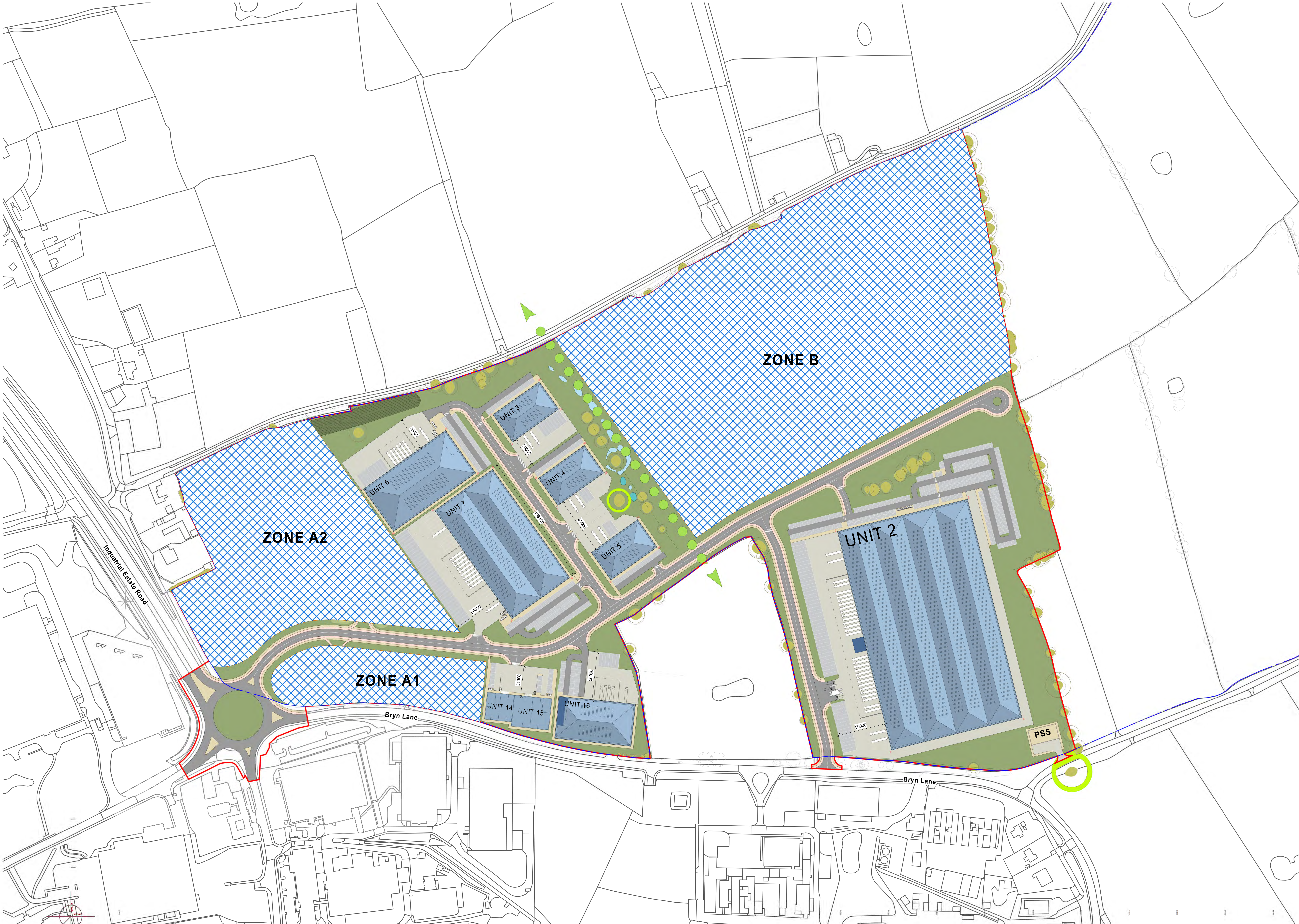




Proposed Masterplan
1 : 1250

- LEGEND**
- Application Boundary
37.21Ha || 91.94Ac
 - Ownership Boundary
89.30Ha || 220.66Ac
 - Retained Trees
 - Proposed Bunds
 - Retained Ponds
 - Proposed Ponds
 - Veteran Tree Buffer
 - Proposed Green Corridor
 - Proposed Area of Outline
Planning Application



SGP

Architects + Masterplanners

Waterfront House
2a Smith Way
Grove Park
Enderby
Leicester LE19 1SX

t: +44 (0)116 247 0557

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Wrexham
Bryn Lane

Drawing Name:
Proposed Masterplan

Drawing Stage: **PLANNING**

Status: **INFORMATION**

SGP File Ref: 22136-SGP-ZZ-ZZ-A3-A-000001

22-136 08/03/2023 AZ MMS 1:1250 @ A0

SGP Project No. Date Drawn Team Scale Rev

Drawing Number: 22136-SGP-ZZ-ZZ-DR-A-110006

Project Code: Original: Valerio Lacer: Type: Rev: Number:

SCALE 1:1250

25m 125m



FULL PLANNING APPLICATION BUILDINGS SCHEDULE GIA																		
UNIT NAME	ZONE	HAUNCH HEIGHT (m)	WAREHOUSE GIA (sq.m)	WAREHOUSE GIA (sq.ft)	OFFICE GIA (sq.m)	OFFICE GIA (sq.ft)	GATEHOUSE GIA (sq.m)	GATEHOUSE GIA (sq.ft)	TOTAL GIA (sq.m)	TOTAL GIA (sq.ft)	TotalGEA m2	TotalGEA sqft	DOCK LEVELLERS	LEVEL ACCESS DOORS	CYCLE SPACES	HGV SPACE S	CAR PARKING SPACES	ACC. CAR PARKING SPACES
Unit 2	ZONE D	18.00	31559	339697	1594	17154	24	262	33177	357113	33595 m²	361610	24	6	40	56	323	14
Unit 3	ZONE B	10.00	1862	20039	201	2165	0	0	2063	22204	2206 m²	23741	0	2	10	8	21	2
Unit 4	ZONE B	10.00	1862	20039	201	2165	0	0	2063	22204	2206 m²	23741	0	2	10	3	20	2
Unit 5	ZONE B	10.00	1862	20039	201	2165	0	0	2063	22204	2206 m²	23741	0	2	10	3	20	2
Unit 6	ZONE B	15.00	5296	57004	416	4479	0	0	5712	61482	5945 m²	63989	6	2	10	16	49	3
Unit 7	ZONE B	15.00	9628	103638	665	7157	0	0	10293	110795	10618 m²	114294	11	4	20	46	95	5
Unit 14	ZONE B	8.50	625	6727	229	2468			854	9195	954 m²	10266		1	10	0	9	1
Unit 15	ZONE B	8.50	1090	11731	229	2468			1319	14199	1436 m²	15458		1	10	0	16	1
Unit 16	ZONE B	12.50	3351	36067	528	5684	0	0	3879	41751	4090 m²	44024	4	2	10	6	39	2
TOTAL GIA									61423	661148	63254 m²	680864						

OUTLINE PLANNING APPLICATION BUILDINGS SCHEDULE GIA																		
BUILDING NAME	ZONE	HAUNCH HEIGHT (m)	WAREHOUSE GIA (sq.m)	WAREHOUSE GIA (sq.ft)	OFFICE GIA (sq.m)	OFFICE GIA (sq.ft)	GATEHOUSE GIA (sq.m)	GATEHOUSE GIA (sq.ft)	TOTAL GIA (sq.m)	TOTAL GIA (sq.ft)	TOTAL GEA (sq.m)	TOTAL GEA (sq.ft)	DOCK LEVELLERS	LEVEL ACCESS DOORS	CYCLE SPACES	HGV SPACES	CAR PARKING SPACES	ACC. CAR PARKING SPACES
Drive Thru 1	ZONE A1	8.00	485 m²	56159 ft²	0 m²	0			485 m²	5217	539 m²	5800		0	10	0	30	3
Drive Thru 2	ZONE A1	8.00	511 m²	59193 ft²	0 m²	0			511 m²	5499	567 m²	6100		0	10	0	40	3
HGV Amenity Pod	ZONE A1	6.00	77 m²	8972 ft²	0 m²	0			77 m²	834	100 m²	1076		0	0	15	0	0
Petrol Station	ZONE A1	6.00	403 m²	46648 ft²	0 m²	0			403 m²	4334	455 m²	4900		0	0	0	76	2
Unit 11 SME	ZONE A1	8.00	392 m²	45403 ft²	229 m²	2468			621 m²	6686	711 m²	7653		1	10	0	8	1
Unit 12 SME	ZONE A1	8.00	392 m²	45403 ft²	229 m²	2468			621 m²	6686	711 m²	7653		1	10	0	6	1
Unit 13	ZONE A1	8.00	392 m²	45403 ft²	229 m²	2468			621 m²	6686	711 m²	7653		1	10	0	8	1
Hotel	ZONE A2	12.50	82 m²	9476 ft²	2865 m²	30840			2947 m²	31720	3257 m²	35063		0	20	0	100	7
UNIT 8	ZONE A2	8.00	301 m²	34874 ft²	137 m²	1479			438 m²	4719	506 m²	5450		1	10	0	19	1
UNIT 9	ZONE A2	8.00	210 m²	24280 ft²	137 m²	1479			347 m²	3734	409 m²	4400		1	10	0	19	1
UNIT 10	ZONE A2	8.00	210 m²	24282 ft²	137 m²	1479			347 m²	3735	409 m²	4400		1	10	0	19	1
Unit 1	ZONE C	18.00	40918 m²	4740795 ft²	2660 m²	28627	24 m²	262	43602 m²	469323	44403 m²	477948	80	6	60	89	416	15
TOTAL GIA									51020 m²	549174	52778 m²	568097						

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t: +44 (0)116 247 0557

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Wrexham
Bryn Lane

Drawing Name:
Illustrative Masterplan Schedule

Drawing Stage: Sketch

Status: INFORMATION

SGP File Ref: 23136-SGP-ZZ-ZZ-M3-A-000001

22-13615/05/2023JMSMMS@ A2
SGP Project No DateDrawn TeamScaleRev

Drawing Number:

22136-SGP-ZZ-ZZ-SH-A-131703
Project Code Originator Volume Level Type Role Number

APPENDIX D – TRICS OUTPUT

Calculation Reference: AUDIT-662801-220105-0141

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : D - INDUSTRIAL ESTATE
 TOTAL VEHICLES

Selected regions and areas:

05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NR NORTHAMPTONSHIRE	2 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	4 days
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
	WY WEST YORKSHIRE	3 days
09	NORTH	
	TV TEES VALLEY	1 days
10	WALES	
	VG VALE OF GLAMORGAN	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: 11265 to 974258 (units: sqm)
 Range Selected by User: 10000 to 974258 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 21/10/20

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	2 days
Wednesday	4 days
Thursday	3 days
Friday	4 days

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

Selected survey types:

Manual count	14 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:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	12
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	8
Village	1
Out of Town	2
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:

Not Known 14 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®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	5 days
10,001 to 15,000	3 days
20,001 to 25,000	4 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	2 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	2 days
125,001 to 250,000	5 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	4 days
1.1 to 1.5	10 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 14 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 14 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

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LIST OF SITES relevant to selection parameters

1	LN-02-D-03 DEACON ROAD LINCOLN	INDUSTRIAL ESTATE	LINCOLNSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	11265 sqm	
	Survey date: FRIDAY	28/06/19	Survey Type: MANUAL
2	NR-02-D-01 ROBINSON WAY KETTERING	INDUSTRIAL ESTATE	NORTHAMPTONSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	12900 sqm	
	Survey date: THURSDAY	23/10/14	Survey Type: MANUAL
3	NR-02-D-02 CORNHILL CLOSE NORTHAMPTON LODGE FARM IND. ESTATE	INDUSTRIAL ESTATE	NORTHAMPTONSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	12670 sqm	
	Survey date: WEDNESDAY	21/10/20	Survey Type: MANUAL
4	NY-02-D-02 RACECOURSE ROAD RICHMOND	INDUSTRIAL ESTATE	NORTH YORKSHIRE
	Edge of Town Out of Town Total Gross floor area:	35183 sqm	
	Survey date: TUESDAY	12/03/19	Survey Type: MANUAL
5	TV-02-D-03 WYNYARD AVENUE NEAR BILLINGHAM WYNYARD Neighbourhood Centre (PPS6 Local Centre) Village	INDUSTRIAL ESTATE	TEES VALLEY
	Total Gross floor area:	121000 sqm	
	Survey date: FRIDAY	04/09/20	Survey Type: MANUAL
6	VG-02-D-01 ARTHUR STREET BARRY	INDUSTRIAL ESTATE	VALE OF GLAMORGAN
	Edge of Town No Sub Category Total Gross floor area:	13091 sqm	
	Survey date: MONDAY	08/05/17	Survey Type: MANUAL
7	WK-02-D-01 CASTLE MOUND WAY RUGBY	INDUSTRIAL ESTATE	WARWICKSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	150564 sqm	
	Survey date: WEDNESDAY	27/06/18	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	WK-02-D-02 OVERVIEW WAY RUGBY	INDUSTRIAL ESTATE	WARWICKSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 974258 sqm Survey date: WEDNESDAY 27/06/18 Survey Type: MANUAL		
9	WK-02-D-03 EASTBORO WAY NUNEATON	INDUSTRIAL ESTATE	WARWICKSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 20860 sqm Survey date: THURSDAY 26/09/19 Survey Type: MANUAL		
10	WK-02-D-04 ABELES WAY ATHERSTONE	INDUSTRIAL ESTATE	WARWICKSHIRE
	Edge of Town No Sub Category Total Gross floor area: 17500 sqm Survey date: FRIDAY 27/09/19 Survey Type: MANUAL		
11	WO-02-D-03 MILLENNIUM WAY EVESHAM	INDUSTRIAL ESTATE	WORCESTERSHIRE
	Edge of Town Out of Town Total Gross floor area: 84575 sqm Survey date: TUESDAY 26/06/18 Survey Type: MANUAL		
12	WY-02-D-03 ARMLEY ROAD LEEDS	INDUSTRIAL ESTATE	WEST YORKSHIRE
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 24980 sqm Survey date: FRIDAY 20/09/13 Survey Type: MANUAL		
13	WY-02-D-04 LAW STREET CLECKHEATON	INDUSTRIAL ESTATE	WEST YORKSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 23226 sqm Survey date: THURSDAY 15/09/16 Survey Type: MANUAL		
14	WY-02-D-08 MILL LANE HALIFAX	INDUSTRIAL ESTATE	WEST YORKSHIRE
	Edge of Town No Sub Category Total Gross floor area: 11305 sqm Survey date: WEDNESDAY 17/10/18 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 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
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 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	3	17010	0.004	3	17010	0.000	3	17010	0.004
05:30 - 06:00	3	17010	0.055	3	17010	0.010	3	17010	0.065
06:00 - 06:30	4	15574	0.026	4	15574	0.014	4	15574	0.040
06:30 - 07:00	4	15574	0.083	4	15574	0.018	4	15574	0.101
07:00 - 07:30	14	108098	0.041	14	108098	0.012	14	108098	0.053
07:30 - 08:00	14	108098	0.073	14	108098	0.019	14	108098	0.092
08:00 - 08:30	14	108098	0.075	14	108098	0.024	14	108098	0.099
08:30 - 09:00	14	108098	0.052	14	108098	0.024	14	108098	0.076
09:00 - 09:30	14	108098	0.048	14	108098	0.026	14	108098	0.074
09:30 - 10:00	14	108098	0.039	14	108098	0.027	14	108098	0.066
10:00 - 10:30	14	108098	0.037	14	108098	0.031	14	108098	0.068
10:30 - 11:00	14	108098	0.031	14	108098	0.027	14	108098	0.058
11:00 - 11:30	14	108098	0.032	14	108098	0.028	14	108098	0.060
11:30 - 12:00	14	108098	0.034	14	108098	0.031	14	108098	0.065
12:00 - 12:30	14	108098	0.032	14	108098	0.040	14	108098	0.072
12:30 - 13:00	14	108098	0.035	14	108098	0.040	14	108098	0.075
13:00 - 13:30	14	108098	0.038	14	108098	0.040	14	108098	0.078
13:30 - 14:00	14	108098	0.046	14	108098	0.036	14	108098	0.082
14:00 - 14:30	14	108098	0.032	14	108098	0.048	14	108098	0.080
14:30 - 15:00	14	108098	0.027	14	108098	0.036	14	108098	0.063
15:00 - 15:30	14	108098	0.026	14	108098	0.043	14	108098	0.069
15:30 - 16:00	14	108098	0.028	14	108098	0.042	14	108098	0.070
16:00 - 16:30	14	108098	0.027	14	108098	0.054	14	108098	0.081
16:30 - 17:00	14	108098	0.030	14	108098	0.057	14	108098	0.087
17:00 - 17:30	14	108098	0.020	14	108098	0.074	14	108098	0.094
17:30 - 18:00	14	108098	0.021	14	108098	0.048	14	108098	0.069
18:00 - 18:30	14	108098	0.014	14	108098	0.030	14	108098	0.044
18:30 - 19:00	14	108098	0.015	14	108098	0.018	14	108098	0.033
19:00 - 19:30	4	15574	0.047	4	15574	0.027	4	15574	0.074
19:30 - 20:00	4	15574	0.042	4	15574	0.055	4	15574	0.097
20:00 - 20:30	4	15574	0.010	4	15574	0.035	4	15574	0.045
20:30 - 21:00	4	15574	0.008	4	15574	0.014	4	15574	0.022
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.128			1.028			2.156

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:	11265 - 974258 (units: sqm)
Survey date range:	01/01/13 - 21/10/20
Number of weekdays (Monday-Friday):	14
Number of Saturdays:	0
Number of Sundays:	0
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.

Calculation Reference: AUDIT-662801-230516-0507

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON	
	WF WALTHAM FOREST	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	NS NORTH SOMERSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
	LN LINCOLNSHIRE	2 days
	NN NORTH NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	SY SOUTH YORKSHIRE	1 days
08	NORTH WEST	
	MS MERSEYSIDE	1 days
09	NORTH	
	TV TEES VALLEY	1 days
10	WALES	
	VG VALE OF GLAMORGAN	1 days
11	SCOTLAND	
	AD ABERDEEN CITY	2 days
	FI FIFE	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 752 (units: sqm)
 Range Selected by User: 123 to 800 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 15/09/22

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	4 days
Wednesday	2 days
Thursday	3 days
Friday	7 days

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

Selected survey types:

Manual count	17 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:

Town Centre	1
Edge of Town Centre	4
Suburban Area (PPS6 Out of Centre)	4

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	2
Development Zone	2
Residential Zone	1
Retail Zone	2
Built-Up Zone	2
Out of Town	1
High Street	2
No Sub Category	5

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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	4 days - Selected
Servicing vehicles Excluded	13 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	17 days
-----------	---------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 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:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	2 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	6 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:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	3 days
125,001 to 250,000	6 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	10 days
1.1 to 1.5	7 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	17 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	16 days
5 Very Good	1 days

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

CORA IHT WILMSLOW ROAD MANCHESTER

Licence No: 662801

LIST OF SITES relevant to selection parameters

1	AD-06-D-01	MCDONALD 'S	ABERDEEN CITY
	BEDFORD ROAD		
	ABERDEEN		
	KITTYBREWSTER RET. PK		
	Edge of Town Centre		
	Retail Zone		
	Total Gross floor area:	472 sqm	
	Survey date: TUESDAY	19/11/19	Survey Type: MANUAL
2	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
3	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
4	CA-06-D-02	MCDONALD'S	CAMBRIDGESHIRE
	NEWMARKET ROAD		
	CAMBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	435 sqm	
	Survey date: TUESDAY	19/09/17	Survey Type: MANUAL
5	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
6	LE-06-D-01	MCDONALD'S	LEICESTERSHIRE
	MELTON ROAD		
	NEAR MKT HARBOROUGH		
	WEST LANGTON		
	Free Standing (PPS6 Out of Town)		
	Out of Town		
	Total Gross floor area:	370 sqm	
	Survey date: WEDNESDAY	22/06/22	Survey Type: MANUAL
7	LN-06-D-01	MCDONALD'S	LINCOLNSHIRE
	RUSTON WAY		
	LINCOLN		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	435 sqm	
	Survey date: FRIDAY	28/06/19	Survey Type: MANUAL

CORA IHT WILMSLOW ROAD MANCHESTER

Licence No: 662801

LIST OF SITES relevant to selection parameters (Cont.)

8	LN-06-D-02 RYHALL ROAD STAMFORD	MCDONALD'S	LINCOLNSHIRE
	Edge of Town Retail Zone Total Gross floor area:	490 sqm	
	Survey date: WEDNESDAY	13/10/21	Survey Type: MANUAL
9	MS-06-D-01 SAINT HELENS LINKWAY SAINT HELENS	MCDONALD'S	MERSEYSIDE
	Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area:	463 sqm	
	Survey date: FRIDAY	16/04/21	Survey Type: MANUAL
10	NN-06-D-01 LITTLE COLLIERS FIELD CORBY GREAT OAKLEY	MCDONALD'S	NORTH NORTHAMPTONSHIRE
	Edge of Town Development Zone Total Gross floor area:	690 sqm	
	Survey date: THURSDAY	16/06/22	Survey Type: MANUAL
11	NS-06-D-01 MARCHFIELDS WAY WESTON-SUPER-MARE	KFC	NORTH SOMERSET
	Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area:	230 sqm	
	Survey date: THURSDAY	15/09/22	Survey Type: MANUAL
12	SY-06-D-02 UPPER NEW STREET BARNSELY	MCDONALD'S	SOUTH YORKSHIRE
	Edge of Town Centre Built-Up Zone Total Gross floor area:	415 sqm	
	Survey date: TUESDAY	08/09/20	Survey Type: MANUAL
13	TV-06-D-01 BURN ROAD HARTLEPOOL	MCDONALD'S	TEES VALLEY
	Edge of Town Centre Industrial Zone Total Gross floor area:	400 sqm	
	Survey date: FRIDAY	04/09/20	Survey Type: MANUAL
14	VG-06-D-01 CARDIFF ROAD BARRY	MCDONALD'S	VALE OF GLAMORGAN
	Edge of Town Industrial Zone Total Gross floor area:	405 sqm	
	Survey date: THURSDAY	24/09/20	Survey Type: MANUAL
15	WF-06-D-01 HIGH ROAD LEYTONSTONE	MCDONALD'S	WALTHAM FOREST
	Town Centre High Street Total Gross floor area:	752 sqm	
	Survey date: FRIDAY	01/12/17	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

16	WM-06-D-03	KFC	WEST MIDLANDS
	COVENTRY ROAD		
	BIRMINGHAM		
	SHELDON		
	Neighbourhood Centre (PPS6 Local Centre)		
	No Sub Category		
	Total Gross floor area:	418 sqm	
	Survey date: FRIDAY	26/11/21	Survey Type: MANUAL
17	WO-06-D-01	KFC	WORCESTERSHIRE
	CLEWS ROAD		
	REDDITCH		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Gross floor area:	436 sqm	
	Survey date: FRIDAY	02/10/20	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 & 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	490	0.204	1	490	0.000	1	490	0.204
06:00 - 07:00	10	469	5.441	10	469	4.480	10	469	9.921
07:00 - 08:00	13	433	10.440	13	433	9.038	13	433	19.478
08:00 - 09:00	13	433	13.033	13	433	12.482	13	433	25.515
09:00 - 10:00	13	433	13.885	13	433	13.885	13	433	27.770
10:00 - 11:00	17	423	12.326	17	423	11.882	17	423	24.208
11:00 - 12:00	17	423	13.758	17	423	12.799	17	423	26.557
12:00 - 13:00	17	423	19.136	17	423	18.274	17	423	37.410
13:00 - 14:00	17	423	18.052	17	423	18.997	17	423	37.049
14:00 - 15:00	17	423	13.813	17	423	14.230	17	423	28.043
15:00 - 16:00	17	423	15.926	17	423	15.453	17	423	31.379
16:00 - 17:00	17	423	16.620	17	423	16.829	17	423	33.449
17:00 - 18:00	17	423	18.232	17	423	18.177	17	423	36.409
18:00 - 19:00	17	423	18.274	17	423	18.941	17	423	37.215
19:00 - 20:00	17	423	14.689	17	423	15.745	17	423	30.434
20:00 - 21:00	17	423	12.646	17	423	13.438	17	423	26.084
21:00 - 22:00	17	423	9.477	17	423	9.714	17	423	19.191
22:00 - 23:00	13	435	7.137	13	435	7.684	13	435	14.821
23:00 - 24:00	11	462	3.952	11	462	4.581	11	462	8.533
Total Rates:			237.441			236.629			473.670

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 - 752 (units: sqm)
Survey date range:	01/01/15 - 15/09/22
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
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.

Calculation Reference: AUDIT-662801-230306-0353

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : A - HOTELS

TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BH BRIGHTON & HOVE	1 days
	BU BUCKINGHAMSHIRE	1 days
	HC HAMPSHIRE	2 days
03	SOUTH WEST	
	GS GLOUCESTERSHIRE	1 days
	SG SOUTH GLOUCESTERSHIRE	2 days
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LE LEICESTERSHIRE	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	1 days
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	2 days
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
09	NORTH	
	CB CUMBRIA	1 days
	TW TYNE & WEAR	2 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: Number of bedrooms
 Actual Range: 7 to 227 (units:)
 Range Selected by User: 7 to 300 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 12/11/21

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	6 days
Tuesday	3 days
Wednesday	4 days
Thursday	4 days
Friday	5 days

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

Selected survey types:

Manual count	22 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:

Town Centre	6
Edge of Town Centre	3
Suburban Area (PPS6 Out of 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:

Industrial Zone	2
Commercial Zone	1
Development Zone	2
Residential Zone	2
Built-Up Zone	6
Village	1
Out of Town	4
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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	9 days - Selected
Servicing vehicles Excluded	13 days - Selected

Secondary Filtering selection:

Use Class:

C1	22 days
----	---------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 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:

1,000 or Less	1 days
1,001 to 5,000	2 days
5,001 to 10,000	4 days
10,001 to 15,000	3 days
15,001 to 20,000	2 days
20,001 to 25,000	4 days
25,001 to 50,000	4 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	1 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	2 days
125,001 to 250,000	6 days
250,001 to 500,000	6 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	13 days
1.1 to 1.5	9 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	22 days
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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	22 days
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CORA IHT WILMSLOW ROAD MANCHESTER

Licence No: 662801

LIST OF SITES relevant to selection parameters

1	BH-06-A-01 KINGS ROAD BRIGHTON	HOTEL		BRIGHTON & HOVE
	Town Centre Built-Up Zone Total Number of bedrooms:		154	
	Survey date: WEDNESDAY		16/10/19	Survey Type: MANUAL
2	BU-06-A-02 NEW ROAD AYLESBURY WESTON TURVILLE	HOLIDAY INN		BUCKINGHAMSHIRE
	Edge of Town Out of Town Total Number of bedrooms:		139	
	Survey date: WEDNESDAY		01/10/14	Survey Type: MANUAL
3	CB-06-A-01 ENGLISH STREET CARLISLE	HOTEL		CUMBRIA
	Town Centre High Street Total Number of bedrooms:		92	
	Survey date: MONDAY		20/06/16	Survey Type: MANUAL
4	DS-06-A-04 CARTER LANE EAST SOUTH NORMANTON	HOLIDAY INN		DERBYSHIRE
	Edge of Town Residential Zone Total Number of bedrooms:		157	
	Survey date: FRIDAY		15/10/21	Survey Type: MANUAL
5	GM-06-A-08 PORTLAND STREET MANCHESTER	IBIS		GREATER MANCHESTER
	Town Centre Built-Up Zone Total Number of bedrooms:		127	
	Survey date: MONDAY		26/09/16	Survey Type: MANUAL
6	GS-06-A-03 CREST WAY GLOUCESTER BARNWOOD	HOLIDAY INN		GLOUCESTERSHIRE
	Edge of Town No Sub Category Total Number of bedrooms:		125	
	Survey date: FRIDAY		23/04/21	Survey Type: MANUAL
7	HC-06-A-07 COVE ROAD FLEET	TRAVELODGE		HAMPSHIRE
	Edge of Town Out of Town Total Number of bedrooms:		40	
	Survey date: THURSDAY		09/09/21	Survey Type: MANUAL
8	HC-06-A-08 CARTWRIGHT DRIVE PARK GATE	HOLIDAY INN		HAMPSHIRE
	Edge of Town Industrial Zone Total Number of bedrooms:		124	
	Survey date: MONDAY		18/10/21	Survey Type: MANUAL

CORA IHT WILMSLOW ROAD MANCHESTER

Licence No: 662801

LIST OF SITES relevant to selection parameters (Cont.)

