

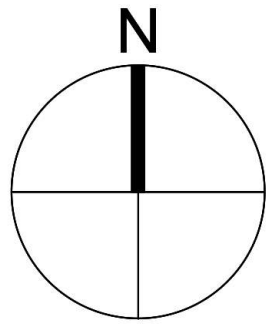
Gatewen Road
Residential Scheme

Transport Assessment
Appendices

June 2018

Appendix A

Proposed Site Layout / Masterplan



GENERAL NOTES:

DAY Architectural Ltd accepts no responsibility for any costs, losses or claims whatsoever arising from these drawings, specifications and related documents unless there is full compliance with the Client or any unauthorised user of the following:

1.

All boundaries, dimensions and levels are to be checked on site before construction and any discrepancies reported to the Architect / Designer.

2.

Partial Service: Any discrepancies with site or other information is to be advised to the Architect / Designer and direction and / or approval is to be sought before the implementation of the detail.

3.

Block and site plans are reproduced under license from the Ordnance Survey.

4.

Do not scale this drawing.

5.

For the purpose of coordination, all relevant parties must check this information prior to implementation and report any discrepancies to the Architect / Designer.

DRAWING NOTES:

A

Amendment of layout

11.06.2018

STATUS

REVISION

DATE

CLIENT

Wrexham Glyndwr University

PROJECT

Campus 2025

DRAWING

Gatewen Road - Proposed Masterplan

SCALE

1:1000

PAPER SIZE

A1

DATE

June 2018

DRAWN BY

LB

DRAWING No.

AL-00-001

REVISION

A

PROJECT No.

531-17-5

DRAWING STATUS

PLANNING

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Appendix B

Proposed Access Layouts

Appendix C

TRICS

Calculation Reference: AUDIT-743001-180514-0503

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	KC KENT	2 days
03	SOUTH WEST	
	DV DEVON	1 days
	SM SOMERSET	1 days
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	2 days
10	WALES	
	VG VALE OF GLAMORGAN	1 days
11	SCOTLAND	
	AG ANGUS	1 days
	HI HIGHLAND	1 days
	PK PERTH & KINROSS	1 days

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

Secondary 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 dwellings
Actual Range: 7 to 363 (units:)
Range Selected by User: 5 to 4334 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 27/11/17

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	5 days
Tuesday	3 days
Wednesday	4 days
Thursday	4 days

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

Selected survey types:

Manual count	16 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)	10
Edge of Town	6

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	15
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C3 16 days

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

Population within 1 mile:

10,001 to 15,000	4 days
15,001 to 20,000	7 days
20,001 to 25,000	3 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	3 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	6 days

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

Car ownership within 5 miles:

1.1 to 1.5 16 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 16 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

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

LIST OF SITES relevant to selection parameters

1	AG-03-A-01	BUNGALOWS/DET.	ANGUS
	KEPTIE ROAD		
	ARBROATH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	7	
	Survey date: TUESDAY	22/05/12	Survey Type: MANUAL
2	CA-03-A-05	DETACHED HOUSES	CAMBRIDGESHIRE
	EASTFIELD ROAD		
	PETERBOROUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	28	
	Survey date: MONDAY	17/10/16	Survey Type: MANUAL
3	CH-03-A-08	DETACHED	CHESHIRE
	WHITCHURCH ROAD		
	BOUGHTON HEATH		
	CHESTER		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	11	
	Survey date: TUESDAY	22/05/12	Survey Type: MANUAL
4	CH-03-A-09	TERRACED HOUSES	CHESHIRE
	GREYSTOKE ROAD		
	HURDSFIELD		
	MACCLESFIELD		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	24	
	Survey date: MONDAY	24/11/14	Survey Type: MANUAL
5	DV-03-A-01	TERRACED HOUSES	DEVON
	BRONSHILL ROAD		
	TORQUAY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	37	
	Survey date: WEDNESDAY	30/09/15	Survey Type: MANUAL
6	ES-03-A-03	MIXED HOUSES & FLATS	EAST SUSSEX
	SHEPHAM LANE		
	POLEGATE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	212	
	Survey date: MONDAY	11/07/16	Survey Type: MANUAL
7	HI-03-A-14	SEMI-DETACHED & TERRACED	HIGHLAND
	KING BRUDE ROAD		
	SCORGUIE		
	INVERNESS		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	40	
	Survey date: WEDNESDAY	23/03/16	Survey Type: MANUAL
8	KC-03-A-03	MIXED HOUSES & FLATS	KENT
	HYTHE ROAD		
	WILLESBOROUGH		
	ASHFORD		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	51	
	Survey date: THURSDAY	14/07/16	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	KC-03-A-06	MIXED HOUSES & FLATS	KENT
	MARGATE ROAD		
	HERNE BAY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	363	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
10	NF-03-A-02	HOUSES & FLATS	NORFOLK
	DEREHAM ROAD		
	NORWICH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	98	
	Survey date: MONDAY	22/10/12	Survey Type: MANUAL
11	NY-03-A-10	HOUSES AND FLATS	NORTH YORKSHIRE
	BOROUGHBRIDGE ROAD		
	RIPON		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	71	
	Survey date: TUESDAY	17/09/13	Survey Type: MANUAL
12	PK-03-A-01	DETAC. & BUNGALOWS	PERTH & KINROSS
	TULLYLUMB TERRACE		
	GORNHILL		
	PERTH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	36	
	Survey date: WEDNESDAY	11/05/11	Survey Type: MANUAL
13	SH-03-A-06	BUNGALOWS	SHROPSHIRE
	ELLESMERE ROAD		
	SHREWSBURY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	16	
	Survey date: THURSDAY	22/05/14	Survey Type: MANUAL
14	SM-03-A-01	DETACHED & SEMI	SOMERSET
	WEMBDON ROAD		
	NORTHFIELD		
	BRIDGWATER		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	33	
	Survey date: THURSDAY	24/09/15	Survey Type: MANUAL
15	VG-03-A-01	SEMI-DETACHED & TERRACED	VALE OF GLAMORGAN
	ARTHUR STREET		
	BARRY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	12	
	Survey date: MONDAY	08/05/17	Survey Type: MANUAL
16	WL-03-A-02	SEMI DETACHED	WILTSHIRE
	HEADLANDS GROVE		
	SWINDON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	27	
	Survey date: THURSDAY	22/09/16	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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	16	67	0.081	16	67	0.302	16	67	0.383
08:00 - 09:00	16	67	0.167	16	67	0.435	16	67	0.602
09:00 - 10:00	16	67	0.141	16	67	0.170	16	67	0.311
10:00 - 11:00	16	67	0.126	16	67	0.155	16	67	0.281
11:00 - 12:00	16	67	0.156	16	67	0.163	16	67	0.319
12:00 - 13:00	16	67	0.158	16	67	0.172	16	67	0.330
13:00 - 14:00	16	67	0.180	16	67	0.191	16	67	0.371
14:00 - 15:00	16	67	0.185	16	67	0.200	16	67	0.385
15:00 - 16:00	16	67	0.250	16	67	0.183	16	67	0.433
16:00 - 17:00	16	67	0.335	16	67	0.212	16	67	0.547
17:00 - 18:00	16	67	0.402	16	67	0.219	16	67	0.621
18:00 - 19:00	16	67	0.327	16	67	0.214	16	67	0.541
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	2.508			2.616			5.124		

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 - 363 (units:)
Survey date date range:	01/01/10 - 27/11/17
Number of weekdays (Monday-Friday):	16
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 D

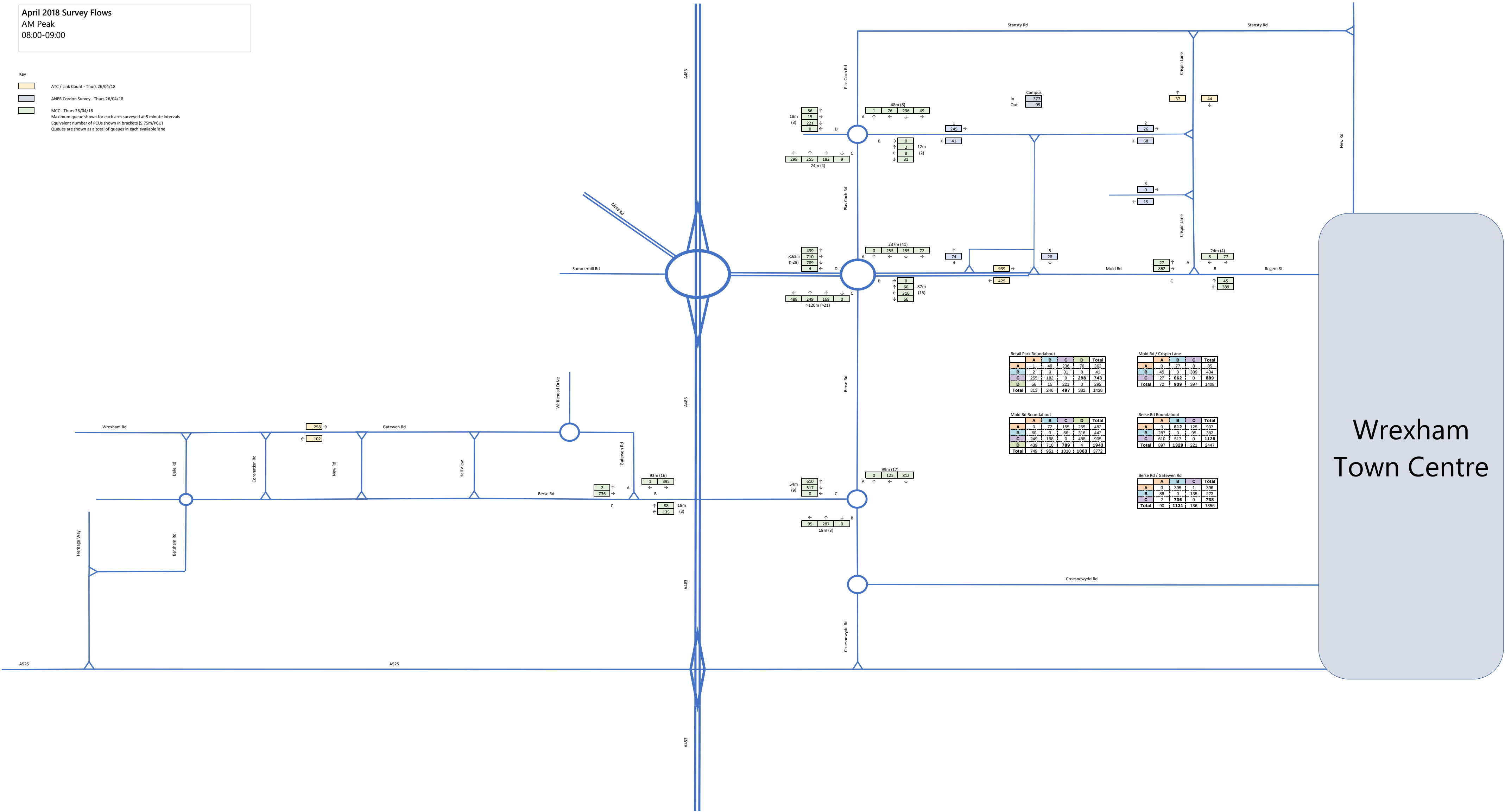
Census Data and Flow Diagrams

April 2018 Survey Flows
AM Peak
08:00-09:00

Key

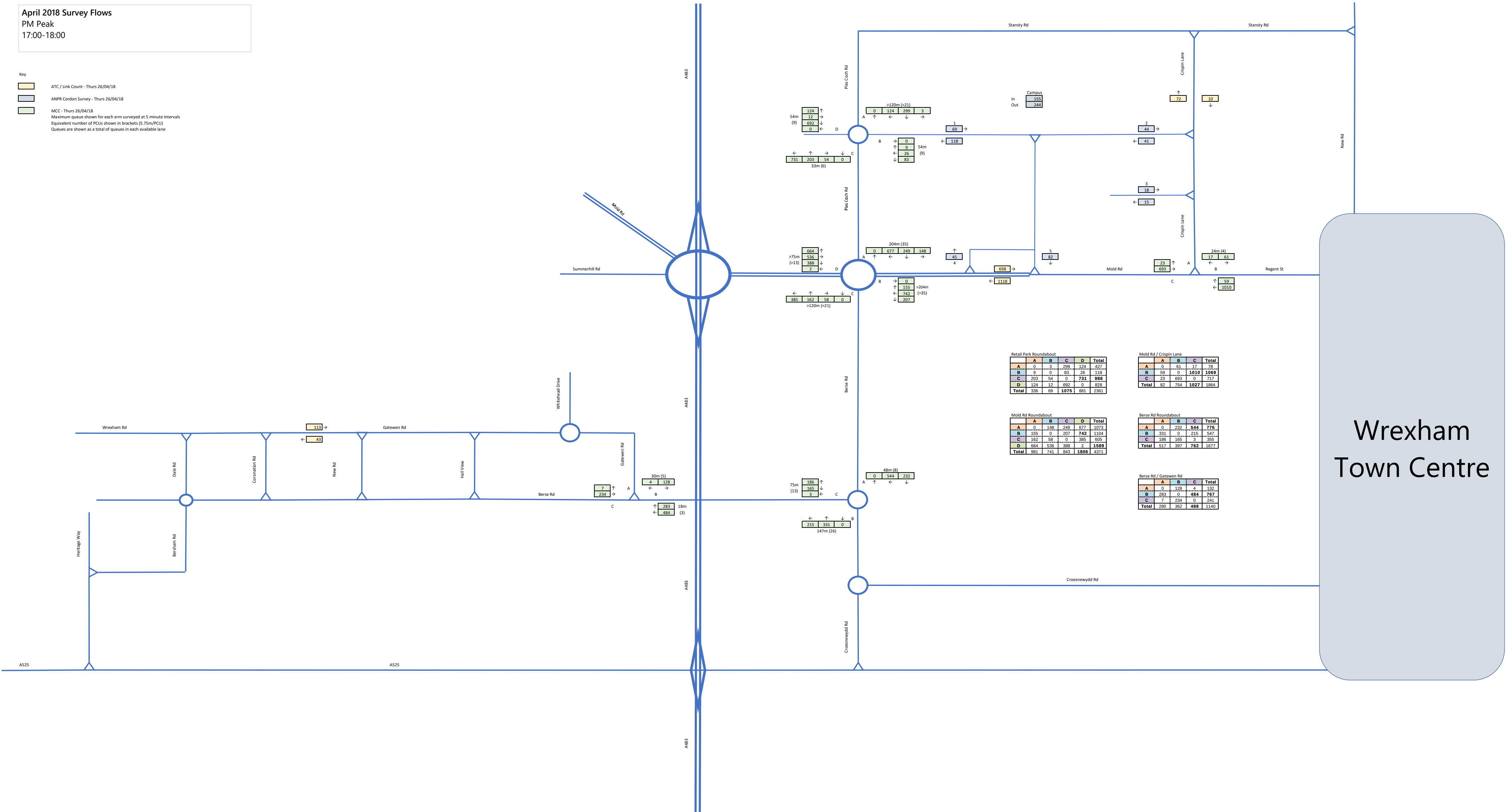
- ATC / Link Count - Thurs 26/04/18
- ANPR Cordon Survey - Thurs 26/04/18
- MCC - Thurs 26/04/18

