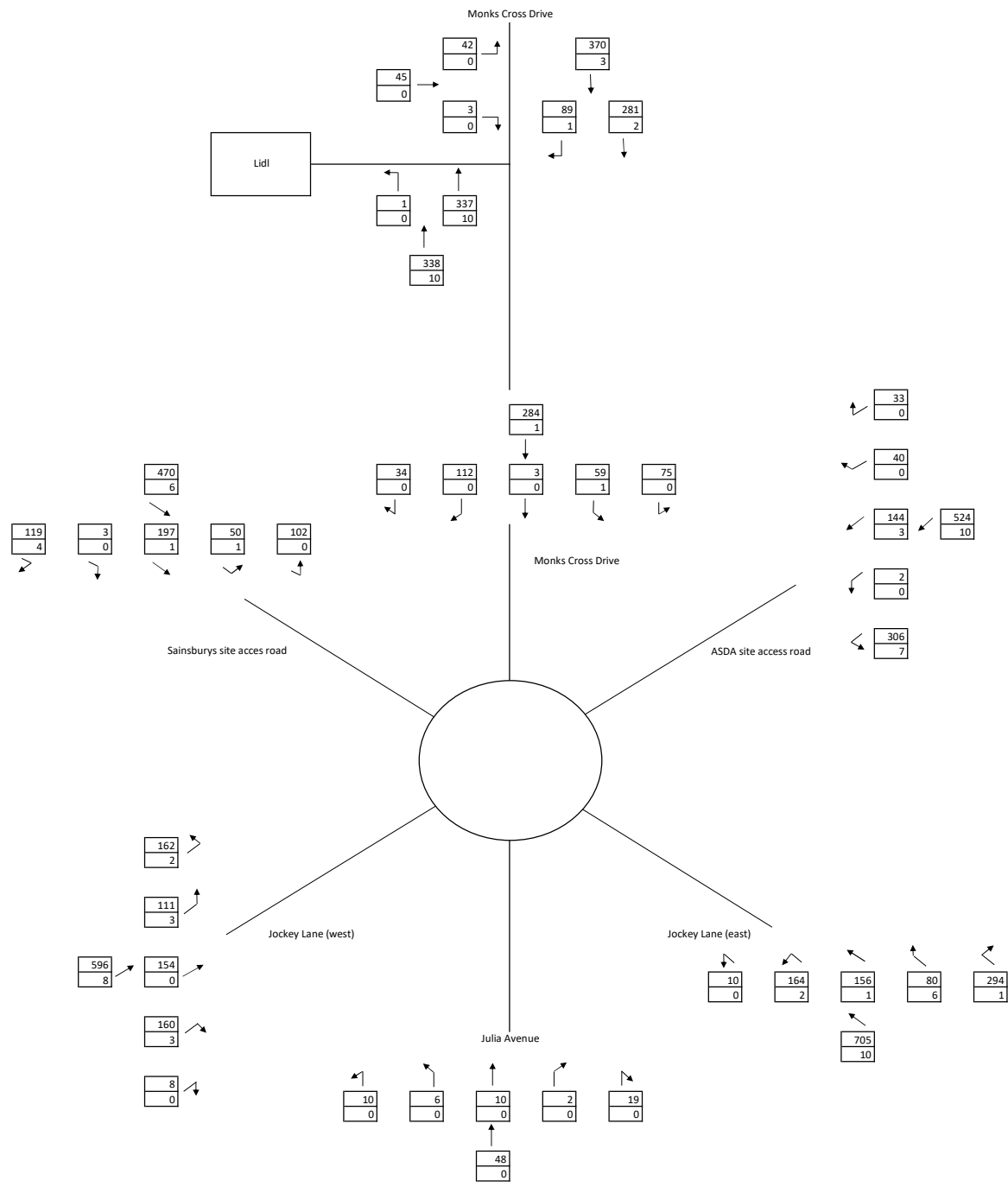
<b>Service 1</b>	
<b>Service 2</b>	
<b>Service 3</b>	
<b>Service 4</b>	
<b>Service 5 5A</b>	
<b>Service 6</b>	
<b>Service 7</b>	
<b>Service 8</b>	
<b>Service 9</b>	
<b>Service 10 10A</b>	
Early morning journeys only	
<b>Service 11</b>	
Evening journeys only	
<b>Service 12</b>	
<b>Service 59</b>	
<b>Service HSB</b>	
<b>University Services</b>	
<b>Service 66</b>	
<b>Service 67</b>	
<b>Service 67 (Mon to Fri)</b>	
<b>Service 66x</b>	
<b>Service UB1</b>	
Free Campus Shuttle	
<b>Service UB2</b>	
Free Campus Shuttle	
<b>Free Travel Zone</b>	
Only valid on UB1, UB2, 66, 67 and N66x	
<b>Terminus point</b>	
Bus runs in the direction of arrow	
<b>Pedestrianised roads</b>	







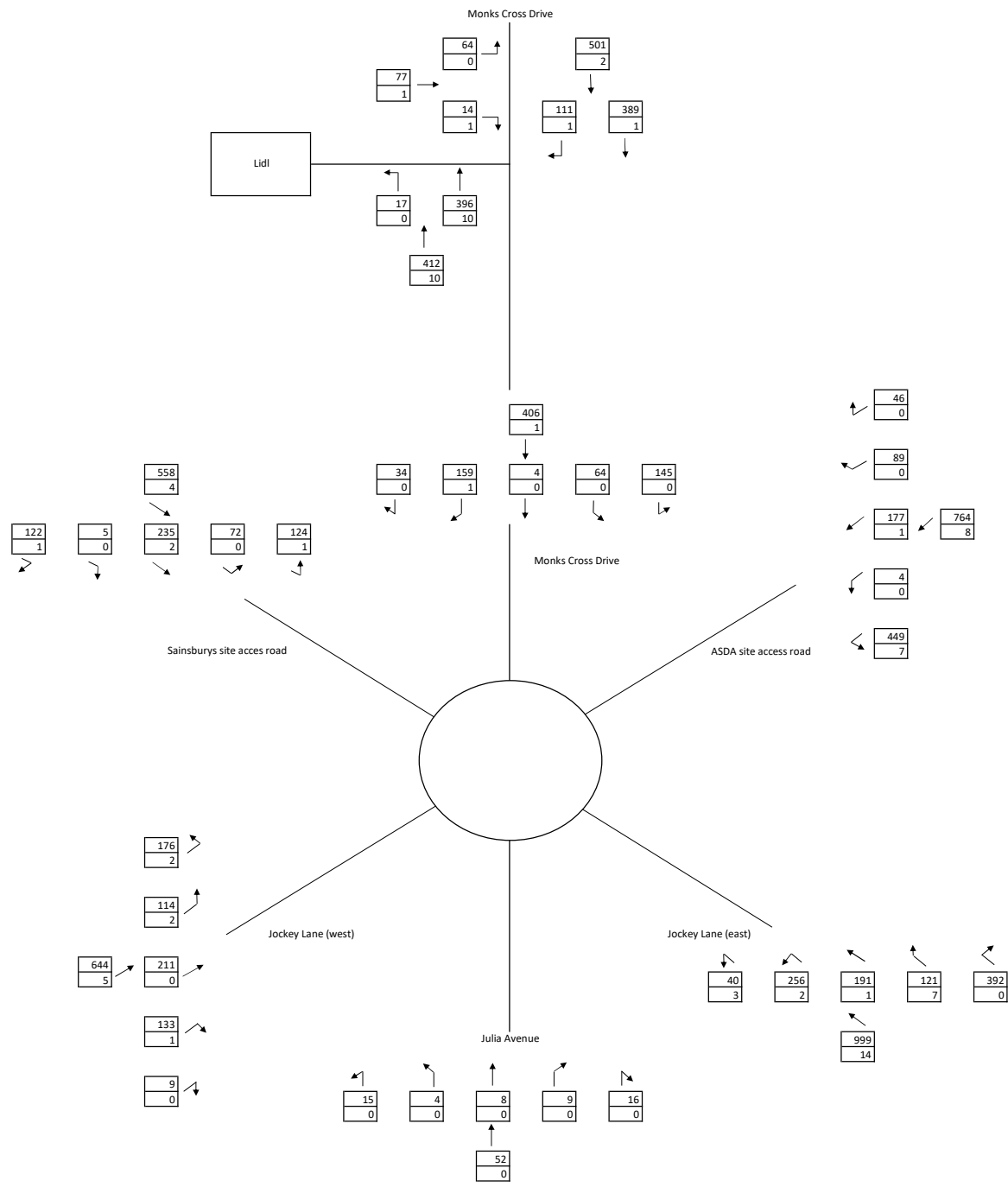
# **APPENDIX BGH 10**



	Total Vehicles
	Total HGVs and Buses

**BRYAN HALL**  
 CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

<b>Client:</b>	Lidl
<b>Project:</b>	Lidl, Monks Cross Drive, York
<b>Job Number:</b>	21-306
<b>Prepared by:</b>	Amy Hoyle
<b>Checked by:</b>	Nick Calder



	Total Vehicles
	Total HGVs and Buses



# **APPENDIX BGH 11**

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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<b>The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution</b>

**Filename:** Jockey Lane Roundabout.j9  
**Path:** Y:\2023\23-326 to 23-350\23-329 Lidl Monks Cross Drive (Demolition of Former Argos and TK Max Units)  
 \Technical\Junction Modelling  
**Report generation date:** 12/10/2023 13:33:36

«Existing Layout - 2028 Base , PM

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

Summary of junction performance

	PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
<b>Existing Layout - 2028 Base</b>						
1 - Monks Cross Drive	D3	0.3	3.75	0.25	A	94 % [6 - Sainsburys Site Access Road]
2 - ASDA Site Access Road		0.4	2.45	0.29	A	
3 - Jockey Lane (E)		0.6	2.85	0.38	A	
4 - Julia Avenue		0.1	4.96	0.07	A	
5 - Jockey Lane (W)		0.6	3.08	0.36	A	
6 - Sainsburys Site Access Road		0.5	3.24	0.32	A	

*There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.*

*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

<b>Title</b>	Jockey Lane Roundabout
<b>Location</b>	Huntington, York
<b>Site number</b>	
<b>Date</b>	01/11/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	LIDL
<b>Jobnumber</b>	21-306
<b>Enumerator</b>	BRYANGHALL\design
<b>Description</b>	

### 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

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

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2028 Base	PM	ONE HOUR	16:45	18:15	15



# Existing Layout - 2028 Base , 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Jockey Lane Roundabout	Standard Roundabout		1, 2, 3, 4, 5, 6	3.03	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	94	6 - Sainsburys Site Access Road

## Arms

### Arms

Arm	Name	Description
1	Monks Cross Drive	
2	ASDA Site Access Road	
3	Jockey Lane (E)	
4	Julia Avenue	
5	Jockey Lane (W)	
6	Sainsburys Site Access Road	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Monks Cross Drive	3.73	6.95	26.4	18.5	71.9	24.0	
2 - ASDA Site Access Road	6.59	9.52	17.0	14.7	71.9	26.0	
3 - Jockey Lane (E)	7.40	7.40	0.0	48.0	71.9	19.0	
4 - Julia Avenue	3.40	7.10	6.1	11.1	71.9	32.5	
5 - Jockey Lane (W)	6.49	7.84	8.5	18.0	71.9	23.0	
6 - Sainsburys Site Access Road	6.03	7.70	11.7	16.5	71.9	24.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Monks Cross Drive	0.527	1862
2 - ASDA Site Access Road	0.630	2559
3 - Jockey Lane (E)	0.620	2392
4 - Julia Avenue	0.431	1343
5 - Jockey Lane (W)	0.592	2280
6 - Sainsburys Site Access Road	0.577	2197