9	LE-06-A-01 SMITH WAY LEICESTER ENDERBY Edge of Town Commercial Zone Total Number of bedrooms: Survey date: THURSDAY	MARRIOTT 227 12/07/18	LEICESTERSHIRE Survey Type: MANUAL
10	NF-06-A-03 4 MARINE PARADE GREAT YARMOUTH Town Centre Built-Up Zone Total Number of bedrooms: Survey date: FRIDAY	HOTEL 57 11/05/18	NORFOLK Survey Type: MANUAL
11	NF-06-A-04 THORPE ROAD NORWICH THORPE HAMLET Edge of Town Centre Built-Up Zone Total Number of bedrooms: Survey date: MONDAY	HOTEL 38 25/11/19	NORFOLK Survey Type: MANUAL
12	NY-06-A-01 PARK PARADE HARROGATE Edge of Town Centre Residential Zone Total Number of bedrooms: Survey date: TUESDAY	ASCEND HOTEL 100 23/10/18	NORTH YORKSHIRE Survey Type: MANUAL
13	NY-06-A-02 CROWN PLACE HARROGATE Town Centre Built-Up Zone Total Number of bedrooms: Survey date: WEDNESDAY	BESPOKE HOTEL 114 13/03/19	NORTH YORKSHIRE Survey Type: MANUAL
14	SG-06-A-01 OLD GLOUCESTER ROAD NEAR BRISTOL WINTERBOURNE Free Standing (PPS6 Out of Town) Out of Town Total Number of bedrooms: Survey date: THURSDAY	BED & BREAKFAST 7 04/11/21	SOUTH GLOUCESTERSHIRE Survey Type: MANUAL
15	SG-06-A-02 NEW ROAD BRISTOL STOKE GIFFORD Suburban Area (PPS6 Out of Centre) No Sub Category Total Number of bedrooms: Survey date: THURSDAY	HOLIDAY INN EXPRESS 157 04/11/21	SOUTH GLOUCESTERSHIRE Survey Type: MANUAL
16	TW-06-A-02 CASPER WAY GATESHEAD SWALWELL Suburban Area (PPS6 Out of Centre) Development Zone Total Number of bedrooms: Survey date: FRIDAY	TRAVELODGE 60 13/11/15	TYNE & WEAR Survey Type: MANUAL

CORA IHT WILMSLOW ROAD MANCHESTER

Licence No: 662801

LIST OF SITES relevant to selection parameters (Cont.)

17	TW-06-A-03	HOTEL		TYNE & WEAR
	SANDHILL			
	NEWCASTLE UPON TYNE			
	QUAYSIDE			
	Town Centre			
	Built-Up Zone			
	Total Number of bedrooms:	24		
	Survey date: TUESDAY	14/06/16	Survey Type: MANUAL	
18	WK-06-A-01	HOLIDAY INN EXPRESS		WARWICKSHIRE
	STRATFORD ROAD			
	WARWICK			
	LONGBRIDGE			
	Edge of Town			
	Out of Town			
	Total Number of bedrooms:	138		
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL	
19	WL-06-A-03	TRAVELODGE		WILTSHIRE
	LAWRENCE HILL			
	WINCANTON			
	Edge of Town			
	No Sub Category			
	Total Number of bedrooms:	57		
	Survey date: TUESDAY	18/09/18	Survey Type: MANUAL	
20	WM-06-A-05	HOTEL		WEST MIDLANDS
	BIRMINGHAM ROAD			
	BIRMINGHAM			
	HOPWOOD			
	Neighbourhood Centre (PPS6 Local Centre)			
	Village			
	Total Number of bedrooms:	56		
	Survey date: MONDAY	09/11/15	Survey Type: MANUAL	
21	WO-06-A-04	PREMIER INN		WORCESTERSHIRE
	GROVEWOOD ROAD			
	MALVERN			
	Edge of Town			
	Industrial Zone			
	Total Number of bedrooms:	64		
	Survey date: FRIDAY	12/11/21	Survey Type: MANUAL	
22	WY-06-A-03	TRAVELODGE		WEST YORKSHIRE
	DEAN CLOUGH			
	HALIFAX			
	Edge of Town Centre			
	Development Zone			
	Total Number of bedrooms:	51		
	Survey date: MONDAY	22/10/18	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.

CORA IHT WILMSLOW ROAD MANCHESTER

Licence No: 662801

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

TOTAL VEHICLES

Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	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	1	154	0.019	1	154	0.013	1	154	0.032
07:00 - 08:00	21	100	0.071	21	100	0.165	21	100	0.236
08:00 - 09:00	22	96	0.133	22	96	0.179	22	96	0.312
09:00 - 10:00	22	96	0.161	22	96	0.140	22	96	0.301
10:00 - 11:00	22	96	0.110	22	96	0.121	22	96	0.231
11:00 - 12:00	22	96	0.072	22	96	0.111	22	96	0.183
12:00 - 13:00	22	96	0.086	22	96	0.083	22	96	0.169
13:00 - 14:00	22	96	0.101	22	96	0.083	22	96	0.184
14:00 - 15:00	22	96	0.111	22	96	0.095	22	96	0.206
15:00 - 16:00	22	96	0.108	22	96	0.100	22	96	0.208
16:00 - 17:00	22	96	0.127	22	96	0.109	22	96	0.236
17:00 - 18:00	22	96	0.162	22	96	0.125	22	96	0.287
18:00 - 19:00	22	96	0.162	22	96	0.109	22	96	0.271
19:00 - 20:00	22	96	0.115	22	96	0.100	22	96	0.215
20:00 - 21:00	22	96	0.083	22	96	0.054	22	96	0.137
21:00 - 22:00	22	96	0.056	22	96	0.051	22	96	0.107
22:00 - 23:00	2	82	0.000	2	82	0.006	2	82	0.006
23:00 - 24:00	1	157	0.006	1	157	0.000	1	157	0.006
Total Rates:			1.683			1.644			3.327

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: 7 - 227 (units:)
 Survey date range: 01/01/14 - 12/11/21
 Number of weekdays (Monday-Friday): 22
 Number of Saturdays: 0
 Number of Sundays: 0
 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.

Calculation Reference: AUDIT-662801-230306-0355

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 13 - PETROL FILLING STATIONS
 Category : A - PETROL FILLING STATIONS
 TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BO BEDFORD	1 days
	SC SURREY	1 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	DV DEVON	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	WM WEST MIDLANDS	2 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
09	NORTH	
	NB NORTHUMBERLAND	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: Filling bays
 Actual Range: 4 to 11 (units:)
 Range Selected by User: 4 to 16 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 10/05/22

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	3 days
Wednesday	1 days
Thursday	4 days
Friday	2 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 Centre	1
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	4
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:

Residential Zone	9
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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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	11 days - Selected

Secondary Filtering selection:

Use Class:

Sui Generis	11 days
-------------	---------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 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	3 days
10,001 to 15,000	3 days
15,001 to 20,000	2 days
25,001 to 50,000	3 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
75,001 to 100,000	2 days
100,001 to 125,000	2 days
125,001 to 250,000	1 days
250,001 to 500,000	5 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	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.

Travel Plan:

No	11 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
-----------------	---------

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	BO-13-A-01 HIGH STREET BEDFORD KEMPSTON Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Filling bays: <i>Survey date: THURSDAY</i>	BP 8 15/10/20	BEDFORD <i>Survey Type: MANUAL</i>
2	CA-13-A-04 CHERRY HINTON ROAD CAMBRIDGE CAMBRIDGE Suburban Area (PPS6 Out of Centre) Residential Zone Total Filling bays: <i>Survey date: WEDNESDAY</i>	BP 8 19/10/11	CAMBRIDGESHIRE <i>Survey Type: MANUAL</i>
3	DV-13-A-03 MAIN ROAD EXETER PINHOE Edge of Town Residential Zone Total Filling bays: <i>Survey date: THURSDAY</i>	GULF 4 28/11/13	DEVON <i>Survey Type: MANUAL</i>
4	LC-13-A-01 VICTORIA ROAD PRESTON WALTON LE DALE Edge of Town Centre Built-Up Zone Total Filling bays: <i>Survey date: MONDAY</i>	MURCO 8 14/05/12	LANCASHIRE <i>Survey Type: MANUAL</i>
5	LE-13-A-03 GLENFIELD ROAD LEICESTER Suburban Area (PPS6 Out of Centre) Residential Zone Total Filling bays: <i>Survey date: THURSDAY</i>	TOTAL 8 27/09/12	LEICESTERSHIRE <i>Survey Type: MANUAL</i>
6	NB-13-A-03 BURRADON ROAD NEAR CRAMLINGTON ANNITSFORD Edge of Town Residential Zone Total Filling bays: <i>Survey date: THURSDAY</i>	BP 11 22/11/12	NORTHUMBERLAND <i>Survey Type: MANUAL</i>
7	SC-13-A-01 HORLEY ROAD REDHILL SOUTH EARLSWOOD Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Filling bays: <i>Survey date: TUESDAY</i>	SHELL 6 10/05/22	SURREY <i>Survey Type: MANUAL</i>
8	SH-13-A-01 THE MOUNT SHREWSBURY FRANKWELL Edge of Town Residential Zone Total Filling bays: <i>Survey date: FRIDAY</i>	LOCAL 4 30/05/14	SHROPSHIRE <i>Survey Type: MANUAL</i>

CORA IHT WILMSLOW ROAD MANCHESTER

Licence No: 662801

LIST OF SITES relevant to selection parameters (Cont.)

9	WM-13-A-03	TOTAL		WEST MIDLANDS
	CHESTER ROAD			
	BIRMINGHAM			
	CASTLE BROMWICH			
	Edge of Town			
	Residential Zone			
	Total Filling bays:	8		
	Survey date: TUESDAY	18/10/11	Survey Type: MANUAL	
10	WM-13-A-04	SHELL		WEST MIDLANDS
	STATION ROAD			
	BIRMINGHAM			
	STECHFORD			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Filling bays:	8		
	Survey date: TUESDAY	23/10/12	Survey Type: MANUAL	
11	WS-13-A-02	MURCO		WEST SUSSEX
	SOMPTING AVENUE			
	WORTHING			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Filling bays:	6		
	Survey date: FRIDAY	17/10/14	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.

CORA IHT WILMSLOW ROAD MANCHESTER

Licence No: 662801

TRIP RATE for Land Use 13 - PETROL FILLING STATIONS/A - PETROL FILLING STATIONS

TOTAL VEHICLES

Calculation factor: 1 BAYS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BAYS	Trip Rate	No. Days	Ave. BAYS	Trip Rate	No. Days	Ave. BAYS	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	7	7	3.292	7	7	3.083	7	7	6.375
07:00 - 08:00	11	7	5.051	11	7	4.911	11	7	9.962
08:00 - 09:00	11	7	5.709	11	7	5.620	11	7	11.329
09:00 - 10:00	11	7	5.557	11	7	5.595	11	7	11.152
10:00 - 11:00	11	7	5.709	11	7	5.671	11	7	11.380
11:00 - 12:00	11	7	5.215	11	7	5.241	11	7	10.456
12:00 - 13:00	11	7	5.709	11	7	5.835	11	7	11.544
13:00 - 14:00	11	7	5.392	11	7	5.456	11	7	10.848
14:00 - 15:00	11	7	5.228	11	7	4.987	11	7	10.215
15:00 - 16:00	11	7	6.101	11	7	5.911	11	7	12.012
16:00 - 17:00	11	7	6.051	11	7	6.241	11	7	12.292
17:00 - 18:00	11	7	5.861	11	7	5.861	11	7	11.722
18:00 - 19:00	11	7	5.266	11	7	5.354	11	7	10.620
19:00 - 20:00	9	7	4.578	9	7	4.641	9	7	9.219
20:00 - 21:00	9	7	3.531	9	7	3.656	9	7	7.187
21:00 - 22:00	9	7	2.141	9	7	2.469	9	7	4.610
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			80.391				80.532	160.923	

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: 4 - 11 (units:)
 Survey date range: 01/01/10 - 10/05/22
 Number of weekdays (Monday-Friday): 11
 Number of Saturdays: 0
 Number of Sundays: 0
 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 E – BRYN LANE ACCESS PICADY OUTOUT

Junctions 10							
PICADY 10 - Priority Intersection Module							
Version: 10.0.1.1519 © Copyright TRL Software Limited, 2021							
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Filename: Site Access, Bryn Lane - June 2023 - Option 1 & 2.j10
Path: C:\Users\mchau\Downloads\Wrexham June 2023 Update - v2
Report generation date: 29/06/2023 10:32:39

- »2030 Base + Development + Committed (Opt 1), AM
- »2030 Base + Development + Committed (Opt 1), PM
- »2030 Base + Development + Committed (Opt 2), AM
- »2030 Base + Development + Committed (Opt 2), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2030 Base + Development + Committed (Opt 1)									
Stream B-AC	D1	0.2	9.74	0.16	A	D2	0.6	12.42	0.36	B
Stream C-B		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2030 Base + Development + Committed (Opt 2)									
Stream B-AC	D3	1.7	19.55	0.64	C	D4	2.7	25.77	0.74	D
Stream C-B		0.2	7.28	0.20	A		0.5	8.15	0.31	A

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

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

File summary

File Description

Title	Site Access / Bryn Lane
Location	Wrexham
Site number	
Date	05/05/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LAPTOP-DTQ9HG8B\mchau
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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base + Development + Committed (Opt 1)	AM	ONE HOUR	07:45	09:15	15
D2	2030 Base + Development + Committed (Opt 1)	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base + Development + Committed (Opt 2)	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base + Development + Committed (Opt 2)	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
AL	100.000

2030 Base + Development + Committed (Opt 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.88	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.88	A

Arms

Arms

Arm	Name	Description	Arm type
A	Bryn Lane (West)		Major
B	Site Access		Minor
C	Bryn Lane (East)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.00	120.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.65	45	45

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	548	0.082	0.208	0.131	0.298
B-C	695	0.088	0.222	-	-
C-B	699	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base + Development + Committed (Opt 1)	AM	ONE HOUR	07:45	09:15	15

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		✓	433	100.000
B		✓	65	100.000
C		✓	218	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	173	260
	B	65	0	0
	C	218	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.16	9.74	0.2	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	475	0.103	48	0.1	8.436	A
C-A	164			164			
C-B	0	627	0.000	0	0.0	0.000	A
A-B	130			130			
A-C	196			196			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	461	0.127	58	0.1	8.944	A
C-A	196			196			
C-B	0	612	0.000	0	0.0	0.000	A
A-B	156			156			
A-C	234			234			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	441	0.162	71	0.2	9.733	A
C-A	240			240			
C-B	0	593	0.000	0	0.0	0.000	A
A-B	190			190			
A-C	286			286			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	441	0.162	72	0.2	9.742	A
C-A	240			240			
C-B	0	593	0.000	0	0.0	0.000	A
A-B	190			190			
A-C	286			286			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	461	0.127	59	0.1	8.960	A
C-A	196			196			
C-B	0	612	0.000	0	0.0	0.000	A
A-B	156			156			
A-C	234			234			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	475	0.103	49	0.1	8.459	A
C-A	164			164			
C-B	0	627	0.000	0	0.0	0.000	A
A-B	130			130			
A-C	196			196			

2030 Base + Development + Committed (Opt 1), 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.61	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2030 Base + Development + Committed (Opt 1)	PM	ONE HOUR	16:15	17:45	15

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		✓	243	100.000
B		✓	151	100.000
C		✓	324	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	77	166
	B	151	0	0
	C	324	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.36	12.42	0.6	B
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	485	0.234	112	0.3	9.632	A
C-A	244			244			
C-B	0	659	0.000	0	0.0	0.000	A
A-B	58			58			
A-C	125			125			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	136	473	0.287	135	0.4	10.654	B
C-A	291			291			
C-B	0	651	0.000	0	0.0	0.000	A
A-B	69			69			
A-C	149			149			

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	166	456	0.365	166	0.6	12.366	B
C-A	357			357			
C-B	0	640	0.000	0	0.0	0.000	A
A-B	85			85			
A-C	183			183			

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	166	456	0.365	166	0.6	12.420	B
C-A	357			357			
C-B	0	640	0.000	0	0.0	0.000	A
A-B	85			85			
A-C	183			183			

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	136	473	0.287	136	0.4	10.720	B
C-A	291			291			
C-B	0	651	0.000	0	0.0	0.000	A
A-B	69			69			
A-C	149			149			

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	114	485	0.234	114	0.3	9.715	A
C-A	244			244			
C-B	0	659	0.000	0	0.0	0.000	A
A-B	58			58			
A-C	125			125			

2030 Base + Development + Committed (Opt 2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		7.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.65	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Base + Development + Committed (Opt 2)	AM	ONE HOUR	07:45	09:15	15

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		✓	341	100.000
B		✓	292	100.000
C		✓	218	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	212	129
	B	182	0	110
	C	108	110	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.64	19.55	1.7	C
C-A				
C-B	0.20	7.28	0.2	A
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	220	534	0.412	217	0.7	11.266	B
C-A	81			81			
C-B	83	642	0.129	82	0.1	6.424	A
A-B	160			160			
A-C	97			97			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	263	522	0.503	261	1.0	13.748	B
C-A	97			97			
C-B	99	631	0.157	99	0.2	6.763	A
A-B	191			191			
A-C	116			116			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	321	505	0.637	319	1.7	19.043	C
C-A	119			119			
C-B	121	615	0.197	121	0.2	7.276	A
A-B	233			233			
A-C	142			142			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	321	505	0.637	321	1.7	19.551	C
C-A	119			119			
C-B	121	615	0.197	121	0.2	7.281	A
A-B	233			233			
A-C	142			142			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	263	522	0.503	265	1.0	14.170	B
C-A	97			97			
C-B	99	631	0.157	99	0.2	6.772	A
A-B	191			191			
A-C	116			116			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	220	534	0.412	221	0.7	11.558	B
C-A	81			81			
C-B	83	642	0.129	83	0.1	6.440	A
A-B	160			160			
A-C	97			97			

2030 Base + Development + Committed (Opt 2), 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		11.82	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.82	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Base + Development + Committed (Opt 2)	PM	ONE HOUR	16:15	17:45	15

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		✓	223	100.000
B		✓	356	100.000
C		✓	324	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A	B	C
From	A	0	151
	B	172	0
	C	140	184

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.74	25.77	2.7	D
C-A				
C-B	0.31	8.15	0.5	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	268	558	0.480	264	0.9	12.114	B
C-A	105			105			
C-B	139	662	0.209	137	0.3	6.850	A
A-B	114			114			
A-C	54			54			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	320	546	0.586	318	1.4	15.642	C
C-A	126			126			
C-B	165	655	0.253	165	0.3	7.349	A
A-B	136			136			
A-C	65			65			

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	392	530	0.739	387	2.6	24.338	C
C-A	154			154			
C-B	203	645	0.314	202	0.5	8.128	A
A-B	166			166			
A-C	79			79			

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	392	530	0.740	392	2.7	25.769	D
C-A	154			154			
C-B	203	645	0.314	203	0.5	8.145	A
A-B	166			166			
A-C	79			79			

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	320	546	0.586	325	1.5	16.607	C
C-A	126			126			
C-B	165	655	0.253	166	0.3	7.374	A
A-B	136			136			
A-C	65			65			

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	268	558	0.480	270	0.9	12.602	B
C-A	105			105			
C-B	139	662	0.209	139	0.3	6.885	A
A-B	114			114			
A-C	54			54			

APPENDIX F – EXISTING INDUSTRIAL ESTATE ROAD / BRYN LANE ROUNDABOUT ARCADY OUTPUT

Junctions 10										
ARCADY 10 - Roundabout Module										
Version: 10.0.1.1519										
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+44 (0)1344 379777 software@trl.co.uk trlsoftware.com										
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										

Filename: Industrial Estate Road, Wrexham ARCADY (Existing) (Scn 1 + 2).j10

Path: C:\Users\mchau\Downloads\Wrexham

Report generation date: 17/05/2023 15:37:15

- »2030 Base, AM
- »2030 Base, PM
- »2030 Base + Committed, AM
- »2030 Base + Committed, PM
- »2030 Base + Committed + Development (Scn 1), AM
- »2030 Base + Committed + Development (Scn 1), PM
- »2030 Base + Committed + Development (Scn 2), AM
- »2030 Base + Committed + Development (Scn 2), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2030 Base									
1 - Bryn Lane	D1	0.3	4.75	0.24	A	D2	0.3	2.93	0.23	A
2 - Ash Road North		0.2	3.53	0.15	A		2.1	8.47	0.68	A
3 - Abenbury Way		0.2	2.35	0.16	A		0.9	5.49	0.48	A
4 - Industrial Estate Road		1.5	3.20	0.60	A		0.2	1.59	0.19	A
	2030 Base + Committed									
1 - Bryn Lane	D3	0.4	5.47	0.27	A	D4	0.3	3.05	0.23	A
2 - Ash Road North		0.3	3.77	0.20	A		3.9	13.56	0.80	B
3 - Abenbury Way		0.2	2.41	0.16	A		1.1	6.45	0.52	A
4 - Industrial Estate Road		1.9	3.78	0.66	A		0.3	1.65	0.22	A
	2030 Base + Committed + Development (Scn 1)									
1 - Bryn Lane	D5	1.1	7.71	0.53	A	D6	0.9	4.49	0.49	A
2 - Ash Road North		0.3	4.33	0.24	A		11.3	41.06	0.94	E
3 - Abenbury Way		0.2	2.76	0.19	A		1.9	11.28	0.66	B
4 - Industrial Estate Road		2.9	5.22	0.75	A		0.3	1.85	0.26	A
	2030 Base + Committed + Development (Scn 2)									
1 - Bryn Lane	D7	0.5	6.16	0.35	A	D8	0.5	3.55	0.34	A
2 - Ash Road North		0.3	3.99	0.22	A		5.6	19.73	0.86	C
3 - Abenbury Way		0.2	2.52	0.18	A		1.3	7.79	0.57	A
4 - Industrial Estate Road		2.6	4.69	0.72	A		0.3	1.72	0.24	A

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

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

File summary

File Description

Title	Industrial Estate Road / Bryn Lane / Ash Road North / Abenbury Way
Location	Wrexham
Site number	
Date	09/02/2023
Version	
Status	(new file)
Identifier	
Client	LIDL
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGB\mchau
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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base	AM	ONE HOUR	07:45	09:15	15
D2	2030 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D5	2030 Base + Committed + Development (Scn 1)	AM	ONE HOUR	07:45	09:15	15
D6	2030 Base + Committed + Development (Scn 1)	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed + Development (Scn 2)	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed + Development (Scn 2)	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2030 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.27	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Bryn Lane		
2	Ash Road North		
3	Abenbury Way		
4	Industrial Estate 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)	Entry only	Exit only
1 - Bryn Lane	3.80	7.00	25.0	32.0	60.0	41.0		
2 - Ash Road North	4.00	7.00	17.0	10.0	60.0	48.0		
3 - Abenbury Way	3.65	8.00	35.0	38.0	60.0	41.0		
4 - Industrial Estate Road	8.00	9.00	5.0	46.0	60.0	15.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bryn Lane	0.570	1803
2 - Ash Road North	0.509	1593
3 - Abenbury Way	0.608	2018
4 - Industrial Estate Road	0.771	2817

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base	AM	ONE HOUR	07:45	09:15	15

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 - Bryn Lane		✓	218	100.000
2 - Ash Road North		✓	160	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1506	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	52	43	123
	2 - Ash Road North	4	1	11	144
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	246	716	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	0	0	0
	2 - Ash Road North	0	0	0	0
	3 - Abenbury Way	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.24	4.75	0.3	A
2 - Ash Road North	0.15	3.53	0.2	A
3 - Abenbury Way	0.16	2.35	0.2	A
4 - Industrial Estate Road	0.60	3.20	1.5	A

Main Results for each time segment

07:45 - 08:00

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 - Bryn Lane	164	964	1254	0.131	164	0.1	3.300	A
2 - Ash Road North	120	533	1322	0.091	120	0.1	2.996	A
3 - Abenbury Way	200	215	1887	0.106	200	0.1	2.133	A
4 - Industrial Estate Road	1134	29	2795	0.406	1131	0.7	2.160	A

08:00 - 08:15

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 - Bryn Lane	196	1153	1146	0.171	196	0.2	3.787	A
2 - Ash Road North	144	638	1268	0.113	144	0.1	3.200	A
3 - Abenbury Way	239	258	1861	0.128	239	0.1	2.218	A
4 - Industrial Estate Road	1354	34	2790	0.485	1353	0.9	2.503	A

08:15 - 08:30

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 - Bryn Lane	240	1411	999	0.240	240	0.3	4.738	A
2 - Ash Road North	176	781	1196	0.147	176	0.2	3.530	A
3 - Abenbury Way	293	316	1826	0.160	293	0.2	2.347	A
4 - Industrial Estate Road	1658	42	2784	0.596	1656	1.5	3.185	A

08:30 - 08:45

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 - Bryn Lane	240	1413	998	0.240	240	0.3	4.748	A
2 - Ash Road North	176	782	1195	0.147	176	0.2	3.532	A
3 - Abenbury Way	293	316	1826	0.160	293	0.2	2.347	A
4 - Industrial Estate Road	1658	42	2784	0.596	1658	1.5	3.195	A

08:45 - 09:00

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 - Bryn Lane	196	1155	1145	0.171	196	0.2	3.796	A
2 - Ash Road North	144	639	1268	0.113	144	0.1	3.203	A
3 - Abenbury Way	239	258	1861	0.128	239	0.1	2.221	A
4 - Industrial Estate Road	1354	34	2790	0.485	1356	0.9	2.514	A