Maximum queue shown for each arm surveyed at 5 minute intervals
Equivalent number of PCUs shown in brackets (5.75m/PCU)
Queues are shown as a total of queues in each available lane



April 2018 Survey Flows
PM Peak
17:00-18:00

- Key
- ATC / Link Count - Thurs 26/04/18
 - ANPR Cordon Survey - Thurs 26/04/18
 - MCC - Thurs 26/04/18
- Maximum queue shown for each arm surveyed at 5 minute intervals
Equivalent number of FCUs shown in brackets (5.75m/PCU)
Queues are shown as a total of queues in each available lane



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population All usual residents aged 16 and over in employment the week before the census

units Persons

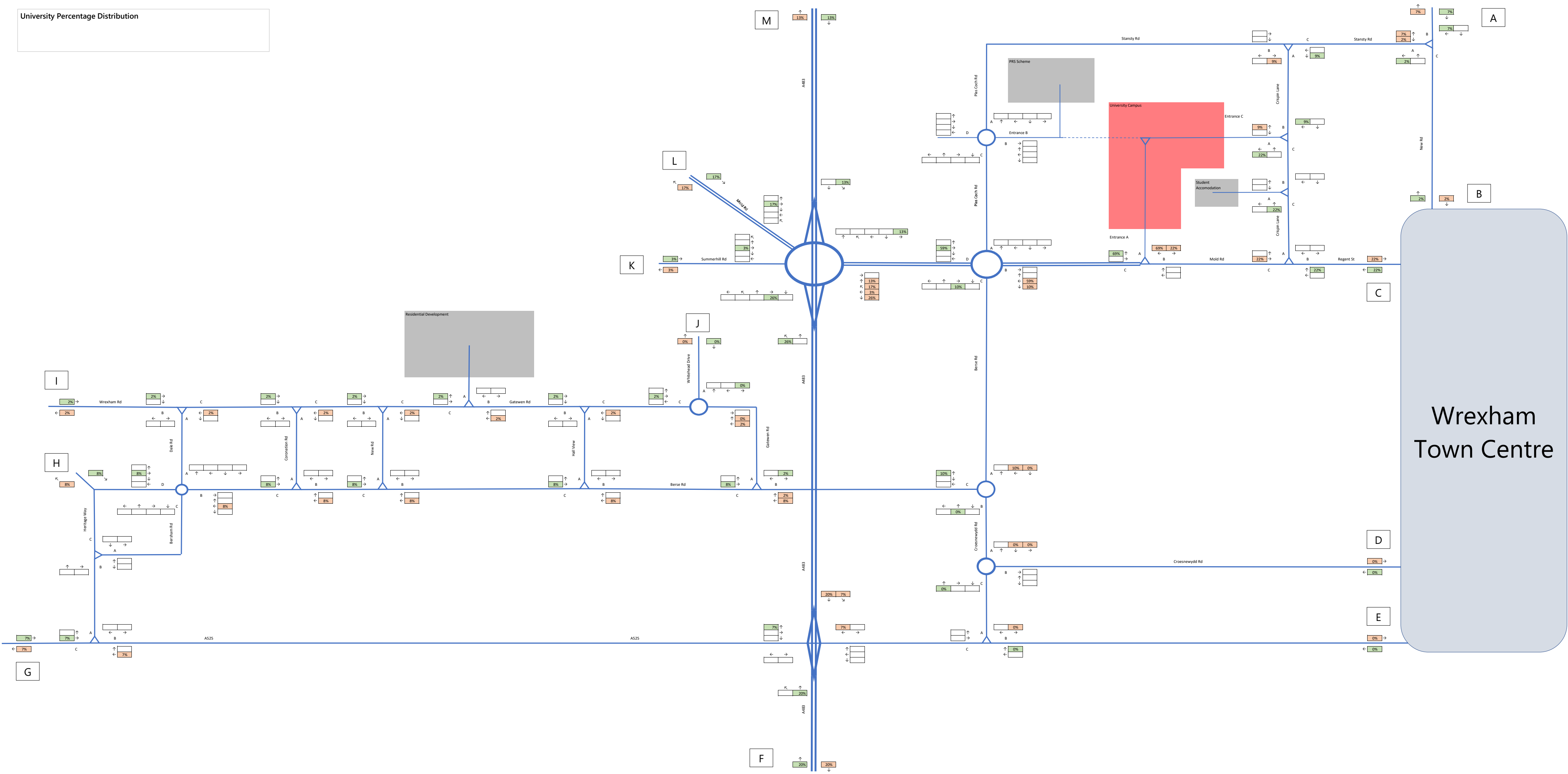
date 2011

method of travel to work Driving a car or van

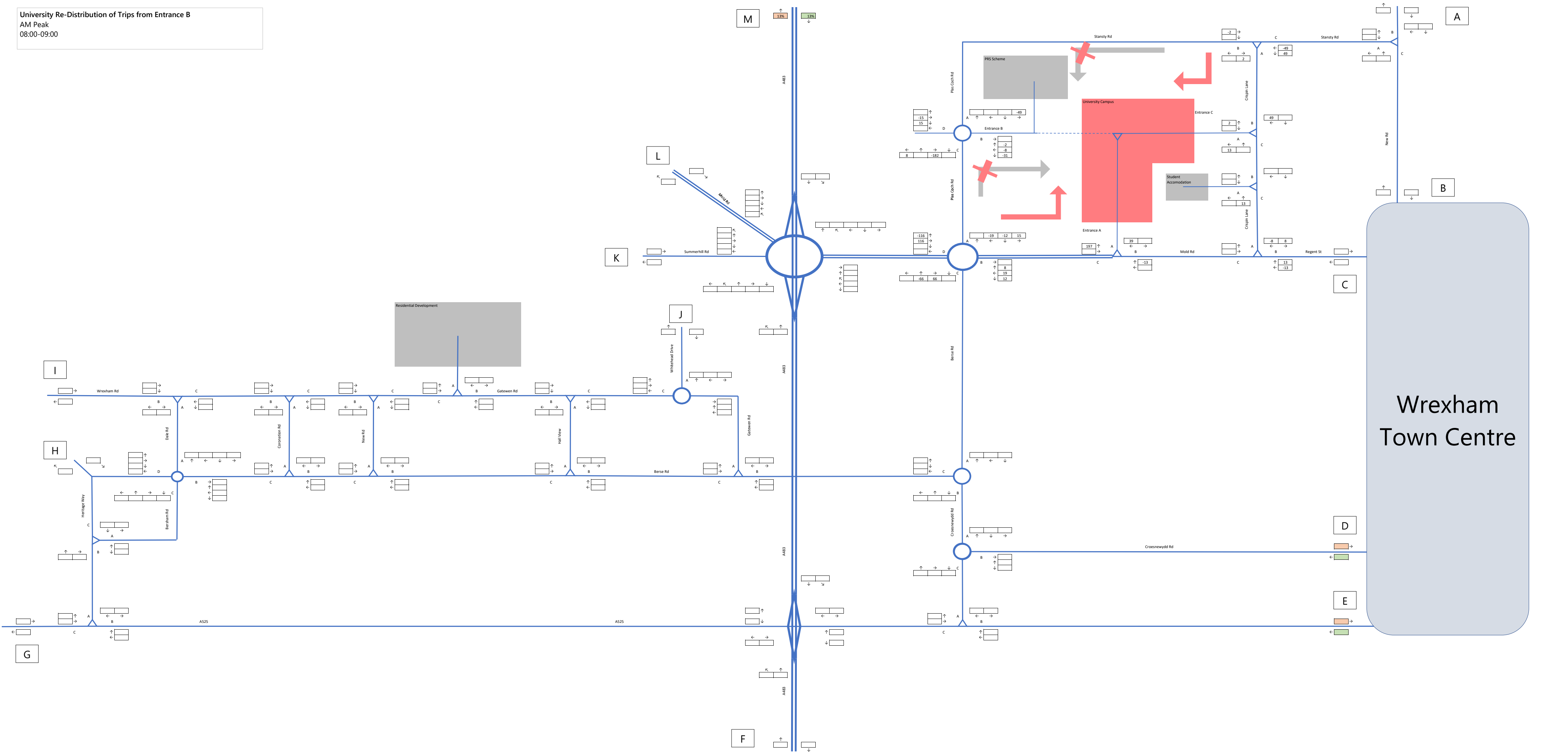
			A	B	C	D	E	F	G	H	I	J	K	L	M	Internal	
	place of work	Calculated	6%	2%	19%	0%	0%	18%	6%	7%	2%	0%	2%	15%	11%	6%	89%
usual residence	W02000088 : Wrexham 011	Adjusted	7%	2%	22%	0%	0%	20%	7%	8%	2%	0%	3%	17%	13%	6%	100%
W02000420 : Wrexham 020	366	6.5%	33%		33%												
W02000085 : Wrexham 008	324	5.8%															
W02000083 : Wrexham 006	274	4.9%								100%							
W02000082 : Wrexham 005	238	4.2%								50%	45%	5%					
W02000080 : Wrexham 003	223	4.0%	50%											50%			
W02000091 : Wrexham 014	217	3.9%			50%			50%									
W02000090 : Wrexham 013	211	3.8%						20%	80%								
W02000084 : Wrexham 007	209	3.7%	30%	20%	50%												
W02000093 : Wrexham 016	203	3.6%			50%			50%									
W02000088 : Wrexham 011	195	3.5%			100%												
W02000094 : Wrexham 017	188	3.4%						100%									
W02000089 : Wrexham 012	182	3.2%			100%												
W02000092 : Wrexham 015	173	3.1%						100%									
W02000081 : Wrexham 004	172	3.1%											80%	20%			
W02000086 : Wrexham 009	128	2.3%	30%	20%	50%												
W02000087 : Wrexham 010	120	2.1%		40%	60%												
W02000095 : Wrexham 018	101	1.8%			100%												
W02000096 : Wrexham 019	99	1.8%						100%									
Flintshire	705	12.6%												100%			
Cheshire West and Chester	322	5.7%														100%	
Denbighshire	226	4.0%						20%	70%							10%	
Shropshire	219	3.9%			20%			80%									
Wirral	70	1.2%														100%	
Conwy	50	0.9%						40%								60%	
Powys	33	0.6%						100%									
Cheshire East	33	0.6%														100%	
Liverpool	32	0.6%														100%	
Gwynedd	23	0.4%															
Warrington	14	0.2%															
Halton	13	0.2%															
St. Helens	10	0.2%															
Rhondda Cynon Taf	9	0.2%															
Telford and Wrekin	9	0.2%															
Stockport	9	0.2%															
Newcastle-under-Lyme	8	0.1%															
Trafford	8	0.1%															
Wigan	7	0.1%															
Isle of Anglesey	6	0.1%															
Wyre Forest	6	0.1%															
Blaenau Gwent	5	0.1%															
Manchester	5	0.1%															
Knowsley	4	0.1%															
Neath Port Talbot	3	0.1%															
Pembrokeshire	3	0.1%															
Swansea	3	0.1%															
Bolton	3	0.1%															
Salford	3	0.1%															
Tameside	3	0.1%															
Cardiff	2	0.0%															
Ceredigion	2	0.0%															
Sandwell	2	0.0%															
Staffordshire Moorlands	2	0.0%															
Tamworth	2	0.0%															
Bury	2	0.0%															
Carlisle	2	0.0%															
Oldham	2	0.0%															
Sefton	2	0.0%															
Caerphilly	1	0.0%															
Carmarthenshire	1	0.0%															
Merthyr Tydfil	1	0.0%															
Monmouthshire	1	0.0%															
The Vale of Glamorgan	1	0.0%															
Cannock Chase	1	0.0%															
Lichfield	1	0.0%															
Solihull	1	0.0%															
Stratford-on-Avon	1	0.0%															
Warwick	1	0.0%															
Worcester	1	0.0%															
Blackpool	1	0.0%															
Burnley	1	0.0%															
Hyndburn	1	0.0%															
Preston	1	0.0%															
South Ribble	1	0.0%															
West Lancashire	1	0.0%															
East	25	0.4%															
South East	22	0.4%															
Yorkshire and The Humber	18	0.3%															
South West	15	0.3%															
East Midlands	10	0.2%															
London	9	0.2%															
North East	8	0.1%															
	5,609																