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

## Traffic Demand

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

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Monks Cross Drive		✓	285	100.000
2 - ASDA Site Access Road		✓	535	100.000
3 - Jockey Lane (E)		✓	714	100.000
4 - Julia Avenue		✓	47	100.000
5 - Jockey Lane (W)		✓	604	100.000
6 - Sainsburys Site Access Road		✓	477	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To						
	1 - Monks Cross Drive	2 - ASDA Site Access Road	3 - Jockey Lane (E)	4 - Julia Avenue	5 - Jockey Lane (W)	6 - Sainsburys Site Access Road	
1 - Monks Cross Drive	0	75	61	3	112	34	
2 - ASDA Site Access Road	33	0	313	2	147	40	
3 - Jockey Lane (E)	86	295	0	10	166	157	
4 - Julia Avenue	10	2	19	0	10	6	
5 - Jockey Lane (W)	114	154	164	8	0	164	
6 - Sainsburys Site Access Road	102	51	198	3	123	0	

## Vehicle Mix

### Heavy Vehicle Percentages

From	To						
	1 - Monks Cross Drive	2 - ASDA Site Access Road	3 - Jockey Lane (E)	4 - Julia Avenue	5 - Jockey Lane (W)	6 - Sainsburys Site Access Road	
1 - Monks Cross Drive	0	0	0	0	0	0	
2 - ASDA Site Access Road	0	0	0	0	0	0	
3 - Jockey Lane (E)	0	0	0	0	0	0	
4 - Julia Avenue	0	0	0	0	0	0	
5 - Jockey Lane (W)	0	0	0	0	0	0	
6 - Sainsburys Site Access Road	0	0	0	0	0	0	

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Monks Cross Drive	0.25	3.75	0.3	A
2 - ASDA Site Access Road	0.29	2.45	0.4	A
3 - Jockey Lane (E)	0.38	2.85	0.6	A
4 - Julia Avenue	0.07	4.96	0.1	A
5 - Jockey Lane (W)	0.36	3.08	0.6	A
6 - Sainsburys Site Access Road	0.32	3.24	0.5	A

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	215	764	1460	0.147	214	0.2	2.887	A
2 - ASDA Site Access Road	403	544	2216	0.182	402	0.2	1.983	A
3 - Jockey Lane (E)	538	379	2157	0.249	536	0.3	2.219	A
4 - Julia Avenue	35	896	957	0.037	35	0.0	3.906	A
5 - Jockey Lane (W)	455	512	1977	0.230	454	0.3	2.364	A
6 - Sainsburys Site Access Road	359	665	1814	0.198	358	0.2	2.472	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	256	914	1381	0.186	256	0.2	3.199	A
2 - ASDA Site Access Road	481	651	2149	0.224	481	0.3	2.157	A
3 - Jockey Lane (E)	642	454	2110	0.304	641	0.4	2.451	A
4 - Julia Avenue	42	1072	881	0.048	42	0.1	4.291	A
5 - Jockey Lane (W)	543	613	1917	0.283	543	0.4	2.619	A
6 - Sainsburys Site Access Road	429	795	1739	0.247	428	0.3	2.748	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	314	1119	1273	0.246	313	0.3	3.748	A
2 - ASDA Site Access Road	589	797	2057	0.286	589	0.4	2.451	A
3 - Jockey Lane (E)	786	555	2047	0.384	785	0.6	2.851	A
4 - Julia Avenue	52	1312	777	0.067	52	0.1	4.961	A
5 - Jockey Lane (W)	665	750	1836	0.362	664	0.6	3.072	A
6 - Sainsburys Site Access Road	525	973	1636	0.321	525	0.5	3.238	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	314	1120	1273	0.247	314	0.3	3.753	A
2 - ASDA Site Access Road	589	798	2056	0.286	589	0.4	2.452	A
3 - Jockey Lane (E)	786	556	2047	0.384	786	0.6	2.854	A
4 - Julia Avenue	52	1314	777	0.067	52	0.1	4.964	A
5 - Jockey Lane (W)	665	751	1835	0.362	665	0.6	3.075	A
6 - Sainsburys Site Access Road	525	974	1635	0.321	525	0.5	3.242	A

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	256	915	1380	0.186	257	0.2	3.206	A
2 - ASDA Site Access Road	481	653	2148	0.224	481	0.3	2.160	A
3 - Jockey Lane (E)	642	455	2110	0.304	643	0.4	2.456	A
4 - Julia Avenue	42	1074	880	0.048	42	0.1	4.298	A
5 - Jockey Lane (W)	543	614	1916	0.283	544	0.4	2.625	A
6 - Sainsburys Site Access Road	429	797	1738	0.247	429	0.3	2.754	A



18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	215	766	1459	0.147	215	0.2	2.896	A
2 - ASDA Site Access Road	403	546	2215	0.182	403	0.2	1.986	A
3 - Jockey Lane (E)	538	381	2156	0.249	538	0.3	2.227	A
4 - Julia Avenue	35	899	956	0.037	35	0.0	3.912	A
5 - Jockey Lane (W)	455	514	1976	0.230	455	0.3	2.367	A
6 - Sainsburys Site Access Road	359	667	1812	0.198	359	0.2	2.479	A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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**Filename:** Jockey Lane Roundabout.j9  
**Path:** Y:\2023\23-326 to 23-350\23-329 Lidl Monks Cross Drive (Demolition of Former Argos and TK Max Units)  
 \Technical\Junction Modelling  
**Report generation date:** 12/10/2023 13:34:03

«Existing Layout - 2028 Base, Sat

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

Summary of junction performance

		Sat					
		Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
		Existing Layout - 2028 Base					
1 - Monks Cross Drive	D4	0.5	4.39	0.33	A	62 % [3 - Jockey Lane (E)]	
2 - ASDA Site Access Road		0.6	2.79	0.37	A		
3 - Jockey Lane (E)		1.0	3.69	0.51	A		
4 - Julia Avenue		0.1	5.99	0.08	A		
5 - Jockey Lane (W)		0.6	3.31	0.37	A		
6 - Sainsburys Site Access Road		0.6	3.53	0.36	A		

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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	Jockey Lane Roundabout
Location	Huntington, York
Site number	
Date	01/11/2021
Version	
Status	(new file)
Identifier	
Client	LIDL
Jobnumber	21-306
Enumerator	BRYANGHALL\design
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

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

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	2028 Base	Sat	FLAT	11:45	13:15	90	15

# Existing Layout - 2028 Base, Sat

## 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Jockey Lane Roundabout	Standard Roundabout		1, 2, 3, 4, 5, 6	3.51	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	62	3 - Jockey Lane (E)

## Arms

### Arms

Arm	Name	Description
1	Monks Cross Drive	
2	ASDA Site Access Road	
3	Jockey Lane (E)	
4	Julia Avenue	
5	Jockey Lane (W)	
6	Sainsburys Site Access Road	

### 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 - Monks Cross Drive	3.73	6.95	26.4	18.5	71.9	24.0	
2 - ASDA Site Access Road	6.59	9.52	17.0	14.7	71.9	26.0	
3 - Jockey Lane (E)	7.40	7.40	0.0	48.0	71.9	19.0	
4 - Julia Avenue	3.40	7.10	6.1	11.1	71.9	32.5	
5 - Jockey Lane (W)	6.49	7.84	8.5	18.0	71.9	23.0	
6 - Sainsburys Site Access Road	6.03	7.70	11.7	16.5	71.9	24.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Monks Cross Drive	0.527	1862
2 - ASDA Site Access Road	0.630	2559
3 - Jockey Lane (E)	0.620	2392
4 - Julia Avenue	0.431	1343
5 - Jockey Lane (W)	0.592	2280
6 - Sainsburys Site Access Road	0.577	2197

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

## Traffic Demand

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

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Monks Cross Drive		✓	407	100.000
2 - ASDA Site Access Road		✓	773	100.000
3 - Jockey Lane (E)		✓	1013	100.000
4 - Julia Avenue		✓	52	100.000
5 - Jockey Lane (W)		✓	648	100.000
6 - Sainsburys Site Access Road		✓	562	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To						
	1 - Monks Cross Drive	2 - ASDA Site Access Road	3 - Jockey Lane (E)	4 - Julia Avenue	5 - Jockey Lane (W)	6 - Sainsburys Site Access Road	
1 - Monks Cross Drive	0	145	64	4	160	34	
2 - ASDA Site Access Road	46	0	456	4	178	89	
3 - Jockey Lane (E)	128	392	0	43	258	192	
4 - Julia Avenue	8	9	16	0	15	4	
5 - Jockey Lane (W)	116	211	134	9	0	178	
6 - Sainsburys Site Access Road	125	72	237	5	123	0	

## Vehicle Mix

### Heavy Vehicle Percentages

From	To						
	1 - Monks Cross Drive	2 - ASDA Site Access Road	3 - Jockey Lane (E)	4 - Julia Avenue	5 - Jockey Lane (W)	6 - Sainsburys Site Access Road	
1 - Monks Cross Drive	0	0	0	0	0	0	
2 - ASDA Site Access Road	0	0	0	0	0	0	
3 - Jockey Lane (E)	0	0	0	0	0	0	
4 - Julia Avenue	0	0	0	0	0	0	
5 - Jockey Lane (W)	0	0	0	0	0	0	
6 - Sainsburys Site Access Road	0	0	0	0	0	0	

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Monks Cross Drive	0.33	4.39	0.5	A
2 - ASDA Site Access Road	0.37	2.79	0.6	A
3 - Jockey Lane (E)	0.51	3.69	1.0	A
4 - Julia Avenue	0.08	5.99	0.1	A
5 - Jockey Lane (W)	0.37	3.31	0.6	A
6 - Sainsburys Site Access Road	0.36	3.53	0.6	A

### Main Results for each time segment

#### 11:45 - 12:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	407	1203	1229	0.331	405	0.5	4.360	A
2 - ASDA Site Access Road	773	783	2066	0.374	771	0.6	2.774	A
3 - Jockey Lane (E)	1013	650	1989	0.509	1009	1.0	3.659	A
4 - Julia Avenue	52	1594	656	0.079	52	0.1	5.954	A
5 - Jockey Lane (W)	648	914	1739	0.373	646	0.6	3.287	A
6 - Sainsburys Site Access Road	562	1065	1583	0.355	560	0.5	3.511	A

#### 12:00 - 12:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	407	1208	1226	0.332	407	0.5	4.394	A
2 - ASDA Site Access Road	773	786	2064	0.374	773	0.6	2.787	A
3 - Jockey Lane (E)	1013	652	1987	0.510	1013	1.0	3.693	A
4 - Julia Avenue	52	1600	653	0.080	52	0.1	5.986	A
5 - Jockey Lane (W)	648	918	1736	0.373	648	0.6	3.306	A
6 - Sainsburys Site Access Road	562	1069	1580	0.356	562	0.5	3.533	A

#### 12:15 - 12:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	407	1208	1226	0.332	407	0.5	4.394	A
2 - ASDA Site Access Road	773	786	2064	0.375	773	0.6	2.787	A
3 - Jockey Lane (E)	1013	652	1987	0.510	1013	1.0	3.693	A
4 - Julia Avenue	52	1600	653	0.080	52	0.1	5.986	A
5 - Jockey Lane (W)	648	918	1736	0.373	648	0.6	3.306	A
6 - Sainsburys Site Access Road	562	1069	1580	0.356	562	0.6	3.533	A

#### 12:30 - 12:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	407	1208	1226	0.332	407	0.5	4.394	A
2 - ASDA Site Access Road	773	786	2064	0.375	773	0.6	2.787	A
3 - Jockey Lane (E)	1013	652	1987	0.510	1013	1.0	3.693	A
4 - Julia Avenue	52	1600	653	0.080	52	0.1	5.986	A
5 - Jockey Lane (W)	648	918	1736	0.373	648	0.6	3.306	A
6 - Sainsburys Site Access Road	562	1069	1580	0.356	562	0.6	3.533	A

#### 12:45 - 13:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	407	1208	1226	0.332	407	0.5	4.394	A
2 - ASDA Site Access Road	773	786	2064	0.375	773	0.6	2.787	A
3 - Jockey Lane (E)	1013	652	1987	0.510	1013	1.0	3.693	A
4 - Julia Avenue	52	1600	653	0.080	52	0.1	5.986	A
5 - Jockey Lane (W)	648	918	1736	0.373	648	0.6	3.306	A
6 - Sainsburys Site Access Road	562	1069	1580	0.356	562	0.6	3.533	A