09:00 - 09:15

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 - Bryn Lane	164	967	1252	0.131	164	0.2	3.309	A
2 - Ash Road North	120	535	1321	0.091	121	0.1	2.999	A
3 - Abenbury Way	200	216	1887	0.106	200	0.1	2.136	A
4 - Industrial Estate Road	1134	29	2795	0.406	1135	0.7	2.171	A

2030 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.37	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2030 Base	PM	ONE HOUR	16:15	17:45	15

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 - Bryn Lane		✓	325	100.000
2 - Ash Road North		✓	810	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	475	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	14	300
	2 - Ash Road North	16	0	10	784
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	131	164	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	0	0	0
	2 - Ash Road North	0	0	0	0
	3 - Abenbury Way	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.23	2.93	0.3	A
2 - Ash Road North	0.68	8.47	2.1	A
3 - Abenbury Way	0.48	5.49	0.9	A
4 - Industrial Estate Road	0.19	1.59	0.2	A

Main Results for each time segment

16:15 - 16:30

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 - Bryn Lane	245	262	1654	0.148	244	0.2	2.552	A
2 - Ash Road North	610	371	1404	0.434	607	0.8	4.497	A
3 - Abenbury Way	420	838	1508	0.278	419	0.4	3.299	A
4 - Industrial Estate Road	358	29	2794	0.128	357	0.1	1.476	A

16:30 - 16:45

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 - Bryn Lane	292	313	1625	0.180	292	0.2	2.701	A
2 - Ash Road North	728	444	1367	0.533	727	1.1	5.608	A
3 - Abenbury Way	502	1003	1408	0.356	501	0.5	3.967	A
4 - Industrial Estate Road	427	35	2790	0.153	427	0.2	1.523	A

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 - Bryn Lane	358	383	1585	0.226	358	0.3	2.933	A
2 - Ash Road North	892	544	1316	0.677	888	2.0	8.334	A
3 - Abenbury Way	614	1227	1272	0.483	613	0.9	5.451	A
4 - Industrial Estate Road	523	43	2784	0.188	523	0.2	1.591	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 - Bryn Lane	358	383	1585	0.226	358	0.3	2.934	A
2 - Ash Road North	892	544	1316	0.678	892	2.1	8.473	A
3 - Abenbury Way	614	1231	1270	0.484	614	0.9	5.494	A
4 - Industrial Estate Road	523	43	2784	0.188	523	0.2	1.591	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 - Bryn Lane	292	313	1624	0.180	292	0.2	2.702	A
2 - Ash Road North	728	444	1367	0.533	732	1.2	5.700	A
3 - Abenbury Way	502	1009	1405	0.357	503	0.6	4.001	A
4 - Industrial Estate Road	427	35	2789	0.153	427	0.2	1.523	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 - Bryn Lane	245	262	1653	0.148	245	0.2	2.555	A
2 - Ash Road North	610	372	1404	0.434	611	0.8	4.553	A
3 - Abenbury Way	420	843	1505	0.279	421	0.4	3.320	A
4 - Industrial Estate Road	358	29	2794	0.128	358	0.1	1.477	A

2030 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.78	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.78	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Am	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	218	100.000
2 - Ash Road North		✓	218	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1665	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	52	43	123
	2 - Ash Road North	4	1	11	202
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	246	875	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	0	0	0
	2 - Ash Road North	0	0	0	0
	3 - Abenbury Way	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.27	5.47	0.4	A
2 - Ash Road North	0.20	3.77	0.3	A
3 - Abenbury Way	0.16	2.41	0.2	A
4 - Industrial Estate Road	0.66	3.78	1.9	A

Main Results for each time segment

07:45 - 08:00

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 - Bryn Lane	164	1083	1186	0.138	163	0.2	3.519	A
2 - Ash Road North	164	533	1322	0.124	164	0.1	3.106	A
3 - Abenbury Way	200	259	1861	0.108	200	0.1	2.167	A
4 - Industrial Estate Road	1253	29	2795	0.449	1250	0.8	2.326	A

08:00 - 08:15

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 - Bryn Lane	196	1295	1065	0.184	196	0.2	4.140	A
2 - Ash Road North	196	638	1269	0.154	196	0.2	3.355	A
3 - Abenbury Way	239	310	1830	0.131	239	0.1	2.262	A
4 - Industrial Estate Road	1497	34	2790	0.536	1495	1.1	2.778	A

08:15 - 08:30

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 - Bryn Lane	240	1585	900	0.267	239	0.4	5.447	A
2 - Ash Road North	240	780	1196	0.201	240	0.2	3.765	A
3 - Abenbury Way	293	379	1788	0.164	293	0.2	2.408	A
4 - Industrial Estate Road	1833	42	2784	0.658	1830	1.9	3.760	A

08:30 - 08:45

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 - Bryn Lane	240	1588	898	0.267	240	0.4	5.467	A
2 - Ash Road North	240	782	1195	0.201	240	0.3	3.768	A
3 - Abenbury Way	293	380	1787	0.164	293	0.2	2.408	A
4 - Industrial Estate Road	1833	42	2784	0.658	1833	1.9	3.783	A

08:45 - 09:00

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 - Bryn Lane	196	1299	1063	0.184	197	0.2	4.159	A
2 - Ash Road North	196	640	1267	0.155	196	0.2	3.360	A
3 - Abenbury Way	239	311	1829	0.131	239	0.2	2.265	A
4 - Industrial Estate Road	1497	34	2790	0.536	1500	1.2	2.795	A

09:00 - 09:15

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 - Bryn Lane	164	1087	1184	0.139	164	0.2	3.531	A
2 - Ash Road North	164	535	1321	0.124	164	0.1	3.115	A
3 - Abenbury Way	200	260	1860	0.108	200	0.1	2.170	A
4 - Industrial Estate Road	1253	29	2795	0.449	1255	0.8	2.339	A

2030 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.73	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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 - Bryn Lane		✓	325	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	549	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	14	300
	2 - Ash Road North	16	0	10	930
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	131	238	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	0	0	0
	2 - Ash Road North	0	0	0	0
	3 - Abenbury Way	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.23	3.05	0.3	A
2 - Ash Road North	0.80	13.56	3.9	B
3 - Abenbury Way	0.52	6.45	1.1	A
4 - Industrial Estate Road	0.22	1.65	0.3	A

Main Results for each time segment

16:15 - 16:30

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 - Bryn Lane	245	317	1622	0.151	244	0.2	2.611	A
2 - Ash Road North	720	371	1404	0.513	716	1.0	5.196	A
3 - Abenbury Way	420	947	1442	0.291	418	0.4	3.509	A
4 - Industrial Estate Road	413	29	2794	0.148	413	0.2	1.511	A

16:30 - 16:45

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 - Bryn Lane	292	379	1587	0.184	292	0.2	2.780	A
2 - Ash Road North	859	444	1367	0.629	857	1.7	7.019	A
3 - Abenbury Way	502	1134	1329	0.378	501	0.6	4.345	A
4 - Industrial Estate Road	494	35	2790	0.177	493	0.2	1.567	A

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 - Bryn Lane	358	464	1538	0.233	358	0.3	3.049	A
2 - Ash Road North	1053	544	1316	0.800	1044	3.7	12.848	B
3 - Abenbury Way	614	1383	1177	0.522	612	1.1	6.356	A
4 - Industrial Estate Road	604	43	2784	0.217	604	0.3	1.651	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 - Bryn Lane	358	465	1538	0.233	358	0.3	3.049	A
2 - Ash Road North	1053	544	1316	0.800	1052	3.9	13.558	B
3 - Abenbury Way	614	1391	1172	0.524	614	1.1	6.455	A
4 - Industrial Estate Road	604	43	2784	0.217	604	0.3	1.651	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 - Bryn Lane	292	380	1587	0.184	292	0.2	2.784	A
2 - Ash Road North	859	444	1367	0.629	868	1.7	7.332	A
3 - Abenbury Way	502	1145	1322	0.380	504	0.6	4.409	A
4 - Industrial Estate Road	494	35	2789	0.177	494	0.2	1.567	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 - Bryn Lane	245	318	1622	0.151	245	0.2	2.614	A
2 - Ash Road North	720	372	1404	0.513	722	1.1	5.303	A
3 - Abenbury Way	420	954	1438	0.292	421	0.4	3.545	A
4 - Industrial Estate Road	413	29	2794	0.148	413	0.2	1.514	A

2030 Base + Committed + Development (Scn 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.32	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 Base + Committed + Development (Scn 1)	AM	ONE HOUR	07:45	09:15	15

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 - Bryn Lane		✓	470	100.000
2 - Ash Road North		✓	235	100.000
3 - Abenbury Way		✓	283	100.000
4 - Industrial Estate Road		✓	1844	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	60	51	359
	2 - Ash Road North	38	1	9	187
	3 - Abenbury Way	55	21	0	207
	4 - Industrial Estate Road	561	797	471	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	0	0	0
	2 - Ash Road North	0	0	0	0
	3 - Abenbury Way	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.53	7.71	1.1	A
2 - Ash Road North	0.24	4.33	0.3	A
3 - Abenbury Way	0.19	2.76	0.2	A
4 - Industrial Estate Road	0.75	5.22	2.9	A

Main Results for each time segment

07:45 - 08:00

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 - Bryn Lane	354	980	1245	0.284	352	0.4	4.027	A
2 - Ash Road North	177	672	1251	0.141	176	0.2	3.348	A
3 - Abenbury Way	213	450	1745	0.122	213	0.1	2.350	A
4 - Industrial Estate Road	1388	86	2750	0.505	1384	1.0	2.628	A

08:00 - 08:15

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 - Bryn Lane	423	1172	1135	0.372	422	0.6	5.040	A
2 - Ash Road North	211	804	1184	0.178	211	0.2	3.701	A
3 - Abenbury Way	254	539	1691	0.150	254	0.2	2.506	A
4 - Industrial Estate Road	1658	103	2737	0.606	1656	1.5	3.324	A

08:15 - 08:30

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 - Bryn Lane	517	1433	986	0.525	515	1.1	7.612	A
2 - Ash Road North	259	983	1092	0.237	258	0.3	4.314	A
3 - Abenbury Way	312	659	1618	0.193	311	0.2	2.756	A
4 - Industrial Estate Road	2030	126	2719	0.747	2025	2.9	5.146	A

08:30 - 08:45

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 - Bryn Lane	517	1437	984	0.526	517	1.1	7.707	A
2 - Ash Road North	259	986	1091	0.237	259	0.3	4.325	A
3 - Abenbury Way	312	661	1616	0.193	312	0.2	2.758	A
4 - Industrial Estate Road	2030	127	2719	0.747	2030	2.9	5.224	A

08:45 - 09:00

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 - Bryn Lane	423	1177	1132	0.373	425	0.6	5.099	A
2 - Ash Road North	211	809	1181	0.179	212	0.2	3.712	A
3 - Abenbury Way	254	541	1689	0.151	255	0.2	2.511	A
4 - Industrial Estate Road	1658	104	2737	0.606	1663	1.6	3.371	A

09:00 - 09:15

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 - Bryn Lane	354	984	1242	0.285	355	0.4	4.060	A
2 - Ash Road North	177	676	1249	0.142	177	0.2	3.360	A
3 - Abenbury Way	213	453	1743	0.122	213	0.1	2.355	A
4 - Industrial Estate Road	1388	87	2750	0.505	1390	1.0	2.653	A

2030 Base + Committed + Development (Scn 1), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	17.68	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.68	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 Base + Committed + Development (Scn 1)	PM	ONE HOUR	16:15	17:45	15

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 - Bryn Lane		✓	693	100.000
2 - Ash Road North		✓	963	100.000
3 - Abenbury Way		✓	567	100.000
4 - Industrial Estate Road		✓	615	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	25	28	640
	2 - Ash Road North	129	0	8	826
	3 - Abenbury Way	99	4	0	464
	4 - Industrial Estate Road	240	216	141	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	0	0	0
	2 - Ash Road North	0	0	0	0
	3 - Abenbury Way	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.49	4.49	0.9	A
2 - Ash Road North	0.94	41.06	11.3	E
3 - Abenbury Way	0.66	11.28	1.9	B
4 - Industrial Estate Road	0.26	1.85	0.3	A

Main Results for each time segment

16:15 - 16:30

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 - Bryn Lane	522	285	1641	0.318	520	0.5	3.206	A
2 - Ash Road North	725	621	1277	0.568	720	1.3	6.401	A
3 - Abenbury Way	427	1207	1284	0.333	425	0.5	4.182	A
4 - Industrial Estate Road	463	174	2683	0.173	462	0.2	1.621	A

16:30 - 16:45

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 - Bryn Lane	623	341	1609	0.387	622	0.6	3.648	A
2 - Ash Road North	866	743	1215	0.713	861	2.4	10.052	B
3 - Abenbury Way	510	1445	1139	0.447	508	0.8	5.699	A
4 - Industrial Estate Road	553	208	2656	0.208	553	0.3	1.710	A

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 - Bryn Lane	763	417	1565	0.487	762	0.9	4.473	A
2 - Ash Road North	1060	909	1130	0.938	1032	9.6	30.291	D
3 - Abenbury Way	624	1746	956	0.653	620	1.8	10.590	B
4 - Industrial Estate Road	677	251	2623	0.258	677	0.3	1.849	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 - Bryn Lane	763	417	1565	0.488	763	0.9	4.488	A
2 - Ash Road North	1060	911	1130	0.939	1053	11.3	41.058	E
3 - Abenbury Way	624	1769	942	0.663	624	1.9	11.284	B
4 - Industrial Estate Road	677	254	2620	0.258	677	0.3	1.851	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 - Bryn Lane	623	341	1609	0.387	624	0.6	3.663	A
2 - Ash Road North	866	745	1214	0.713	901	2.6	12.683	B
3 - Abenbury Way	510	1486	1114	0.457	514	0.9	6.036	A
4 - Industrial Estate Road	553	214	2652	0.209	553	0.3	1.715	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 - Bryn Lane	522	285	1640	0.318	522	0.5	3.224	A
2 - Ash Road North	725	623	1276	0.568	730	1.3	6.656	A
3 - Abenbury Way	427	1220	1276	0.334	428	0.5	4.252	A
4 - Industrial Estate Road	463	176	2681	0.173	463	0.2	1.625	A

2030 Base + Committed + Development (Scn 2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.55	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2030 Base + Committed + Development (Scn 2)	AM	ONE HOUR	07:45	09:15	15

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 - Bryn Lane		✓	285	100.000
2 - Ash Road North		✓	236	100.000
3 - Abenbury Way		✓	284	100.000
4 - Industrial Estate Road		✓	1805	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	59	50	176
	2 - Ash Road North	22	1	11	202
	3 - Abenbury Way	28	23	0	233
	4 - Industrial Estate Road	386	875	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	0	0	0
	2 - Ash Road North	0	0	0	0
	3 - Abenbury Way	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.35	6.16	0.5	A
2 - Ash Road North	0.22	3.99	0.3	A
3 - Abenbury Way	0.18	2.52	0.2	A
4 - Industrial Estate Road	0.72	4.69	2.6	A

Main Results for each time segment

07:45 - 08:00

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 - Bryn Lane	215	1083	1186	0.181	214	0.2	3.700	A
2 - Ash Road North	178	578	1299	0.137	177	0.2	3.207	A
3 - Abenbury Way	214	312	1828	0.117	213	0.1	2.229	A
4 - Industrial Estate Road	1359	56	2774	0.490	1355	1.0	2.531	A

08:00 - 08:15

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 - Bryn Lane	256	1296	1065	0.241	256	0.3	4.449	A
2 - Ash Road North	212	691	1241	0.171	212	0.2	3.497	A
3 - Abenbury Way	255	374	1791	0.143	255	0.2	2.343	A
4 - Industrial Estate Road	1623	66	2765	0.587	1621	1.4	3.139	A

08:15 - 08:30

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 - Bryn Lane	314	1585	900	0.349	313	0.5	6.126	A
2 - Ash Road North	260	846	1163	0.224	260	0.3	3.986	A
3 - Abenbury Way	313	457	1740	0.180	312	0.2	2.521	A
4 - Industrial Estate Road	1987	81	2754	0.722	1983	2.5	4.641	A

08:30 - 08:45

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 - Bryn Lane	314	1589	898	0.350	314	0.5	6.164	A
2 - Ash Road North	260	848	1161	0.224	260	0.3	3.992	A
3 - Abenbury Way	313	458	1740	0.180	313	0.2	2.522	A
4 - Industrial Estate Road	1987	81	2754	0.722	1987	2.6	4.694	A

08:45 - 09:00

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 - Bryn Lane	256	1301	1062	0.241	257	0.3	4.478	A
2 - Ash Road North	212	694	1240	0.171	212	0.2	3.504	A
3 - Abenbury Way	255	375	1790	0.143	256	0.2	2.347	A
4 - Industrial Estate Road	1623	67	2765	0.587	1627	1.4	3.177	A

09:00 - 09:15

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 - Bryn Lane	215	1088	1183	0.181	215	0.2	3.719	A
2 - Ash Road North	178	581	1298	0.137	178	0.2	3.214	A
3 - Abenbury Way	214	314	1827	0.117	214	0.1	2.232	A
4 - Industrial Estate Road	1359	56	2774	0.490	1361	1.0	2.552	A

2030 Base + Committed + Development (Scn 2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.99	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 Base + Committed + Development (Scn 2)	PM	ONE HOUR	16:15	17:45	15

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 - Bryn Lane		✓	477	100.000
2 - Ash Road North		✓	964	100.000
3 - Abenbury Way		✓	566	100.000
4 - Industrial Estate Road		✓	612	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	26	29	422
	2 - Ash Road North	24	0	10	930
	3 - Abenbury Way	27	4	0	535
	4 - Industrial Estate Road	194	238	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	0	0	0
	2 - Ash Road North	0	0	0	0
	3 - Abenbury Way	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.34	3.55	0.5	A
2 - Ash Road North	0.86	19.73	5.6	C
3 - Abenbury Way	0.57	7.79	1.3	A
4 - Industrial Estate Road	0.24	1.72	0.3	A

Main Results for each time segment

16:15 - 16:30

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 - Bryn Lane	359	317	1622	0.221	358	0.3	2.845	A
2 - Ash Road North	726	474	1352	0.537	721	1.1	5.667	A
3 - Abenbury Way	426	1044	1383	0.308	424	0.4	3.748	A
4 - Industrial Estate Road	461	41	2785	0.165	460	0.2	1.548	A

16:30 - 16:45

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 - Bryn Lane	429	379	1587	0.270	428	0.4	3.108	A
2 - Ash Road North	867	567	1305	0.664	863	1.9	8.102	A
3 - Abenbury Way	509	1250	1258	0.404	508	0.7	4.793	A
4 - Industrial Estate Road	550	49	2779	0.198	550	0.2	1.614	A

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 - Bryn Lane	525	464	1538	0.341	525	0.5	3.550	A
2 - Ash Road North	1061	694	1240	0.856	1048	5.2	17.679	C
3 - Abenbury Way	623	1521	1093	0.570	621	1.3	7.581	A
4 - Industrial Estate Road	674	60	2770	0.243	674	0.3	1.716	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 - Bryn Lane	525	465	1538	0.341	525	0.5	3.553	A
2 - Ash Road North	1061	695	1239	0.856	1060	5.6	19.729	C
3 - Abenbury Way	623	1534	1085	0.574	623	1.3	7.785	A
4 - Industrial Estate Road	674	61	2770	0.243	674	0.3	1.716	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 - Bryn Lane	429	380	1587	0.270	429	0.4	3.114	A
2 - Ash Road North	867	568	1304	0.665	881	2.0	8.773	A
3 - Abenbury Way	509	1268	1247	0.408	511	0.7	4.910	A
4 - Industrial Estate Road	550	50	2778	0.198	550	0.2	1.618	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 - Bryn Lane	359	318	1622	0.221	359	0.3	2.852	A
2 - Ash Road North	726	475	1351	0.537	729	1.2	5.819	A
3 - Abenbury Way	426	1053	1378	0.309	427	0.5	3.793	A
4 - Industrial Estate Road	461	42	2785	0.165	461	0.2	1.548	A

APPENDIX G – PROPOSED INDUSTRIAL ESTATE ROAD / BRYN LANE ROUNDABOUT ARCADY OUTPUT

Junctions 10									
ARCADY 10 - Roundabout Module									
Version: 10.0.1.1519									
© Copyright TRL Software Limited, 2021									
For sales and distribution information, program advice and maintenance, contact TRL Software:									
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com									
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									

Filename: Proposed Site Access ARCADY (Impr) (Opt 1 + 2).j10
Path: C:\Users\mchau\Downloads\Wrexham June 2023 Update - v2
Report generation date: 29/06/2023 10:31:42

- »2030 Base + Committed, AM
- »2030 Base + Committed, PM
- »2030 Base + Committed + Development (Opt 1), AM
- »2030 Base + Committed + Development (Opt 1), PM
- »2030 Base + Committed + Development (Opt 2), AM
- »2030 Base + Committed + Development (Opt 2), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2030 Base + Committed									
1 - Bryn Lane	D1	0.3	4.64	0.24	A	D2	0.3	2.87	0.22	A
2 - Ash Road North		0.2	3.14	0.17	A		2.3	7.99	0.70	A
3 - Abenbury Way		0.2	2.34	0.16	A		0.9	5.53	0.49	A
4 - Industrial Estate Road		2.6	5.11	0.72	A		0.3	1.86	0.24	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2030 Base + Committed + Development (Opt 1)									
1 - Bryn Lane	D3	0.4	5.11	0.31	A	D4	0.5	3.31	0.32	A
2 - Ash Road North		0.2	3.29	0.19	A		2.8	9.78	0.74	A
3 - Abenbury Way		0.2	2.43	0.17	A		1.1	6.39	0.53	A
4 - Industrial Estate Road		3.7	6.81	0.79	A		0.4	1.94	0.27	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2030 Base + Committed + Development (Opt 2)									
1 - Bryn Lane	D5	0.4	5.11	0.30	A	D6	0.4	3.23	0.28	A
2 - Ash Road North		0.2	3.34	0.19	A		2.8	9.84	0.74	A
3 - Abenbury Way		0.2	2.48	0.18	A		1.1	6.55	0.53	A
4 - Industrial Estate Road		3.7	6.81	0.79	A		0.4	1.96	0.27	A
5 - Proposed Site Access		0.1	5.14	0.08	A		0.1	2.81	0.08	A

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

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

File summary

File Description

Title	Industrial Estate Road / Bryn Lane / Ash Road North / Abenbury Way
Location	Wrexham
Site number	
Date	09/02/2023
Version	
Status	(new file)
Identifier	
Client	LIDL
Jobnumber	
Enumerator	LAPTOP-DTQ9HGBB\mchau
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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D2	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base + Committed + Development (Opt 1)	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base + Committed + Development (Opt 1)	PM	ONE HOUR	16:15	17:45	15
D5	2030 Base + Committed + Development (Opt 2)	AM	ONE HOUR	07:45	09:15	15
D6	2030 Base + Committed + Development (Opt 2)	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2030 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Ash Road North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.57	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Bryn Lane		
2	Ash Road North		
3	Abenbury Way		
4	Industrial Estate Road		
5	Proposed Site Access		

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)	Entry only	Exit only
1 - Bryn Lane	3.80	7.00	28.0	32.0	70.0	36.0		
2 - Ash Road North	4.00	7.00	35.0	15.0	70.0	48.0		
3 - Abenbury Way	3.65	7.90	35.0	31.0	70.0	33.0		
4 - Industrial Estate Road	8.00	9.00	5.0	28.0	70.0	39.0		
5 - Proposed Site Access	3.65	7.00	20.0	41.0	70.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bryn Lane	0.530	1857
2 - Ash Road North	0.498	1774
3 - Abenbury Way	0.562	2047
4 - Industrial Estate Road	0.637	2564
5 - Proposed Site Access	0.511	1750

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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 - Bryn Lane		✓	218	100.000
2 - Ash Road North		✓	217	100.000
3 - Abenbury Way		✓	267	100.000
4 - Industrial Estate Road		✓	1665	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	52	43	123	0
	2 - Ash Road North	4	0	11	202	0
	3 - Abenbury Way	11	23	0	233	0
	4 - Industrial Estate Road	246	875	529	15	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	0	0	0	0
	2 - Ash Road North	0	0	0	0	0
	3 - Abenbury Way	0	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0	0
	5 - Proposed Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.24	4.64	0.3	A
2 - Ash Road North	0.17	3.14	0.2	A
3 - Abenbury Way	0.16	2.34	0.2	A
4 - Industrial Estate Road	0.72	5.11	2.6	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

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 - Bryn Lane	164	1082	1284	0.128	164	0.1	3.212	A
2 - Ash Road North	163	533	1508	0.108	163	0.1	2.676	A
3 - Abenbury Way	201	258	1902	0.106	201	0.1	2.115	A
4 - Industrial Estate Road	1253	29	2546	0.492	1250	1.0	2.770	A
5 - Proposed Site Access	0	1278	1096	0.000	0	0.0	0.000	A

08:00 - 08:15

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 - Bryn Lane	196	1295	1171	0.167	196	0.2	3.691	A
2 - Ash Road North	195	638	1456	0.134	195	0.2	2.854	A
3 - Abenbury Way	240	309	1874	0.128	240	0.1	2.203	A
4 - Industrial Estate Road	1497	34	2542	0.589	1495	1.4	3.432	A
5 - Proposed Site Access	0	1529	968	0.000	0	0.0	0.000	A

08:15 - 08:30

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 - Bryn Lane	240	1584	1018	0.236	240	0.3	4.623	A
2 - Ash Road North	239	780	1385	0.173	239	0.2	3.140	A
3 - Abenbury Way	294	378	1835	0.160	294	0.2	2.335	A
4 - Industrial Estate Road	1833	42	2537	0.723	1829	2.6	5.050	A
5 - Proposed Site Access	0	1870	794	0.000	0	0.0	0.000	A

08:30 - 08:45

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 - Bryn Lane	240	1588	1016	0.236	240	0.3	4.639	A
2 - Ash Road North	239	782	1384	0.173	239	0.2	3.142	A
3 - Abenbury Way	294	379	1835	0.160	294	0.2	2.336	A
4 - Industrial Estate Road	1833	42	2537	0.723	1833	2.6	5.112	A
5 - Proposed Site Access	0	1875	791	0.000	0	0.0	0.000	A

08:45 - 09:00

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 - Bryn Lane	196	1300	1168	0.168	196	0.2	3.705	A
2 - Ash Road North	195	640	1455	0.134	195	0.2	2.860	A
3 - Abenbury Way	240	310	1873	0.128	240	0.1	2.205	A
4 - Industrial Estate Road	1497	34	2542	0.589	1501	1.4	3.473	A
5 - Proposed Site Access	0	1536	965	0.000	0	0.0	0.000	A

09:00 - 09:15

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 - Bryn Lane	164	1087	1281	0.128	164	0.1	3.226	A
2 - Ash Road North	163	535	1507	0.108	164	0.1	2.681	A
3 - Abenbury Way	201	259	1902	0.106	201	0.1	2.116	A
4 - Industrial Estate Road	1253	29	2545	0.492	1255	1.0	2.793	A
5 - Proposed Site Access	0	1284	1093	0.000	0	0.0	0.000	A