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

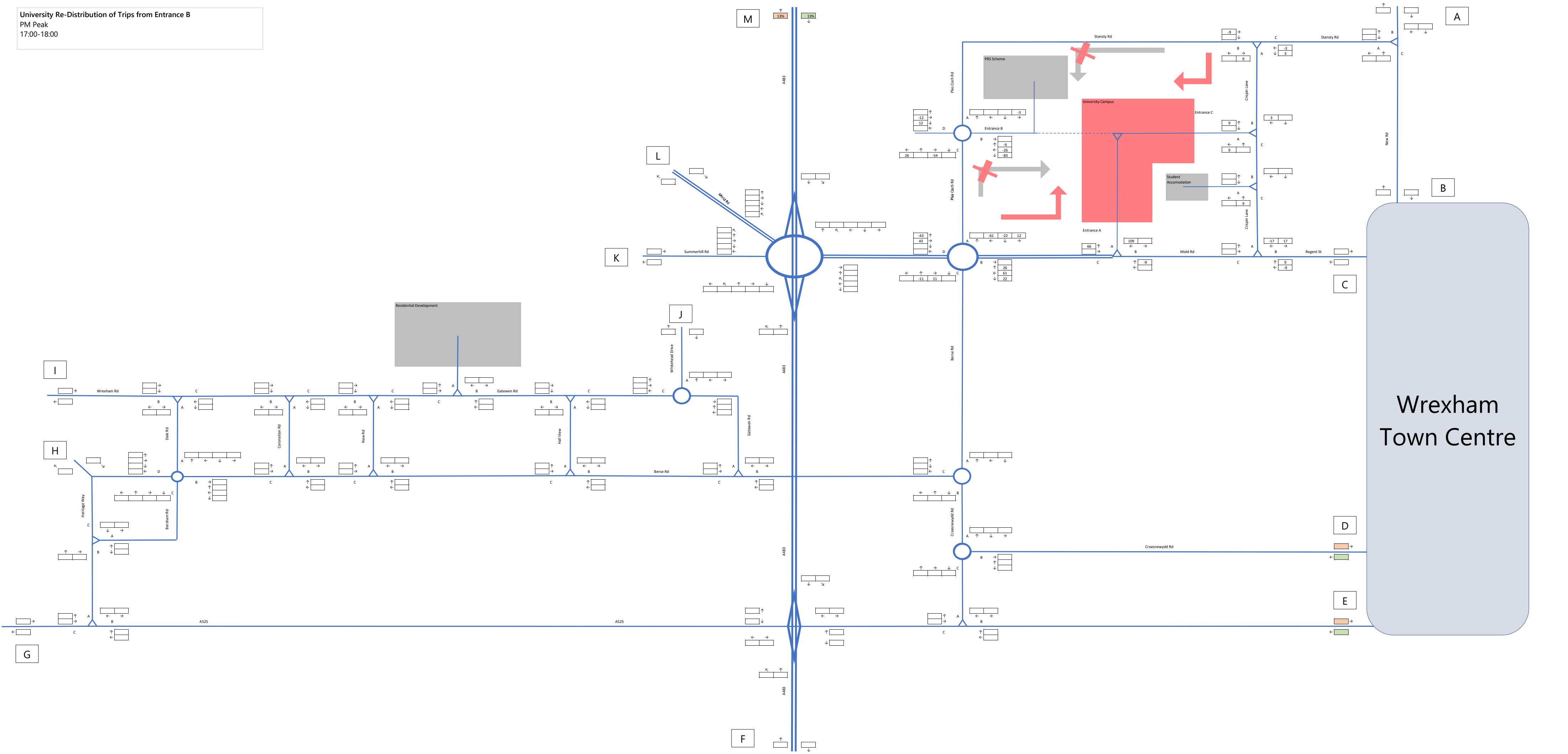
University Percentage Distribution



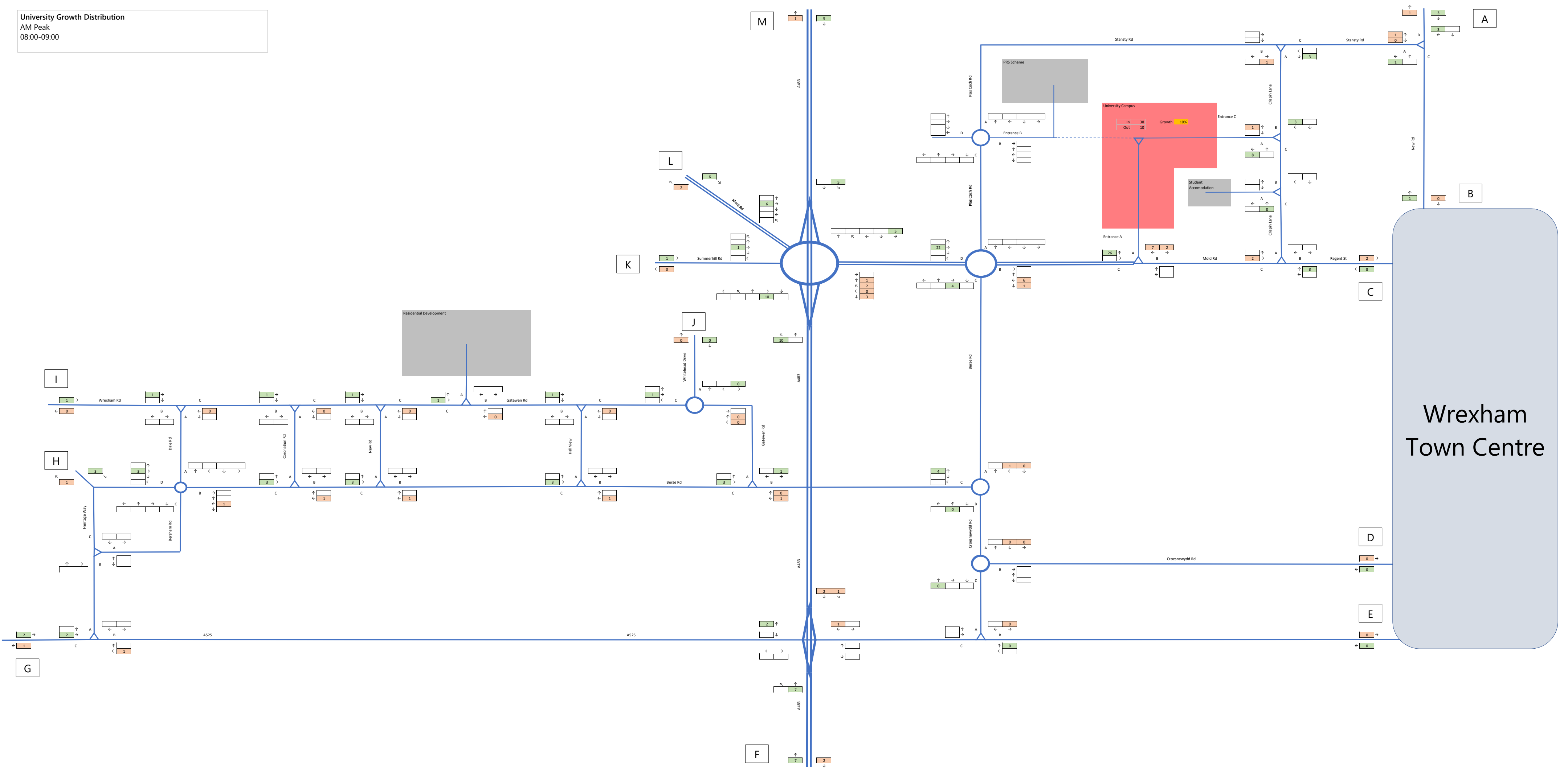
University Re-Distribution of Trips from Entrance B
AM Peak
08:00-09:00



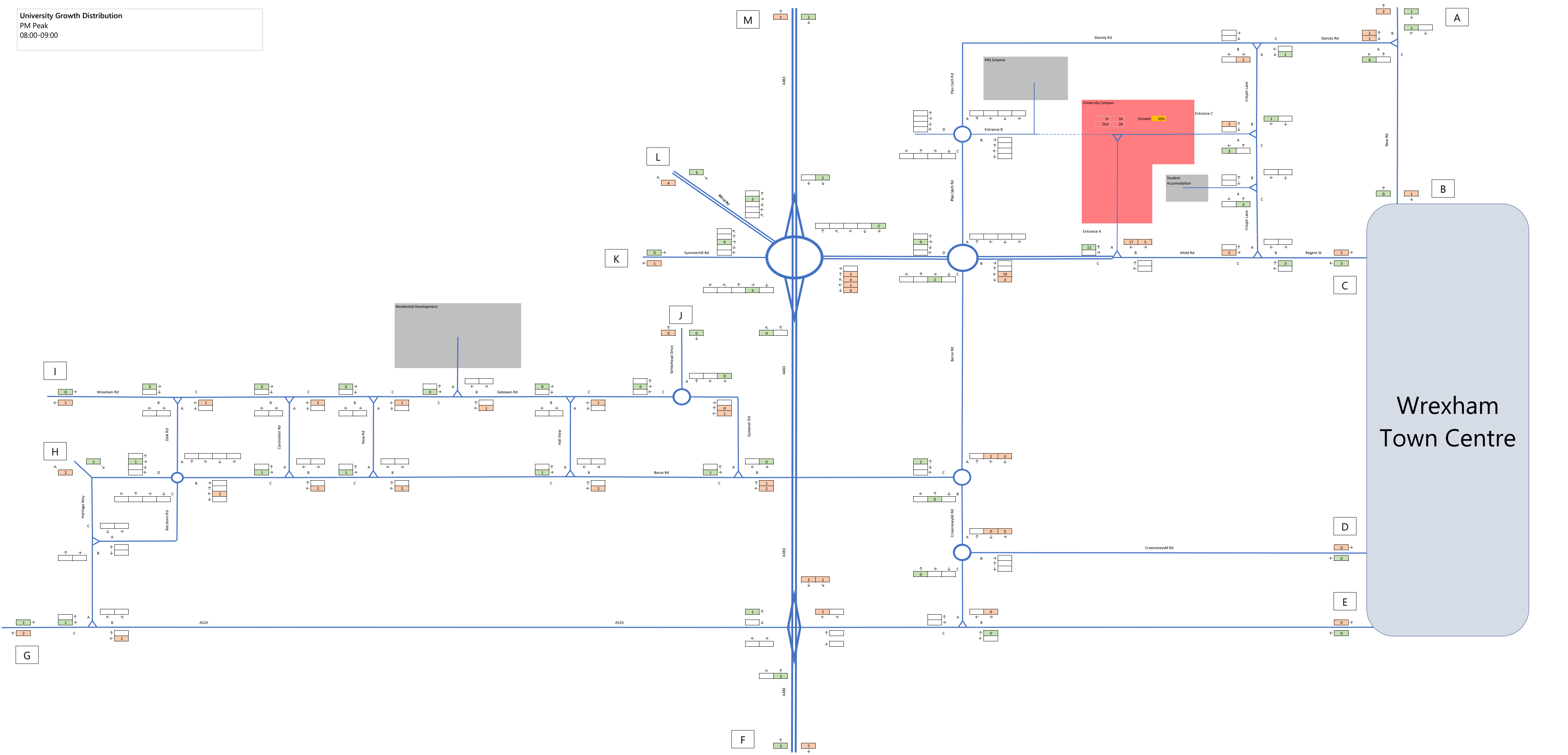
University Re-Distribution of Trips from Entrance B
PM Peak
17:00-18:00



University Growth Distribution
AM Peak
08:00-09:00



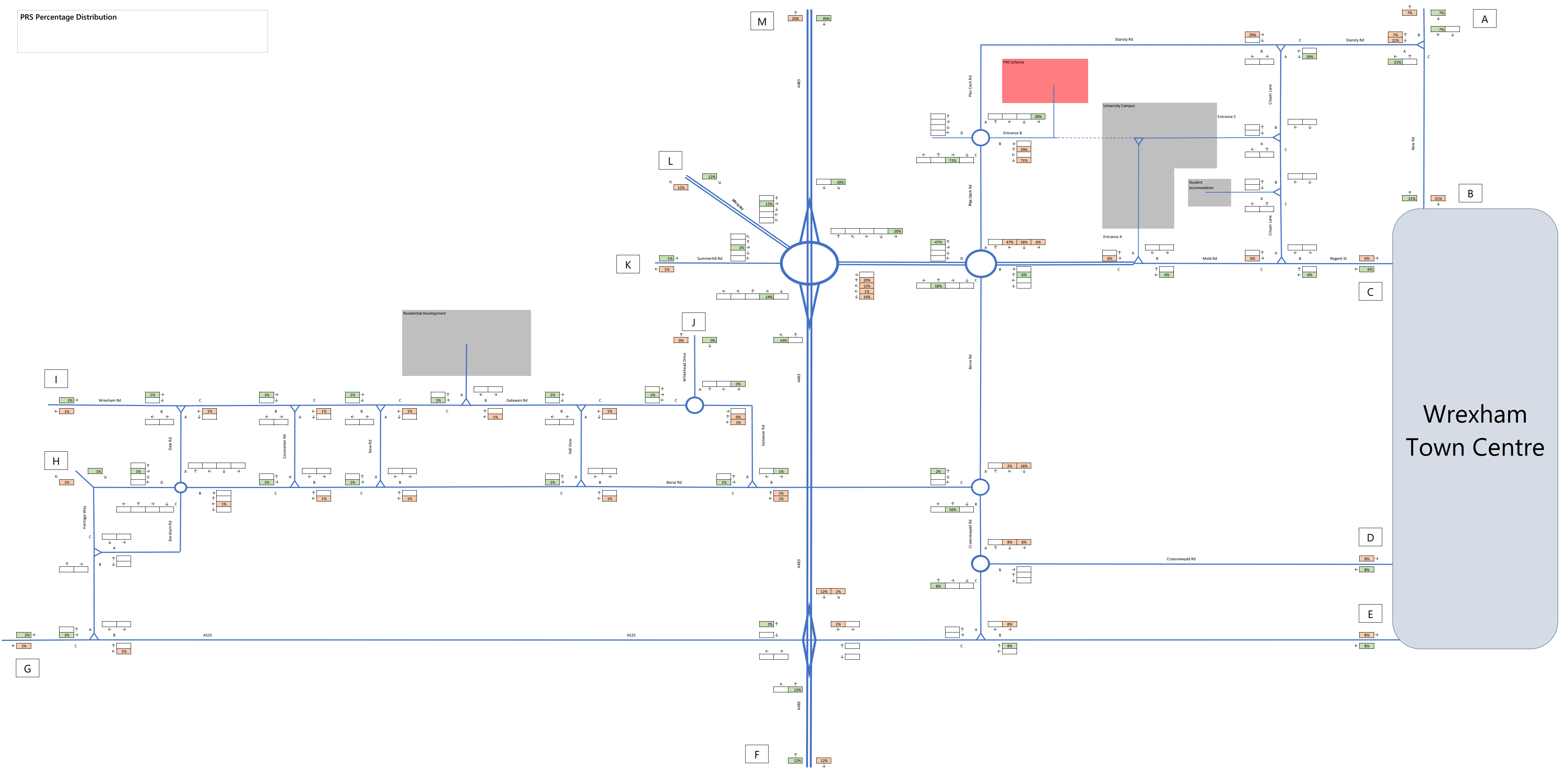
University Growth Distribution
PM Peak
08:00-09:00