13:00 - 13:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	407	1208	1226	0.332	407	0.5	4.394	A
2 - ASDA Site Access Road	773	786	2064	0.375	773	0.6	2.787	A
3 - Jockey Lane (E)	1013	652	1987	0.510	1013	1.0	3.693	A
4 - Julia Avenue	52	1600	653	0.080	52	0.1	5.986	A
5 - Jockey Lane (W)	648	918	1736	0.373	648	0.6	3.306	A
6 - Sainsburys Site Access Road	562	1069	1580	0.356	562	0.6	3.533	A



<b>Junctions 9</b>
<b>PICADY 9 - Priority Intersection Module</b>
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**Filename:** Site Access, Monks Cross Drive T-junction.j9  
**Path:** Y:\2023\23-326 to 23-350\23-329 Lidl Monks Cross Drive (Demolition of Former Argos and TK Max Units)  
 \Technical\Junction Modelling  
**Report generation date:** 12/10/2023 13:28:42

### «Existing Layout - 2028 Base, PM

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

### Summary of junction performance

PM						
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	
Existing Layout - 2028 Base						
Stream B-AC	D3	0.1	7.37	0.09	A	192 %
Stream C-AB		0.2	6.99	0.16	A	[Stream B-AC]

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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

<b>Title</b>	Site Access, Monks Cross Drive T-junction
<b>Location</b>	York
<b>Site number</b>	
<b>Date</b>	03/11/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	LIDL
<b>Jobnumber</b>	21-306
<b>Enumerator</b>	BRYANGHALL\design
<b>Description</b>	

### 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

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

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2028 Base	PM	ONE HOUR	16:45	18:15	15

# Existing Layout - 2028 Base, 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.

## Junction Network

### Junctions

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

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	192	Stream B-AC

## Arms

### Arms

Arm	Name	Description	Arm type
A	Monks Cross Drive (S)		Major
B	Site Access		Minor
C	Monks Cross Drive (N)		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 - Monks Cross Drive (N)	7.20		✓	3.60	80.0	✓	5.00

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

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	2.90	87	50

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	525	0.091	0.229	0.144	0.328
B-C	649	0.094	0.238	-	-
C-B	715	0.262	0.262	-	-

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

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

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Monks Cross Drive (S)		✓	348	100.000
B - Site Access		✓	45	100.000
C - Monks Cross Drive (N)		✓	373	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Monks Cross Drive (S)	B - Site Access	C - Monks Cross Drive (N)
From	A - Monks Cross Drive (S)	0	1	347
	B - Site Access	3	0	42
	C - Monks Cross Drive (N)	283	90	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Monks Cross Drive (S)	B - Site Access	C - Monks Cross Drive (N)
From	A - Monks Cross Drive (S)	0	0	0
	B - Site Access	0	0	0
	C - Monks Cross Drive (N)	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	7.37	0.1	A
C-AB	0.16	6.99	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	570	0.059	34	0.1	6.702	A
C-AB	68	646	0.105	67	0.1	6.214	A
C-A	213			213			
A-B	0.75			0.75			
A-C	261			261			

**17:00 - 17:15**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	557	0.073	40	0.1	6.969	A
C-AB	81	633	0.128	81	0.1	6.520	A
C-A	254			254			
A-B	0.90			0.90			
A-C	312			312			

**17:15 - 17:30**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	538	0.092	49	0.1	7.368	A
C-AB	99	614	0.161	99	0.2	6.984	A
C-A	312			312			
A-B	1			1			
A-C	382			382			

**17:30 - 17:45**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	538	0.092	50	0.1	7.368	A
C-AB	99	614	0.161	99	0.2	6.987	A
C-A	312			312			
A-B	1			1			
A-C	382			382			

**17:45 - 18:00**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	557	0.073	41	0.1	6.971	A
C-AB	81	633	0.128	81	0.1	6.527	A
C-A	254			254			
A-B	0.90			0.90			
A-C	312			312			

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	570	0.059	34	0.1	6.712	A
C-AB	68	646	0.105	68	0.1	6.229	A
C-A	213			213			
A-B	0.75			0.75			
A-C	261			261			

Junctions 9
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**Filename:** Site Access, Monks Cross Drive T-junction.j9  
**Path:** Y:\2023\23-326 to 23-350\23-329 Lidl Monks Cross Drive (Demolition of Former Argos and TK Max Units)  
 \Technical\Junction Modelling  
**Report generation date:** 12/10/2023 13:29:31

### «Existing Layout - 2028 Base, Sat

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

### Summary of junction performance

Sat						
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	
Existing Layout - 2028 Base						
Stream B-AC	D4	0.2	9.22	0.18	A	101 %
Stream C-AB	D4	0.3	7.67	0.21	A	[Stream B-AC]

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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

<b>Title</b>	Site Access, Monks Cross Drive T-junction
<b>Location</b>	York
<b>Site number</b>	
<b>Date</b>	03/11/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	LIDL
<b>Jobnumber</b>	21-306
<b>Enumerator</b>	BRYANGHALL\design
<b>Description</b>	

### 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

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

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2028 Base	Sat	ONE HOUR	11:45	13:15	15



# Existing Layout - 2028 Base, Sat

## 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Existing Layout	T-Junction	Two-way		1.58	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	101	Stream B-AC

## Arms

### Arms

Arm	Name	Description	Arm type
A	Monks Cross Drive (S)		Major
B	Site Access		Minor
C	Monks Cross Drive (N)		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 - Monks Cross Drive (N)	7.20		✓	3.60	80.0	✓	5.00

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

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	2.90	87	50

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	525	0.091	0.229	0.144	0.328
B-C	649	0.094	0.238	-	-
C-B	715	0.262	0.262	-	-

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

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

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Monks Cross Drive (S)		✓	423	100.000
B - Site Access		✓	79	100.000
C - Monks Cross Drive (N)		✓	502	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Monks Cross Drive (S)	B - Site Access	C - Monks Cross Drive (N)
From	A - Monks Cross Drive (S)	0	17	406
	B - Site Access	15	0	64
	C - Monks Cross Drive (N)	390	112	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Monks Cross Drive (S)	B - Site Access	C - Monks Cross Drive (N)
From	A - Monks Cross Drive (S)	0	0	0
	B - Site Access	0	0	0
	C - Monks Cross Drive (N)	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.18	9.22	0.2	A
C-AB	0.21	7.67	0.3	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	525	0.113	59	0.1	7.712	A
C-AB	84	631	0.134	84	0.2	6.568	A
C-A	294			294			
A-B	13			13			
A-C	306			306			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	71	506	0.140	71	0.2	8.279	A
C-AB	101	615	0.164	101	0.2	6.995	A
C-A	351			351			
A-B	15			15			
A-C	365			365			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	477	0.182	87	0.2	9.208	A
C-AB	123	593	0.208	123	0.3	7.662	A
C-A	429			429			
A-B	19			19			
A-C	447			447			

12:30 - 12:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	477	0.182	87	0.2	9.220	A
C-AB	123	593	0.208	123	0.3	7.668	A
C-A	429			429			
A-B	19			19			
A-C	447			447			

12:45 - 13:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	71	506	0.140	71	0.2	8.295	A
C-AB	101	615	0.164	101	0.2	7.008	A
C-A	351			351			
A-B	15			15			
A-C	365			365			

13:00 - 13:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	525	0.113	60	0.1	7.735	A
C-AB	84	631	0.134	84	0.2	6.585	A
C-A	294			294			
A-B	13			13			
A-C	306			306			

# **APPENDIX BGH 12**



**CAR PARK SCHEDULE**

TOTAL IN SITE	(137)
LIDL TOTAL	(124)
DISABLED	6
PARENT AND CHILD	9
STANDARD SPACES	107
EVC	2
DRIVE THRU UNIT TOTAL	(13)
DISABLED	3
STANDARD SPACES	10

**Site Area**

Site Area=	12,621m <sup>2</sup> /3.11 acres
------------	-------------------------------------

**Developable Areas**

Orange Area	9,785m <sup>2</sup> /2.42 acres
Blue Area	1,199m <sup>2</sup> /0.29 acres

**SCHEDULE OF AREAS (TYPE 1500):**

SALES	= 1512 m <sup>2</sup>
WAREHOUSE	= 447 m <sup>2</sup>
ANCILLARY	= 213 m <sup>2</sup>
GIA	= 2172 m <sup>2</sup>

C	03/11/2023	Proposed tree planting removed and added annotation	BM
B	10/10/2023	Site entrance amended, car park adjusted following comments from Highways engineer	BM
A	25/09/2023	Adjusted parking layout to include pedestrian links	BM
Rev	Date	Description	Drawn

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client  
**Lidl GB Ltd.**

project  
**Monks Cross, York**

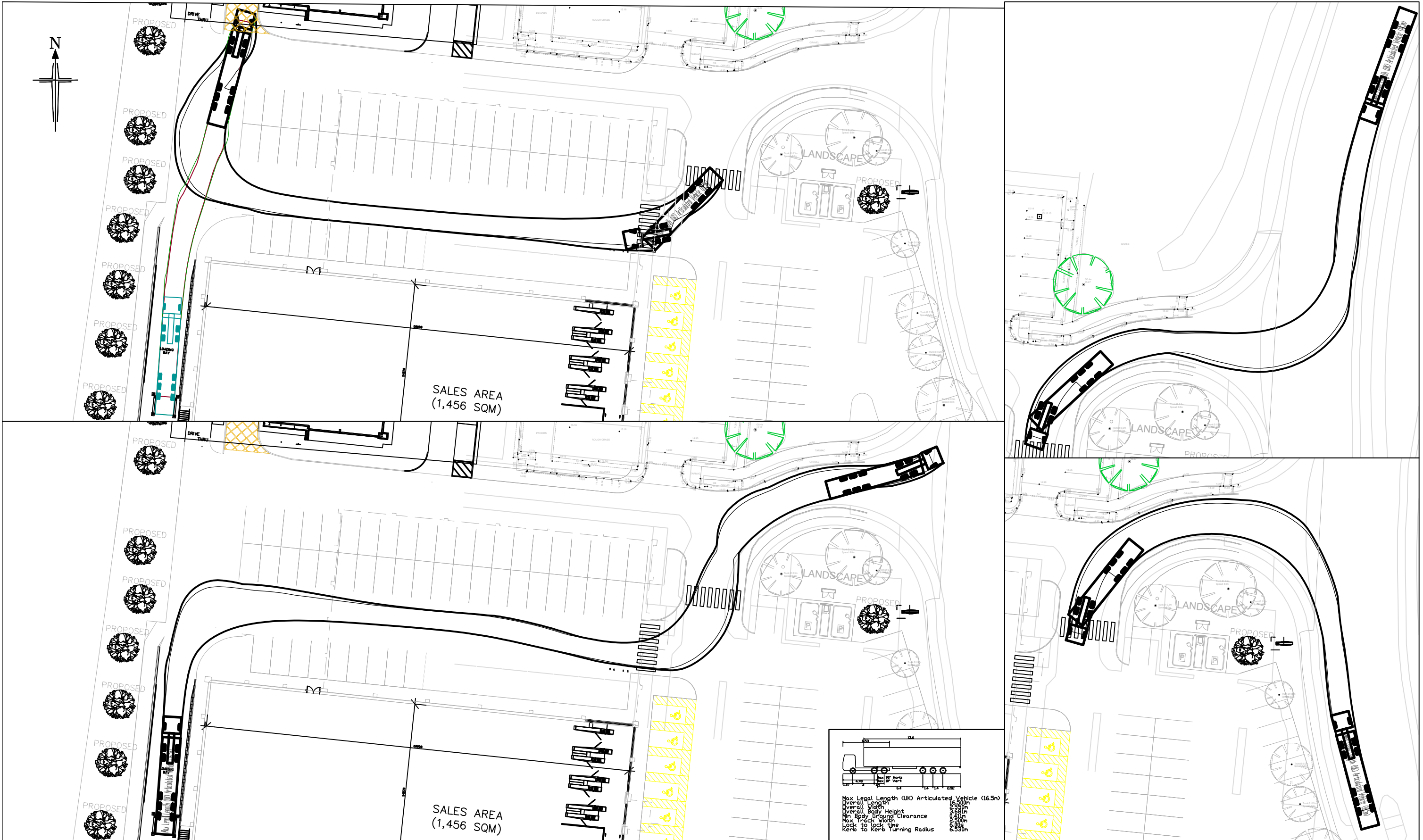
drawing title  
**Proposed Site Plan (Type 1500)**

date **August 2023**  
 status **Planning**  
 scale **1:500 @ A3**  
 drawn **NG** checked **BM**  
 job no. **2504** dwg no. **P432** rev. **C**