2030 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Ash Road North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.31	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.31	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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 - Bryn Lane		✓	325	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	549	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	14	300	0
	2 - Ash Road North	16	0	10	930	0
	3 - Abenbury Way	19	4	0	535	0
	4 - Industrial Estate Road	131	238	162	18	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	0	0	0	0
	2 - Ash Road North	0	0	0	0	0
	3 - Abenbury Way	0	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0	0
	5 - Proposed Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.22	2.87	0.3	A
2 - Ash Road North	0.70	7.99	2.3	A
3 - Abenbury Way	0.49	5.53	0.9	A
4 - Industrial Estate Road	0.24	1.86	0.3	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

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 - Bryn Lane	245	317	1689	0.145	244	0.2	2.490	A
2 - Ash Road North	720	371	1589	0.453	716	0.8	4.111	A
3 - Abenbury Way	420	948	1515	0.277	419	0.4	3.279	A
4 - Industrial Estate Road	413	29	2545	0.162	413	0.2	1.687	A
5 - Proposed Site Access	0	442	1524	0.000	0	0.0	0.000	A

16:30 - 16:45

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 - Bryn Lane	292	379	1656	0.176	292	0.2	2.639	A
2 - Ash Road North	859	444	1552	0.554	858	1.2	5.166	A
3 - Abenbury Way	502	1135	1410	0.356	501	0.5	3.958	A
4 - Industrial Estate Road	494	35	2541	0.194	493	0.2	1.757	A
5 - Proposed Site Access	0	528	1480	0.000	0	0.0	0.000	A

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 - Bryn Lane	358	464	1611	0.222	358	0.3	2.872	A
2 - Ash Road North	1053	544	1503	0.700	1048	2.3	7.850	A
3 - Abenbury Way	614	1387	1268	0.485	613	0.9	5.483	A
4 - Industrial Estate Road	604	43	2536	0.238	604	0.3	1.862	A
5 - Proposed Site Access	0	647	1419	0.000	0	0.0	0.000	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 - Bryn Lane	358	465	1611	0.222	358	0.3	2.872	A
2 - Ash Road North	1053	544	1503	0.700	1052	2.3	7.991	A
3 - Abenbury Way	614	1392	1266	0.485	614	0.9	5.527	A
4 - Industrial Estate Road	604	43	2536	0.238	604	0.3	1.862	A
5 - Proposed Site Access	0	647	1419	0.000	0	0.0	0.000	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 - Bryn Lane	292	380	1656	0.176	292	0.2	2.640	A
2 - Ash Road North	859	444	1552	0.554	864	1.3	5.259	A
3 - Abenbury Way	502	1141	1407	0.357	503	0.6	3.992	A
4 - Industrial Estate Road	494	35	2541	0.194	494	0.2	1.760	A
5 - Proposed Site Access	0	529	1479	0.000	0	0.0	0.000	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 - Bryn Lane	245	318	1688	0.145	245	0.2	2.493	A
2 - Ash Road North	720	372	1588	0.453	721	0.8	4.160	A
3 - Abenbury Way	420	953	1512	0.278	421	0.4	3.301	A
4 - Industrial Estate Road	413	29	2545	0.162	414	0.2	1.688	A
5 - Proposed Site Access	0	443	1523	0.000	0	0.0	0.000	A

2030 Base + Committed + Development (Opt 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Ash Road North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

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

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.83	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Base + Committed + Development (Opt 1)	AM	ONE HOUR	07:45	09:15	15

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 - Bryn Lane		✓	283	100.000
2 - Ash Road North		✓	235	100.000
3 - Abenbury Way		✓	284	100.000
4 - Industrial Estate Road		✓	1803	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	58	50	175	0
	2 - Ash Road North	21	1	11	202	0
	3 - Abenbury Way	28	23	0	233	0
	4 - Industrial Estate Road	384	875	529	15	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	0	0	0	0
	2 - Ash Road North	0	0	0	0	0
	3 - Abenbury Way	0	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0	0
	5 - Proposed Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.31	5.11	0.4	A
2 - Ash Road North	0.19	3.29	0.2	A
3 - Abenbury Way	0.17	2.43	0.2	A
4 - Industrial Estate Road	0.79	6.81	3.7	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

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 - Bryn Lane	213	1083	1283	0.166	212	0.2	3.360	A
2 - Ash Road North	177	577	1486	0.119	176	0.1	2.746	A
3 - Abenbury Way	214	311	1873	0.114	213	0.1	2.169	A
4 - Industrial Estate Road	1357	55	2529	0.537	1353	1.2	3.050	A
5 - Proposed Site Access	0	1408	1030	0.000	0	0.0	0.000	A

08:00 - 08:15

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 - Bryn Lane	254	1295	1171	0.217	254	0.3	3.926	A
2 - Ash Road North	211	690	1430	0.148	211	0.2	2.954	A
3 - Abenbury Way	255	372	1839	0.139	255	0.2	2.273	A
4 - Industrial Estate Road	1621	66	2522	0.643	1618	1.8	3.973	A
5 - Proposed Site Access	0	1684	889	0.000	0	0.0	0.000	A

08:15 - 08:30

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 - Bryn Lane	312	1583	1018	0.306	311	0.4	5.084	A
2 - Ash Road North	259	844	1353	0.191	258	0.2	3.288	A
3 - Abenbury Way	313	455	1792	0.175	312	0.2	2.433	A
4 - Industrial Estate Road	1985	80	2513	0.790	1978	3.6	6.638	A
5 - Proposed Site Access	0	2058	698	0.000	0	0.0	0.000	A

08:30 - 08:45

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 - Bryn Lane	312	1589	1015	0.307	312	0.4	5.114	A
2 - Ash Road North	259	847	1352	0.191	259	0.2	3.292	A
3 - Abenbury Way	313	456	1791	0.175	313	0.2	2.434	A
4 - Industrial Estate Road	1985	80	2513	0.790	1985	3.7	6.814	A
5 - Proposed Site Access	0	2065	694	0.000	0	0.0	0.000	A

08:45 - 09:00

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 - Bryn Lane	254	1303	1167	0.218	255	0.3	3.953	A
2 - Ash Road North	211	694	1428	0.148	212	0.2	2.962	A
3 - Abenbury Way	255	373	1838	0.139	256	0.2	2.276	A
4 - Industrial Estate Road	1621	66	2522	0.643	1628	1.8	4.062	A
5 - Proposed Site Access	0	1694	884	0.000	0	0.0	0.000	A

09:00 - 09:15

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 - Bryn Lane	213	1088	1280	0.166	213	0.2	3.377	A
2 - Ash Road North	177	580	1485	0.119	177	0.1	2.755	A
3 - Abenbury Way	214	312	1872	0.114	214	0.1	2.172	A
4 - Industrial Estate Road	1357	55	2529	0.537	1360	1.2	3.088	A
5 - Proposed Site Access	0	1415	1027	0.000	0	0.0	0.000	A

2030 Base + Committed + Development (Opt 1), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Ash Road North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.04	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Base + Committed + Development (Opt 1)	PM	ONE HOUR	16:15	17:45	15

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 - Bryn Lane		✓	475	100.000
2 - Ash Road North		✓	964	100.000
3 - Abenbury Way		✓	566	100.000
4 - Industrial Estate Road		✓	611	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	26	29	420	0
	2 - Ash Road North	24	0	10	930	0
	3 - Abenbury Way	27	4	0	535	0
	4 - Industrial Estate Road	193	238	162	18	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	0	0	0	0
	2 - Ash Road North	0	0	0	0	0
	3 - Abenbury Way	0	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0	0
	5 - Proposed Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.32	3.31	0.5	A
2 - Ash Road North	0.74	9.78	2.8	A
3 - Abenbury Way	0.53	6.39	1.1	A
4 - Industrial Estate Road	0.27	1.94	0.4	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

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 - Bryn Lane	358	317	1689	0.212	357	0.3	2.699	A
2 - Ash Road North	726	472	1538	0.472	722	0.9	4.393	A
3 - Abenbury Way	426	1043	1461	0.292	424	0.4	3.462	A
4 - Industrial Estate Road	460	41	2537	0.181	459	0.2	1.732	A
5 - Proposed Site Access	0	500	1494	0.000	0	0.0	0.000	A

16:30 - 16:45

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 - Bryn Lane	427	379	1656	0.258	427	0.3	2.928	A
2 - Ash Road North	867	565	1492	0.581	865	1.4	5.721	A
3 - Abenbury Way	509	1249	1346	0.378	508	0.6	4.295	A
4 - Industrial Estate Road	549	49	2532	0.217	549	0.3	1.814	A
5 - Proposed Site Access	0	598	1444	0.000	0	0.0	0.000	A

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 - Bryn Lane	523	464	1611	0.325	522	0.5	3.306	A
2 - Ash Road North	1061	692	1429	0.743	1056	2.8	9.505	A
3 - Abenbury Way	623	1527	1190	0.524	621	1.1	6.311	A
4 - Industrial Estate Road	673	60	2525	0.266	672	0.4	1.942	A
5 - Proposed Site Access	0	733	1375	0.000	0	0.0	0.000	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 - Bryn Lane	523	465	1611	0.325	523	0.5	3.309	A
2 - Ash Road North	1061	693	1429	0.743	1061	2.8	9.783	A
3 - Abenbury Way	623	1532	1186	0.525	623	1.1	6.390	A
4 - Industrial Estate Road	673	61	2525	0.266	673	0.4	1.943	A
5 - Proposed Site Access	0	733	1375	0.000	0	0.0	0.000	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 - Bryn Lane	427	380	1656	0.258	428	0.3	2.931	A
2 - Ash Road North	867	566	1492	0.581	872	1.4	5.867	A
3 - Abenbury Way	509	1257	1341	0.379	511	0.6	4.346	A
4 - Industrial Estate Road	549	50	2532	0.217	550	0.3	1.818	A
5 - Proposed Site Access	0	599	1443	0.000	0	0.0	0.000	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 - Bryn Lane	358	318	1688	0.212	358	0.3	2.708	A
2 - Ash Road North	726	474	1538	0.472	728	0.9	4.458	A
3 - Abenbury Way	426	1050	1457	0.292	427	0.4	3.495	A
4 - Industrial Estate Road	460	42	2537	0.181	460	0.2	1.732	A
5 - Proposed Site Access	0	502	1493	0.000	0	0.0	0.000	A

2030 Base + Committed + Development (Opt 2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Ash Road North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.82	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.82	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 Base + Committed + Development (Opt 2)	AM	ONE HOUR	07:45	09:15	15

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 - Bryn Lane		✓	268	100.000
2 - Ash Road North		✓	232	100.000
3 - Abenbury Way		✓	288	100.000
4 - Industrial Estate Road		✓	1797	100.000
5 - Proposed Site Access		✓	57	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	54	47	167	0
	2 - Ash Road North	11	1	10	199	11
	3 - Abenbury Way	22	20	0	229	17
	4 - Industrial Estate Road	307	857	521	15	97
	5 - Proposed Site Access	0	5	8	44	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	0	0	0	0
	2 - Ash Road North	0	0	0	0	0
	3 - Abenbury Way	0	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0	0
	5 - Proposed Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.30	5.11	0.4	A
2 - Ash Road North	0.19	3.34	0.2	A
3 - Abenbury Way	0.18	2.48	0.2	A
4 - Industrial Estate Road	0.79	6.81	3.7	A
5 - Proposed Site Access	0.08	5.14	0.1	A

Main Results for each time segment

07:45 - 08:00

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 - Bryn Lane	202	1104	1272	0.159	201	0.2	3.359	A
2 - Ash Road North	175	602	1474	0.119	174	0.1	2.768	A
3 - Abenbury Way	217	336	1859	0.117	216	0.1	2.192	A
4 - Industrial Estate Road	1353	62	2524	0.536	1348	1.1	3.050	A
5 - Proposed Site Access	43	1316	1077	0.040	43	0.0	3.480	A

08:00 - 08:15

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 - Bryn Lane	241	1320	1157	0.208	241	0.3	3.926	A
2 - Ash Road North	209	720	1415	0.147	208	0.2	2.983	A
3 - Abenbury Way	259	402	1821	0.142	259	0.2	2.303	A
4 - Industrial Estate Road	1615	74	2517	0.642	1613	1.8	3.972	A
5 - Proposed Site Access	51	1574	945	0.054	51	0.1	4.027	A

08:15 - 08:30

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 - Bryn Lane	295	1614	1002	0.294	294	0.4	5.083	A
2 - Ash Road North	255	880	1335	0.191	255	0.2	3.333	A
3 - Abenbury Way	317	492	1771	0.179	317	0.2	2.476	A
4 - Industrial Estate Road	1979	90	2506	0.789	1971	3.6	6.637	A
5 - Proposed Site Access	63	1924	766	0.082	63	0.1	5.116	A

08:30 - 08:45

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 - Bryn Lane	295	1619	999	0.295	295	0.4	5.113	A
2 - Ash Road North	255	883	1334	0.192	255	0.2	3.338	A
3 - Abenbury Way	317	493	1770	0.179	317	0.2	2.476	A
4 - Industrial Estate Road	1979	90	2506	0.789	1978	3.7	6.811	A
5 - Proposed Site Access	63	1931	763	0.082	63	0.1	5.141	A

08:45 - 09:00

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 - Bryn Lane	241	1328	1153	0.209	242	0.3	3.952	A
2 - Ash Road North	209	724	1413	0.148	209	0.2	2.991	A
3 - Abenbury Way	259	404	1821	0.142	259	0.2	2.305	A
4 - Industrial Estate Road	1615	74	2517	0.642	1623	1.8	4.060	A
5 - Proposed Site Access	51	1584	940	0.055	51	0.1	4.052	A

09:00 - 09:15

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 - Bryn Lane	202	1110	1269	0.159	202	0.2	3.376	A
2 - Ash Road North	175	605	1472	0.119	175	0.1	2.776	A
3 - Abenbury Way	217	338	1858	0.117	217	0.1	2.195	A
4 - Industrial Estate Road	1353	62	2524	0.536	1355	1.2	3.086	A
5 - Proposed Site Access	43	1323	1074	0.040	43	0.0	3.495	A

2030 Base + Committed + Development (Opt 2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Ash Road North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.03	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 Base + Committed + Development (Opt 2)	PM	ONE HOUR	16:15	17:45	15

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 - Bryn Lane		✓	401	100.000
2 - Ash Road North		✓	952	100.000
3 - Abenbury Way		✓	570	100.000
4 - Industrial Estate Road		✓	609	100.000
5 - Proposed Site Access		✓	101	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	14	20	367	0
	2 - Ash Road North	33	0	9	905	5
	3 - Abenbury Way	33	4	0	525	8
	4 - Industrial Estate Road	158	234	159	18	40
	5 - Proposed Site Access	0	8	14	79	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	0	0	0	0
	2 - Ash Road North	0	0	0	0	0
	3 - Abenbury Way	0	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0	0
	5 - Proposed Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.28	3.23	0.4	A
2 - Ash Road North	0.74	9.84	2.8	A
3 - Abenbury Way	0.53	6.55	1.1	A
4 - Industrial Estate Road	0.27	1.96	0.4	A
5 - Proposed Site Access	0.08	2.81	0.1	A

Main Results for each time segment

16:15 - 16:30

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 - Bryn Lane	302	388	1651	0.183	301	0.2	2.664	A
2 - Ash Road North	717	493	1528	0.469	713	0.9	4.401	A
3 - Abenbury Way	429	1055	1455	0.295	427	0.4	3.498	A
4 - Industrial Estate Road	458	62	2524	0.182	458	0.2	1.741	A
5 - Proposed Site Access	76	480	1504	0.051	76	0.1	2.519	A

16:30 - 16:45

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 - Bryn Lane	360	464	1611	0.224	360	0.3	2.877	A
2 - Ash Road North	856	590	1480	0.578	854	1.4	5.737	A
3 - Abenbury Way	512	1263	1338	0.383	512	0.6	4.353	A
4 - Industrial Estate Road	547	74	2516	0.218	547	0.3	1.827	A
5 - Proposed Site Access	91	574	1456	0.062	91	0.1	2.635	A

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 - Bryn Lane	442	568	1556	0.284	441	0.4	3.229	A
2 - Ash Road North	1048	723	1413	0.742	1043	2.8	9.562	A
3 - Abenbury Way	628	1543	1180	0.532	626	1.1	6.464	A
4 - Industrial Estate Road	671	91	2506	0.268	670	0.4	1.961	A
5 - Proposed Site Access	111	703	1390	0.080	111	0.1	2.813	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 - Bryn Lane	442	568	1556	0.284	442	0.4	3.229	A
2 - Ash Road North	1048	723	1413	0.742	1048	2.8	9.841	A
3 - Abenbury Way	628	1549	1177	0.533	628	1.1	6.549	A
4 - Industrial Estate Road	671	91	2506	0.268	671	0.4	1.961	A
5 - Proposed Site Access	111	704	1390	0.080	111	0.1	2.814	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 - Bryn Lane	360	464	1611	0.224	361	0.3	2.880	A
2 - Ash Road North	856	591	1479	0.579	862	1.4	5.881	A
3 - Abenbury Way	512	1271	1333	0.384	514	0.6	4.406	A
4 - Industrial Estate Road	547	75	2516	0.218	548	0.3	1.828	A
5 - Proposed Site Access	91	575	1456	0.062	91	0.1	2.639	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 - Bryn Lane	302	389	1651	0.183	302	0.2	2.669	A
2 - Ash Road North	717	495	1527	0.469	719	0.9	4.466	A
3 - Abenbury Way	429	1062	1451	0.296	430	0.4	3.530	A
4 - Industrial Estate Road	458	63	2524	0.182	459	0.2	1.745	A
5 - Proposed Site Access	76	481	1504	0.051	76	0.1	2.523	A

APPENDIX H – TRAFFIC FIGURES FOR OPTION 2

Figure 1 - 2023 Surveyed Traffic Flows
AM Peak: 0800-0900

Notes:

123

 Total Vehicles

23

 HGVs

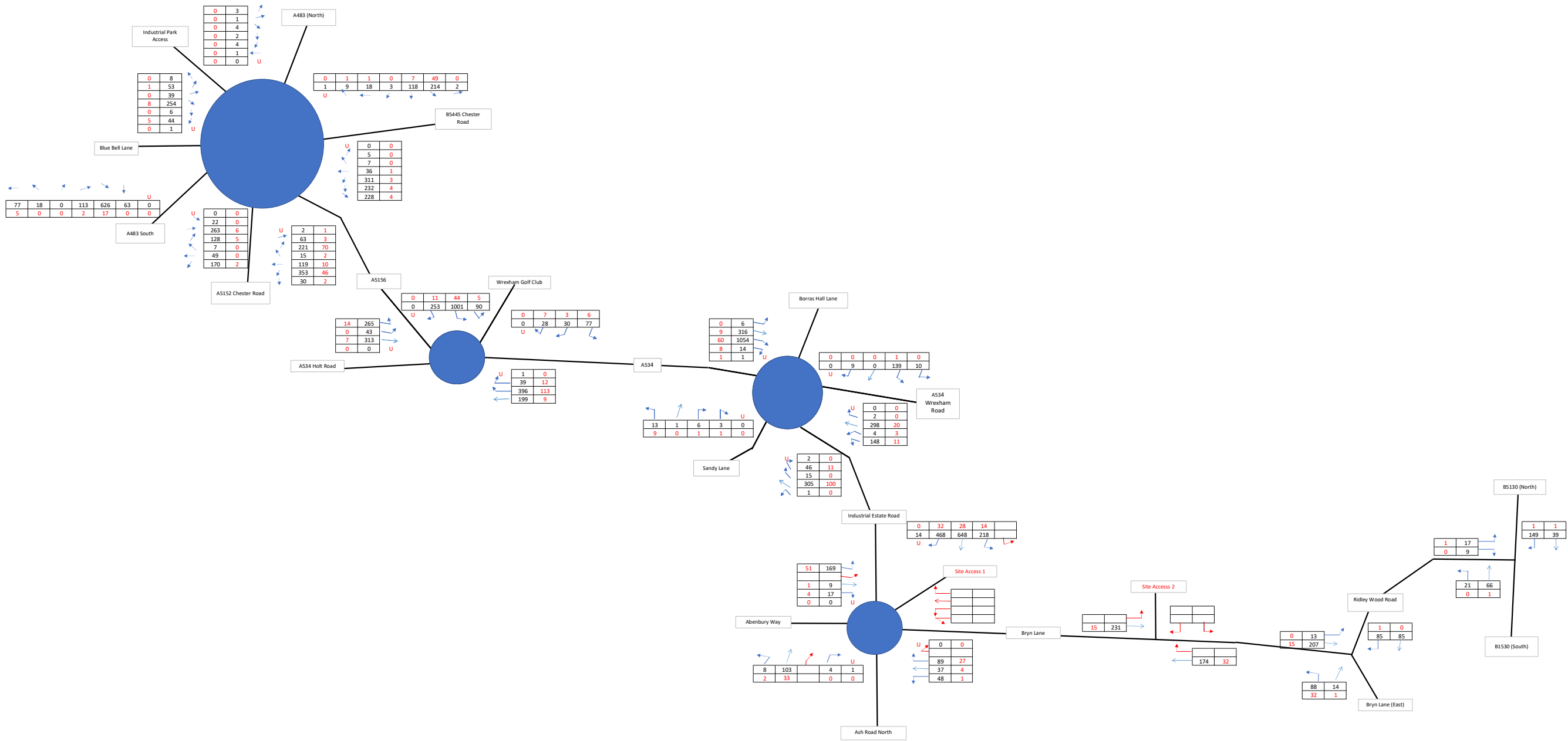


Figure 2 - 2023 Surveyed Traffic Flows
PM Peak: 1630-1730

Notes:

123

 Total Vehicles

23

 HGVs

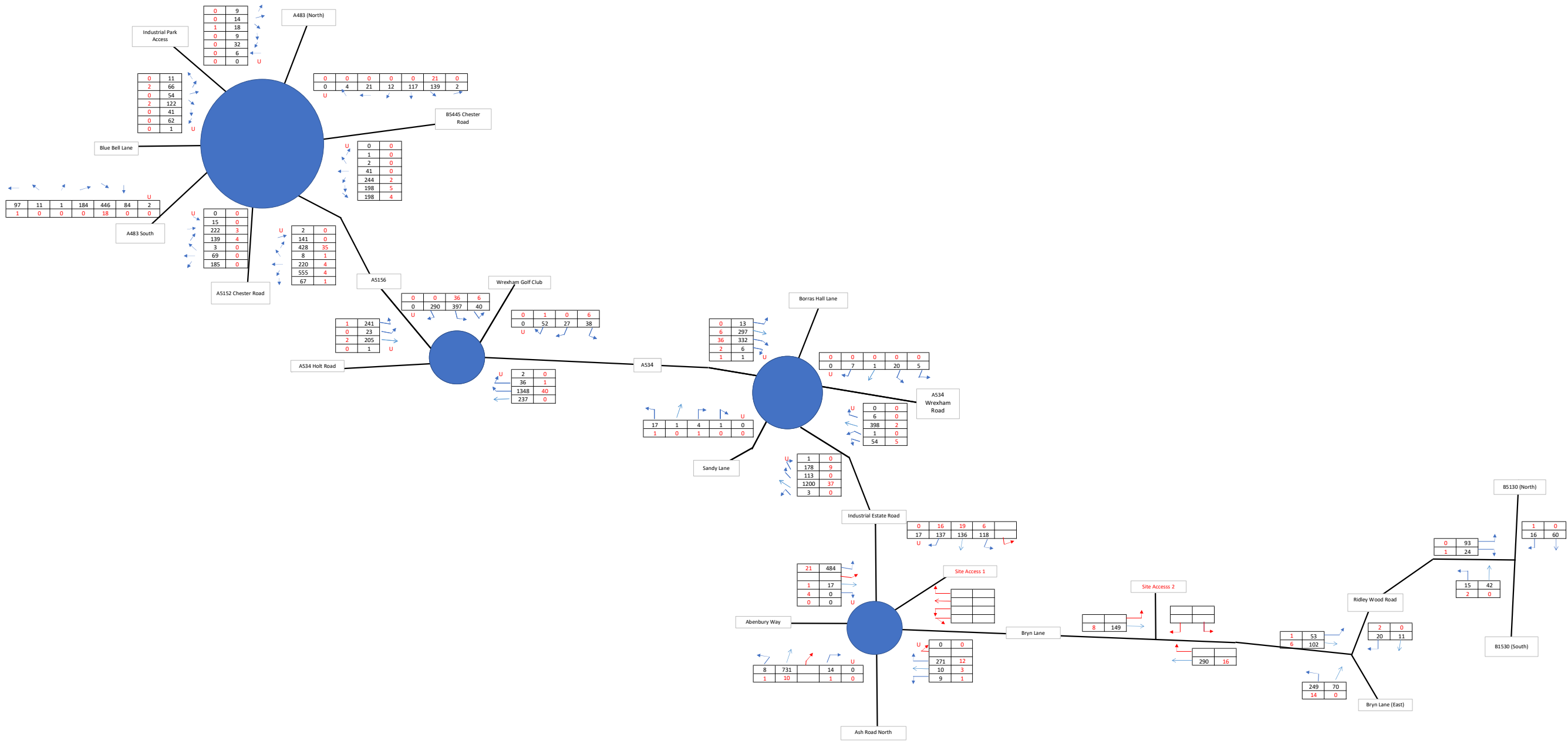


Figure 3 - 2023 Surveyed Traffic Flows
AM Peak: 0800-0900

Notes:

123

 PCUs

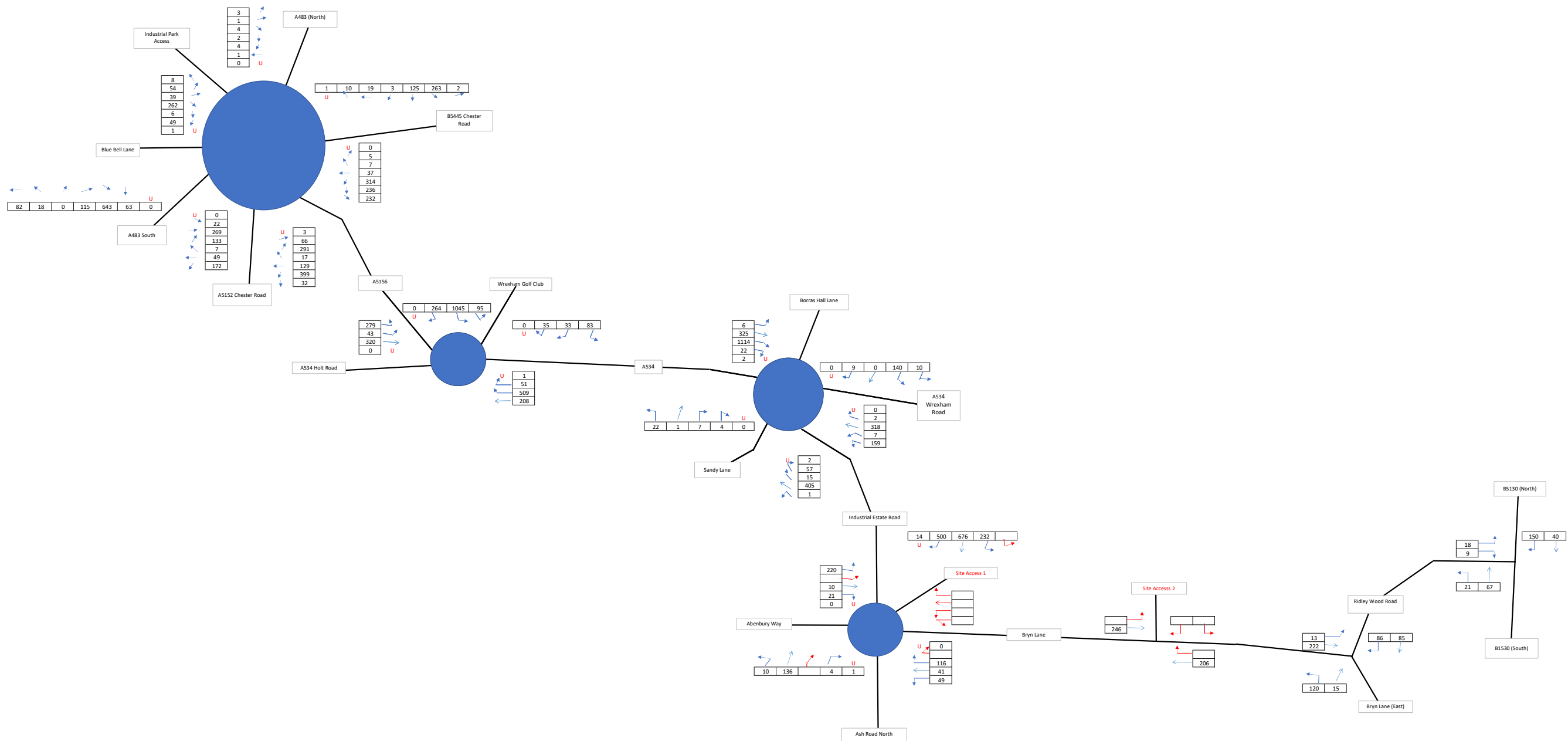


Figure 4 - 2023 Surveyed Traffic Flows
PM Peak: 1630-1730

Notes:

123

 PCUs

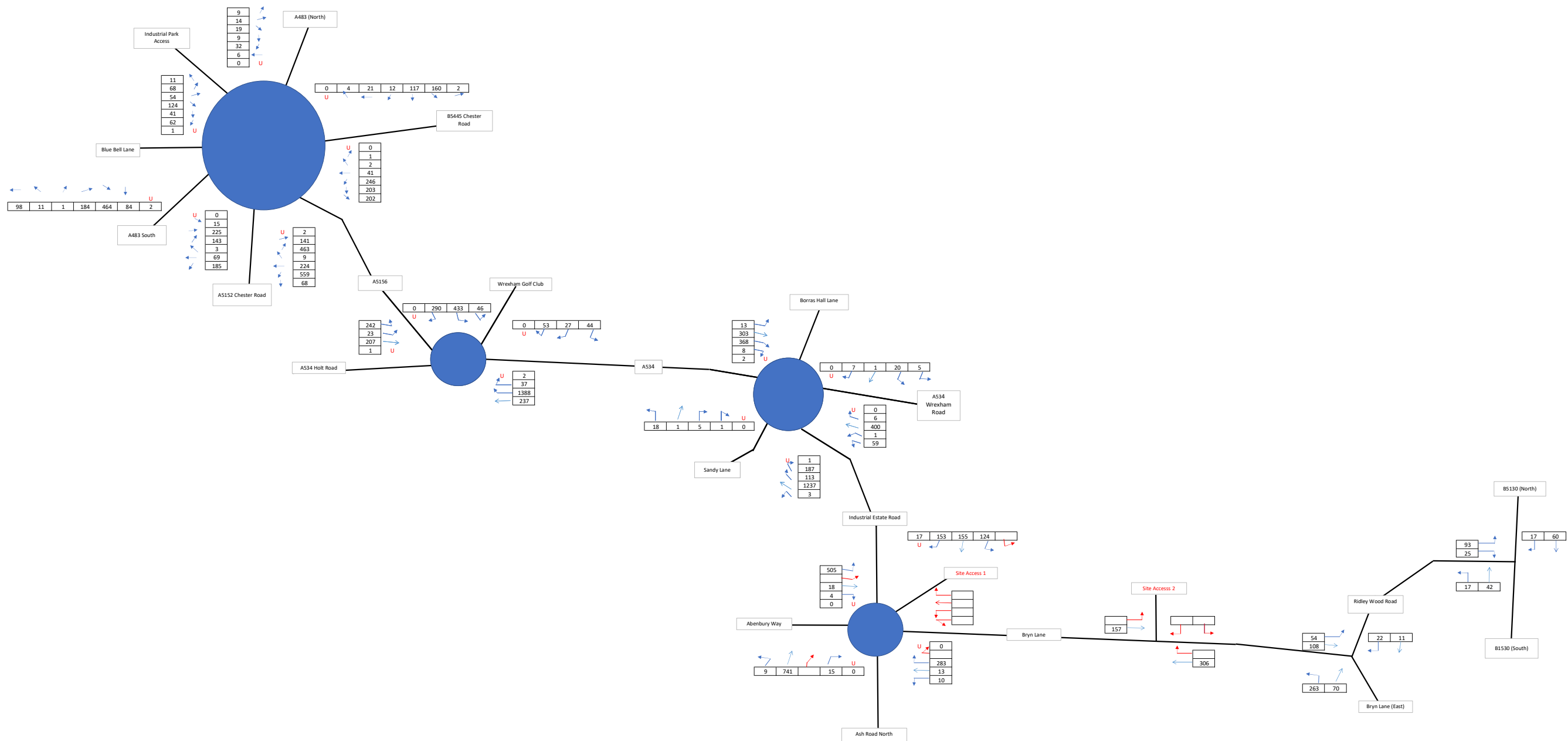


Figure 5 - 2030 Growthed Traffic Flows
AM Peak: 0800-0900

Notes:

123

 PCUs

1.0587

 Growth Factor

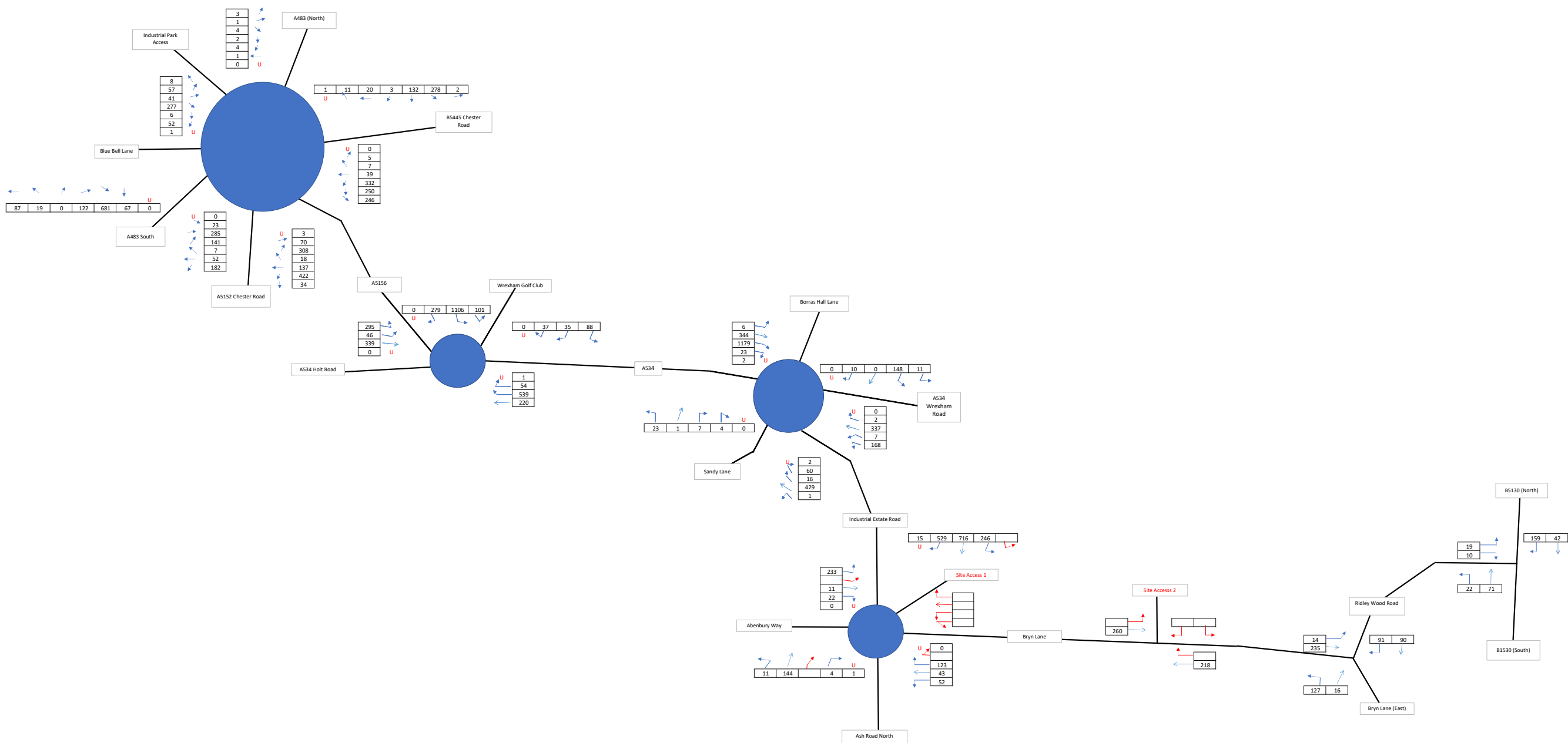


Figure 6 - 2030 Growthed Traffic Flows
PM Peak: 1630-1730

Notes:

123

 PCUs

1.0587

 Growth Factor

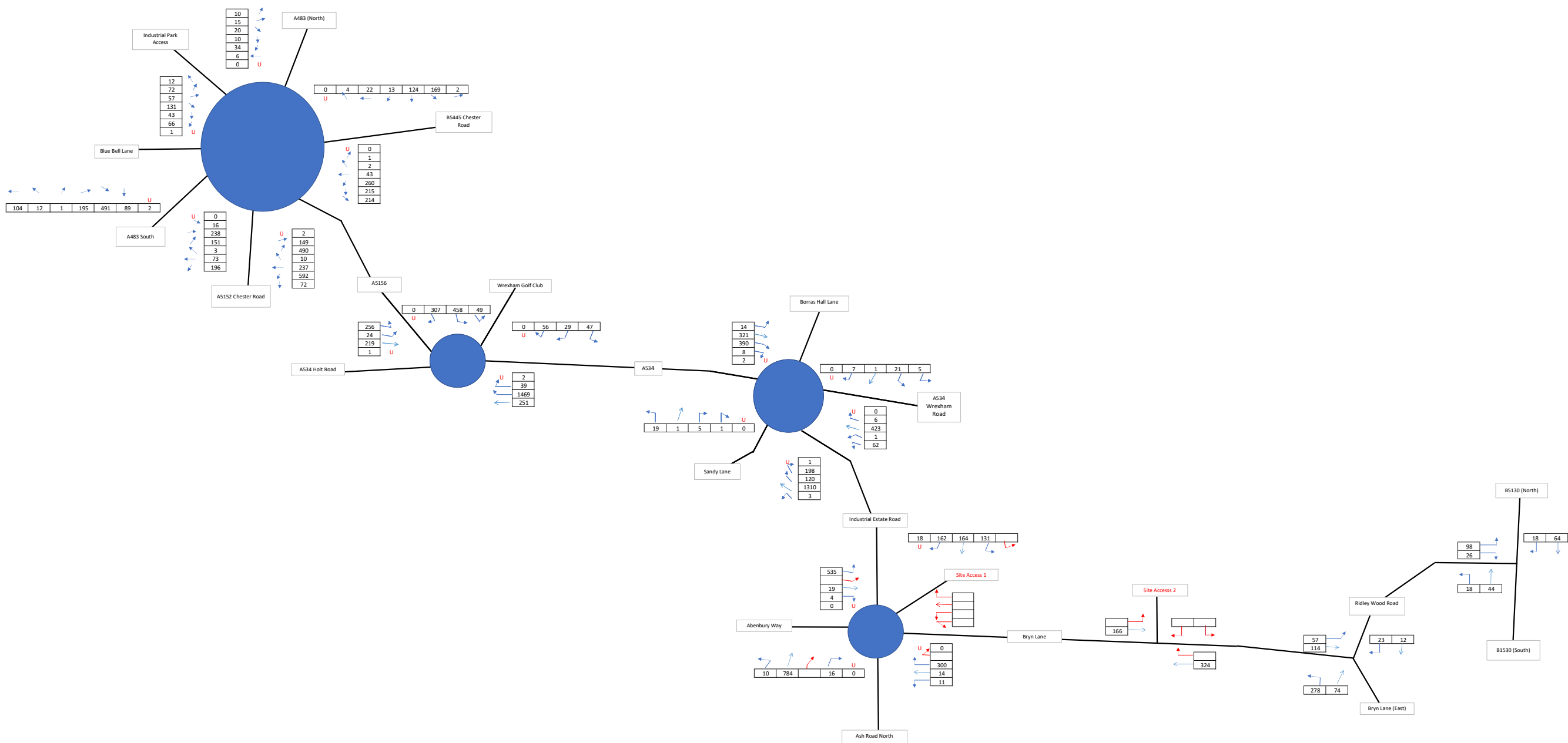


Figure 7 - Development Traffic Distribution

Notes:

%	Arrivals
%	Departures

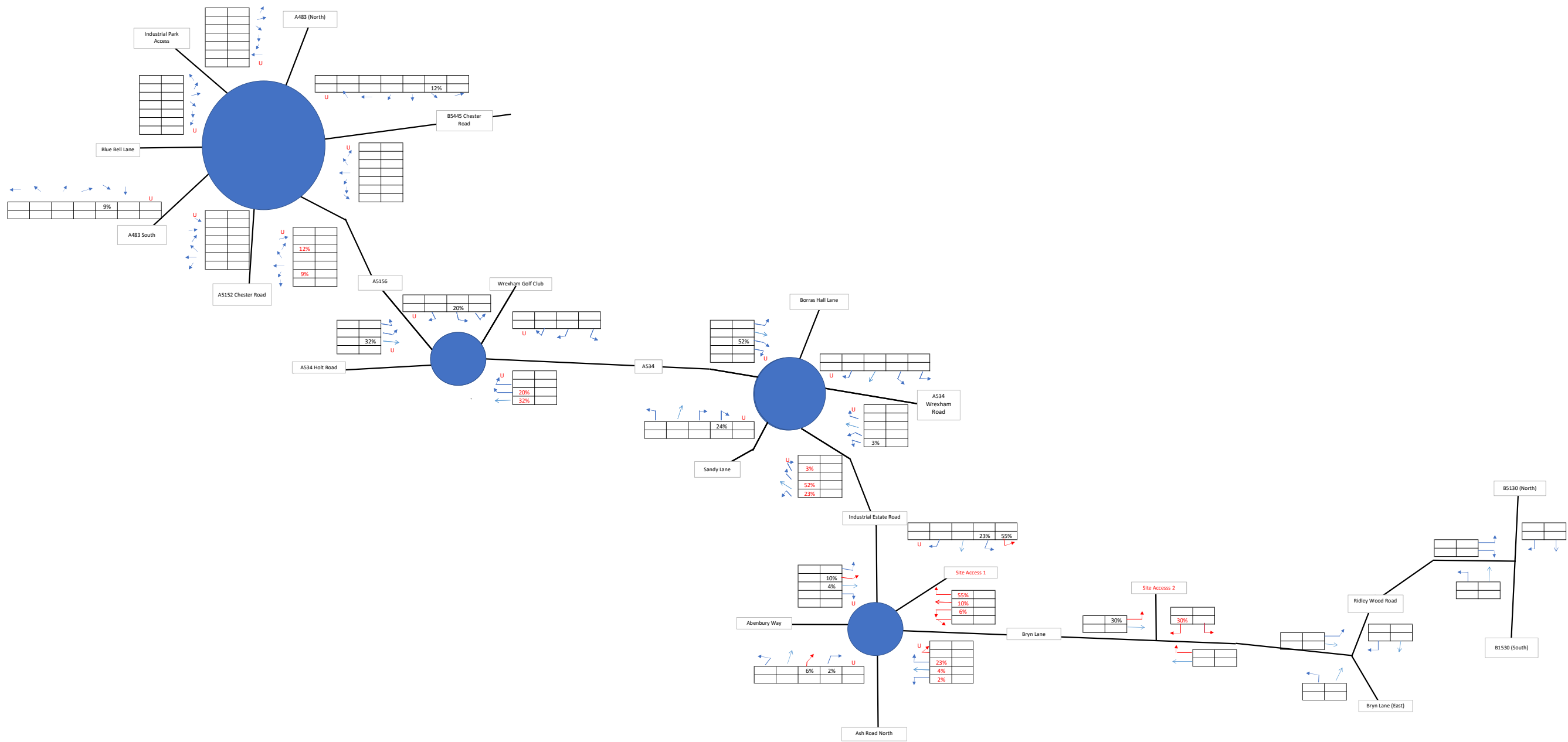


Figure 8 - Industrial Estate Development Trips
AM Peak: 0800-0900

Notes:

165

 Arrivals

62

 Departures

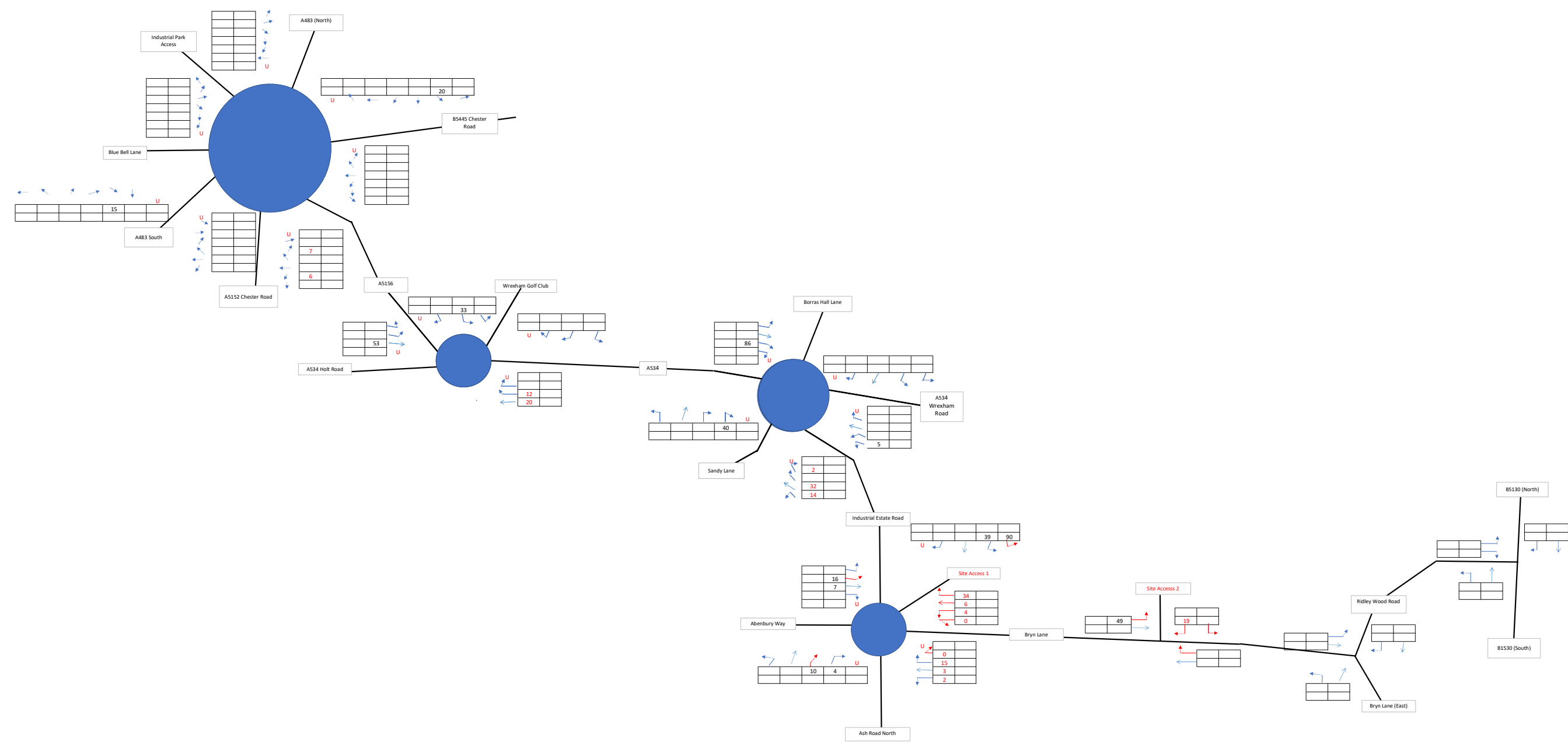


Figure 9 - Industrial Estate Development Trips
PM Peak: 1630-1730

Notes:

74

 Arrivals

144

 Departures

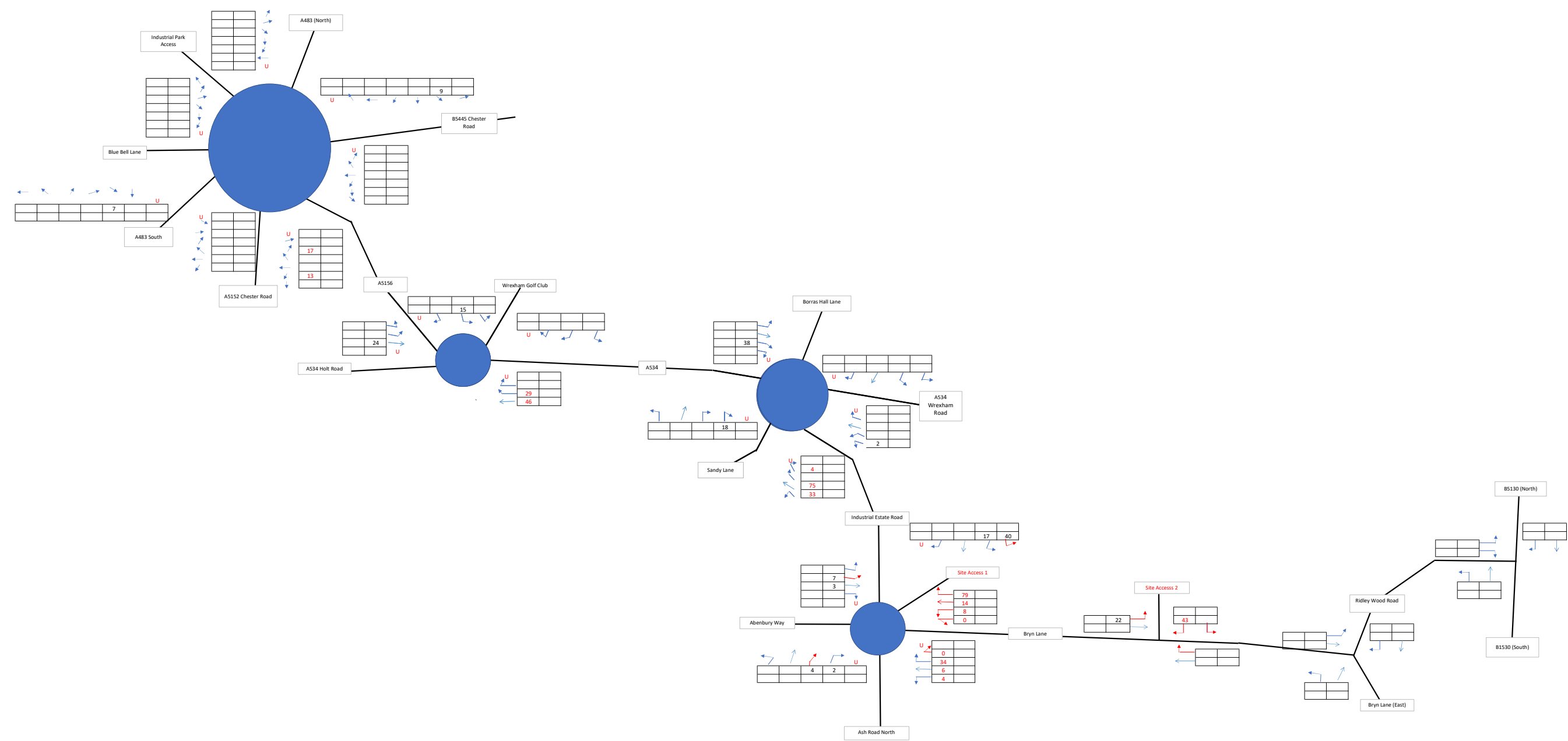


Figure 10 - Hotel Development Trips
AM Peak: 0800-0900

Notes:

13	Arrivals
18	Departures

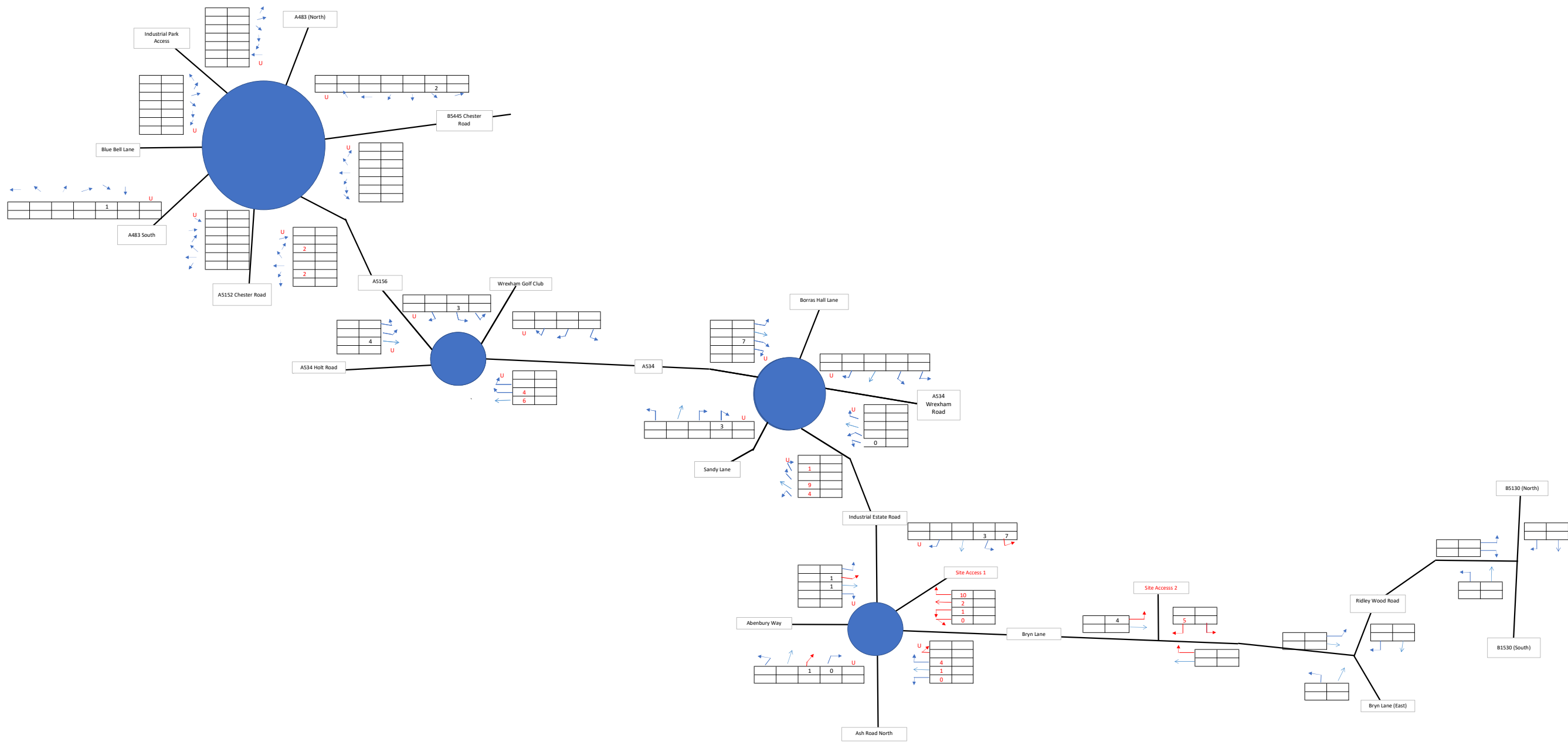


Figure 11 - Hotel Development Trips
PM Peak: 1630-1730

Notes:

13	Arrivals
11	Departures

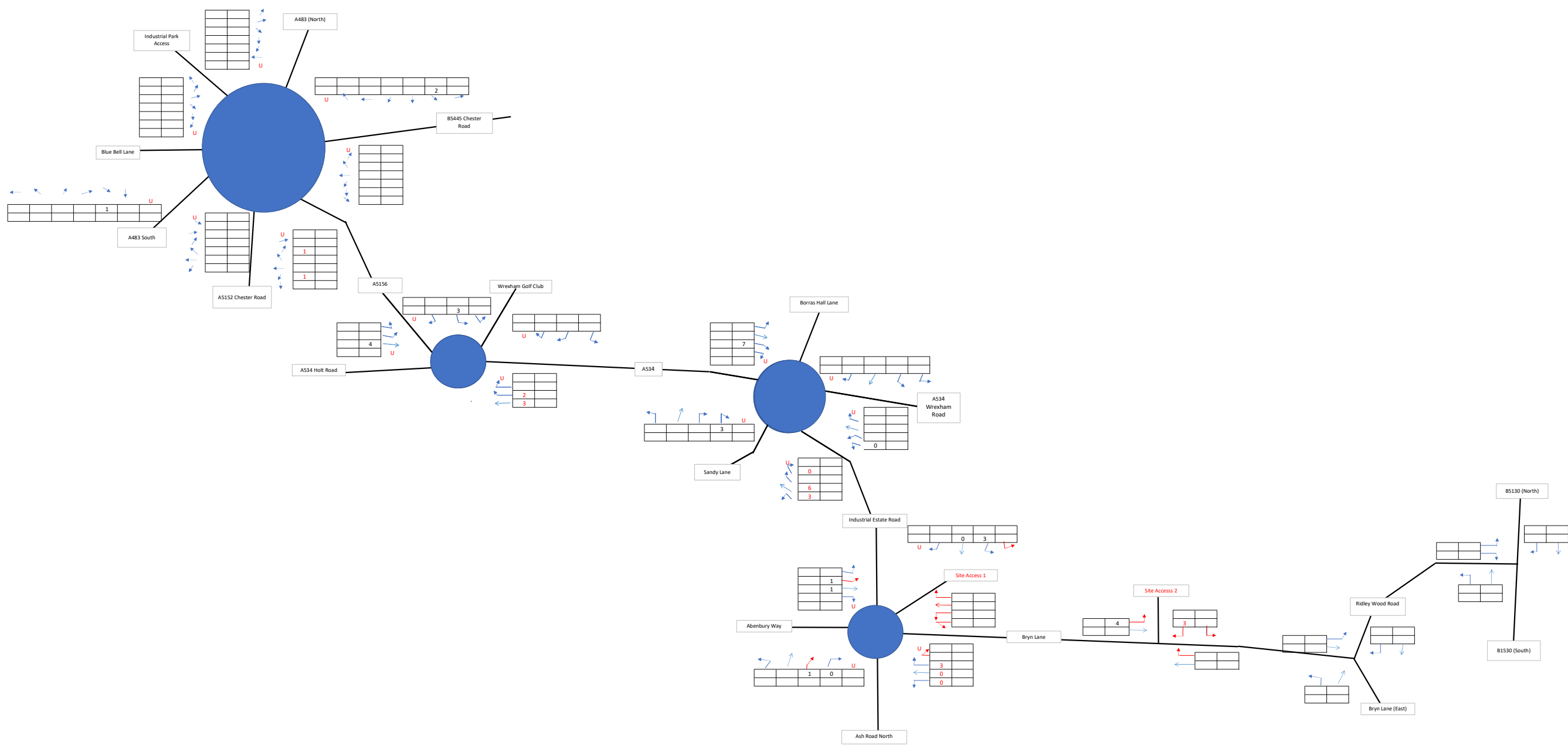


Figure 12 - Pass-By Trips (Local Centre, Drive-Thru & PFS)
AM Peak: 0800-0900

Notes:

242	Arrivals
233	Departures

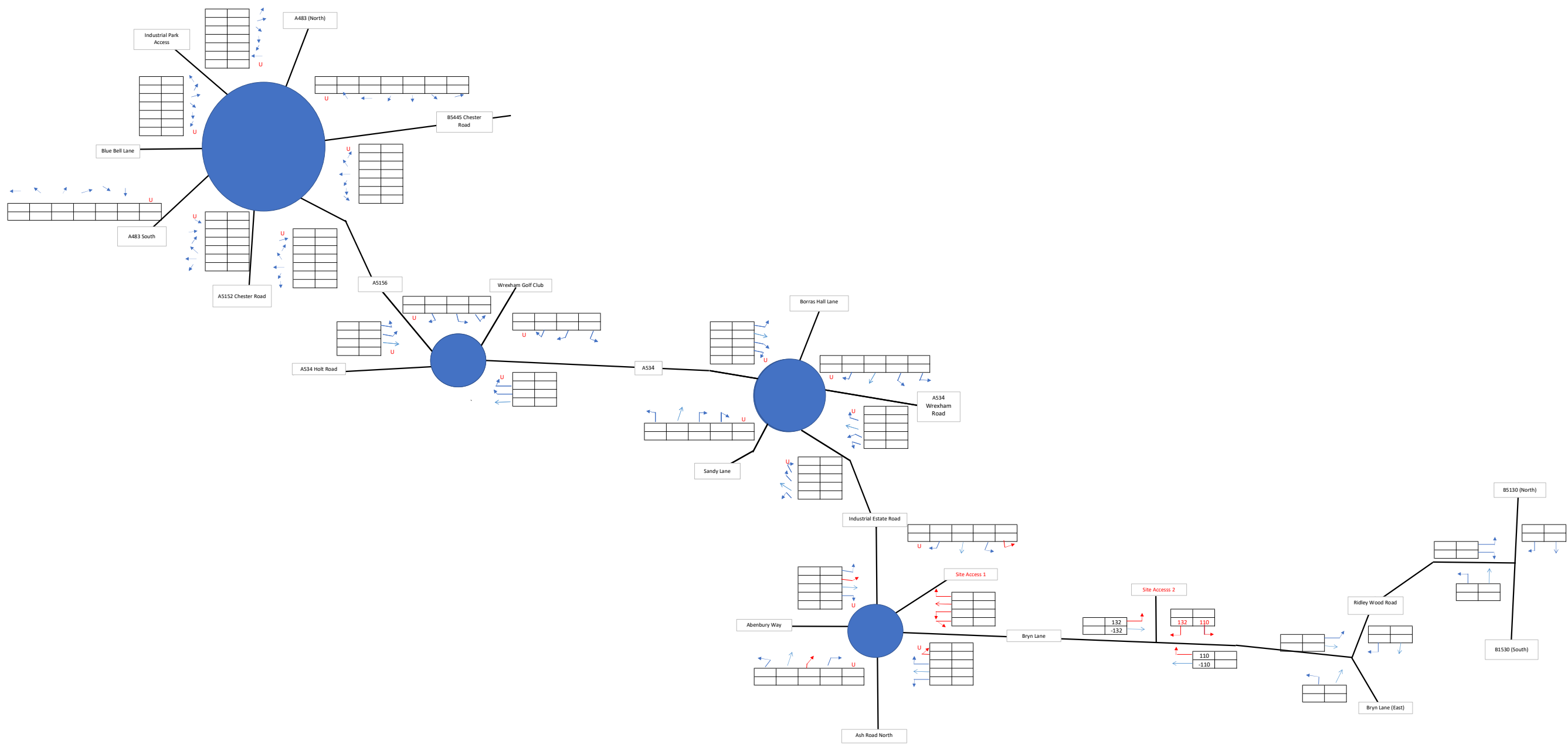


Figure 13 - Pass-By Trips (Local Centre, Drive-Thru & PFS)
PM Peak: 1630-1730

Notes: 278 Arrivals
279 Departures

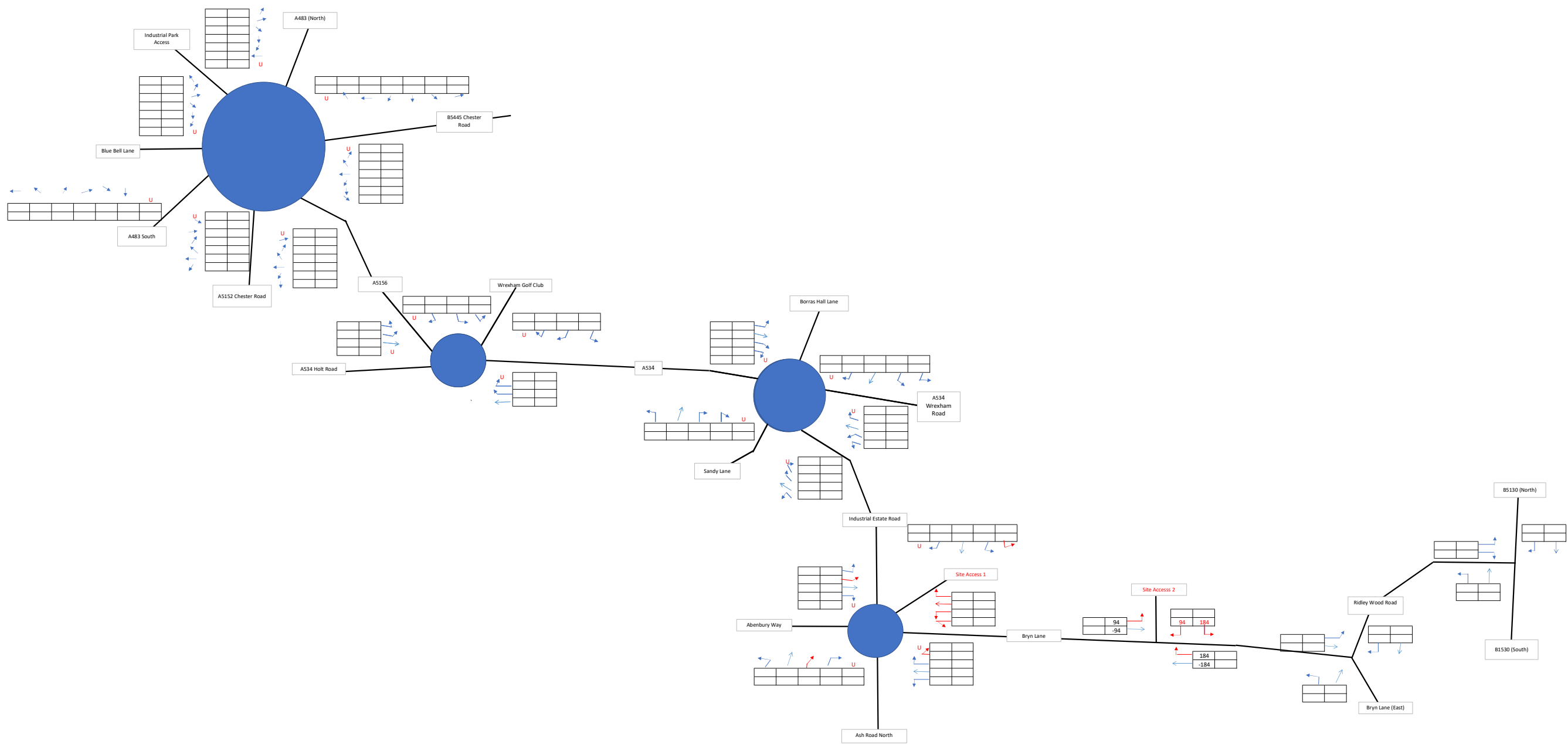


Figure 14 - Diverted Trips (Local Centre, Drive-Thru & PFS)
AM Peak: 0800-0900

Notes:

27	Arrivals
26	Departures

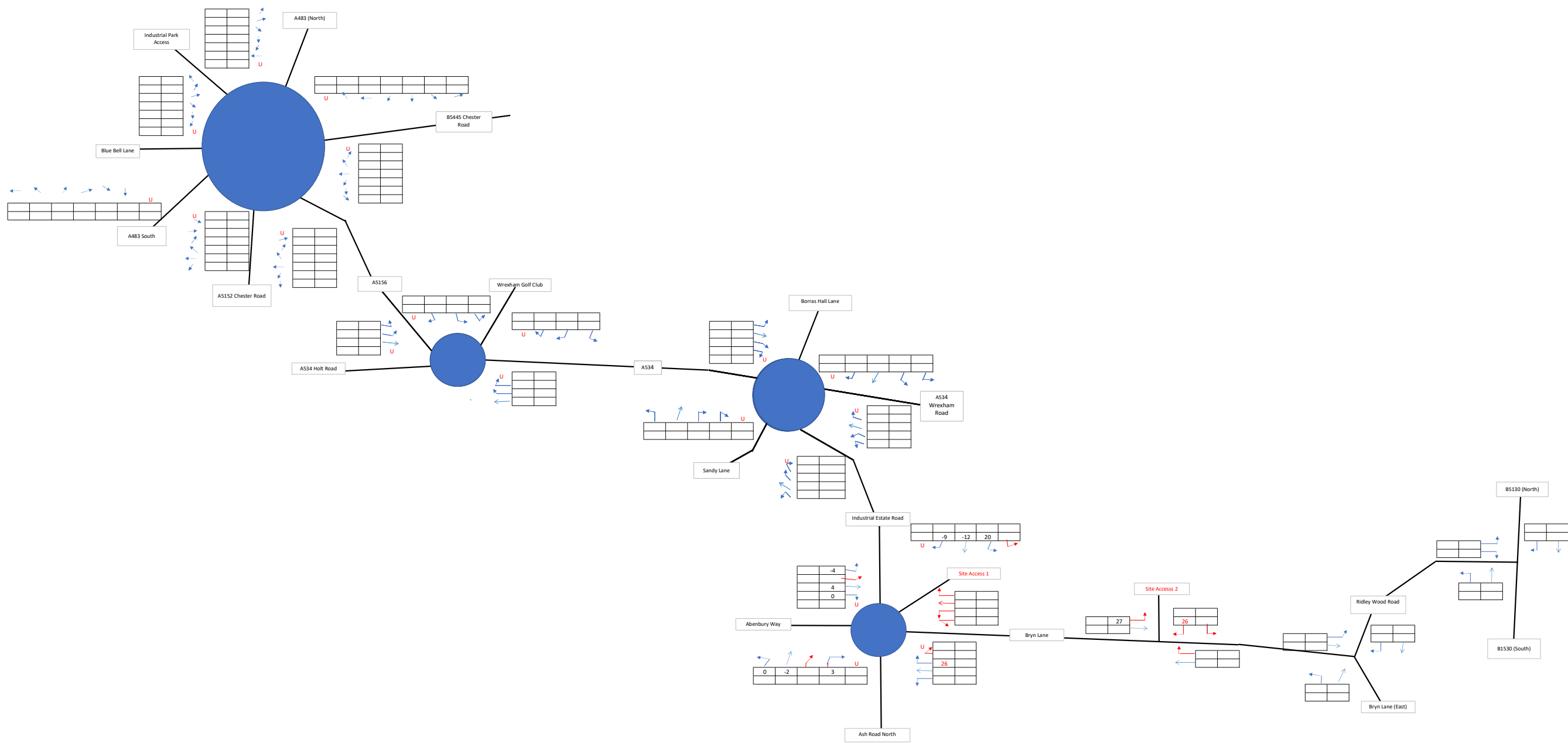
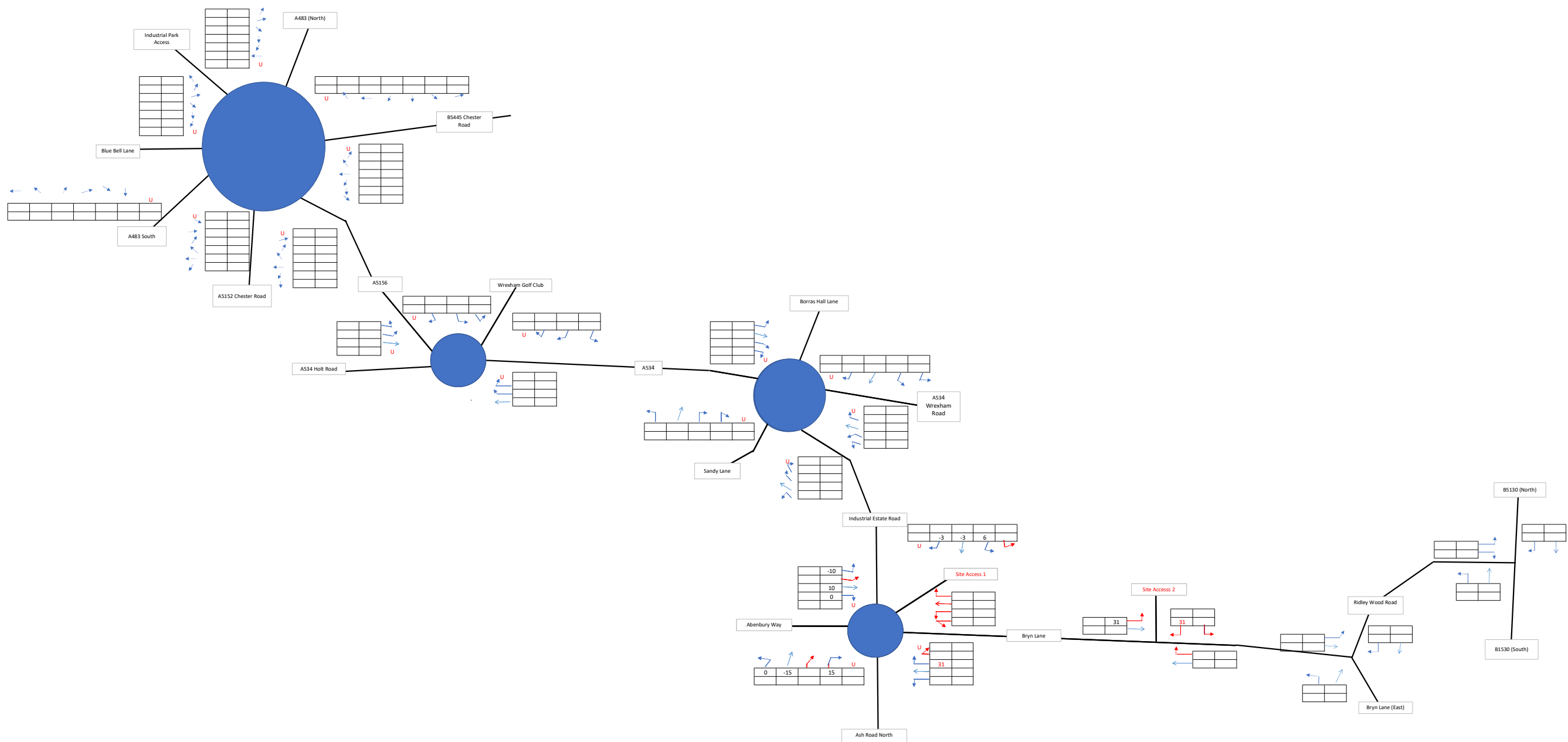


Figure 15 - Diverted Trips (Local Centre, Drive-Thru & PFS)
PM Peak: 1630-1730

Notes:

31	Arrivals
31	Departures



Notes:

123

 PCUs

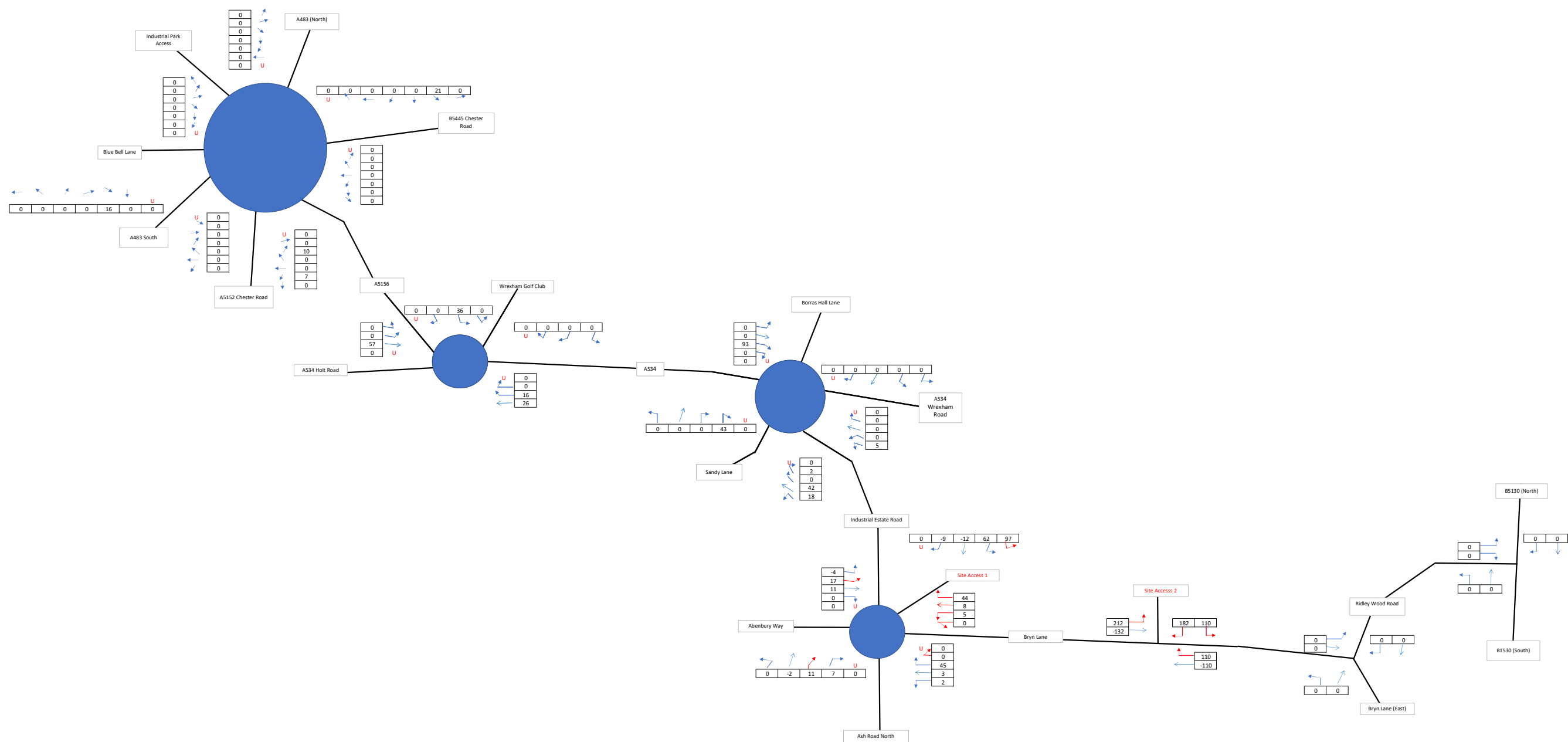


Figure 17 - Total Development Trips
PM Peak: 1630-1730

Notes:

-123

 PCUs

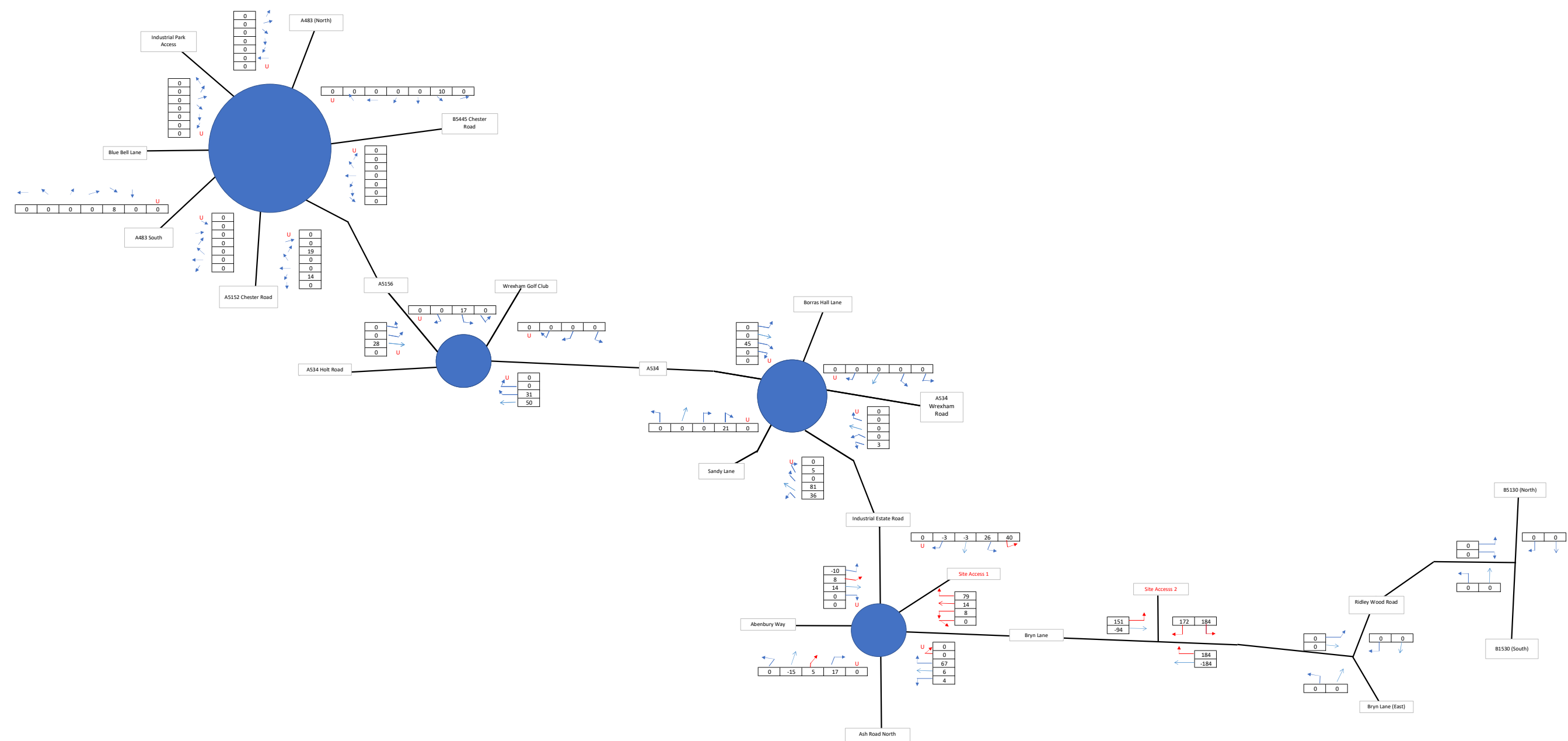


Figure 18 - Pacific Park Committed Traffic
AM Peak

Notes:

6	Arrivals
1	Departures

GFA 2567 sqm
Arr 0.228
Dep 0.028

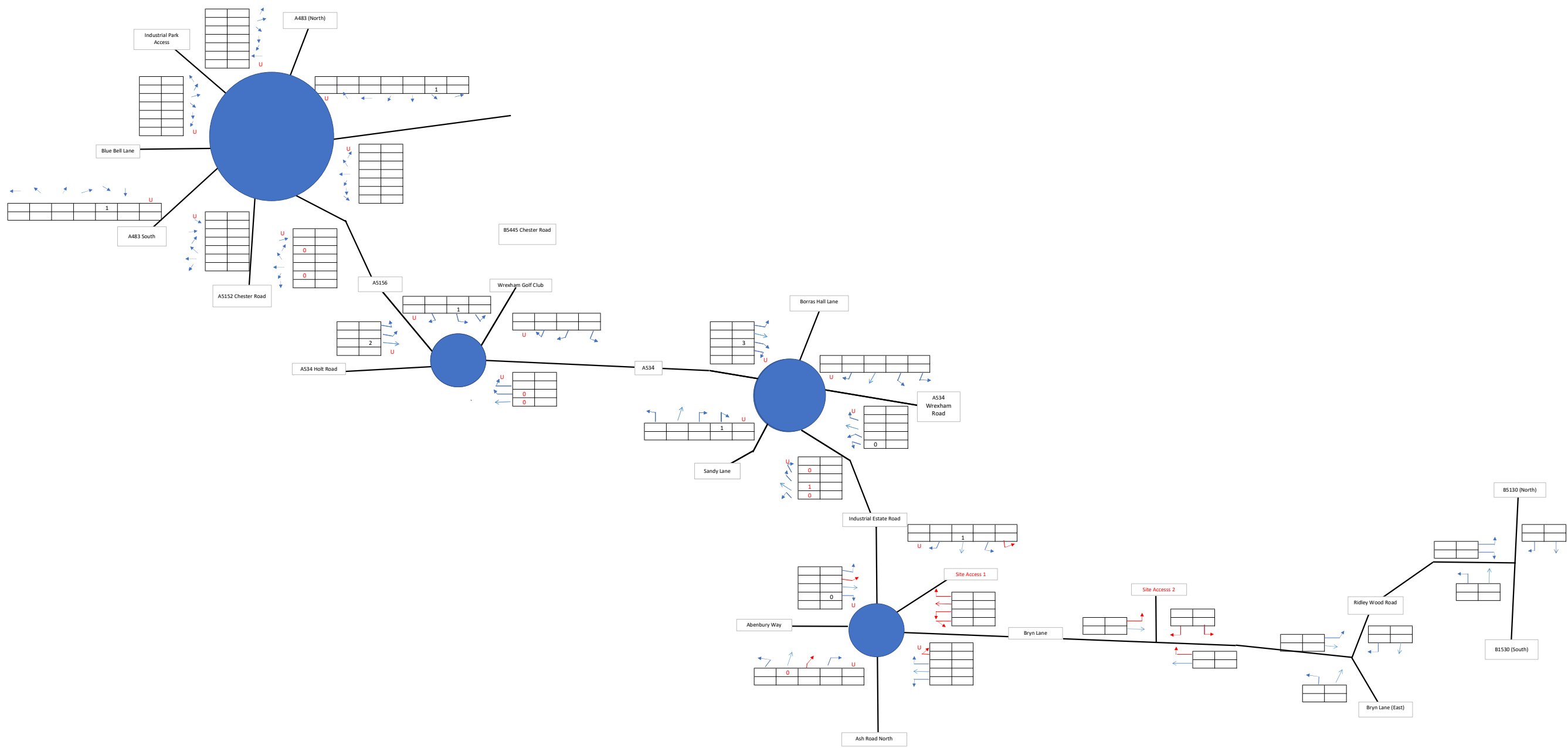


Figure 19 - Pacific Park Committed Traffic
PM Peak

Notes:

1	Arrivals
9	Departures

GFA 2567 sqm
Arr 0.039
Dep 0.361

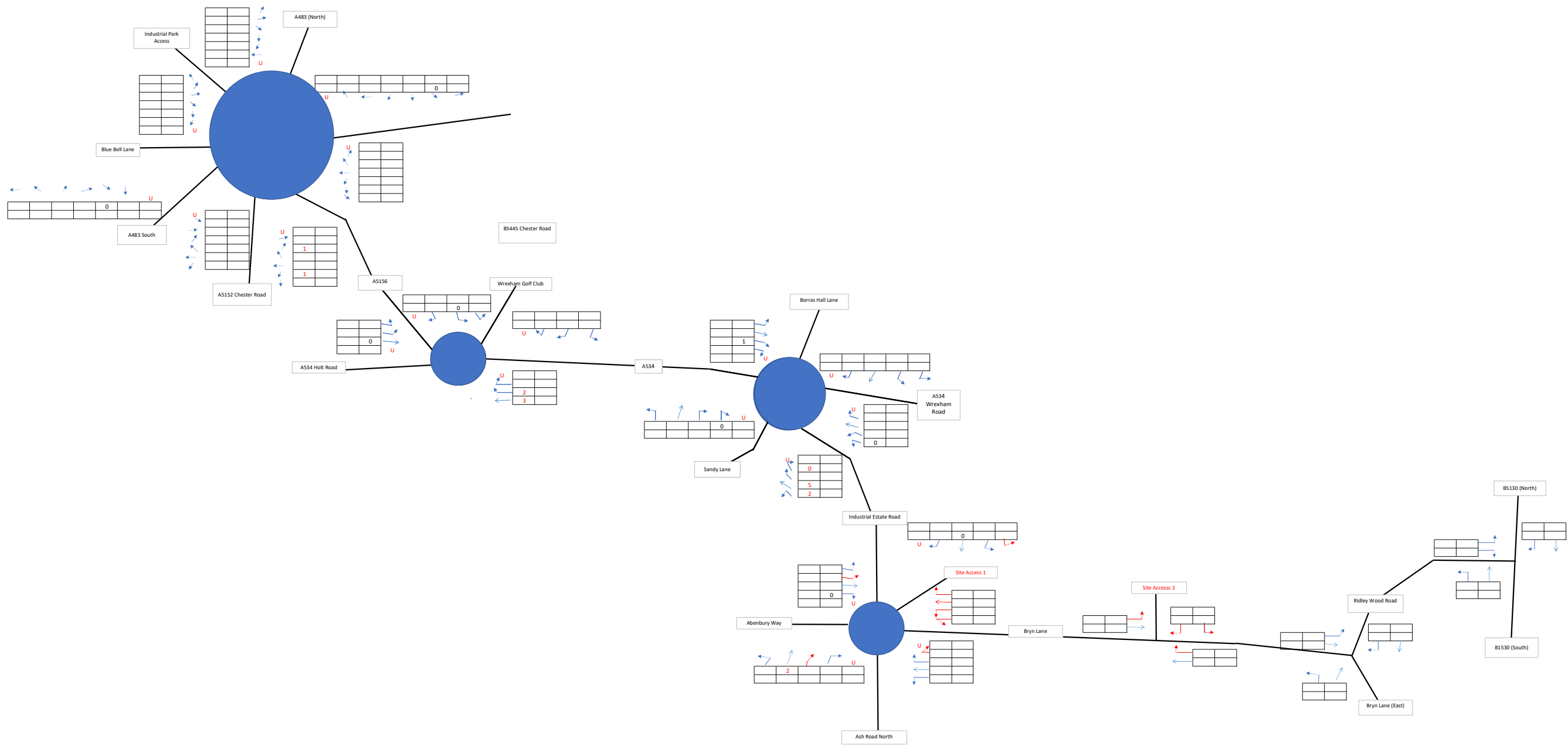


Figure 20 - Ash Road Committed Traffic
AM Peak

Notes:

6	Arrivals
1	Departures

GFA 2605 sqm
Arr 0.228
Dep 0.028

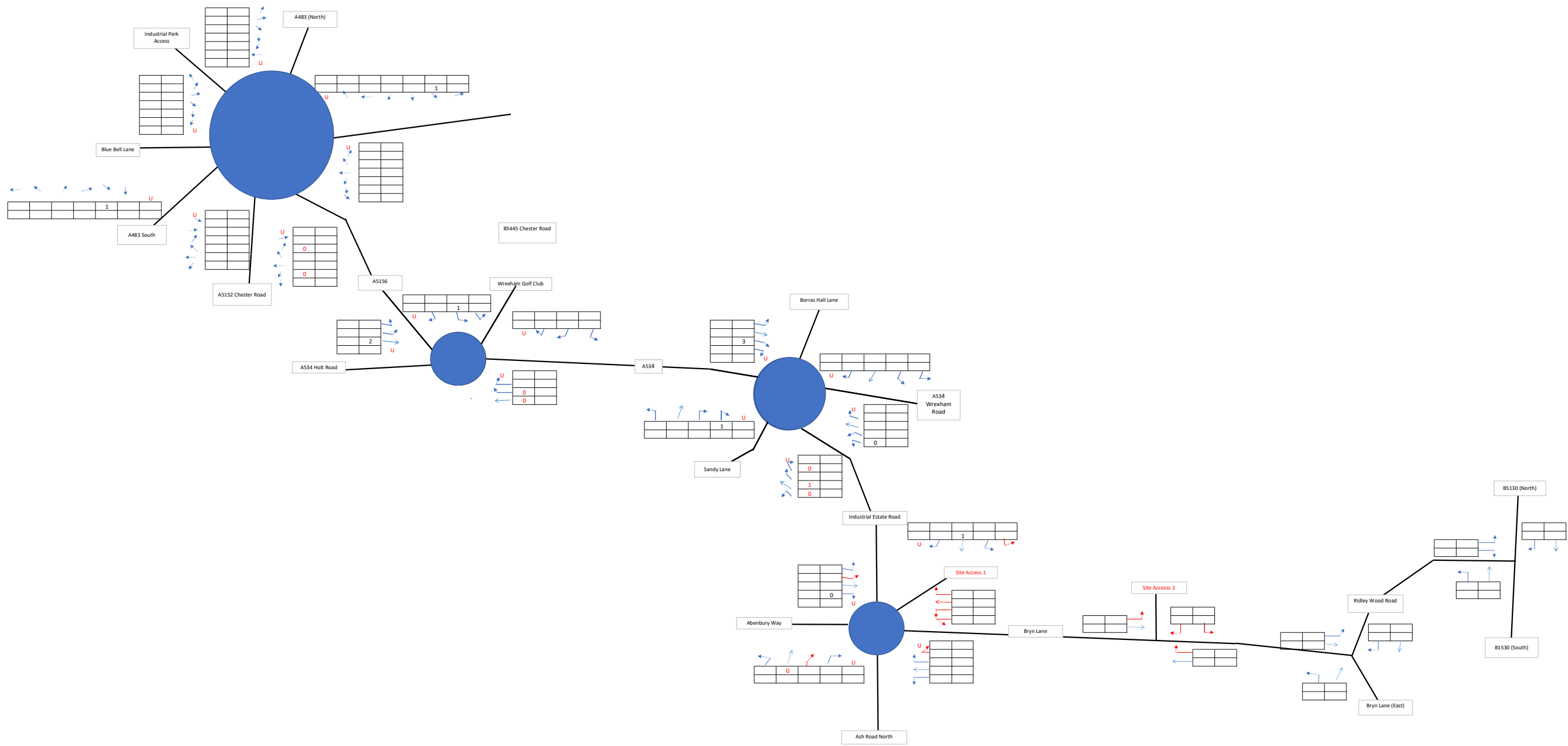


Figure 21 - Ash Road Committed Traffic
PM Peak

Notes:

1	Arrivals
9	Departures

GFA 2605 sqm
Arr 0.039
Dep 0.361

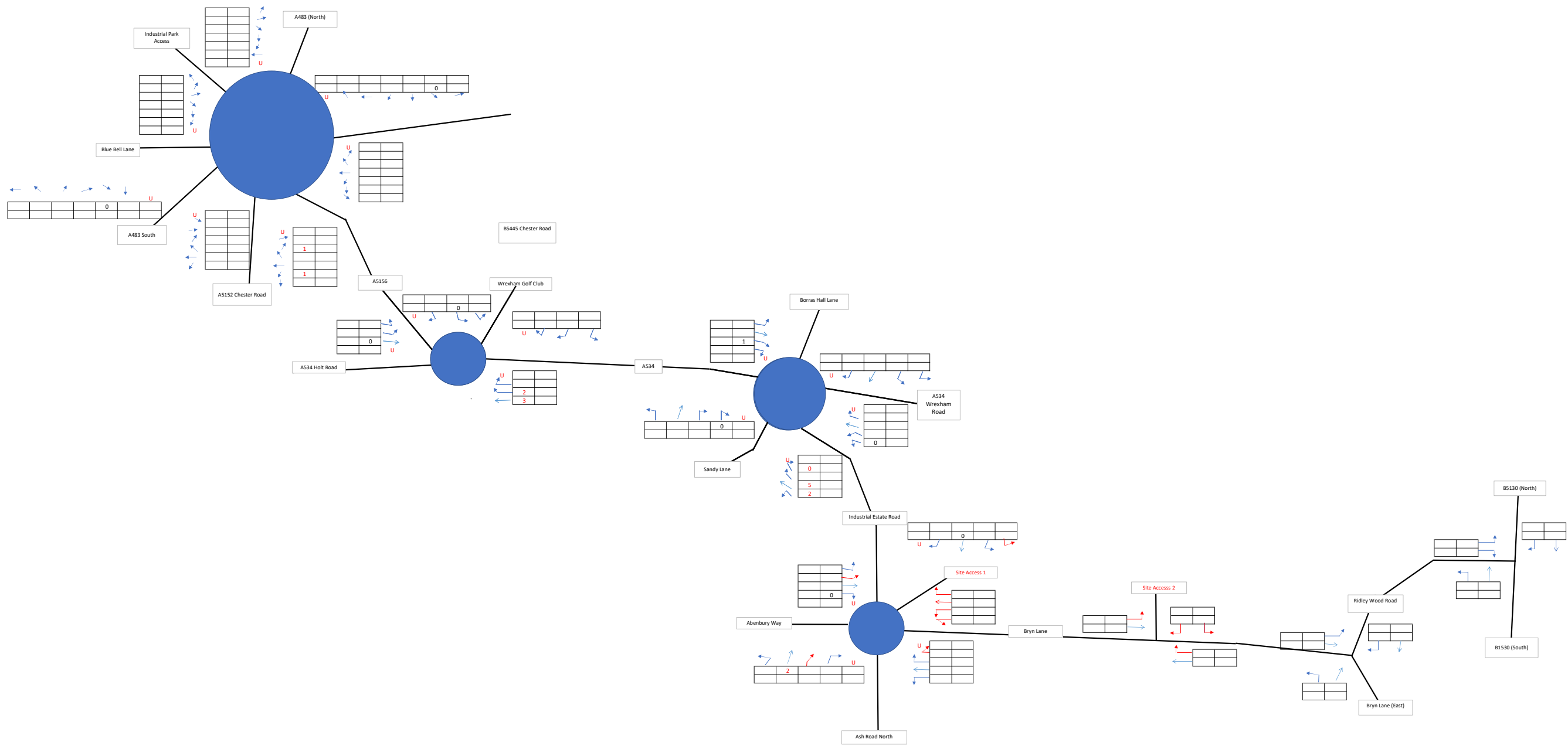


Figure 22 - KSS2 Development Traffic Distribution

Notes:

%	Arrivals
%	Departures

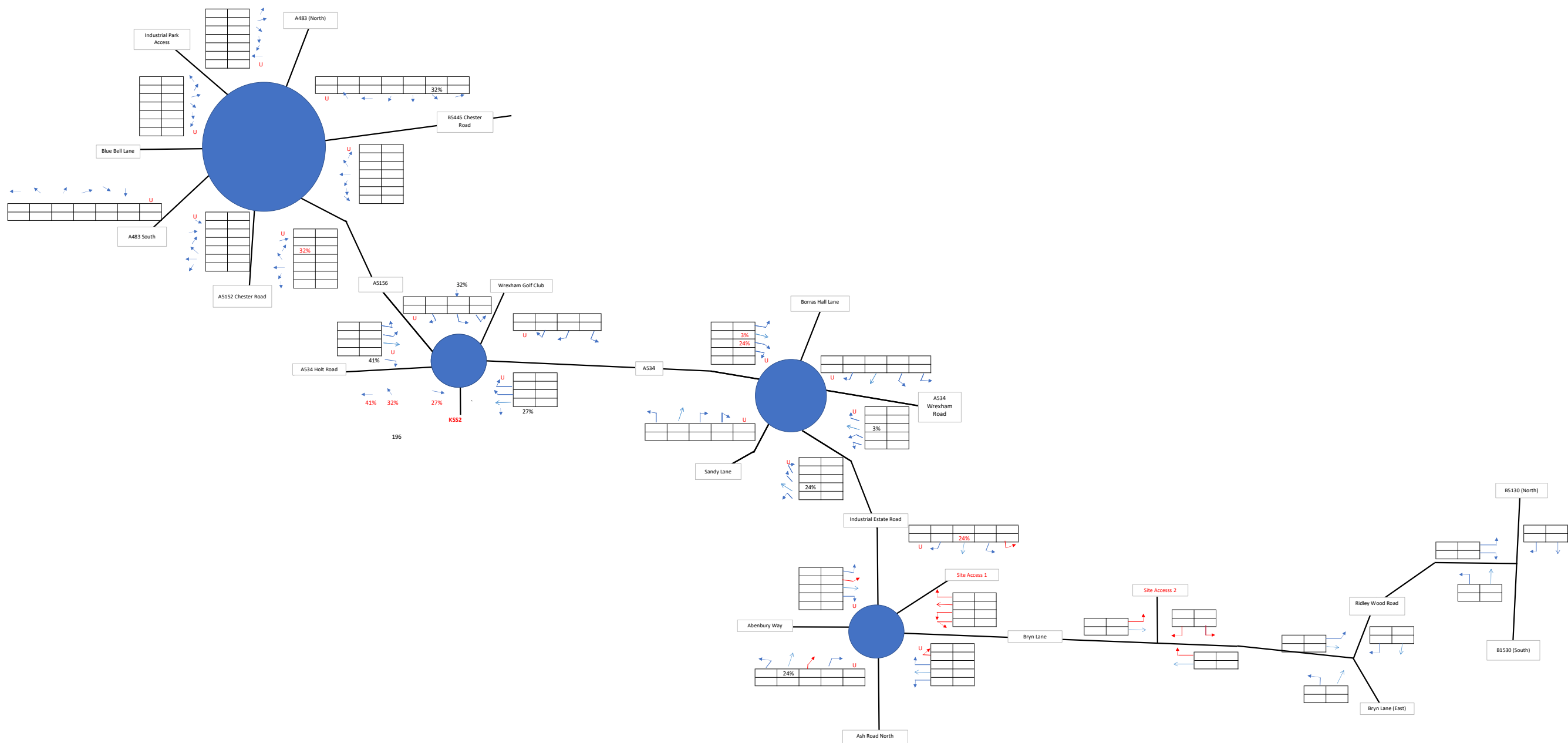


Figure 23 - KSS2 Development Trips
AM Peak

Notes: 237 Arrivals
626 Departures

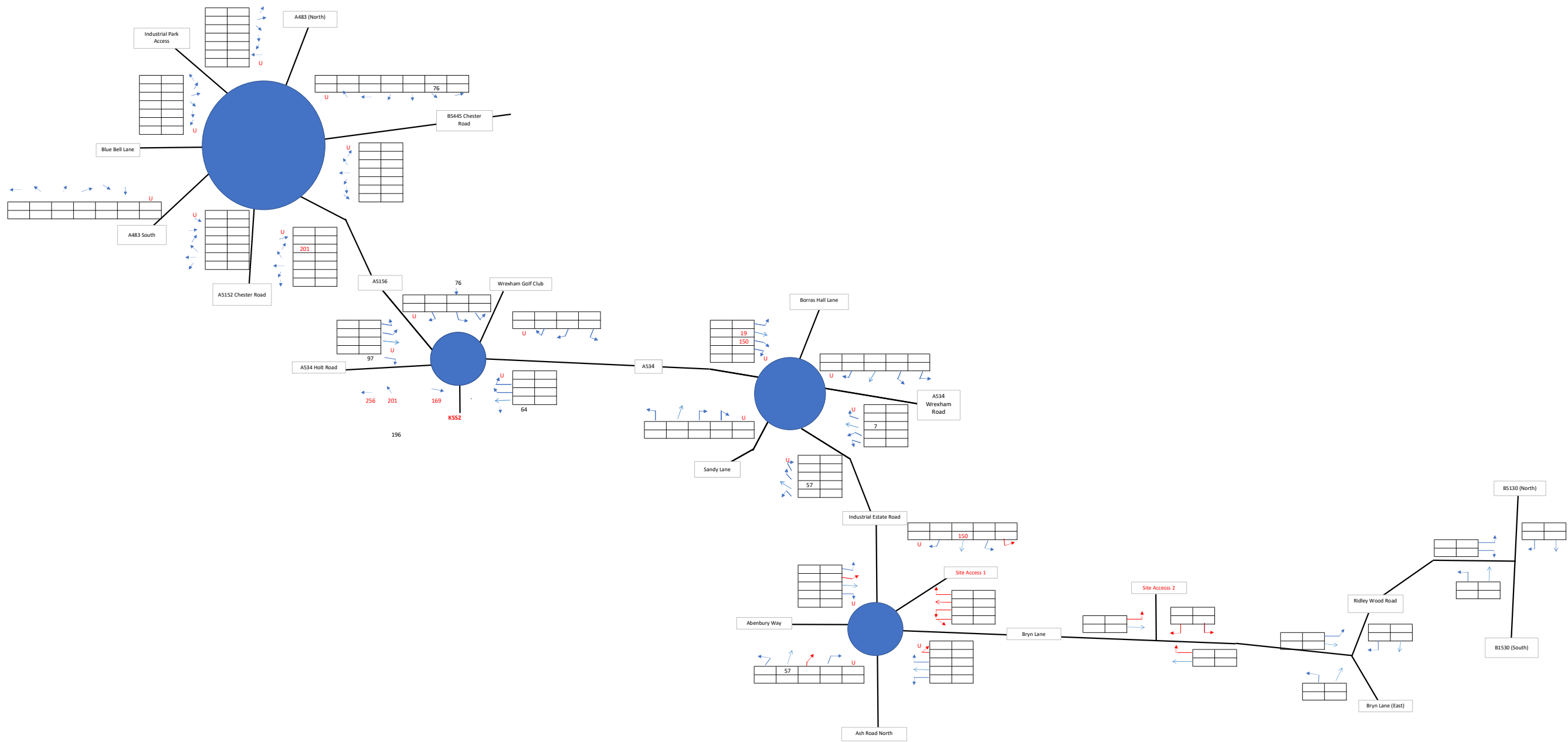


Figure 24 - KSS2 Development Trips
PM Peak

Notes: 547 Arrivals
301 Departures

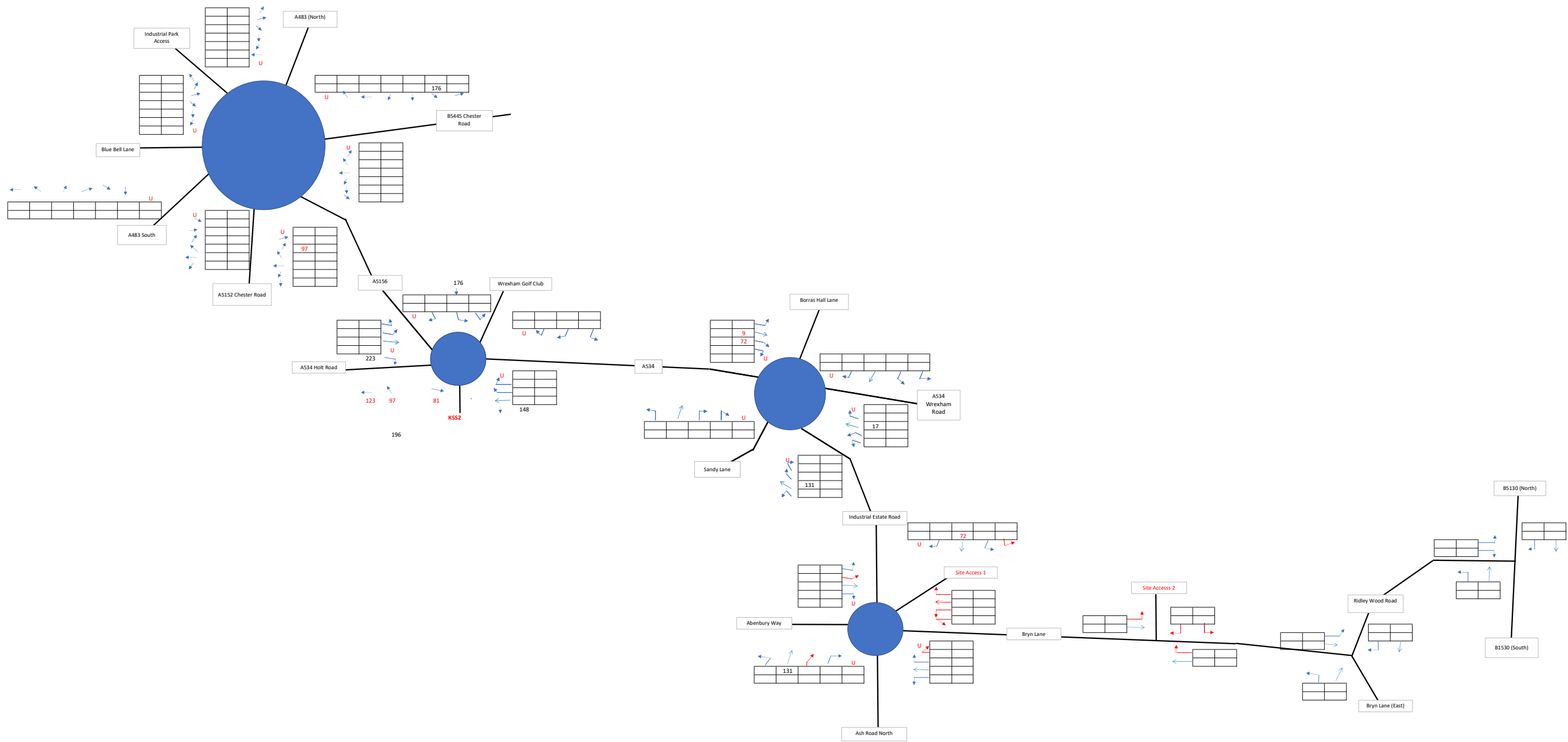


Figure 25 - 2030 Base + Committed
AM Peak: 0800-0900

Notes:

123

 PCUs

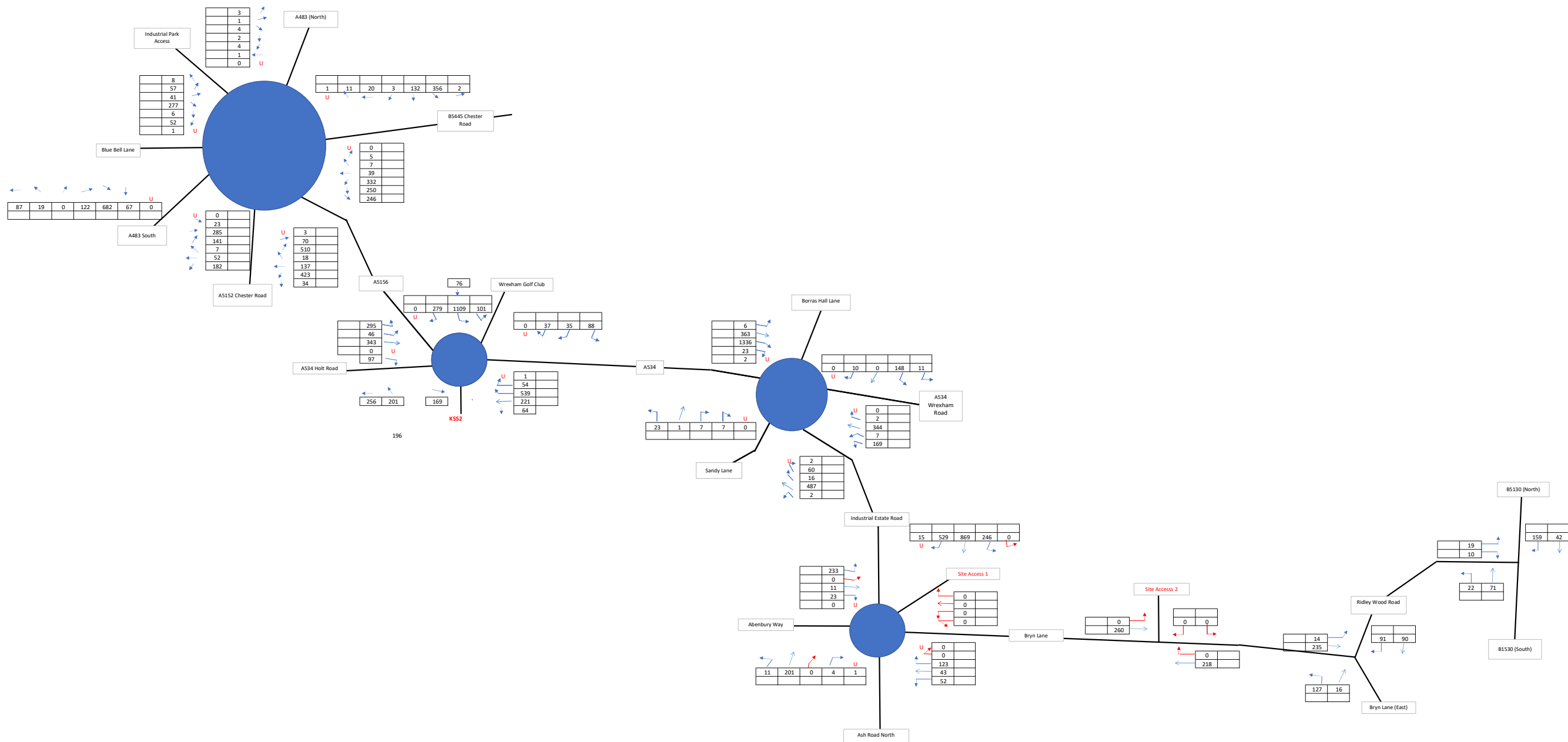


Figure 26 - 2030 Base + Committed
PM Peak: 1630-1730

Notes:

123

 PCUs

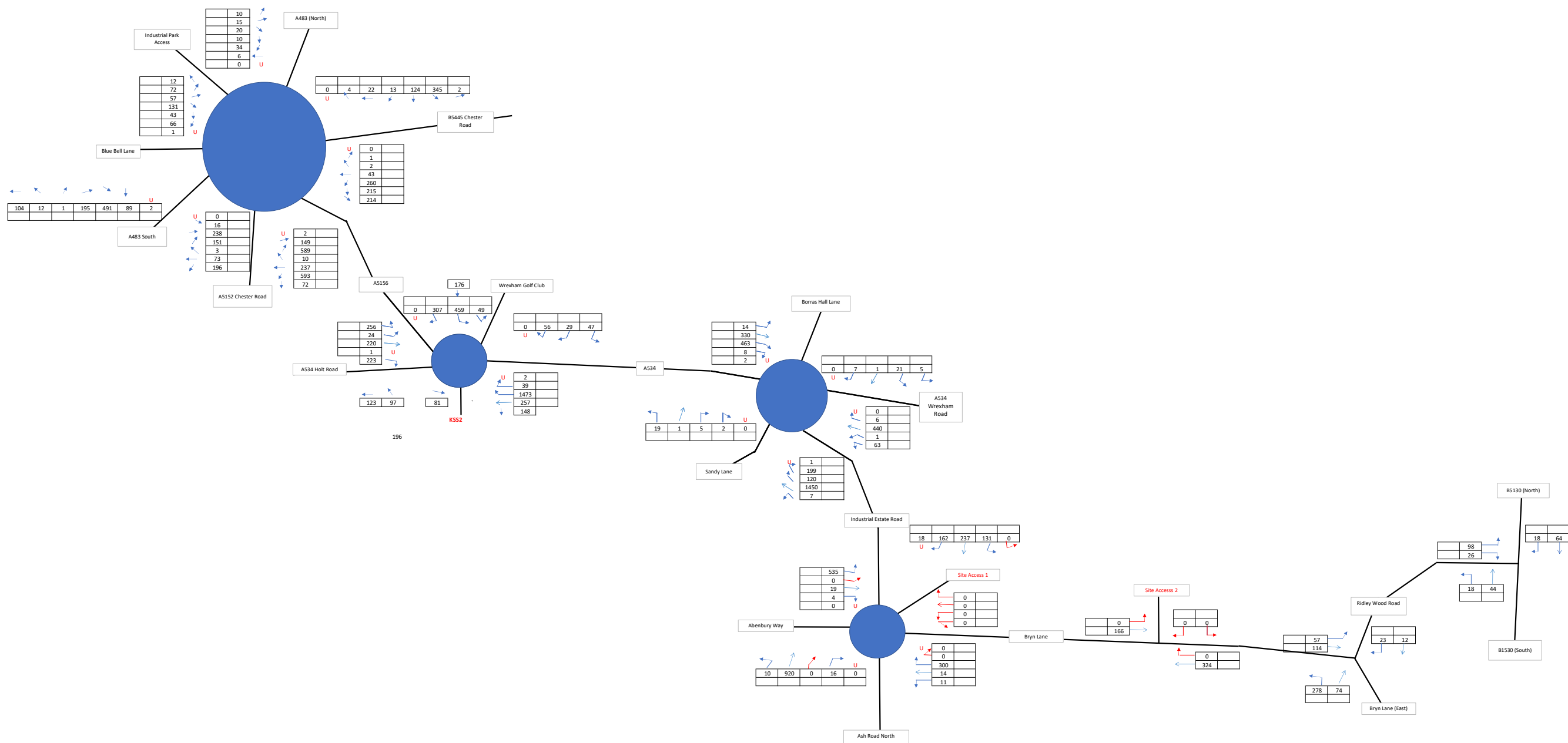


Figure 27 - 2030 Base + Development + Committed
AM Peak: 0800-0900

Notes:

123

 PCUs

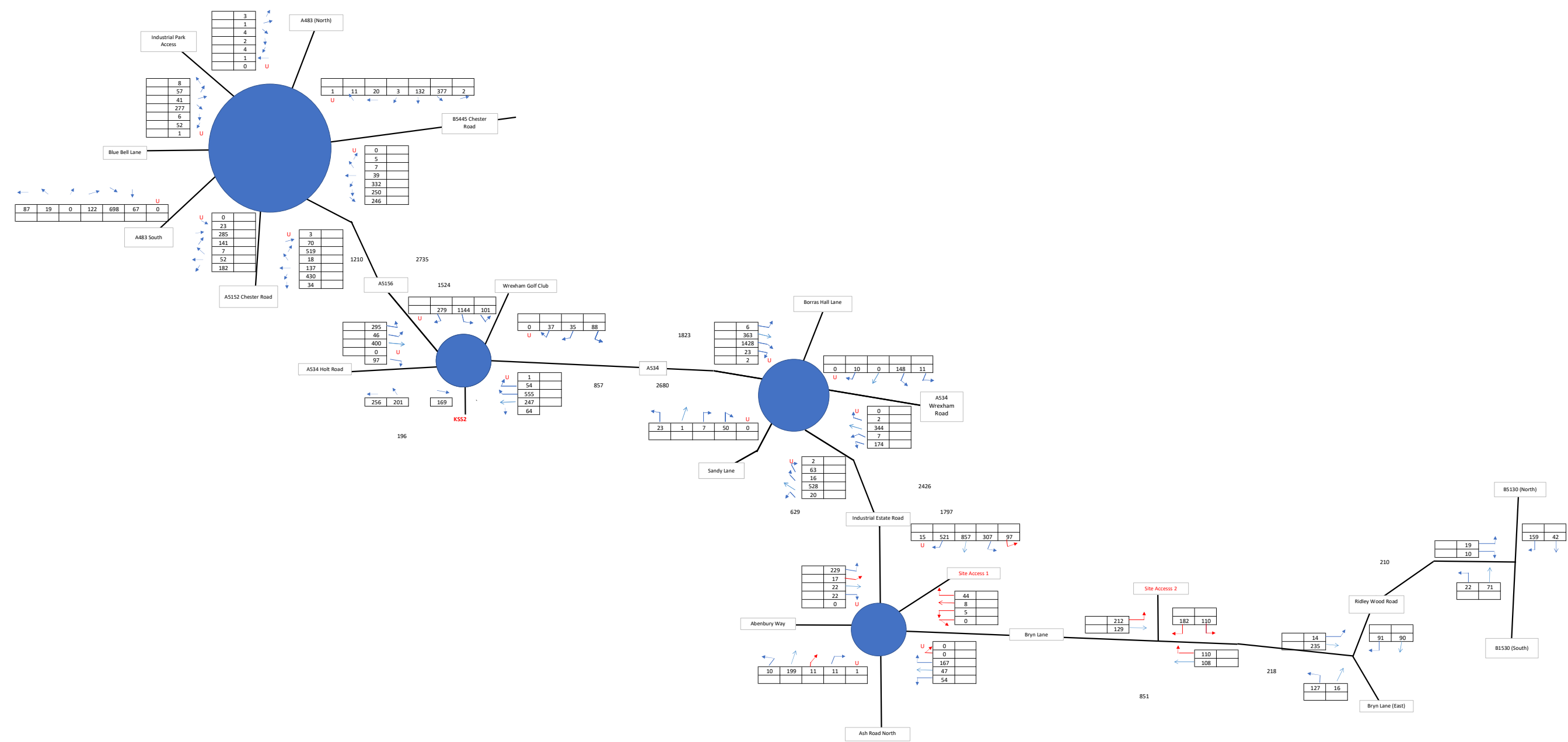


Figure 27A - 2030 Base + Development
AM Peak: 0800-0900

Notes:

123

 PCUs

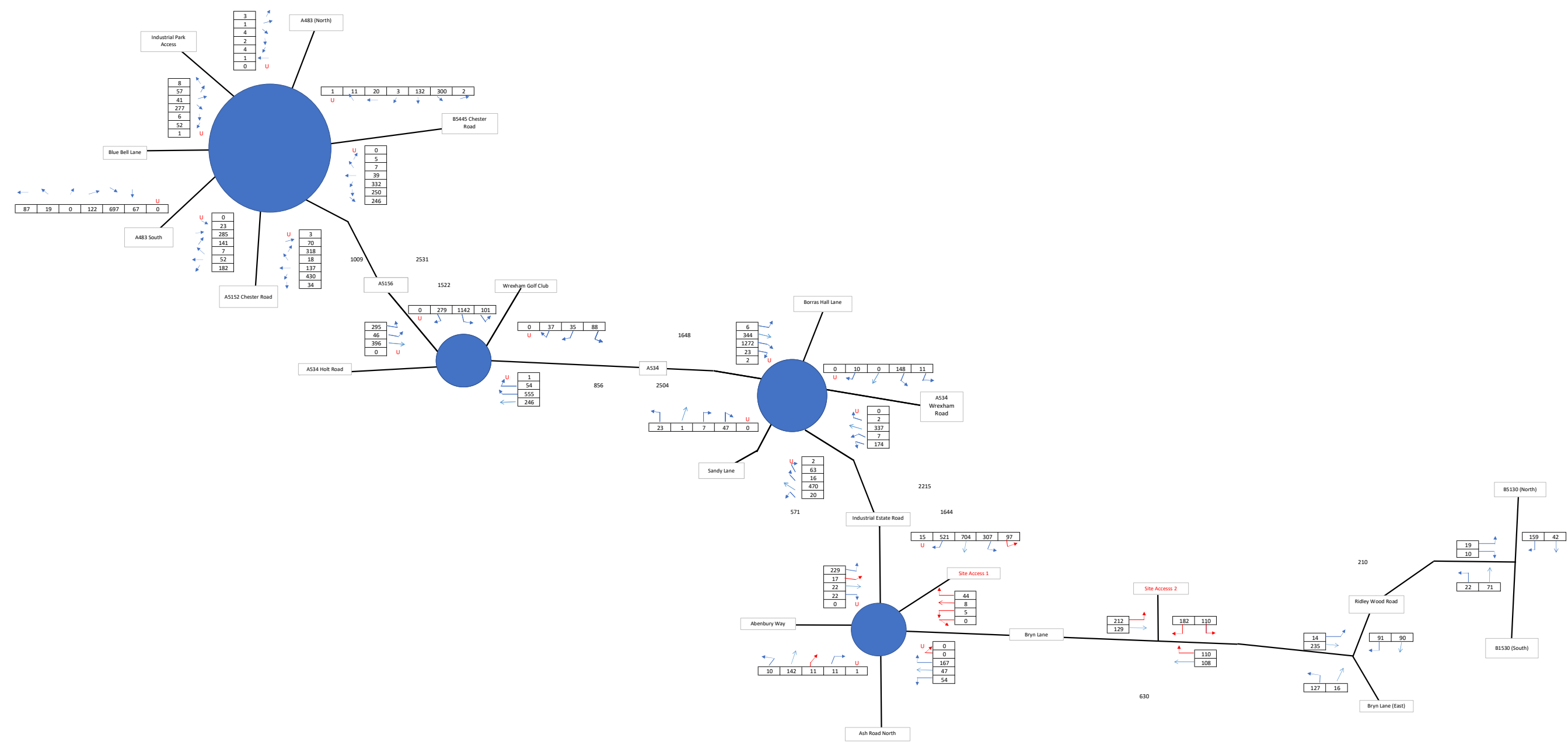


Figure 28 - 2030 Base + Development + Committed
PM Peak: 1630-1730

Notes:

123

 PCUs

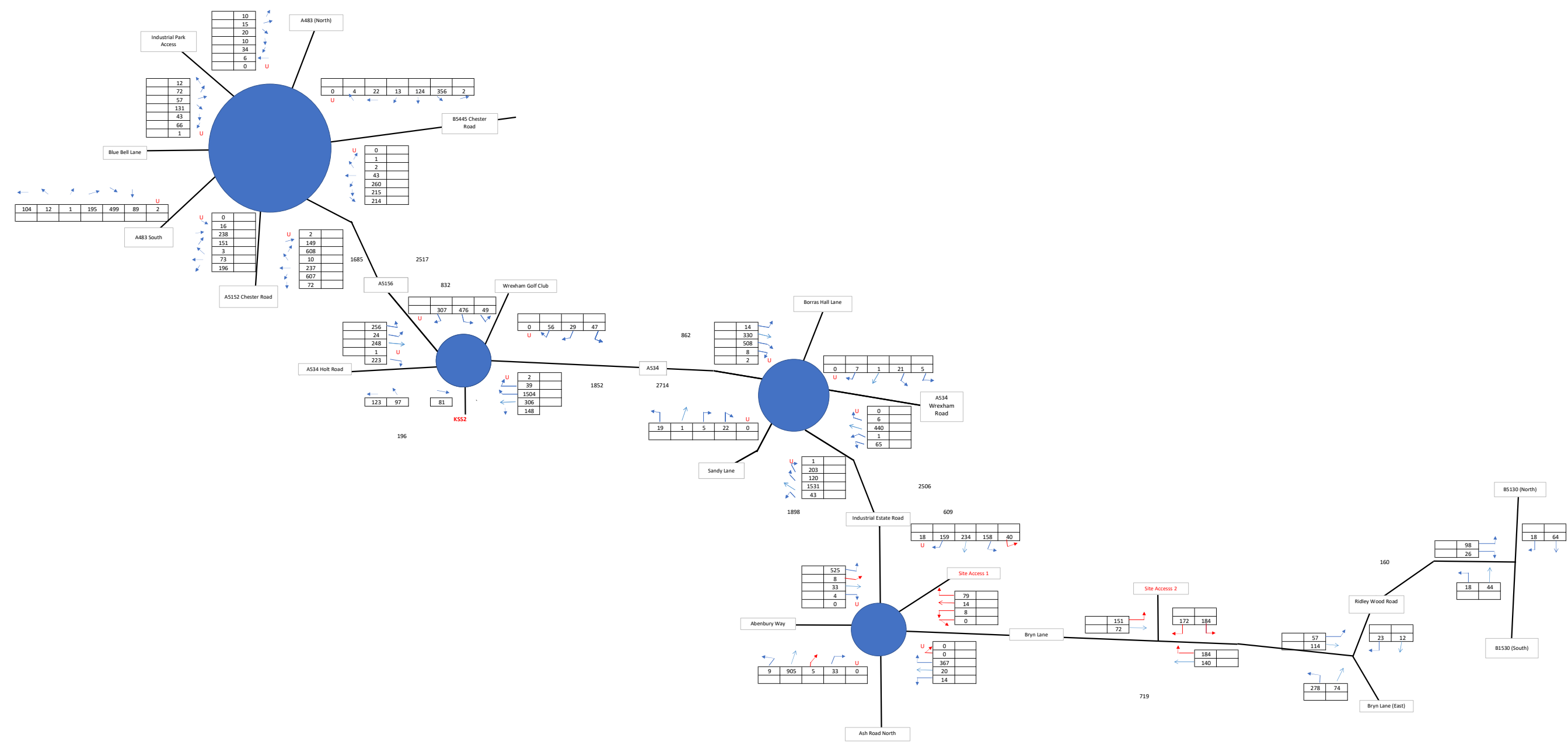


Figure 28A - 2030 Base + Development
PM Peak: 1630-1730

Notes:

123

 PCUs

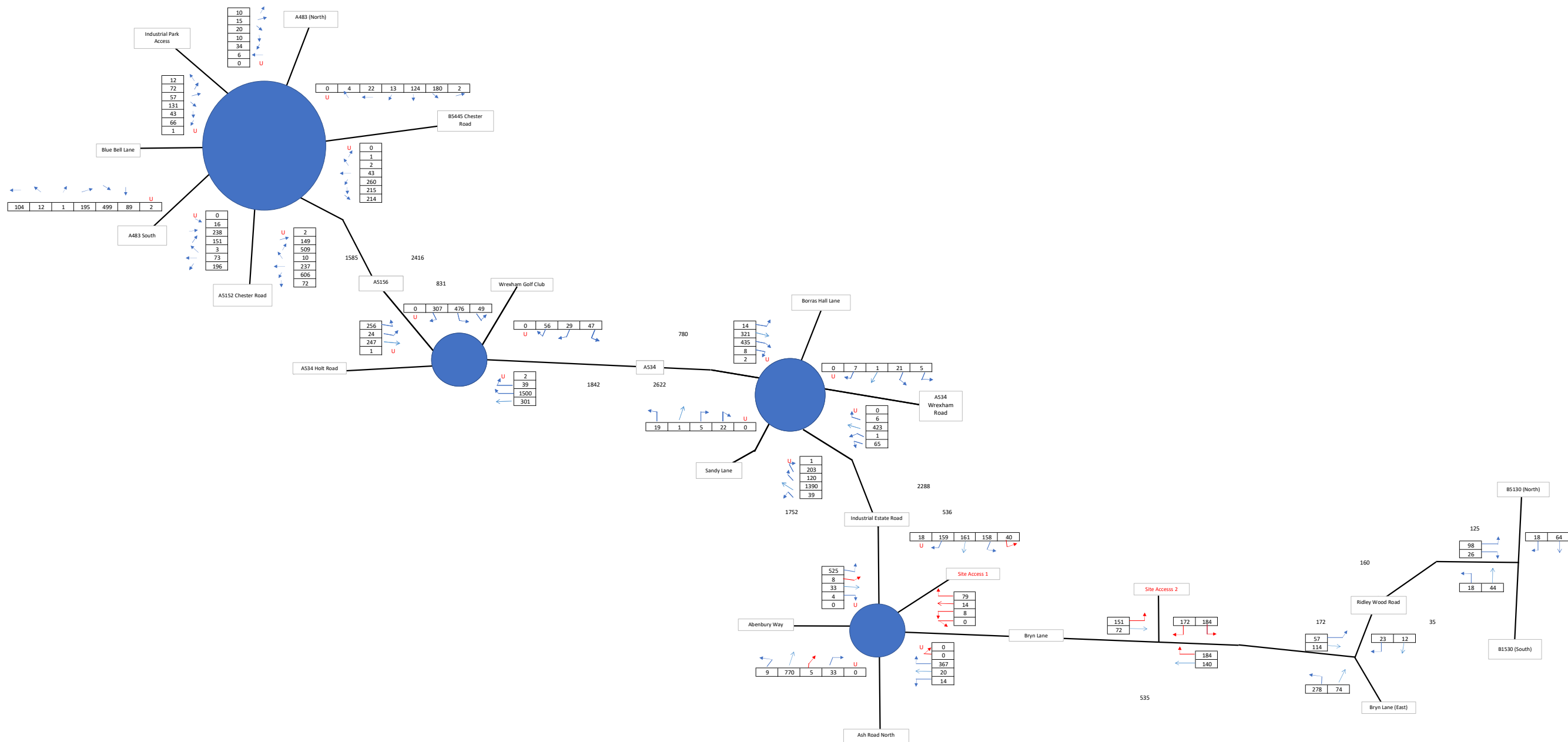


Figure 29 - 2030 Development Impact
AM Peak: 0800-0900

Notes: % Development Impact on Junction

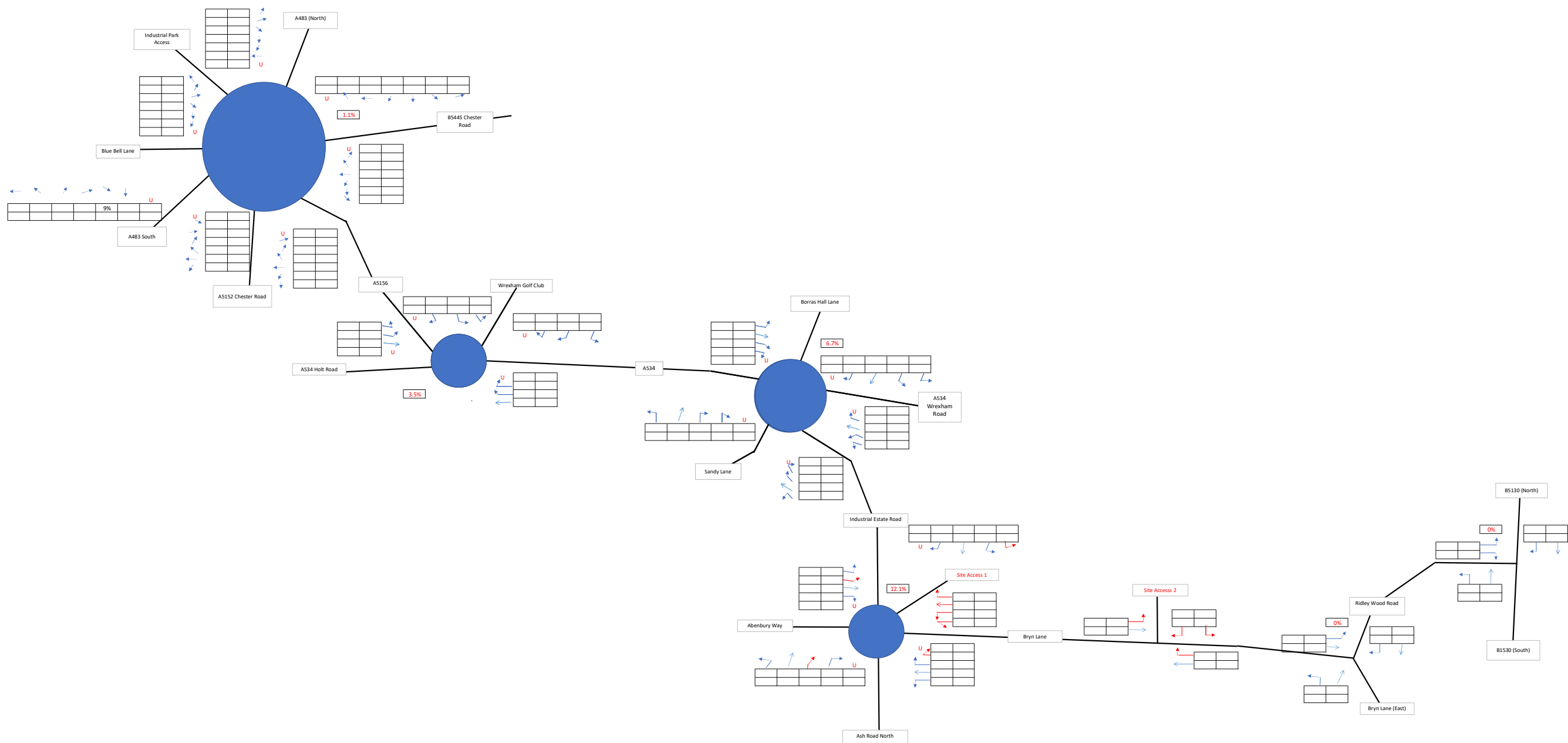


Figure 30 - 2030 Development Impact
PM Peak: 1630-1730

Notes: % Development Impact on Junction