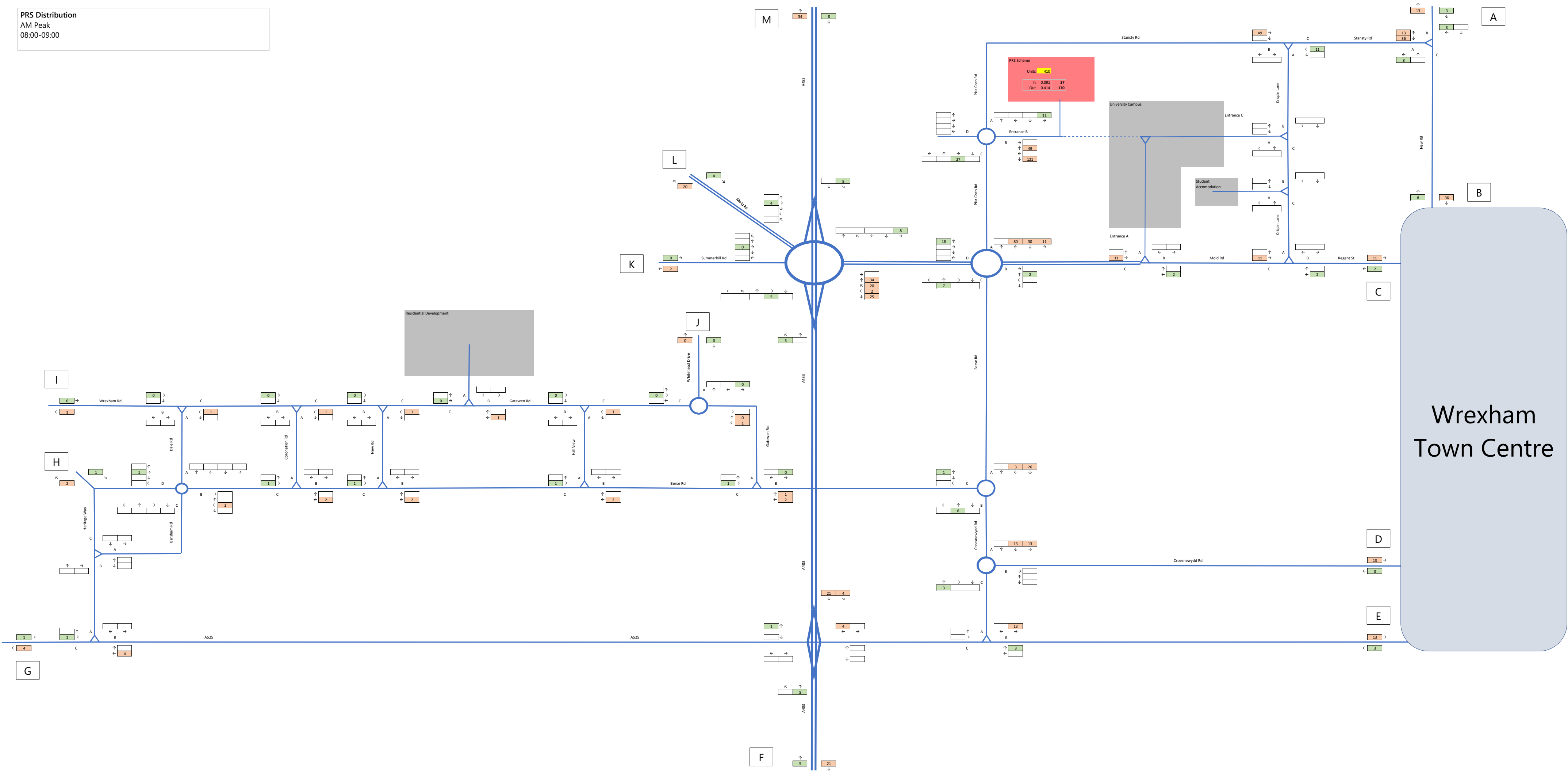
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In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

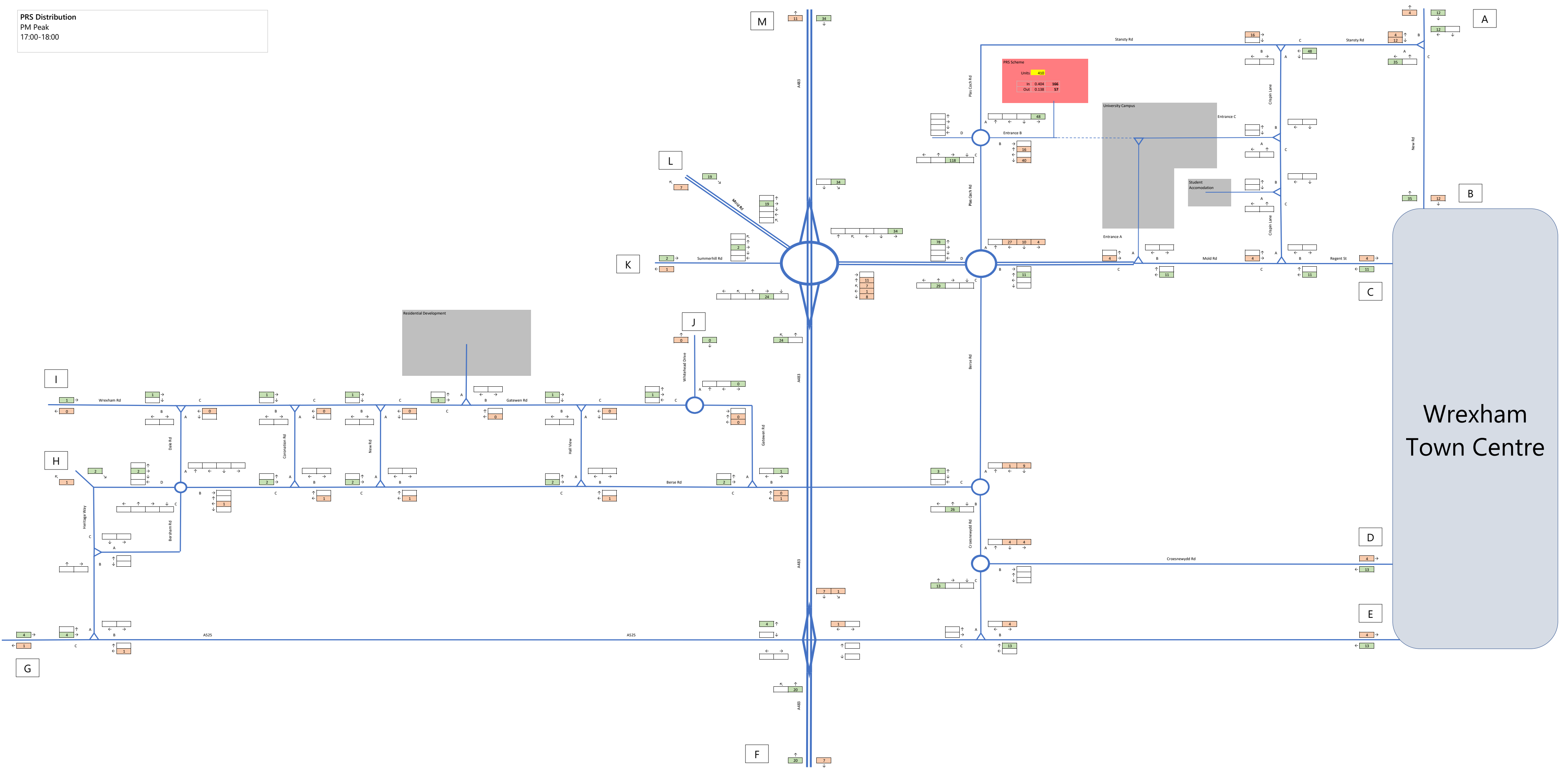
PRS Percentage Distribution



PRS Distribution
AM Peak
08:00-09:00



PRS Distribution
PM Peak
17:00-18:00



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

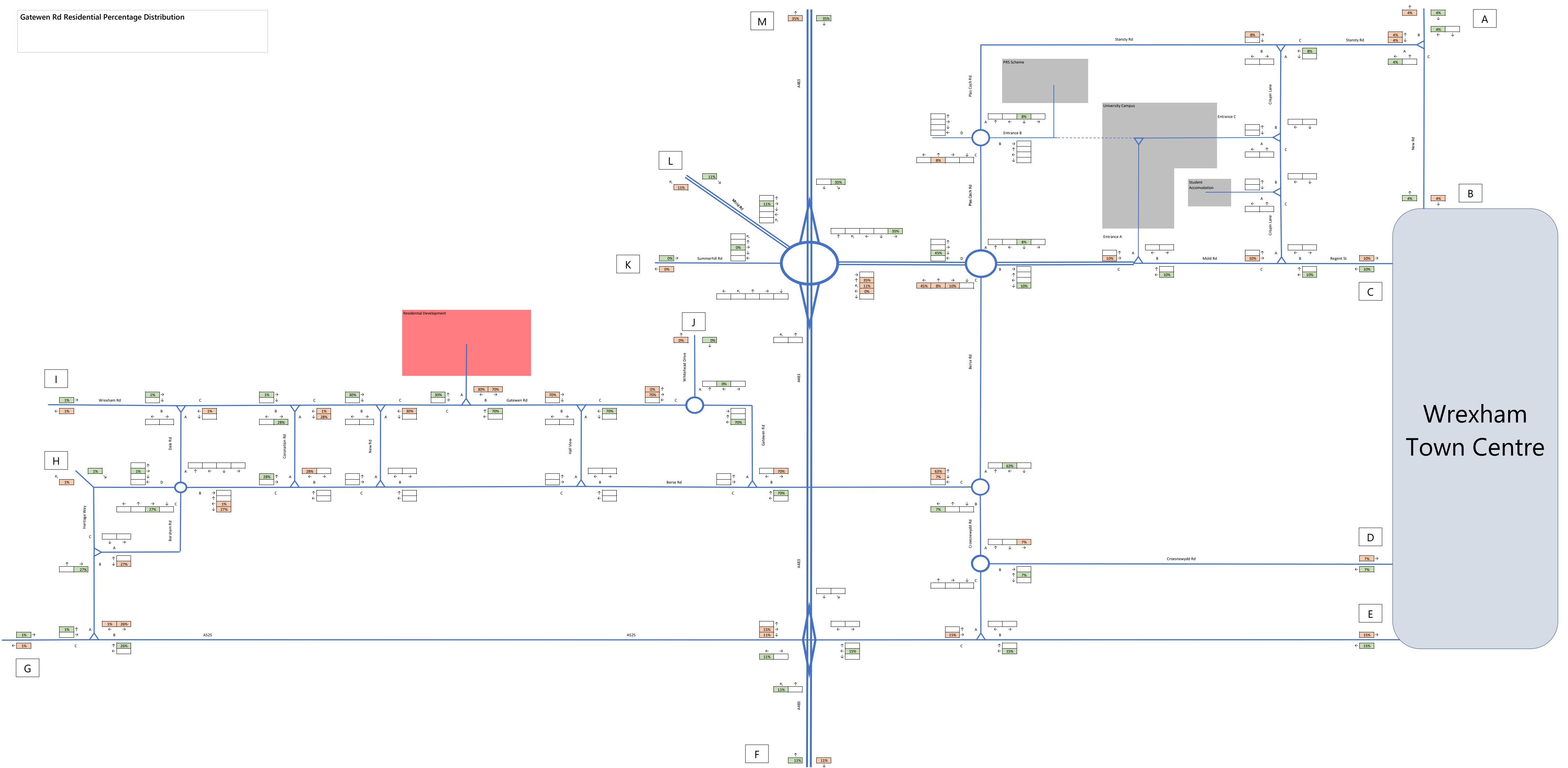
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population
units
date
method of travel to work

