

Technical Note - Highways

Project: Land North of Bryn Lane, Wrexham Industrial Estate

Project reference: P/2023/0497

Date: 14th November 2025

- 1.1.1 This technical note provides a detailed response to the memorandum issued by Wrexham County Borough Council (WCBC), dated 4th September 2025, regarding the following planning application:

“Land North of Bryn Lane, Wrexham Industrial Estate. Hybrid application seeking: Full planning permission for the erection of buildings for class. B1, B2 & B8 use and formation of vehicular access and outline planning permission for the erection of buildings for class B1, B2 and B8 use and retail, drive thru, hotel and petrol filling station classes A1, A3, C1 and sui generis and associated infrastructure (all matters reserved)”

Transport Assessment Addendum

WC: In terms of phasing, Phase 1 of the development would be accessed from the proposed new junction on Bryn Lane, with Phase 2 being developed from the amended existing roundabout. It is not clear in the application whether both site accesses form part of the detailed element of the application or just the Bryn Lane access. This should be clarified together with all/any elements of the proposals (including site layouts) that form the detailed planning application.

The planning application seeks full planning permission for both the roundabout and the other access.

Site Access & Junction Design

A Stage 1 Road Safety Audit (RSA) is now included in the TAA of the site access proposals. This RSA raises a number of highly significant safety concerns. However, the TAA does not include any designer’s response to the RSA so it is not clear if, or where, the applicant plans to update the proposals in response to the RSA.

- 1.1.2 **Appendix TN1** provides the designers response, updated site layout and access drawings addressing both the RSA and Council’s comments.

Modelling and Trip Generation

*The assessment at present does not take account of the full 16,100m² of flexible space being built out. An assessment of this was previously requested. With the increase in retail space that this could generate it is highly likely that a significant proportion of new trips would be generated. **The applicant should review the proportion of new, passby and diverted trips when this assessment is undertaken.***

- 1.1.3 The overall quantum of Use Class A1, A3, C1 and/or Sui Generis use floorspace would not exceed 16,150m² Gross External Area (GEA). This matches a figure in the Design and Access Statement.
- 1.1.4 Through dialogue with the Council, the development proposes a maximum of 2,450m² of retail uses (A1 and A3). It is proposed to restrict the size of any A1 unit to 500m². This dialogue is referenced within the *Executive Summary to R6 Policy Update* document that we understand was shared with Highways.
- 1.1.5 This is all in the outline planning permission element of the application and the trips assessed as contained in Tables 5.5 to 5.8 of the Transport Assessment (extract below).

Table 5.5: Trip Rates & Trip Generation – Local Centre

Local Centre – 894m ²	AM Peak			PM Peak		
	Arr	Dep	Total	Arr	Dep	Total
Trip Rates	3.310	2.956	6.266	4.199	4.575	8.774
Trips	81	72	154	103	112	215

Table 5.6: Trip Rates & Trip Generation – Hotel

100 Bedrooms	AM Peak			PM Peak		
	Arr	Dep	Total	Arr	Dep	Total
Trip Rates	0.088	0.183	0.271	0.128	0.075	0.203
Trips	9	18	27	13	8	20

Table 5.7: Trip Rates & Trip Generation – Drive-Thru Restaurant

1,106m ² GFA	AM Peak			PM Peak		
	Arr	Dep	Total	Arr	Dep	Total
Trip Rates	15.952	15.462	31.414	18.606	18.648	37.254
Trips	176	171	347	206	206	412

Table 5.8: Trip Rates & Trip Generation – Petrol Filling Station

10 PFS Bays	AM Peak			PM Peak		
	Arr	Dep	Total	Arr	Dep	Total
Trip Rates	5.709	5.620	11.329	6.051	6.241	12.292
Trips	57	56	113	61	62	123

The proposed area of the site which is open to B8/Ev Charging / Lorry Park is assessed using B8. Evidence will need to be provided on why this is appropriate, given this appears to not be immediately applicable.

- 1.1.6 A lorry park does not generate additional trips, as the vehicles using it are already travelling on the highway network. These are considered pass-by trips. Assessing the site using B8 land-use trip rates is therefore highly robust, as it assumes the lorry park creates new trips when, in reality, it does not.

Traffic Impact Assessment – Committed Development

WC: No detail of committed development is included in the TAA document, however traffic flow diagrams in the appendix of the document include committed flows.

*No narrative is provided in the TAA as to where these flows are taken from or how these developments have been treated. **This detail must be provided.***

1.1.7 The information WCBC had reviewed was based on an agreement set of committed schemes included in the original assessment, as detailed in the Transport Assessment (TA) and Transport Assessment Addendum, these were:

- *Pacific Park*
- *Ash Road*
- *KSS2*
- *Kingmoor*

1.1.8 The updated list of committed developments included in this revised assessment is as follows, presented alongside commentary on each planning application as relevant. We have defined these committed developments from requests from WCBC and the purpose is to identify the impact from the Proposed Development in highways terms. The 'extension to Net World Sport' development has not been included, as a planning application for this scheme has not yet been submitted.

- *Net World Sports (P/2020/0167) [Traffic Figures 26a & 26b]* - In response to the Council's comments about "the Net World Sport application at Bryn Lane", the original outline planning permission for the building has been considered so that full trip generation is captured;
- *Land to the east of Bryn Lane (P/2023/0230) - 97,500 sqft B2/B8 [Traffic Figures 26c & 26d]* - Noting the Council has requested this be considered; however, the application has had no activity on the planning portal since October 2023;
- *Pacific Park (P/2020/0603) [Traffic Figures 18 & 19]* - This is now complete, however included for robustness as unclear whether units are tenanted;
- *Land off Ash Road South (P/2015/0843) [Traffic Figures 20 & 21]* - This appears to have completed and was occupied by Altaeros UK Ltd in December 2024. However, for robustness, and to allow for comparison with submitted information this application will remain within the committed development section;
- *Kingmoor [Traffic Figures 25 & 26]; and*
- *The Net World Sports development on Bryn Lane – (Land South of Bryn Lane development) [Traffic Figures 26e & 26f]* - This has been included for robustness, noting it is an application being delivered by the same Applicant as Utopia City and is located within the Wrexham Industrial Estate where there is strong policy support for employment use within Wrexham UDP and aligns with the objectives in Future Wales (2040). Therefore, there is a greater level of certainty available that it will be delivered

as this forms part of the Applicant's wider development strategy for land within the Wrexham Industrial Estate.

- 1.1.9 It should be noted that the KSS2 development trips (both North and South) are included in **Traffic Figures 23 & 24**, however, these trips are subject to sensitivity assessment scenarios in the junction modelling. This is due to the recent de-allocation of the Wrexham LDP, meaning these are no longer allocated in that plan. KSS2 is within the Green Belt under the Wrexham LDP and the Green Belt policies within Future Wales (2040) apply.
- 1.1.10 There is currently no certainty that they will be delivered as compared to a site within the ownership of the Applicant for Utopia City
- 1.1.11 Committed development trips from the above planning applications have been extracted from their respective Transport Assessments (TAs) available on the planning portal and are shown in Traffic Figures **18-26** and in **26a-26j**.

Future Year Impact / TEMpro Growth

- 1.1.12 An assessment of future traffic conditions has been undertaken using the **TEMPro** database in conjunction with the **National Traffic Model (NTM)** dataset. These have been applied to the surveyed traffic flows based on the following parameters::
- *Wrexham O20 area definition;*
 - *Trip end by time period for car drivers; and*
 - *NTM, all road types.*
- 1.1.13 **Table 1.1** summarises the derived growth factors. Future year assessments consider **2030** (Phase 1 fully operational) and **2037** (Phase 2 fully operational).

Table 1.1: TEMpro / NTM Growth Factors

AM Peak	PM Peak	AM Peak	PM Peak
2023 to 2030	2023 to 2030	2023 to 2037	2023 to 2037
1.0587	1.0587	1.1194	1.1194

- 1.1.14 **Traffic Figures 5, 6 and 5a & 6a** show the 2030 & 2037 Growthed Traffic flows for the AM and PM peak periods respectively.
- 1.1.15 It should be noted that household and employment assumptions within TEMPro have not been adjusted to account for the included committed developments, providing a robust assessment of future-year local plan growth impacts on the highway network.
- 1.1.16 Additionally, growth within the industrial estate is likely to be primarily driven by new development and there is high chance of double counting between the committed developments that has been included and the TEMPro growth applied.

Junction Capacity Assessments

Given the concerns raised on accuracy of the junction modelling in later sections of this response, the LHA will require assessment of the A534 / Borrass Hall Lane / Wrexham Road roundabout and the A534/ A5156 'Golf Club' roundabout.

Industrial Estate Road / Abenbury Way / Ash Road North / Bryn Lane Roundabout (Existing)

- 1.1.17 As part of this technical note Cora have assessed the roundabout junction as existing without KSS3 coming forward.
- 1.1.18 **Table 1.2** summarises the 2030 capacity assessments. The full output is provided in **Appendix TN2**.

Table 1.2: Existing Bryn Lane / Industrial Estate Road – Capacity Summary

Arm	2030 Base AM Peak		2030 Base PM Peak		2030 Base + Committed AM Peak		2030 Base + Committed PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Bryn Lane	0.26	0	0.23	0	0.41	1	0.39	1
Ash Road North	0.14	0	0.53	2	0.20	0	0.81	4
Abenbury Way	0.25	0	0.85	5	0.27	0	1.16	48
Industrial Estate Road	0.66	2	0.21	0	0.81	4	0.29	1

- 1.1.19 As can be seen from **Table 1.2**, the committed developments which includes KSS2 has a material impact on the roundabout operation. In theory these schemes should mitigate their impact by way of improving the roundabout.

Industrial Estate Road / Abenbury Way / Ash Road North / Bryn Lane Roundabout
(Improved)

1.1.20 As part of KSS3 proposals the roundabout is to be improved along with providing a new access.

1.1.21 **Table 1.3** summarises the 2030 & 2037 capacity assessments with the new roundabout site access in place. The full output is provided in **Appendix TN3**.

Table 1.3: Proposed Site Access / Industrial Estate Road (Improvements) – Capacity Summary

	2030 Base + Committed AM Peak		2030 Base + Committed PM Peak		2030 Base + Development (Phase 1) + Committed Developments AM Peak		2030 Base + Development (Phase 1) + Committed Developments PM Peak	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Bryn Lane	0.31	1	0.34	1	0.40	1	0.43	1
Ash Road North	0.18	0	0.74	3	0.18	0	0.79	4
Abenbury Way	0.15	0	0.50	1	0.16	0	0.54	1
Industrial Estate Road	0.75	3	0.27	0	0.82	5	0.31	0
Proposed Site Access	0.00	0	0.00	0	0.00	0	0.00	0
	2037 Base + Committed AM Peak		2037 Base + Committed PM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments AM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments PM Peak	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Bryn Lane	0.34	1	0.35	1	0.50	3	0.56	1
Ash Road North	0.19	0	0.79	4	0.22	0	1.06	43
Abenbury Way	0.16	0	0.54	1	0.18	0	0.78	4
Industrial Estate Road	0.79	4	0.29	0	0.96	18	0.42	1
Proposed Site Access	0.00	0	0.00	0	0.53	1	0.37	1

- 1.1.22 The assessments indicate that the proposed improvements to the Site Access / Industrial Estate Road roundabout junction would operate within theoretical capacity in the 2030 future year, taking into account both Phase 1 and Phase 2 of the proposed development, all committed developments (including KSS2), and planned local growth.
- 1.1.23 It should be noted that the Ash Road North arm of the junction is projected to operate slightly above theoretical capacity during the PM peak in 2037. This assessment represents a worst-case scenario, as it includes potential double counting of future traffic from both committed developments and TEMPro growth. Therefore, it is anticipated that actual traffic flows are unlikely to exceed the assessed levels, and the roundabout is expected to operate within capacity. It should also be noted that the PICADY program determines queues exponentially above an RFC of 1.0, therefore the impact of the development would be less in reality.
- 1.1.24 A sensitivity assessment was also undertaken for the roundabout, which shows the results of the junction capacity without KSS2 in place. **Tables 1.4** shows the results of the capacity assessment, without the KSS2 development in place.

**Table 1.4: Proposed Site Access / Industrial Estate Road (Improvements) – 2030 & 2037
Base + Committed + Development (Sensitivity – Without KSS2)**

	2030 Base + Development (Phase 1) + Committed Developments AM Peak [Sensitivity - Without KSS2]		2030 Base + Development (Phase 1) + Committed Developments PM Peak [Sensitivity - Without KSS2]		2037 Base + Development (Phase 1 & 2) + Committed Developments AM Peak [Sensitivity - Without KSS2]		2037 Base + Development (Phase 1 & 2) + Committed Developments PM Peak [Sensitivity - Without KSS2]	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Bryn Lane	0.39	1	0.43	1	0.46	1	0.54	1
Ash Road North	0.15	0	0.73	3	0.16	0	0.92	9
Abenbury Way	0.17	0	0.55	1	0.18	0	0.74	3
Industrial Estate Road	0.80	4	0.30	0	0.90	9	0.39	1
Proposed Site Access	0.00	0	0.00	0	0.48	1	0.36	1

- 1.1.25 The above sensitivity assessments show the RFC and queue numbers along both Ash Road North and Industrial Estate Road decrease, without the KSS2 development in place, and the junction works within capacity.

A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane Roundabout Junction

- 1.1.26 The “ARCADY” assessment program has been used to assess the capacity at the existing A534 / Industrial Estate Road / Sandy Lane roundabout junction to the north of the site.
- 1.1.27 **Tables 1.5 & 1.6** summarises the 2023 Surveyed, and 2030 & 2037 with development capacity assessments respectively. The full ARCADY output is provided in **Appendix TN4**.

Table 1.5: A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane Roundabout Junction – 2023 Base / 2030 & 2037 Base + Committed

	2023 Base (Surveyed)		2023 Base (Surveyed)	
Arm	RFC	Queue	RFC	Queue
Borrass Hall Lane	0.25	0	0.04	0
Wrexham Road	0.56	1	0.36	1
Industrial Estate Road	0.23	0	0.76	3
Sandy Lane	0.04	0	0.06	0
A534	0.62	2	0.31	1

	2030 Base + Committed AM Peak		2030 Base + Committed PM Peak		2037 Base + Committed AM Peak		2037 Base + Committed PM Peak	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Borrass Hall Lane	0.41	1	0.04	0	0.48	1	0.05	0
Wrexham Road	0.80	4	0.43	1	0.90	8	0.46	1
Industrial Estate Road	0.32	1	0.98	26	0.34	1	1.04	62
Sandy Lane	0.04	0	0.12	0	0.05	0	0.15	0
A534	0.80	4	0.42	1	0.84	5	0.44	1

**Table 1.6: A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane Roundabout
Junction –2030 & 2037 Base + Committed + Development**

Arm	2030 Base + Development (Phase 1) + Committed Developments AM Peak		2030 Base + Development (Phase 1) + Committed Developments PM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments AM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Borrass Hall Lane	0.52	1	0.05	0	0.74	3	0.07	0
Wrexham Road	0.93	9	0.45	1	1.16	47	0.51	1
Industrial Estate Road	0.36	1	1.06	79	0.42	1	1.15	181
Sandy Lane	0.04	0	0.15	0	0.05	0	0.15	0
A534	0.86	6	0.46	1	0.94	15	0.52	1

- 1.1.28 The assessments show that the A534 / Industrial Estate Road roundabout junction would begin to operate at or over capacity along the A534 arms in the future year assessments with the committed developments and local traffic growth in place.
- 1.1.29 The addition of Phase 1 in 2030 and Phase 2 in 2037 of the proposed development, would send the A534 arms over an RFC of 1.0. It should be noted however, that the ARCADY outputs show exponential results after recording an RFC of above 1.0, therefore the impact of the development would be less in reality.
- 1.1.30 A sensitivity assessment was also undertaken for the roundabout, which shows the results of the junction capacity without KSS2 in place. **Tables 1.7** shows the results of the capacity assessment, without the KSS2 development in place.

Table 1.7: A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane Roundabout Junction –2030 & 2037 Base + Committed + Development (Sensitivity – Without KSS2)

	2030 Base + Development (Phase 1) + Committed Developments AM Peak [Sensitivity - Without KSS2]		2030 Base + Development (Phase 1) + Committed Developments PM Peak [Sensitivity - Without KSS2]		2037 Base + Development (Phase 1 & 2) + Committed Developments AM Peak [Sensitivity - Without KSS2]		2037 Base + Development (Phase 1 & 2) + Committed Developments PM Peak [Sensitivity - Without KSS2]	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Borrass Hall Lane	0.42	1	0.05	0	0.59	1	0.06	0
Wrexham Road	0.81	4	0.42	1	1.00	17	0.48	1
Industrial Estate Road	0.33	1	0.99	27	0.40	1	1.08	104
Sandy Lane	0.04	0	0.12	0	0.05	0	0.15	0
A534	0.79	4	0.43	1	0.88	7	0.49	1

- 1.1.31 The above sensitivity assessments show that the KSS2 development would have an impact at the junction.
- 1.1.32 In order to mitigate the traffic impact for the proposed development, Wrexham's Local Development Plan VISSIM modelling suggested that the trigger point for highway improvements associated with the KSS3 site occurs once 50% of the site is developed. The trigger point for highway improvements, therefore, occurs upon first occupation of KSS3 Phase 2 as set out in the committee report for KSS2 north as shown in **Figure 1**.

Figure 1: KSS2 North Highways Improvements Measure

Mitigation	Timing
Signalisation of the A534 / Blackwood Way roundabout as well as an additional 100m long west-bound approach lane and an additional circulatory lane on the southern quadrant of the A5156 / A534 / Holt Road roundabout	Required when 710 dwellings are occupied on KSS2, assumed to be 250 dwellings on the northern part of KSS2 (i.e. the application site) and 460 dwellings on the southern part) and approximately half of KSS3 has been developed
Spine road through KSS2 from the A5156 / A534 Holt Road to Cefn Road	Required for the number of dwellings occupied in KSS2 to exceed 710, again assumed to be 250 dwellings on the northern part of KSS2 and 460 on the southern part
An additional 100m long south bound approach lane, additional circulatory lane on the northern quadrant and signalisation of the A5156 / A534 / Holt Road	Required when the remainder of KSS2 is built out and for KSS3 to be fully developed

- 1.1.33 The applicant for KSS3 accepts the above findings, however, as the Local Plan has now been quashed, the applicant has reassessed the requirement for highway improvements and propose the following improvements in order for the scheme to go ahead irrespective of whether KSS2 is delivered. The improvements proposed compliments the improvements as set out in **Figure 1** and allows further highway works to be provided at a later date.
- 1.1.34 It is proposed that in order to mitigate the traffic impact at the A534 / Industrial Estate Road roundabout junction, the A534 eastbound and Industrial Estate Road westbound approaches are to be signalised. The proposed improvement drawing is provided in **Appendix TN5**. These improvements have been are costed by a Quantity Surveyor and the works can be secured via a Section 278 agreement.
- 1.1.35 The LINSIG program has been used to assessed the improvement. **Table 1.8** summarises the results. **Appendix TN6** provides the LINSIG outputs.

**Table 1.8: A534 / Industrial Estate Road / Sandy Lane / Borrás Hall Lane Roundabout
Junction Improved –2030 & 2037 Base + Committed + Development (Sensitivity – Without
KSS2)**

	2030 Base + Development (Phase 1) + Committed Developments AM Peak [Sensitivity - Without KSS2]		2030 Base + Development (Phase 1) + Committed Developments PM Peak [Sensitivity - Without KSS2]		2037 Base + Development (Phase 1 & 2) + Committed Developments AM Peak [Sensitivity - Without KSS2]		2037 Base + Development (Phase 1 & 2) + Committed Developments PM Peak [Sensitivity - Without KSS2]	
Arm	DoS	Queue	DoS	Queue	DoS	Queue	DoS	Queue
Industrial Estate Road	37.7	4	82.7	27	40.5	5	87.4	31
Sandy Lane	3.2	0	8.0	0	3.6	0	9.1	1
A534	80.3	15	83.4	13	88.0	18	91.1	17
Borrás Hall Lane	27.8	2	3.7	0	29.0	2	4.3	0
Wrexham Road	89.3	12	48.0	5	95.1	16	50.4	6

1.1.36 The proposed improvements shows that the junction would operate within theoretical capacity threshold of 100. The resultant queueing overall is reduced which optimises the operation of the roundabout rather than resulting in high queues (particularly Industrial Estate Road) when compared to if it was a standard roundabout.

A534 / A5156 / Stryt Holt Roundabout Junction

- 1.1.37 The “ARCADY” assessment program has been used to assess the capacity at the existing A534 / A5156 / Stryt Holt roundabout junction north-west of the developments.
- 1.1.38 **Tables 1.9 & 1.10** summarises the 2023 Surveyed, and 2030 (Phase 1) & 2037 (Phase 1 & 2) Committed and / with development capacity assessments respectively. The full ARCADY output is provided in **Appendix TN7**. Note this does not include KSS2.

Table 1.9: A534 / A5156 / Stryt Holt Roundabout Junction – 2023 Base / 2030 & 2037 Base + Committed

	2023 Base (Surveyed)		2023 Base (Surveyed)	
Arm	RFC	Queue	RFC	Queue
Shell / Golf Site Access	0.26	0	0.14	0
A534 (East)	0.35	1	0.74	3
Stryt Holt	0.49	1	0.53	1
A5156	0.60	2	0.32	1

	2030 Base + Committed AM Peak		2030 Base + Committed PM Peak		2037 Base + Committed AM Peak		2037 Base + Committed PM Peak	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Shell / Golf Site Access	0.32	1	0.16	0	0.37	1	0.17	0
A534 (East)	0.39	1	0.84	5	0.41	1	0.89	7
Stryt Holt	0.54	1	0.62	1	0.58	2	0.69	2
A5156	0.68	2	0.37	1	0.72	3	0.39	1

Table 1.10: A534 / A5156 / Stryt Holt Roundabout Junction Roundabout Junction –2030 & 2037 Base + Committed + Development

Arm	2030 Base + Development (Phase 1) + Committed Developments AM Peak		2030 Base + Development (Phase 1) + Committed Developments PM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments AM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Shell / Golf Site Access	0.36	1	0.17	0	0.51	1	0.20	0
A534 (East)	0.42	1	0.85	6	0.49	1	1.00	35
Stryt Holt	0.57	1	0.68	2	0.65	2	0.83	5
A5156	0.74	3	0.40	1	0.85	5	0.47	1

- 1.1.39 The assessments show that the existing A534 / A5156 / Stryt Holt roundabout junction would operate within capacity for both Phase 1 and Phase 2 of the proposed development.
- 1.1.40 It is proposed that in order to mitigate the traffic impact at the A534 / A5156 / Stryt Holt roundabout junction, the A534 westbound approach and circulatory roundabout is widened to 3 lanes. The proposed improvement drawing is provided in **Appendix TN8**. These improvements have been are costed by a Quantity Surveyor and the works can be secured via a Section 278 agreement.
- 1.1.41 **Tables 1.11** summarises the 2030 (Phase 1) & 2037 (Phase 1 & 2) Committed and / with development capacity assessments with the improvements in place. The results show that the roundabout would within capacity with reduced queues. **Appendix TN9** provides the ARCADY Output.

Table 1.11: A534 / A5156 / Stryt Holt Roundabout Junction Roundabout Junction –2030 & 2037 Base + Committed + Development (With Improvements)

Arm	2030 Base + Development (Phase 1) + Committed Developments AM Peak		2030 Base + Development (Phase 1) + Committed Developments PM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments AM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Shell / Golf Site Access	0.36	1	0.17	0	0.51	1	0.20	0
A534 (East)	0.33	1	0.66	2	0.38	1	0.78	4
Stryt Holt	0.57	1	0.68	2	0.65	2	0.85	5
A5156	0.74	3	0.40	1	0.85	6	0.47	1

A534 / A5156 / Stryt Holt / Holt Spine Road (KSS2 Access) Roundabout Junction

1.1.42 The “ARCADY” assessment program has been used to assess the capacity at the proposed A534 / A5156 / Stryt Holt / Holt Spine Road roundabout junction, with the new access arm spine road and the widening of the A534 & A534 arms respectively.

1.1.43 **Tables 1.12 & 1.13** summarises the 2030 & 2037 Committed with development capacity assessments respectively. The full ARCADY output is provided in **Appendix TN10**.

Table 1.12: A534 / A5156 / Stryt Holt / Holt Spine Road Roundabout Junction – 2030 & 2037 Base + Committed

Arm	2030 Base + Committed AM Peak		2030 Base + Committed PM Peak		2037 Base + Committed AM Peak		2037 Base + Committed PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
A5156	0.53	1	0.33	1	0.56	1	0.33	1
Shell / Golf Club Access	0.44	1	0.21	0	0.54	1	0.21	0
A534 (East)	0.28	1	0.63	2	0.29	1	0.63	2
Holt Spine Road / KSS2 Access	0.60	2	0.54	1	0.62	2	0.54	2
Stryt Holt	0.72	3	1.00	19	0.76	3	1.10	47

Table 1.13: A534 / A5156 / Stryt Holt / Holt Spine Road Roundabout Junction –2030 & 2037 Base + Committed + Development

Arm	2030 Base + Development (Phase 1) + Committed Developments AM Peak		2030 Base + Development (Phase 1) + Committed Developments PM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments AM Peak		2037 Base + Development (Phase 1 & 2) + Committed Developments PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
A5156	0.57	1	0.35	1	0.65	2	0.40	1
Shell / Golf Club Access	0.54	1	0.22	0	0.91	6	0.25	0
A534 (East)	0.30	1	0.67	2	0.35	0	0.75	3
Holt Spine Road / KSS2 Access	0.62	2	0.61	2	0.68	2	0.84	4
Stryt Holt	0.75	3	1.09	42	0.86	6	1.37	120

- 1.1.44 The assessments show that the A534 / A5156 / Stryt Holt / Holt Spine Road proposed roundabout junction would reach full capacity along the Stryt Holt arm in the 2030 & 2037 future year assessments once KSS2 is developed.
- 1.1.45 It is envisaged that the additional mitigation as set out Figure 1 (as per page 11 of this note) would be required to be implemented by KSS2 in order to ensure that the roundabout operates to a satisfactory level. This can be confirmed when each application is considered by a decision-maker, including WCBC.

Conclusions

- 1.1.46 The technical note provides a comprehensive response to Wrexham County Borough Council's memorandum regarding the proposed hybrid development at Land North of Bryn Lane. Key conclusions include:
- **Access Strategy:** Full planning permission is sought for both the new Bryn Lane junction and the improved roundabout access. Updated drawings and a Stage 1 Road Safety Audit with designer responses are included.
 - **Trip Generation & Land Use:** The development caps retail (A1/A3) uses at 2,450m², with individual A1 units limited to 500m². Trip generation is robustly assessed, including conservative assumptions for the lorry park.
 - **Committed Developments:** A detailed list of committed developments has been incorporated into the traffic modelling, with trip data sourced from respective TAs.
 - **Future Growth:** TEMPro/NTM growth factors have been applied to assess 2030 and 2037 scenarios, ensuring a conservative approach by not adjusting for committed development overlap.
 - **Junction Capacity:**
 - The **Industrial Estate Road/Bryn Lane roundabout** operates within capacity with proposed improvements, even under worst-case scenarios.
 - The **A534/Industrial Estate Road roundabout** shows capacity issues in 2037, but proposed signalisation mitigates impacts effectively.
 - The **A534/A5156/Stryt Holt roundabout** remains within capacity with proposed widening improvements.
 - The **proposed A534/A5156/Holt Spine Road junction** performs acceptably under future traffic loads.
 - **Mitigation Measures:** Signalisation and geometric improvements are proposed to address future capacity constraints to ensure that the proposed development does not have a severe impact on the highway network. The improvements complement further improvements as set in Wrexham's Local Development Plan VISSIM modelling for the future development of KSS2. These improvements have been costed by a Quantity Surveyor and the works can be secured via a Section 278 agreement.
- 1.1.47 The proposed access and operational arrangements have been reviewed against the relevant national and local transport policies, including Planning Policy Wales (Edition 12, 2024), Technical Advice Note (TAN) 18 – Transport, and Wrexham Local Development Plan (Deposit Plan) Policy TRA 4 – Access to Development. Based on this review, the proposals are considered to fully comply with policy requirements relating to safe and suitable access, traffic management and the protection of highway safety.
- 1.1.48 It is concluded that the development proposals are acceptable in highways and transportation terms. There are no highways or transportation related reasons upon which a refusal of the planning application for the proposals would be justified.

Traffic Figures For Phase 1

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

Notes:

123

 Total Vehicles

123

 HGVs

--

 Flows Taken from Kingmoor TA

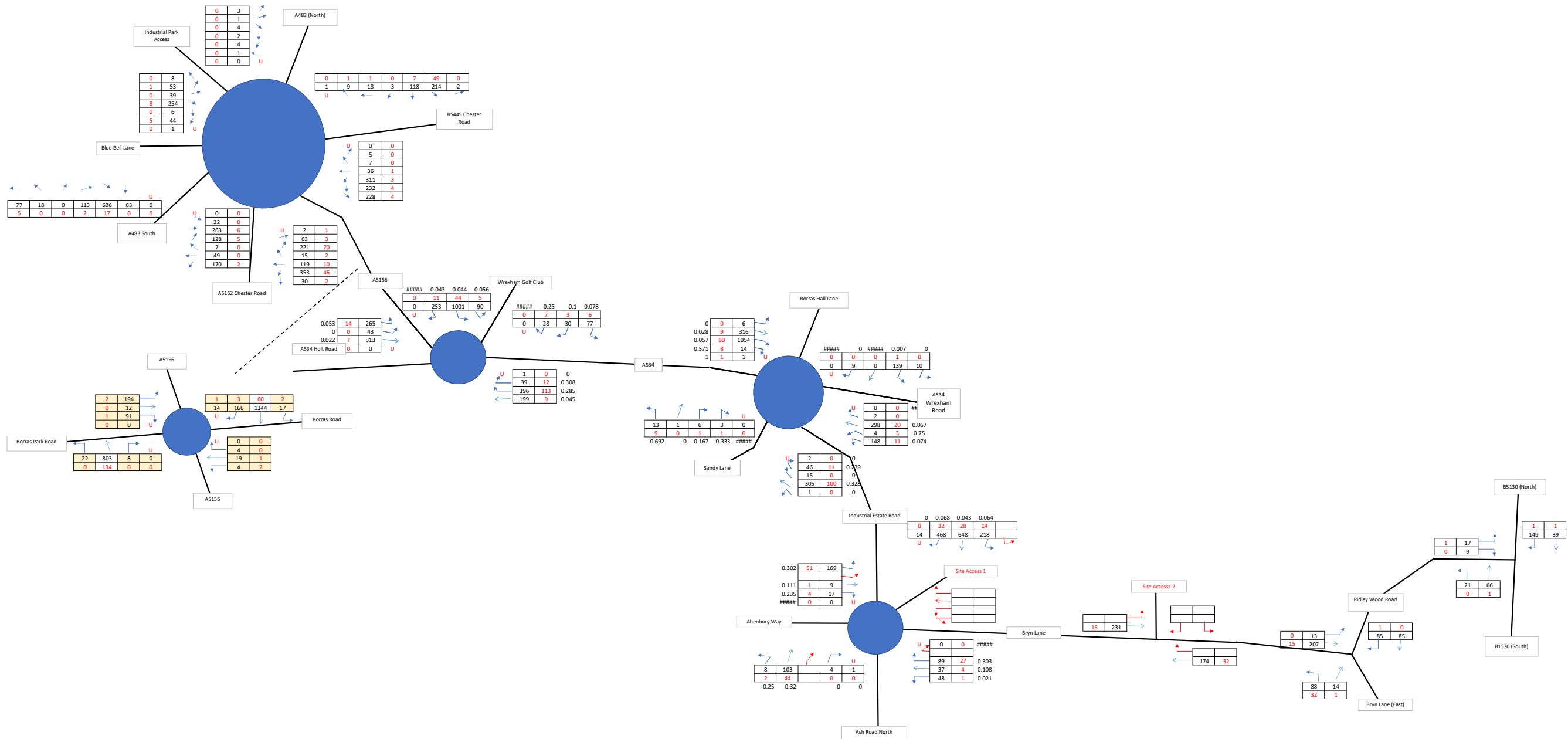


Figure 2 - 2023 Surveyed Traffic Flows
PM Peak: 1630-1730

Notes:

123	Total Vehicles
123	HGVs
	Flows Taken from Kingmoor TA

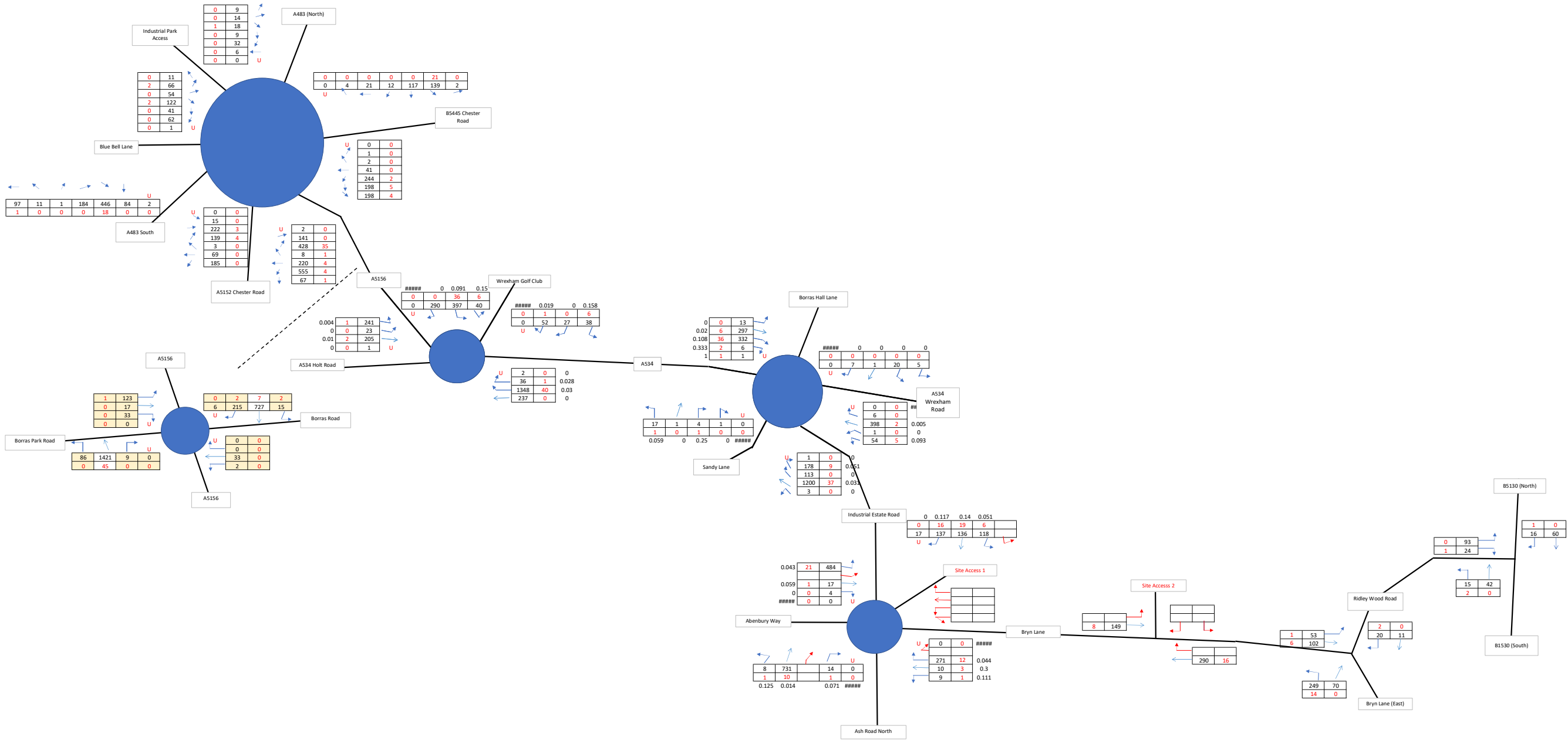


Figure 3 - 2023 Surveyed Traffic Flows
AM Peak: 0800-0900

Notes:

123

 PCUs

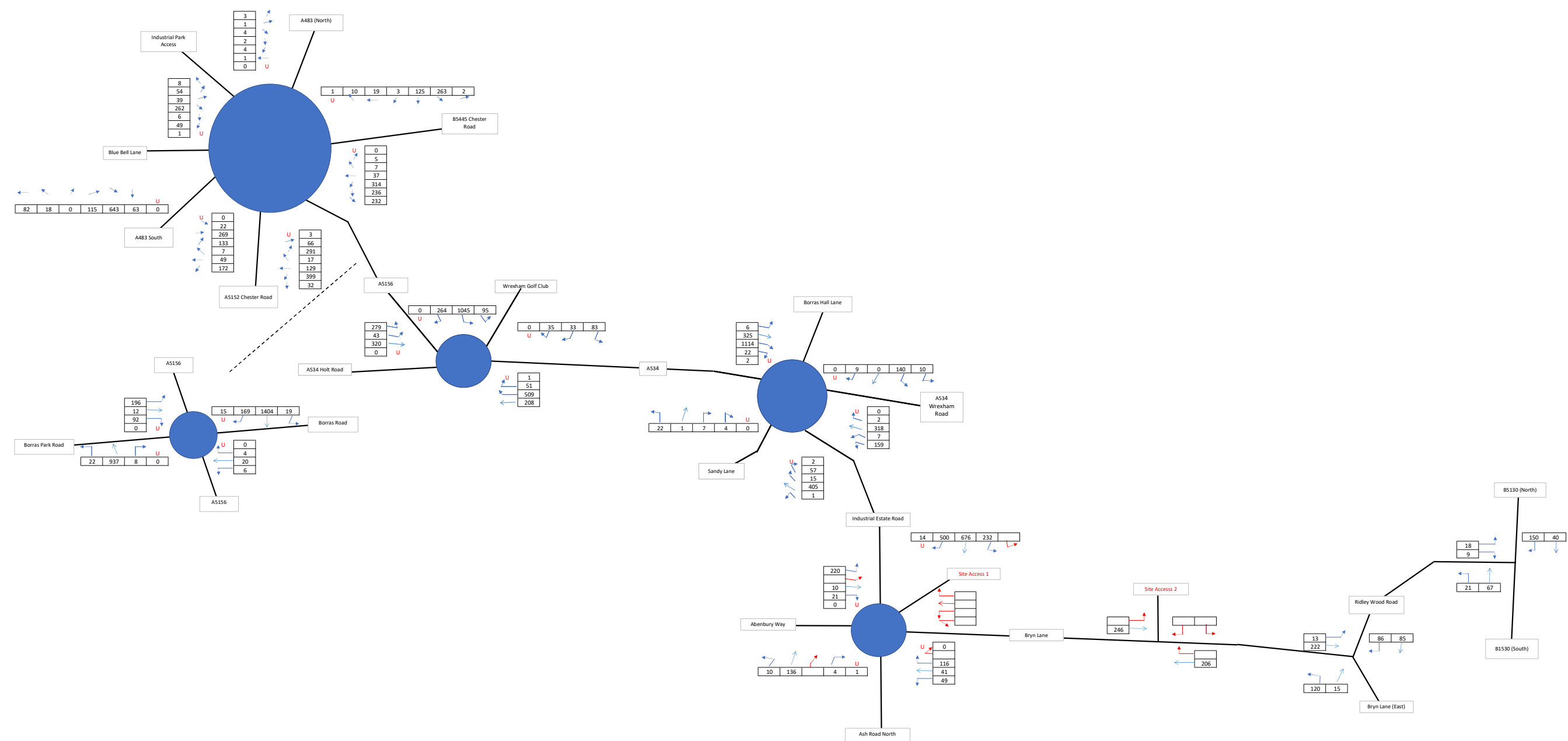


Figure 4 - 2023 Surveyed Traffic Flows
PM Peak: 1630-1730

Notes:

123

 PCUs

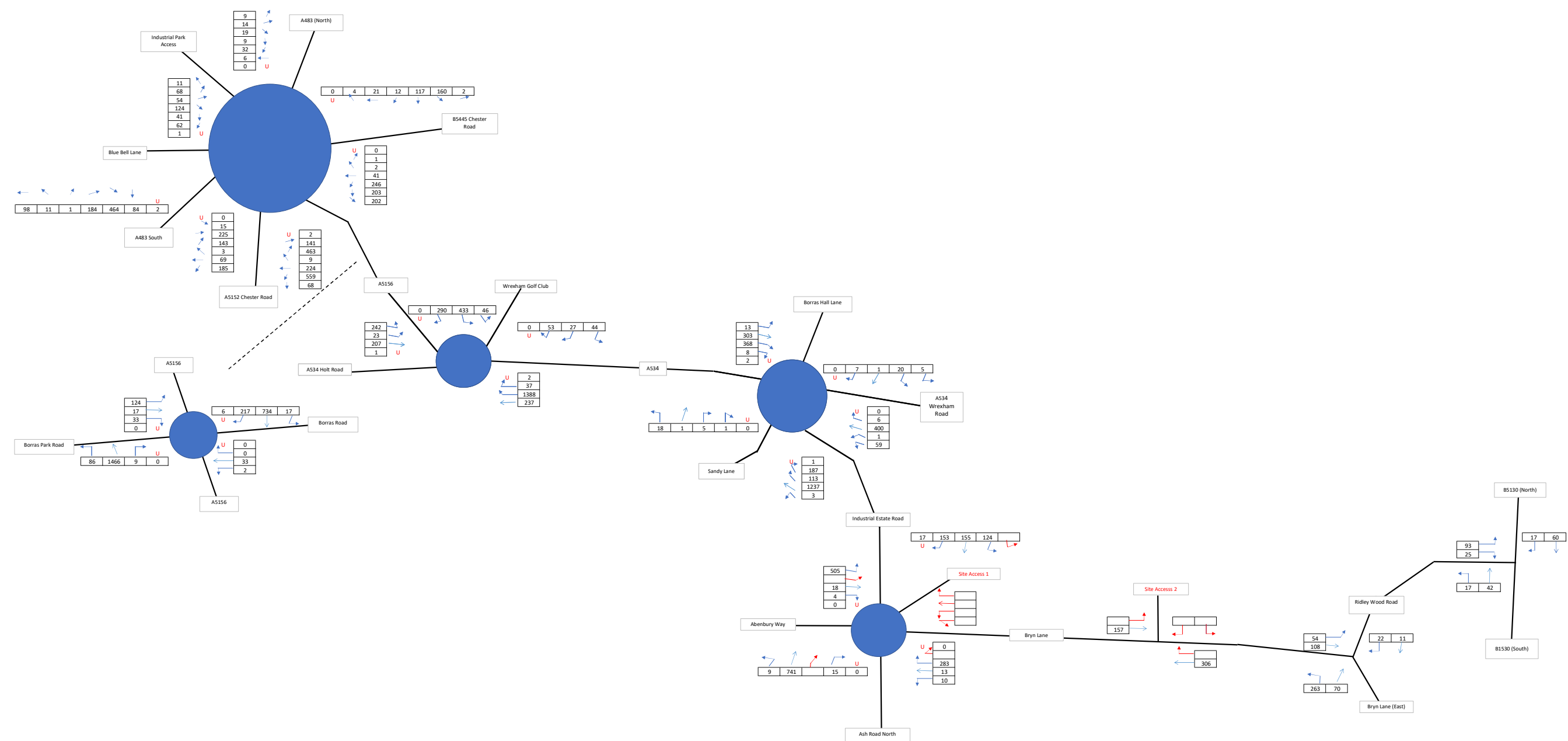


Figure 5 - 2030 Growthed Traffic Flows
AM Peak: 0800-0900

Notes:

123

 PCUs

1.0587

 Growth Factor

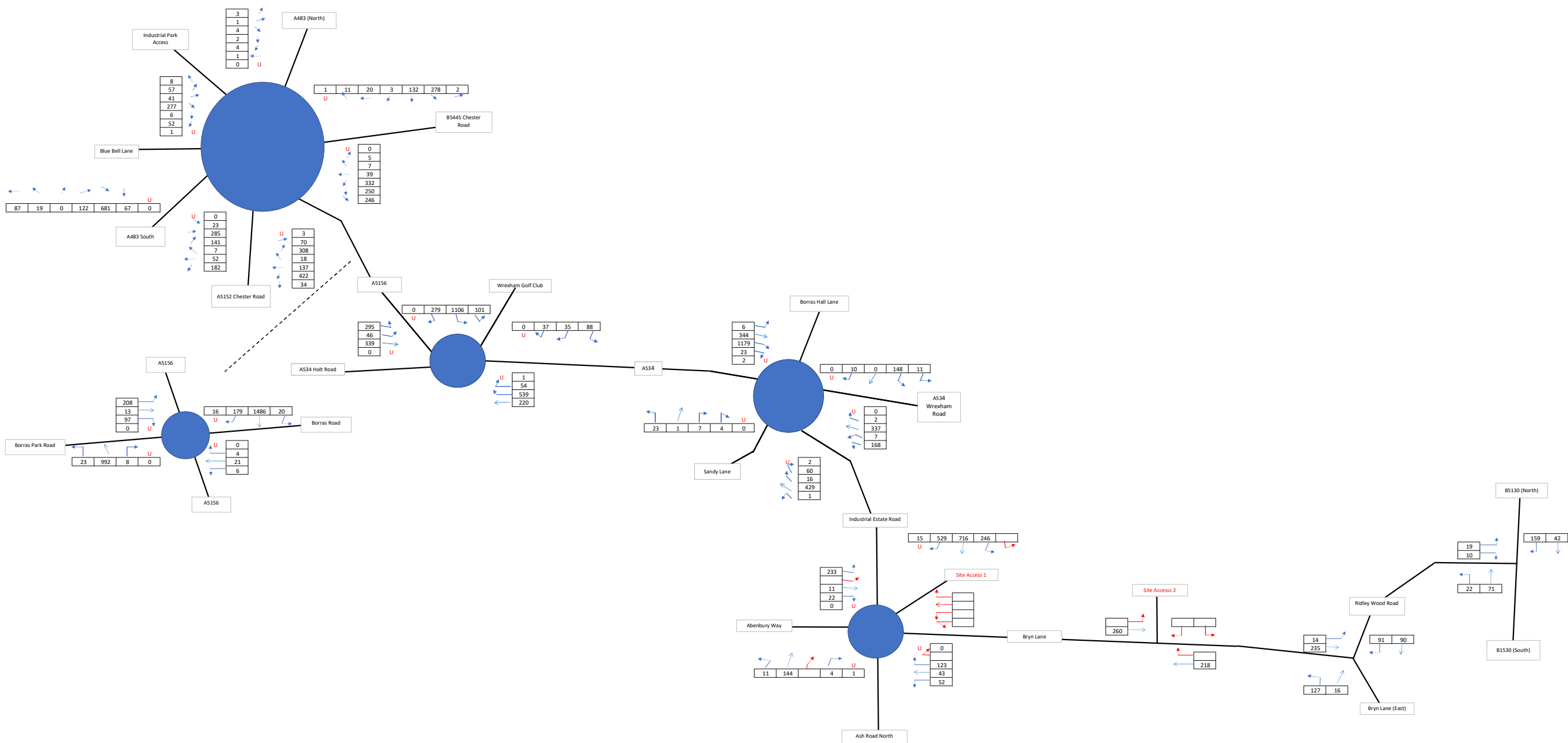


Figure 6 - 2030 Growthed Traffic Flows
PM Peak: 1630-1730

Notes:

123

 PCUs

1.0587

 Growth Factor

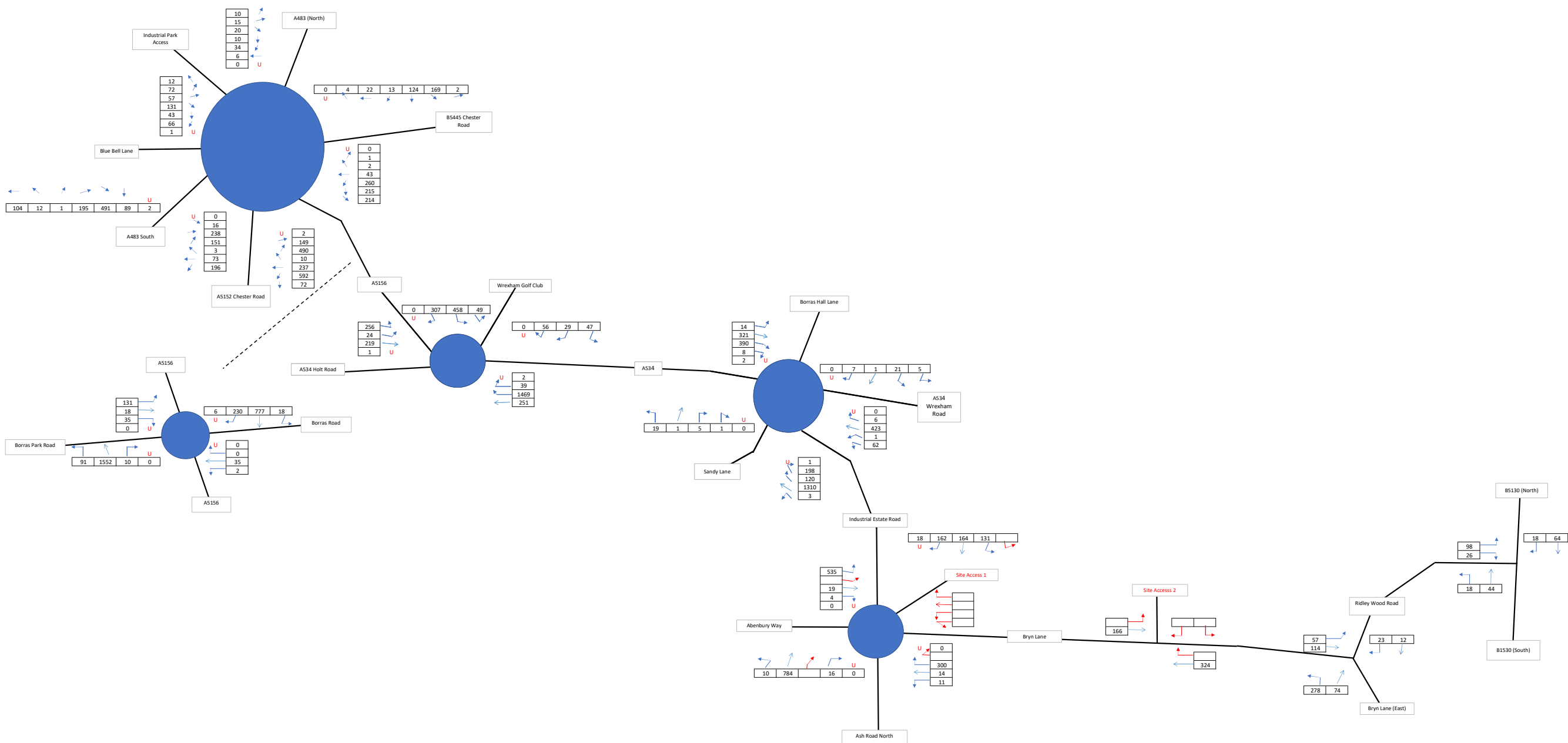


Figure 7a - Development Traffic Distribution (Lights) [Phase 1]
AM Peak

Notes:

%	Arrivals (Lights)
%	Departures (Lights)

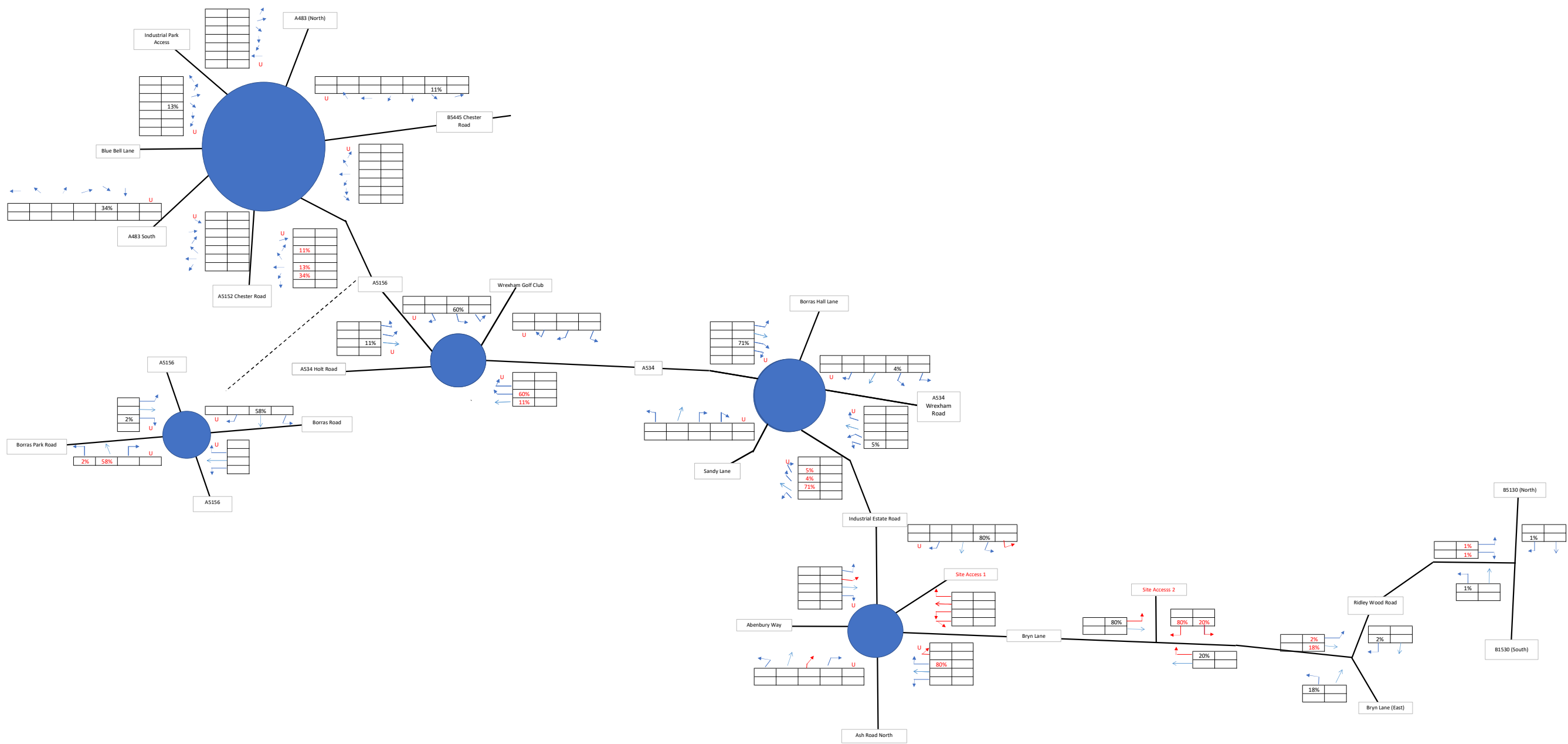


Figure 7b - Development Traffic Distribution (Lights) [Phase 1]
PM Peak

Notes:

%	Arrivals (Lights)
%	Departures (Lights)

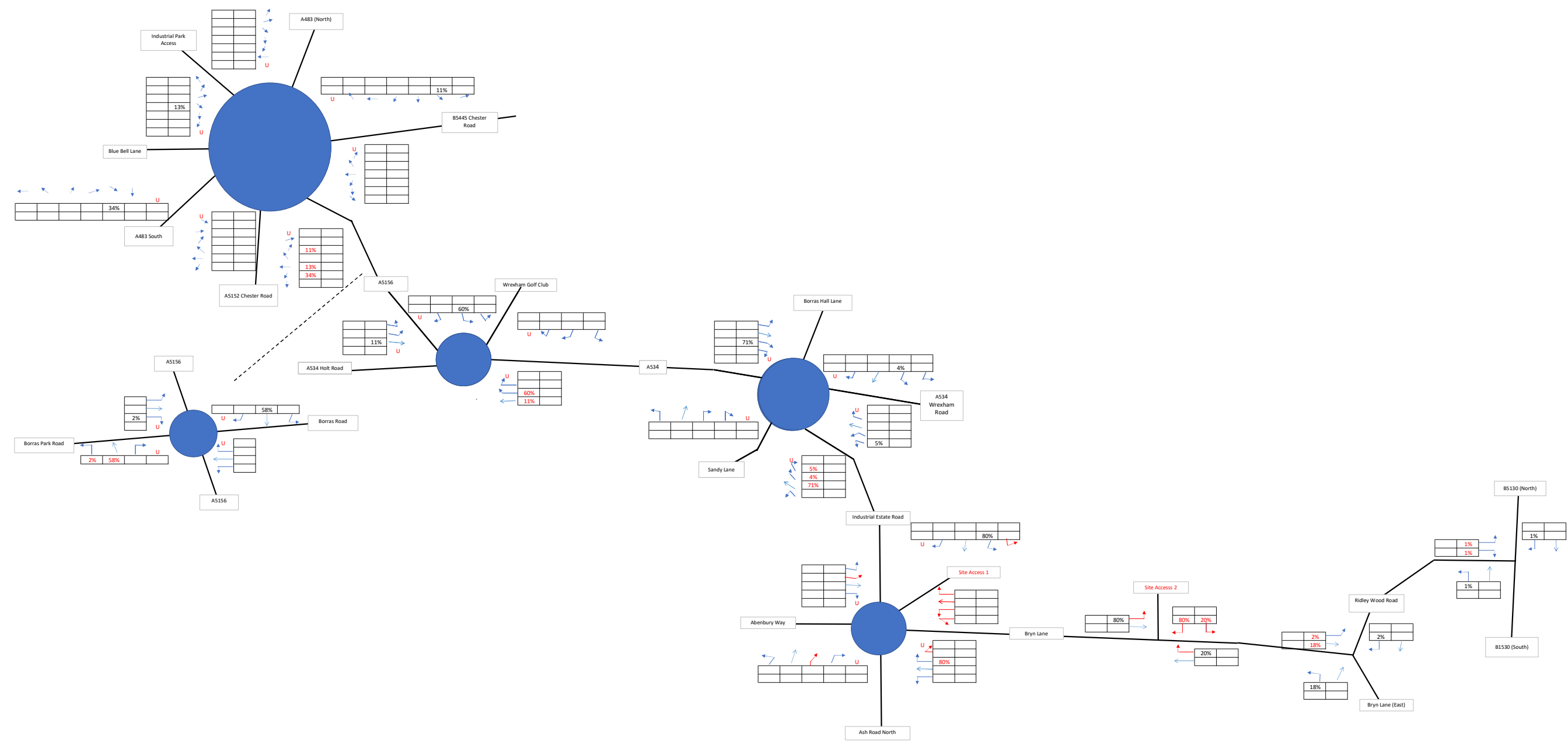


Figure 7c - Development Traffic Distribution (HGVs) [Phase 1]
AM Peak

Notes:

%	Arrivals (HGVs)
%	Departures (HGVs)

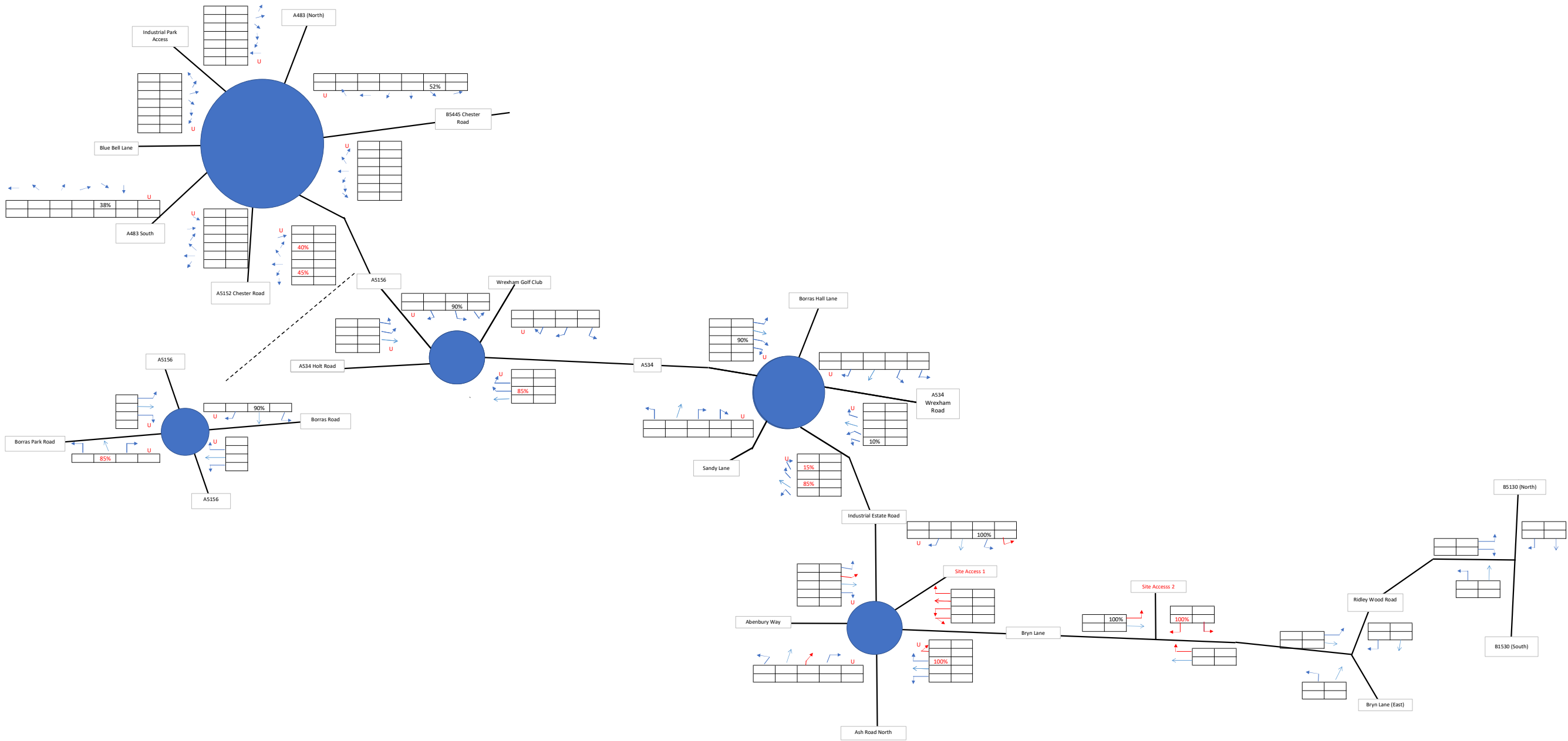
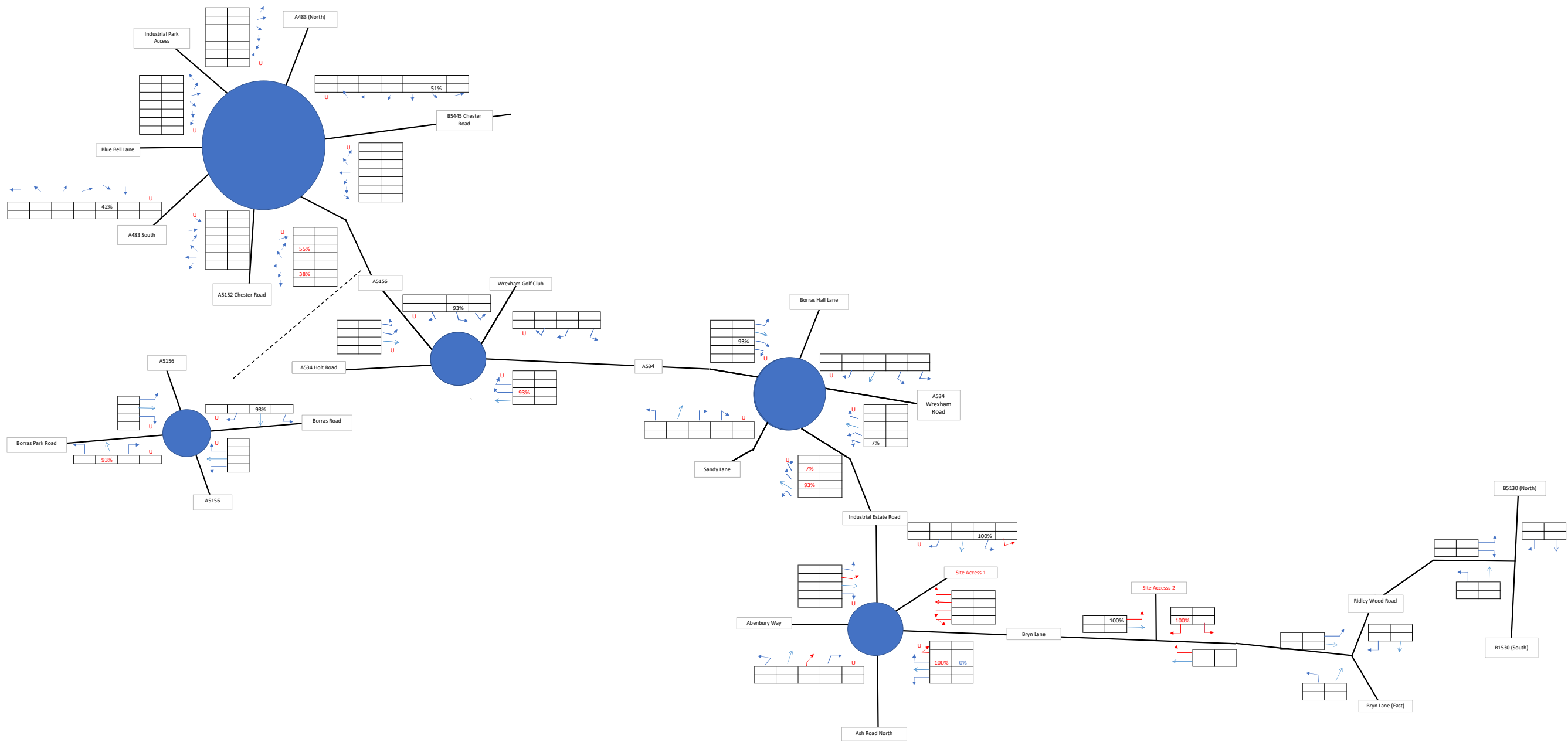


Figure 7d - Development Traffic Distribution (HGVs) [Phase 1]
PM Peak

Notes:

%	Arrivals (HGVs)
%	Departures (HGVs)



Notes:	%	Arrivals (Lights)
	%	Departures (Lights)
	%	Retail / Mixed Use (Lights)

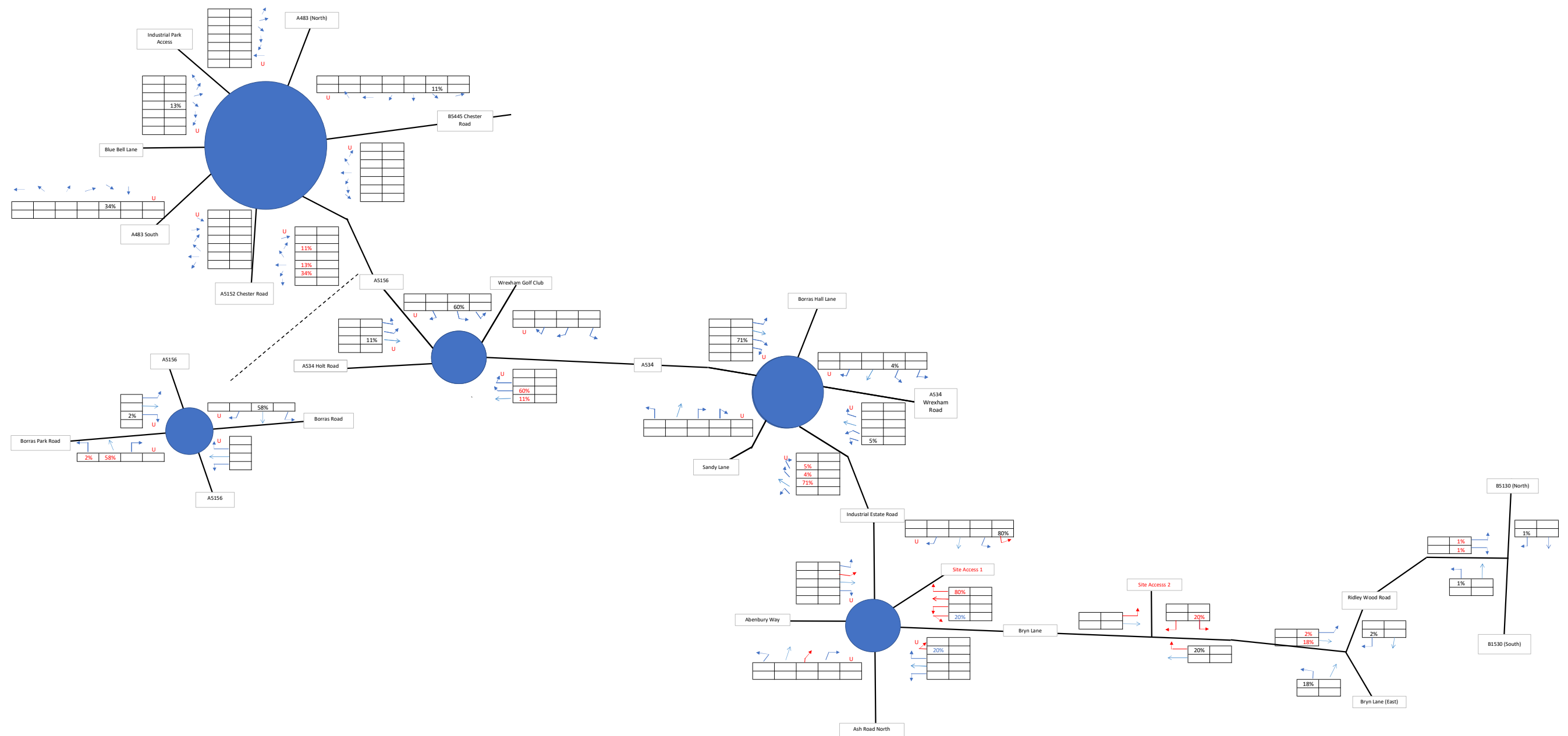


Figure 7f - Development Traffic Distribution (Lights) [Phase 2]
PM Peak

Notes:

%	Arrivals (Lights)
%	Departures (Lights)
%	Retail / Mixed Use (Lights)

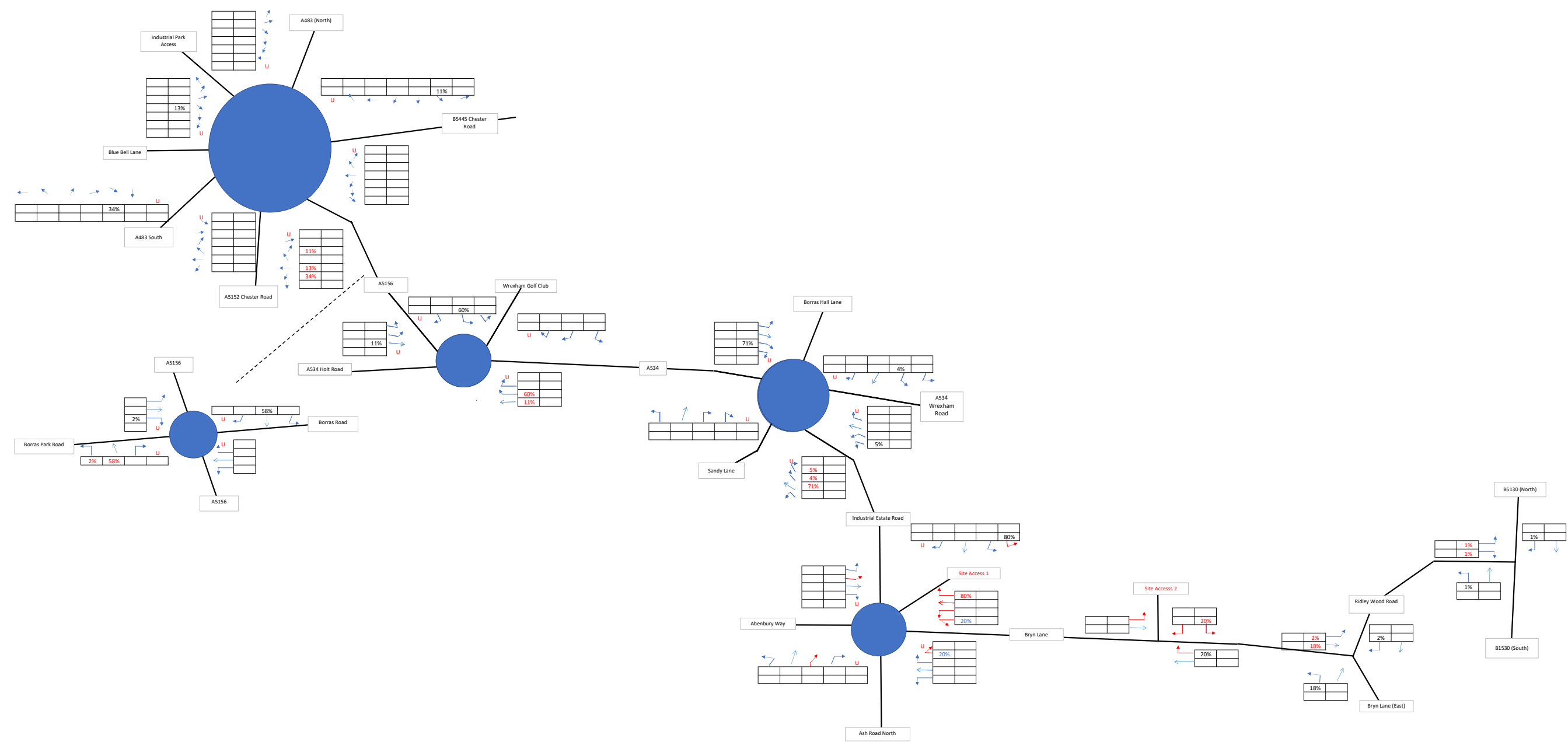


Figure 7g - Development Traffic Distribution (HGVs) [Phase 2]
AM Peak

Notes:

%	Arrivals (HGVs)
%	Departures (HGVs)

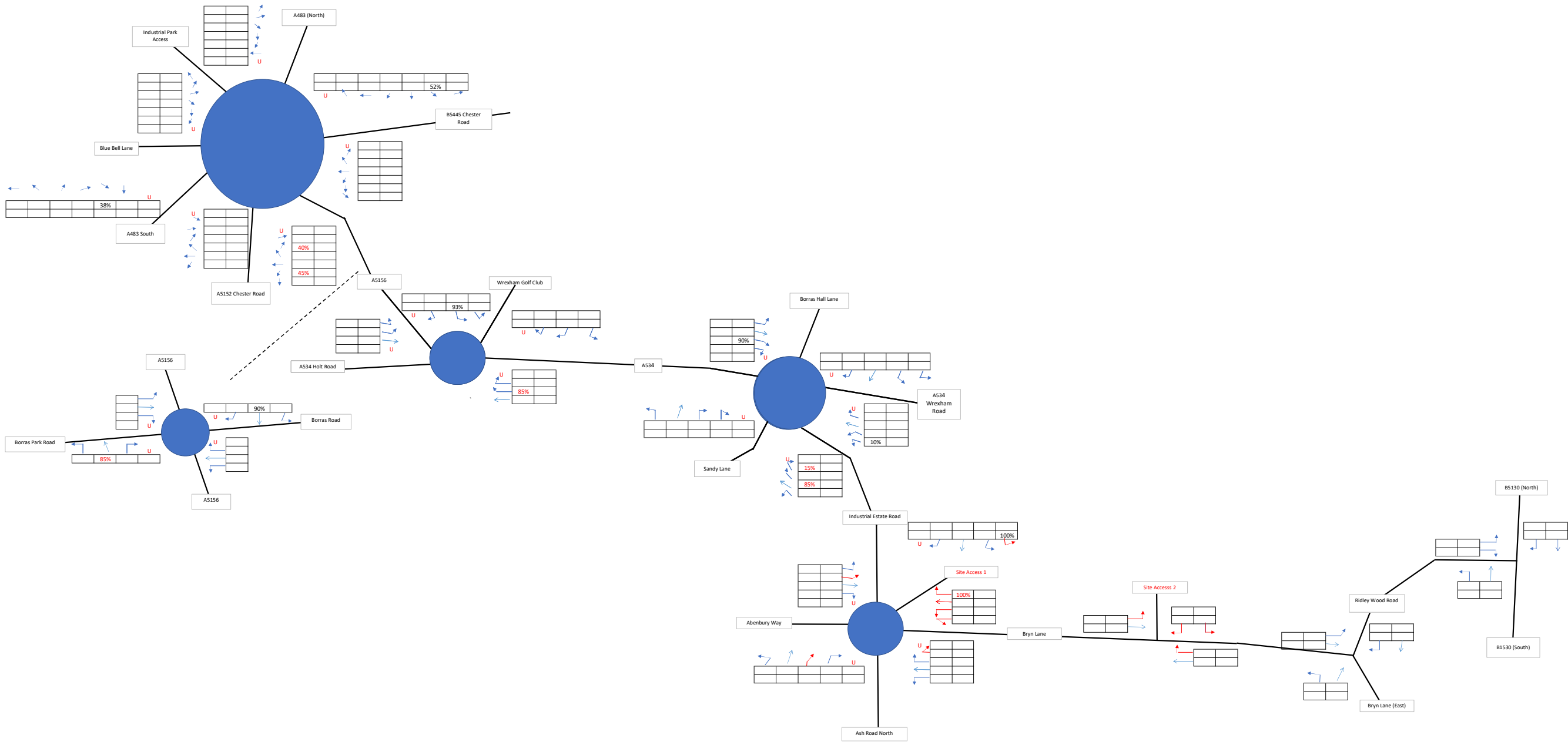


Figure 7g - Development Traffic Distribution (HGVs) [Phase 2]
PM Peak

Notes:

%	Arrivals (HGVs)
%	Departures (HGVs)

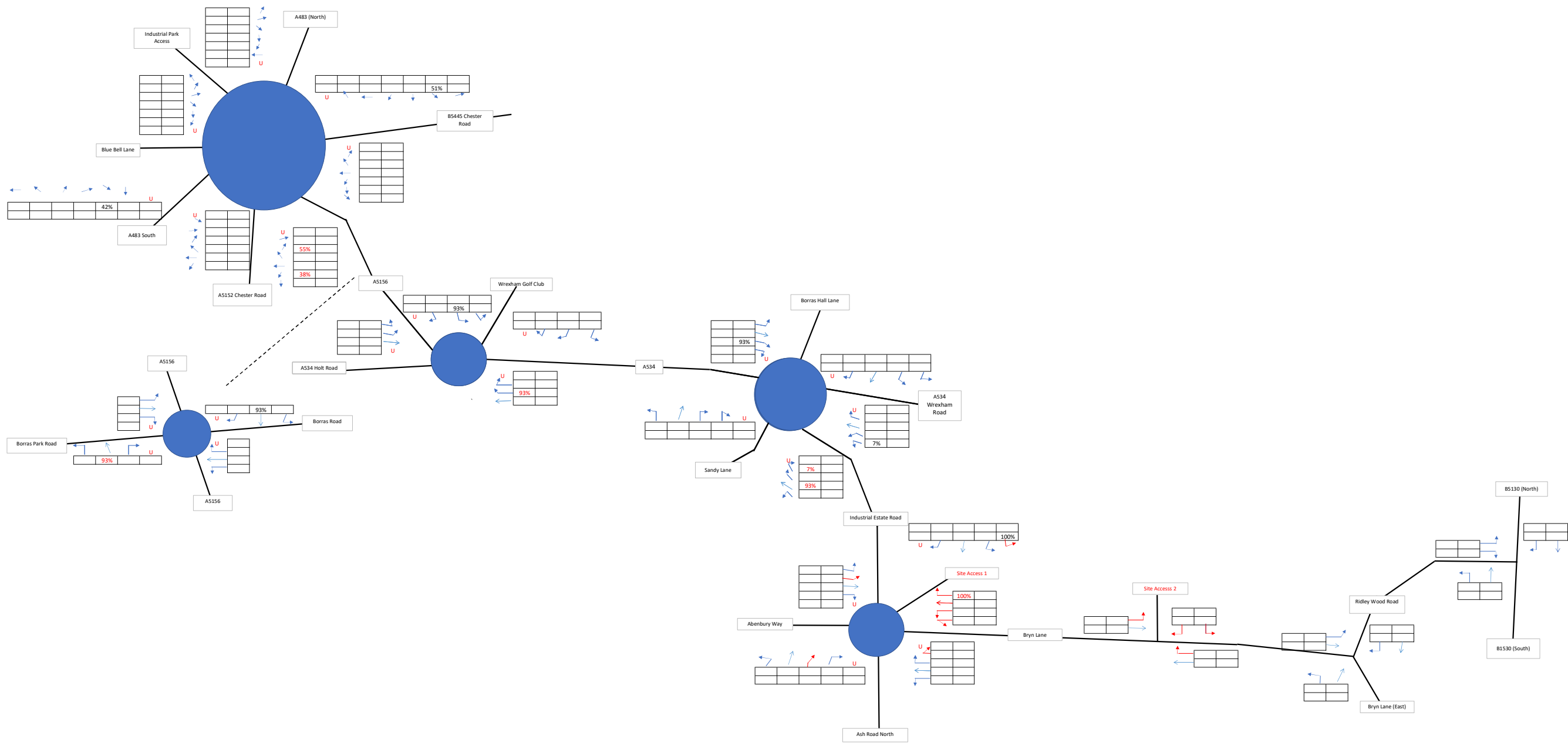


Figure 8a - Industrial Estate Development Trips (Lights) [Phase 1]
AM Peak: 0800-0900

Notes:

160

 Arrivals

38

 Departures

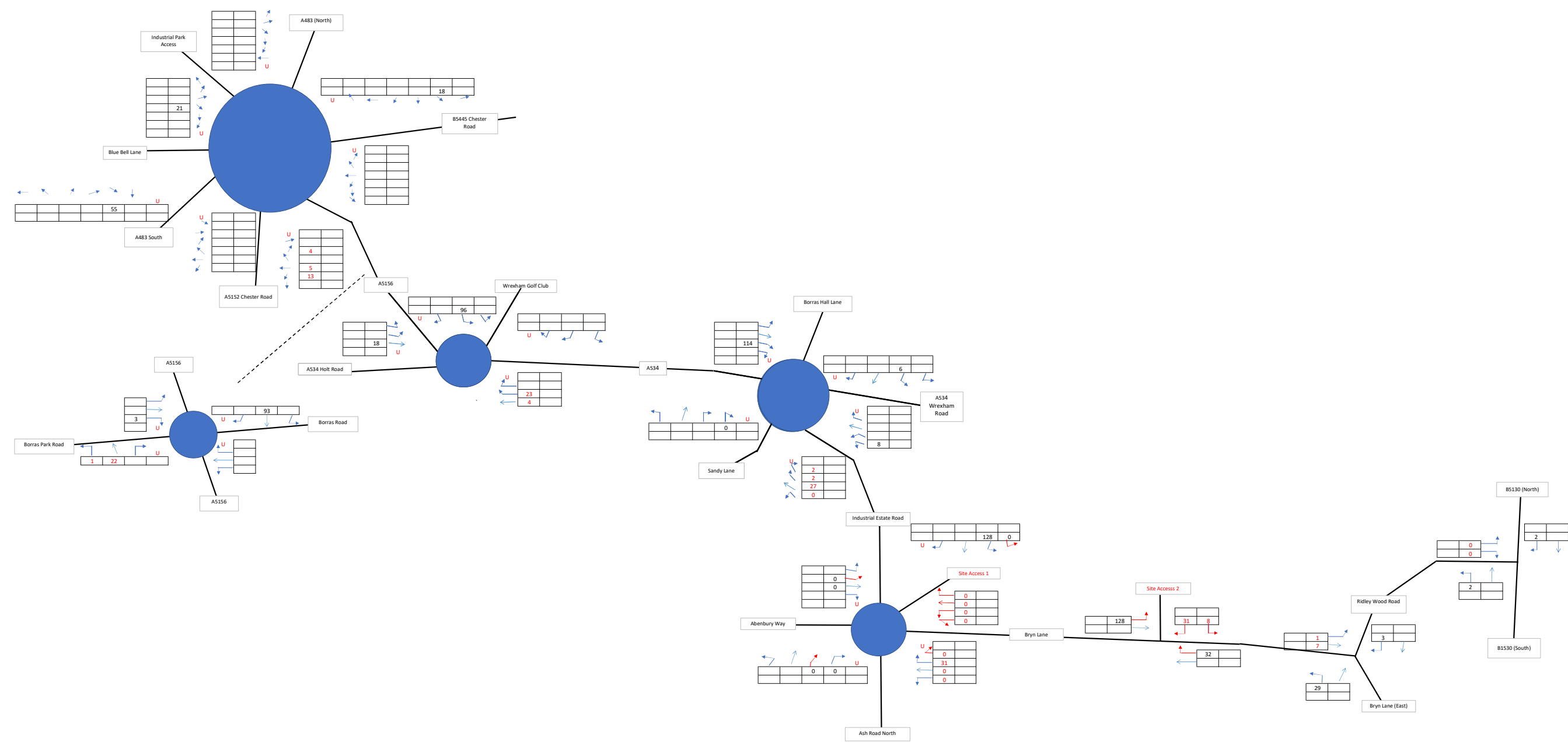


Figure 8b - Industrial Estate Development Trips (Lights) [Phase 1]
PM Peak: 1630-1730

Notes:

52

 Arrivals

139

 Departures

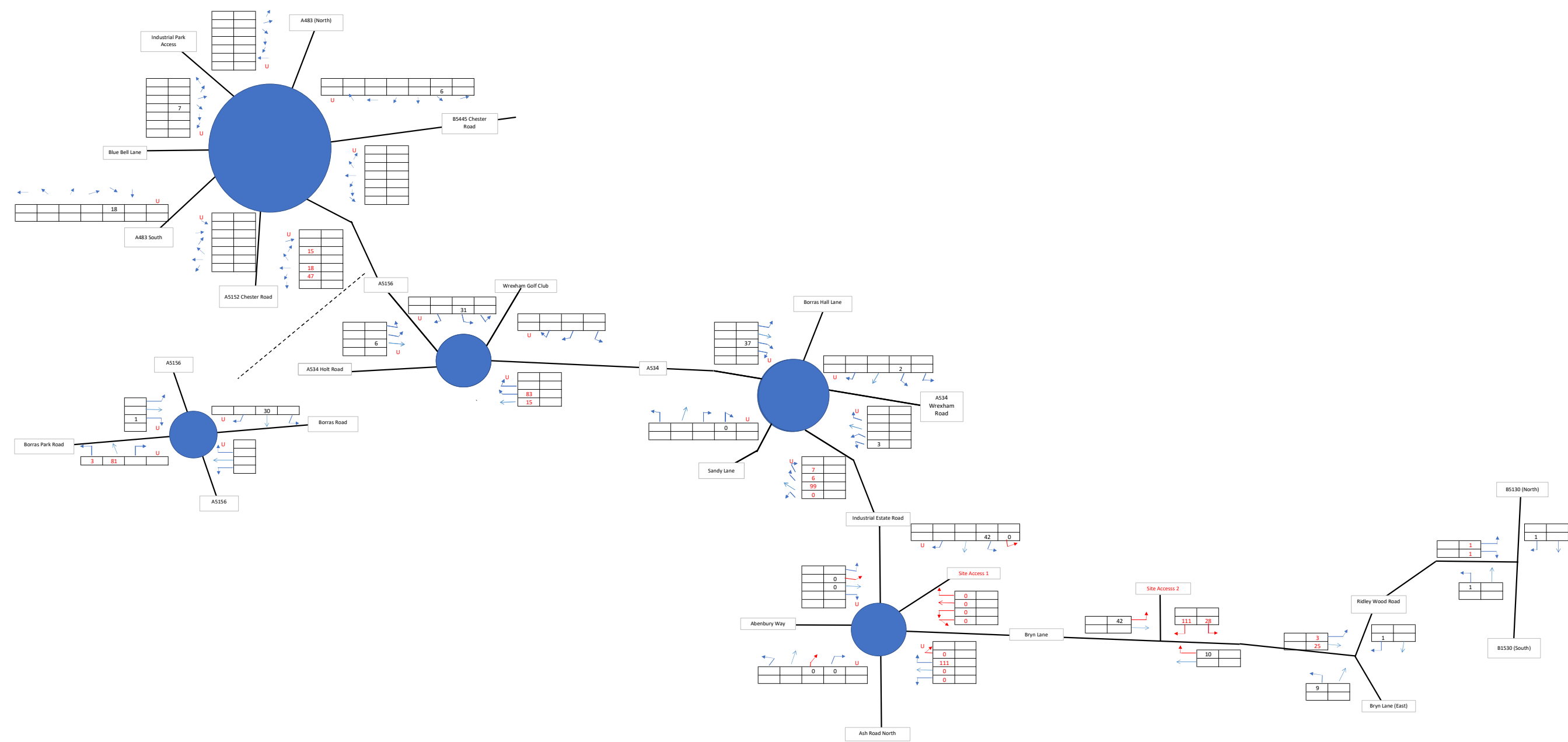


Figure 8c - Industrial Estate Development Trips (HGVs) [Phase 1]
AM Peak: 0800-0900

Notes:

18	Arrivals
26	Departures

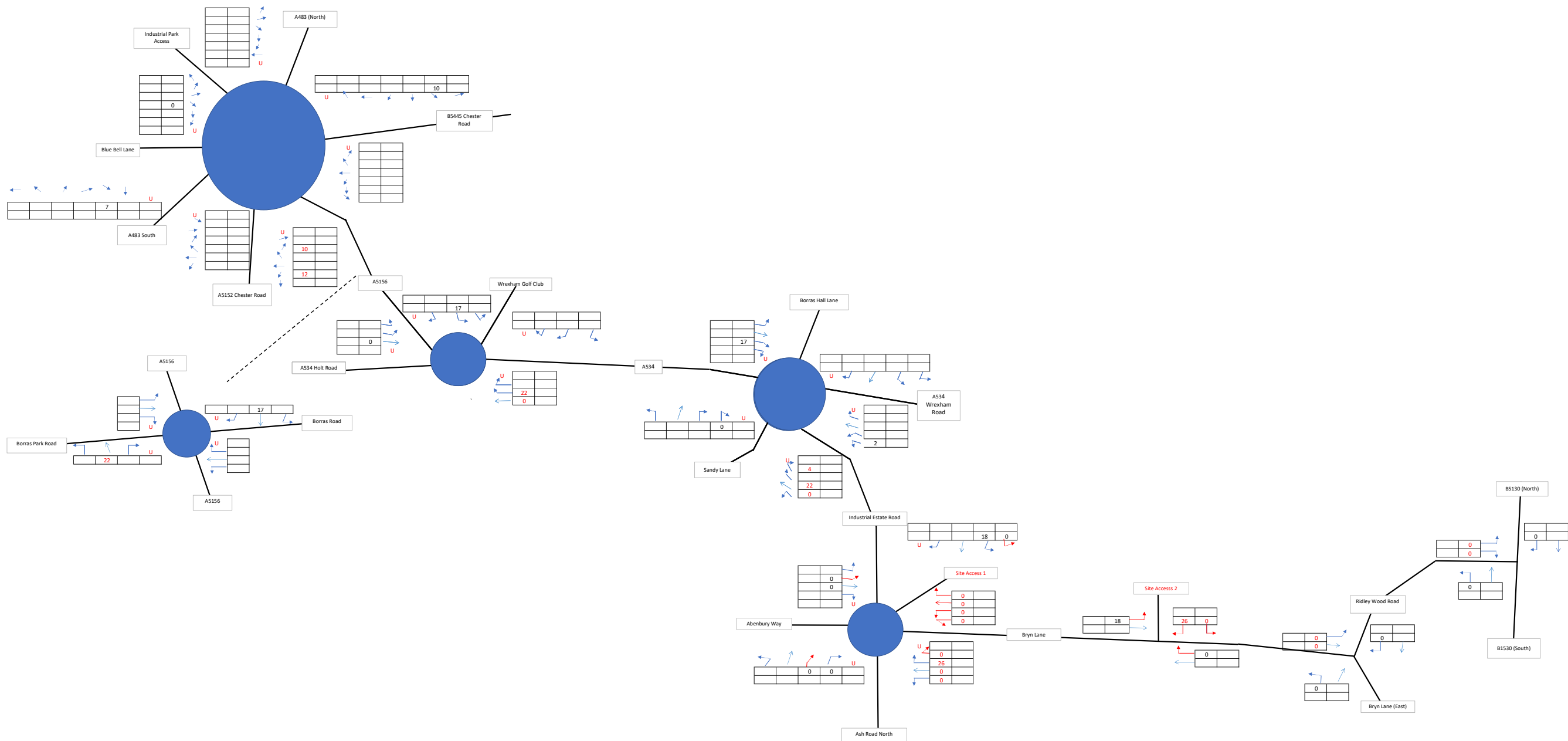


Figure 8d - Industrial Estate Development Trips (HGVs) [Phase 1]
PM Peak: 1630-1730

Notes:

26	Arrivals
19	Departures

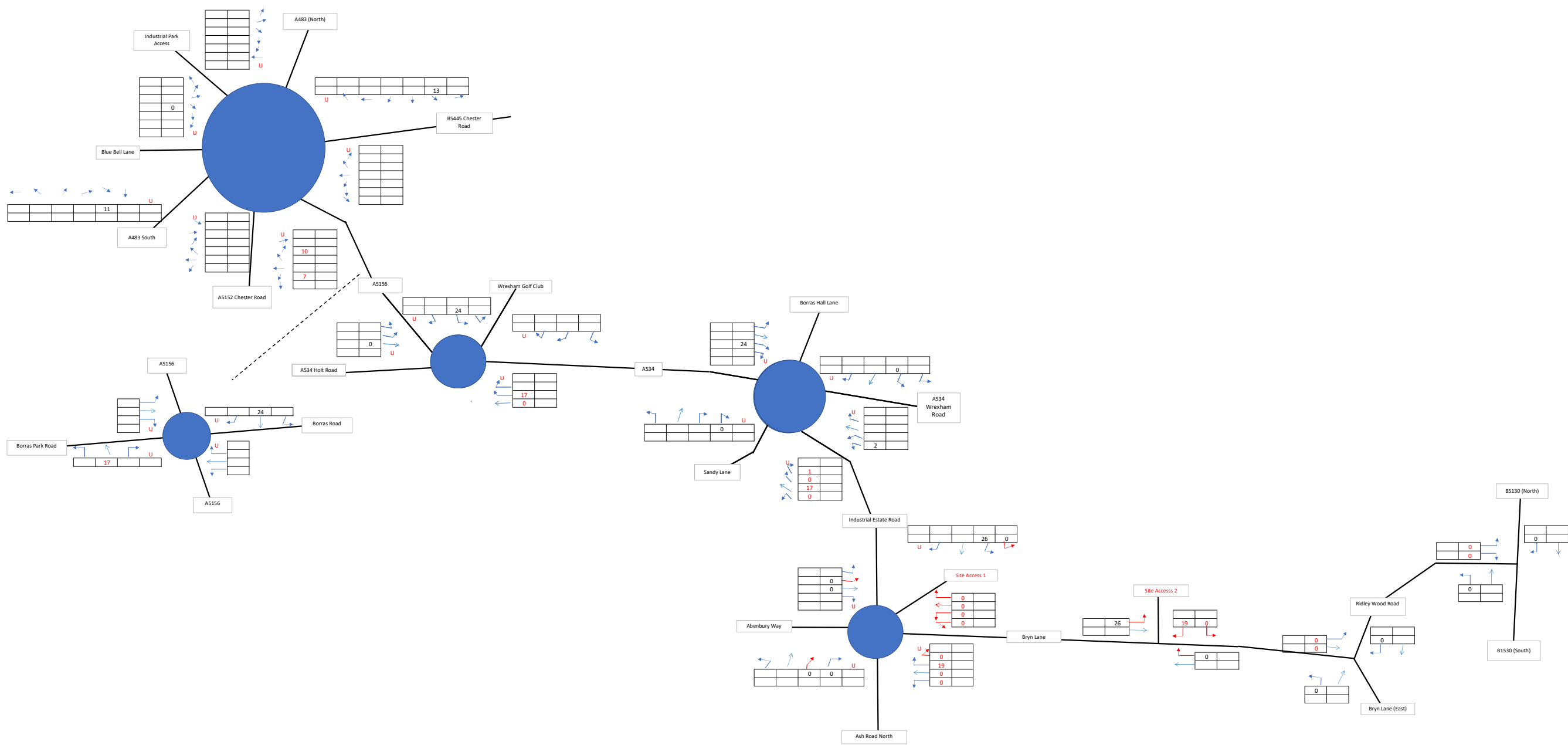
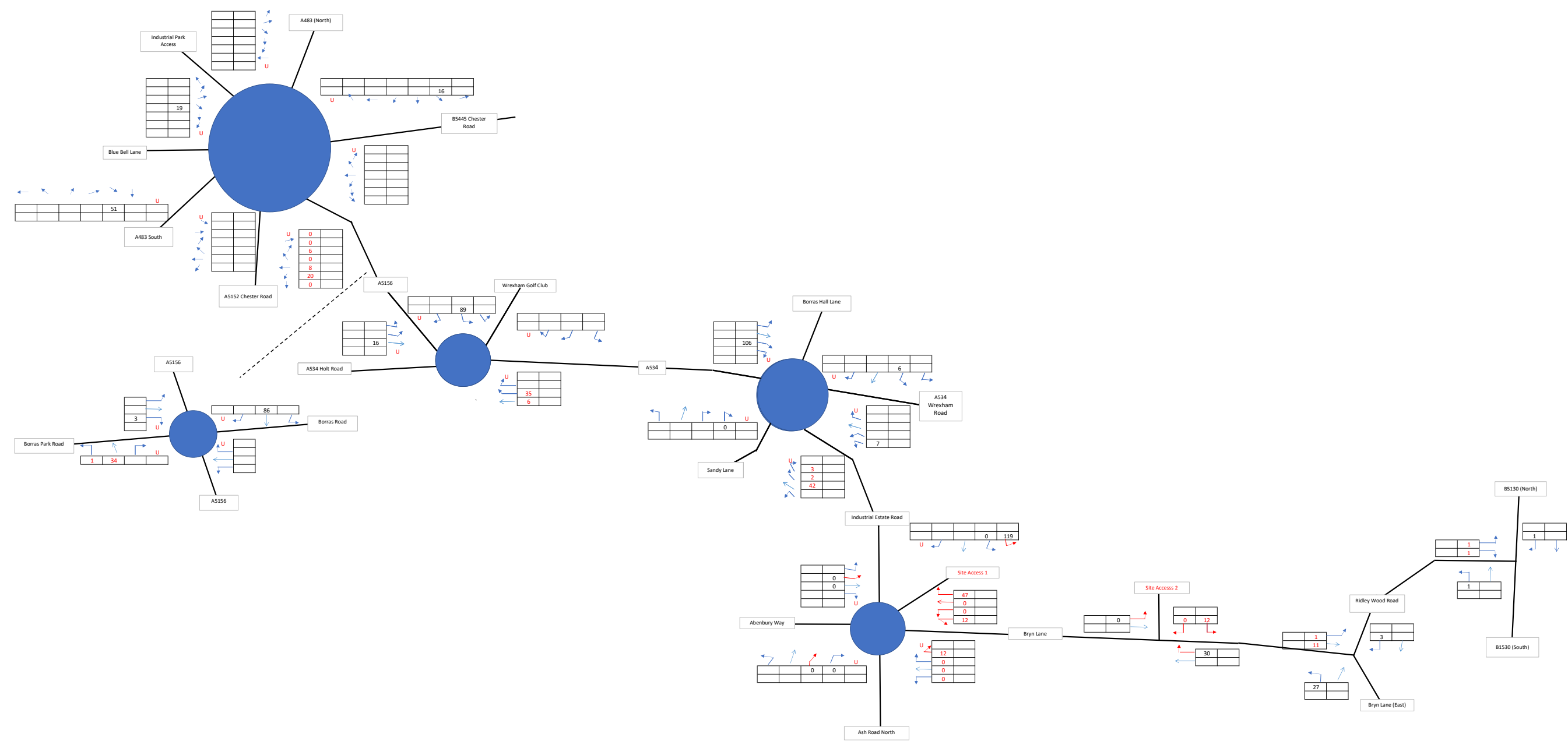


Figure 8e - Industrial Estate Development Trips (Lights) [Phase 2]
AM Peak: 0800-0900

Notes: 149 Arrivals
58 Departures



Notes:	69	Arrivals
	132	Departures

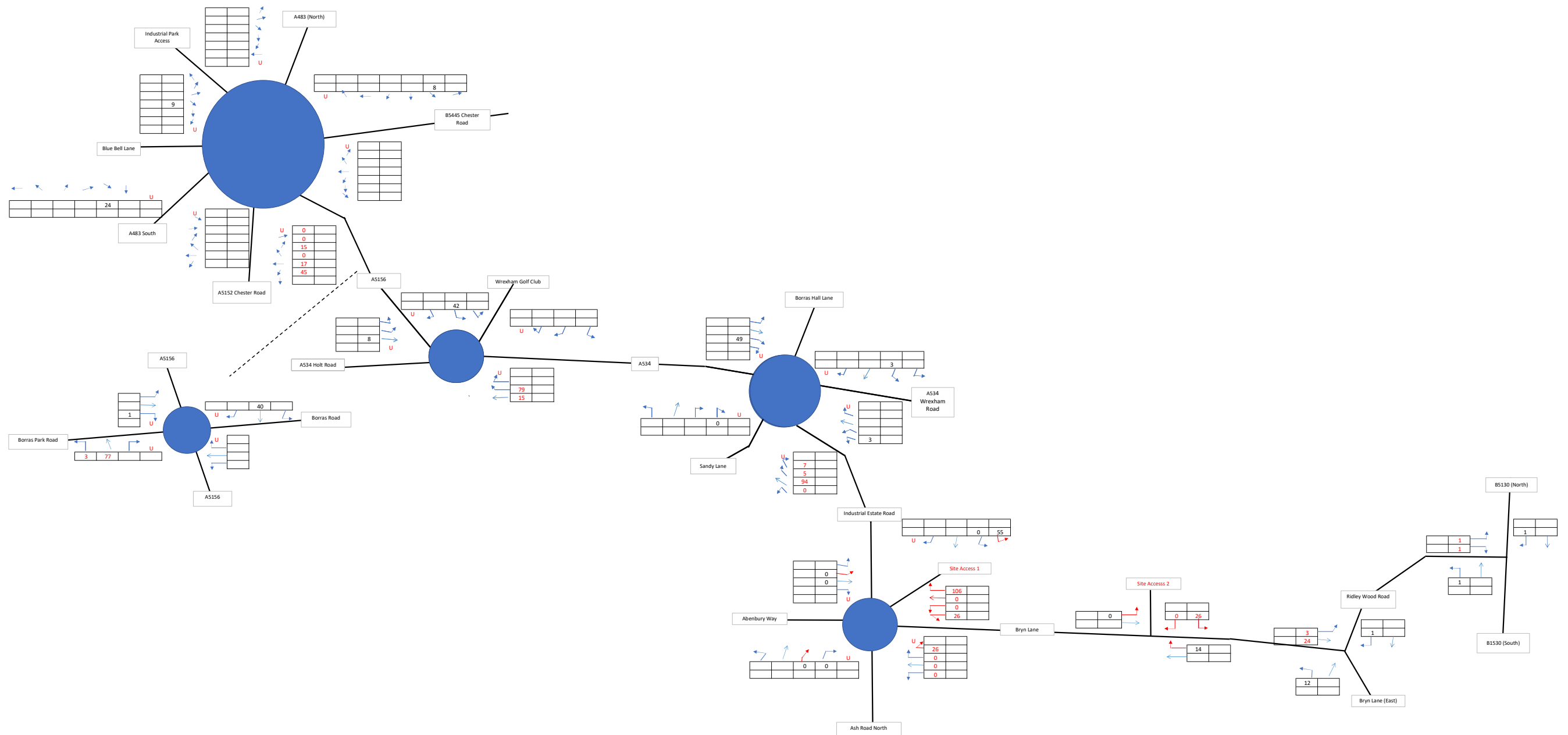


Figure 8g - Industrial Estate Development Trips (HGVs) [Phase 2]
AM Peak: 0800-0900

Notes:

17	Arrivals
25	Departures

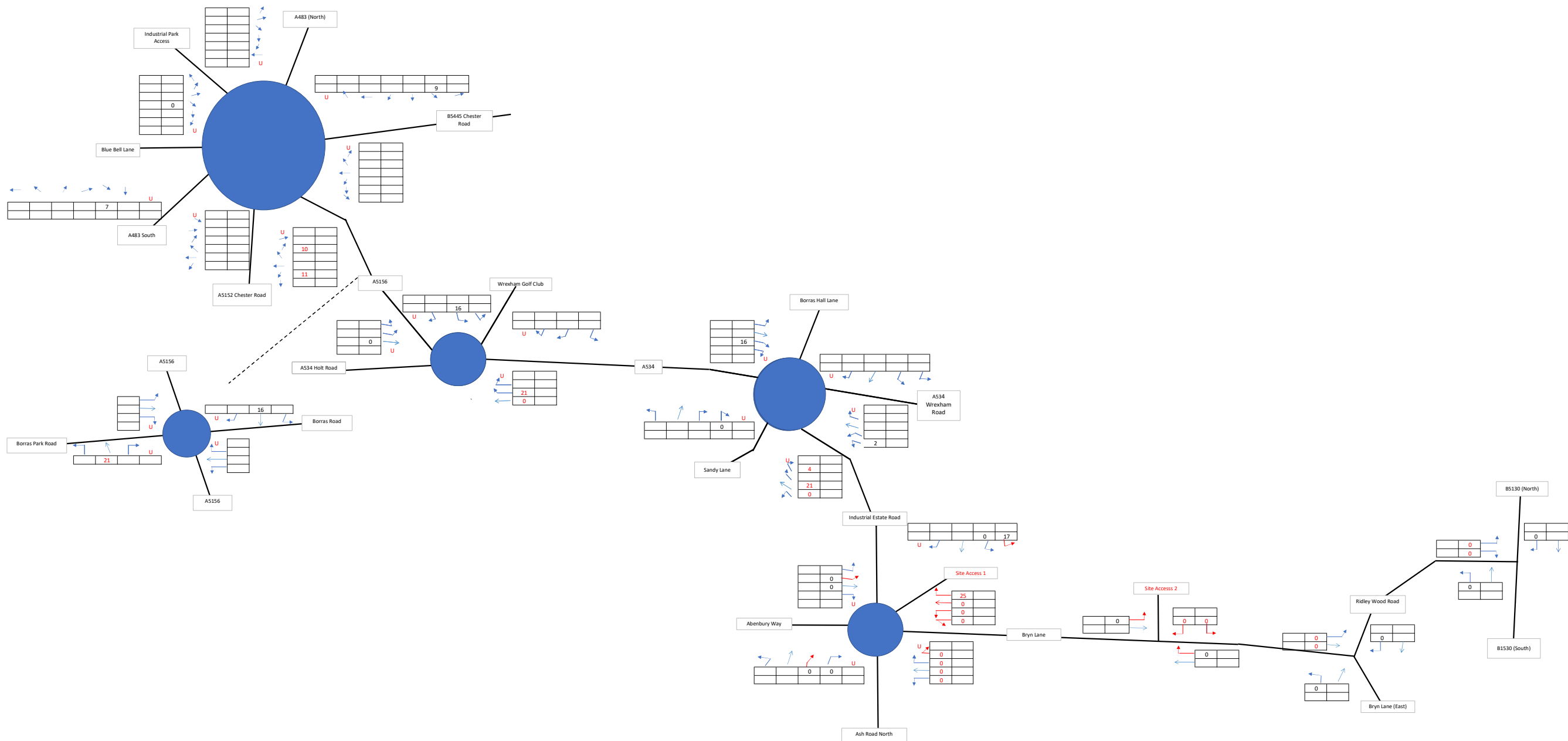


Figure 8h - Industrial Estate Development Trips (HGVs) [Phase 2]
PM Peak: 1630-1730