# **APPENDIX BGH 13**





# BRYAN G HALL

CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

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Title: HGV Tracking Arrangements

Status: For Information

Scale: 1:500

Rev:	Date:	Amendment:	NC	-	-
			DRN	CHK	APR

Client: LIDL

Project: Monks Cross Drive, York

Drawing No: 21/306/ATR/001

Revision: A



# **APPENDIX BGH 14**

Calculation Reference: AUDIT-604801-211103-1126

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL  
 Category : C - DISCOUNT FOOD STORES  
 TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	SM SOMERSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	2 days
	WO WORCESTERSHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
	TW TYNE & WEAR	1 days
15	GREATER DUBLIN	
	DL DUBLIN	1 days
17	ULSTER (NORTHERN IRELAND)	
	AN ANTRIM	1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area  
 Actual Range: 700 to 2555 (units: sqm)  
 Range Selected by User: 700 to 2703 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 28/11/20

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Tuesday	3 days
Wednesday	3 days
Thursday	2 days
Friday	3 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count	11 days
Directional ATC Count	0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	5

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Industrial Zone	1
Development Zone	1
Residential Zone	1
Retail Zone	3

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Secondary Filtering selection:

Use Class:

E(a) 11 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS@.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	4 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
125,001 to 250,000	1 days
250,001 to 500,000	2 days
500,001 or More	2 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	4 days
1.6 to 2.0	1 days
2.1 to 2.5	1 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	11 days

*This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.*

Travel Plan:

Not Known	1 days
Yes	1 days
No	9 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present	11 days
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*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

1	AN-01-C-02 BELFAST ROAD CARRICKFERGUS	LIDL		ANTRIM
	Edge of Town Development Zone Total Gross floor area:		1325 sqm	
	<i>Survey date: WEDNESDAY</i>		<i>12/10/16</i>	<i>Survey Type: MANUAL</i>
2	CA-01-C-01 CROMWELL ROAD WISBECH	LIDL		CAMBRIDGESHIRE
	Edge of Town Retail Zone Total Gross floor area:		1466 sqm	
	<i>Survey date: FRIDAY</i>		<i>21/10/16</i>	<i>Survey Type: MANUAL</i>
3	DH-01-C-01 WATLING ROAD BISHOP AUCKLAND	ALDI		DURHAM
	Edge of Town Retail Zone Total Gross floor area:		1023 sqm	
	<i>Survey date: THURSDAY</i>		<i>06/04/17</i>	<i>Survey Type: MANUAL</i>
4	DL-01-C-01 SALLYNOGGIN ROAD DUBLIN THOMASTOWN	LIDL		DUBLIN
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Gross floor area:		2163 sqm	
	<i>Survey date: WEDNESDAY</i>		<i>20/06/18</i>	<i>Survey Type: MANUAL</i>
5	NF-01-C-01 AYLSHAM ROAD NORWICH	LIDL		NORFOLK
	Neighbourhood Centre (PPS6 Local Centre) No Sub Category Total Gross floor area:		2555 sqm	
	<i>Survey date: FRIDAY</i>		<i>29/11/19</i>	<i>Survey Type: MANUAL</i>
6	NT-01-C-01 CHAPEL LANE BINGHAM	LIDL		NOTTINGHAMSHIRE
	Edge of Town Industrial Zone Total Gross floor area:		2440 sqm	
	<i>Survey date: FRIDAY</i>		<i>15/07/16</i>	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

7	SM-01-C-01 SEAWARD WAY MINEHEAD	LIDL	SOMERSET
	Edge of Town No Sub Category Total Gross floor area: 2247 sqm <i>Survey date: THURSDAY 22/06/17</i>		<i>Survey Type: MANUAL</i>
8	TW-01-C-01 EDGEFIELD AVENUE NEWCASTLE FAWDON	ALDI	TYNE & WEAR
	Neighbourhood Centre (PPS6 Local Centre) No Sub Category Total Gross floor area: 1798 sqm <i>Survey date: TUESDAY 30/04/19</i>		<i>Survey Type: MANUAL</i>
9	WM-01-C-01 MACKADOWN LANE BIRMINGHAM KITT'S GREEN	LIDL	WEST MIDLANDS
	Neighbourhood Centre (PPS6 Local Centre) No Sub Category Total Gross floor area: 2085 sqm <i>Survey date: TUESDAY 12/07/16</i>		<i>Survey Type: MANUAL</i>
10	WM-01-C-02 HIGH STREET WEST BROMWICH GUNS VILLAGE	LIDL	WEST MIDLANDS
	Neighbourhood Centre (PPS6 Local Centre) High Street Total Gross floor area: 2085 sqm <i>Survey date: TUESDAY 12/07/16</i>		<i>Survey Type: MANUAL</i>
11	WO-01-C-01 BLACKPOLE ROAD WORCESTER BRICKFIELDS	LIDL	WORCESTERSHIRE
	Edge of Town Retail Zone Total Gross floor area: 2417 sqm <i>Survey date: WEDNESDAY 13/07/16</i>		<i>Survey Type: MANUAL</i>

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
SR-01-C-02	Covid-19 Pandemic
WS-01-C-01	Covid-19 Pandemic

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
WY-01-C-01	19/10/15	Farmfoods

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	1964	0.296	11	1964	0.079	11	1964	0.375
08:00 - 09:00	11	1964	2.296	11	1964	1.421	11	1964	3.717
09:00 - 10:00	11	1964	3.013	11	1964	2.638	11	1964	5.651
10:00 - 11:00	11	1964	3.337	11	1964	2.819	11	1964	6.156
11:00 - 12:00	11	1964	3.647	11	1964	3.569	11	1964	7.216
12:00 - 13:00	11	1964	3.860	11	1964	3.573	11	1964	7.433
13:00 - 14:00	11	1964	3.944	11	1964	4.379	11	1964	8.323
14:00 - 15:00	11	1964	3.939	11	1964	4.027	11	1964	7.966
15:00 - 16:00	11	1964	4.143	11	1964	4.221	11	1964	8.364
16:00 - 17:00	11	1964	4.013	11	1964	4.175	11	1964	8.188
17:00 - 18:00	11	1964	3.809	11	1964	3.995	11	1964	7.804
18:00 - 19:00	11	1964	3.291	11	1964	3.689	11	1964	6.980
19:00 - 20:00	11	1964	2.634	11	1964	2.800	11	1964	5.434
20:00 - 21:00	11	1964	1.592	11	1964	1.986	11	1964	3.578
21:00 - 22:00	11	1964	0.565	11	1964	0.898	11	1964	1.463
22:00 - 23:00	9	2013	0.022	9	2013	0.199	9	2013	0.221
23:00 - 24:00									
Total Rates:			44.401			44.468			88.869

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected: 700 - 2555 (units: sqm)  
 Survey date date range: 01/01/13 - 28/11/20  
 Number of weekdays (Monday-Friday): 12  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys automatically removed from selection: 1  
 Surveys manually removed from selection: 2

*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*

Calculation Reference: AUDIT-604801-211103-1141

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL  
 Category : C - DISCOUNT FOOD STORES  
 TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	SM SOMERSET	1 days
05	EAST MIDLANDS	
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	2 days
	WO WORCESTERSHIRE	1 days
12	CONNAUGHT	
	LT LEITRIM	1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

## Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area  
 Actual Range: 1110 to 2440 (units: sqm)  
 Range Selected by User: 700 to 2703 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 28/11/20

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Saturday	5 days
Sunday	3 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Edge of Town	5
Neighbourhood Centre (PPS6 Local Centre)	3

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Industrial Zone	1
Retail Zone	2
Built-Up Zone	1
High Street	1
No Sub Category	3

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Secondary Filtering selection:

Use Class:

E(a) 8 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	2 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

5,001 to 25,000	2 days
50,001 to 75,000	1 days
250,001 to 500,000	3 days
500,001 or More	2 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	6 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	8 days

*This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.*

Travel Plan:

Not Known	1 days
Yes	1 days
No	6 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present	8 days
-----------------	--------

*This data displays the number of selected surveys with PTAL Ratings.*



LIST OF SITES relevant to selection parameters

1	BR-01-C-02	LIDL		BRISTOL CITY
	BATH ROAD			
	BRISTOL			
	BRISLINGTON RETAIL PK			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:		1550 sqm	
	Survey date: SUNDAY		20/09/15	Survey Type: MANUAL
2	HC-01-C-01	ALDI		HAMPSHIRE
	GAMBLE ROAD			
	PORTSMOUTH			
	NORTH END			
	Neighbourhood Centre (PPS6 Local Centre)			
	Built-Up Zone			
	Total Gross floor area:		1110 sqm	
	Survey date: SUNDAY		23/06/19	Survey Type: MANUAL
3	LT-01-C-01	LIDL		LEITRIM
	BOYLE ROAD			
	CARRICK-ON-SHANNON			
	CORTOBER			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:		1755 sqm	
	Survey date: SUNDAY		19/04/15	Survey Type: MANUAL
4	NT-01-C-01	LIDL		NOTTINGHAMSHIRE
	CHAPEL LANE			
	BINGHAM			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		2440 sqm	
	Survey date: SATURDAY		16/07/16	Survey Type: MANUAL
5	SM-01-C-01	LIDL		SOMERSET
	SEAWARD WAY			
	MINEHEAD			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:		2247 sqm	
	Survey date: SATURDAY		24/06/17	Survey Type: MANUAL
6	WM-01-C-01	LIDL		WEST MIDLANDS
	MACKADOWN LANE			
	BIRMINGHAM			
	KITT'S GREEN			
	Neighbourhood Centre (PPS6 Local Centre)			
	No Sub Category			
	Total Gross floor area:		2085 sqm	
	Survey date: SATURDAY		09/07/16	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

7	WM-01-C-02	LIDL	WEST MIDLANDS
	HIGH STREET WEST BROMWICH GUNS VILLAGE Neighbourhood Centre (PPS6 Local Centre) High Street Total Gross floor area: 2085 sqm <i>Survey date: SATURDAY 09/07/16</i>		
	<i>Survey Type: MANUAL</i>		
8	WO-01-C-01	LIDL	WORCESTERSHIRE
	BLACKPOLE ROAD WORCESTER BRICKFIELDS Edge of Town Retail Zone Total Gross floor area: 2417 sqm <i>Survey date: SATURDAY 16/07/16</i>		
	<i>Survey Type: MANUAL</i>		

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BD-01-C-01	Covid 19
DL-01-C-02	Covid 19
LU-01-C-01	Covid 19
NR-01-C-03	Covid 19