		Calculated	A	B	C	D	E	F	G	H	I	J	K	L	M	Internal	
			4%	3%	9%	7%	14%	10%	1%	1%	1%	0%	0%	10%	33%	1%	94%
place of work	TOTAL	Adjusted	4%	4%	10%	7%	15%	11%	1%	1%	1%	0%	0%	11%	35%	1%	100%
W02000420 : Wrexham 020	2,471	22.0%													100%		
W02000088 : Wrexham 011	1,493	13.3%				50%	50%										
W02000085 : Wrexham 008	1,158	10.3%	33%	33%	33%												
W02000089 : Wrexham 012	611	5.4%					100%										
W02000093 : Wrexham 016	271	2.4%					50%	50%									
W02000086 : Wrexham 009	257	2.3%			100%												
W02000091 : Wrexham 014	203	1.8%						100%									
W02000080 : Wrexham 003	190	1.7%	50%											50%			
W02000092 : Wrexham 015	180	1.6%						100%									
W02000087 : Wrexham 010	156	1.4%			100%												
W02000084 : Wrexham 007	141	1.3%			100%												
W02000095 : Wrexham 018	137	1.2%					100%										
W02000096 : Wrexham 019	117	1.0%						100%									
W02000082 : Wrexham 005	115	1.0%														100%	
W02000081 : Wrexham 004	114	1.0%									100%						
W02000090 : Wrexham 013	96	0.9%								100%							
W02000094 : Wrexham 017	78	0.7%						100%									
W02000083 : Wrexham 006	73	0.6%								50%	50%						
Flintshire	1,053	9.4%												100%			
Cheshire West and Chester	875	7.8%													100%		
Shropshire	425	3.8%			20%			80%									
Denbighshire	210	1.9%						20%	70%							10%	
Cheshire East	92	0.8%													100%		
Wirral	66	0.6%													100%		
Liverpool	61	0.5%													100%		
Conwy	61	0.5%						40%								60%	
Warrington	55	0.5%													100%		
Halton	48	0.4%															
Manchester	40	0.4%															
Powys	30	0.3%															
Trafford	18	0.2%															
Knowsley	16	0.1%															
Salford	16	0.1%															
Telford and Wrekin	15	0.1%															
Stockport	14	0.1%															
Gwynedd	12	0.1%															
Wigan	11	0.1%															
Newcastle-under-Lyme	8	0.1%															
Stafford	7	0.1%															
Sefton	6	0.1%															
St. Helens	6	0.1%															
Cardiff	6	0.1%															
Oldham	5	0.0%															
South Lakeland	5	0.0%															
Tameside	5	0.0%															
East Staffordshire	5	0.0%															
Preston	4	0.0%															
Birmingham	4	0.0%															
Stoke-on-Trent	4	0.0%															
Dudley	3	0.0%															
Ceredigion	3	0.0%															
Isle of Anglesey	3	0.0%															
Bolton	2	0.0%															
Pendle	2	0.0%															
South Ribble	2	0.0%															
Coventry	2	0.0%															
Sandwell	2	0.0%															
Newport	2	0.0%															
Blackburn with Darwen	1	0.0%															
Copeland	1	0.0%															
Fylde	1	0.0%															
Rochdale	1	0.0%															
West Lancashire	1	0.0%															
Wyre	1	0.0%															
Cannock Chase	1	0.0%															
Lichfield	1	0.0%															
North Warwickshire	1	0.0%															
Walsall	1	0.0%															
Warwick	1	0.0%															
Wolverhampton	1	0.0%															
Wychavon	1	0.0%															
Caerphilly	1	0.0%															
Carmarthenshire	1	0.0%															
Monmouthshire	1	0.0%															
Yorkshire and The Humber	62	0.6%															
East	25	0.2%															
South East	22	0.2%															
Scotland	19	0.2%															
East Midlands	16	0.1%															
London	15	0.1%															
South West	11	0.1%															
North East	5	0.0%															
		11,256															

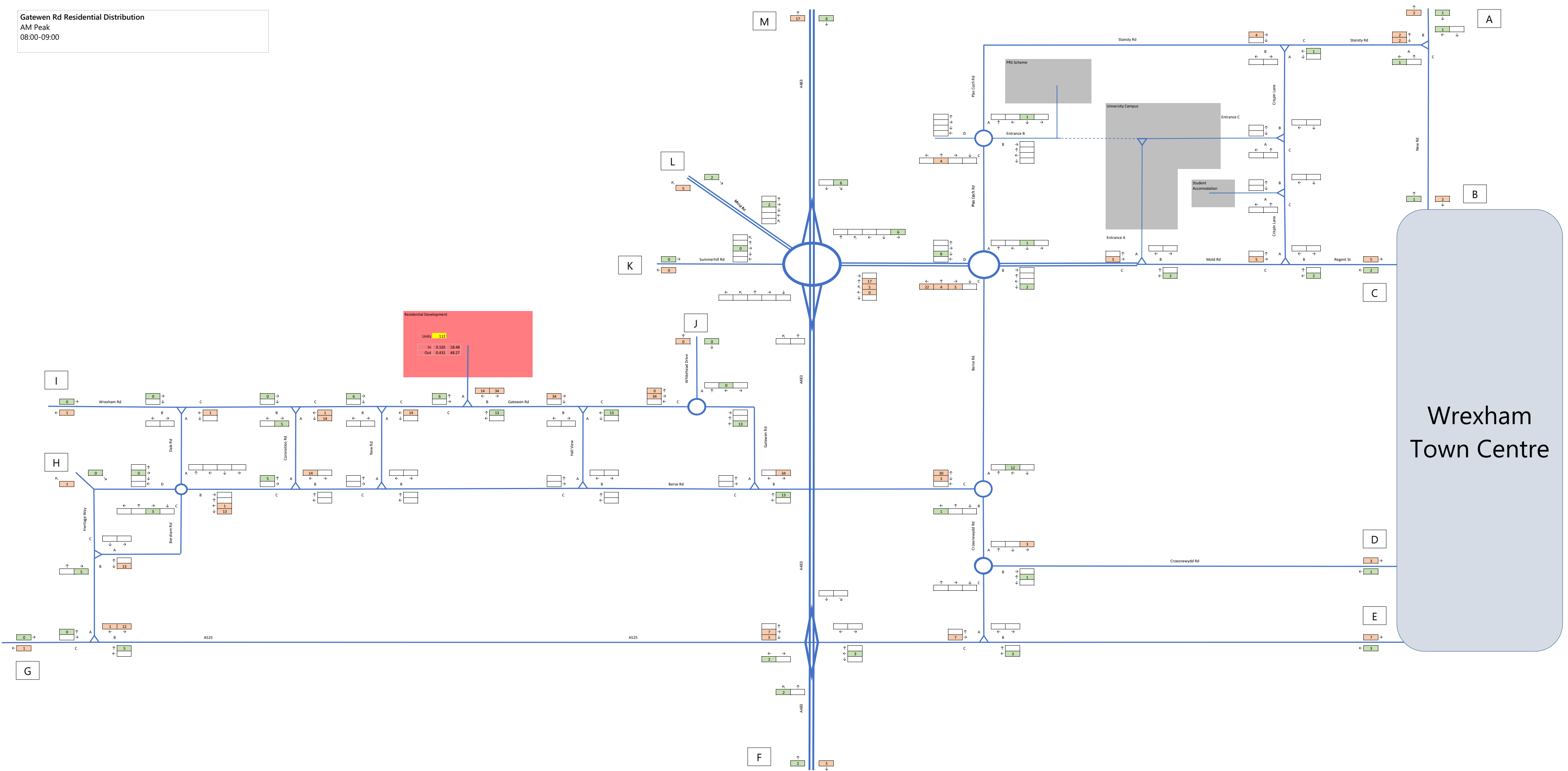
In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Gatewen Rd Residential Percentage Distribution

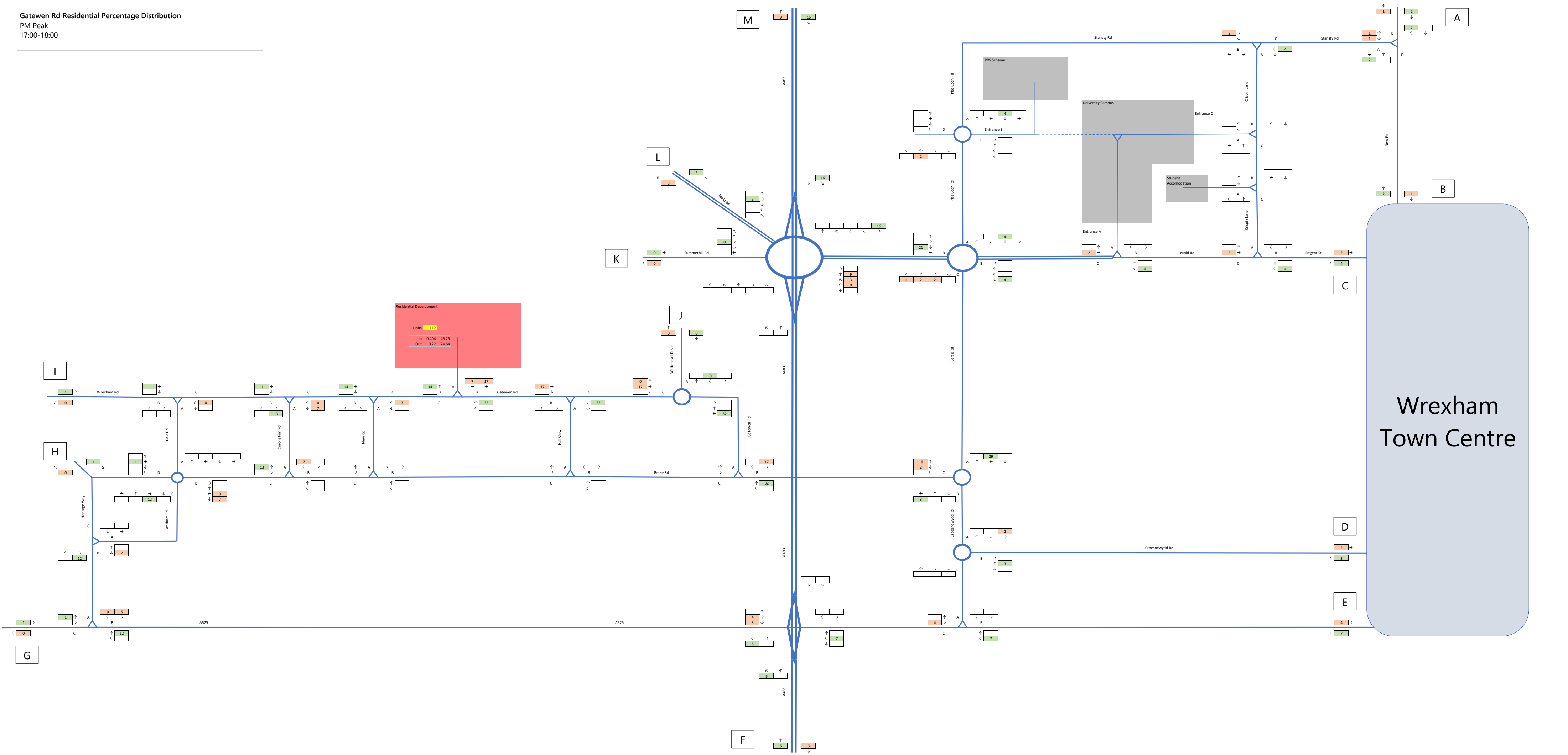


Gatewen Rd Residential Distribution
AM Peak
08:00-09:00

AM Peak
08:00-09:00



Gatewen Rd Residential Percentage Distribution
PM Peak
17:00-18:00

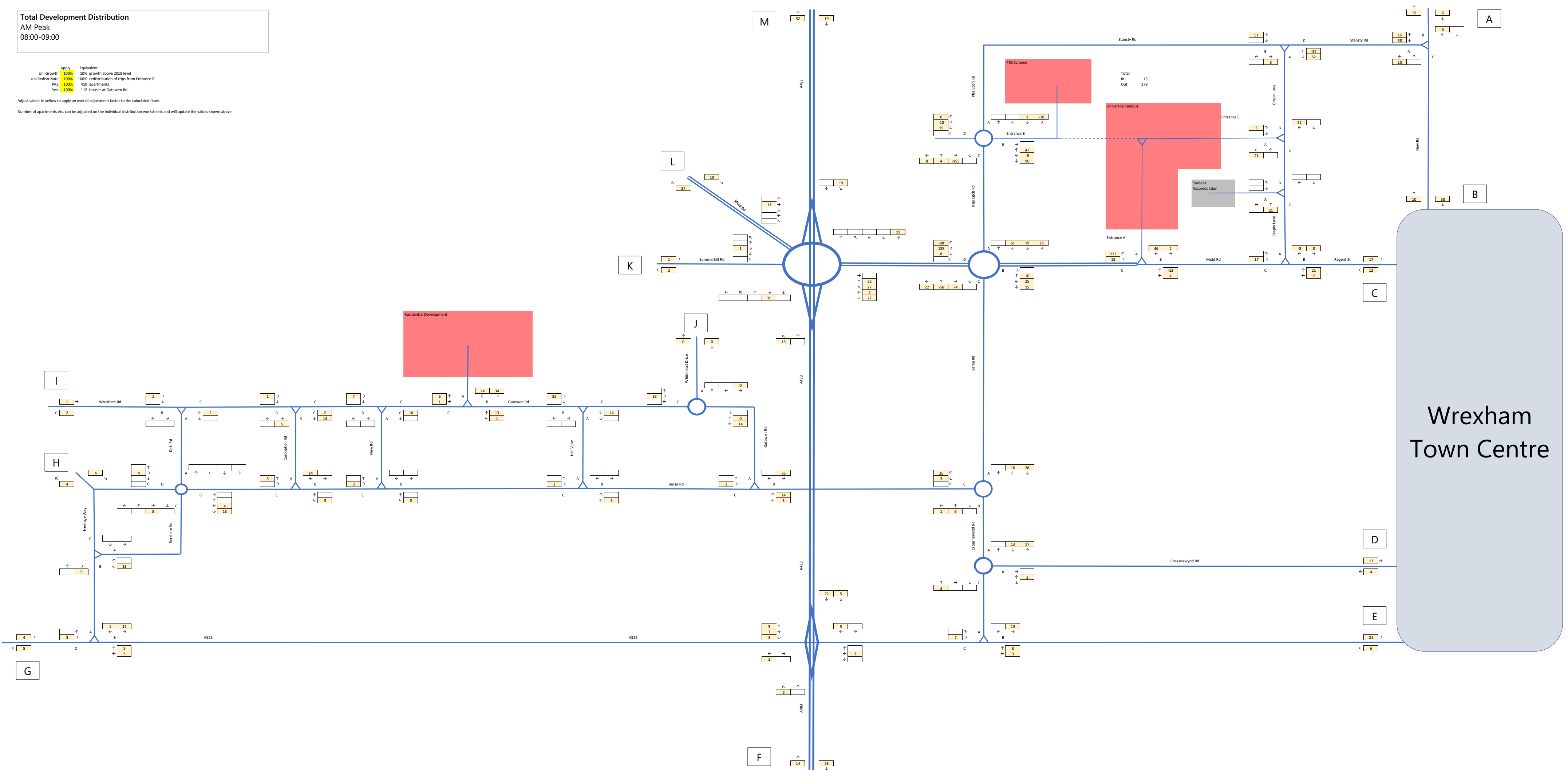


AM Peak
08:00-09:00

	Apply	Equivalent
Uni Growth	100%	10% growth above 2018 level
Uni Redistribute	100%	100% redistribution of trips from Entrance B
PRS	100%	410 apartments
Resi	100%	112 houses at Gatewen Rd