Notes:

25	Arrivals
18	Departures

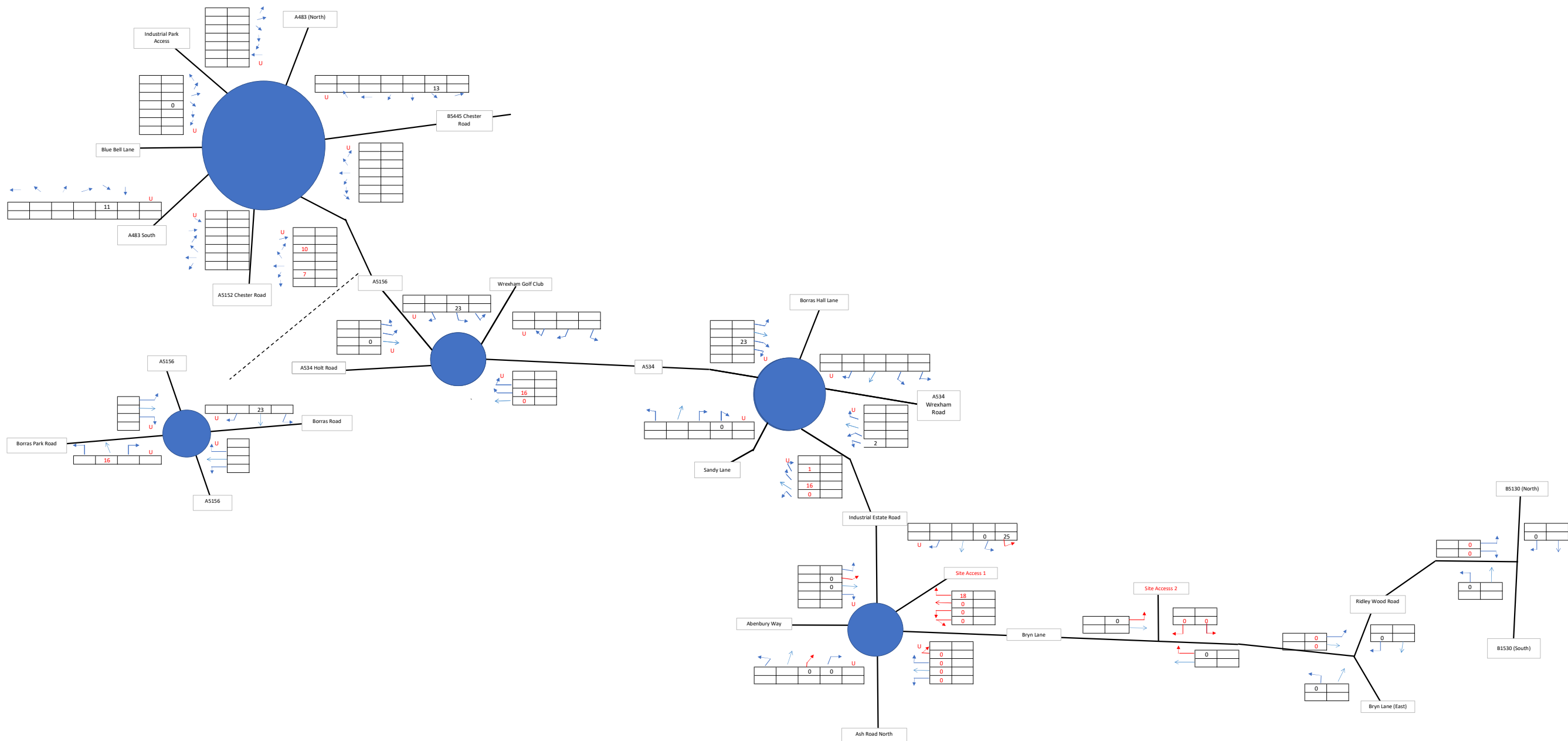


Figure 9 - Dummy Figure

Notes: #REF! Arrivals
#REF! Departures

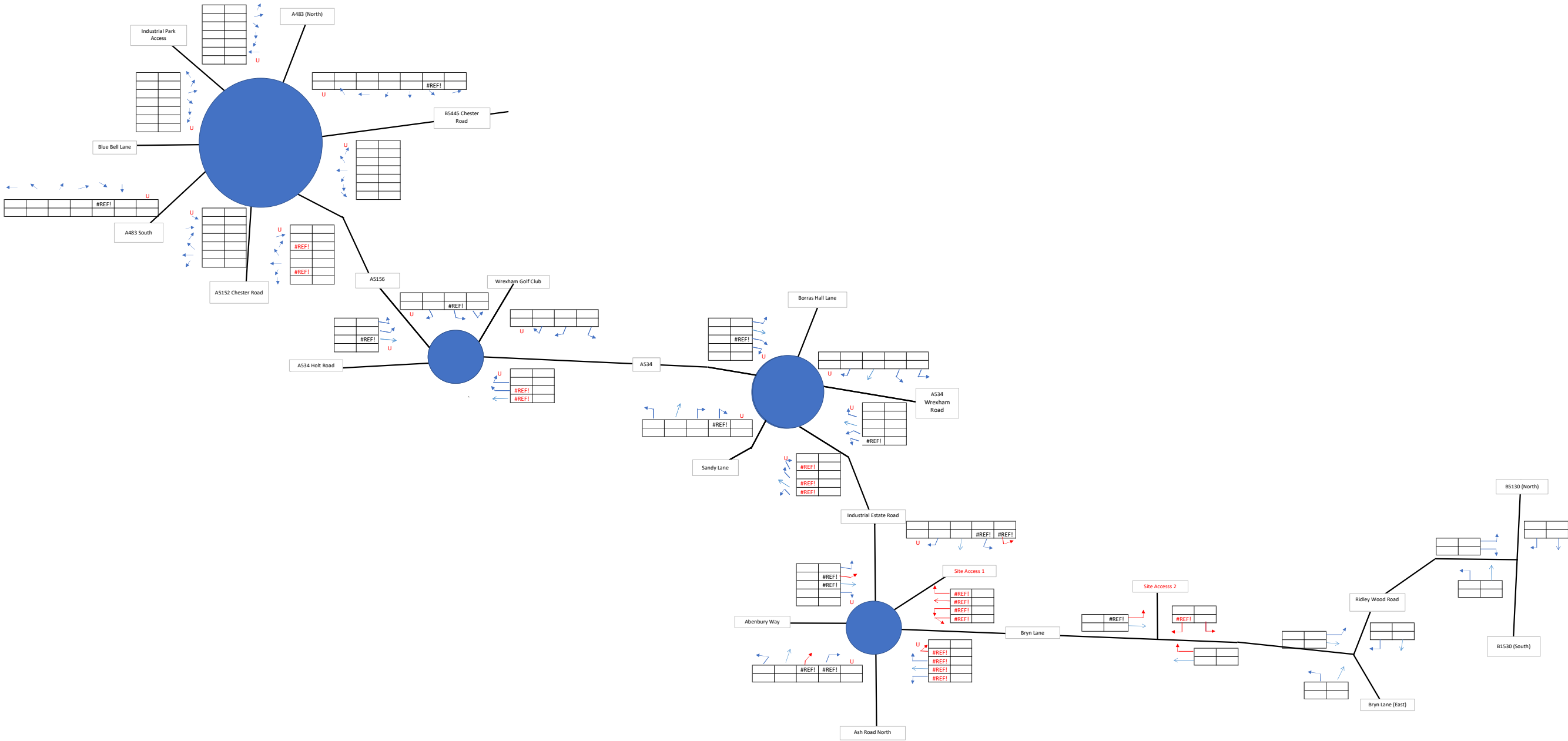


Figure 10 - Hotel Development Trips
AM Peak: 0800-0900

Notes:

9	Arrivals
18	Departures

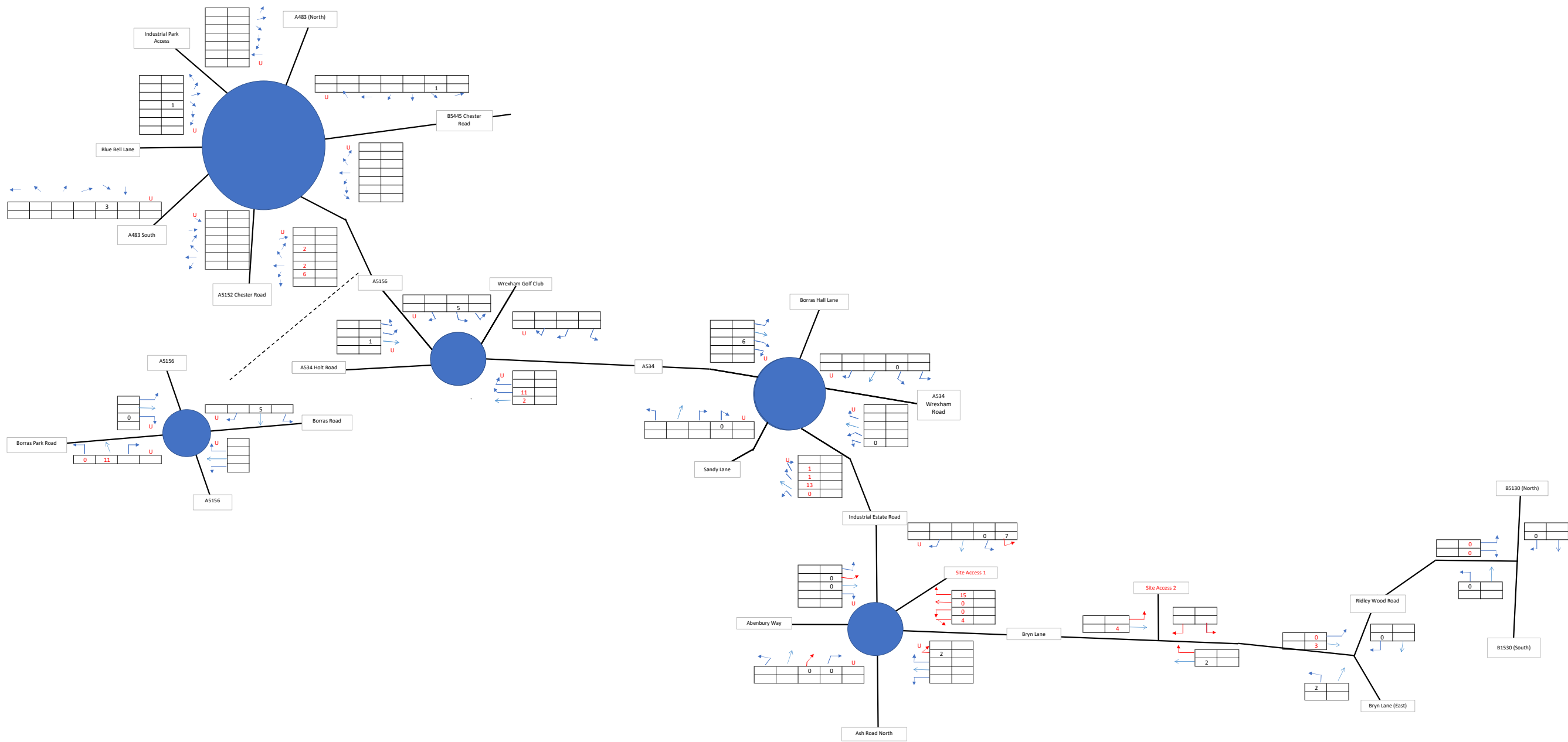


Figure 11 - Hotel Development Trips
PM Peak: 1630-1730

Notes:

13	Arrivals
8	Departures

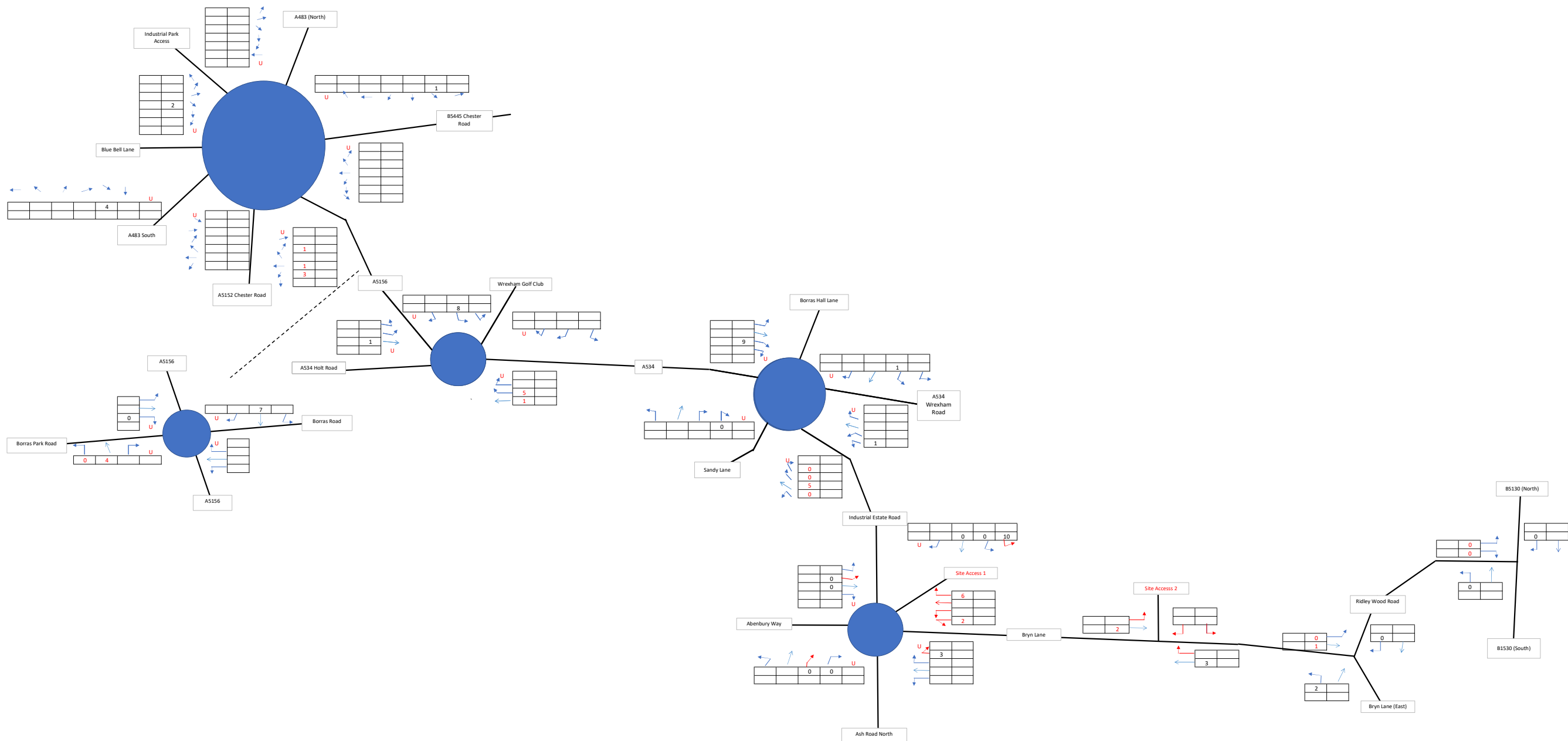


Figure 12 - Pass-By Trips (Local Centre, Drive-Thru & PFS)
AM Peak: 0800-0900

Notes:

283

 Arrivals

270

 Departures

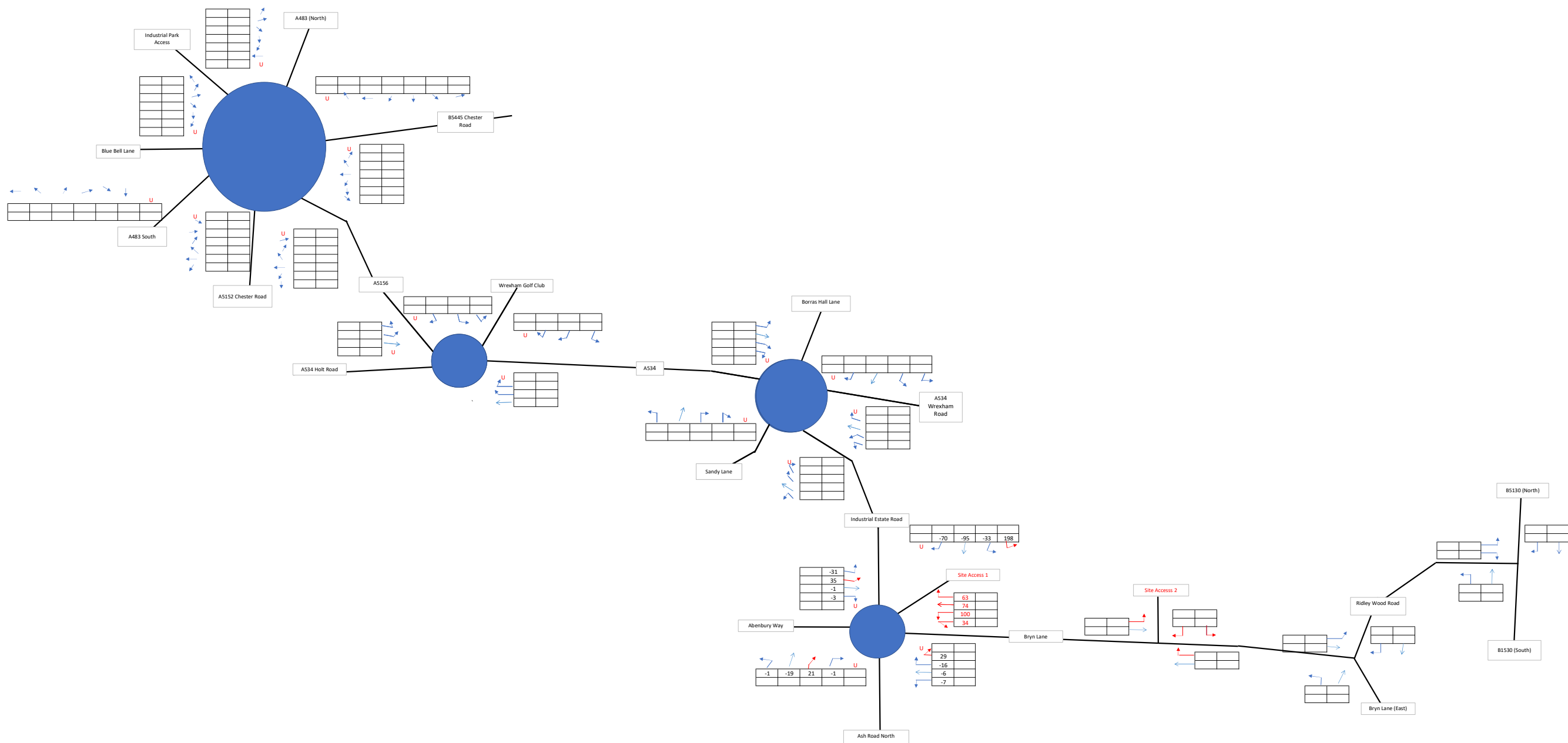


Figure 13 - Pass-By Trips (Local Centre, Drive-Thru & PFS)
PM Peak: 1630-1730

Notes:

332

 Arrivals

343

 Departures

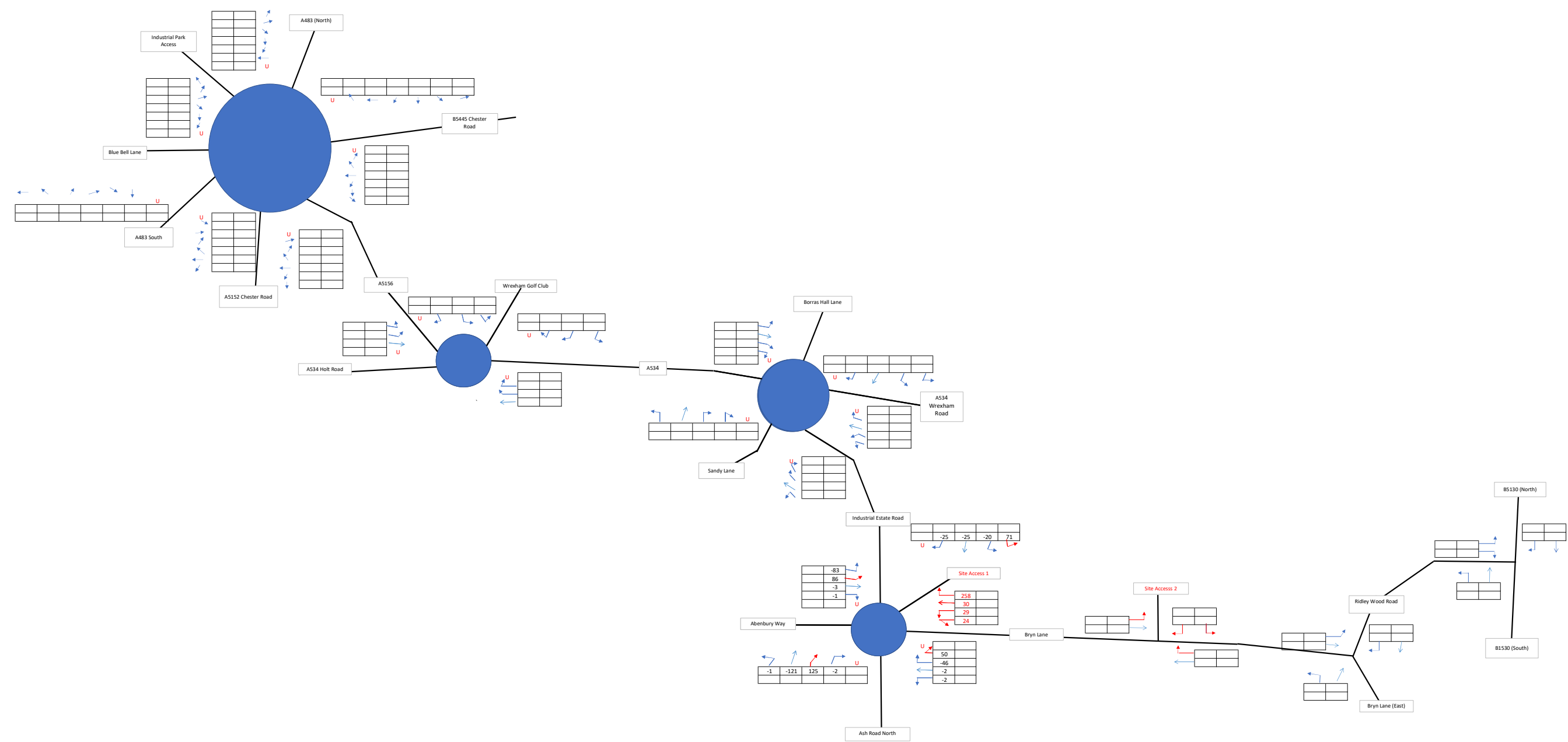


Figure 14 - New Trips (Local Centre, Drive-Thru & PFS)
AM Peak: 0800-0900

Notes:

31	Arrivals
30	Departures

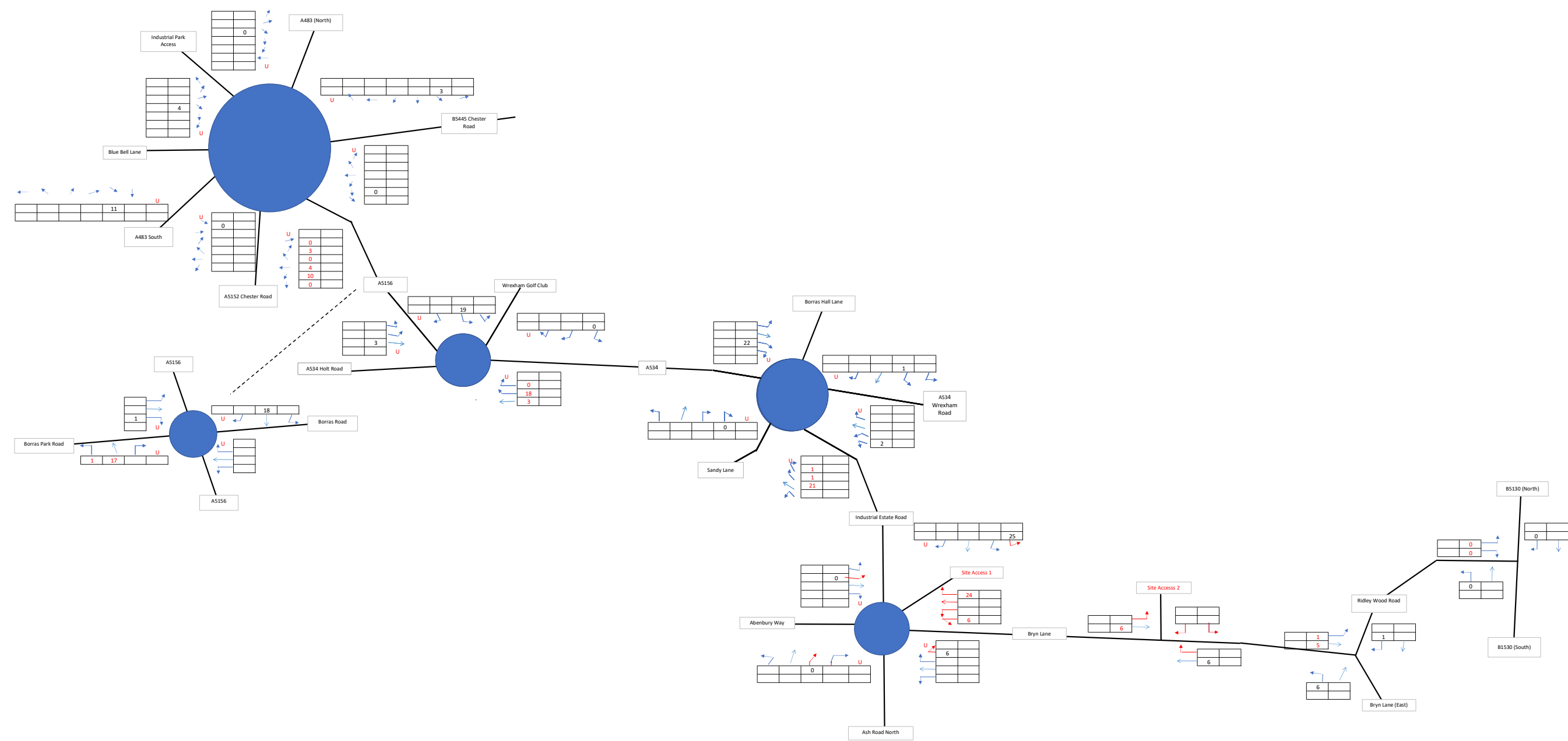
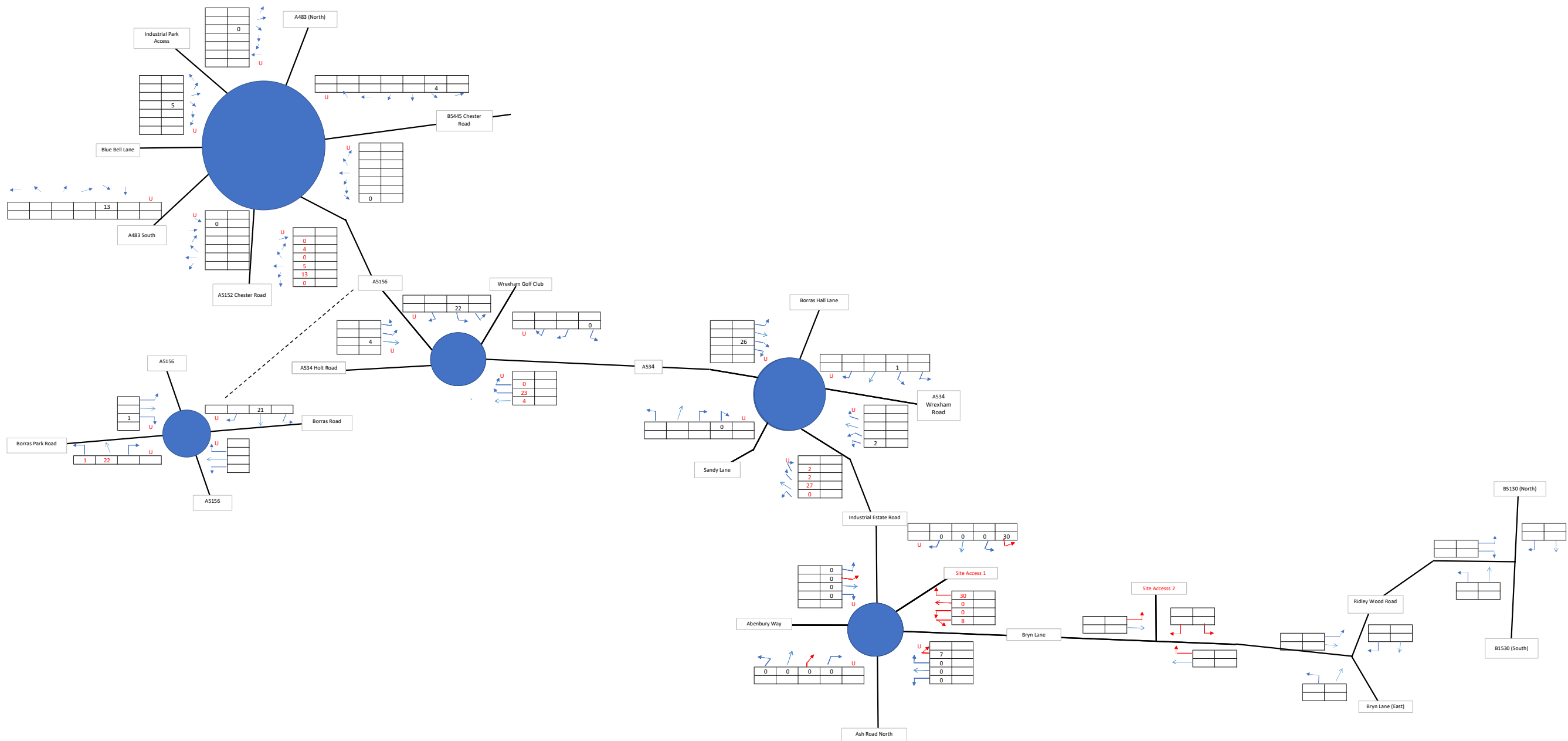


Figure 15 - New Trips (Local Centre, Drive-Thru & PFS)
PM Peak: 1630-1730

Notes:

37	Arrivals
38	Departures



Notes:

123

 PCUs

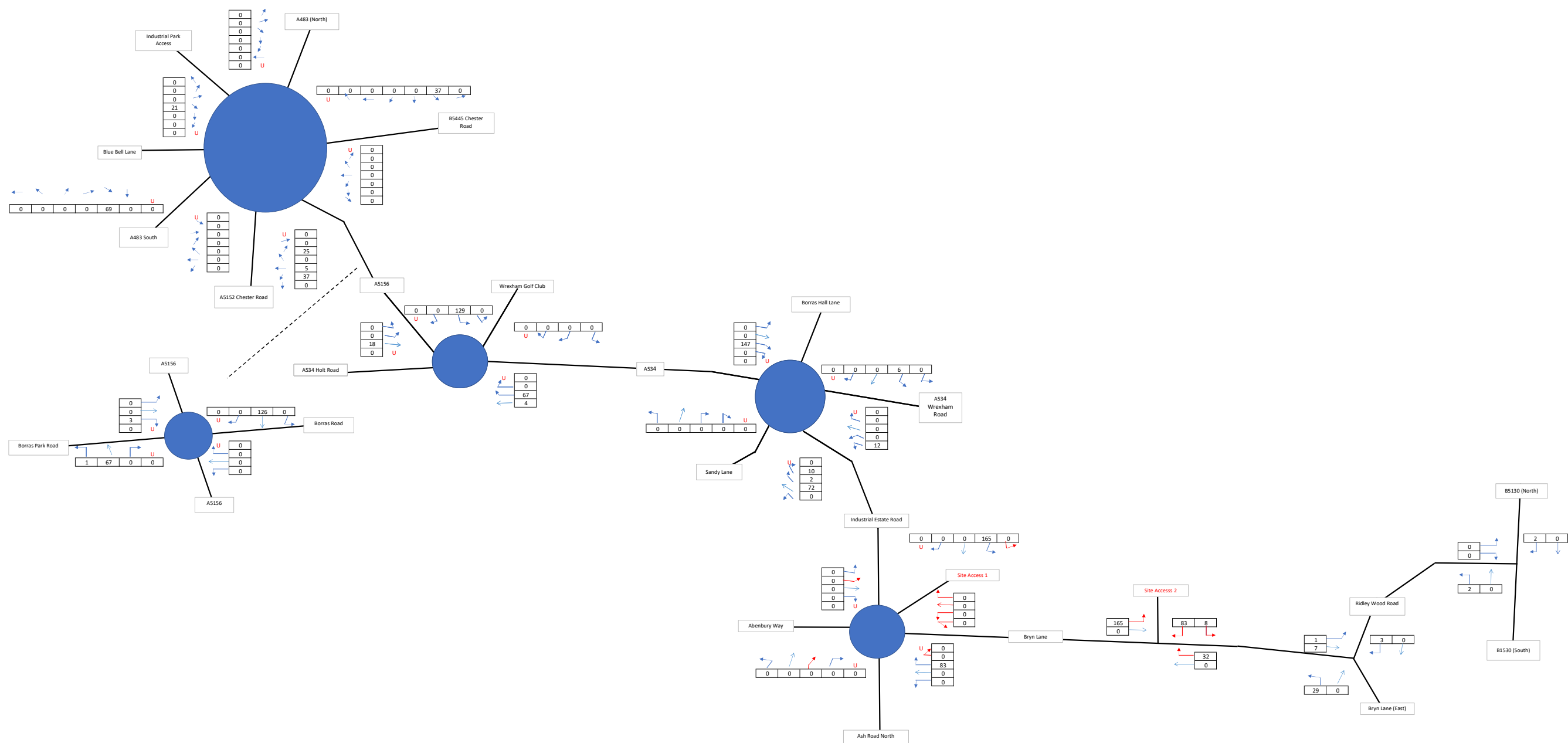
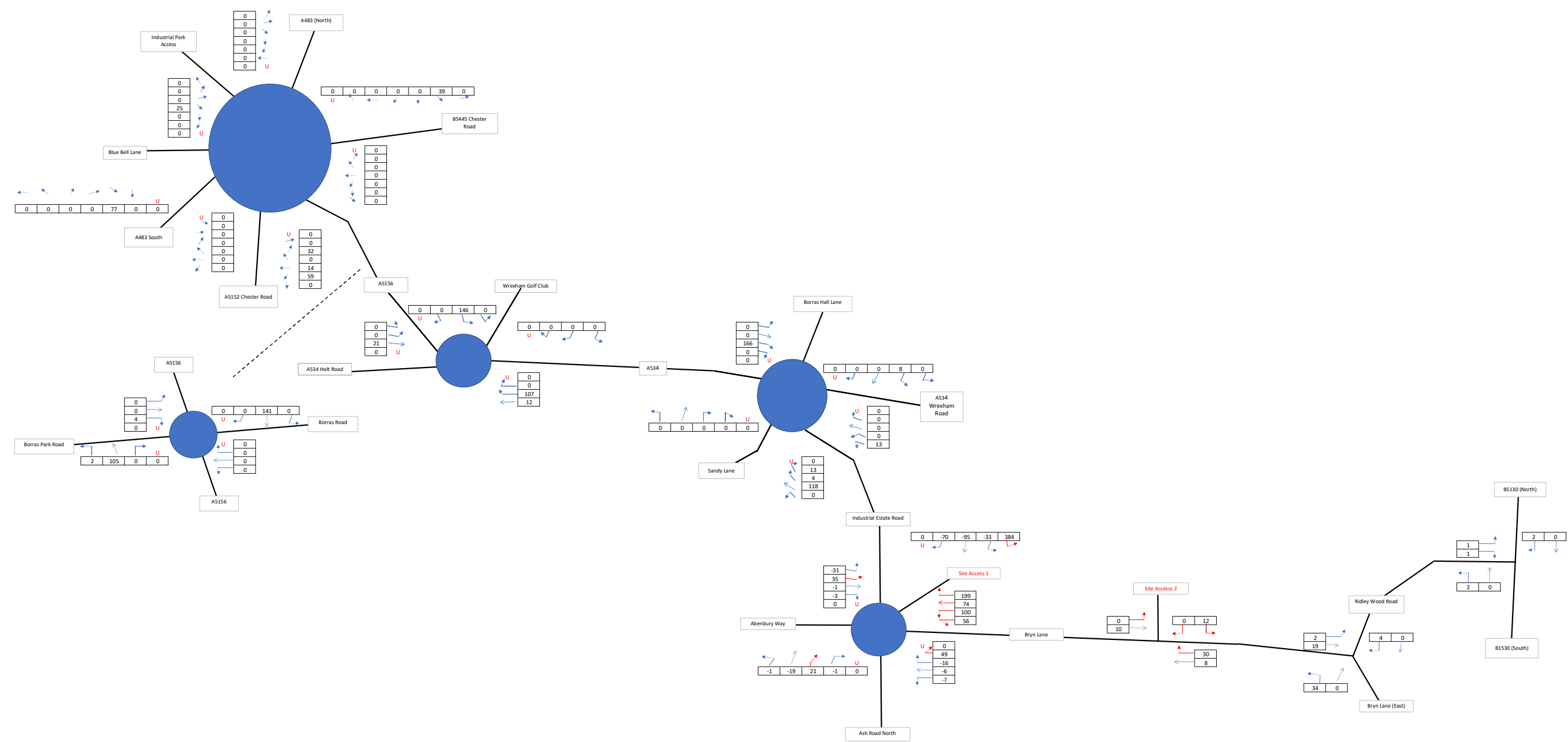


Figure 16a - Total Development Trips [Phase 1 + 2]
AM Peak: 0800-0900

Notes:

-123

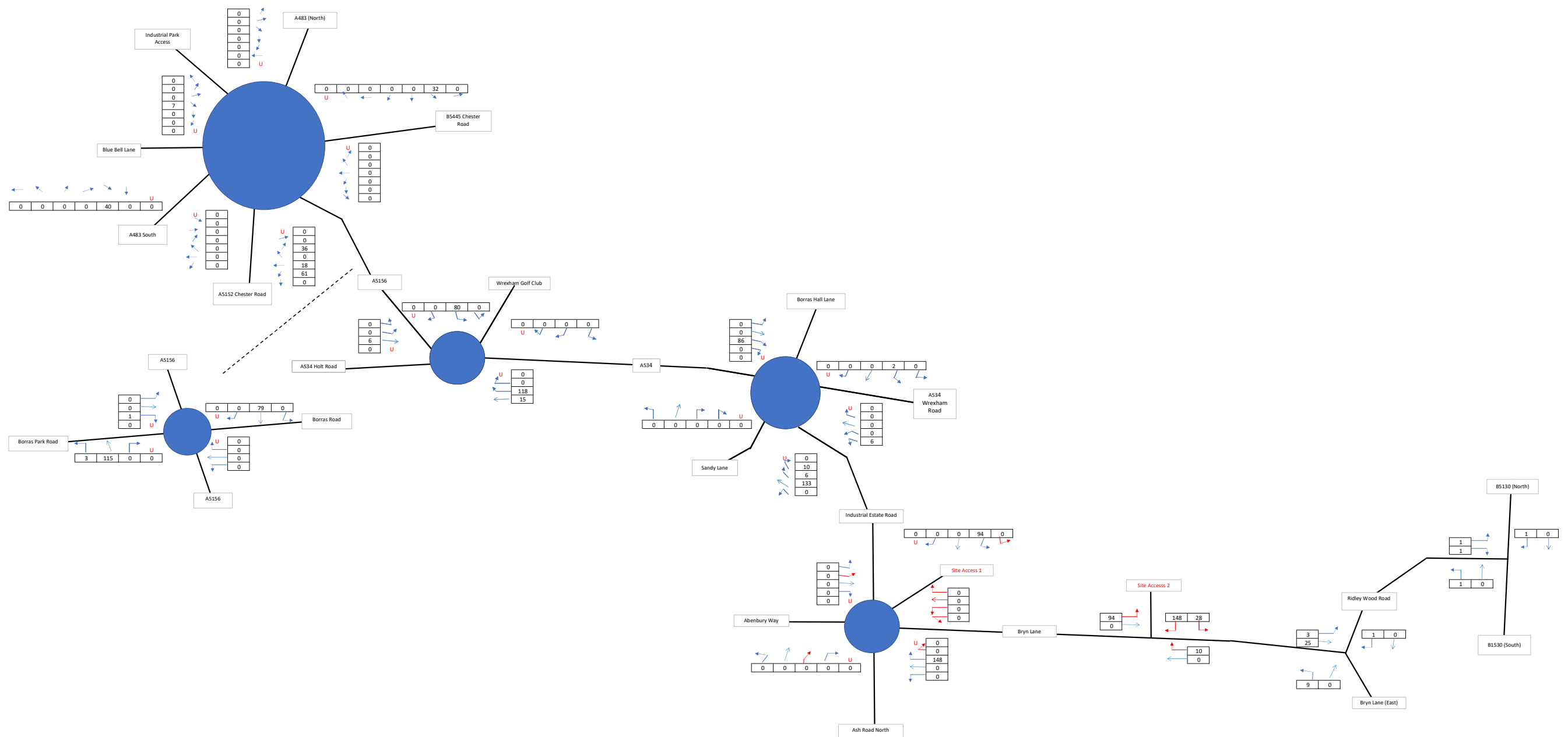
 PCUs



Notes:

123

 PCUs



Notes:

123

 PCUs

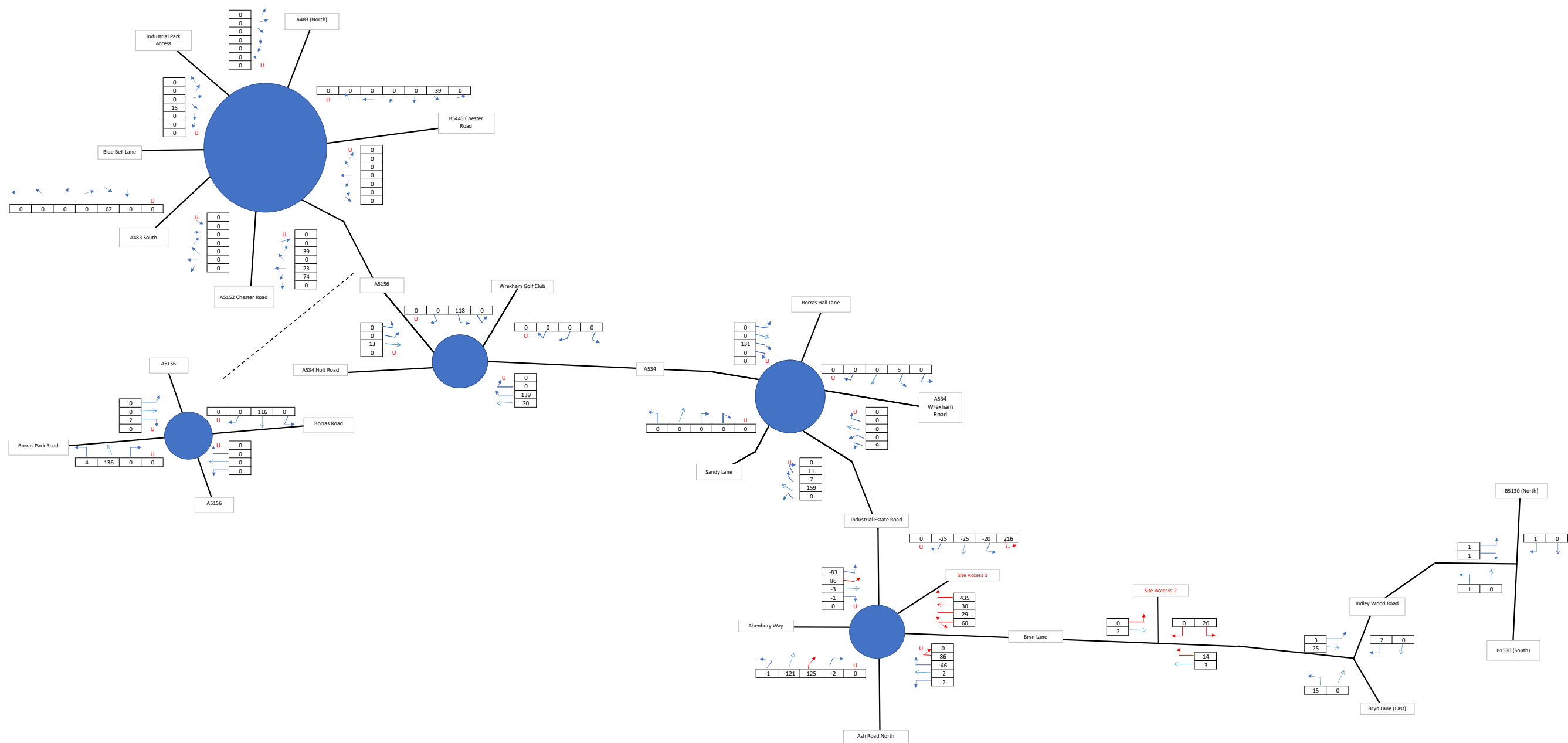


Figure 18 - Pacific Park Committed Traffic
AM Peak

Notes:

6	Arrivals
1	Departures

GFA 2567 sqm
Arr 0.228
Dep 0.028

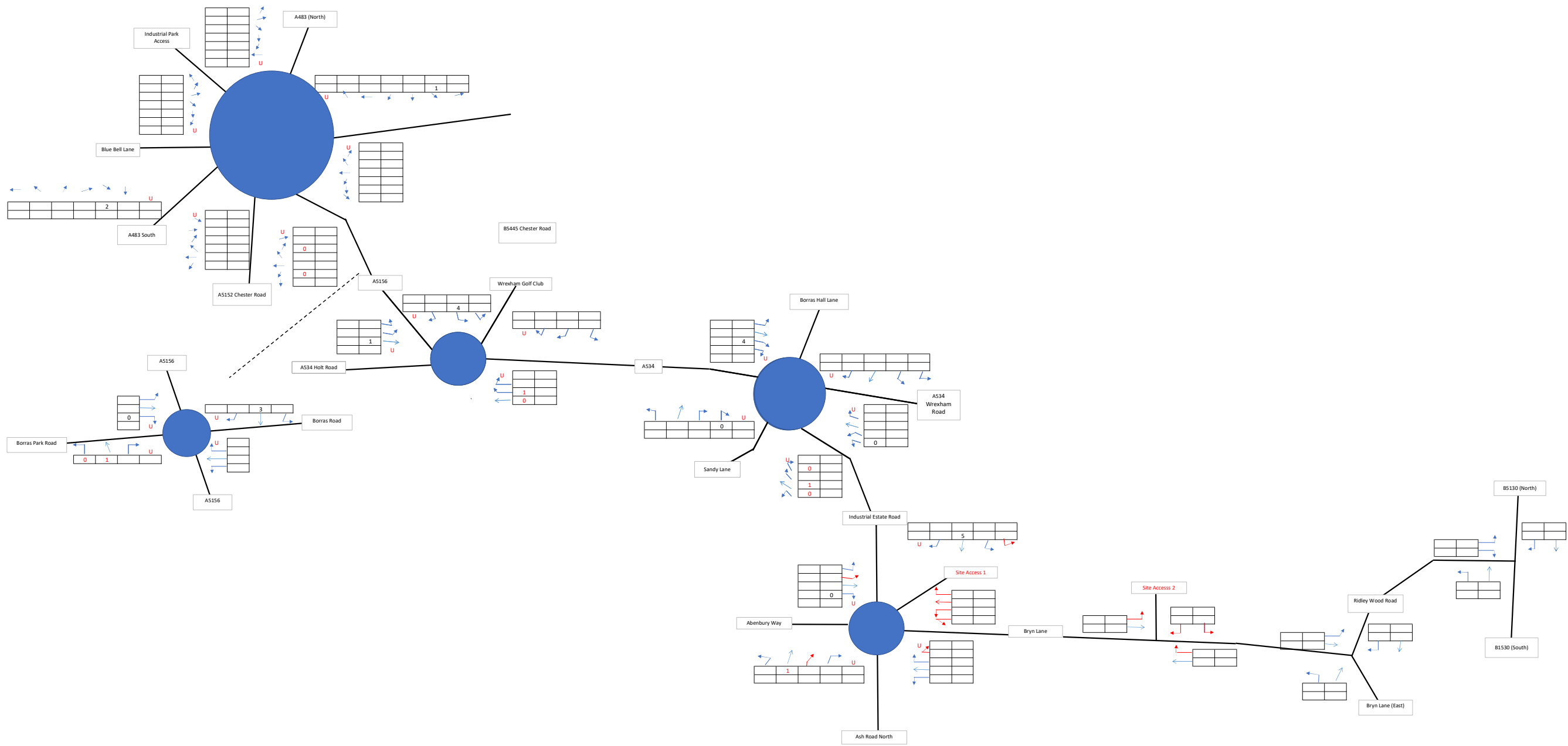


Figure 19 - Pacific Park Committed Traffic
PM Peak

Notes:

1	Arrivals
9	Departures

GFA 2567 sqm
Arr 0.039
Dep 0.361

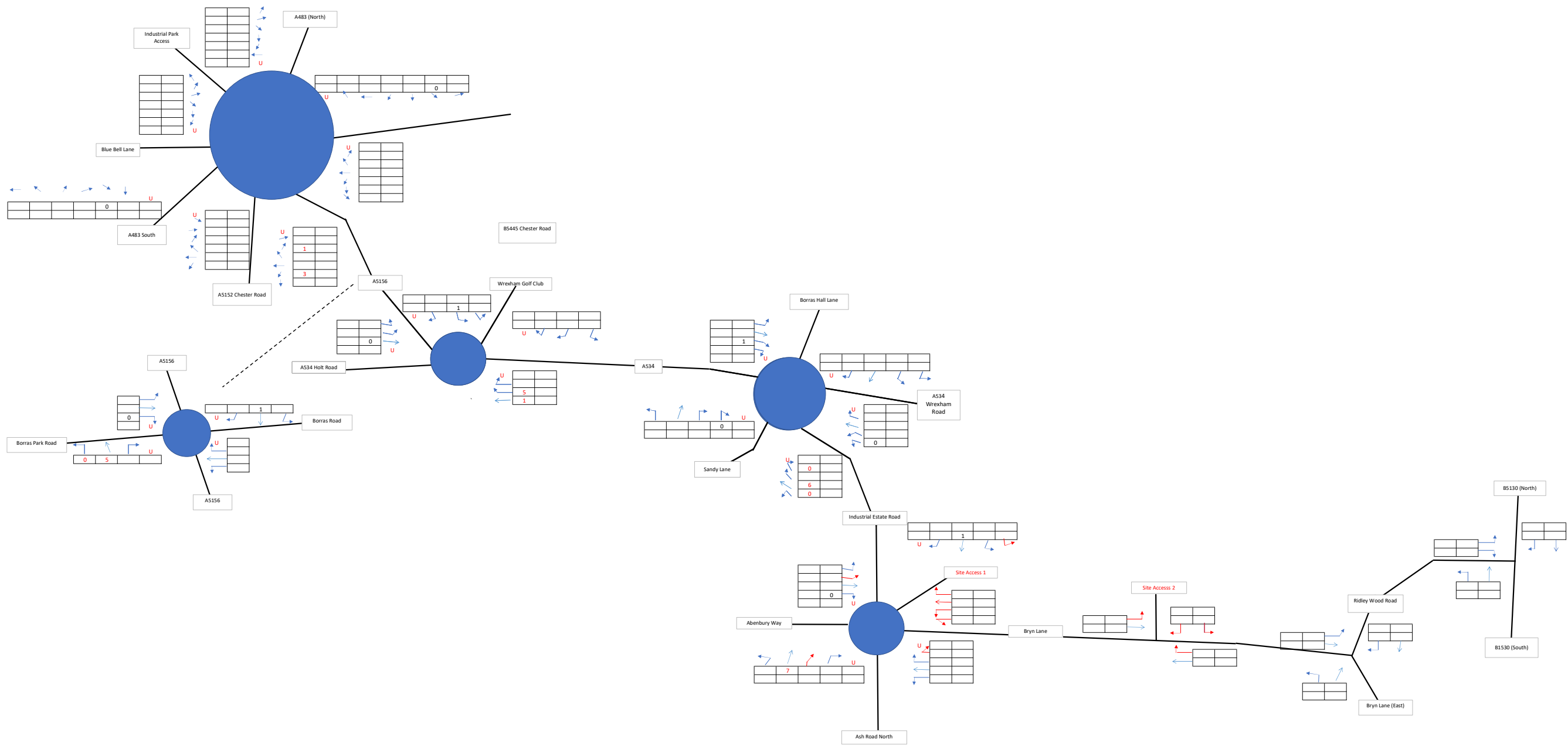


Figure 20 - Ash Road Committed Traffic
AM Peak

Notes:

6	Arrivals
1	Departures

GFA 2605 sqm
Arr 0.228
Dep 0.028

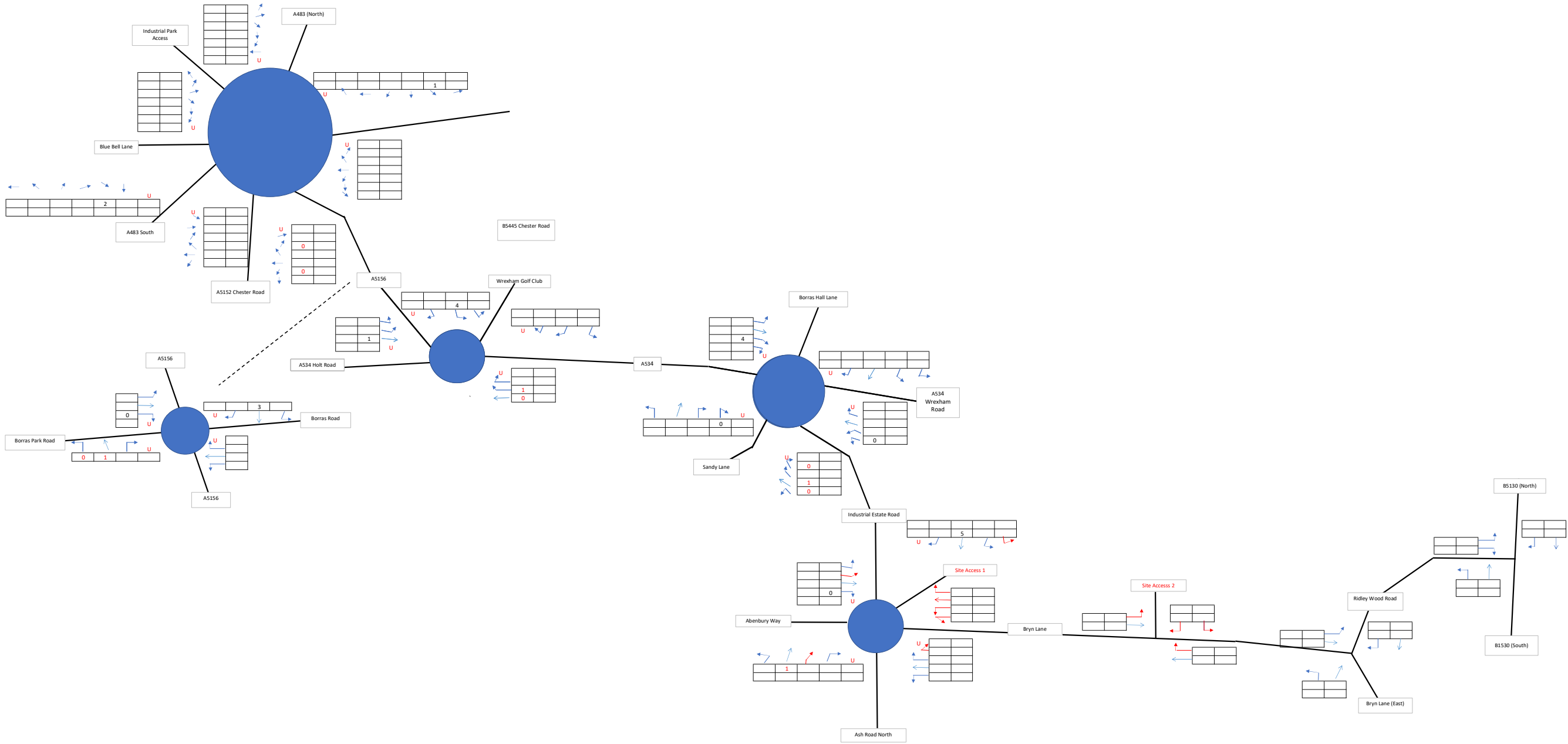


Figure 21 - Ash Road Committed Traffic
PM Peak

Notes:

1	Arrivals
9	Departures

GFA 2605 sqm
Arr 0.039
Dep 0.361

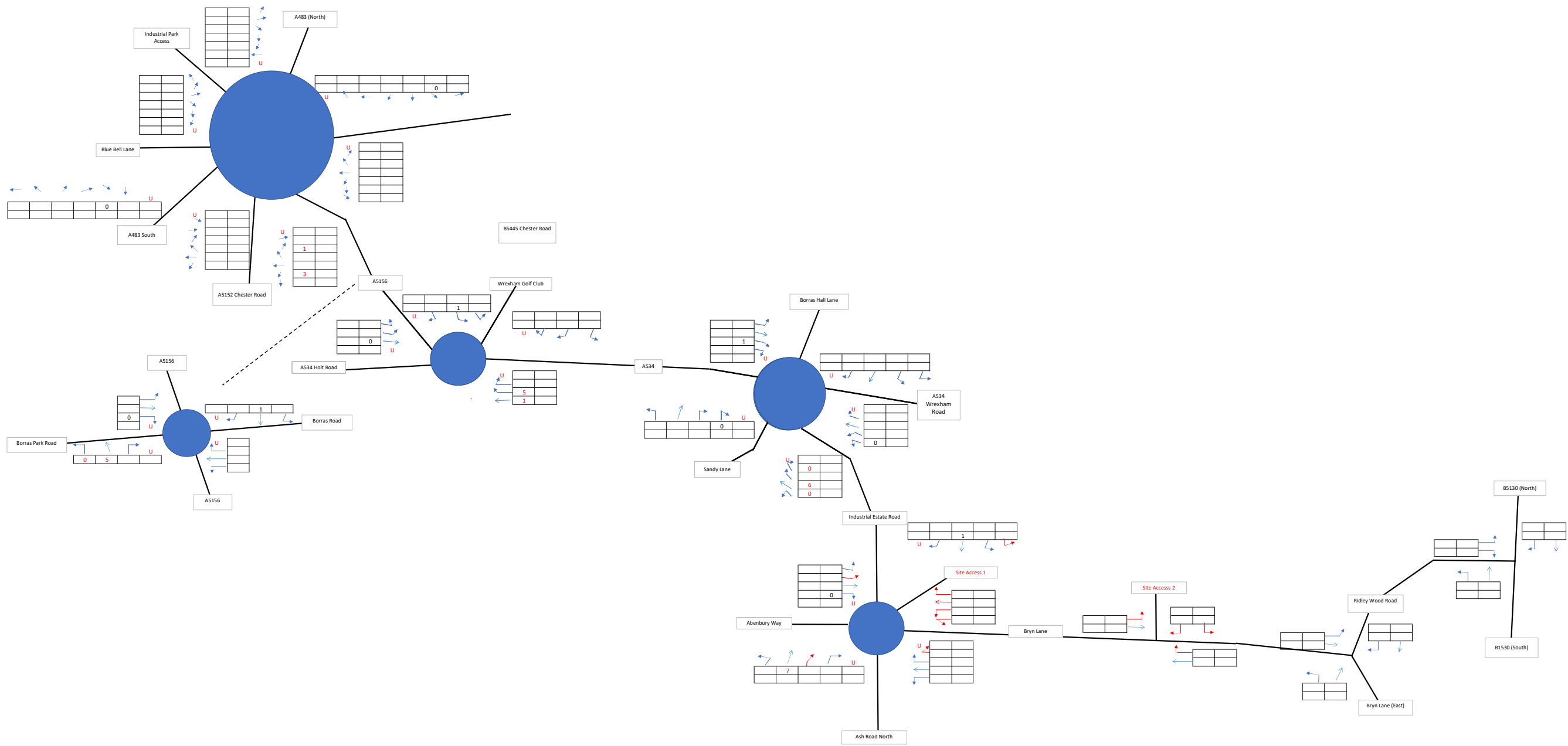


Figure 22 - KSS2 Development Traffic Distribution

Notes:

%	Arrivals
%	Departures

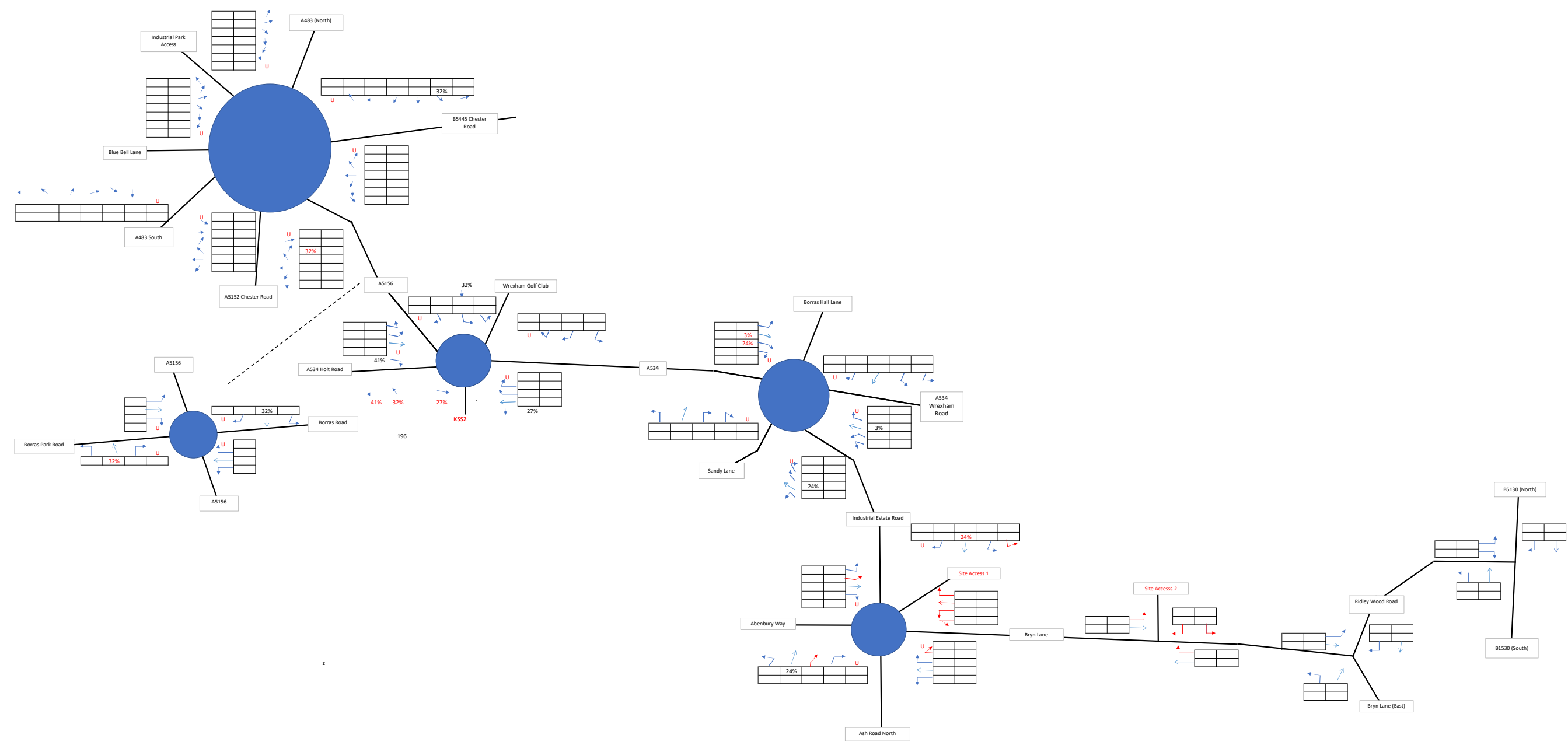


Figure 23 - KSS2 Development Trips
AM Peak

Notes:

237

 Arrivals

626

 Departures

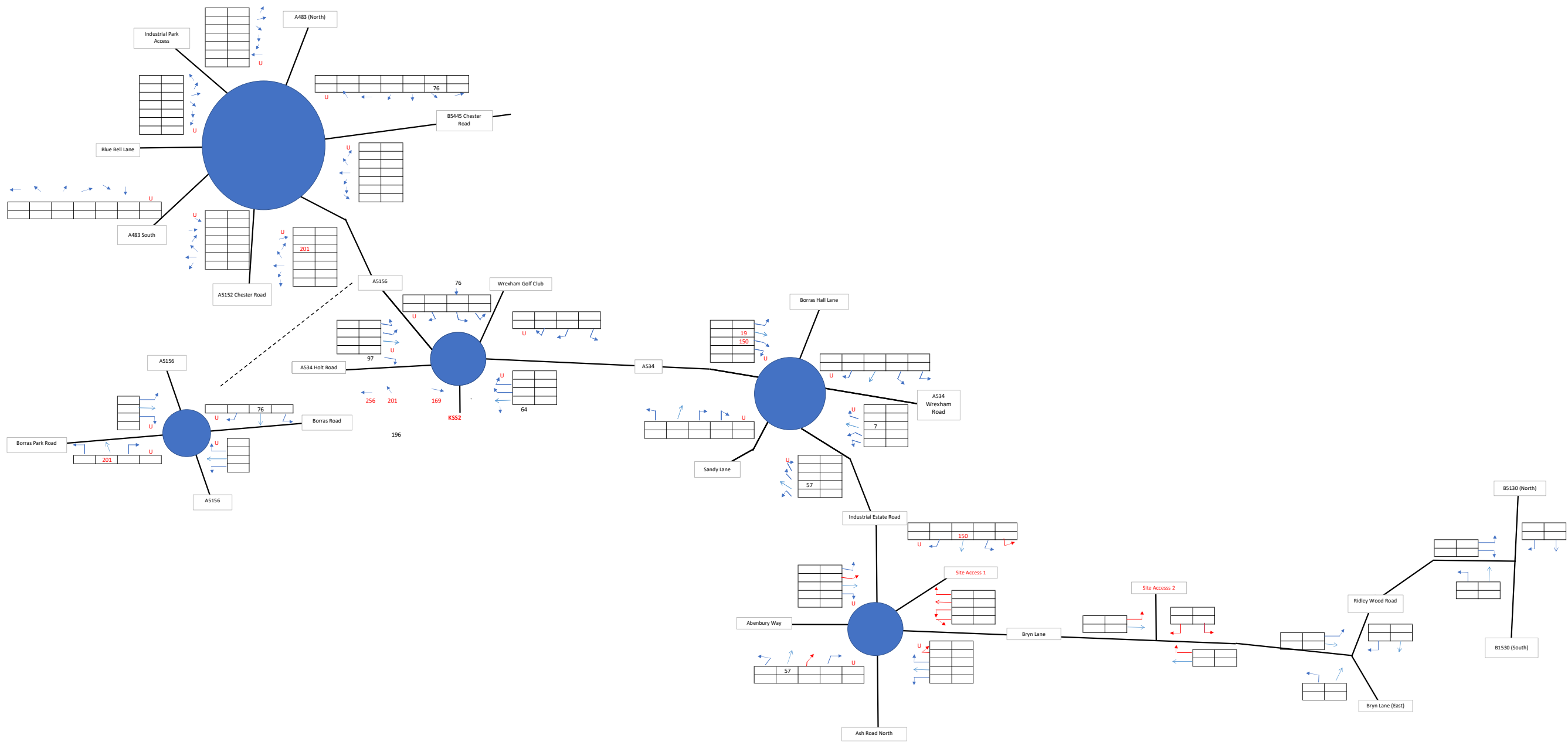


Figure 24 - KSS2 Development Trips
PM Peak

Notes: 547 Arrivals
301 Departures

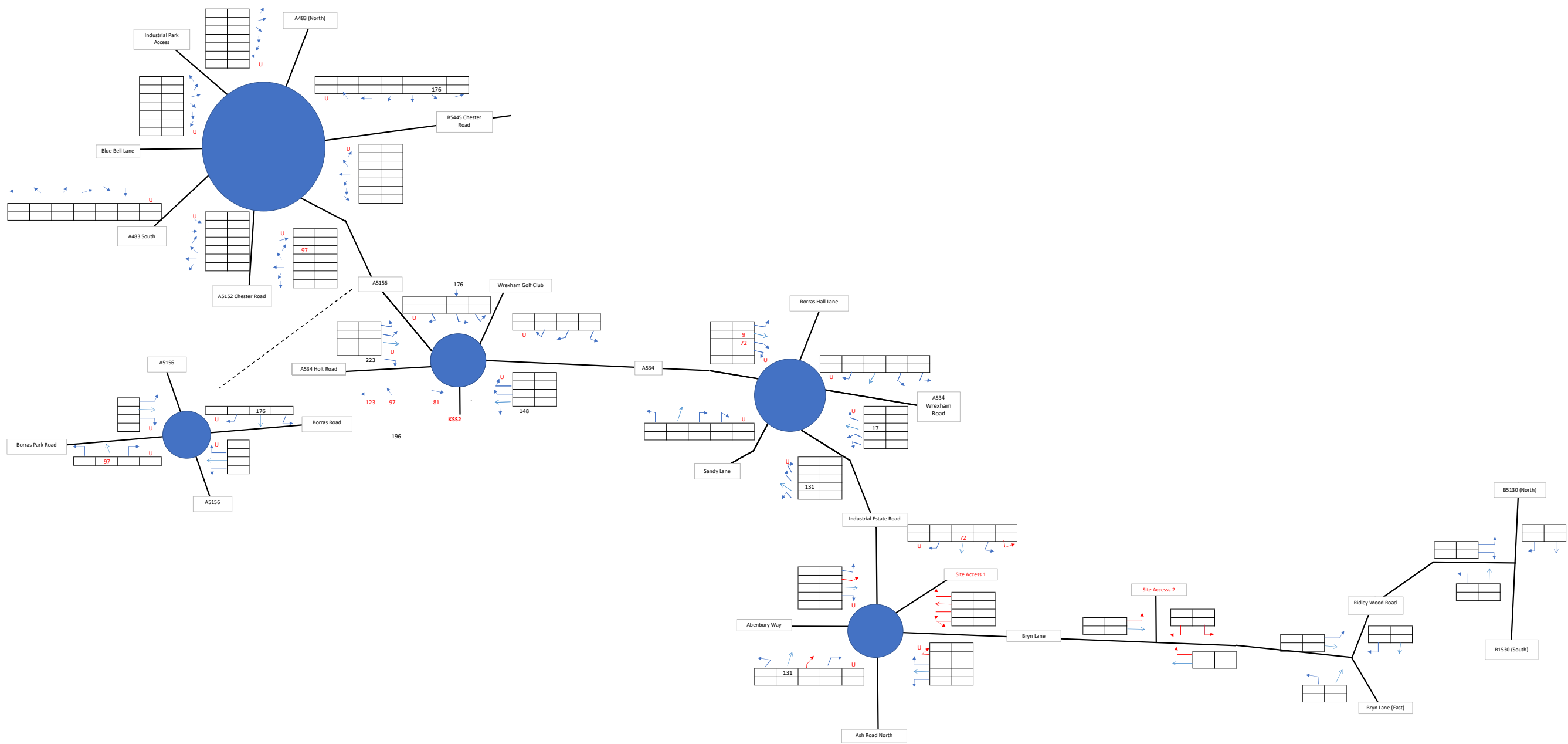


Figure 25 - Kingmoor Development Trips
AM Peak

Notes:

75	Arrivals (Lights)
50	Departures (Lights)

16	Arrivals (HGVs)
15	Departures (HGVs)

*Converted into PCUs

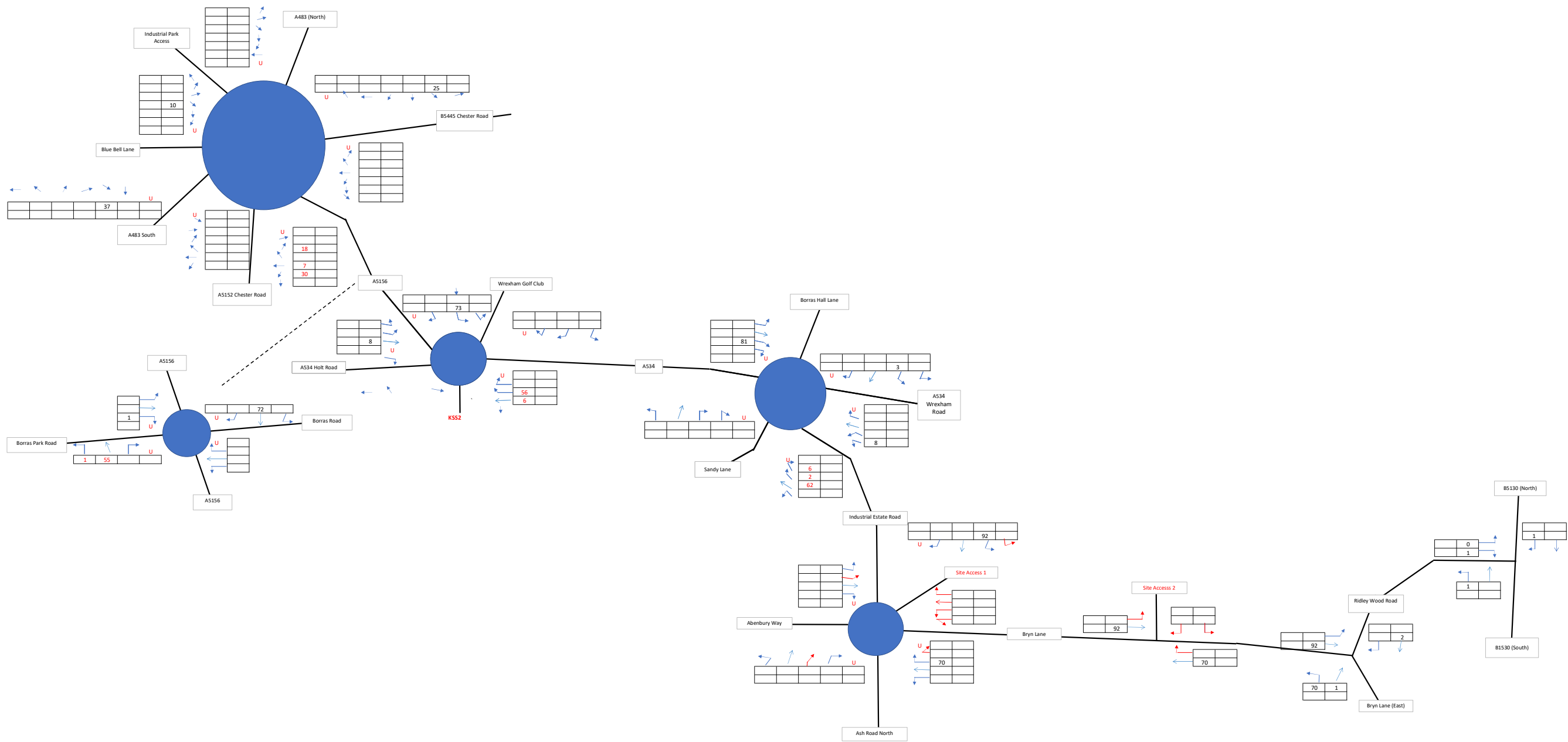


Figure 26 - Kingmoor Development Trips
PM Peak

Notes:

60	Arrivals (Lights)
98	Departures (Lights)

18	Arrivals (HGVs)
16	Departures (HGVs)

*Converted into PCUs

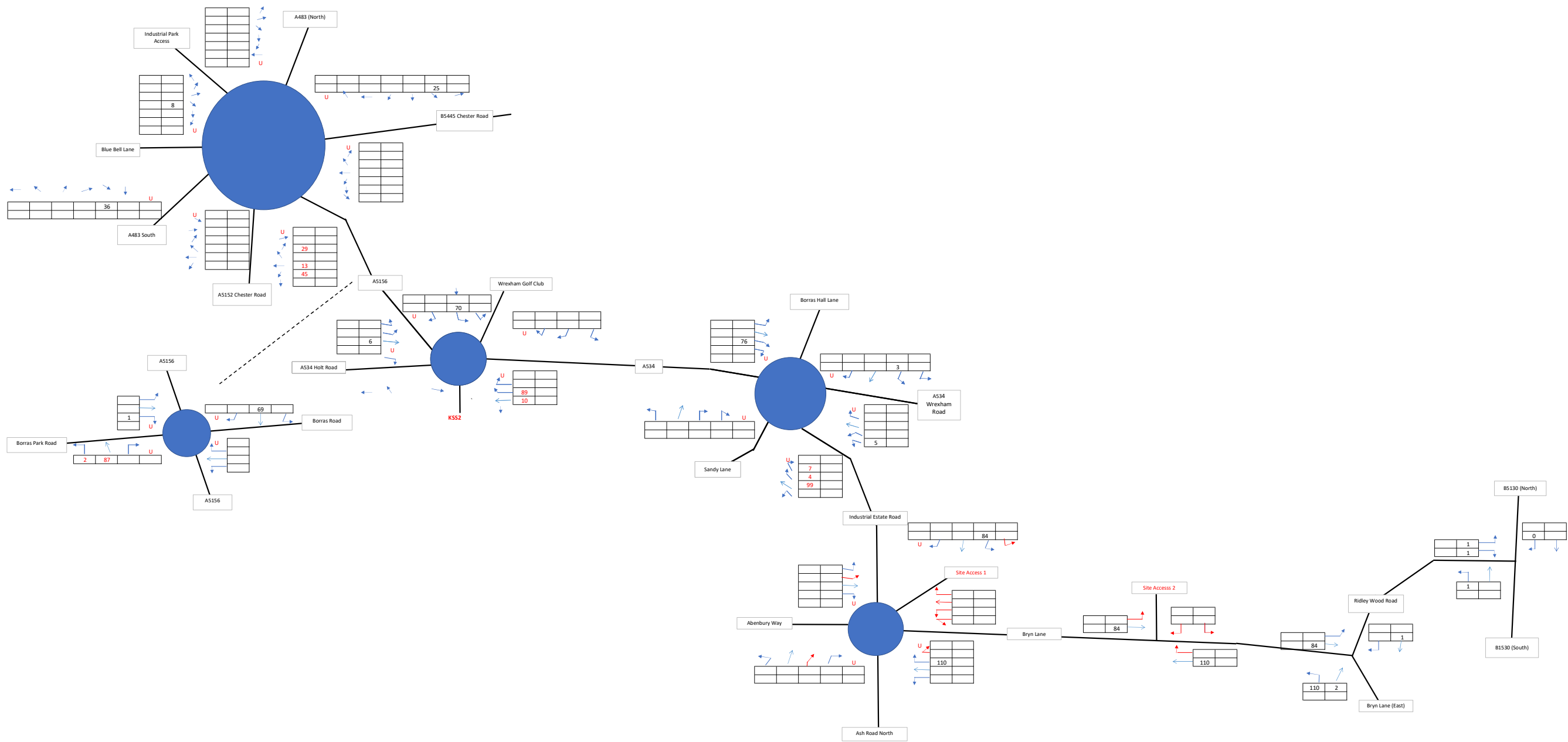


Figure 26a - Net World Sports Committed Development Trips
AM Peak

Notes:

123	Lights
123	HGVs

Net World Sports (P/2020/0167)

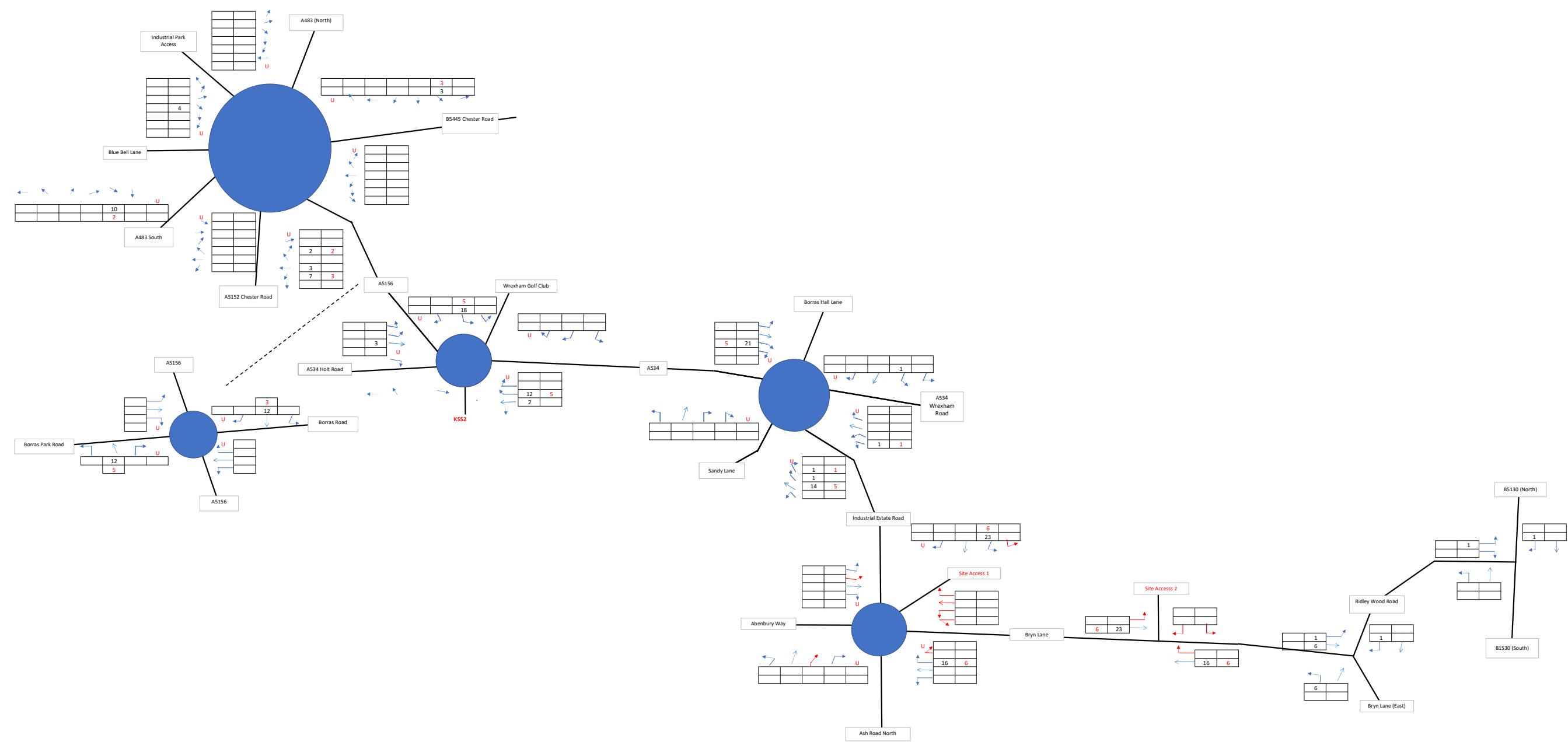


Figure 26b - Net World Sports Committed Development Trips
PM Peak

Notes:

123	Lights
123	HGVs

Net World Sports (P/2020/0167)

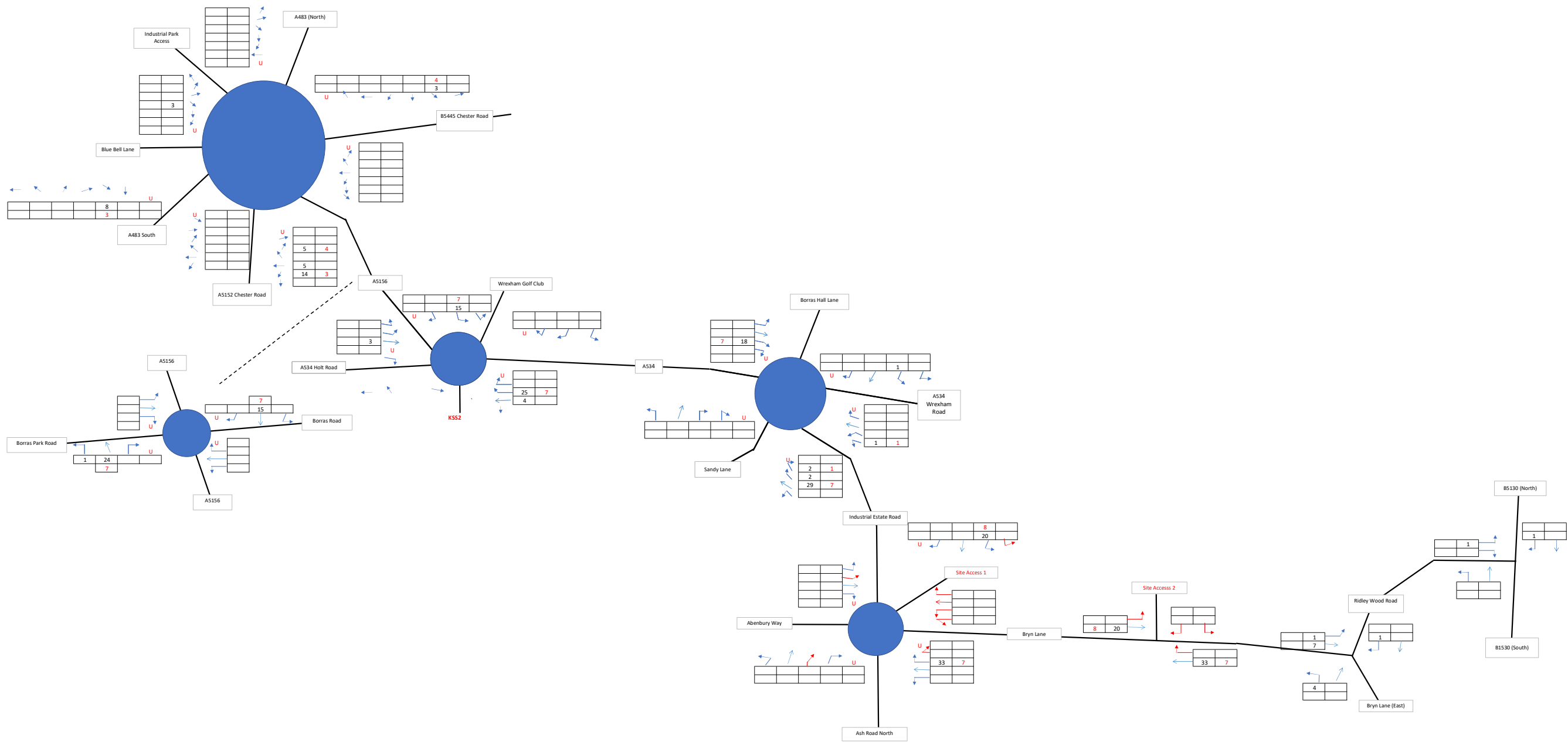


Figure 26c - Land East of Bryn Lane Committed Development Trips
AM Peak

Notes: 123 Lights
123 Highways
Land to the east of Bryn Lane (P/2023/0230) - 97,500 sqft B2/B8

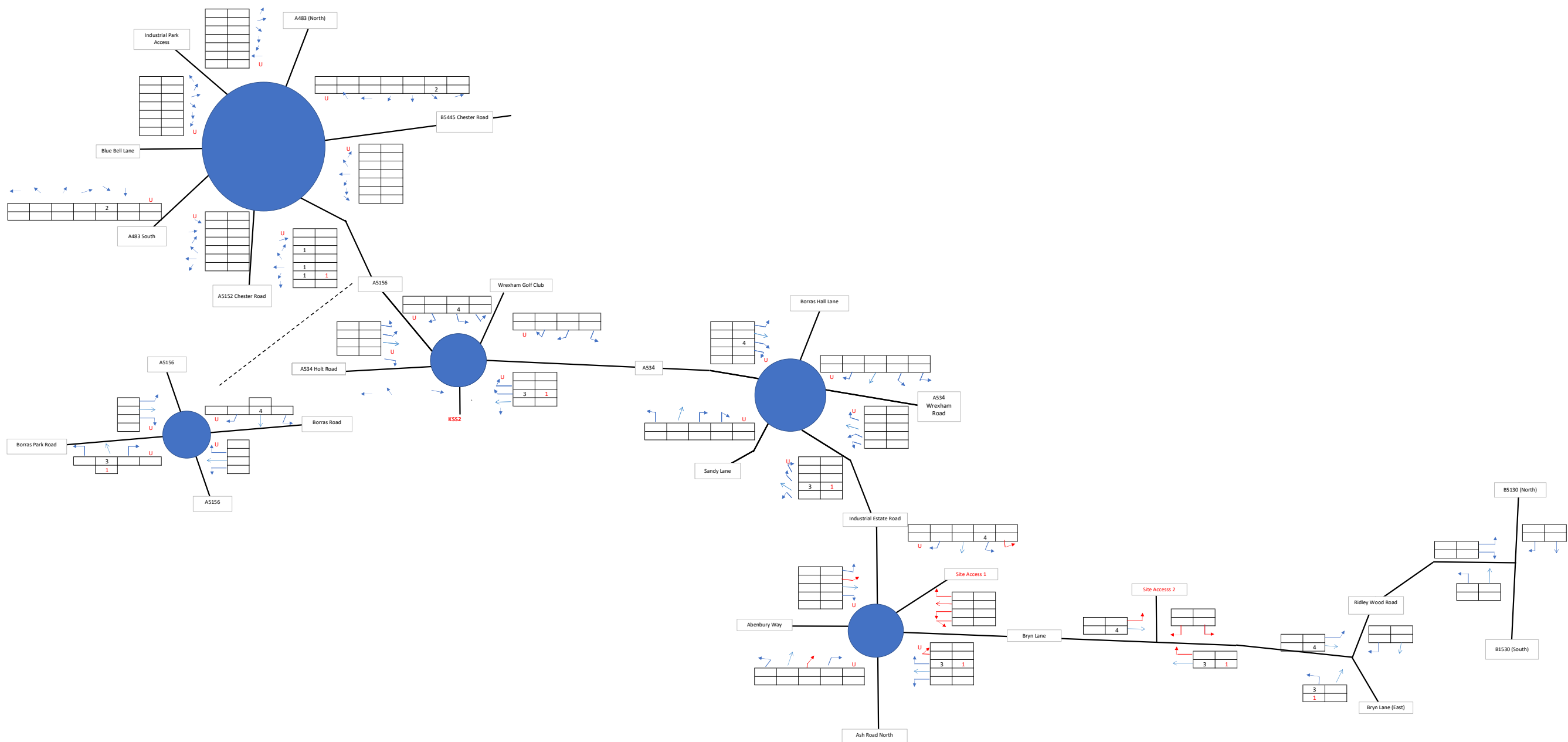


Figure 26d - Land East of Bryn Lane Committed Development Trips
PM Peak

Notes:

123

 Lights

123

 Highways
Land to the east of Bryn Lane (P/2023/0230) - 97,500 sqft B2/B8

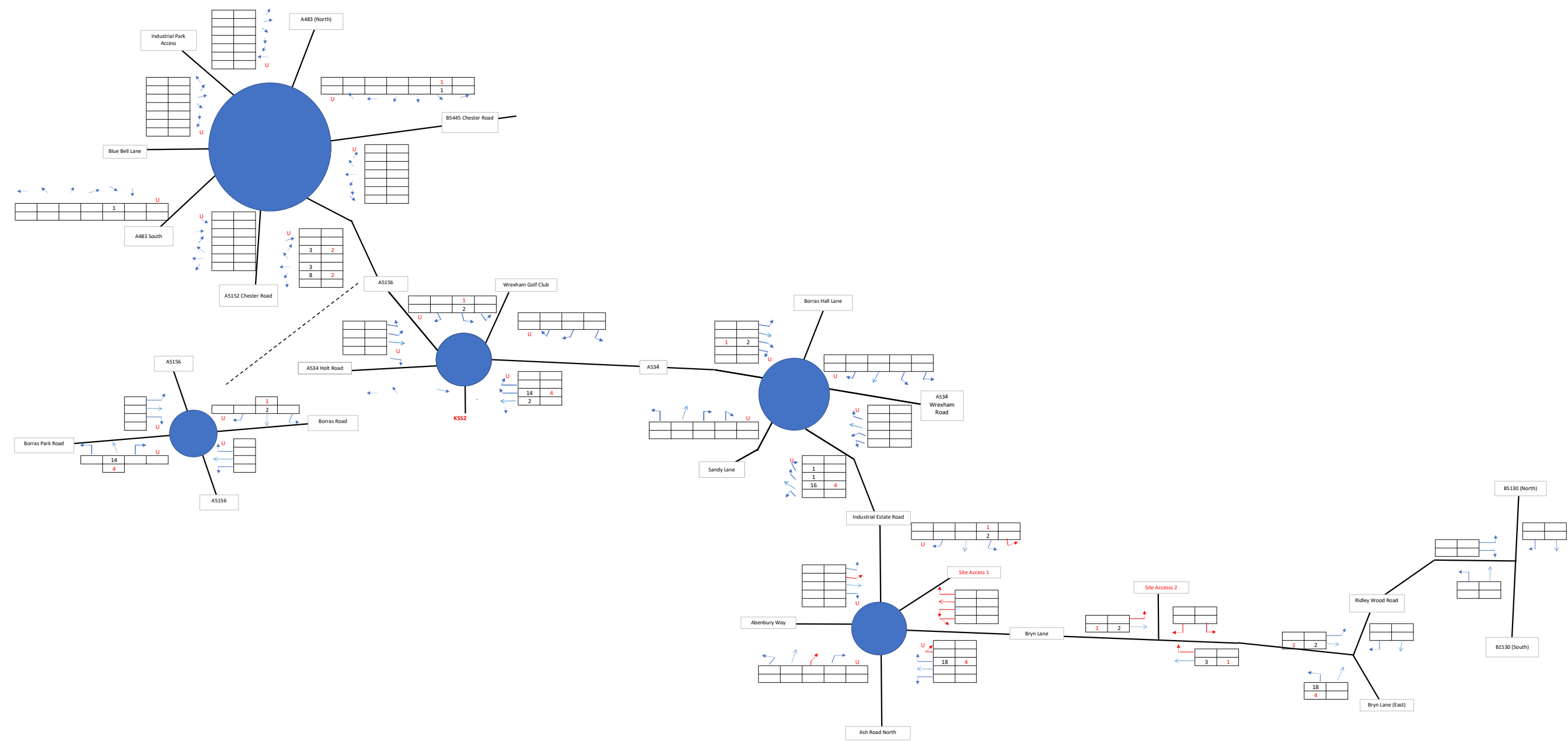


Figure 26e - Land South of Bryn Lane Committed Development Trips
AM Peak: 0800-0900

Notes: 67 Arrivals
12 Departures

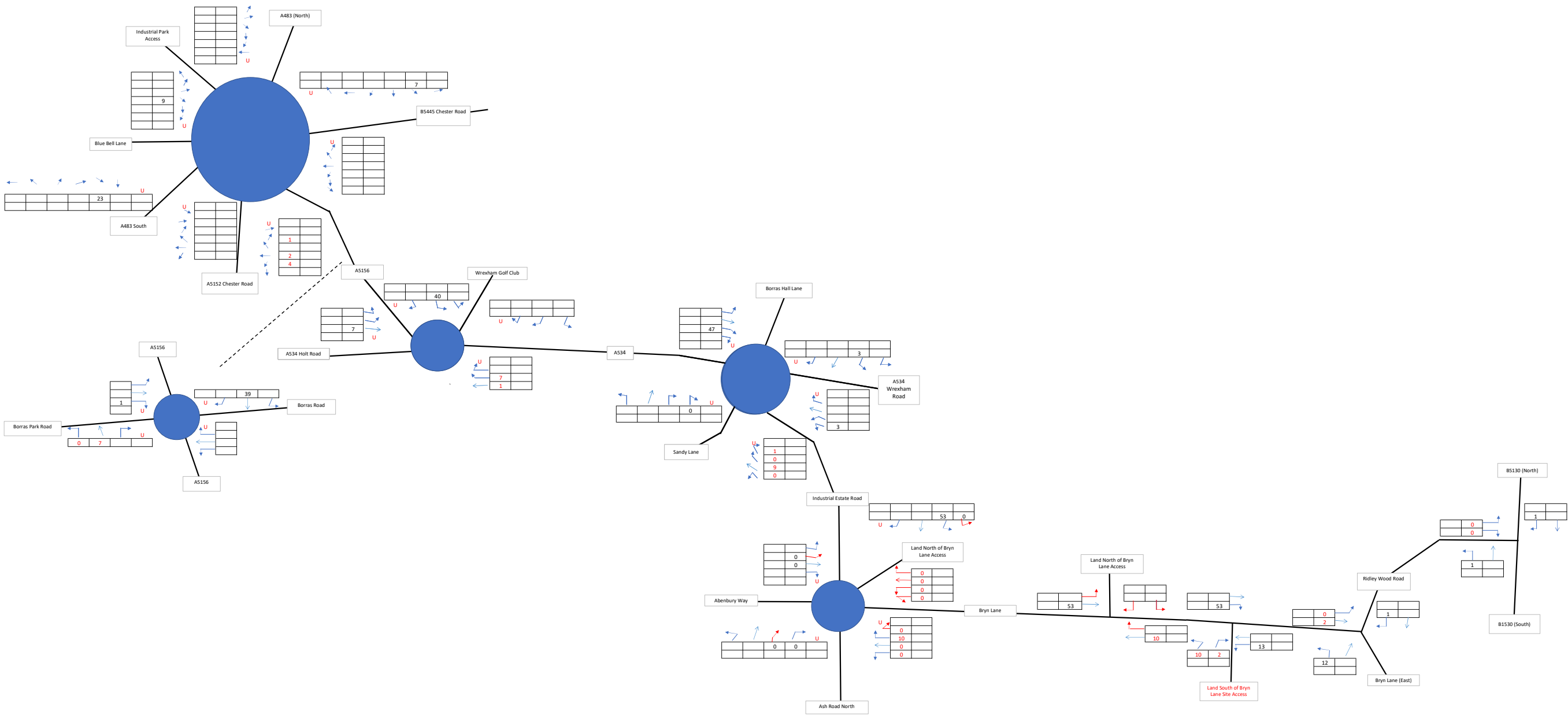


Figure 26f - Land South of Bryn Lane Committed Development Trips
PM Peak: 1630-1730

Notes:

19

 Arrivals

56

 Departures

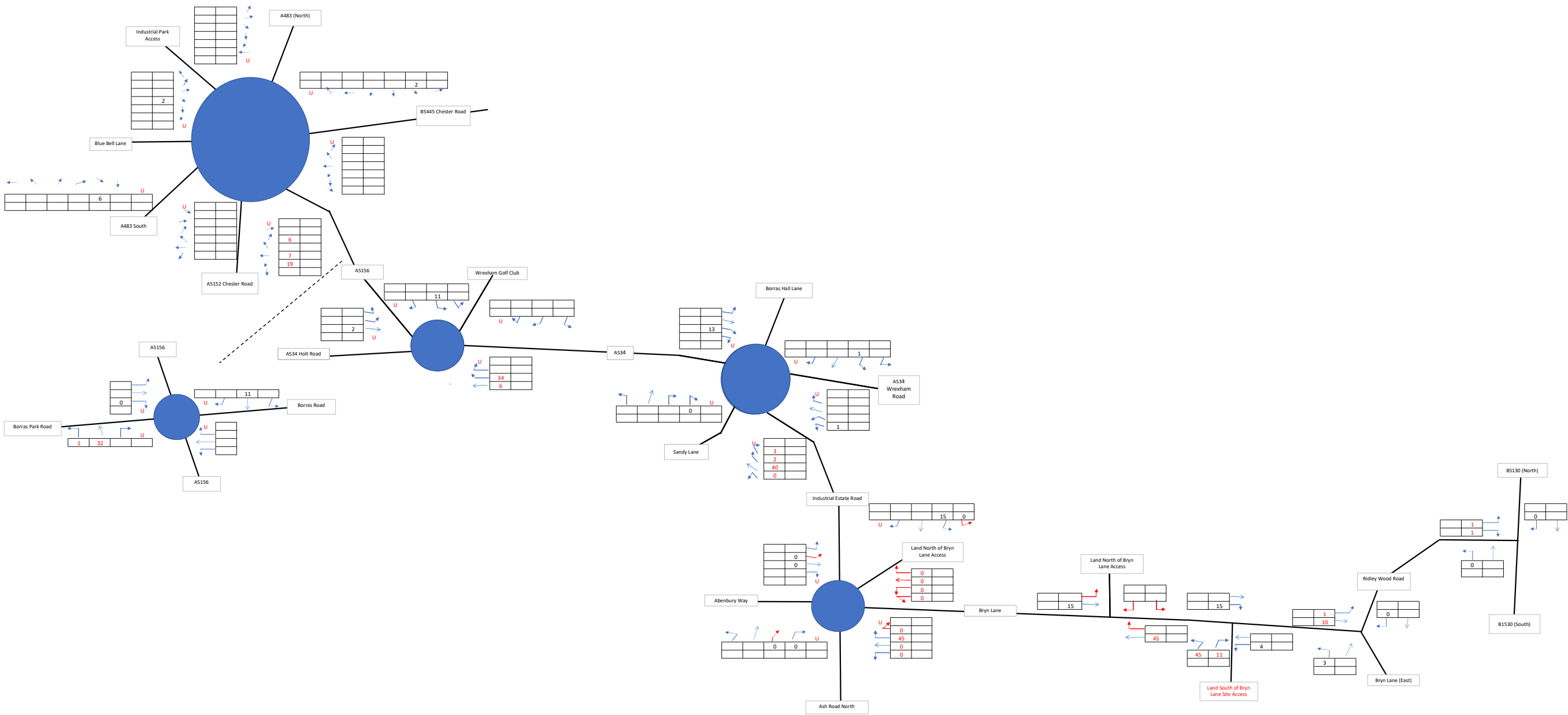


Figure 27 - 2030 Base + Committed
AM Peak: 0800-0900

Notes:

123

 PCUs

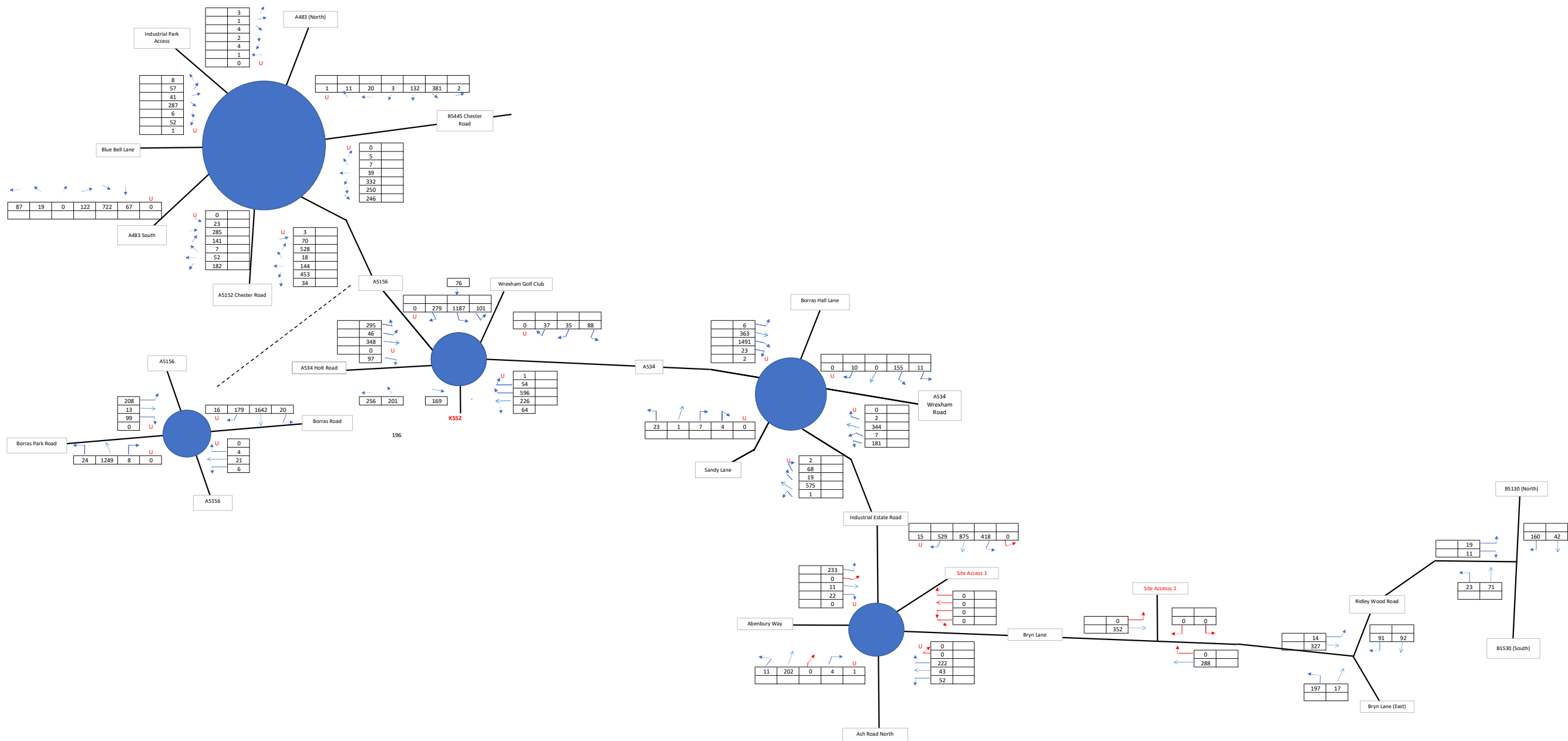


Figure 27a - 2030 Base + Development (Phase 1)
AM Peak: 0800-0900

Notes:

123

 PCUs

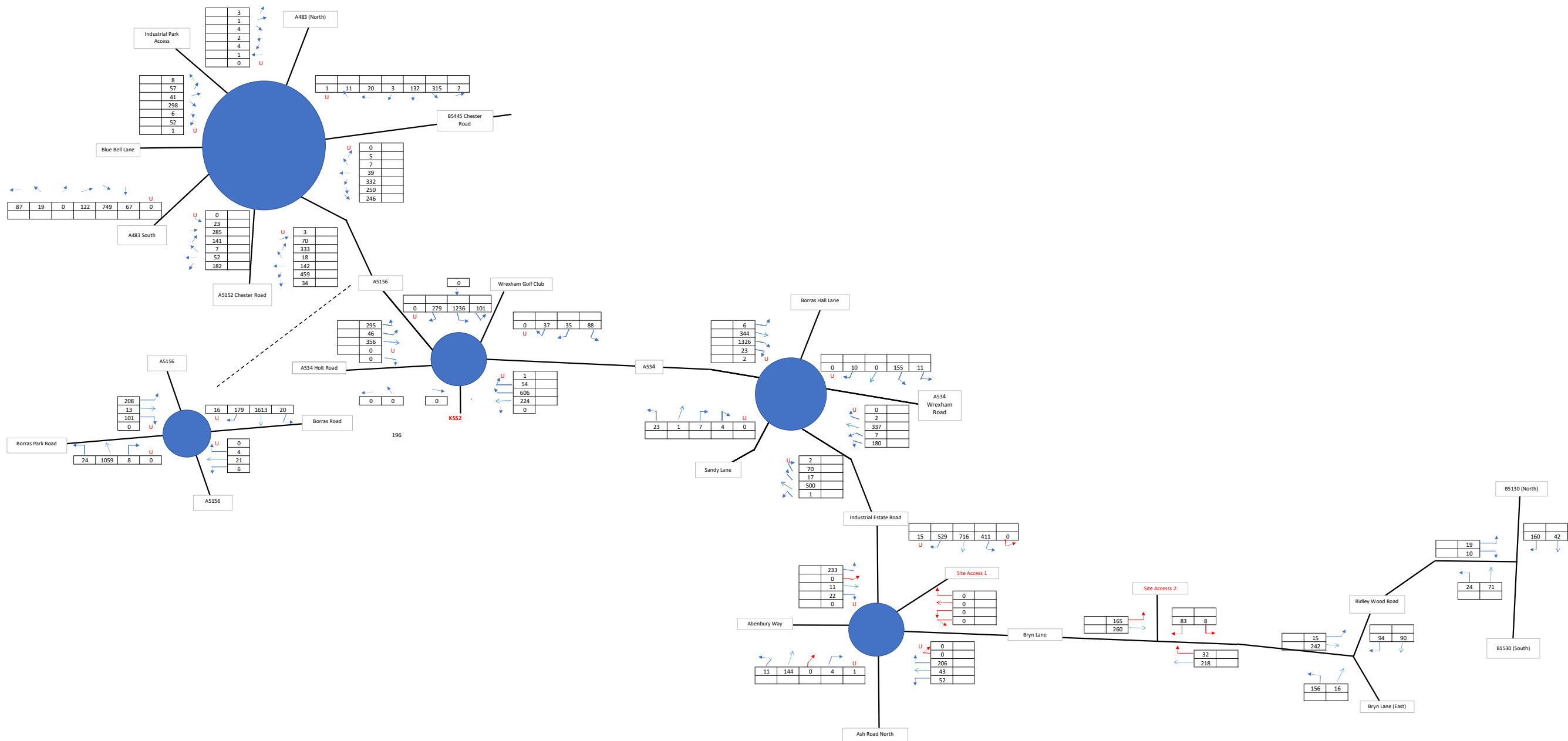


Figure 27b - 2030 Base + Development (Phase 1 + 2)
AM Peak: 0800-0900

Notes:

123

 PCUs

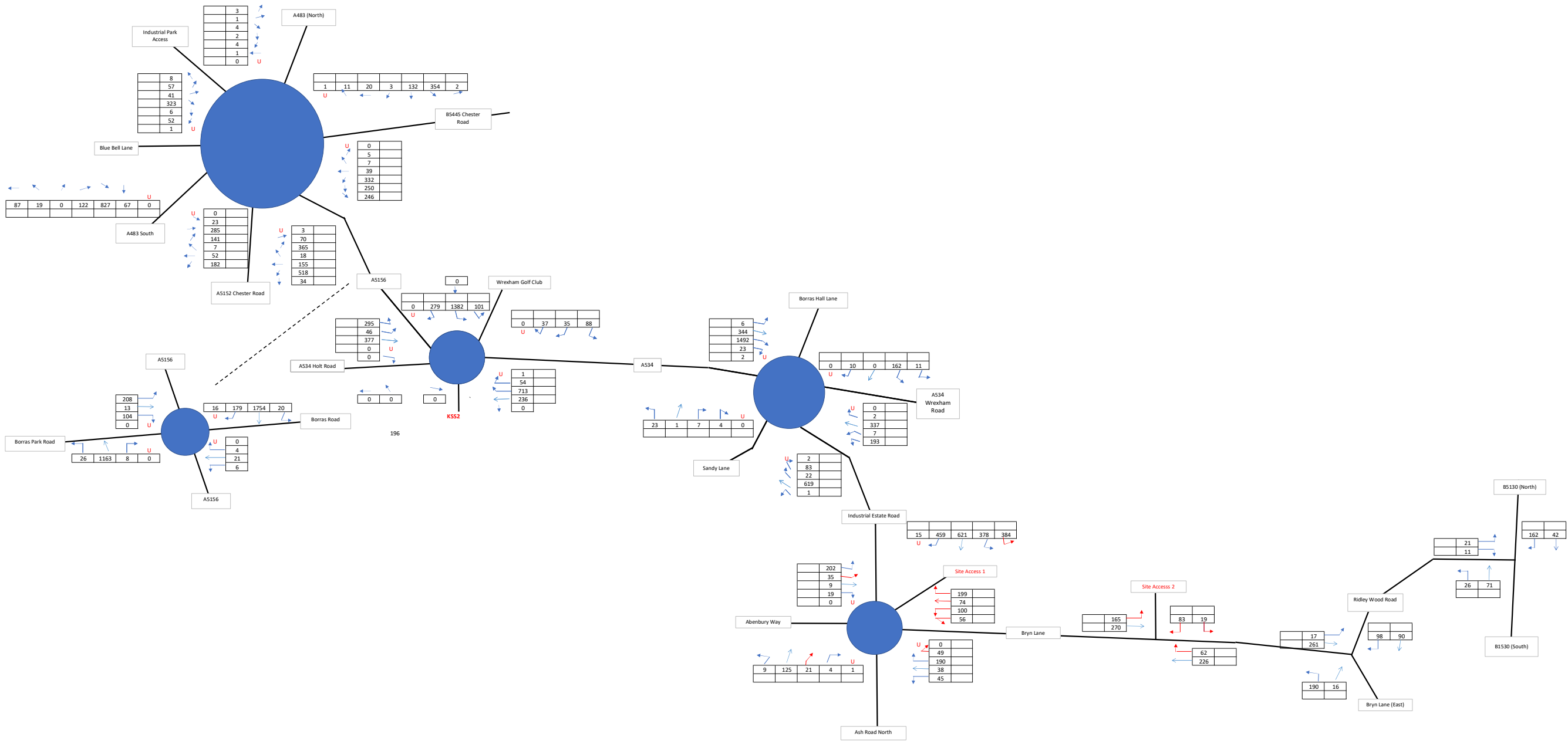
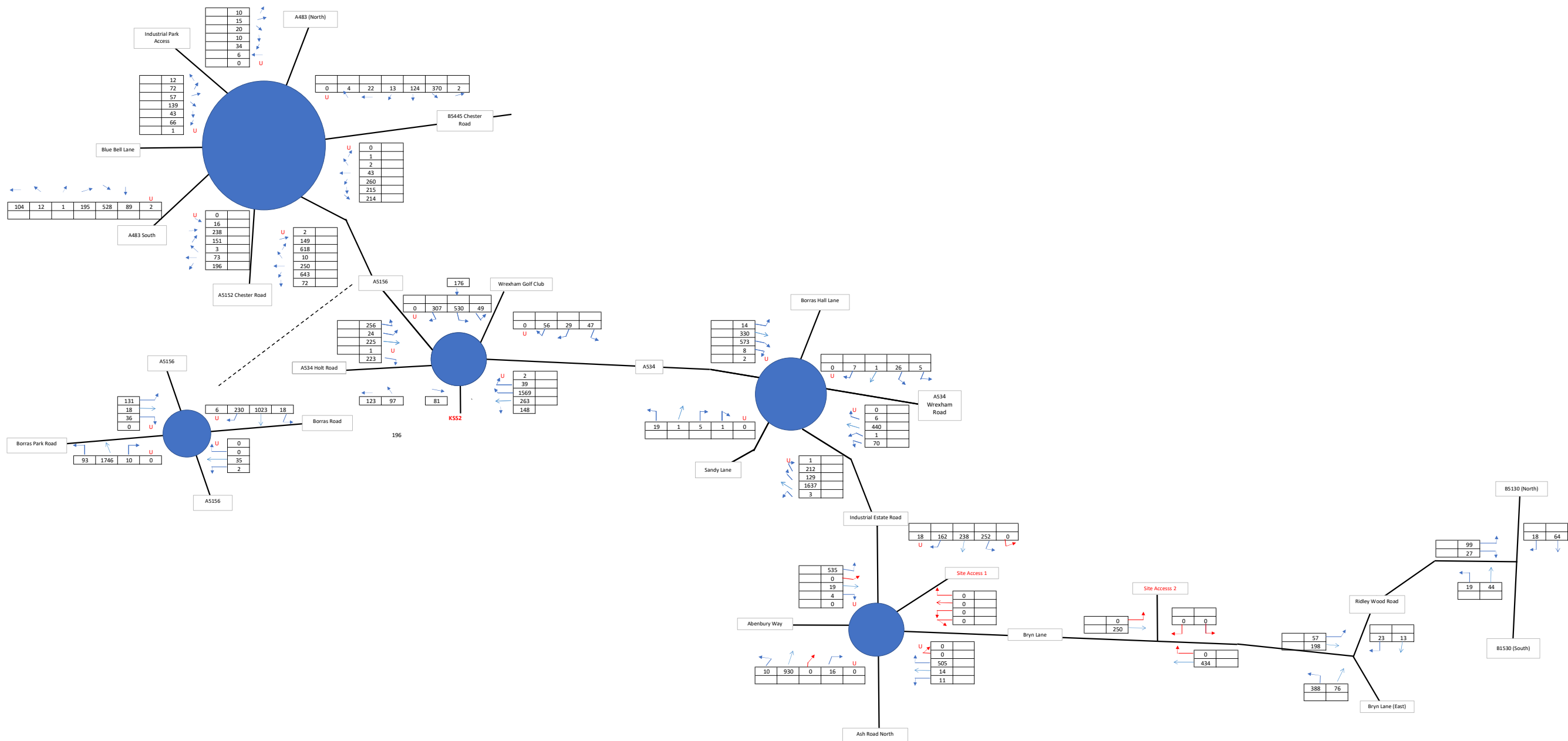


Figure 28 - 2030 Base + Committed
PM Peak: 1630-1730

Notes:

123

 PCUs



Notes:

123

 PCUs

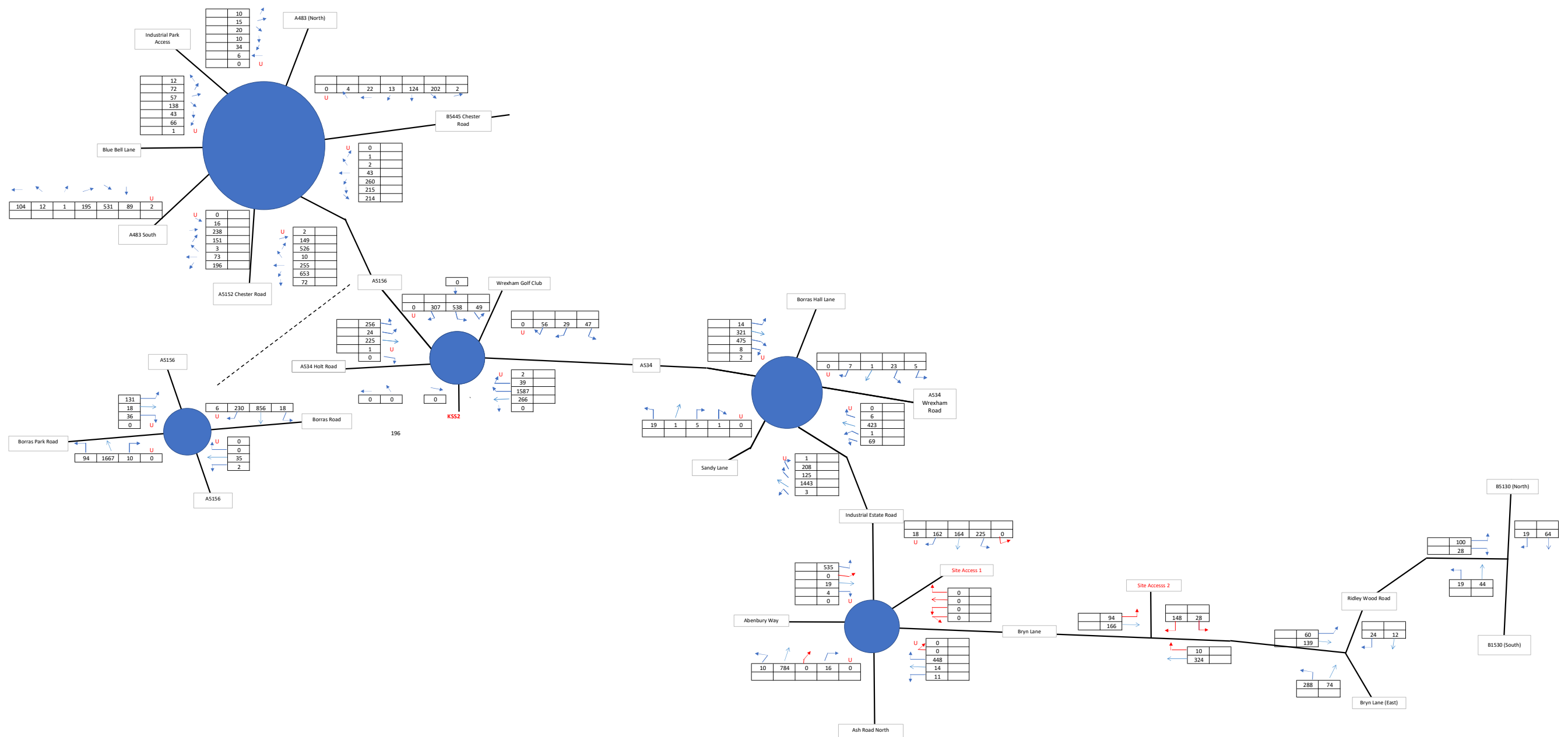
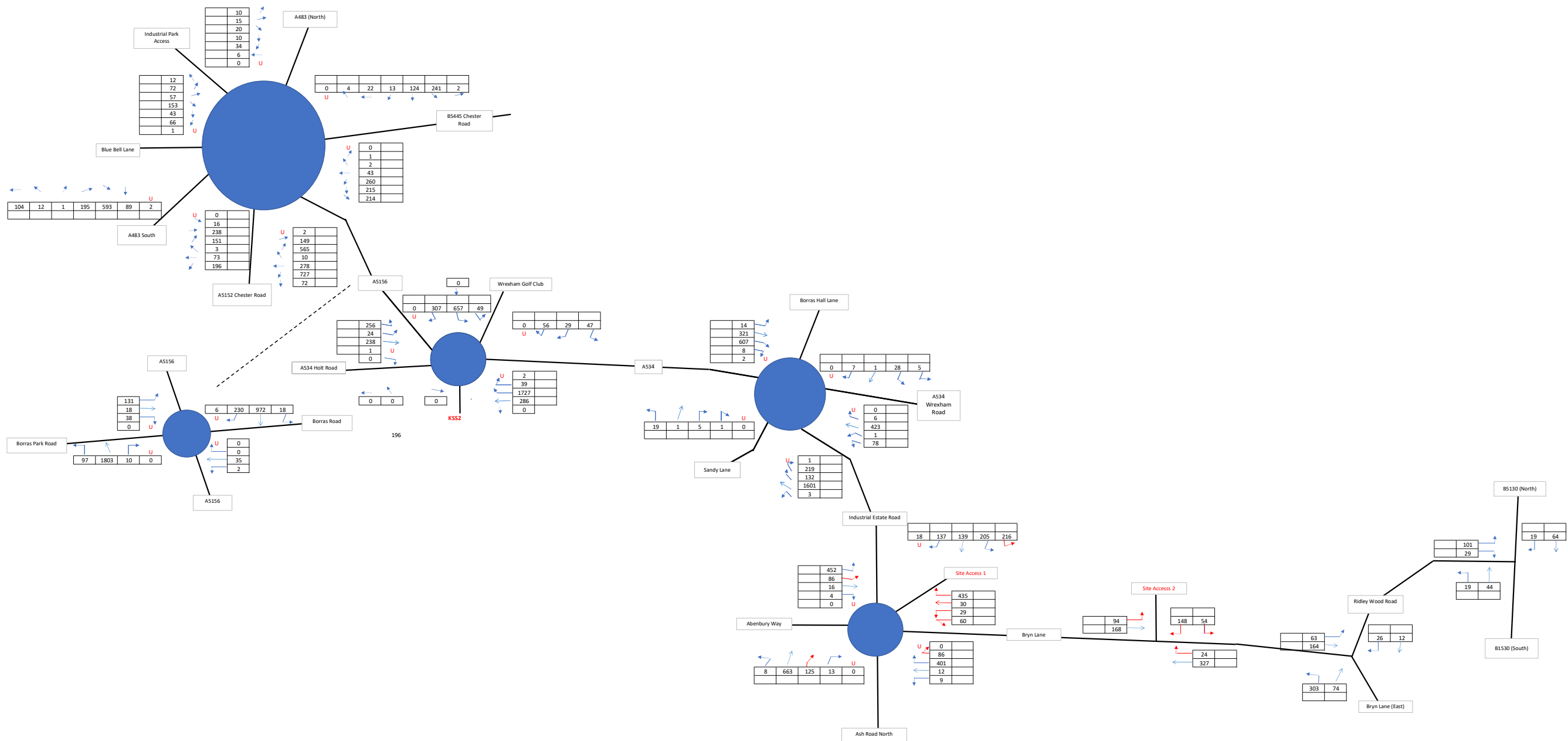


Figure 28b - 2030 Base + Development (Phase 1 + 2)
PM Peak: 1630-1730

Notes:

123

 PCUs



Notes:

123

 PCUs

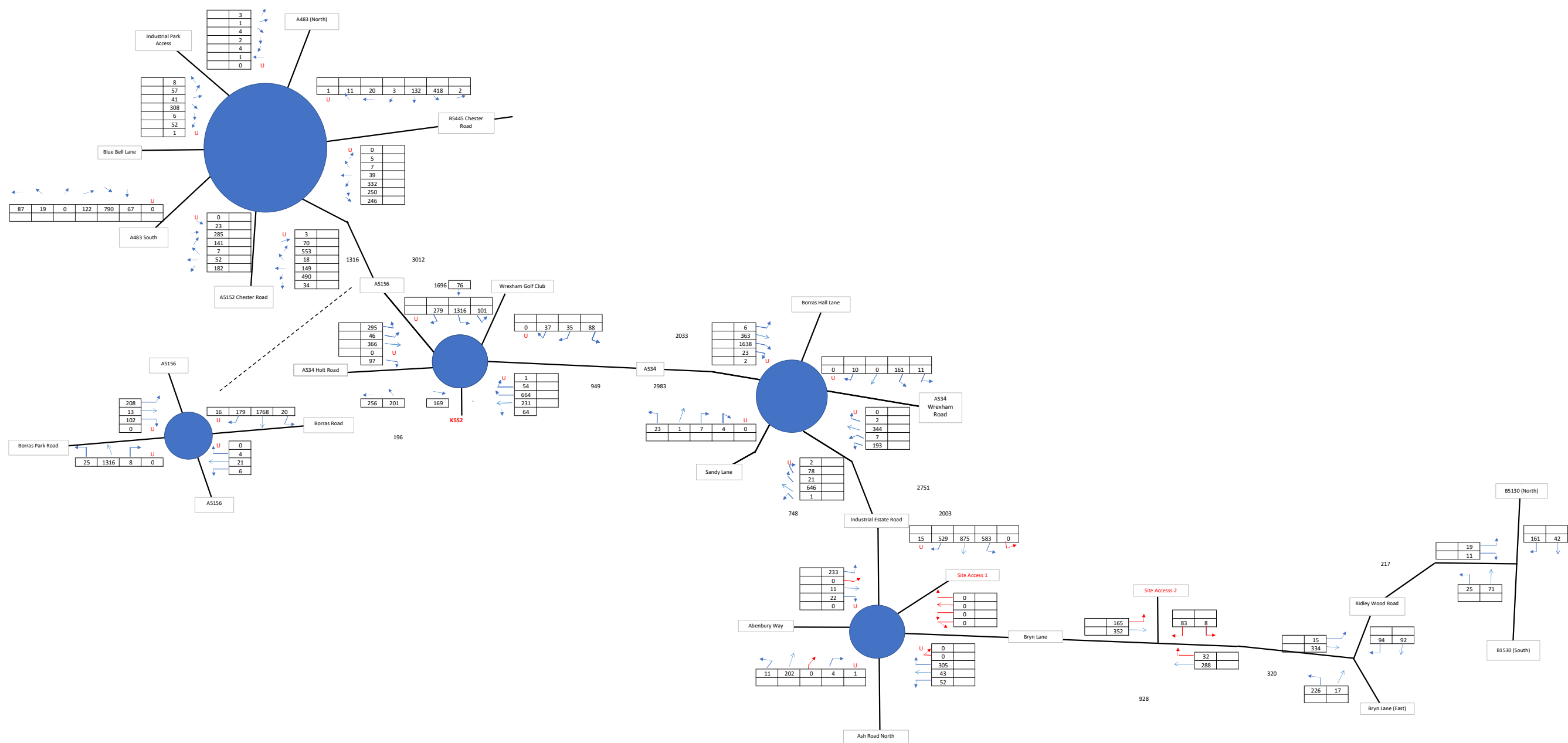
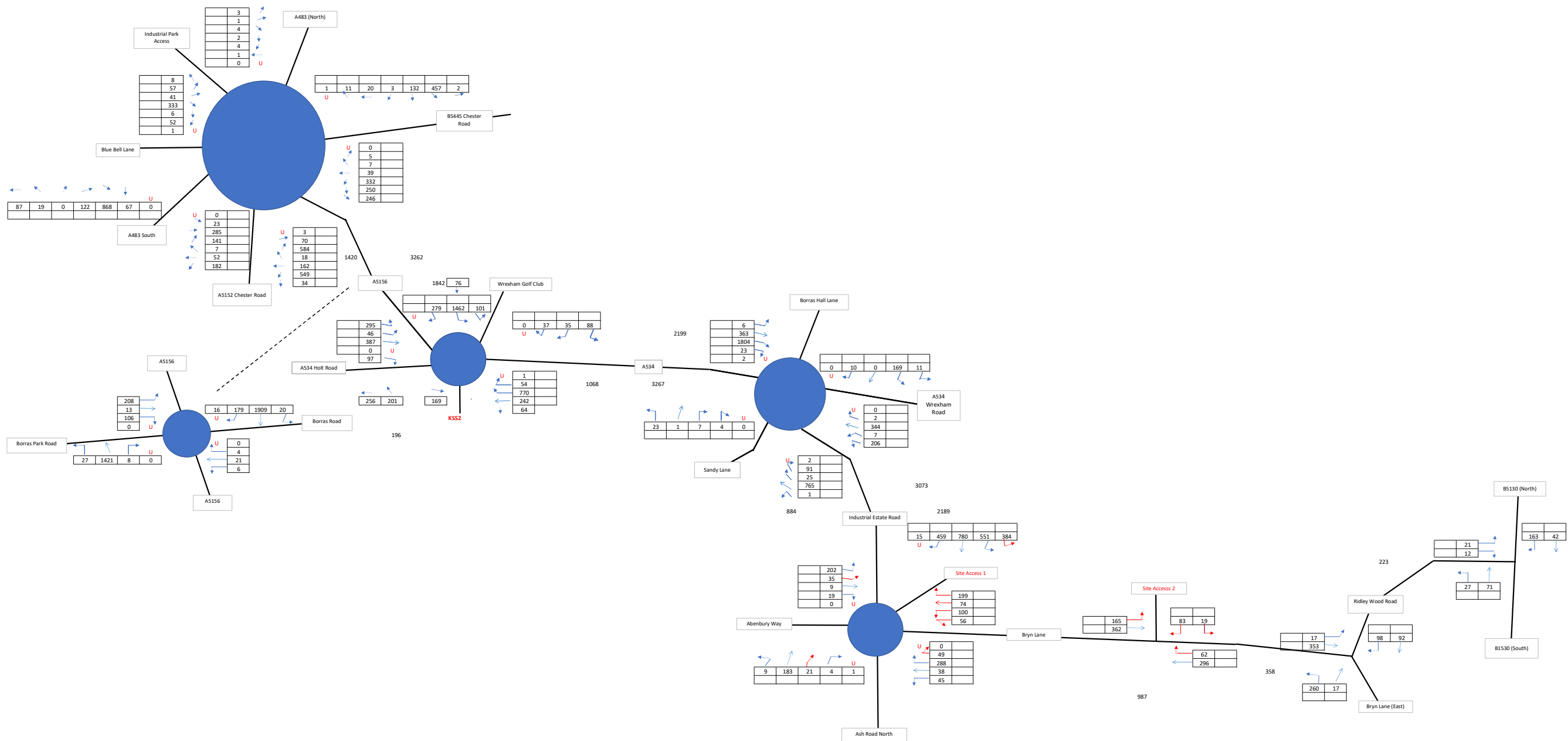


Figure 29a - 2030 Base + Development [Phase 1 + 2] + Committed
AM Peak: 0800-0900

Notes:

123

 PCUs



Notes:

123

 PCUs

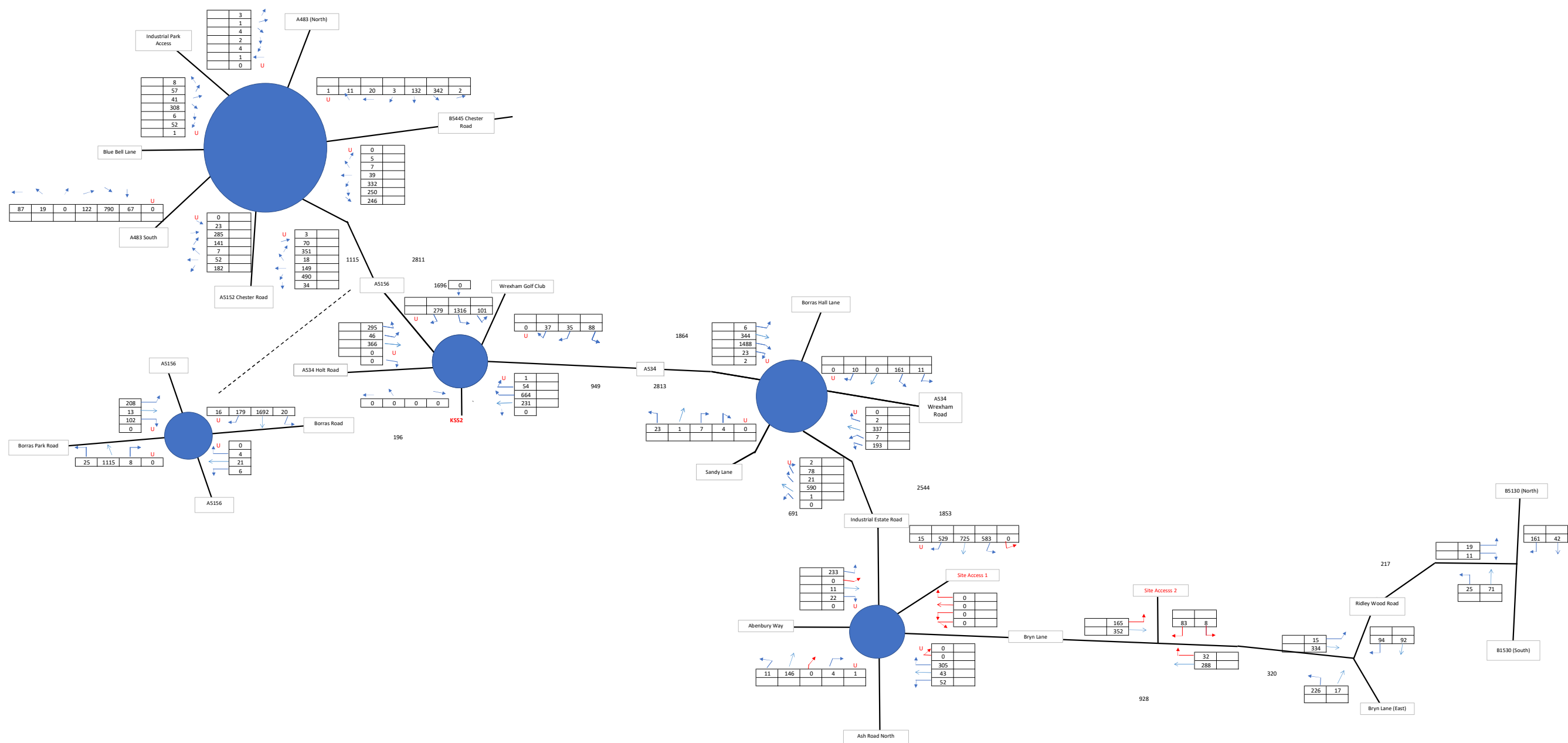


**Figure 30 - 2030 Base + Development [Phase 1] + Committed
PM Peak: 1630-1730**

Notes:

123

 PCUs

Figure 30a - 2030 Base + Development [Phase 1 + 2] + Committed
PM Peak: 1630-1730

Notes:

123

 PCUs

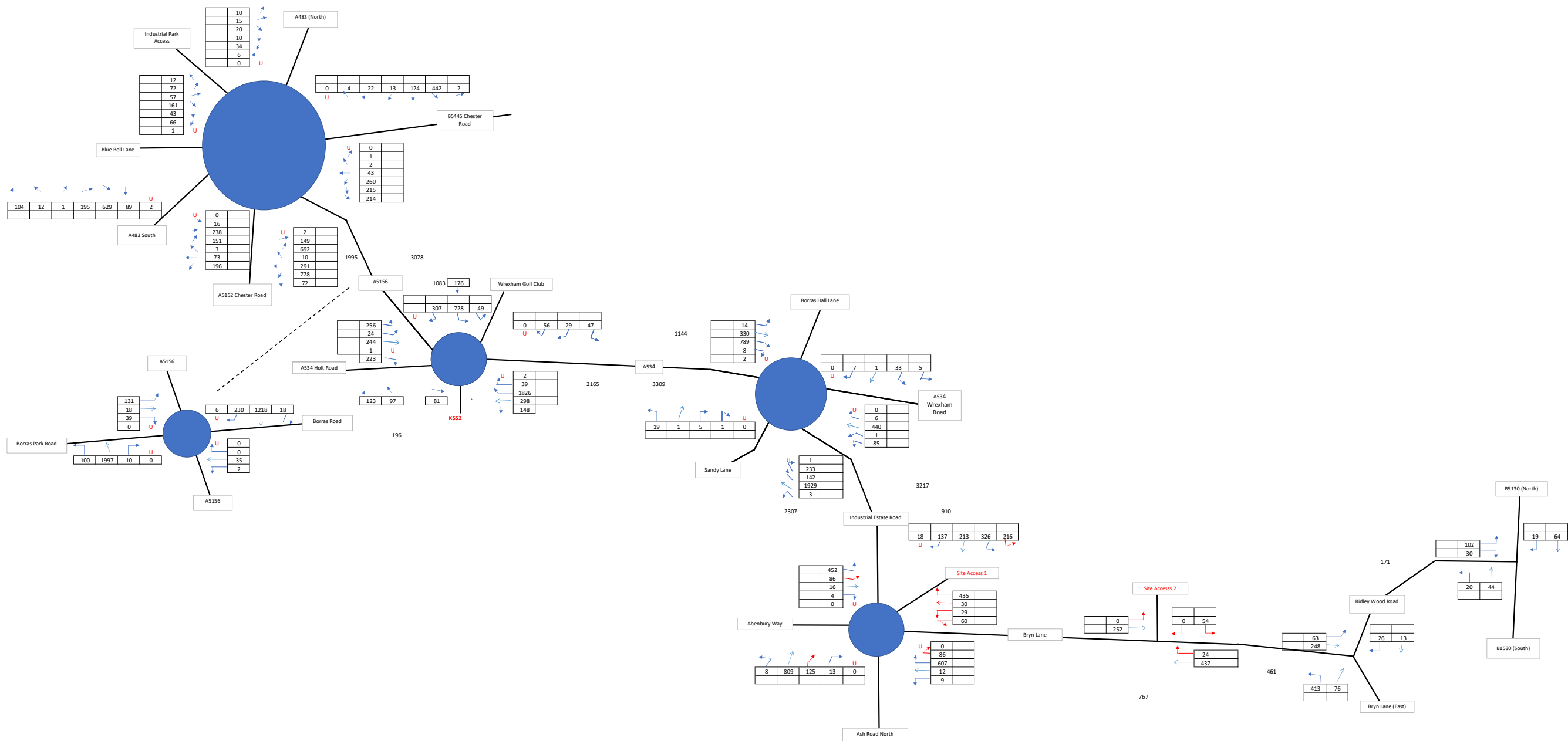
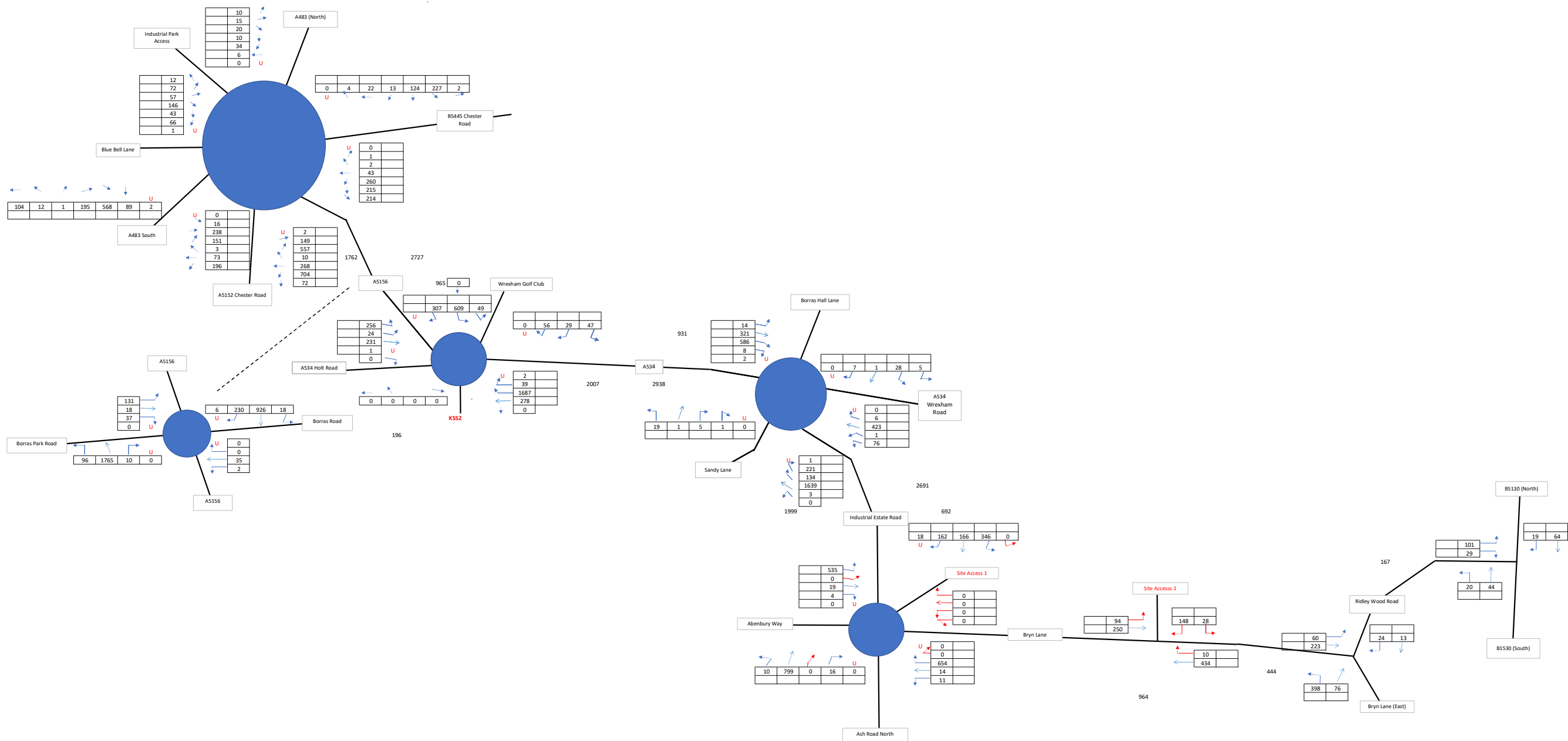


Figure 30b- 2030 Base + Development [Phase 1] + Committed [Without KSS2]
PM Peak: 1630-1730

Notes:

123

 PCUs



Traffic Figures For Phase 1 & 2

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

Notes:

123

 Total Vehicles

123

 HGVs

--

 Flows Taken from Kingmoor TA

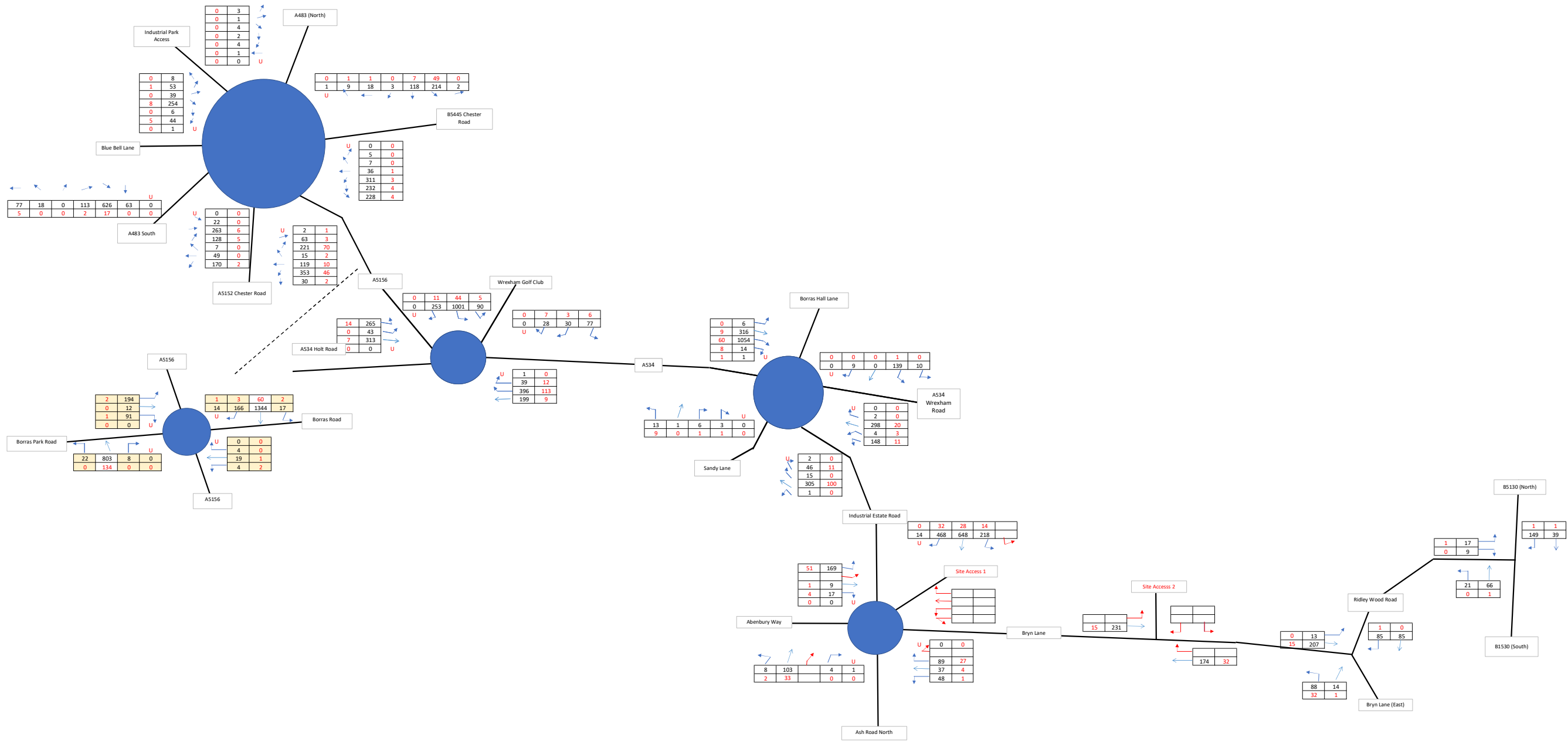


**Figure 2 - 2023 Surveyed Traffic Flows
PM Peak: 1630-1730**

Notes:	123	Total Vehicles
	123	HGVs
		Flows Taken from Kingmoor TA

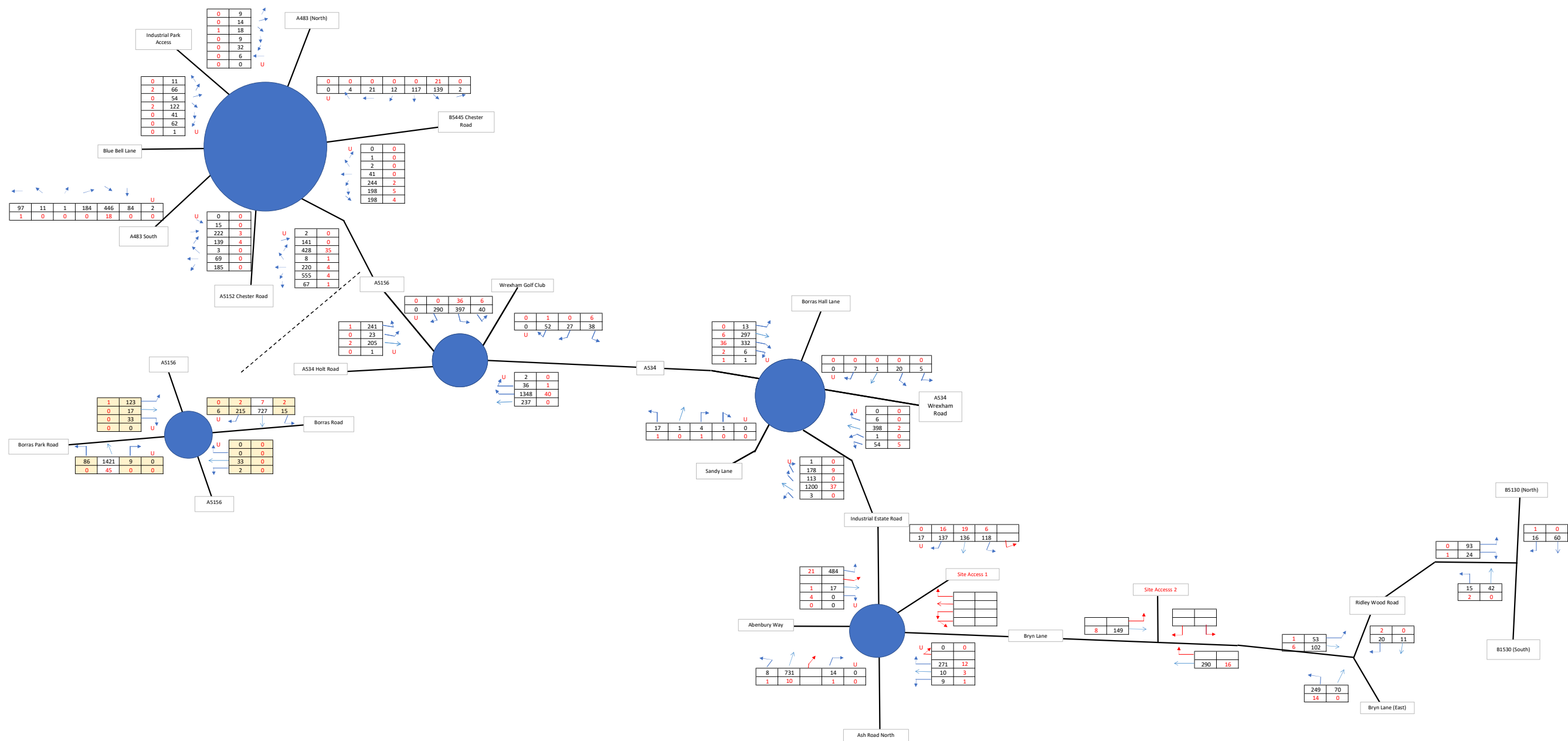


Figure 3 - 2023 Surveyed Traffic Flows
AM Peak: 0800-0900

Notes:

123

 PCUs

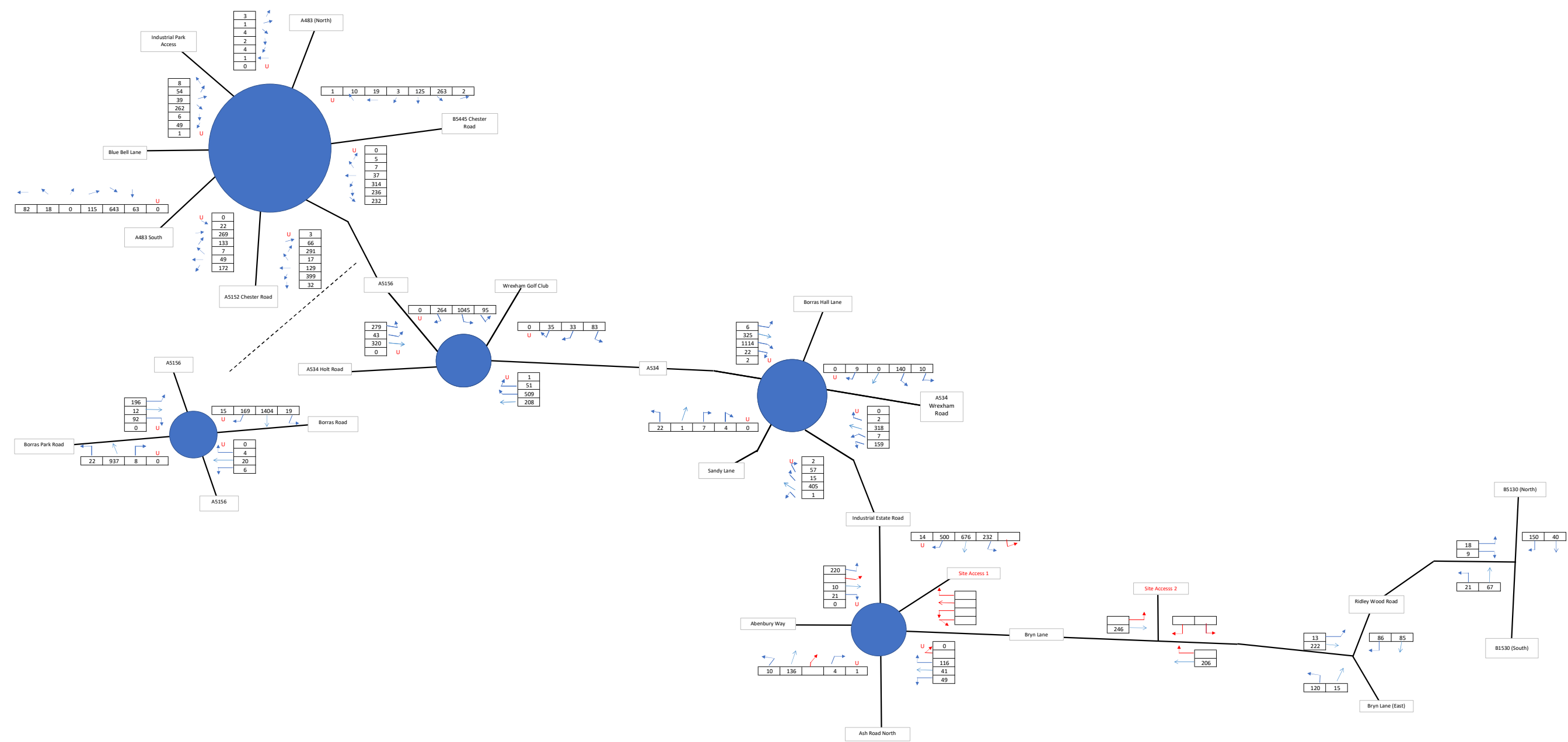


Figure 4 - 2023 Surveyed Traffic Flows
PM Peak: 1630-1730

Notes:

123

 PCUs

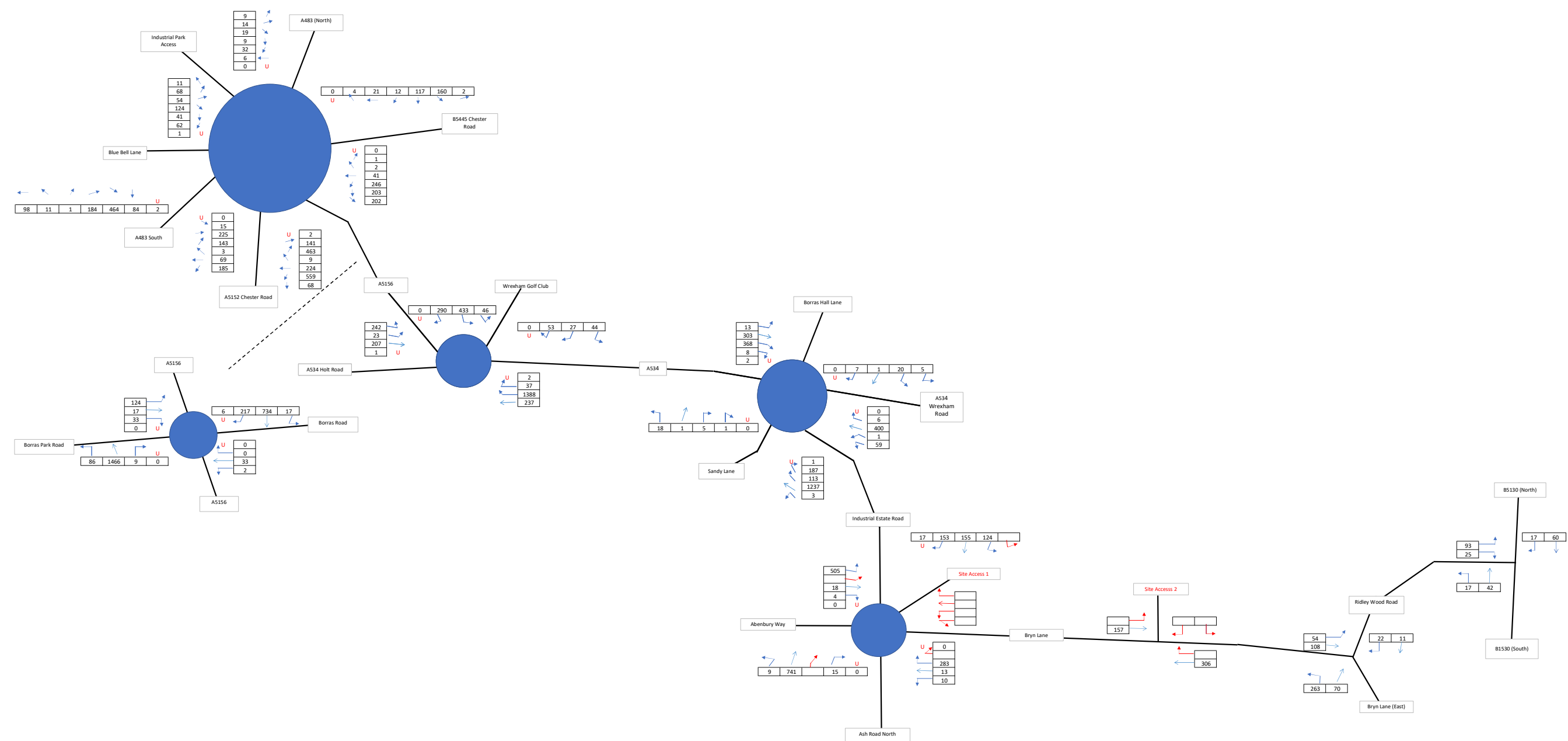


Figure 5 - 2037 Growthed Traffic Flows
AM Peak: 0800-0900

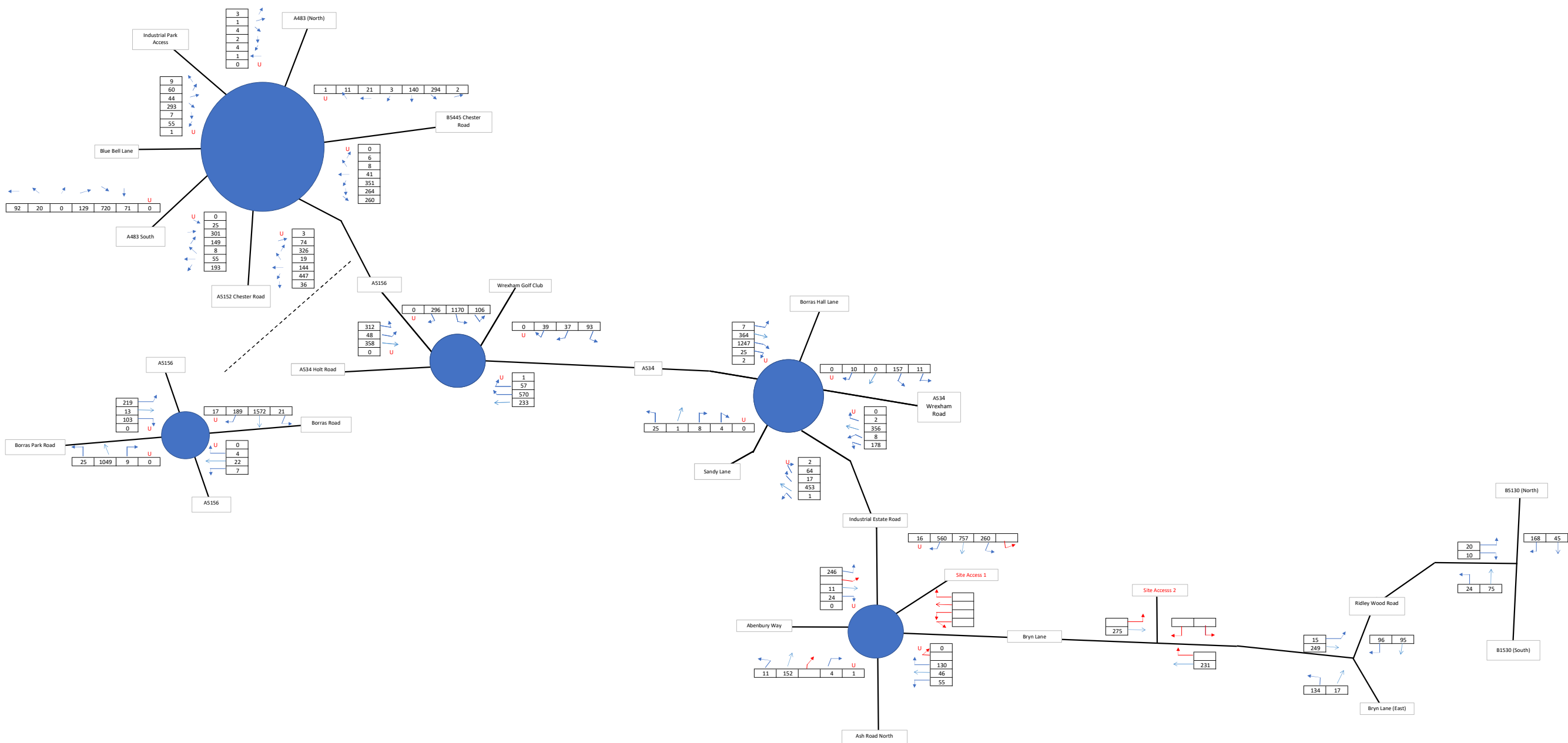
Notes:

123

 PCUs

1.1196

 Growth Factor



Notes:	123	PCUs
	1.1194	Growth Factor

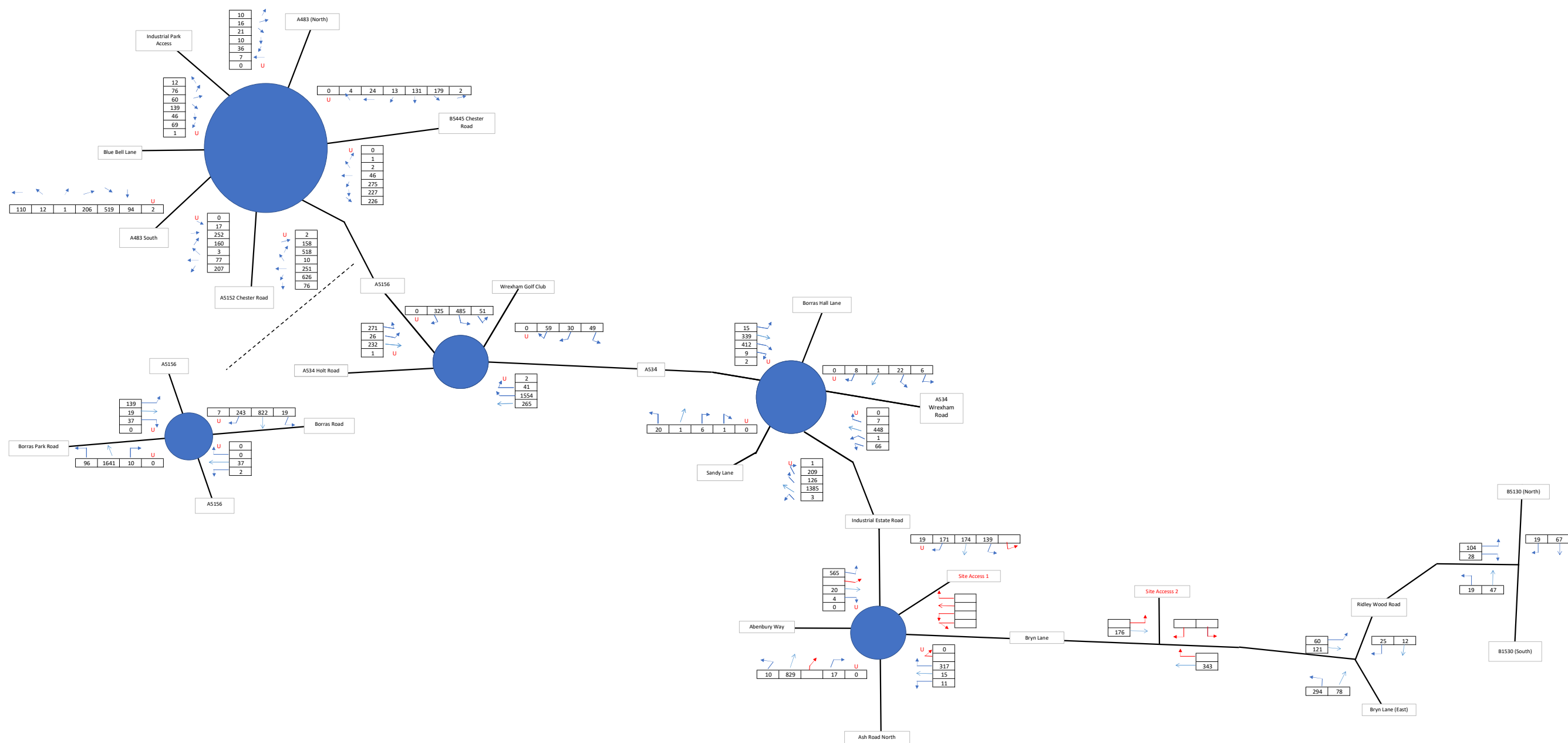


Figure 7a - Development Traffic Distribution (Lights) [Phase 1]
AM Peak

Notes:

%	Arrivals (Lights)
%	Departures (Lights)

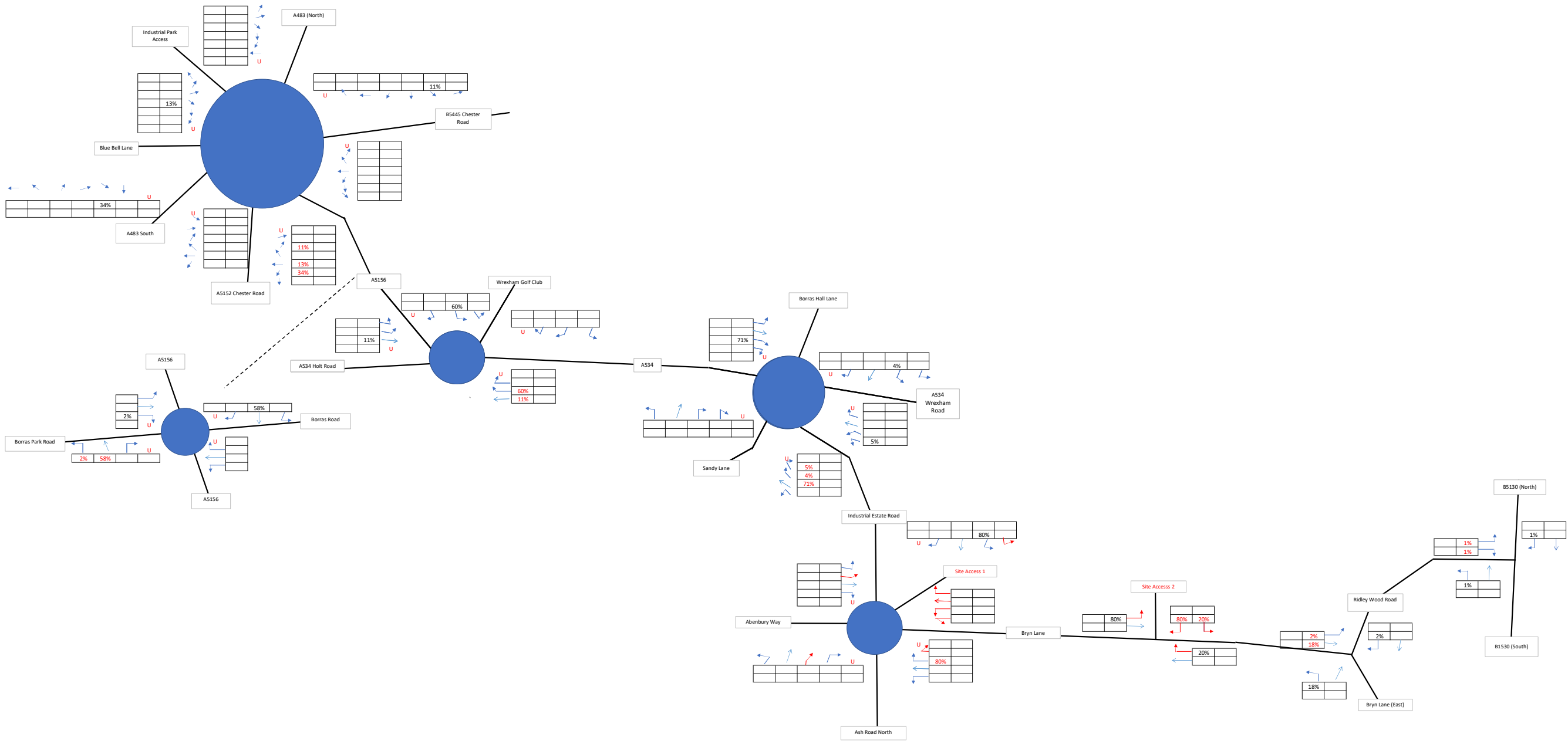


Figure 7b - Development Traffic Distribution (Lights) [Phase 1]
PM Peak

Notes:

%	Arrivals (Lights)
%	Departures (Lights)

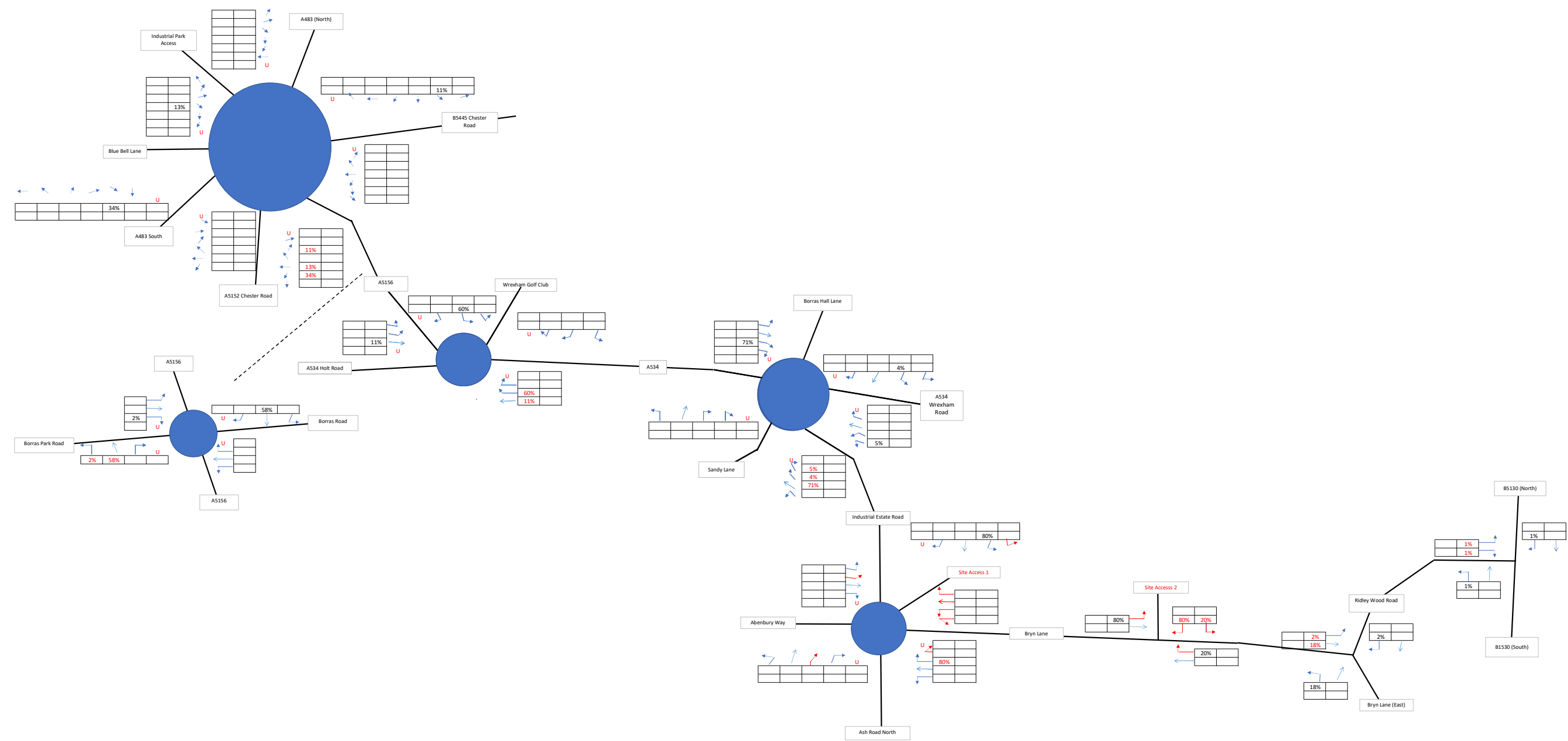


Figure 7c - Development Traffic Distribution (HGVs) [Phase 1]
AM Peak

Notes:

%	Arrivals (HGVs)
%	Departures (HGVs)

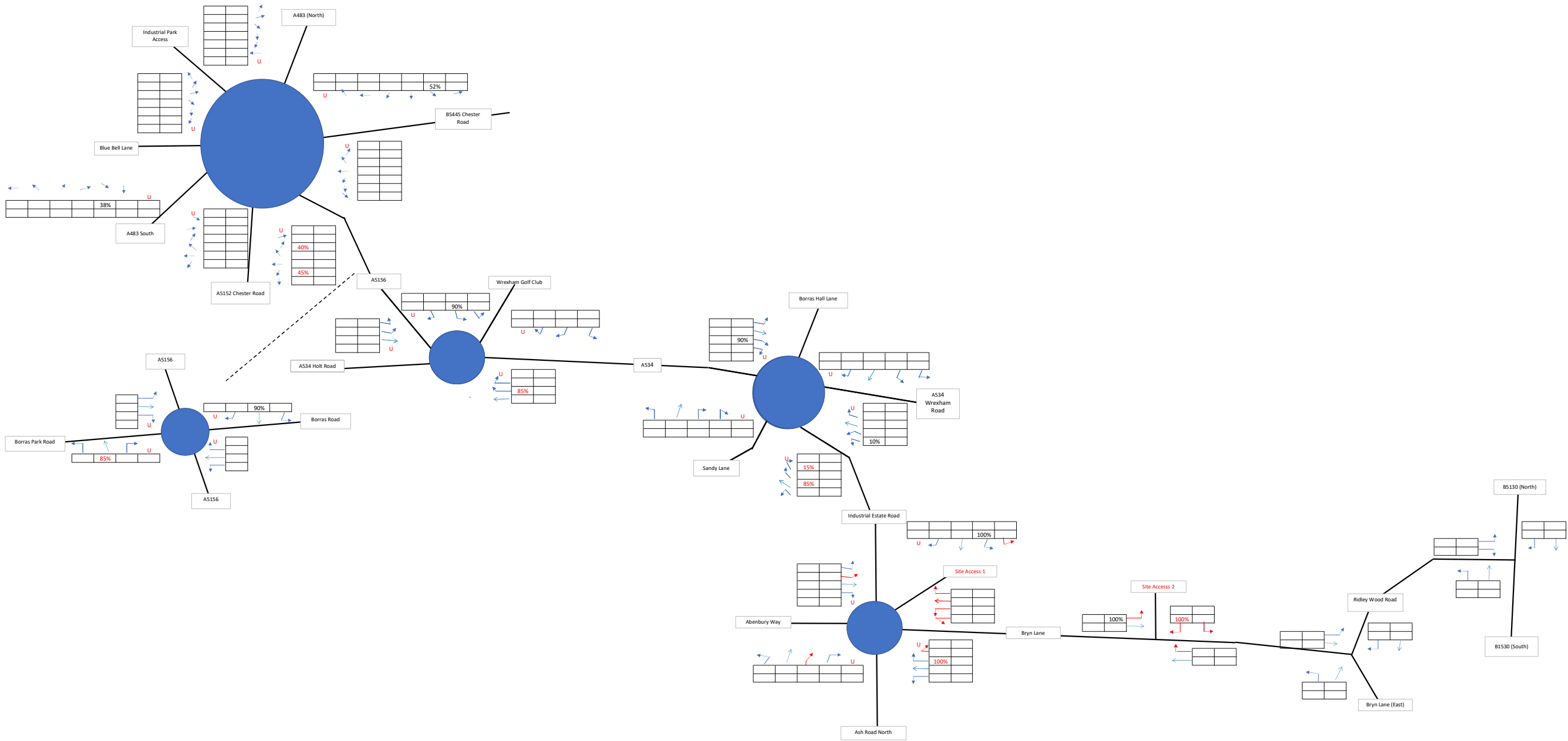


Figure 7d - Development Traffic Distribution (HGVs) [Phase 1]
PM Peak

Notes:

%	Arrivals (HGVs)
%	Departures (HGVs)

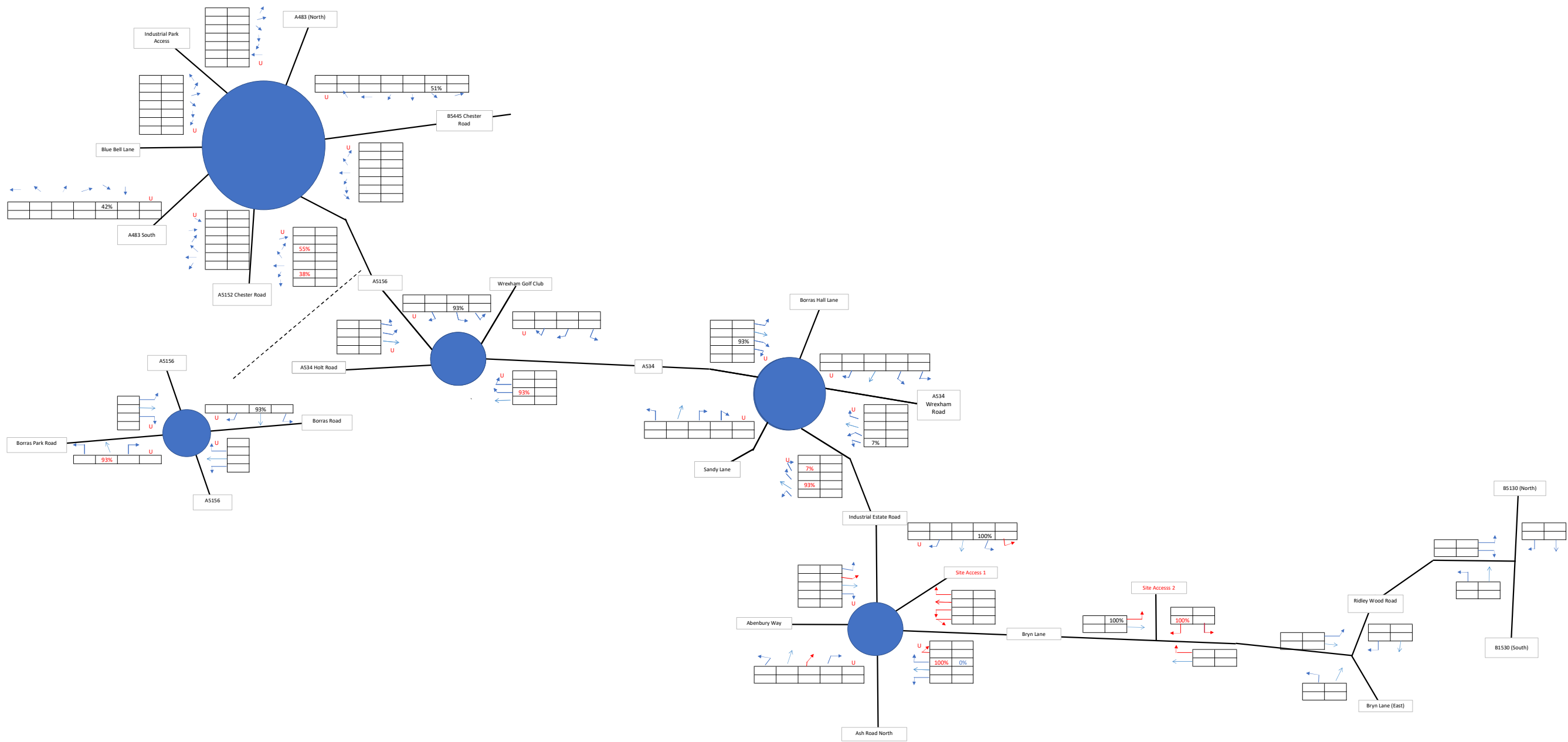


Figure 7e - Development Traffic Distribution (Lights) [Phase 2]
AM Peak

Notes:

%	Arrivals (Lights)
%	Departures (Lights)
%	Retail / Mixed Use (Lights)

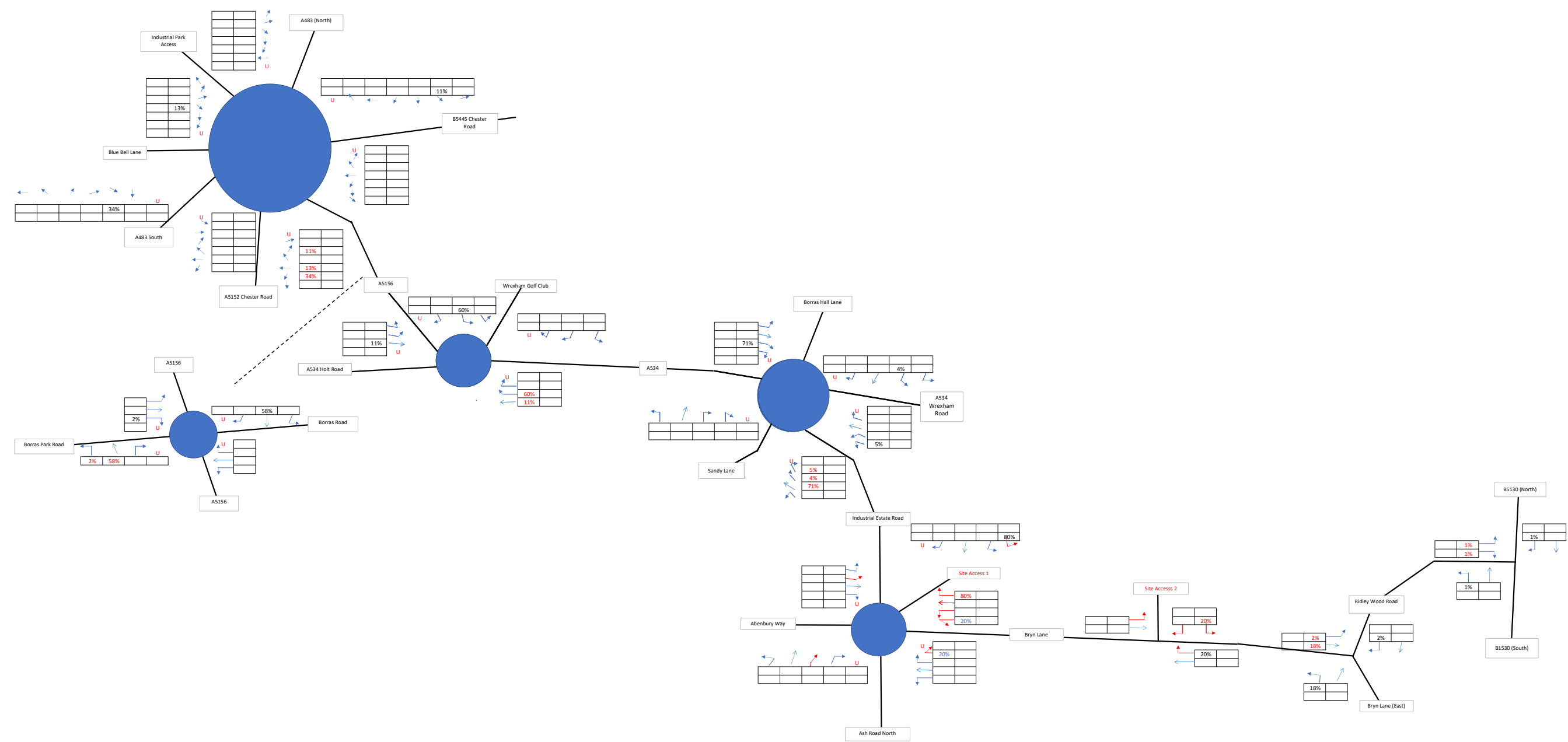
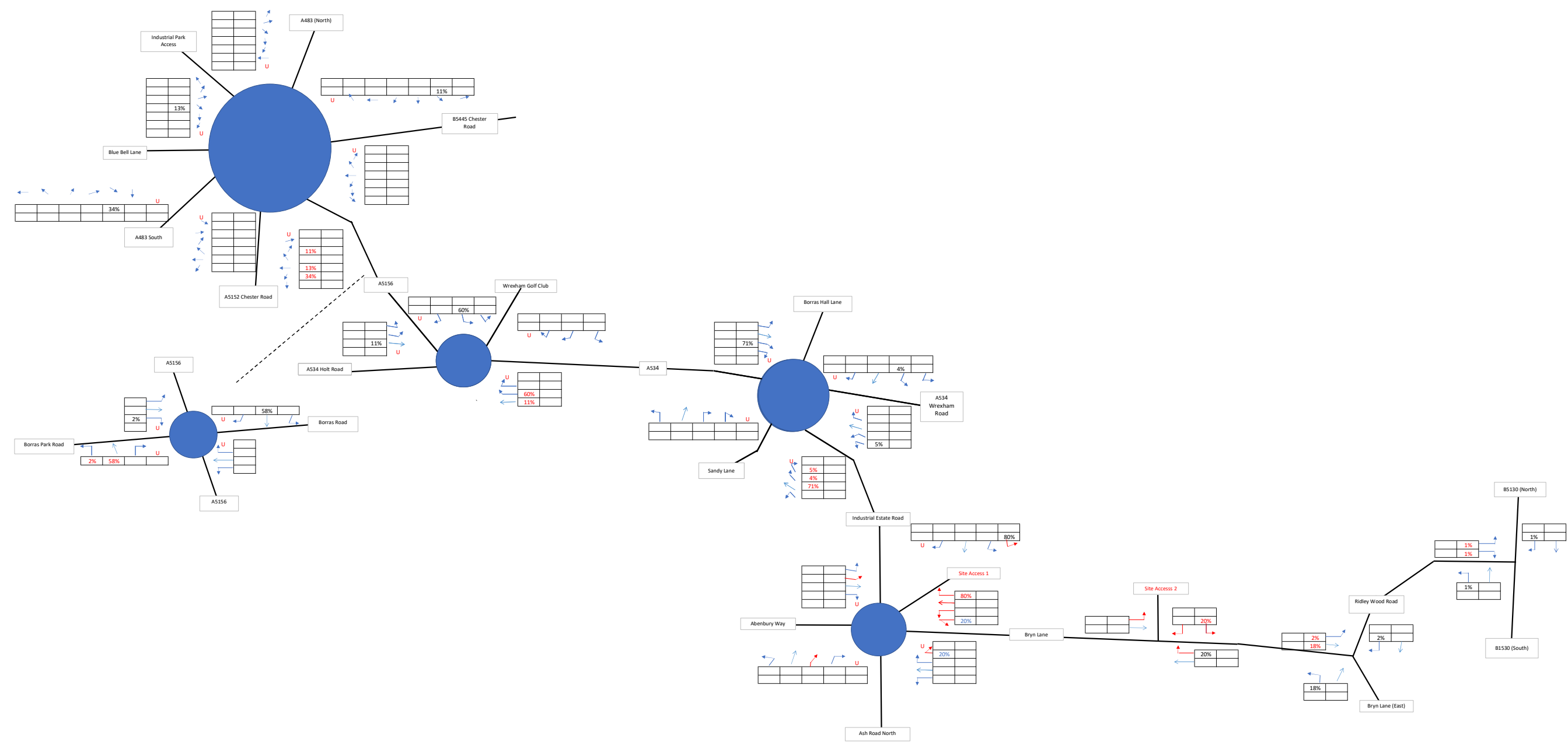


Figure 7f - Development Traffic Distribution (Lights) [Phase 2]
PM Peak

Notes:

%	Arrivals (Lights)
%	Departures (Lights)
%	Retail / Mixed Use (Lights)



Notes:

%
%

 Arrivals (HGVs)
Departures (HGVs)

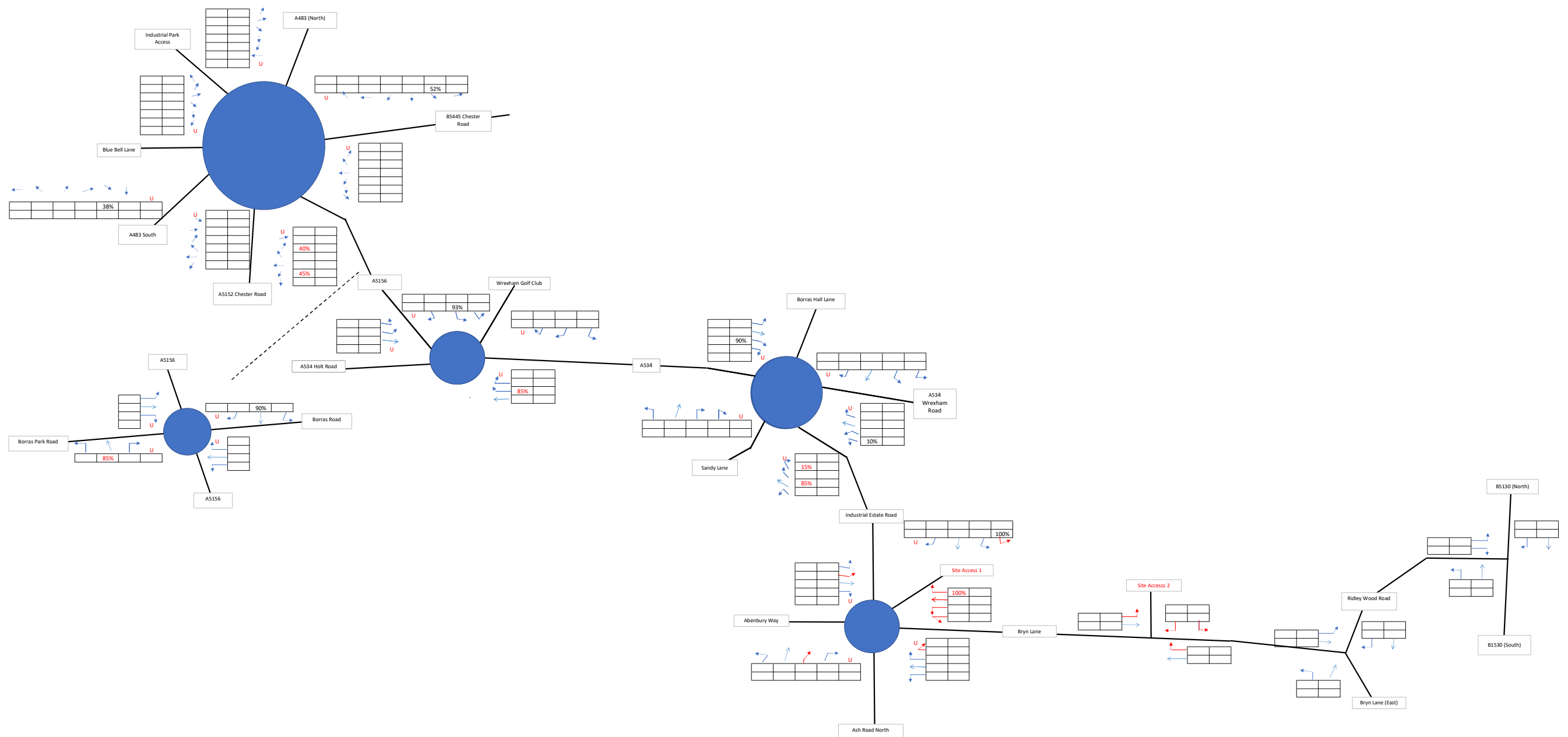


Figure 7g - Development Traffic Distribution (HGVs) [Phase 2]
PM Peak

Notes:

%	Arrivals (HGVs)
%	Departures (HGVs)

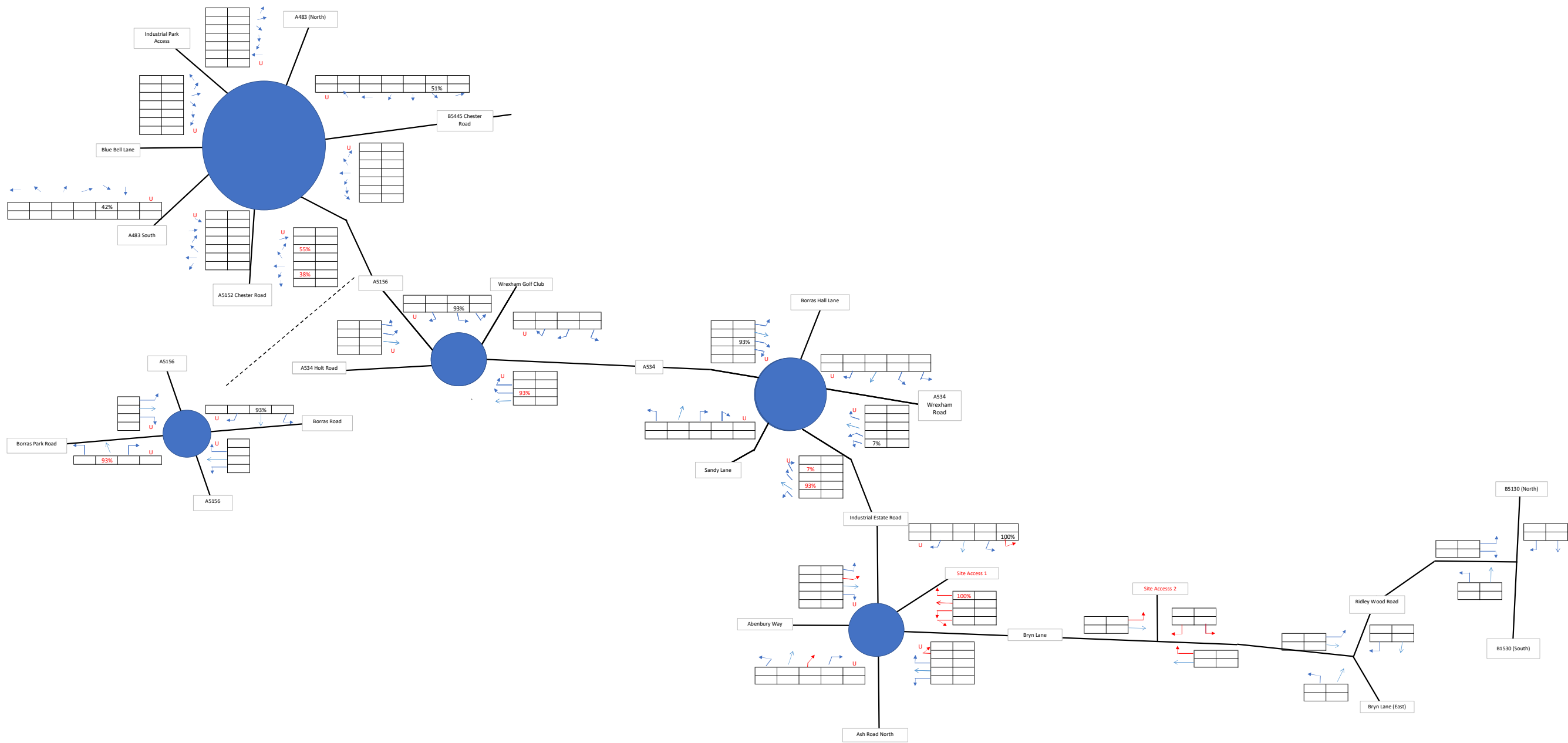


Figure 8a - Industrial Estate Development Trips (Lights) [Phase 1]
AM Peak: 0800-0900

Notes:

160

 Arrivals

38

 Departures

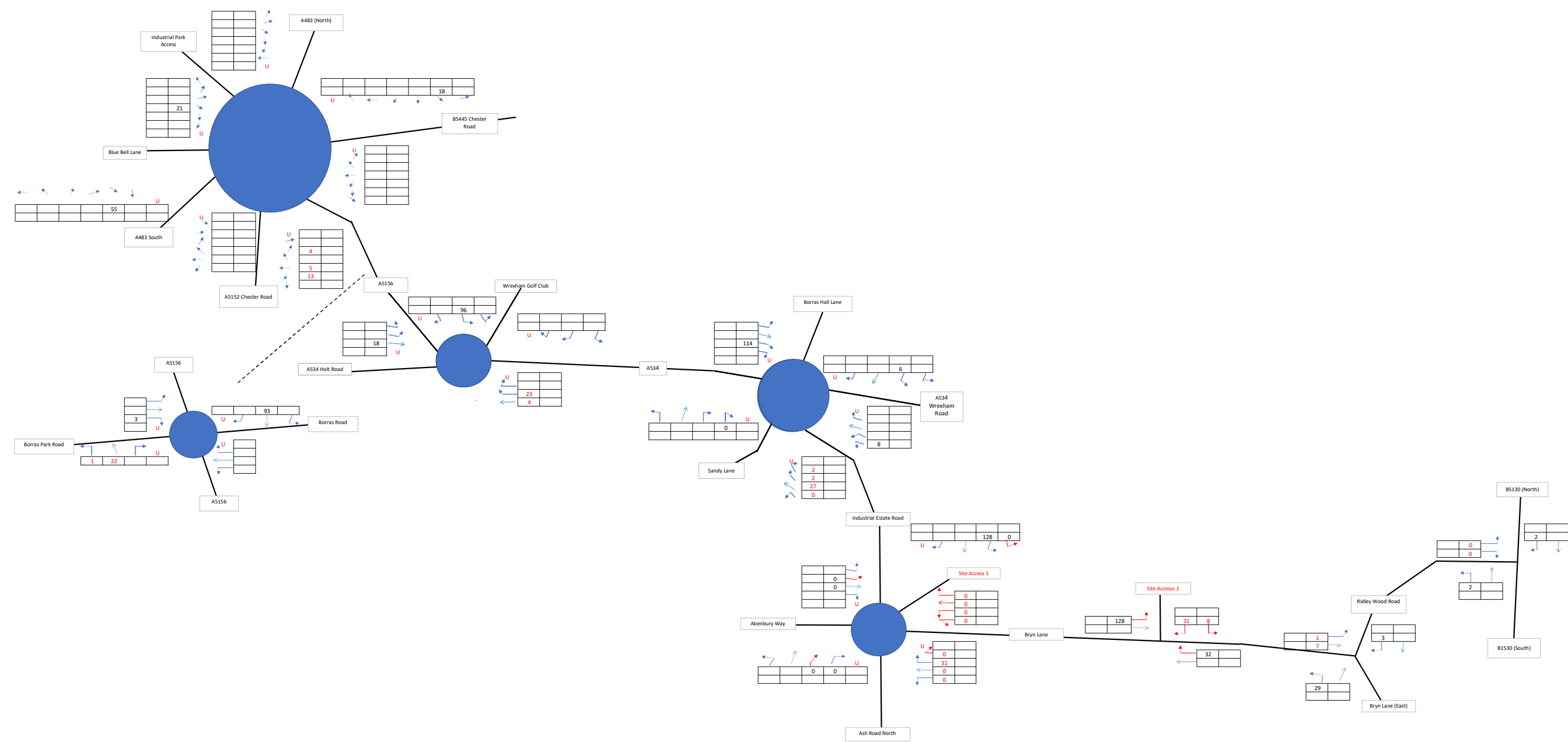


Figure 8b - Industrial Estate Development Trips (Lights) [Phase 1]
PM Peak: 1630-1730

Notes:

52

 Arrivals

139

 Departures

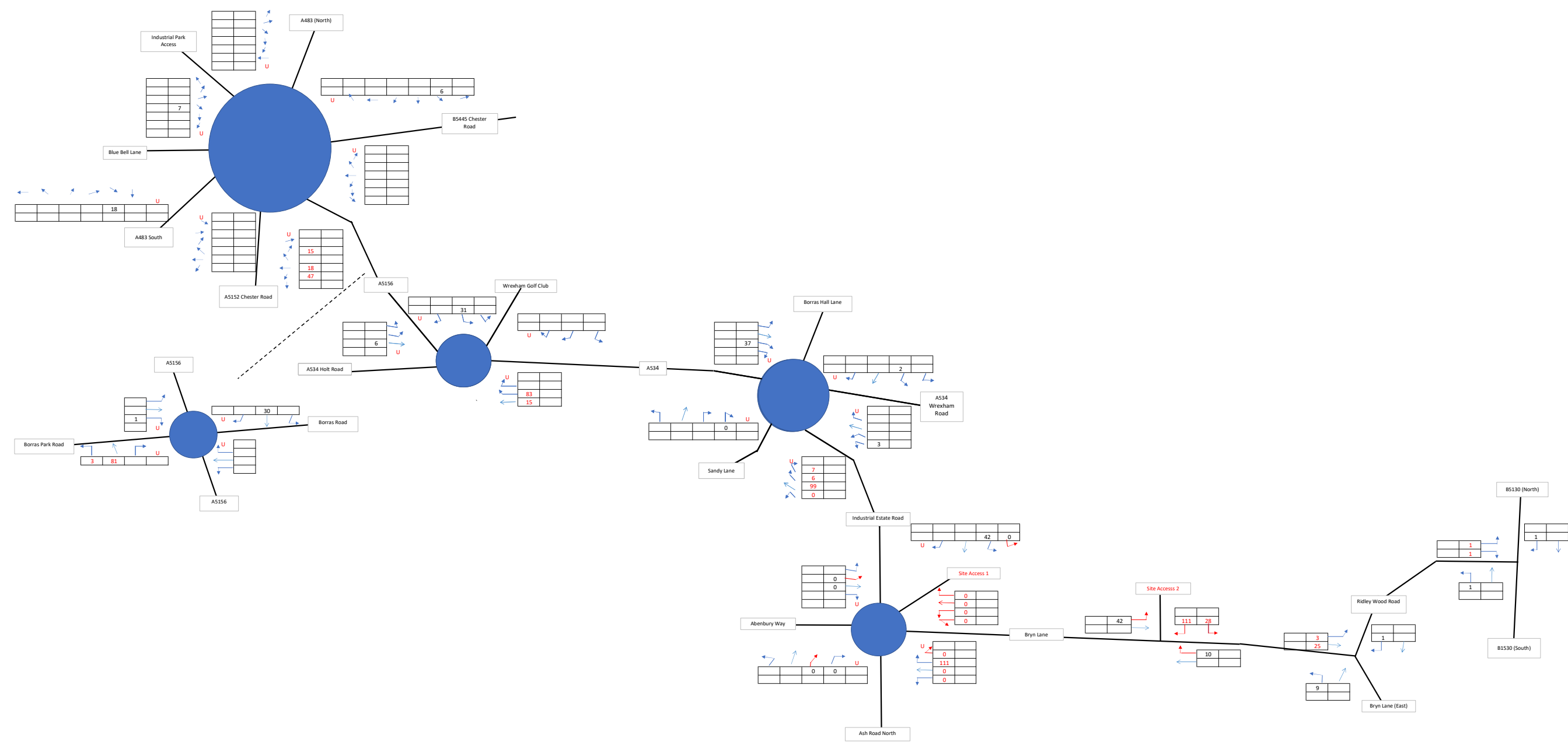


Figure 8c - Industrial Estate Development Trips (HGVs) [Phase 1]
AM Peak: 0800-0900

Notes:

18	Arrivals
26	Departures

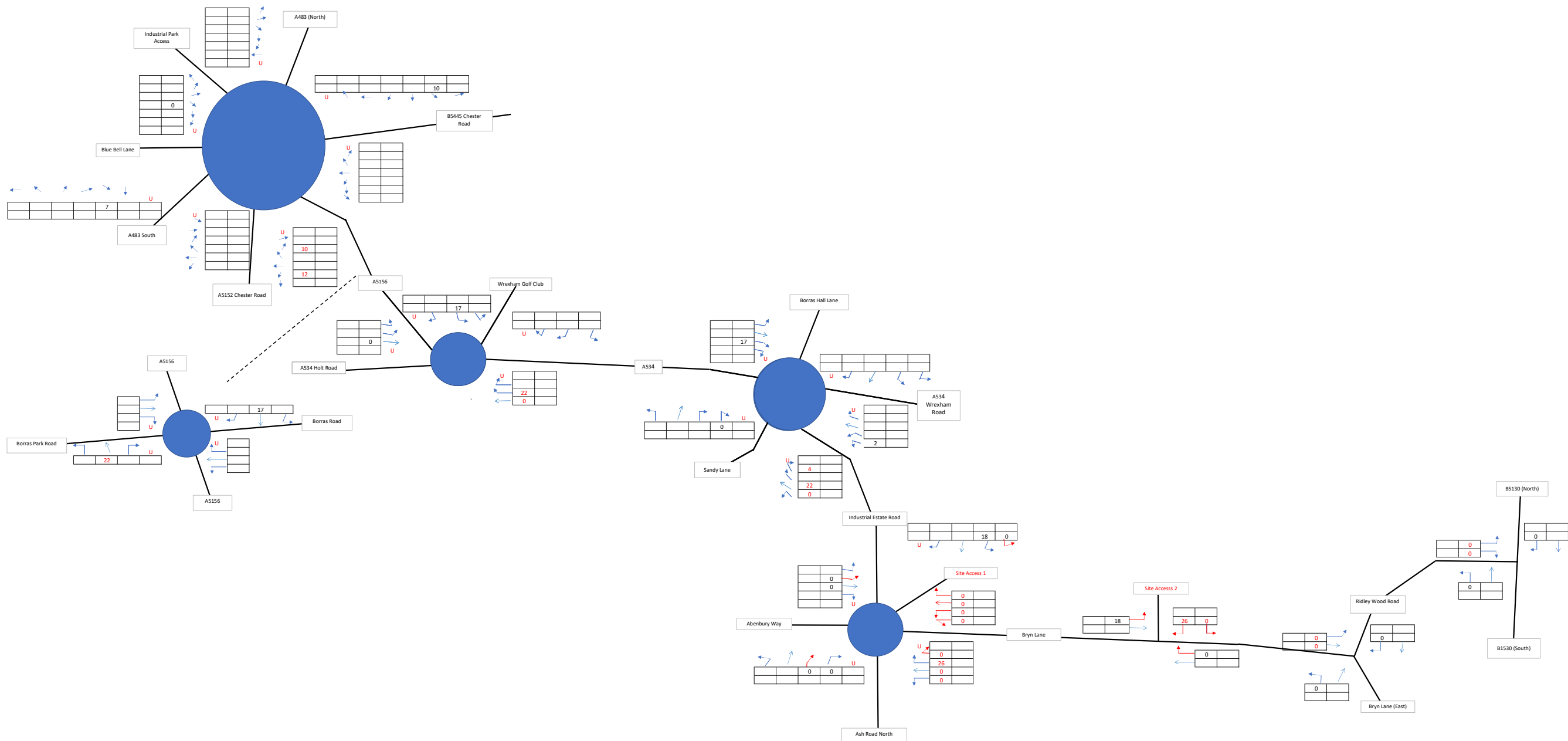


Figure 8d - Industrial Estate Development Trips (HGVs) [Phase 1]
PM Peak: 1630-1730

Notes:

26	Arrivals
19	Departures

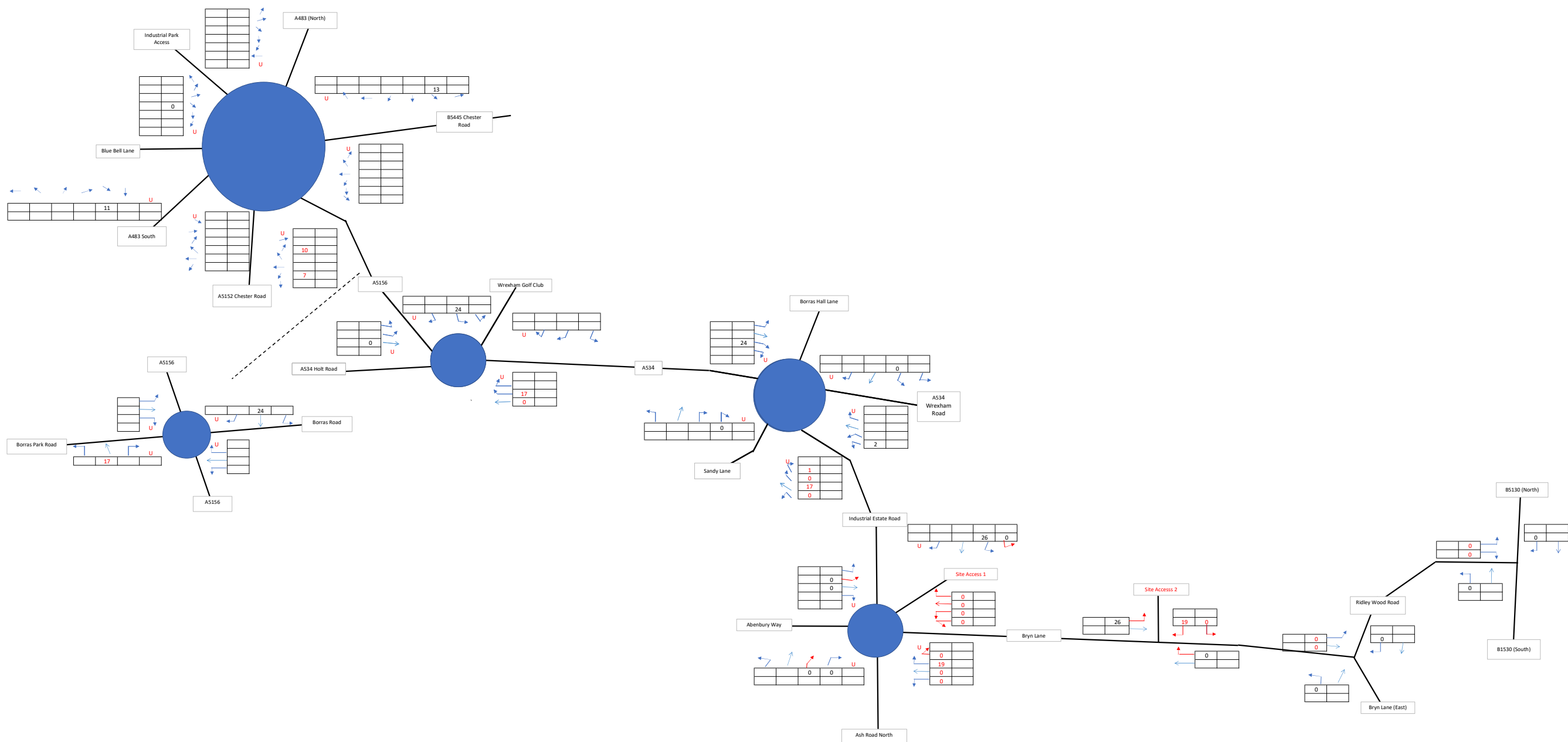


Figure 8e - Industrial Estate Development Trips (Lights) [Phase 2]
AM Peak: 0800-0900