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	2137	0.328	6	2137	0.055	6	2137	0.383
08:00 - 09:00	7	2083	1.886	7	2083	1.235	7	2083	3.121
09:00 - 10:00	8	1961	3.161	8	1961	2.409	8	1961	5.570
10:00 - 11:00	8	1961	5.934	8	1961	4.876	8	1961	10.810
11:00 - 12:00	8	1961	6.992	8	1961	6.591	8	1961	13.583
12:00 - 13:00	8	1961	6.935	8	1961	7.547	8	1961	14.482
13:00 - 14:00	8	1961	6.495	8	1961	6.329	8	1961	12.824
14:00 - 15:00	8	1961	5.998	8	1961	6.100	8	1961	12.098
15:00 - 16:00	8	1961	5.686	8	1961	6.285	8	1961	11.971
16:00 - 17:00	8	1961	4.411	8	1961	4.851	8	1961	9.262
17:00 - 18:00	7	2083	4.088	7	2083	4.136	7	2083	8.224
18:00 - 19:00	6	2172	3.469	6	2172	3.945	6	2172	7.414
19:00 - 20:00	6	2172	2.303	6	2172	2.694	6	2172	4.997
20:00 - 21:00	6	2172	1.366	6	2172	1.666	6	2172	3.032
21:00 - 22:00	6	2172	0.453	6	2172	0.844	6	2172	1.297
22:00 - 23:00	5	2255	0.000	5	2255	0.151	5	2255	0.151
23:00 - 24:00									
Total Rates:			59.505			59.714			119.219

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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#### Parameter summary

Trip rate parameter range selected:	1110 - 2440 (units: sqm)
Survey date range:	01/01/13 - 28/11/20
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	5
Number of Sundays:	3
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	4

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-604801-211104-1141

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK  
 Category : D - FAST FOOD - DRIVE THROUGH  
 TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	BR BRISTOL CITY	1 days
11	SCOTLAND	
	AD ABERDEEN CITY	1 days
	FI FIFE	1 days
14	LEINSTER	
	KK KILKENNY	1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

## Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area  
 Actual Range: 210 to 583 (units: sqm)  
 Range Selected by User: 182 to 800 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 02/10/20

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Monday	1 days
Tuesday	1 days
Friday	2 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	1

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Industrial Zone	1
Development Zone	1
High Street	1
No Sub Category	1

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Secondary Filtering selection:

Use Class:

Not Known 4 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000 2 days  
10,001 to 15,000 1 days  
25,001 to 50,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

25,001 to 50,000 1 days  
100,001 to 125,000 1 days  
125,001 to 250,000 1 days  
500,001 or More 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0 1 days  
1.1 to 1.5 3 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

No 4 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present 4 days

*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

- |   |  |             |                     |
|---|--|-------------|---------------------|
| 1 | AD-06-D-02                               | BURGER KING | ABERDEEN CITY       |
|   | WELLINGTON ROAD                          |             |                     |
|   | ABERDEEN                                 |             |                     |
|   | ALTENS                                   |             |                     |
|   | Edge of Town                             |             |                     |
|   | No Sub Category                          |             |                     |
|   | Total Gross floor area:                  | 300 sqm     |                     |
|   | Survey date: FRIDAY                      | 22/11/19    | Survey Type: MANUAL |
| 2 | BR-06-D-01                               | MCDONALD'S  | BRISTOL CITY        |
|   | SHEENE ROAD                              |             |                     |
|   | BRISTOL                                  |             |                     |
|   | BEDMINSTER                               |             |                     |
|   | Neighbourhood Centre (PPS6 Local Centre) |             |                     |
|   | High Street                              |             |                     |
|   | Total Gross floor area:                  | 210 sqm     |                     |
|   | Survey date: MONDAY                      | 21/09/15    | Survey Type: MANUAL |
| 3 | FI-06-D-02                               | KFC         | FIFE                |
|   | WHIMBREL PLACE                           |             |                     |
|   | DUNFERMLINE                              |             |                     |
|   | HALBEATH                                 |             |                     |
|   | Edge of Town                             |             |                     |
|   | Development Zone                         |             |                     |
|   | Total Gross floor area:                  | 275 sqm     |                     |
|   | Survey date: TUESDAY                     | 22/03/16    | Survey Type: MANUAL |
| 4 | KK-06-D-01                               | MCDONALD'S  | KILKENNY            |
|   | HEBRON ROAD                              |             |                     |
|   | KILKENNY                                 |             |                     |
|   | Edge of Town                             |             |                     |
|   | Industrial Zone                          |             |                     |
|   | Total Gross floor area:                  | 583 sqm     |                     |
|   | Survey date: FRIDAY                      | 04/10/19    | Survey Type: MANUAL |

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
VG-06-D-01	24/09/20	Covid

TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	255	9.608	2	255	7.647	2	255	17.255
08:00 - 09:00	2	255	12.549	2	255	12.941	2	255	25.490
09:00 - 10:00	2	255	15.882	2	255	15.490	2	255	31.372
10:00 - 11:00	4	342	11.477	4	342	11.915	4	342	23.392
11:00 - 12:00	4	342	14.401	4	342	12.865	4	342	27.266
12:00 - 13:00	4	342	24.269	4	342	21.637	4	342	45.906
13:00 - 14:00	4	342	25.731	4	342	28.289	4	342	54.020
14:00 - 15:00	4	342	18.421	4	342	18.567	4	342	36.988
15:00 - 16:00	4	342	19.737	4	342	18.056	4	342	37.793
16:00 - 17:00	4	342	19.883	4	342	17.836	4	342	37.719
17:00 - 18:00	4	342	23.757	4	342	22.880	4	342	46.637
18:00 - 19:00	4	342	26.316	4	342	25.219	4	342	51.535
19:00 - 20:00	4	342	21.564	4	342	23.611	4	342	45.175
20:00 - 21:00	4	342	17.471	4	342	19.298	4	342	36.769
21:00 - 22:00	4	342	13.012	4	342	14.547	4	342	27.559
22:00 - 23:00	3	386	6.736	3	386	9.413	3	386	16.149
23:00 - 24:00	1	583	5.317	1	583	5.317	1	583	10.634
Total Rates:			286.131			285.528			571.659

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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#### Parameter summary

Trip rate parameter range selected:	210 - 583 (units: sqm)
Survey date range:	01/01/13 - 02/10/20
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-604801-211104-1129

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK  
 Category : D - FAST FOOD - DRIVE THROUGH  
 TOTAL VEHICLES

Selected regions and areas:

06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
09	NORTH	
	TW TYNE & WEAR	1 days
10	WALES	
	CE CEREDIGION	1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

## Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area  
 Actual Range: 317 to 375 (units: sqm)  
 Range Selected by User: 182 to 800 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 02/10/20

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Saturday	2 days
Sunday	1 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Edge of Town	1
Neighbourhood Centre (PPS6 Local Centre)	2

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Retail Zone	1
Built-Up Zone	1
No Sub Category	1

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*



Secondary Filtering selection:

Use Class:

Not Known 3 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000 1 days

25,001 to 50,000 2 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

25,001 to 50,000 1 days

250,001 to 500,000 1 days

500,001 or More 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0 2 days

1.1 to 1.5 1 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

No 3 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present 3 days

*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

1	CE-06-D-01	MCDONALD'S		CEREDIGION
	FFORDD PARC Y LLYN			
	ABERYSTWYTH			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:		350 sqm	
	Survey date: SATURDAY		09/05/15	Survey Type: MANUAL
2	TW-06-D-01	KFC		TYNE & WEAR
	CLIFFORD STREET			
	NEWCASTLE			
	BYKER			
	Neighbourhood Centre (PPS6 Local Centre)			
	Built-Up Zone			
	Total Gross floor area:		317 sqm	
	Survey date: SATURDAY		14/11/15	Survey Type: MANUAL
3	WM-06-D-02	MCDONALD'S		WEST MIDLANDS
	BRISTOL ROAD SOUTH			
	BIRMINGHAM			
	LONGBRIDGE			
	Neighbourhood Centre (PPS6 Local Centre)			
	No Sub Category			
	Total Gross floor area:		375 sqm	
	Survey date: SUNDAY		08/11/15	Survey Type: MANUAL

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	350	1.429	1	350	0.857	1	350	2.286
06:00 - 07:00	1	350	7.714	1	350	5.143	1	350	12.857
07:00 - 08:00	3	347	6.046	3	347	4.607	3	347	10.653
08:00 - 09:00	3	347	12.476	3	347	10.557	3	347	23.033
09:00 - 10:00	3	347	21.689	3	347	19.482	3	347	41.171
10:00 - 11:00	3	347	19.194	3	347	21.881	3	347	41.075
11:00 - 12:00	3	347	22.361	3	347	17.658	3	347	40.019
12:00 - 13:00	3	347	29.655	3	347	30.134	3	347	59.789
13:00 - 14:00	3	347	30.614	3	347	32.821	3	347	63.435
14:00 - 15:00	3	347	27.063	3	347	25.816	3	347	52.879
15:00 - 16:00	3	347	21.881	3	347	23.992	3	347	45.873
16:00 - 17:00	3	347	23.704	3	347	23.896	3	347	47.600
17:00 - 18:00	3	347	23.896	3	347	22.937	3	347	46.833
18:00 - 19:00	3	347	25.240	3	347	24.760	3	347	50.000
19:00 - 20:00	3	347	22.937	3	347	25.432	3	347	48.369
20:00 - 21:00	3	347	16.987	3	347	17.658	3	347	34.645
21:00 - 22:00	3	347	14.971	3	347	15.259	3	347	30.230
22:00 - 23:00	2	334	8.846	2	334	9.895	2	334	18.741
23:00 - 24:00	2	334	6.597	2	334	7.946	2	334	14.543
Total Rates:			343.300			340.731			684.031

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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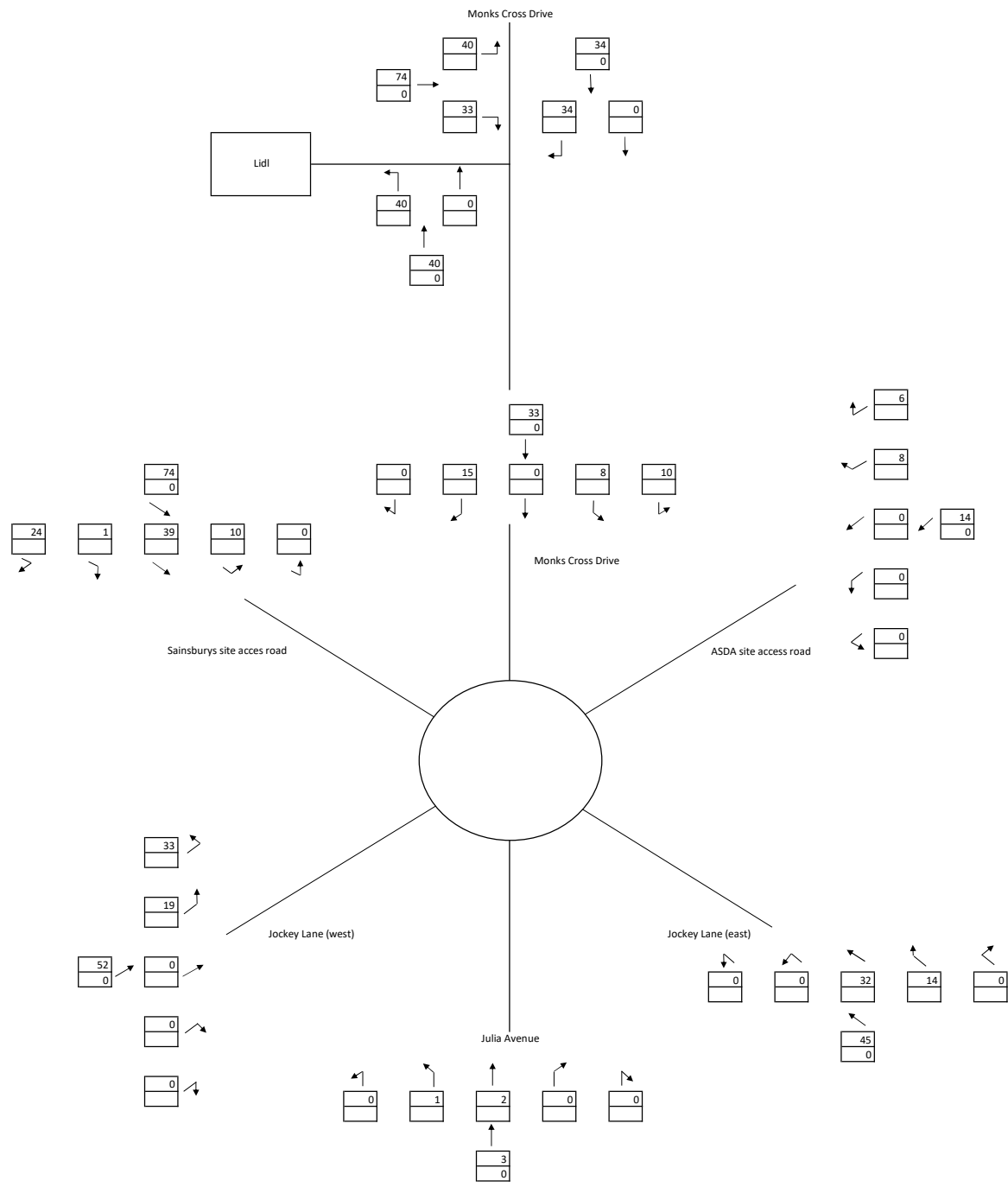
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#### Parameter summary