Adjust values in yellow to apply an overall adjustment factor to the calculated flows

Number of apartments etc. can be adjusted on the individual distribution worksheets and will update the values shown above



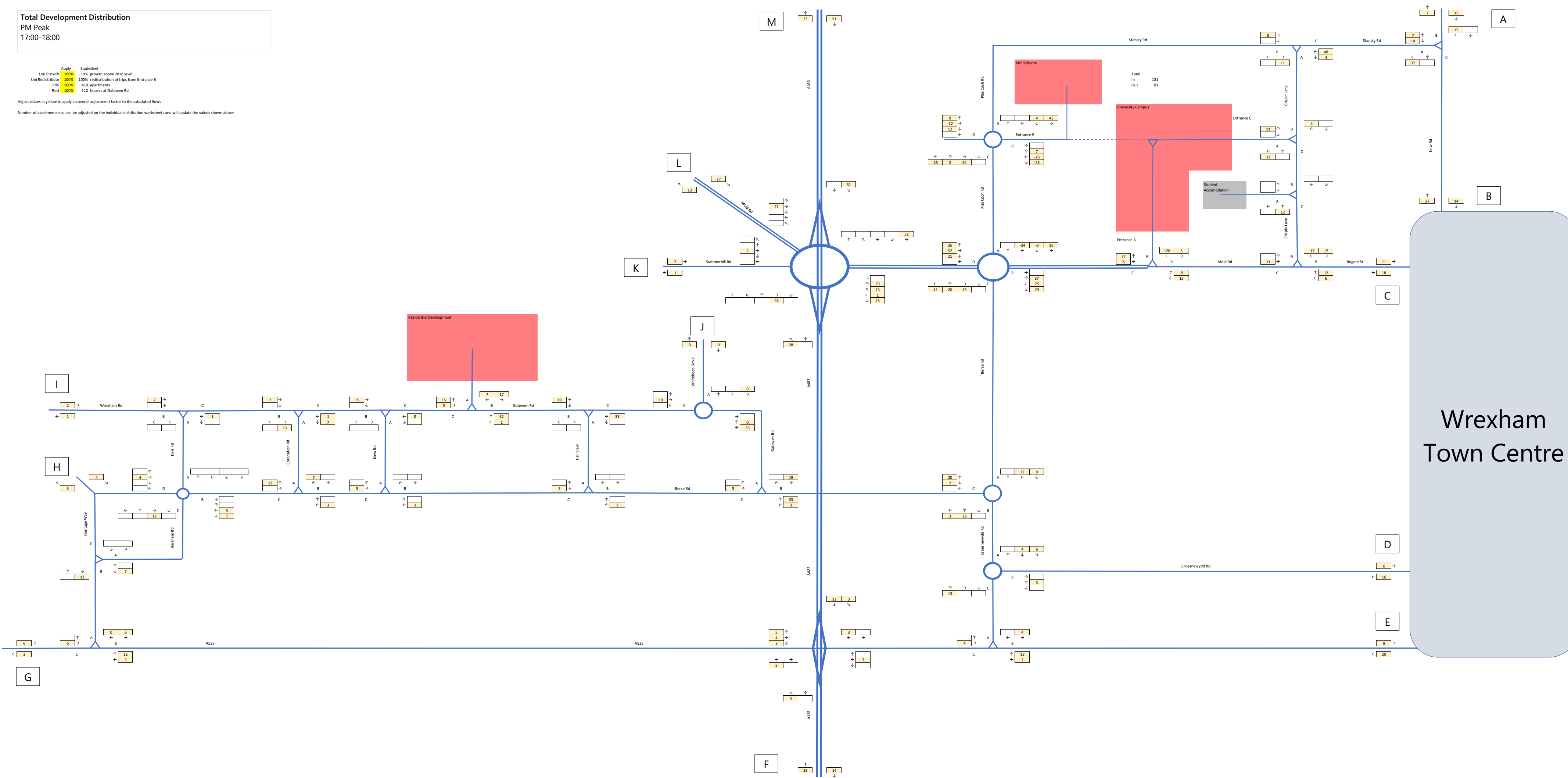
PM Peak
17:00-18:00

PM Peak
17:00-18:00

	Apply	Equivalent
Uni Growth	100%	10% growth above 2018 level
Uni Redistribute	100%	100% redistribution of trips from Entrance B
PRS	100%	410 apartments
Resi	100%	112 houses at Gatewen Rd

Adjust values in yellow to apply an overall adjustment factor to the calculated flows

Number of apartments etc. can be adjusted on the individual distribution worksheets and will update the values shown above



Appendix E

ARCADY Reports

Junctions 8						
ARCADY 8 - Roundabout Module						
Version: 8.0.6.541 [19821,26/11/2015] © Copyright TRL Limited, 2018						
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk						
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: BerseRd_140618.arc8

Path: Z:\2600-2699\2627 Wrexham Glyndwr University\Data\Junction Assessment

Report generation date: 14/06/2018 11:00:06

Summary of junction performance

	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Existing Layout - 2018 Baseline						
B5101 Berse Rd (N)	2.69	9.56	0.72	1.05	4.42	0.51
Rhyd Broughton Ln	0.32	2.76	0.23	0.69	4.15	0.39
B5101 Berse Rd (W)	6.63	20.19	0.87	0.40	3.72	0.28
Existing Layout - 2020 Baseline						
B5101 Berse Rd (N)	3.14	10.85	0.76	1.12	4.59	0.52
Rhyd Broughton Ln	0.34	2.79	0.23	0.74	4.30	0.41
B5101 Berse Rd (W)	8.85	26.43	0.91	0.42	3.79	0.29
Existing Layout - 2020 Baseline + Dev						
B5101 Berse Rd (N)	3.22	11.06	0.76	1.17	4.70	0.53
Rhyd Broughton Ln	0.34	2.80	0.23	0.75	4.35	0.41
B5101 Berse Rd (W)	9.95	29.40	0.92	0.44	3.84	0.30
Existing Layout - 2025 Baseline						
B5101 Berse Rd (N)	4.28	14.14	0.81	1.27	4.94	0.55
Rhyd Broughton Ln	0.36	2.85	0.25	0.83	4.61	0.44
B5101 Berse Rd (W)	17.52	48.78	0.97	0.46	3.94	0.31
Existing Layout - 2025 Baseline + Dev						
B5101 Berse Rd (N)	4.38	14.41	0.81	1.32	5.07	0.56
Rhyd Broughton Ln	0.36	2.86	0.25	0.85	4.67	0.44
B5101 Berse Rd (W)	20.51	55.59	0.98	0.48	3.99	0.32

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

"D1 - 2018 Baseline, AM Peak" model duration: 07:45 - 09:15

"D2 - 2018 Baseline, PM Peak" model duration: 16:45 - 18:15

"D3 - 2020 Baseline, AM Peak" model duration: 07:45 - 09:15

"D4 - 2020 Baseline, PM Peak" model duration: 16:45 - 18:15

"D5 - 2020 Baseline + Dev, AM Peak" model duration: 07:45 - 09:15

"D6 - 2020 Baseline + Dev, PM Peak" model duration: 16:45 - 18:15

"D7 - 2025 Baseline, AM Peak" model duration: 07:45 - 09:15

"D8 - 2025 Baseline, PM Peak" model duration: 16:45 - 18:15

"D9 - 2025 Baseline + Dev, AM Peak" model duration: 07:45 - 09:15

"D10 - 2025 Baseline + Dev, PM Peak" model duration: 16:45 - 18:15

"D11 - Dev, AM Peak" model duration: 07:45 - 09:15

"D12 - Dev, PM Peak" model duration: 16:45 - 18:15

Run using Junctions 8.0.6.541 at 14/06/2018 11:00:02

File summary

Title	Wrexham Glyndwr University
Location	Gatewen Road
Site Number	
Date	14/06/2018
Version	1
Status	
Identifier	
Client	Wrexham Glyndwr University
Jobnumber	2627
Enumerator	Mark Lever
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

Existing Layout - 2018 Baseline, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2018 Baseline, AM Peak	2018 Baseline	AM Peak		ONE HOUR	07:45	09:15	90	15				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				13.40	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	ONE HOUR	✓	937.00	100.000
Rhyd Broughton Ln	ONE HOUR	✓	382.00	100.000
B5101 Berse Rd (W)	ONE HOUR	✓	1127.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout (for whole period)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.000	812.000	125.000
	Rhyd Broughton Ln	287.000	0.000	95.000
	B5101 Berse Rd (W)	610.000	517.000	0.000

Turning Proportions (PCU) - Berse Rd roundabout (for whole period)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout (for whole period)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout (for whole period)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.72	9.56	2.69	A	859.81	1289.71	143.66	6.68	1.60	143.68	6.68
Rhyd Broughton Ln	0.23	2.76	0.32	A	350.53	525.79	22.89	2.61	0.25	22.89	2.61
B5101 Berse Rd (W)	0.87	20.19	6.63	C	1034.15	1551.23	291.01	11.26	3.23	291.05	11.26

Existing Layout - 2018 Baseline, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2018 Baseline, PM Peak	2018 Baseline	PM Peak		ONE HOUR	16:45	18:15	90	15				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				4.19	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	ONE HOUR	✓	776.00	100.000
Rhyd Broughton Ln	ONE HOUR	✓	546.00	100.000
B5101 Berse Rd (W)	ONE HOUR	✓	354.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout (for whole period)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.000	232.000	544.000
	Rhyd Broughton Ln	331.000	0.000	215.000
	B5101 Berse Rd (W)	186.000	165.000	3.000

Turning Proportions (PCU) - Berse Rd roundabout (for whole period)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout (for whole period)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout (for whole period)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.51	4.42	1.05	A	712.07	1068.11	67.72	3.80	0.75	67.72	3.80
Rhyd Broughton Ln	0.39	4.15	0.69	A	501.02	751.53	45.01	3.59	0.50	45.01	3.59
B5101 Berse Rd (W)	0.28	3.72	0.40	A	324.84	487.25	27.66	3.41	0.31	27.66	3.41

Existing Layout - 2020 Baseline, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2020 Baseline, AM Peak	2020 Baseline	AM Peak		Varies by Arm	07:45	09:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				16.77	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	DIRECT		N/A	100.000
Rhyd Broughton Ln	DIRECT		N/A	100.000
B5101 Berse Rd (W)	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (07:45-08:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.000	631.795	97.259
	Rhyd Broughton Ln	223.307	0.000	73.917
	B5101 Berse Rd (W)	474.625	402.264	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (07:45-08:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:00-08:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.000	754.425	116.137
	Rhyd Broughton Ln	266.650	0.000	88.264
	B5101 Berse Rd (W)	566.748	480.342	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:00-08:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:15-08:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	923.979	142.238
	Rhyd Broughton Ln	326.579	0.000	108.101
	B5101 Berse Rd (W)	694.122	588.297	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:15-08:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:30-08:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	923.979	142.238
	Rhyd Broughton Ln	326.579	0.000	108.101
	B5101 Berse Rd (W)	694.122	588.297	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:30-08:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:45-09:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	754.425	116.137
	Rhyd Broughton Ln	266.650	0.000	88.264
	B5101 Berse Rd (W)	566.748	480.342	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:45-09:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (09:00-09:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	631.795	97.259
	Rhyd Broughton Ln	223.307	0.000	73.917
	B5101 Berse Rd (W)	474.625	402.264	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (09:00-09:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout - (07:45-08:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (07:45-08:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:00-08:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:00-08:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:15-08:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:15-08:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:30-08:45)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:30-08:45)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:45-09:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:45-09:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (09:00-09:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (09:00-09:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.76	10.85	3.14	B	888.61	1332.92	161.76	7.28	1.80	161.78	7.28
Rhyd Broughton Ln	0.23	2.79	0.34	A	362.27	543.41	23.89	2.64	0.27	23.89	2.64
B5101 Berse Rd (W)	0.91	26.43	8.85	D	1068.80	1603.20	356.29	13.33	3.96	356.34	13.34

Existing Layout - 2020 Baseline, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2020 Baseline, PM Peak	2020 Baseline	PM Peak		Varies by Arm	16:45	18:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				4.33	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	DIRECT		N/A	100.000
Rhyd Broughton Ln	DIRECT		N/A	100.000
B5101 Berse Rd (W)	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (16:45-17:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	180.181	422.494
	Rhyd Broughton Ln	257.069	0.000	166.978
	B5101 Berse Rd (W)	144.456	128.146	2.330

Turning Proportions (PCU) - Berse Rd roundabout - (16:45-17:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:00-17:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	215.154	504.499
	Rhyd Broughton Ln	306.965	0.000	199.388
	B5101 Berse Rd (W)	172.494	153.019	2.782

Turning Proportions (PCU) - Berse Rd roundabout - (17:00-17:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:15-17:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	263.509	617.882
	Rhyd Broughton Ln	375.954	0.000	244.200
	B5101 Berse Rd (W)	211.261	187.409	3.407

Turning Proportions (PCU) - Berse Rd roundabout - (17:15-17:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	263.509	617.882
	Rhyd Broughton Ln	375.954	0.000	244.200
	B5101 Berse Rd (W)	211.261	187.409	3.407

Turning Proportions (PCU) - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	215.154	504.499
	Rhyd Broughton Ln	306.965	0.000	199.388
	B5101 Berse Rd (W)	172.494	153.019	2.782

Turning Proportions (PCU) - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	180.181	422.494
	Rhyd Broughton Ln	257.069	0.000	166.978
	B5101 Berse Rd (W)	144.456	128.146	2.330

Turning Proportions (PCU) - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout - (16:45-17:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (16:45-17:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:00-17:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:00-17:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:15-17:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:15-17:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:30-17:45)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.52	4.59	1.12	A	734.57	1101.86	71.91	3.92	0.80	71.91	3.92
Rhyd Broughton Ln	0.41	4.30	0.74	A	516.85	775.28	47.73	3.69	0.53	47.74	3.69
B5101 Berse Rd (W)	0.29	3.79	0.42	A	335.10	502.65	28.99	3.46	0.32	28.99	3.46

Existing Layout - 2020 Baseline + Dev, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2020 Baseline + Dev, AM Peak	2020 Baseline + Dev	AM Peak		Varies by Arm	07:45	09:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				18.27	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	DIRECT		N/A	100.000
Rhyd Broughton Ln	DIRECT		N/A	100.000
B5101 Berse Rd (W)	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (07:45-08:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.000	631.795	101.776
	Rhyd Broughton Ln	223.307	0.000	73.917
	B5101 Berse Rd (W)	485.917	402.264	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (07:45-08:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:00-08:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.000	754.425	121.531
	Rhyd Broughton Ln	266.650	0.000	88.264
	B5101 Berse Rd (W)	580.233	480.342	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:00-08:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:15-08:30)

From	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.000	923.979	148.844
	Rhyd Broughton Ln	326.579	0.000	108.101
	B5101 Berse Rd (W)	710.637	588.297	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:15-08:30)

From	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:30-08:45)

From	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.000	923.979	148.844
	Rhyd Broughton Ln	326.579	0.000	108.101
	B5101 Berse Rd (W)	710.637	588.297	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:30-08:45)

From	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:45-09:00)

From	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.000	754.425	121.531
	Rhyd Broughton Ln	266.650	0.000	88.264
	B5101 Berse Rd (W)	580.233	480.342	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:45-09:00)

From	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (09:00-09:15)

From	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.000	631.795	101.776
	Rhyd Broughton Ln	223.307	0.000	73.917
	B5101 Berse Rd (W)	485.917	402.264	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (09:00-09:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout - (07:45-08:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.043	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (07:45-08:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.3	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:00-08:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.043	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:00-08:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.3	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:15-08:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.043	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:15-08:30)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.3	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:30-08:45)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.043	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:30-08:45)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.3	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:45-09:00)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.043	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:45-09:00)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.3	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (09:00-09:15)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.043	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (09:00-09:15)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.3	3.9	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.76	11.06	3.22	B	894.12	1341.18	164.84	7.37	1.83	164.86	7.38
Rhyd Broughton Ln	0.23	2.80	0.34	A	362.27	543.41	23.96	2.65	0.27	23.96	2.65
B5101 Berse Rd (W)	0.92	29.40	9.95	D	1082.56	1623.85	386.51	14.28	4.29	386.56	14.28

Existing Layout - 2020 Baseline + Dev, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2020 Baseline + Dev, PM Peak	2020 Baseline + Dev	PM Peak		Varies by Arm	16:45	18:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				4.41	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	DIRECT		N/A	100.000
Rhyd Broughton Ln	DIRECT		N/A	100.000
B5101 Berse Rd (W)	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (16:45-17:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	180.181	433.033
	Rhyd Broughton Ln	257.069	0.000	166.978
	B5101 Berse Rd (W)	150.478	128.146	2.330

Turning Proportions (PCU) - Berse Rd roundabout - (16:45-17:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:00-17:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	215.154	517.084
	Rhyd Broughton Ln	306.965	0.000	199.388
	B5101 Berse Rd (W)	179.686	153.019	2.782

Turning Proportions (PCU) - Berse Rd roundabout - (17:00-17:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:15-17:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	263.509	633.296
	Rhyd Broughton Ln	375.954	0.000	244.200
	B5101 Berse Rd (W)	220.069	187.409	3.407

Turning Proportions (PCU) - Berse Rd roundabout - (17:15-17:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	263.509	633.296
	Rhyd Broughton Ln	375.954	0.000	244.200
	B5101 Berse Rd (W)	220.069	187.409	3.407

Turning Proportions (PCU) - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	215.154	517.084
	Rhyd Broughton Ln	306.965	0.000	199.388
	B5101 Berse Rd (W)	179.686	153.019	2.782

Turning Proportions (PCU) - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	180.181	433.033
	Rhyd Broughton Ln	257.069	0.000	166.978
	B5101 Berse Rd (W)	150.478	128.146	2.330

Turning Proportions (PCU) - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout - (16:45-17:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.037
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.007	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (16:45-17:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.7
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.7	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:00-17:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.037
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.007	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:00-17:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.7
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.7	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:15-17:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.037
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.007	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:15-17:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.7
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.7	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:30-17:45)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.037
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.007	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.7
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.7	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.022	1.037
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.007	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.7
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.7	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.022	1.037
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.007	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.7
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.7	7.2	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.53	4.70	1.17	A	747.42	1121.13	74.53	3.99	0.83	74.54	3.99
Rhyd Broughton Ln	0.41	4.35	0.75	A	516.85	775.28	48.19	3.73	0.54	48.20	3.73
B5101 Berse Rd (W)	0.30	3.84	0.44	A	342.44	513.66	29.93	3.50	0.33	29.93	3.50

Existing Layout - 2025 Baseline, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2025 Baseline, AM Peak	2025 Baseline	AM Peak		Varies by Arm	07:45	09:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				28.34	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	DIRECT		N/A	100.000
Rhyd Broughton Ln	DIRECT		N/A	100.000
B5101 Berse Rd (W)	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (07:45-08:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	668.535	102.915
	Rhyd Broughton Ln	236.293	0.000	78.215
	B5101 Berse Rd (W)	502.225	425.656	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (07:45-08:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:00-08:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	798.297	122.891
	Rhyd Broughton Ln	282.157	0.000	93.397
	B5101 Berse Rd (W)	599.706	508.275	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:00-08:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:15-08:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	977.710	150.510
	Rhyd Broughton Ln	345.570	0.000	114.387
	B5101 Berse Rd (W)	734.486	622.507	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:15-08:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:30-08:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	977.710	150.510
	Rhyd Broughton Ln	345.570	0.000	114.387
	B5101 Berse Rd (W)	734.486	622.507	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:30-08:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:45-09:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	798.297	122.891
	Rhyd Broughton Ln	282.157	0.000	93.397
	B5101 Berse Rd (W)	599.706	508.275	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:45-09:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (09:00-09:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	668.535	102.915
	Rhyd Broughton Ln	230.293	0.000	70.213
	B5101 Berse Rd (W)	502.225	425.656	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (09:00-09:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.87	0.13
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.54	0.46	0.00

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout - (07:45-08:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (07:45-08:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:00-08:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:00-08:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:15-08:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:15-08:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:30-08:45)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:30-08:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:45-09:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:45-09:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (09:00-09:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.033	1.138
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.037	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (09:00-09:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	3.3	13.8
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	3.7	3.9	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.81	14.14	4.28	B	940.29	1410.43	204.19	8.69	2.27	204.21	8.69
Rhyd Broughton Ln	0.25	2.85	0.36	A	383.34	575.01	25.74	2.69	0.29	25.75	2.69
B5101 Berse Rd (W)	0.97	48.78	17.52	E	1130.95	1696.43	570.26	20.17	6.34	570.32	20.17

Existing Layout - 2025 Baseline, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2025 Baseline, PM Peak	2025 Baseline	PM Peak		Varies by Arm	16:45	18:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				4.62	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	DIRECT		N/A	100.000
Rhyd Broughton Ln	DIRECT		N/A	100.000
B5101 Berse Rd (W)	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (16:45-17:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	190.294	446.207
	Rhyd Broughton Ln	271.497	0.000	176.350
	B5101 Berse Rd (W)	152.563	135.338	2.461

Turning Proportions (PCU) - Berse Rd roundabout - (16:45-17:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:00-17:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	227.230	532.814
	Rhyd Broughton Ln	324.194	0.000	210.579
	B5101 Berse Rd (W)	182.176	161.607	2.938

Turning Proportions (PCU) - Berse Rd roundabout - (17:00-17:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:15-17:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	278.298	652.562
	Rhyd Broughton Ln	397.055	0.000	257.906
	B5101 Berse Rd (W)	223.119	197.928	3.599

Turning Proportions (PCU) - Berse Rd roundabout - (17:15-17:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	278.298	652.562
	Rhyd Broughton Ln	397.055	0.000	257.906
	B5101 Berse Rd (W)	223.119	197.928	3.599

Turning Proportions (PCU) - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	227.230	532.814
	Rhyd Broughton Ln	324.194	0.000	210.579
	B5101 Berse Rd (W)	182.176	161.607	2.938

Turning Proportions (PCU) - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	190.294	446.207
	Rhyd Broughton Ln	271.497	0.000	176.350
	B5101 Berse Rd (W)	152.563	135.338	2.461

Turning Proportions (PCU) - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.30	0.70
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.53	0.47	0.01

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout - (16:45-17:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (16:45-17:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:00-17:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:00-17:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:15-17:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:15-17:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:30-17:45)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.022	1.031
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.000	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.1
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.0	7.2	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.55	4.94	1.27	A	775.80	1163.70	80.28	4.14	0.89	80.29	4.14
Rhyd Broughton Ln	0.44	4.61	0.83	A	545.86	818.79	53.16	3.90	0.59	53.16	3.90
B5101 Berse Rd (W)	0.31	3.94	0.46	A	353.91	530.86	31.55	3.57	0.35	31.55	3.57

Existing Layout - 2025 Baseline + Dev, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2025 Baseline + Dev, AM Peak	2025 Baseline + Dev	AM Peak		Varies by Arm	07:45	09:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				31.68	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	DIRECT		N/A	100.000
Rhyd Broughton Ln	DIRECT		N/A	100.000
B5101 Berse Rd (W)	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (07:45-08:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.000	668.535	107.432
	Rhyd Broughton Ln	236.293	0.000	78.215
	B5101 Berse Rd (W)	513.518	425.656	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (07:45-08:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:00-08:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.000	798.297	128.284
	Rhyd Broughton Ln	282.157	0.000	93.397
	B5101 Berse Rd (W)	613.190	508.275	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:00-08:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	From			
	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:15-08:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	977.710	157.116
	Rhyd Broughton Ln	345.570	0.000	114.387
	B5101 Berse Rd (W)	751.002	622.507	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:15-08:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:30-08:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	977.710	157.116
	Rhyd Broughton Ln	345.570	0.000	114.387
	B5101 Berse Rd (W)	751.002	622.507	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:30-08:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (08:45-09:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	798.297	128.284
	Rhyd Broughton Ln	282.157	0.000	93.397
	B5101 Berse Rd (W)	613.190	508.275	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (08:45-09:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (09:00-09:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	668.535	107.432
	Rhyd Broughton Ln	236.293	0.000	78.215
	B5101 Berse Rd (W)	513.518	425.656	0.000

Turning Proportions (PCU) - Berse Rd roundabout - (09:00-09:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.86	0.14
	Rhyd Broughton Ln	0.75	0.00	0.25
	B5101 Berse Rd (W)	0.55	0.45	0.00

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout - (07:45-08:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.042	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (07:45-08:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.2	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:00-08:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.042	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:00-08:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.2	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:15-08:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.042	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:15-08:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.2	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:30-08:45)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.042	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:30-08:45)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.2	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (08:45-09:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.042	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (08:45-09:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.2	3.9	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (09:00-09:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.033	1.139
	Rhyd Broughton Ln	1.068	1.000	1.224
	B5101 Berse Rd (W)	1.042	1.039	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (09:00-09:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	3.3	13.9
	Rhyd Broughton Ln	6.8	0.0	22.4
	B5101 Berse Rd (W)	4.2	3.9	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.81	14.41	4.38	B	945.79	1418.69	208.29	8.81	2.31	208.31	8.81
Rhyd Broughton Ln	0.25	2.86	0.36	A	383.34	575.01	25.82	2.69	0.29	25.82	2.69
B5101 Berse Rd (W)	0.98	55.59	20.51	F	1144.72	1717.07	639.12	22.33	7.10	639.19	22.34

Existing Layout - 2025 Baseline + Dev, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2025 Baseline + Dev, PM Peak	2025 Baseline + Dev	PM Peak		Varies by Arm	16:45	18:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
2	Berse Rd roundabout	Roundabout	1,2,3				4.71	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description
B5101 Berse Rd (N)	1	B5101 Berse Rd (N)	
Rhyd Broughton Ln	2	Rhyd Broughton Ln	
B5101 Berse Rd (W)	3	B5101 Berse Rd (W)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B5101 Berse Rd (N)	0.00	99999.00		0.00
Rhyd Broughton Ln	0.00	99999.00		0.00
B5101 Berse Rd (W)	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B5101 Berse Rd (N)	3.70	7.10	12.80	41.50	38.50	13.00	
Rhyd Broughton Ln	4.80	6.80	10.80	20.90	38.50	11.00	
B5101 Berse Rd (W)	3.50	5.60	21.20	25.50	38.50	18.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B5101 Berse Rd (N)		(calculated)	(calculated)	0.695	1819.457
Rhyd Broughton Ln		(calculated)	(calculated)	0.718	1959.751
B5101 Berse Rd (W)		(calculated)	(calculated)	0.646	1624.209

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B5101 Berse Rd (N)	DIRECT		N/A	100.000
Rhyd Broughton Ln	DIRECT		N/A	100.000
B5101 Berse Rd (W)	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (16:45-17:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	190.294	456.747
	Rhyd Broughton Ln	271.497	0.000	176.350
	B5101 Berse Rd (W)	158.586	135.338	2.461