Trip rate parameter range selected:	317 - 375 (units: sqm)
Survey date range:	01/01/13 - 02/10/20
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	2
Number of Sundays:	1
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

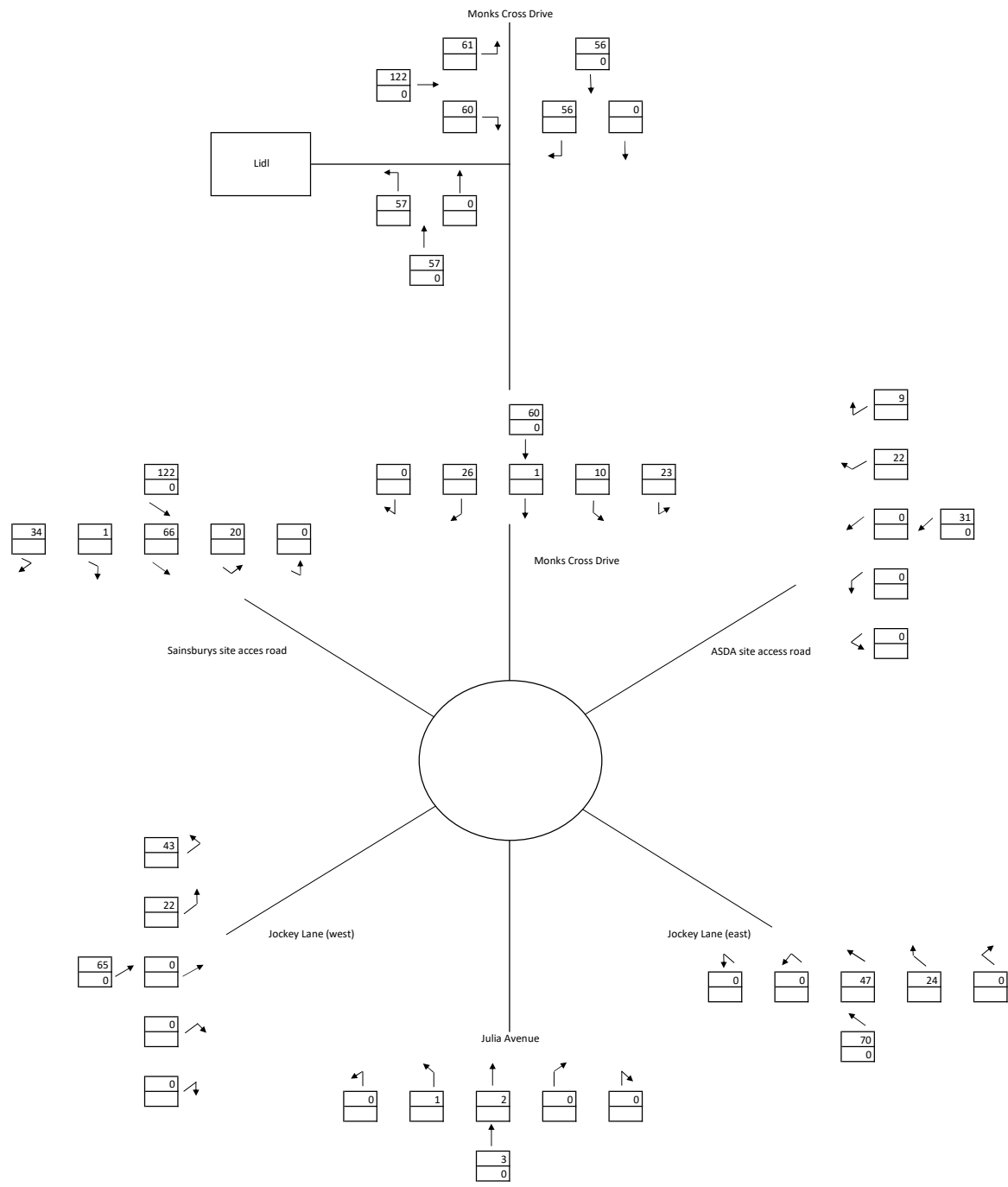
# **APPENDIX BGH 15**



  Total Vehicles  
  Total HGVs and Buses

**BRYAN HALL**  
 CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

<b>Client:</b>	Lidl
<b>Project:</b>	Lidl, Monks Cross Drive, York
<b>Job Number:</b>	21-306
<b>Prepared by:</b>	Amy Hoyle
<b>Checked by:</b>	Nick Calder

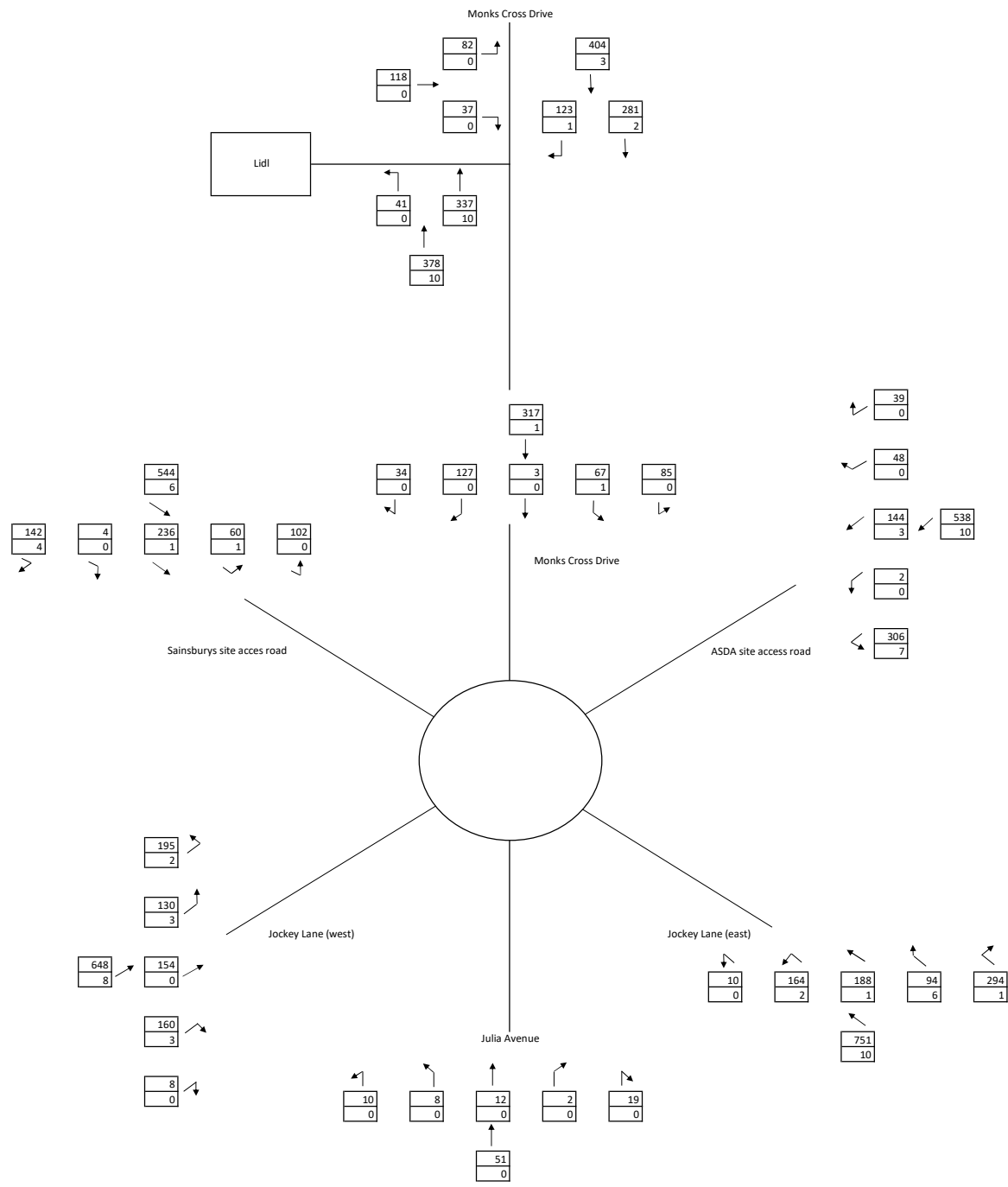


	Total Vehicles
	Total HGVs and Buses

**BRYAN HALL**  
 CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

<b>Client:</b>	Lidl
<b>Project:</b>	Lidl, Monks Cross Drive, York
<b>Job Number:</b>	21-306
<b>Prepared by:</b>	Amy Hoyle
<b>Checked by:</b>	Nick Calder

# **APPENDIX BGH 16**

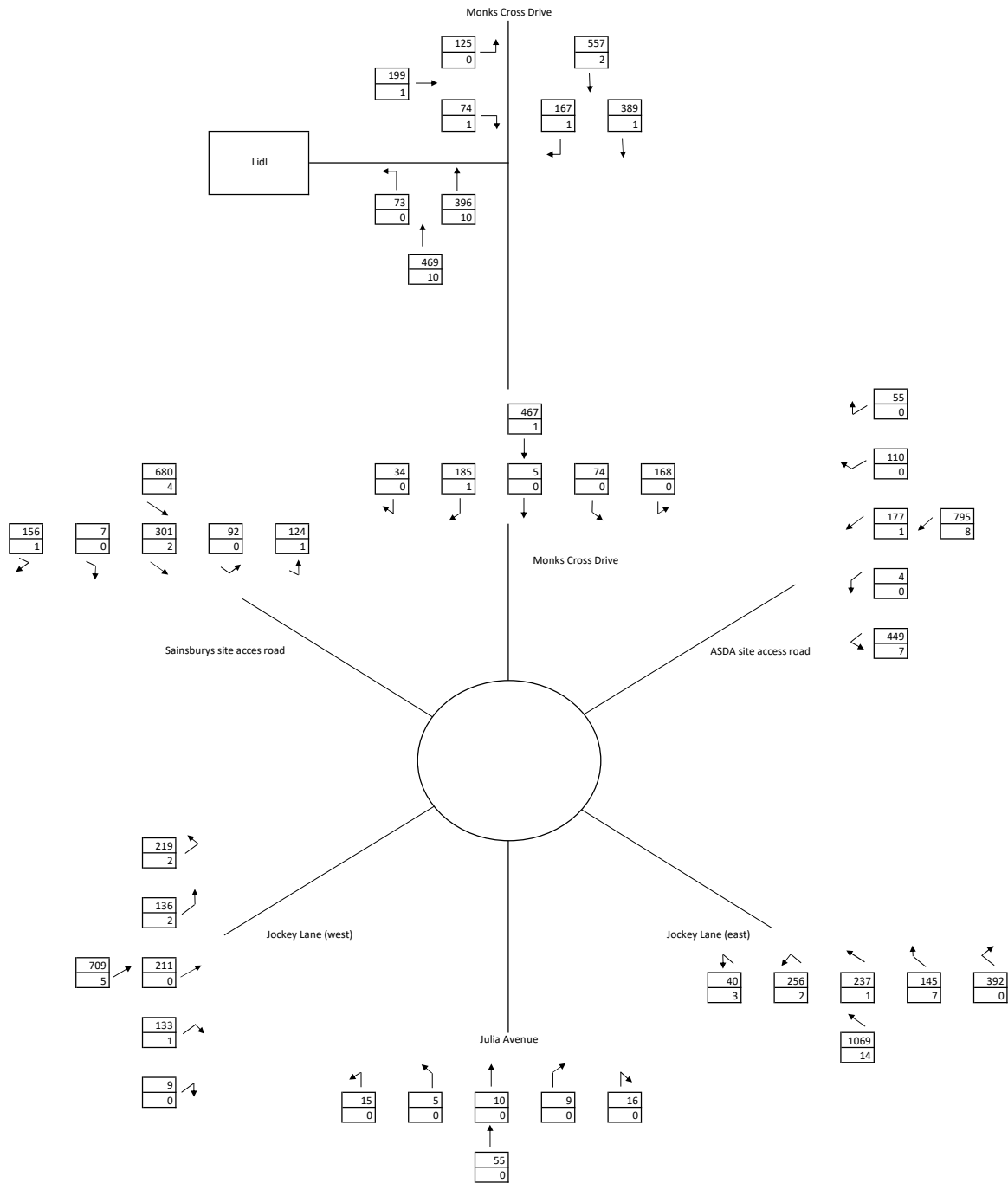


	Total Vehicles
	Total HGVs and Buses

**BRYAN HALL**  
 CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

<b>Client:</b>	Lidl
<b>Project:</b>	Lidl, Monks Cross Drive, York
<b>Job Number:</b>	21-306
<b>Prepared by:</b>	Amy Hoyle
<b>Checked by:</b>	Nick Calder