Turning Proportions (PCU) - Berse Rd roundabout - (16:45-17:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:00-17:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	227.230	545.400
	Rhyd Broughton Ln	324.194	0.000	210.579
	B5101 Berse Rd (W)	189.367	161.607	2.938

Turning Proportions (PCU) - Berse Rd roundabout - (17:00-17:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:15-17:30)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.000	278.298	667.976
	Rhyd Broughton Ln	397.055	0.000	257.906
	B5101 Berse Rd (W)	231.927	197.928	3.599

Turning Proportions (PCU) - Berse Rd roundabout - (17:15-17:30)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:30-17:45)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.000	278.298	667.976
	Rhyd Broughton Ln	397.055	0.000	257.906
	B5101 Berse Rd (W)	231.927	197.928	3.599

Turning Proportions (PCU) - Berse Rd roundabout - (17:30-17:45)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (17:45-18:00)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.000	227.230	545.400
	Rhyd Broughton Ln	324.194	0.000	210.579
	B5101 Berse Rd (W)	189.367	161.607	2.938

Turning Proportions (PCU) - Berse Rd roundabout - (17:45-18:00)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Turning Counts / Proportions (PCU/hr) - Berse Rd roundabout - (18:00-18:15)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.000	190.294	456.747
	Rhyd Broughton Ln	271.497	0.000	176.350
	B5101 Berse Rd (W)	158.586	135.338	2.461

Turning Proportions (PCU) - Berse Rd roundabout - (18:00-18:15)

		To		
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.00	0.29	0.71
	Rhyd Broughton Ln	0.61	0.00	0.39
	B5101 Berse Rd (W)	0.54	0.46	0.01

Vehicle Mix

Average PCU Per Vehicle - Berse Rd roundabout - (16:45-17:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.036
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.006	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (16:45-17:00)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.6
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.6	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:00-17:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.036
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.006	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:00-17:15)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.6
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.6	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:15-17:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.036
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.006	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:15-17:30)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	0.0	2.2	3.6
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.6	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:30-17:45)

	To			
From		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
	B5101 Berse Rd (N)	1.000	1.022	1.036
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.006	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:30-17:45)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.6
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.6	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.022	1.036
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.006	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (17:45-18:00)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.6
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.6	7.2	0.0

Average PCU Per Vehicle - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	1.000	1.022	1.036
	Rhyd Broughton Ln	1.053	1.000	1.090
	B5101 Berse Rd (W)	1.006	1.072	1.000

Heavy Vehicle Percentages - Berse Rd roundabout - (18:00-18:15)

	To			
		B5101 Berse Rd (N)	Rhyd Broughton Ln	B5101 Berse Rd (W)
From	B5101 Berse Rd (N)	0.0	2.2	3.6
	Rhyd Broughton Ln	5.3	0.0	9.0
	B5101 Berse Rd (W)	0.6	7.2	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B5101 Berse Rd (N)	0.56	5.07	1.32	A	788.65	1182.97	83.20	4.22	0.92	83.20	4.22
Rhyd Broughton Ln	0.44	4.67	0.85	A	545.86	818.79	53.70	3.94	0.60	53.70	3.94
B5101 Berse Rd (W)	0.32	3.99	0.48	A	361.25	541.88	32.54	3.60	0.36	32.54	3.60

Appendix F

PICADY Reports

Junctions 9						
PICADY 9 - Priority Intersection Module						
Version: 9.0.2.5947						
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+44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk						
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Filename: BerseRdGatewenRd_140618.j9

Path: Z:\2600-2699\2627 Wrexham Glyndwr University\Data\Junction Assessment

Report generation date: 14/06/2018 11:18:29

- »Proposed Layout - 2018 Baseline, AM Peak
- »Proposed Layout - 2018 Baseline, PM Peak
- »Proposed Layout - 2020 Baseline, AM Peak
- »Proposed Layout - 2020 Baseline, PM Peak
- »Proposed Layout - 2020 Baseline + Dev, AM Peak
- »Proposed Layout - 2020 Baseline + Dev, PM Peak
- »Proposed Layout - 2025 Baseline, AM Peak
- »Proposed Layout - 2025 Baseline, PM Peak
- »Proposed Layout - 2025 Baseline + Dev, AM Peak
- »Proposed Layout - 2025 Baseline + Dev, PM Peak

Summary of junction performance

	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Proposed Layout - 2018 Baseline						
Stream B-C	4.4	38.81	0.83	0.3	6.80	0.21
Stream B-A	0.0	27.37	0.01	0.0	12.54	0.02
Stream C-AB	0.3	10.14	0.21	1.1	12.67	0.52
Proposed Layout - 2020 Baseline						
Stream B-C	5.7	48.62	0.87	0.3	6.89	0.22
Stream B-A	0.0	39.71	0.01	0.0	12.89	0.02
Stream C-AB	0.3	10.41	0.22	1.2	13.21	0.54
Proposed Layout - 2020 Baseline + Dev						
Stream B-C	10.0	78.29	0.94	0.3	7.19	0.25
Stream B-A	0.2	3345.54	0.92	0.0	13.56	0.02
Stream C-AB	0.3	10.84	0.25	1.5	15.20	0.60
Proposed Layout - 2025 Baseline						
Stream B-C	9.8	78.74	0.94	0.3	7.06	0.23
Stream B-A	0.3	3180.77	0.92	0.0	13.58	0.02
Stream C-AB	0.3	10.94	0.24	1.3	14.31	0.57
Proposed Layout - 2025 Baseline + Dev						
Stream B-C	19.0	132.94	1.02	0.4	7.38	0.26
Stream B-A	0.4	3497.34	1.03	0.0	14.33	0.02
Stream C-AB	0.4	11.42	0.27	1.7	16.64	0.64

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	Wrexham Glyndwr University
Location	Gatewen Rd
Site number	
Date	14/06/2018
Version	1
Status	
Identifier	
Client	Wrexham Glyndwr University
Jobnumber	2627
Enumerator	Mark Lever
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically	Relationship type	Relationship
D1	2018 Baseline	AM Peak	ONE HOUR	07:45	09:15	15		✓		
D2	2018 Baseline	PM Peak	ONE HOUR	16:45	18:15	15		✓		
D3	2020 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0335
D4	2020 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0316
D5	2020 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D11
D6	2020 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D4+D12
D7	2025 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0936
D8	2025 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0895
D9	2025 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D11
D10	2025 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D12
D11	Dev	AM Peak	ONE HOUR	07:45	09:15	15				
D12	Dev	PM Peak	ONE HOUR	16:45	18:15	15				

Analysis Set Details

ID	Name	Description	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Proposed Layout	ITP DWG-2627-101	✓	100.000	100.000

Proposed Layout - 2018 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	11.98	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B5101 Berse Rd (W)		Major
B	Gatewen Rd		Minor
C	B5101 Berse Rd (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - B5101 Berse Rd (E)	7.60		✓	2.20	150.0	✓	10.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Gatewen Rd	One lane plus flare	10.00	9.70	5.60	3.80	3.60	✓	2.00	38	36

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530	0.090	0.227	0.143	0.324
1	B-C	742	0.106	0.268	-	-
1	C-B	661	0.238	0.238	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	738	100.000
B - Gatewen Rd		ONE HOUR	✓	396	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	223	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	2	736
	B - Gatewen Rd	1	0	395
	C - B5101 Berse Rd (E)	135	88	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	0	5
	B - Gatewen Rd	0	0	2
	C - B5101 Berse Rd (E)	24	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.83	38.81	4.4	E	362	544
B-A	0.01	27.37	0.0	D	0.92	1
C-AB	0.21	10.14	0.3	B	81	121
C-A					124	186
AB					2	3
AC					675	1013

Proposed Layout - 2018 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	241	100.000
B - Gatewen Rd		ONE HOUR	✓	132	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	767	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	7	234
	B - Gatewen Rd	4	0	128
	C - B5101 Berse Rd (E)	484	283	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	0	7
	B - Gatewen Rd	0	0	0
	C - B5101 Berse Rd (E)	7	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.21	6.80	0.3	A	117	176
B-A	0.02	12.54	0.0	B	4	6
C-AB	0.52	12.67	1.1	B	260	390
C-A					444	666
A-B					6	10
A-C					215	322

Proposed Layout - 2020 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	14.86	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically	Relationship type	Relationship
D3	2020 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0335

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	763	100.000
B - Gatewen Rd		ONE HOUR	✓	409	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	230	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	2	761
	B - Gatewen Rd	1	0	408
	C - B5101 Berse Rd (E)	140	91	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	0	5
	B - Gatewen Rd	0	0	2
	C - B5101 Berse Rd (E)	24	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.87	48.62	5.7	E	375	562
B-A	0.01	39.71	0.0	E	0.95	1
C-AB	0.22	10.41	0.3	B	83	125
C-A					128	192
A-B					2	3
A-C					698	1047

Proposed Layout - 2020 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	4.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically	Relationship type	Relationship
D4	2020 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0316

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	249	100.000
B - Gatewen Rd		ONE HOUR	✓	136	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	791	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	7	241
	B - Gatewen Rd	4	0	132
	C - B5101 Berse Rd (E)	499	292	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	0	7
	B - Gatewen Rd	0	0	0
	C - B5101 Berse Rd (E)	7	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.22	6.89	0.3	A	121	182
B-A	0.02	12.89	0.0	B	4	6
C-AB	0.54	13.21	1.2	B	268	402
C-A					458	687
A-B					7	10
A-C					222	332

Proposed Layout - 2020 Baseline + Dev, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	26.96	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically	Relationship type	Relationship
D5	2020 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D11

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	766	100.000
B - Gatewen Rd		ONE HOUR	✓	444	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	247	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
	A - B5101 Berse Rd (W)	0	2	764
	B - Gatewen Rd	1	0	443
	C - B5101 Berse Rd (E)	143	105	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
	A - B5101 Berse Rd (W)	0	0	5
	B - Gatewen Rd	0	0	2
	C - B5101 Berse Rd (E)	23	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.94	78.29	10.0	F	407	610
B-A	0.92	3345.54	0.2	F	0.95	1
C-AB	0.25	10.84	0.3	B	96	144
C-A					131	196
A-B					2	3
A-C					701	1051

Proposed Layout - 2020 Baseline + Dev, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	4.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically	Relationship type	Relationship
D6	2020 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D4+D12

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	252	100.000
B - Gatewen Rd		ONE HOUR	✓	155	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	827	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
	A - B5101 Berse Rd (W)	0	7	244
	B - Gatewen Rd	4	0	151
	C - B5101 Berse Rd (E)	502	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
	A - B5101 Berse Rd (W)	0	0	7
	B - Gatewen Rd	0	0	0
	C - B5101 Berse Rd (E)	7	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.25	7.19	0.3	A	139	208
B-A	0.02	13.56	0.0	B	4	6
C-AB	0.60	15.20	1.5	C	299	448
C-A					460	690
A-B					7	10
A-C					224	336

Proposed Layout - 2025 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	25.97	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically	Relationship type	Relationship
D7	2025 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0936

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	807	100.000
B - Gatewen Rd		ONE HOUR	✓	433	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	244	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	2	805
	B - Gatewen Rd	1	0	432
	C - B5101 Berse Rd (E)	148	96	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	0	5
	B - Gatewen Rd	0	0	2
	C - B5101 Berse Rd (E)	24	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.94	78.74	9.8	F	396	595
B-A	0.92	3180.77	0.3	F	1	2
C-AB	0.24	10.94	0.3	B	88	132
C-A					135	203
A-B					2	3
A-C					739	1108

Proposed Layout - 2025 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	4.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically	Relationship type	Relationship
D8	2025 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0895

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	263	100.000
B - Gatewen Rd		ONE HOUR	✓	144	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	836	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	8	255
	B - Gatewen Rd	4	0	139
	C - B5101 Berse Rd (E)	527	308	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
From	A - B5101 Berse Rd (W)	0	0	7
	B - Gatewen Rd	0	0	0
	C - B5101 Berse Rd (E)	7	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.23	7.06	0.3	A	128	192
B-A	0.02	13.58	0.0	B	4	6
C-AB	0.57	14.31	1.3	B	283	425
C-A					483	725
A-B					7	10
A-C					234	351

Proposed Layout - 2025 Baseline + Dev, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	43.64	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically	Relationship type	Relationship
D9	2025 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D11

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	810	100.000
B - Gatewen Rd		ONE HOUR	✓	468	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	261	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
	A - B5101 Berse Rd (W)	0	2	808
	B - Gatewen Rd	1	0	467
	C - B5101 Berse Rd (E)	151	110	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
	A - B5101 Berse Rd (W)	0	0	5
	B - Gatewen Rd	0	0	2
	C - B5101 Berse Rd (E)	23	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.02	132.94	19.0	F	429	643
B-A	1.03	3497.34	0.4	F	1	2
C-AB	0.27	11.42	0.4	B	101	152
C-A					138	207
A-B					2	3
A-C					741	1112

Proposed Layout - 2025 Baseline + Dev, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	5.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically	Relationship type	Relationship
D10	2025 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D12

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B5101 Berse Rd (W)		ONE HOUR	✓	266	100.000
B - Gatewen Rd		ONE HOUR	✓	163	100.000
C - B5101 Berse Rd (E)		ONE HOUR	✓	872	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
	A - B5101 Berse Rd (W)	0	8	258
	B - Gatewen Rd	4	0	158
	C - B5101 Berse Rd (E)	530	341	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - B5101 Berse Rd (W)	B - Gatewen Rd	C - B5101 Berse Rd (E)
	A - B5101 Berse Rd (W)	0	0	7
	B - Gatewen Rd	0	0	0
	C - B5101 Berse Rd (E)	7	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.26	7.38	0.4	A	145	218
B-A	0.02	14.33	0.0	B	4	6
C-AB	0.64	16.64	1.7	C	315	472
C-A					485	728
A-B					7	10
A-C					237	355



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