	Total Vehicles
	Total HGVs and Buses

# **APPENDIX BGH 17**

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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**Filename:** Jockey Lane Roundabout.j9  
**Path:** Y:\2023\23-326 to 23-350\23-329 Lidl Monks Cross Drive (Demolition of Former Argos and TK Max Units)  
 \Technical\Junction Modelling  
**Report generation date:** 12/10/2023 13:34:27

«Existing Layout - 2028 Predicted, PM

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

Summary of junction performance

		PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	
Existing Layout - 2028 Predicted							
1 - Monks Cross Drive	D5	0.4	4.08	0.28	A	77 % [6 - Sainsburys Site Access Road]	
2 - ASDA Site Access Road		0.4	2.58	0.30	A		
3 - Jockey Lane (E)		0.7	3.07	0.42	A		
4 - Julia Avenue		0.1	5.32	0.07	A		
5 - Jockey Lane (W)		0.7	3.35	0.40	A		
6 - Sainsburys Site Access Road		0.6	3.58	0.38	A		

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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

<b>Title</b>	Jockey Lane Roundabout
<b>Location</b>	Huntington, York
<b>Site number</b>	
<b>Date</b>	01/11/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	LIDL
<b>Jobnumber</b>	21-306
<b>Enumerator</b>	BRYANGHALL\design
<b>Description</b>	

### 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

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

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028 Predicted	PM	ONE HOUR	16:45	18:15	15

# Existing Layout - 2028 Predicted, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Jockey Lane Roundabout	Standard Roundabout		1, 2, 3, 4, 5, 6	3.29	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	77	6 - Sainsburys Site Access Road

## Arms

### Arms

Arm	Name	Description
1	Monks Cross Drive	
2	ASDA Site Access Road	
3	Jockey Lane (E)	
4	Julia Avenue	
5	Jockey Lane (W)	
6	Sainsburys Site Access Road	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Monks Cross Drive	3.73	6.95	26.4	18.5	71.9	24.0	
2 - ASDA Site Access Road	6.59	9.52	17.0	14.7	71.9	26.0	
3 - Jockey Lane (E)	7.40	7.40	0.0	48.0	71.9	19.0	
4 - Julia Avenue	3.40	7.10	6.1	11.1	71.9	32.5	
5 - Jockey Lane (W)	6.49	7.84	8.5	18.0	71.9	23.0	
6 - Sainsburys Site Access Road	6.03	7.70	11.7	16.5	71.9	24.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Monks Cross Drive	0.527	1862
2 - ASDA Site Access Road	0.630	2559
3 - Jockey Lane (E)	0.620	2392
4 - Julia Avenue	0.431	1343
5 - Jockey Lane (W)	0.592	2280
6 - Sainsburys Site Access Road	0.577	2197

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

## Traffic Demand

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

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Monks Cross Drive		✓	317	100.000
2 - ASDA Site Access Road		✓	549	100.000
3 - Jockey Lane (E)		✓	760	100.000
4 - Julia Avenue		✓	49	100.000
5 - Jockey Lane (W)		✓	655	100.000
6 - Sainsburys Site Access Road		✓	550	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To					
		1 - Monks Cross Drive	2 - ASDA Site Access Road	3 - Jockey Lane (E)	4 - Julia Avenue	5 - Jockey Lane (W)	6 - Sainsburys Site Access Road
From	1 - Monks Cross Drive	0	85	68	3	127	34
	2 - ASDA Site Access Road	39	0	313	2	147	48
	3 - Jockey Lane (E)	100	295	0	10	166	189
	4 - Julia Avenue	10	2	19	0	10	8
	5 - Jockey Lane (W)	133	154	163	8	0	197
	6 - Sainsburys Site Access Road	102	61	237	4	146	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To					
		1 - Monks Cross Drive	2 - ASDA Site Access Road	3 - Jockey Lane (E)	4 - Julia Avenue	5 - Jockey Lane (W)	6 - Sainsburys Site Access Road
From	1 - Monks Cross Drive	0	0	0	0	0	0
	2 - ASDA Site Access Road	0	0	0	0	0	0
	3 - Jockey Lane (E)	0	0	0	0	0	0
	4 - Julia Avenue	0	0	0	0	0	0
	5 - Jockey Lane (W)	0	0	0	0	0	0
	6 - Sainsburys Site Access Road	0	0	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Monks Cross Drive	0.28	4.08	0.4	A
2 - ASDA Site Access Road	0.30	2.58	0.4	A
3 - Jockey Lane (E)	0.42	3.07	0.7	A
4 - Julia Avenue	0.07	5.32	0.1	A
5 - Jockey Lane (W)	0.40	3.35	0.7	A
6 - Sainsburys Site Access Road	0.38	3.58	0.6	A

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	239	818	1432	0.167	238	0.2	3.014	A
2 - ASDA Site Access Road	413	607	2177	0.190	412	0.2	2.039	A
3 - Jockey Lane (E)	572	419	2132	0.268	571	0.4	2.304	A
4 - Julia Avenue	37	969	925	0.040	37	0.0	4.052	A
5 - Jockey Lane (W)	493	559	1949	0.253	492	0.3	2.468	A
6 - Sainsburys Site Access Road	414	693	1797	0.230	413	0.3	2.597	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	285	978	1347	0.212	285	0.3	3.388	A
2 - ASDA Site Access Road	494	727	2101	0.235	493	0.3	2.238	A
3 - Jockey Lane (E)	683	501	2081	0.328	683	0.5	2.575	A
4 - Julia Avenue	44	1160	843	0.052	44	0.1	4.505	A
5 - Jockey Lane (W)	589	668	1884	0.313	588	0.5	2.778	A
6 - Sainsburys Site Access Road	494	829	1719	0.288	494	0.4	2.939	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	349	1198	1232	0.283	349	0.4	4.075	A
2 - ASDA Site Access Road	604	890	1999	0.302	604	0.4	2.581	A
3 - Jockey Lane (E)	837	614	2011	0.416	836	0.7	3.062	A
4 - Julia Avenue	54	1420	731	0.074	54	0.1	5.317	A
5 - Jockey Lane (W)	721	818	1795	0.402	720	0.7	3.345	A
6 - Sainsburys Site Access Road	606	1015	1612	0.376	605	0.6	3.570	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	349	1199	1231	0.284	349	0.4	4.082	A
2 - ASDA Site Access Road	604	891	1998	0.303	604	0.4	2.582	A
3 - Jockey Lane (E)	837	614	2011	0.416	837	0.7	3.066	A
4 - Julia Avenue	54	1421	730	0.074	54	0.1	5.322	A
5 - Jockey Lane (W)	721	819	1795	0.402	721	0.7	3.352	A
6 - Sainsburys Site Access Road	606	1016	1611	0.376	606	0.6	3.579	A

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	285	980	1346	0.212	285	0.3	3.395	A
2 - ASDA Site Access Road	494	728	2100	0.235	494	0.3	2.243	A
3 - Jockey Lane (E)	683	502	2080	0.328	684	0.5	2.581	A
4 - Julia Avenue	44	1162	842	0.052	44	0.1	4.512	A
5 - Jockey Lane (W)	589	670	1883	0.313	590	0.5	2.784	A
6 - Sainsburys Site Access Road	494	831	1718	0.288	495	0.4	2.945	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	239	821	1430	0.167	239	0.2	3.024	A
2 - ASDA Site Access Road	413	610	2175	0.190	414	0.2	2.045	A
3 - Jockey Lane (E)	572	420	2131	0.269	573	0.4	2.312	A
4 - Julia Avenue	37	973	924	0.040	37	0.0	4.059	A
5 - Jockey Lane (W)	493	561	1948	0.253	494	0.3	2.477	A
6 - Sainsburys Site Access Road	414	696	1796	0.231	414	0.3	2.608	A



Junctions 9
ARCADY 9 - Roundabout Module
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**Filename:** Jockey Lane Roundabout.j9  
**Path:** Y:\2023\23-326 to 23-350\23-329 Lidl Monks Cross Drive (Demolition of Former Argos and TK Max Units)  
 \Technical\Junction Modelling  
**Report generation date:** 12/10/2023 13:35:04

«Existing Layout - 2028 Predicted, Sat

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

Summary of junction performance

		Sat				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
Existing Layout - 2028 Predicted						
1 - Monks Cross Drive	D6	0.9	6.25	0.47	A	36 % [3 - Jockey Lane (E)]
2 - ASDA Site Access Road		0.9	3.48	0.46	A	
3 - Jockey Lane (E)		1.7	5.22	0.63	A	
4 - Julia Avenue		0.1	8.06	0.12	A	
5 - Jockey Lane (W)		0.9	4.34	0.49	A	
6 - Sainsburys Site Access Road		1.0	4.94	0.51	A	

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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	Jockey Lane Roundabout
Location	Huntington, York
Site number	
Date	01/11/2021
Version	
Status	(new file)
Identifier	
Client	LIDL
Jobnumber	21-306
Enumerator	BRYANGHALL\design
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

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

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2028 Predicted	Sat	ONE HOUR	11:45	13:15	15

# Existing Layout - 2028 Predicted, Sat

## 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Jockey Lane Roundabout	Standard Roundabout		1, 2, 3, 4, 5, 6	4.81	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	36	3 - Jockey Lane (E)

## Arms

### Arms

Arm	Name	Description
1	Monks Cross Drive	
2	ASDA Site Access Road	
3	Jockey Lane (E)	
4	Julia Avenue	
5	Jockey Lane (W)	
6	Sainsburys Site Access Road	

### 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 - Monks Cross Drive	3.73	6.95	26.4	18.5	71.9	24.0	
2 - ASDA Site Access Road	6.59	9.52	17.0	14.7	71.9	26.0	
3 - Jockey Lane (E)	7.40	7.40	0.0	48.0	71.9	19.0	
4 - Julia Avenue	3.40	7.10	6.1	11.1	71.9	32.5	
5 - Jockey Lane (W)	6.49	7.84	8.5	18.0	71.9	23.0	
6 - Sainsburys Site Access Road	6.03	7.70	11.7	16.5	71.9	24.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Monks Cross Drive	0.527	1862
2 - ASDA Site Access Road	0.630	2559
3 - Jockey Lane (E)	0.620	2392
4 - Julia Avenue	0.431	1343
5 - Jockey Lane (W)	0.592	2280
6 - Sainsburys Site Access Road	0.577	2197

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

## Traffic Demand

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

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Monks Cross Drive		✓	468	100.000
2 - ASDA Site Access Road		✓	803	100.000
3 - Jockey Lane (E)		✓	1083	100.000
4 - Julia Avenue		✓	55	100.000
5 - Jockey Lane (W)		✓	713	100.000
6 - Sainsburys Site Access Road		✓	684	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To					
		1 - Monks Cross Drive	2 - ASDA Site Access Road	3 - Jockey Lane (E)	4 - Julia Avenue	5 - Jockey Lane (W)	6 - Sainsburys Site Access Road
From	1 - Monks Cross Drive	0	168	74	5	186	35
	2 - ASDA Site Access Road	55	0	456	4	178	110
	3 - Jockey Lane (E)	152	392	0	43	258	238
	4 - Julia Avenue	10	9	16	0	15	5
	5 - Jockey Lane (W)	138	211	134	9	0	221
	6 - Sainsburys Site Access Road	125	92	303	7	157	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To					
		1 - Monks Cross Drive	2 - ASDA Site Access Road	3 - Jockey Lane (E)	4 - Julia Avenue	5 - Jockey Lane (W)	6 - Sainsburys Site Access Road
From	1 - Monks Cross Drive	0	0	0	0	0	0
	2 - ASDA Site Access Road	0	0	0	0	0	0
	3 - Jockey Lane (E)	0	0	0	0	0	0
	4 - Julia Avenue	0	0	0	0	0	0
	5 - Jockey Lane (W)	0	0	0	0	0	0
	6 - Sainsburys Site Access Road	0	0	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Monks Cross Drive	0.47	6.25	0.9	A
2 - ASDA Site Access Road	0.46	3.48	0.9	A
3 - Jockey Lane (E)	0.63	5.22	1.7	A
4 - Julia Avenue	0.12	8.06	0.1	A
5 - Jockey Lane (W)	0.49	4.34	0.9	A
6 - Sainsburys Site Access Road	0.51	4.94	1.0	A

### Main Results for each time segment

#### 11:45 - 12:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	352	998	1337	0.264	351	0.4	3.647	A
2 - ASDA Site Access Road	605	695	2122	0.285	603	0.4	2.368	A
3 - Jockey Lane (E)	815	560	2044	0.399	813	0.7	2.916	A
4 - Julia Avenue	41	1321	773	0.054	41	0.1	4.916	A
5 - Jockey Lane (W)	537	767	1826	0.294	535	0.4	2.785	A
6 - Sainsburys Site Access Road	515	845	1710	0.301	513	0.4	3.005	A

#### 12:00 - 12:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	421	1194	1233	0.341	420	0.5	4.420	A
2 - ASDA Site Access Road	722	831	2036	0.355	721	0.5	2.737	A
3 - Jockey Lane (E)	974	670	1976	0.493	972	1.0	3.581	A
4 - Julia Avenue	49	1581	661	0.075	49	0.1	5.882	A
5 - Jockey Lane (W)	641	918	1737	0.369	640	0.6	3.282	A
6 - Sainsburys Site Access Road	615	1011	1614	0.381	614	0.6	3.599	A

#### 12:15 - 12:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	515	1461	1093	0.472	514	0.9	6.201	A
2 - ASDA Site Access Road	884	1017	1919	0.461	883	0.8	3.473	A
3 - Jockey Lane (E)	1192	820	1883	0.633	1189	1.7	5.167	A
4 - Julia Avenue	61	1934	509	0.119	60	0.1	8.019	A
5 - Jockey Lane (W)	785	1123	1615	0.486	784	0.9	4.321	A
6 - Sainsburys Site Access Road	753	1237	1483	0.508	751	1.0	4.907	A

#### 12:30 - 12:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	515	1464	1091	0.472	515	0.9	6.250	A
2 - ASDA Site Access Road	884	1020	1917	0.461	884	0.9	3.484	A
3 - Jockey Lane (E)	1192	821	1882	0.633	1192	1.7	5.217	A
4 - Julia Avenue	61	1939	507	0.119	61	0.1	8.059	A
5 - Jockey Lane (W)	785	1125	1614	0.486	785	0.9	4.343	A
6 - Sainsburys Site Access Road	753	1240	1482	0.508	753	1.0	4.938	A

#### 12:45 - 13:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	421	1199	1231	0.342	422	0.5	4.460	A
2 - ASDA Site Access Road	722	835	2033	0.355	723	0.6	2.751	A
3 - Jockey Lane (E)	974	672	1975	0.493	977	1.0	3.618	A
4 - Julia Avenue	49	1587	659	0.075	50	0.1	5.914	A
5 - Jockey Lane (W)	641	921	1734	0.370	642	0.6	3.300	A
6 - Sainsburys Site Access Road	615	1015	1612	0.382	617	0.6	3.625	A

13:00 - 13:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Monks Cross Drive	352	1003	1334	0.264	353	0.4	3.670	A
2 - ASDA Site Access Road	605	698	2119	0.285	605	0.4	2.378	A
3 - Jockey Lane (E)	815	562	2043	0.399	817	0.7	2.940	A
4 - Julia Avenue	41	1328	771	0.054	42	0.1	4.939	A
5 - Jockey Lane (W)	537	771	1824	0.294	537	0.4	2.799	A
6 - Sainsburys Site Access Road	515	849	1707	0.302	516	0.4	3.022	A

Junctions 9
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**Filename:** Site Access, Monks Cross Drive T-junction.j9  
**Path:** Y:\2023\23-326 to 23-350\23-329 Lidl Monks Cross Drive (Demolition of Former Argos and TK Max Units)  
 \Technical\Junction Modelling  
**Report generation date:** 12/10/2023 13:30:04

### «Existing Layout - 2028 Predicted, PM

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

### Summary of junction performance

PM						
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	
Existing Layout - 2028 Predicted						
Stream B-AC	D5	0.4	10.77	0.28	B	79 %
Stream C-AB		0.3	7.72	0.23	A	[Stream B-AC]

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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

<b>Title</b>	Site Access, Monks Cross Drive T-junction
<b>Location</b>	York
<b>Site number</b>	
<b>Date</b>	03/11/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	LIDL
<b>Jobnumber</b>	21-306
<b>Enumerator</b>	BRYANGHALL\design
<b>Description</b>	

### 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

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

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028 Predicted	PM	ONE HOUR	16:45	18:15	15



# Existing Layout - 2028 Predicted, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Existing Layout	T-Junction	Two-way		2.45	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	79	Stream B-AC

## Arms

### Arms

Arm	Name	Description	Arm type
A	Monks Cross Drive (S)		Major
B	Site Access		Minor
C	Monks Cross Drive (N)		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 - Monks Cross Drive (N)	7.20		✓	3.60	80.0	✓	5.00

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

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	2.90	87	50

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	525	0.091	0.229	0.144	0.328
B-C	649	0.094	0.238	-	-
C-B	715	0.262	0.262	-	-

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

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

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Monks Cross Drive (S)		✓	388	100.000
B - Site Access		✓	119	100.000
C - Monks Cross Drive (N)		✓	407	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Monks Cross Drive (S)	B - Site Access	C - Monks Cross Drive (N)
From	A - Monks Cross Drive (S)	0	41	347
	B - Site Access	37	0	82
	C - Monks Cross Drive (N)	283	124	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Monks Cross Drive (S)	B - Site Access	C - Monks Cross Drive (N)
From	A - Monks Cross Drive (S)	0	0	0
	B - Site Access	0	0	0
	C - Monks Cross Drive (N)	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.28	10.77	0.4	B
C-AB	0.23	7.72	0.3	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	511	0.175	89	0.2	8.496	A
C-AB	93	638	0.146	93	0.2	6.591	A
C-A	213			213			
A-B	31			31			
A-C	261			261			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	492	0.217	107	0.3	9.330	A
C-AB	111	623	0.179	111	0.2	7.030	A
C-A	254			254			
A-B	37			37			
A-C	312			312			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	465	0.282	131	0.4	10.742	B
C-AB	137	603	0.227	136	0.3	7.711	A
C-A	312			312			
A-B	45			45			
A-C	382			382			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	465	0.282	131	0.4	10.770	B
C-AB	137	603	0.227	137	0.3	7.720	A
C-A	312			312			
A-B	45			45			
A-C	382			382			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	492	0.217	107	0.3	9.366	A
C-AB	111	623	0.179	112	0.2	7.043	A
C-A	254			254			
A-B	37			37			
A-C	312			312			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	511	0.175	90	0.2	8.547	A
C-AB	93	638	0.146	94	0.2	6.611	A
C-A	213			213			
A-B	31			31			
A-C	261			261			

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**Filename:** Site Access, Monks Cross Drive T-junction.j9  
**Path:** Y:\2023\23-326 to 23-350\23-329 Lidl Monks Cross Drive (Demolition of Former Argos and TK Max Units)  
 \Technical\Junction Modelling  
**Report generation date:** 12/10/2023 13:30:38

### «Existing Layout - 2028 Predicted, Sat

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

### Summary of junction performance

Sat						
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	
Existing Layout - 2028 Predicted						
Stream B-AC	D6	1.1	19.13	0.54	C	20 %
Stream C-AB		0.5	9.17	0.32	A	[Stream B-AC]

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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

<b>Title</b>	Site Access, Monks Cross Drive T-junction
<b>Location</b>	York
<b>Site number</b>	
<b>Date</b>	03/11/2021
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	LIDL
<b>Jobnumber</b>	21-306
<b>Enumerator</b>	BRYANGHALL\design
<b>Description</b>	

### 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

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

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2028 Predicted	Sat	ONE HOUR	11:45	13:15	15

# Existing Layout - 2028 Predicted, Sat

## 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Existing Layout	T-Junction	Two-way		4.34	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	20	Stream B-AC

## Arms

### Arms

Arm	Name	Description	Arm type
A	Monks Cross Drive (S)		Major
B	Site Access		Minor
C	Monks Cross Drive (N)		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 - Monks Cross Drive (N)	7.20		✓	3.60	80.0	✓	5.00

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

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	2.90	87	50

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	525	0.091	0.229	0.144	0.328
B-C	649	0.094	0.238	-	-
C-B	715	0.262	0.262	-	-

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

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

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Monks Cross Drive (S)		✓	479	100.000
B - Site Access		✓	200	100.000
C - Monks Cross Drive (N)		✓	558	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Monks Cross Drive (S)	B - Site Access	C - Monks Cross Drive (N)
From	A - Monks Cross Drive (S)	0	73	406
	B - Site Access	75	0	125
	C - Monks Cross Drive (N)	390	168	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Monks Cross Drive (S)	B - Site Access	C - Monks Cross Drive (N)
From	A - Monks Cross Drive (S)	0	0	0
	B - Site Access	0	0	0
	C - Monks Cross Drive (N)	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.54	19.13	1.1	C
C-AB	0.32	9.17	0.5	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	472	0.319	149	0.5	11.070	B
C-AB	127	620	0.204	125	0.3	7.261	A
C-A	294			294			
A-B	55			55			
A-C	306			306			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	180	446	0.403	179	0.7	13.445	B
C-AB	151	602	0.251	151	0.3	7.970	A
C-A	351			351			
A-B	66			66			
A-C	365			365			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	220	408	0.539	218	1.1	18.776	C
C-AB	185	578	0.321	185	0.5	9.149	A
C-A	429			429			
A-B	80			80			
A-C	447			447			

12:30 - 12:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	220	408	0.540	220	1.1	19.128	C
C-AB	185	578	0.321	185	0.5	9.174	A
C-A	429			429			
A-B	80			80			
A-C	447			447			

12:45 - 13:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	180	446	0.403	182	0.7	13.724	B
C-AB	151	602	0.251	152	0.3	8.002	A
C-A	351			351			
A-B	66			66			
A-C	365			365			

13:00 - 13:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	472	0.319	151	0.5	11.265	B
C-AB	127	620	0.204	127	0.3	7.302	A
C-A	294			294			
A-B	55			55			
A-C	306			306			