Notes: 149 Arrivals
58 Departures

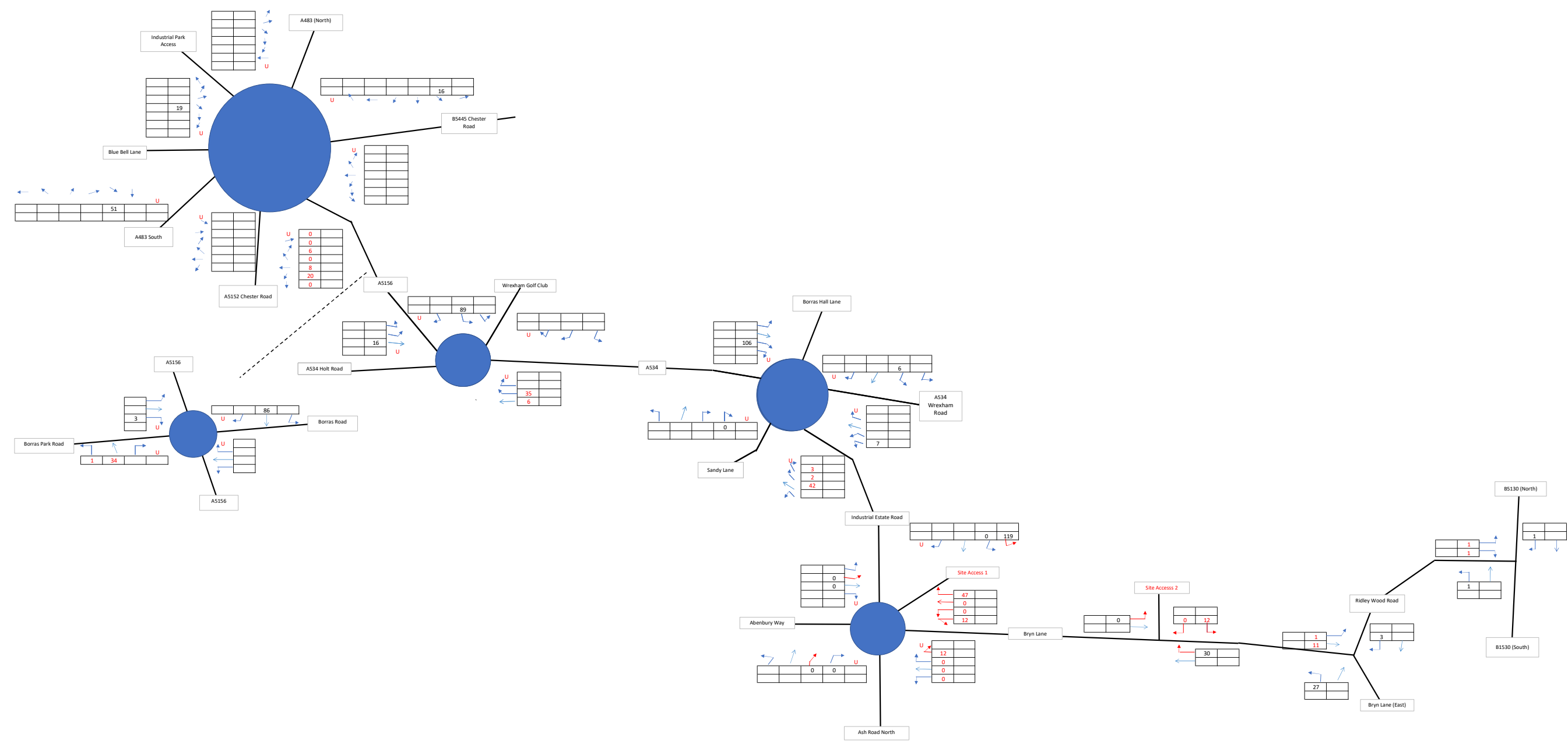


Figure 8e - Industrial Estate Development Trips (Lights) [Phase 2]
PM Peak: 1630-1730

Notes:

69

 Arrivals

132

 Departures

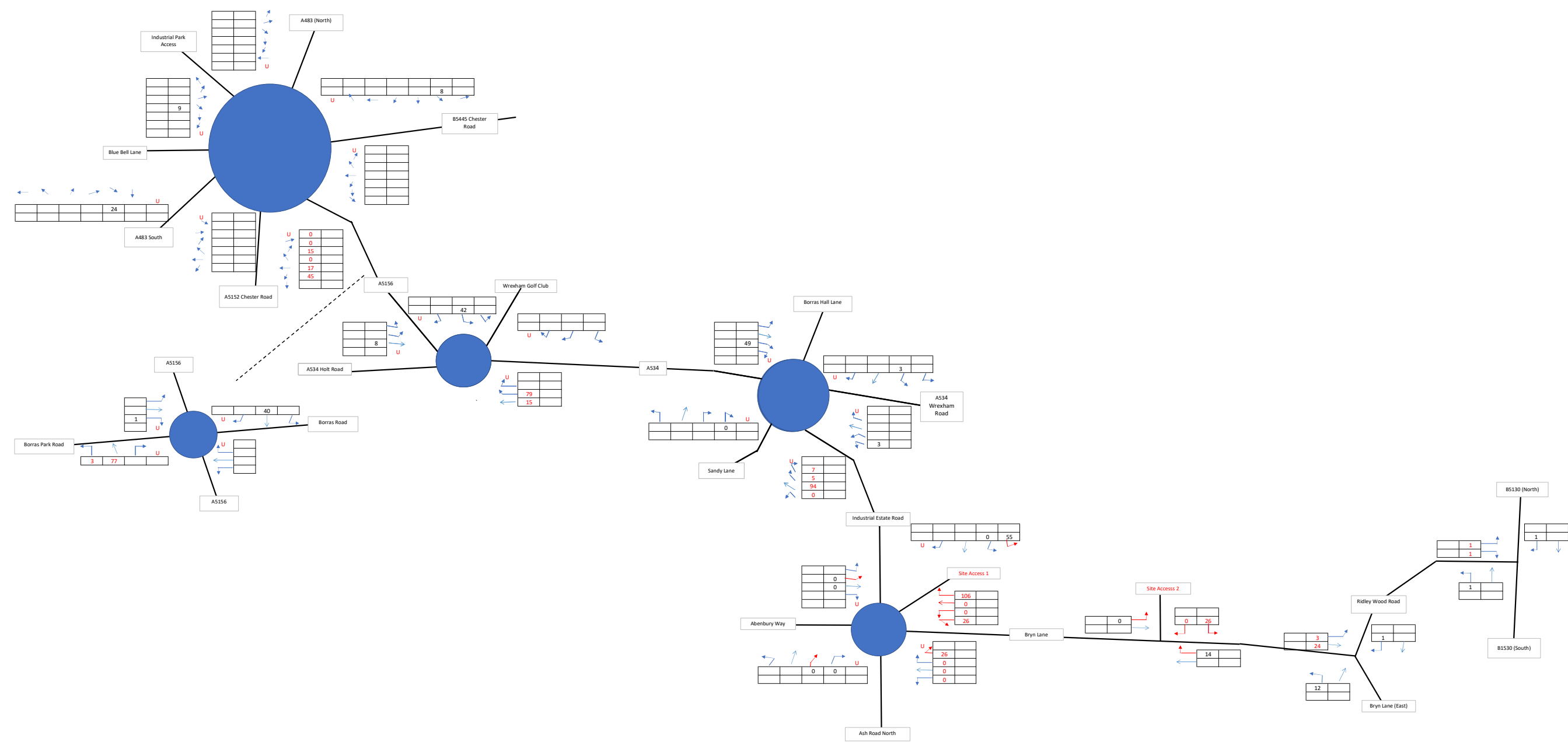


Figure 8g - Industrial Estate Development Trips (HGVs) [Phase 2]
AM Peak: 0800-0900

Notes:

17	Arrivals
25	Departures

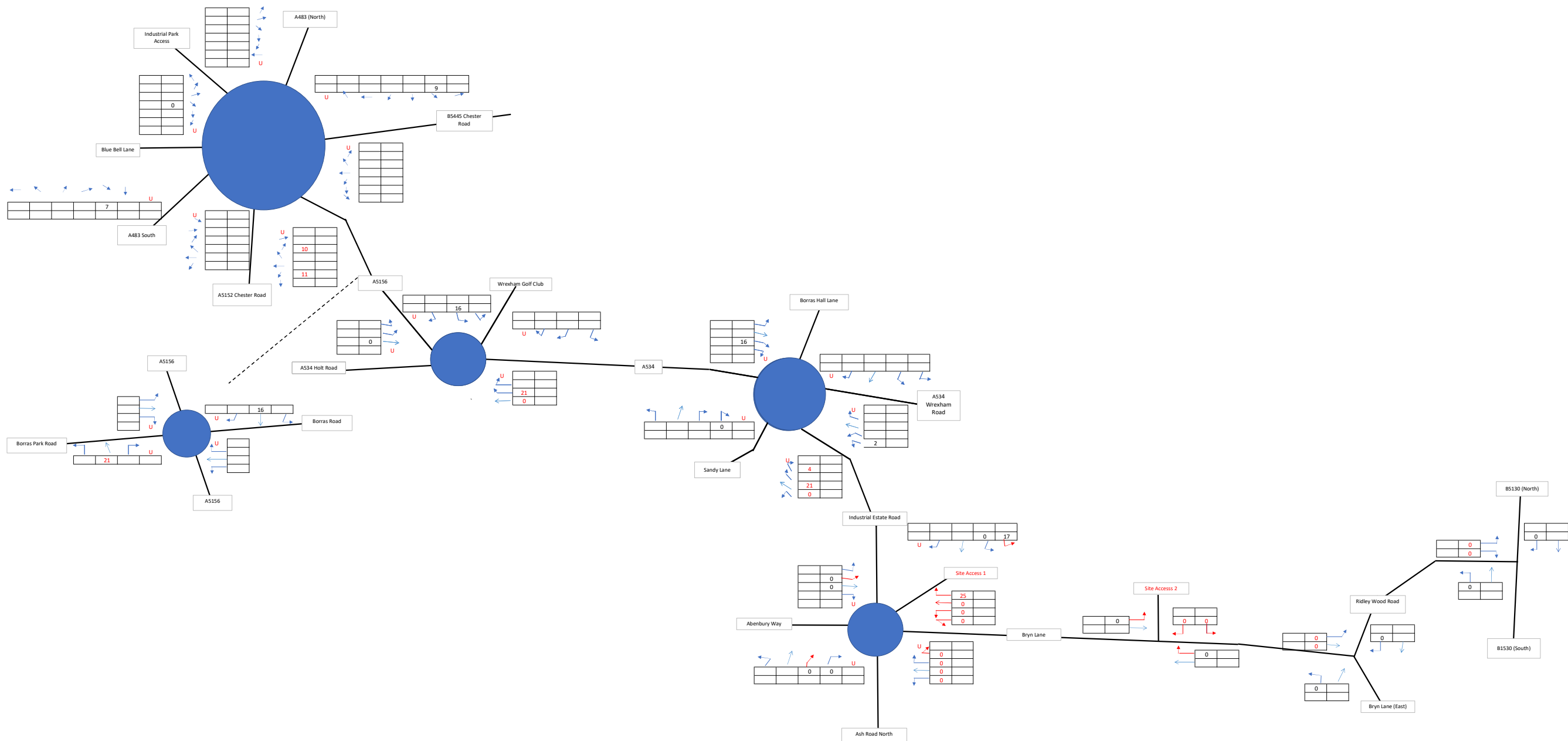


Figure 8h - Industrial Estate Development Trips (HGVs) [Phase 2]
PM Peak: 1630-1730

Notes: 25 Arrivals
18 Departures

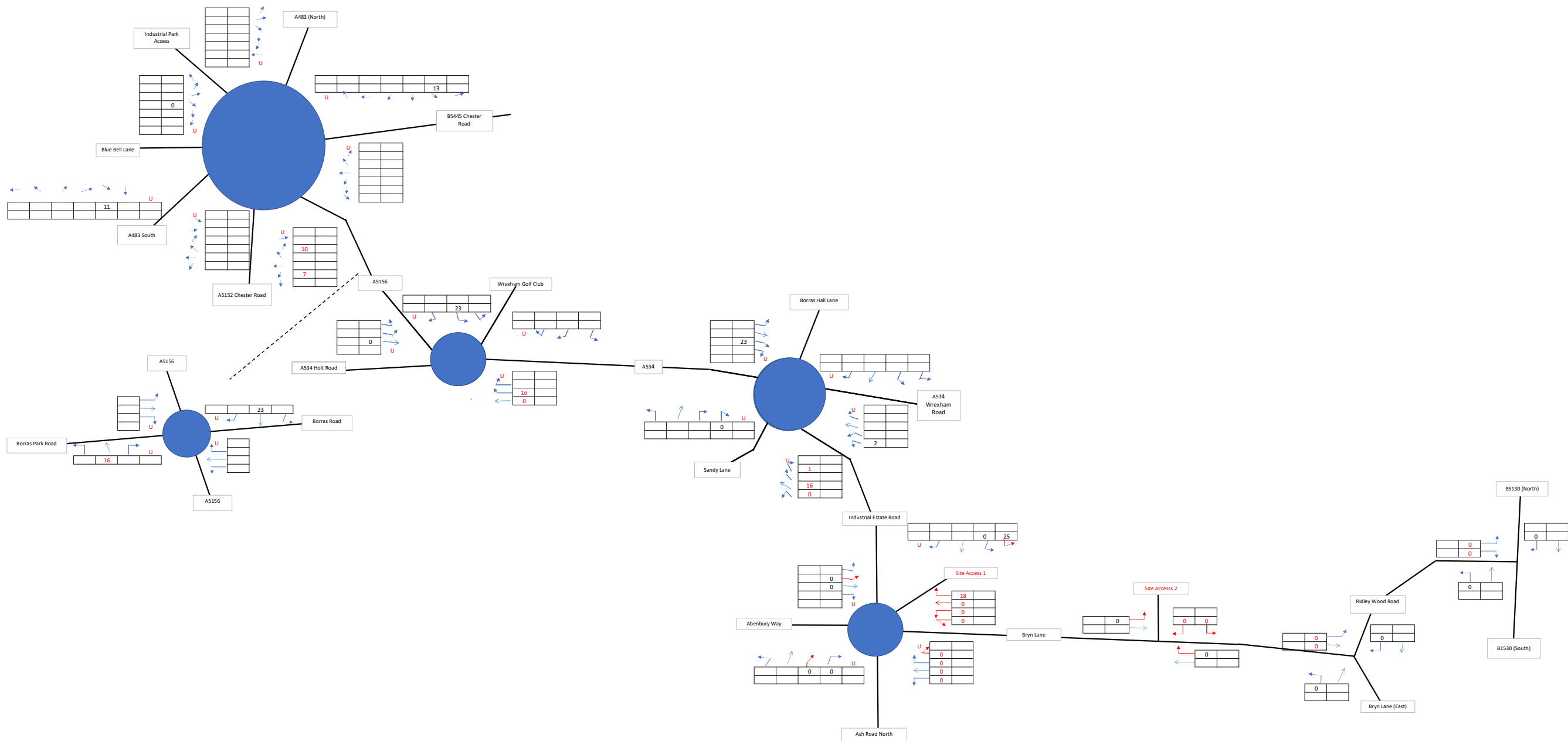


Figure 9 - Dummy Figure

Notes:

#REF!	Arrivals
#REF!	Departures

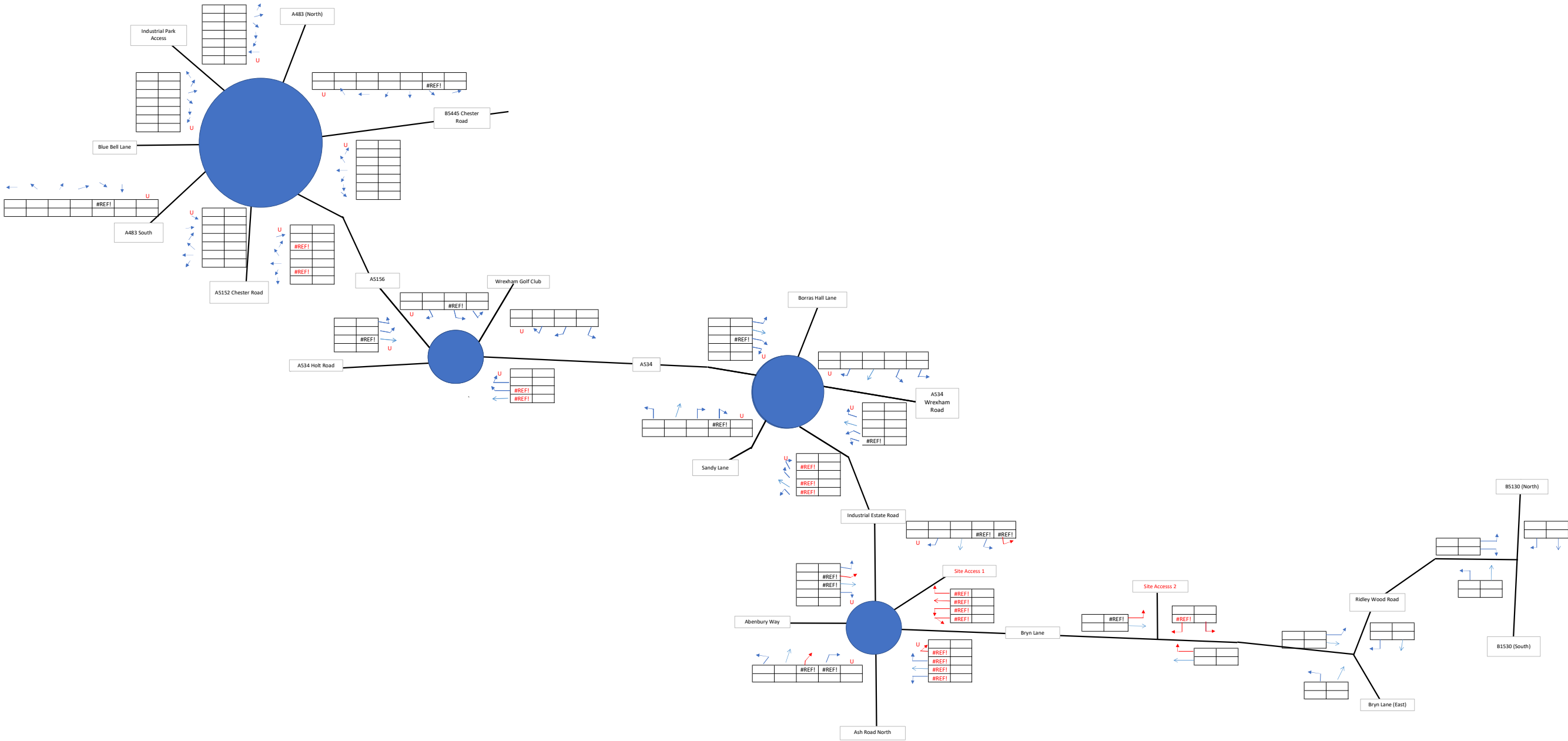


Figure 10 - Hotel Development Trips
AM Peak: 0800-0900

Notes:

9	Arrivals
18	Departures

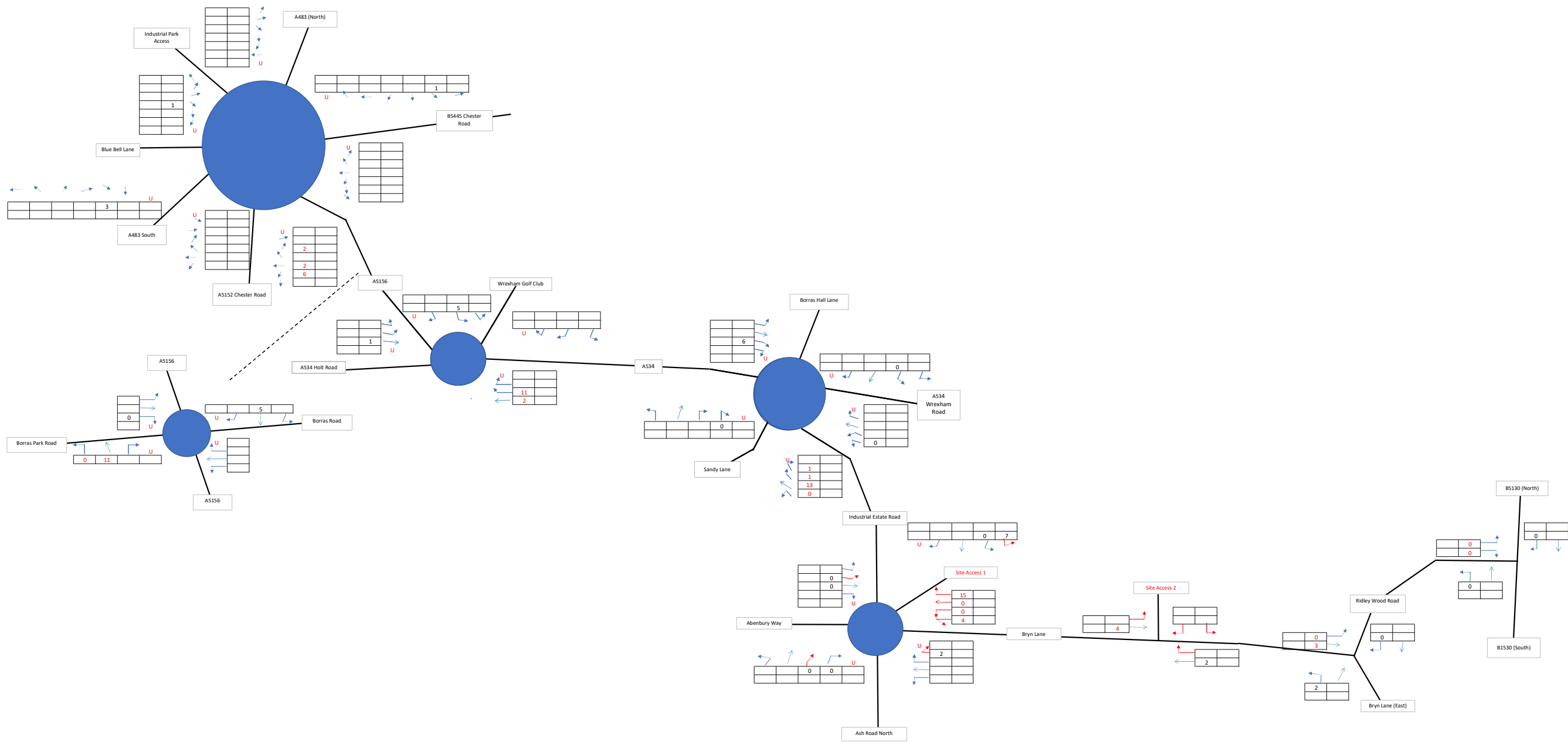


Figure 11 - Hotel Development Trips
PM Peak: 1630-1730

Notes:

13	Arrivals
8	Departures

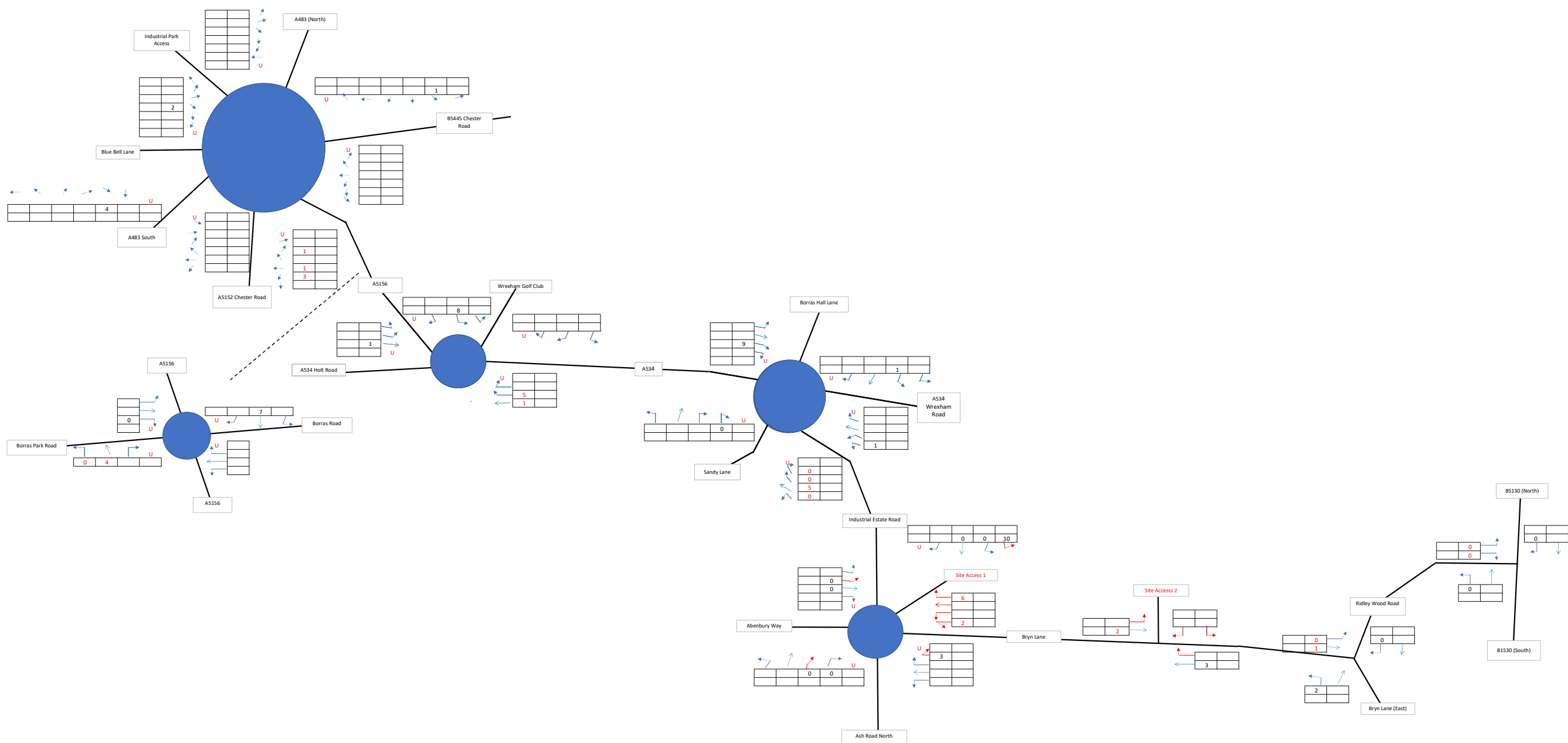


Figure 12 - Pass-By Trips (Local Centre, Drive-Thru & PFS)
AM Peak: 0800-0900

Notes:

283

 Arrivals

270

 Departures

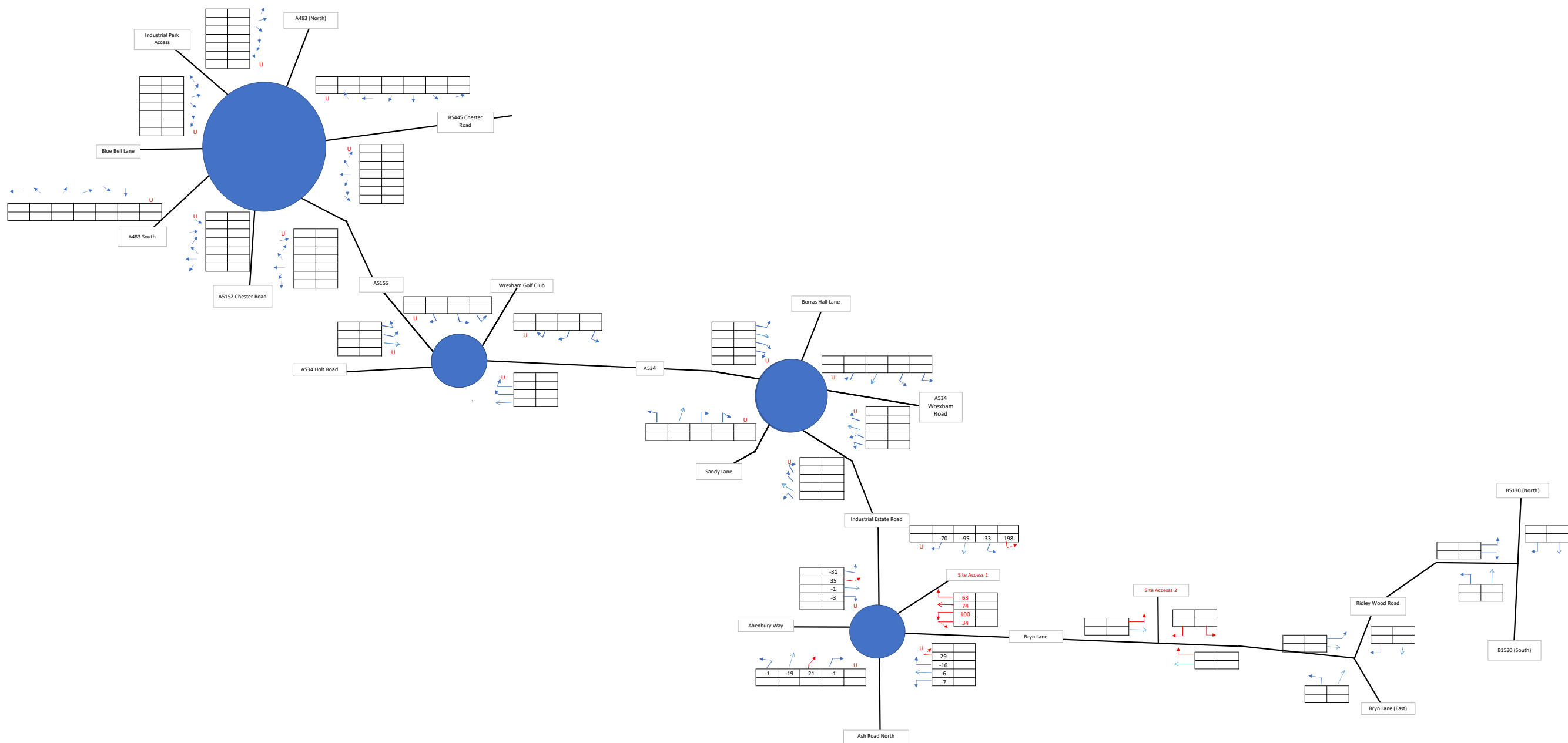


Figure 13 - Pass-By Trips (Local Centre, Drive-Thru & PFS)
PM Peak: 1630-1730

Notes:

332

 Arrivals

343

 Departures

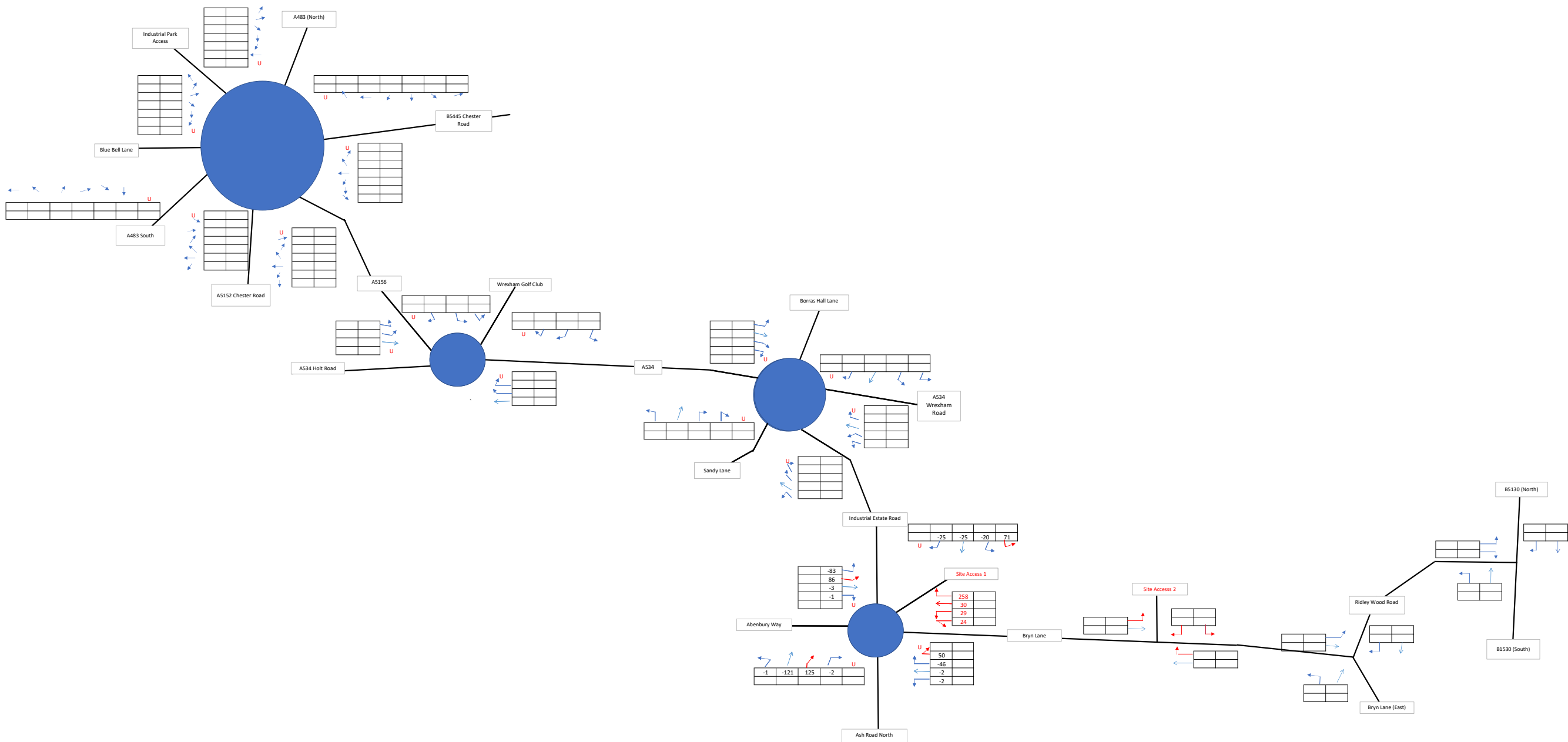


Figure 14 - New Trips (Local Centre, Drive-Thru & PFS)
AM Peak: 0800-0900

Notes:

31	Arrivals
30	Departures

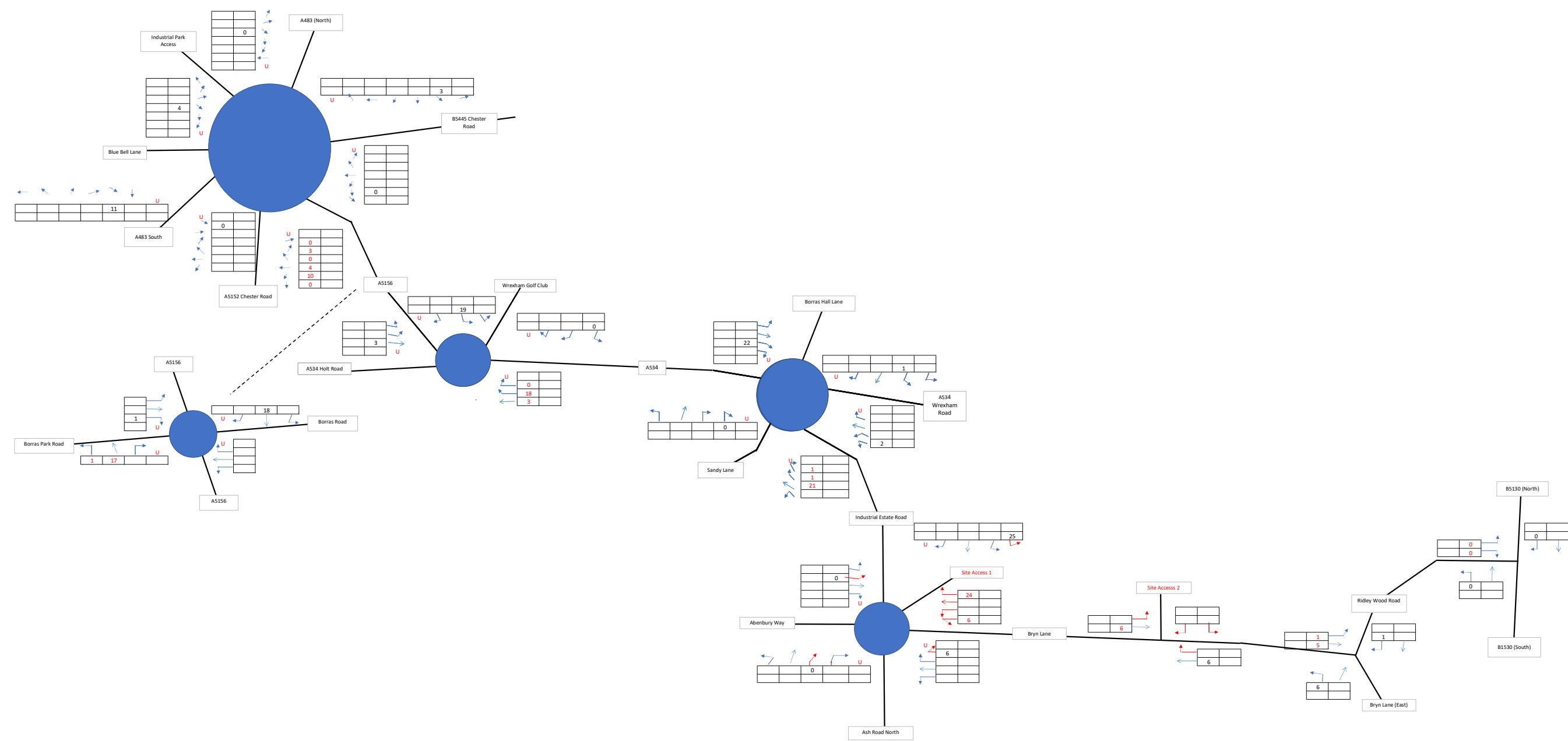
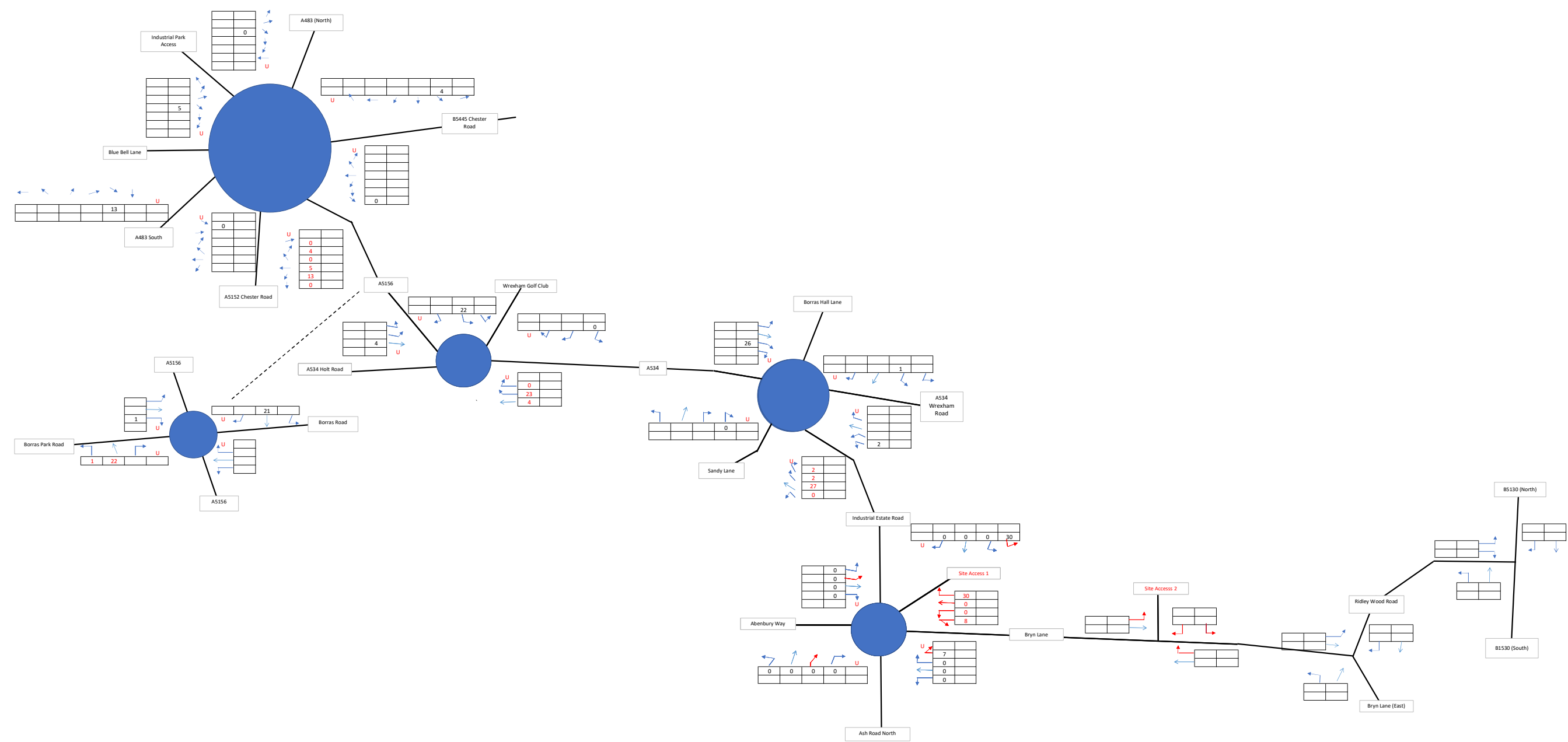


Figure 15 - New Trips (Local Centre, Drive-Thru & PFS)
PM Peak: 1630-1730

Notes:

37	Arrivals
38	Departures



Notes:

123

 PCUs

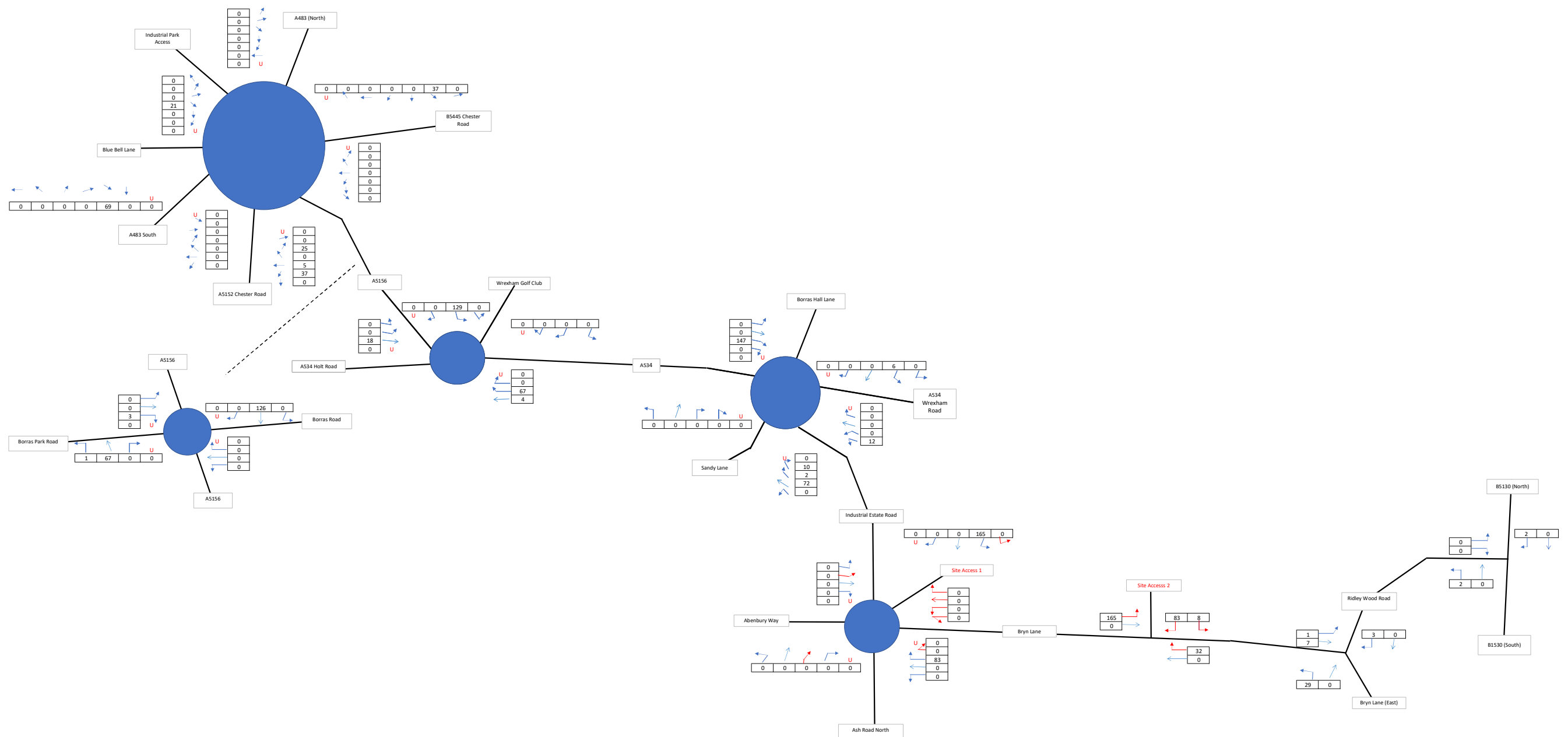
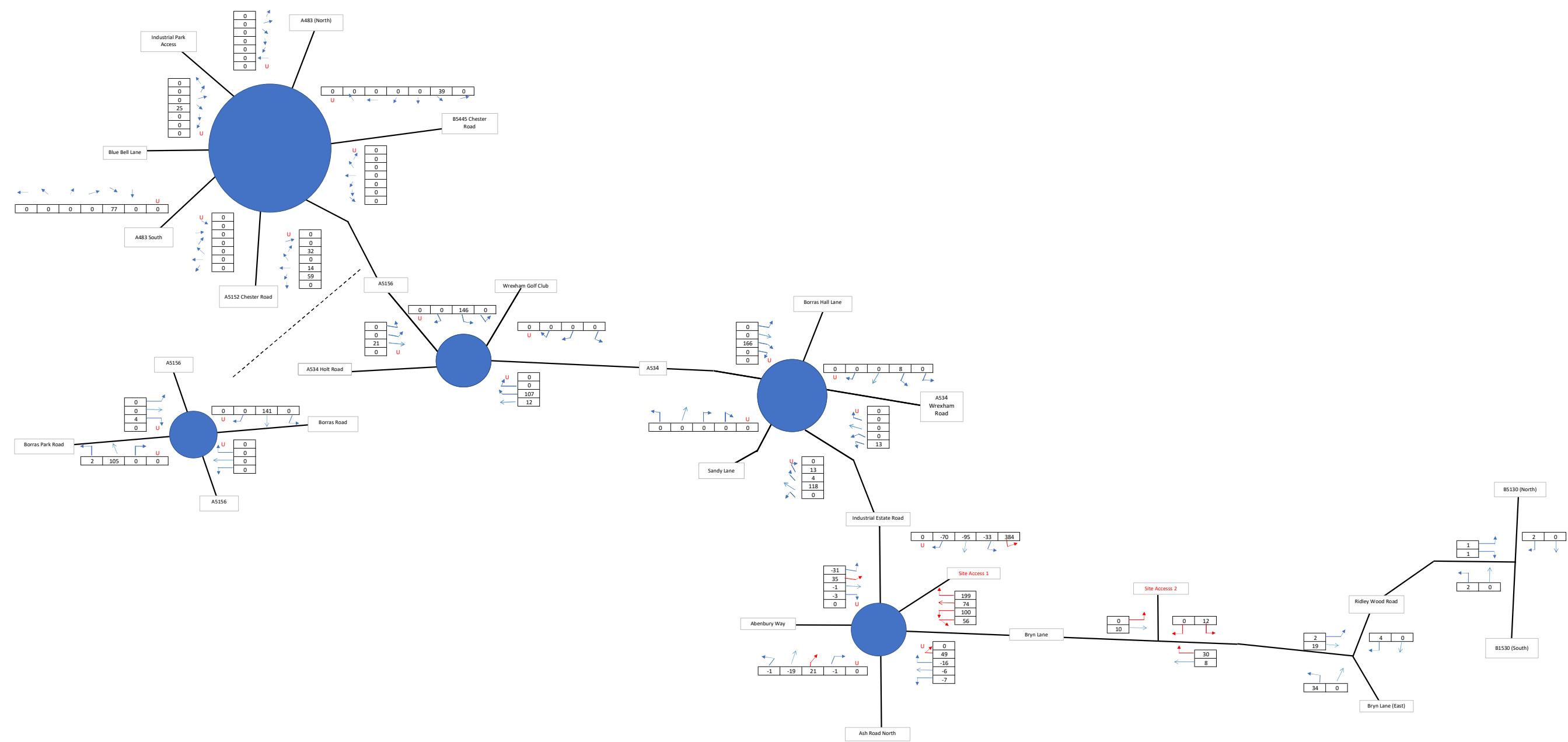


Figure 16a - Total Development Trips [Phase 1 + 2]
AM Peak: 0800-0900

Notes:

-123

 PCUs



Notes:

123

 PCUs

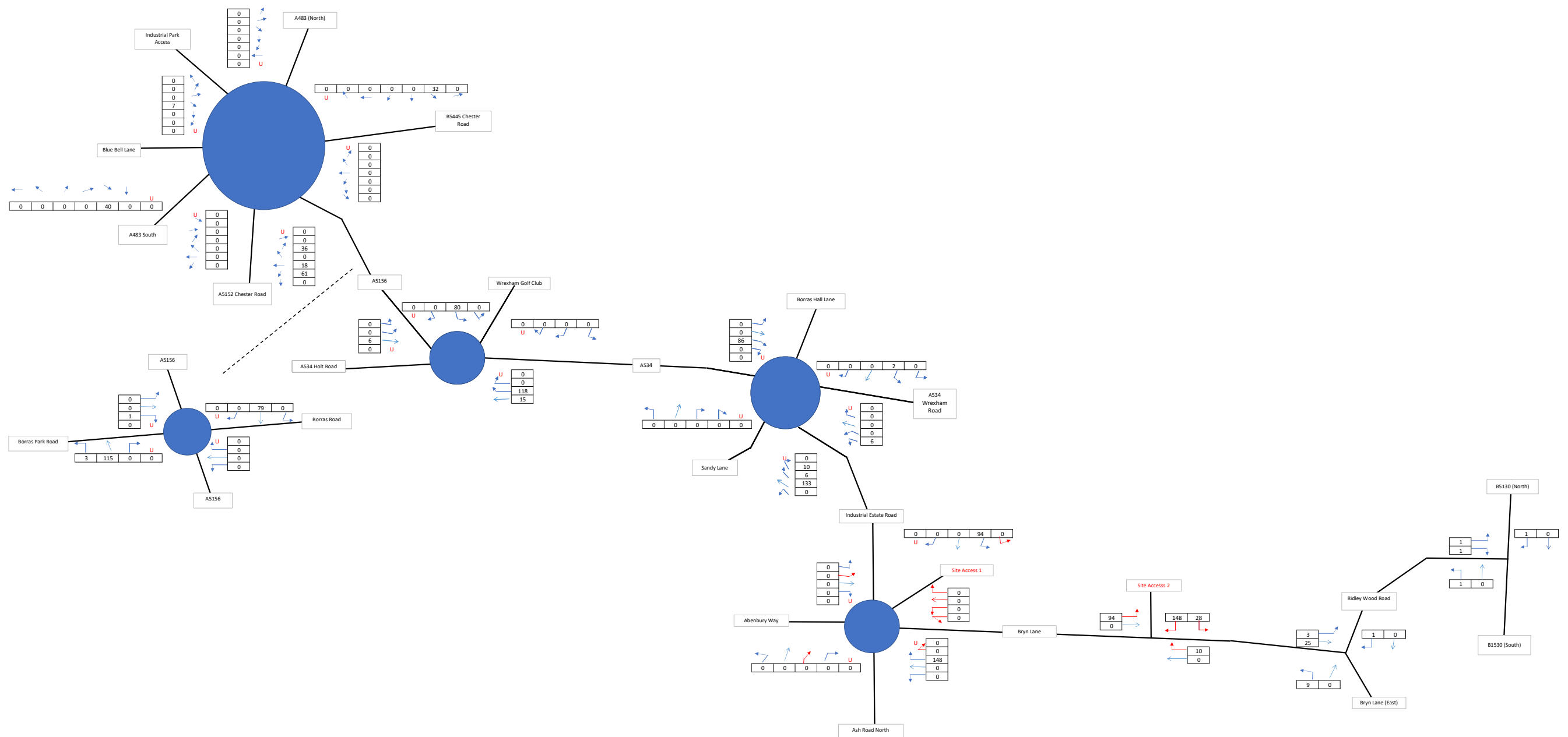


Figure 17a - Total Development Trips [Phase 1 + 2]
PM Peak: 1630-1730

Notes:

-123

 PCUs

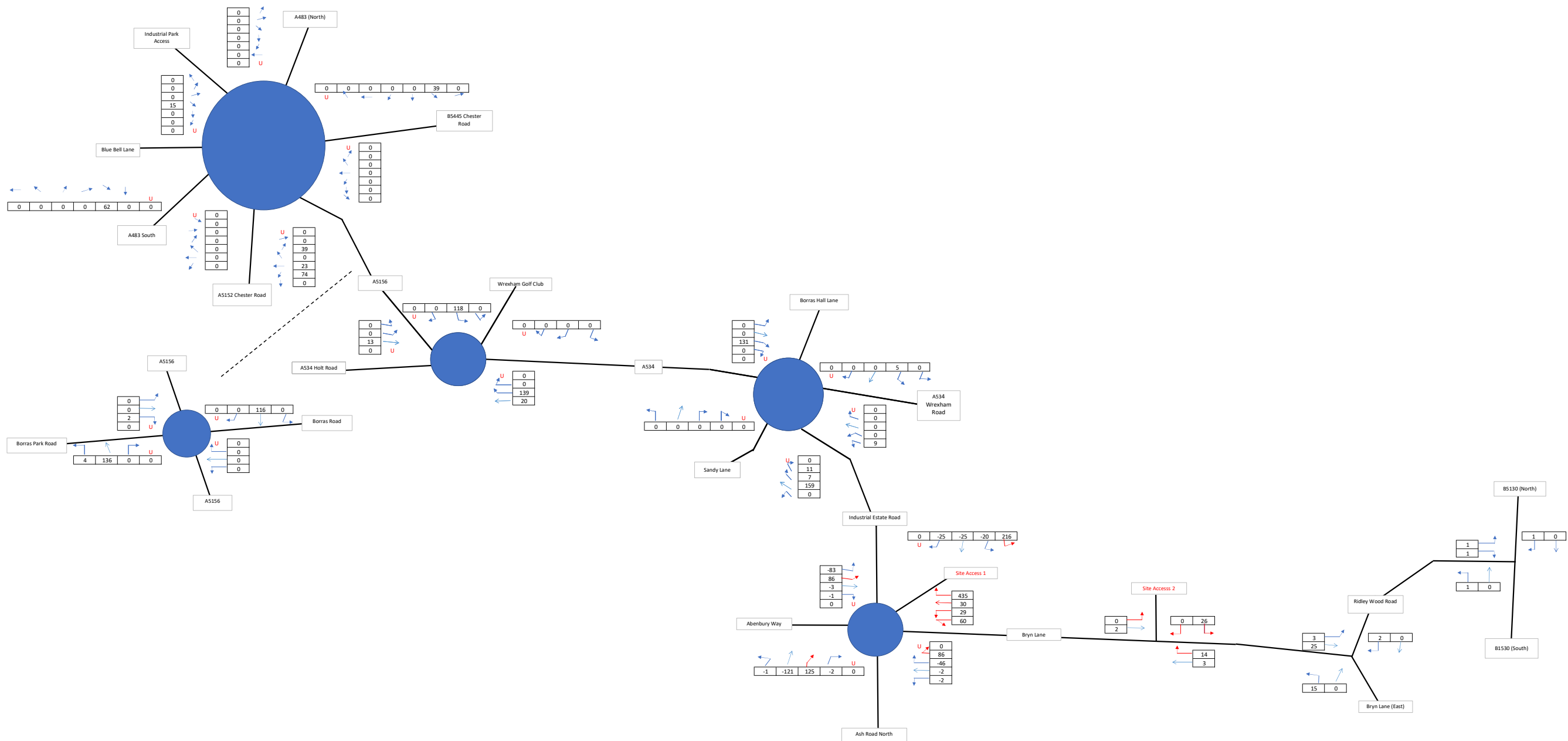


Figure 18 - Pacific Park Committed Traffic
AM Peak

Notes:

6	Arrivals
1	Departures

GFA 2567 sqm
Arr 0.228
Dep 0.028

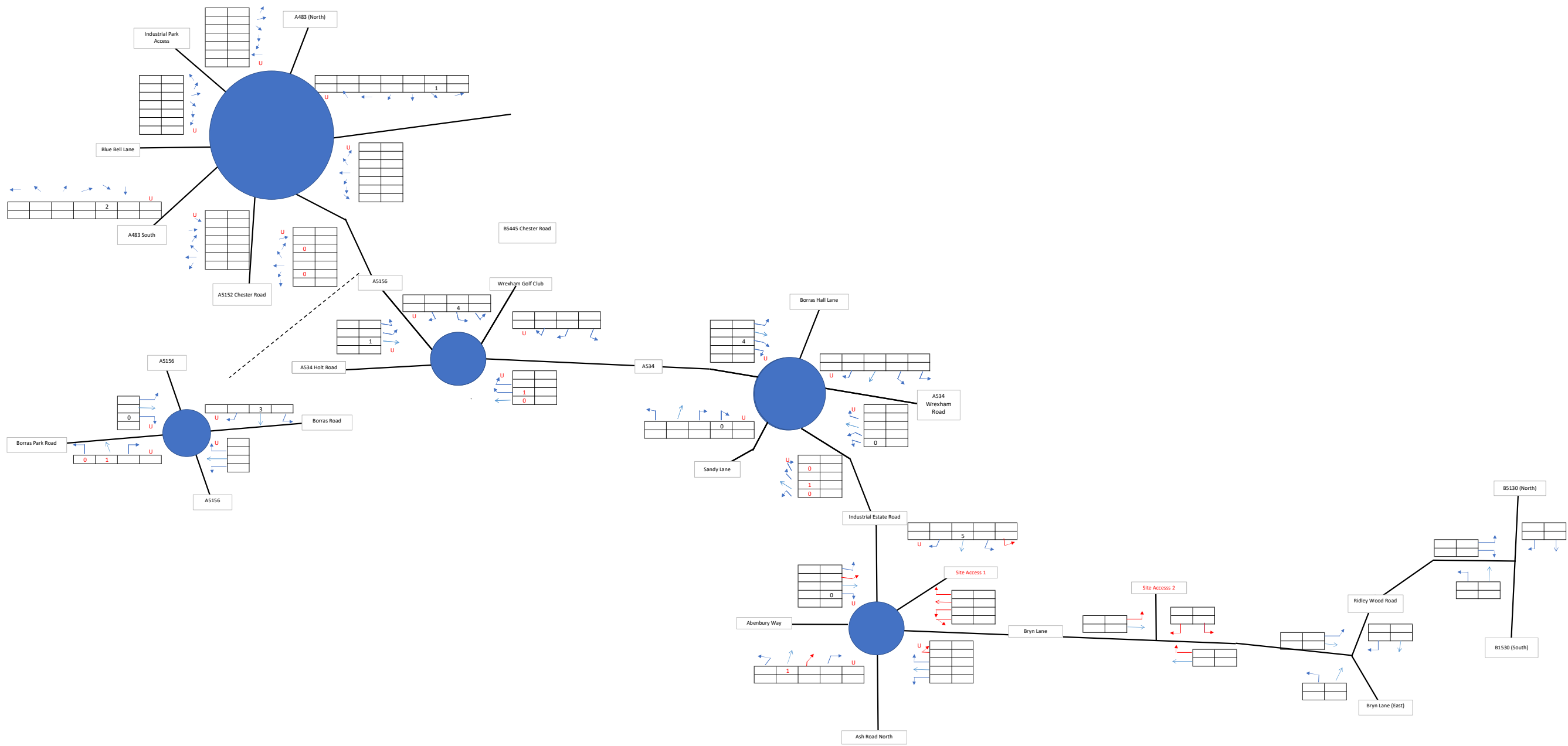


Figure 19 - Pacific Park Committed Traffic
PM Peak

Notes:

1	Arrivals
9	Departures

GFA 2567 sqm
Arr 0.039
Dep 0.361

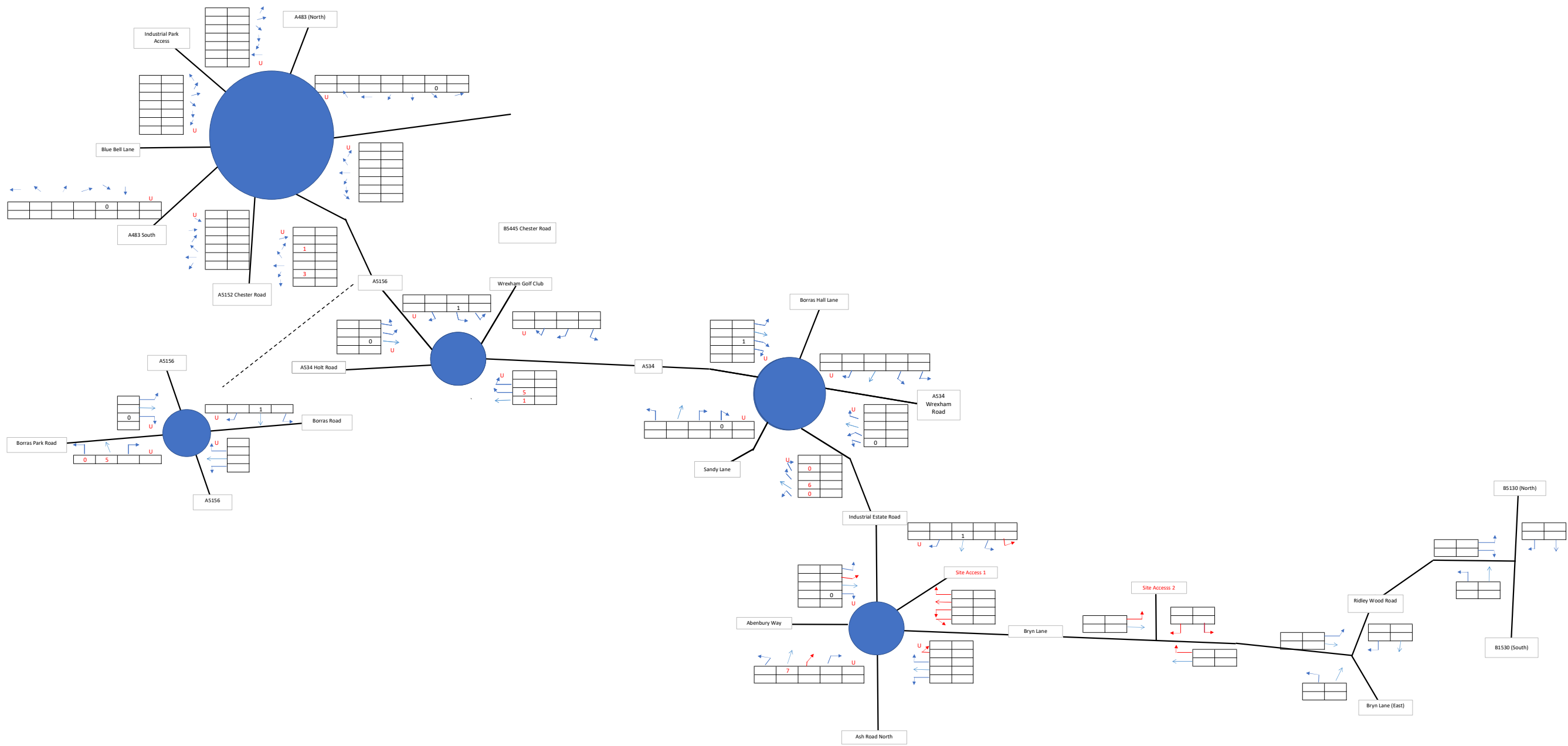


Figure 20 - Ash Road Committed Traffic
AM Peak

Notes:

6	Arrivals
1	Departures

GFA 2605 sqm
Arr 0.228
Dep 0.028

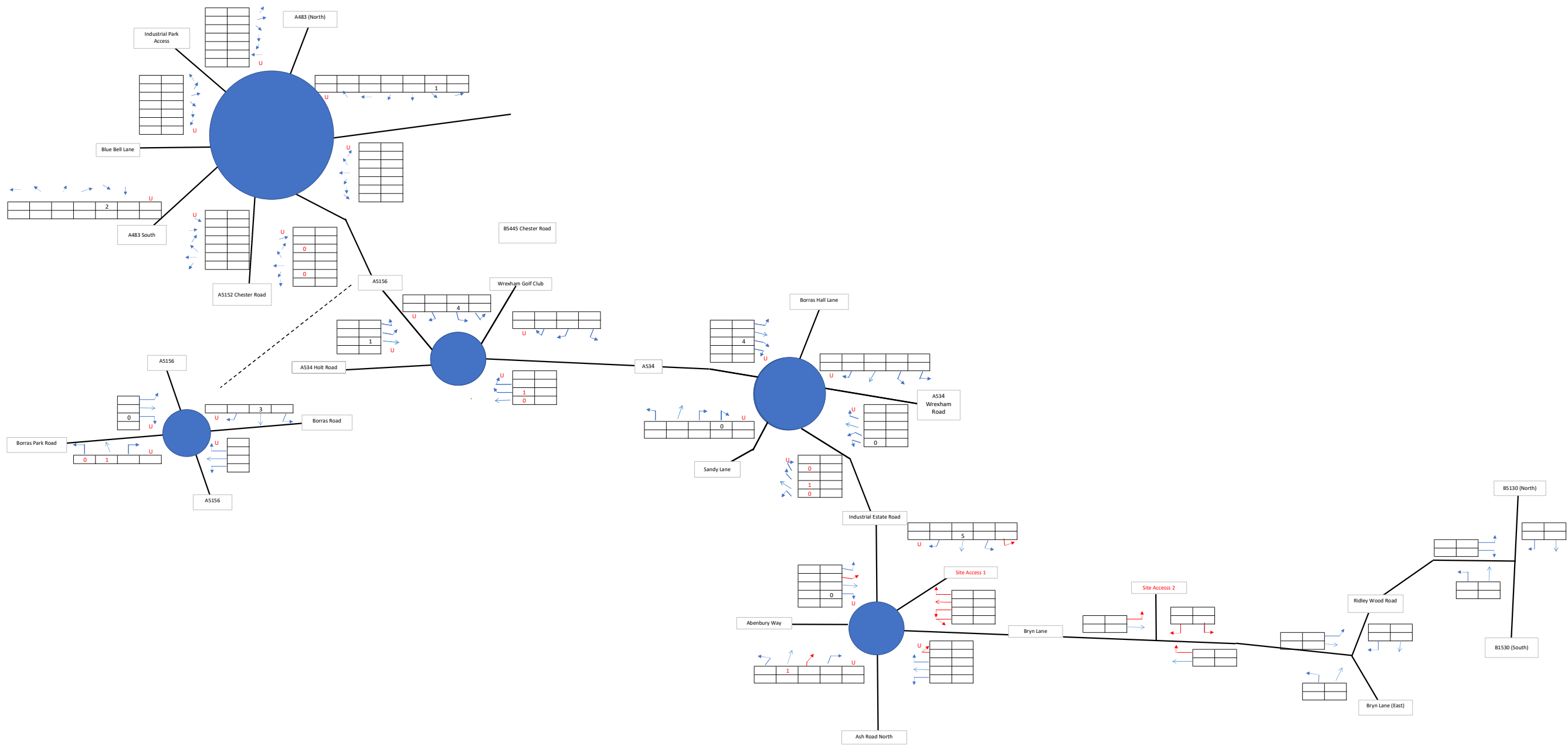
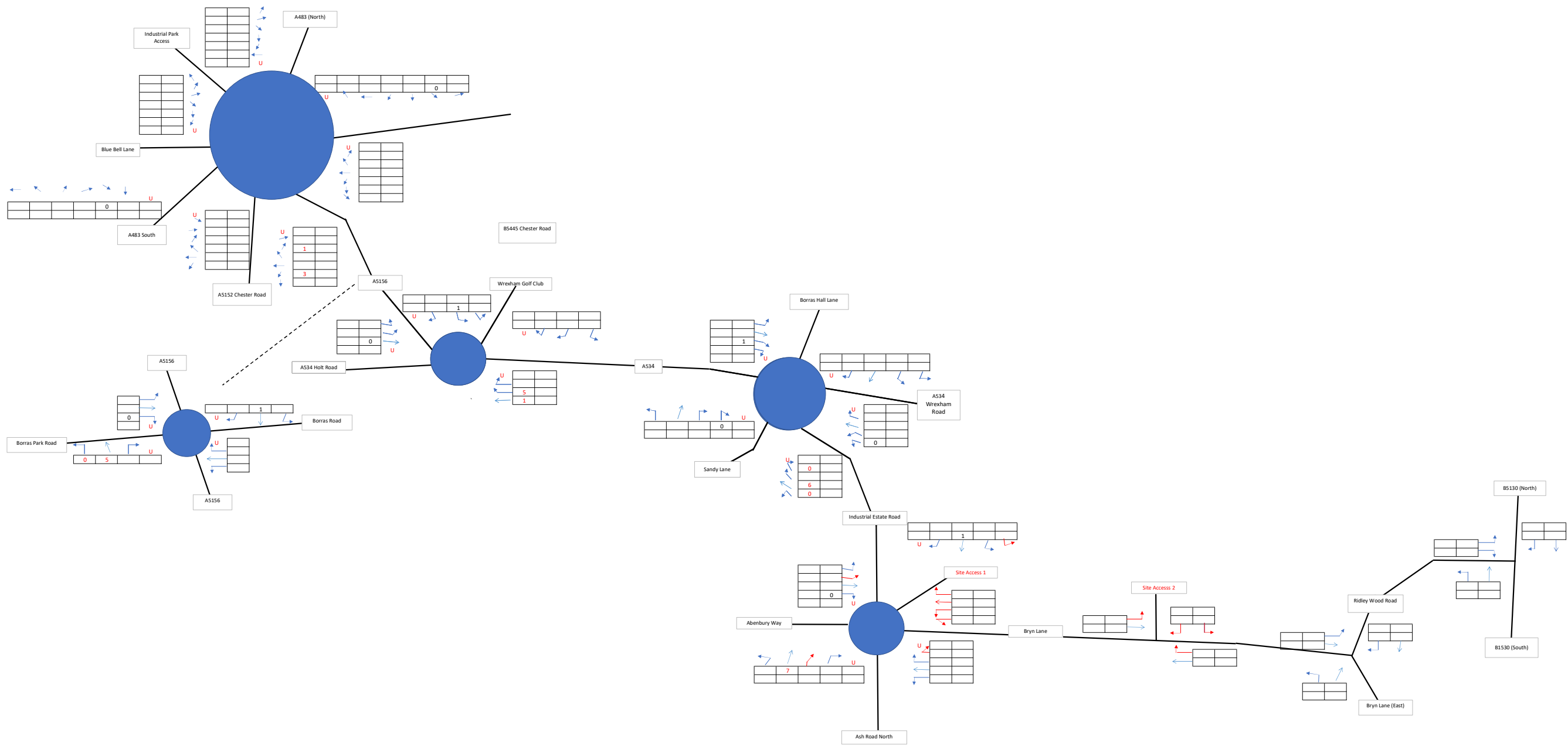


Figure 21 - Ash Road Committed Traffic
PM Peak

Notes:

1	Arrivals
9	Departures

GFA 2605 sqm
Arr 0.039
Dep 0.361



Notes:

%
%

 Arrivals
Depatures

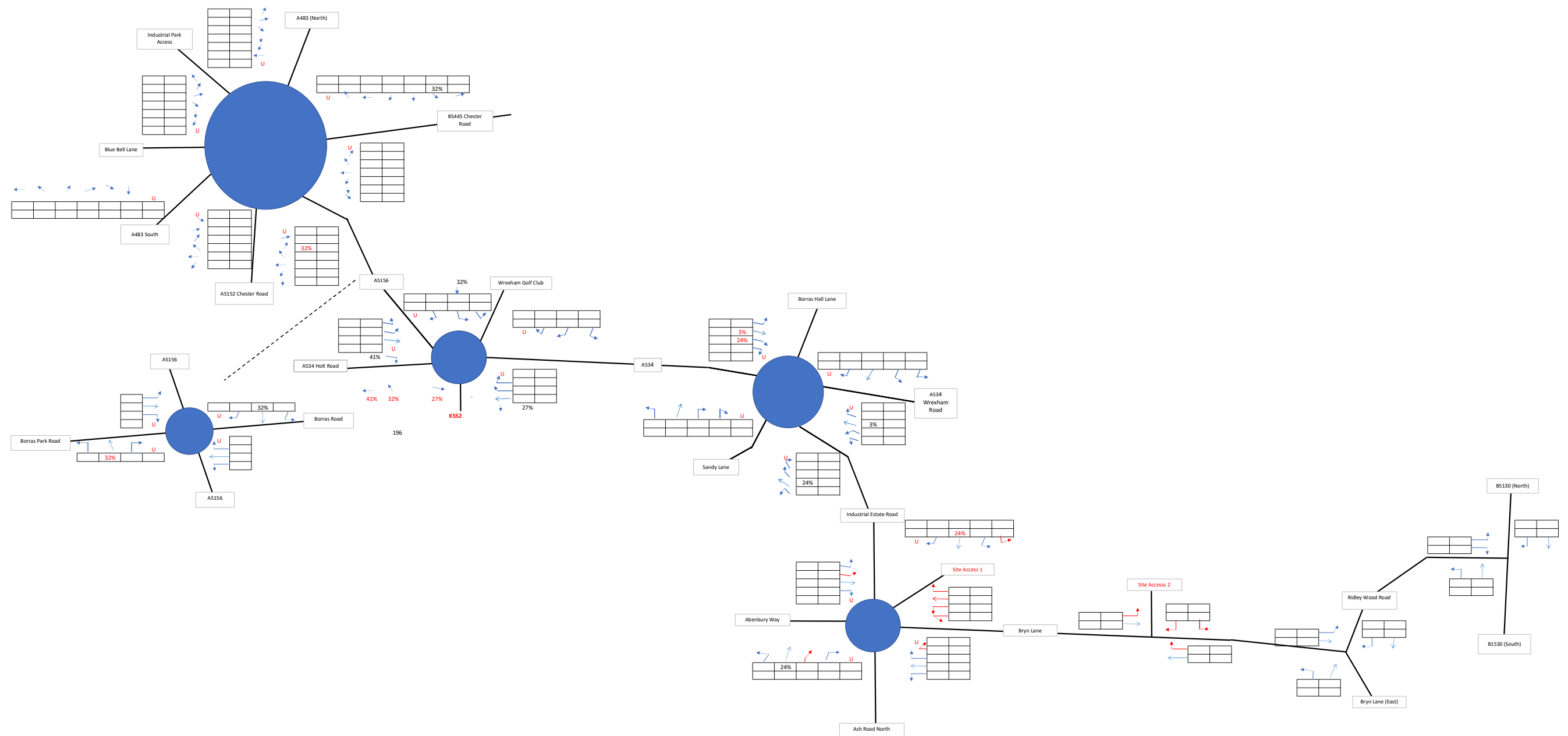


Figure 23 - KSS2 Development Trips
AM Peak

Notes: 237 Arrivals
626 Departures

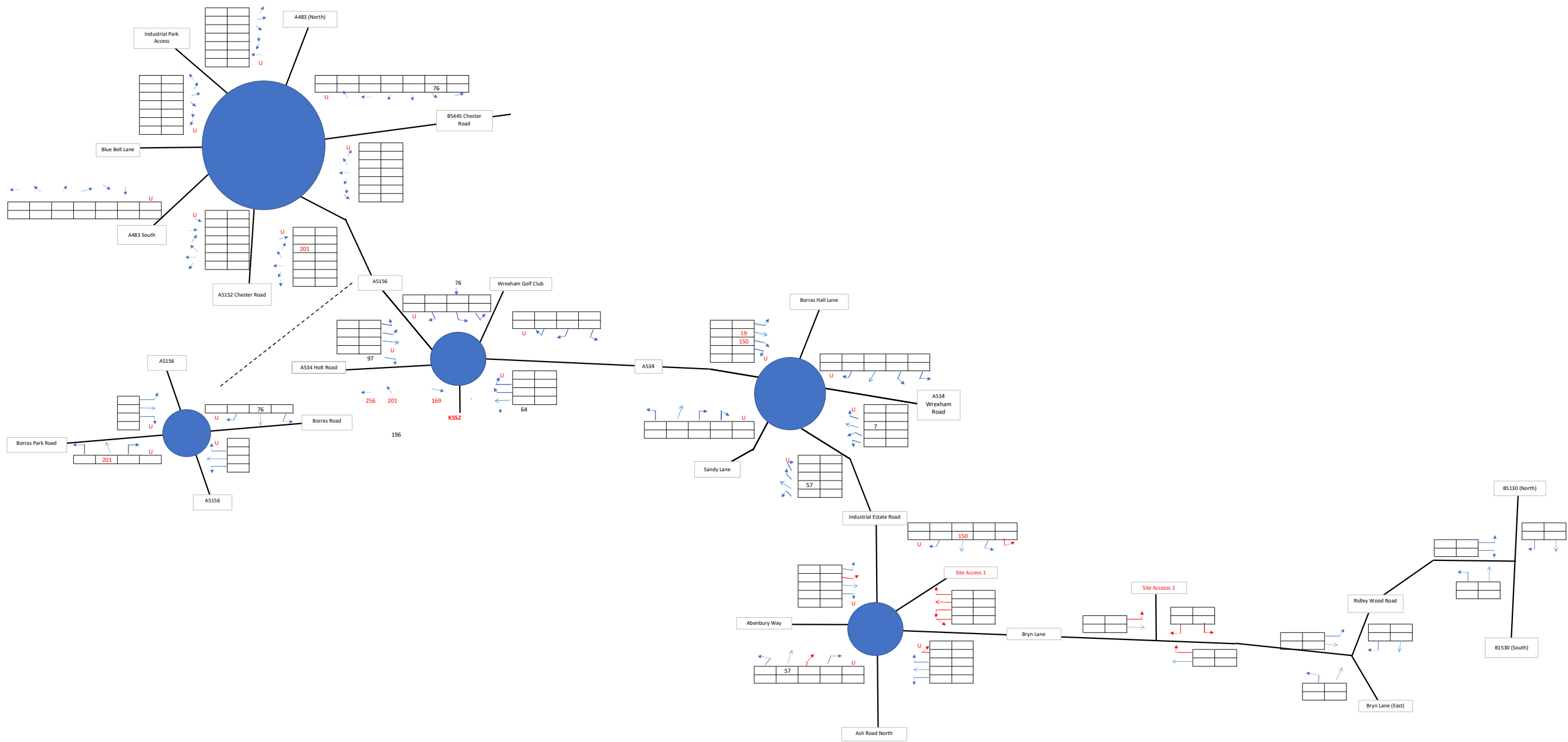


Figure 24 - KSS2 Development Trips
PM Peak

Notes: 547 Arrivals
301 Departures

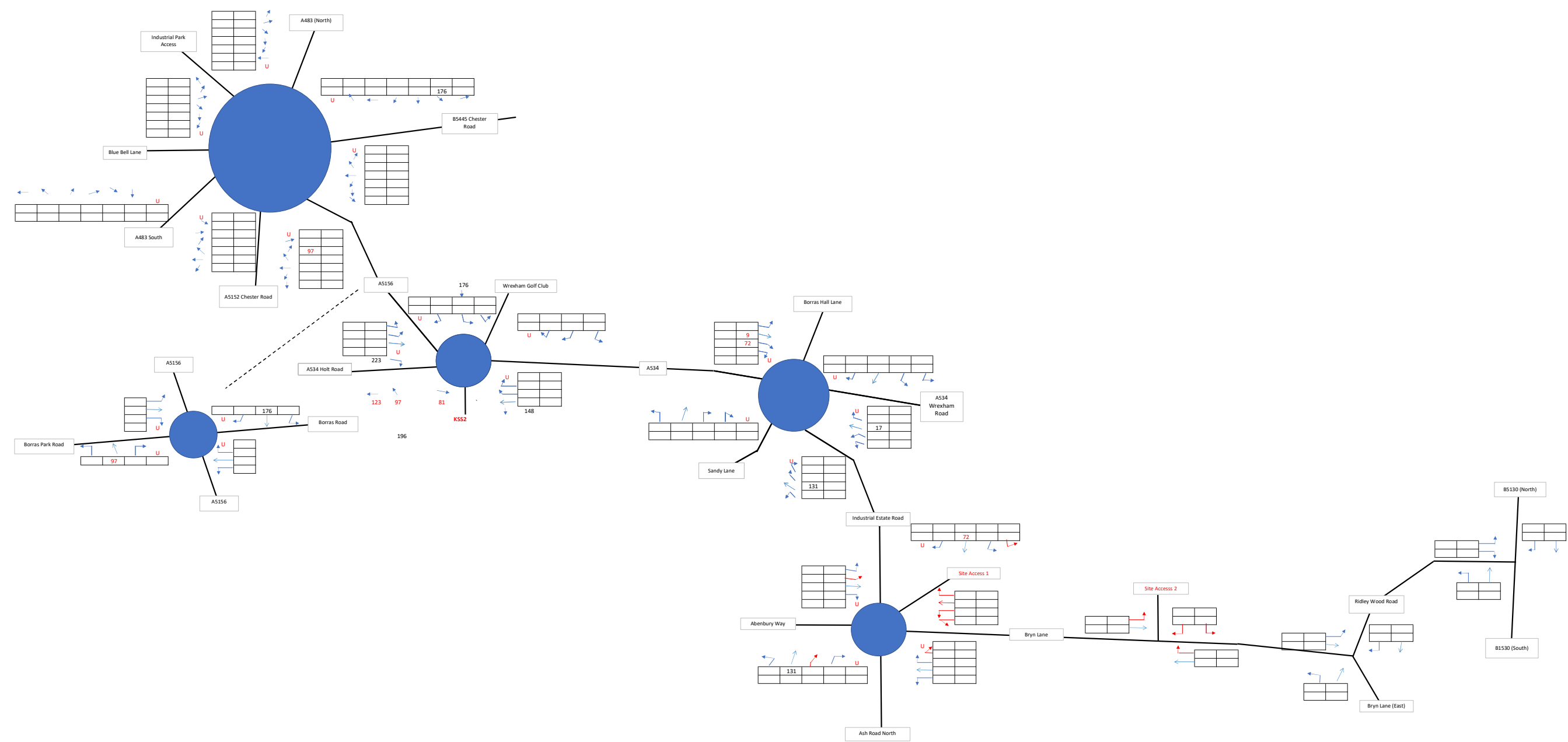


Figure 25 - Kingmoor Development Trips
AM Peak

Notes:

75	Arrivals (Lights)
50	Departures (Lights)

16	Arrivals (HGVs)
15	Departures (HGVs)

*Converted into PCUs

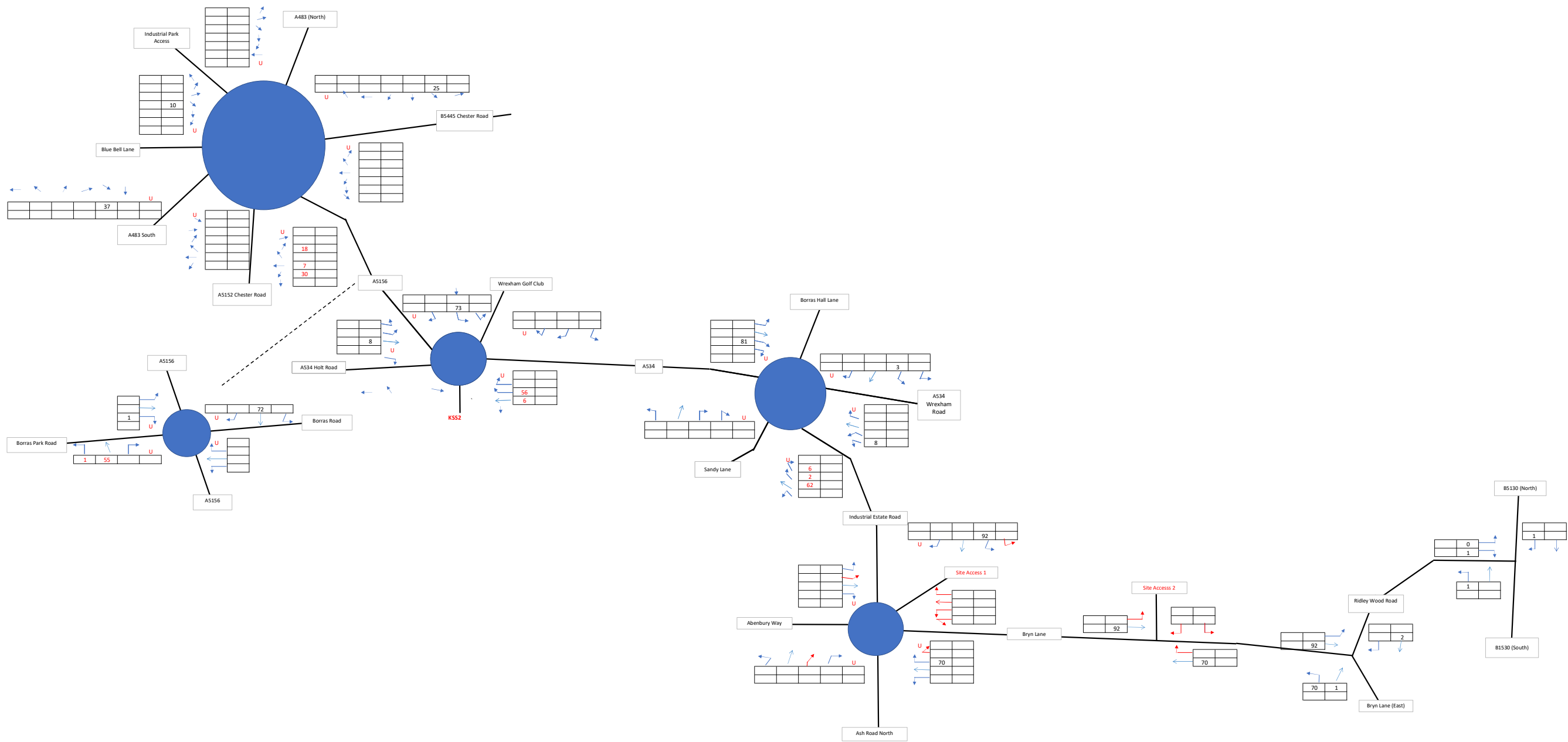


Figure 26 - Kingmoor Development Trips
PM Peak

Notes:

60	Arrivals (Lights)
98	Departures (Lights)

18	Arrivals (HGVs)
16	Departures (HGVs)

*Converted into PCUs

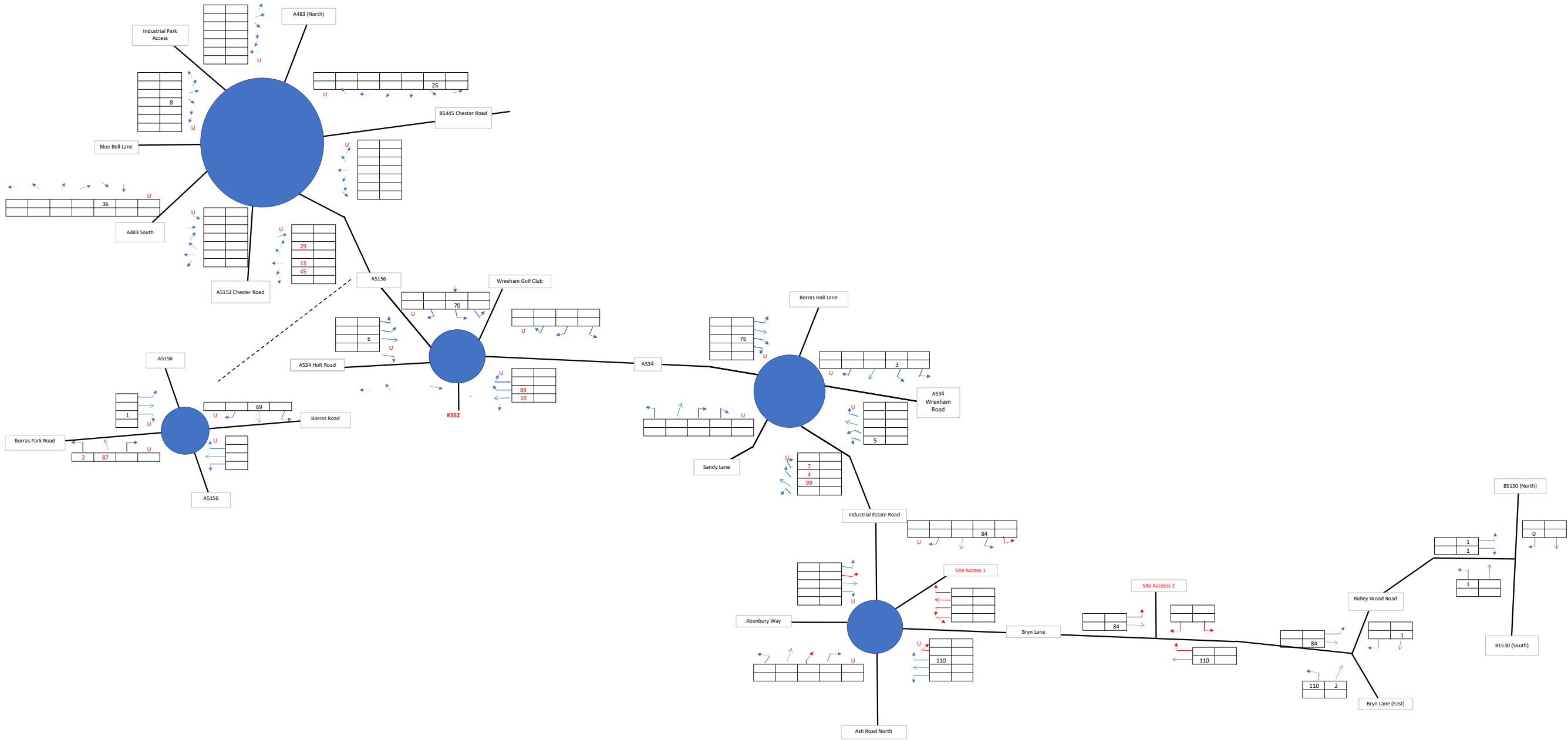


Figure 26a - Net World Sports Committed Development Trips
AM Peak

Notes:

123	Lights
123	HGVs

Net World Sports (P/2020/0167)

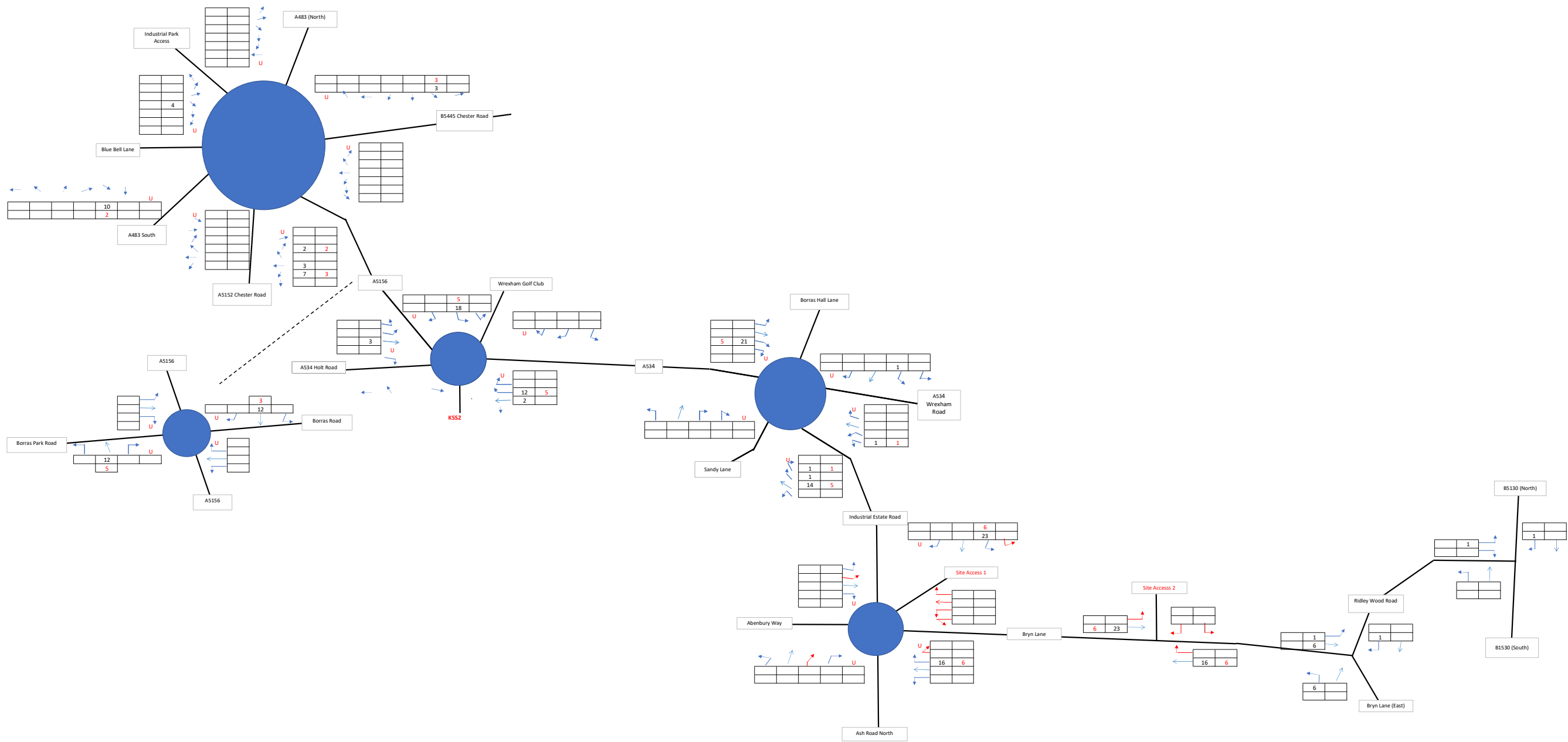


Figure 26b - Net World Sports Committed Development Trips
PM Peak

Notes:

123	Lights
123	HGVs

Net World Sports (P/2020/0167)

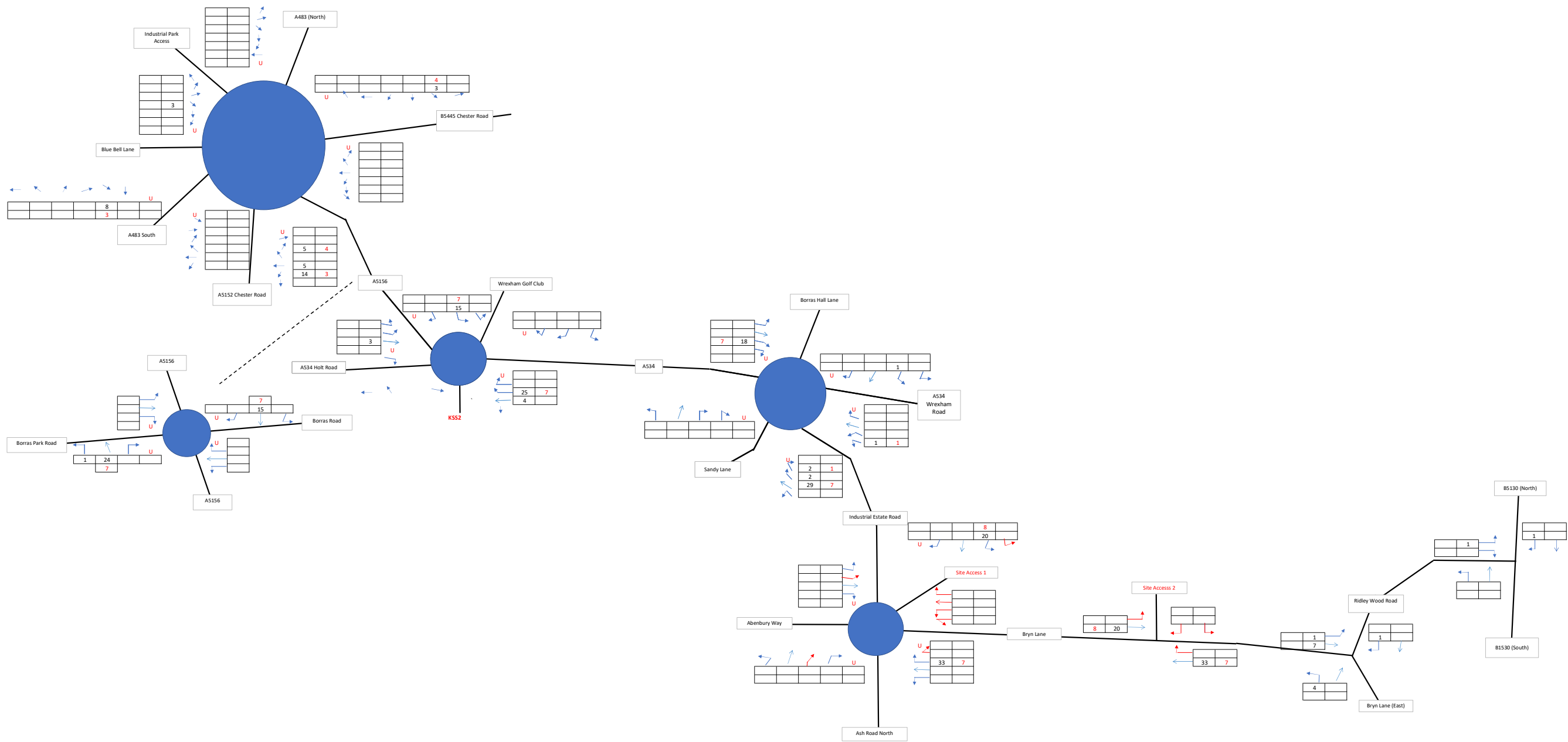


Figure 26c - Land East of Bryn Lane Committed Development Trips
AM Peak

Notes: 123 Lights
123 Highways
Land to the east of Bryn Lane (P/2023/0230) - 97,500 sqft B2/B8

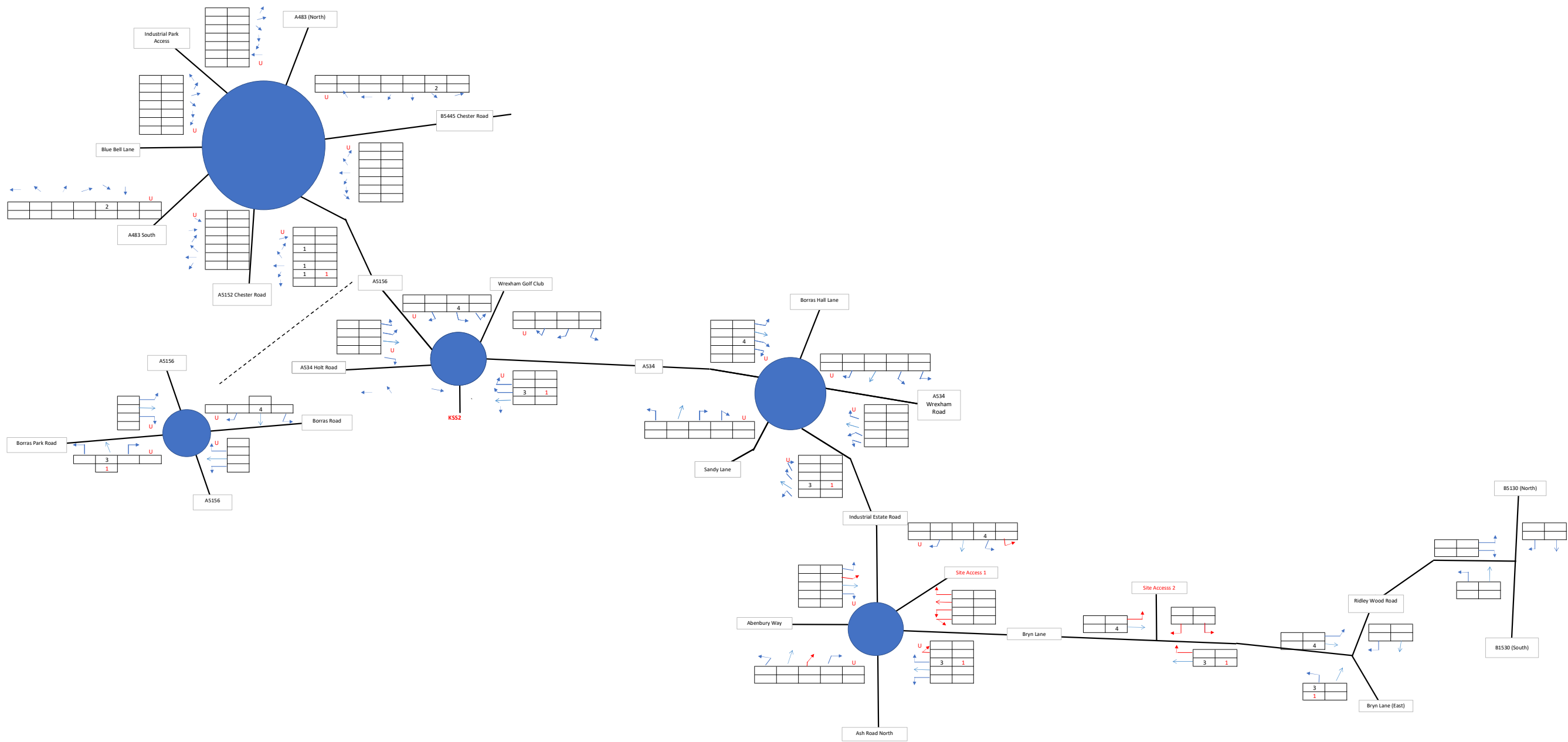


Figure 26d - Land East of Bryn Lane Committed Development Trips
PM Peak

Notes:

123

 Lights

123

 Highways
Land to the east of Bryn Lane (P/2023/0230) - 97,500 sqft B2/B8

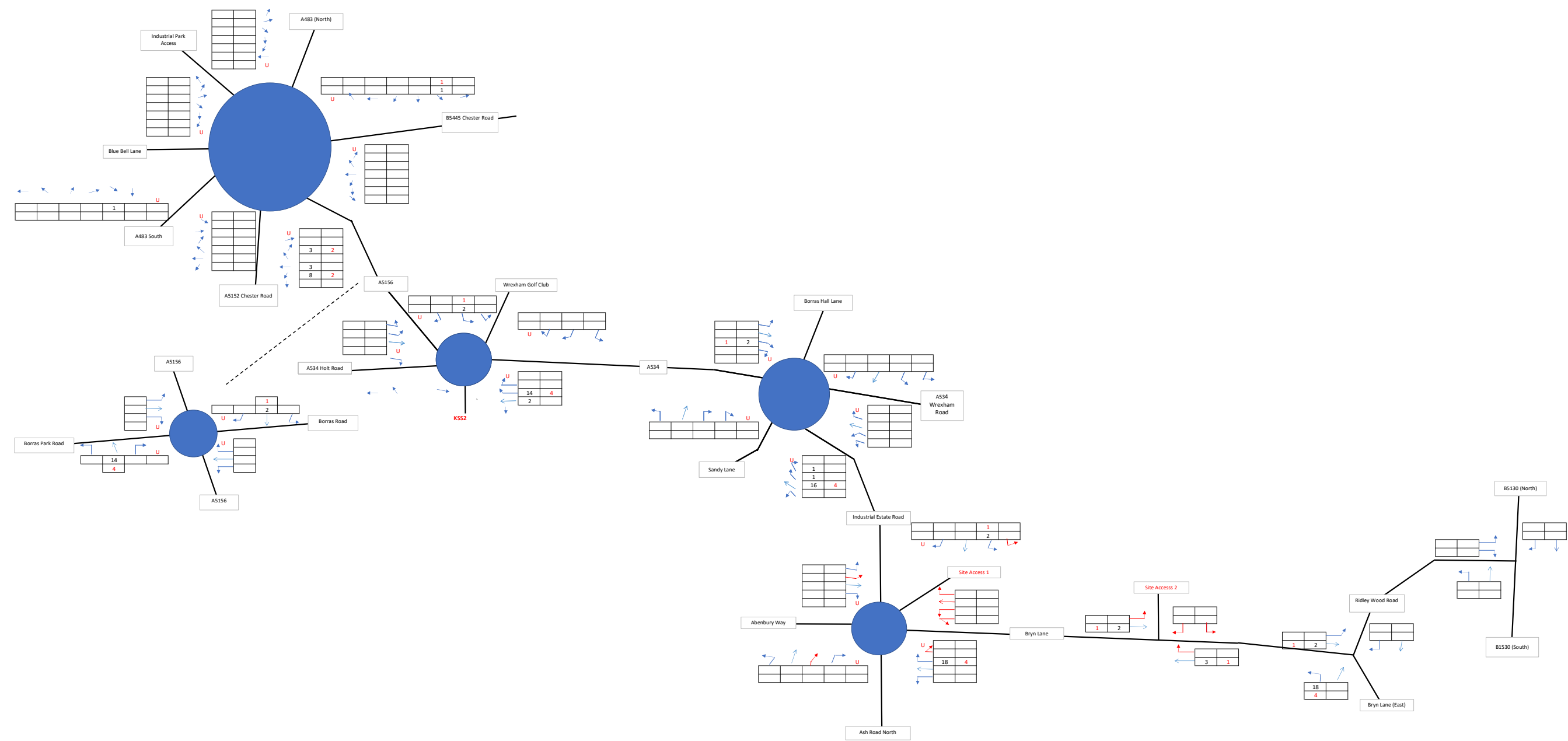


Figure 26e - Land South of Bryn Lane Committed Development Trips
AM Peak: 0800-0900

Notes: 67 Arrivals
12 Departures

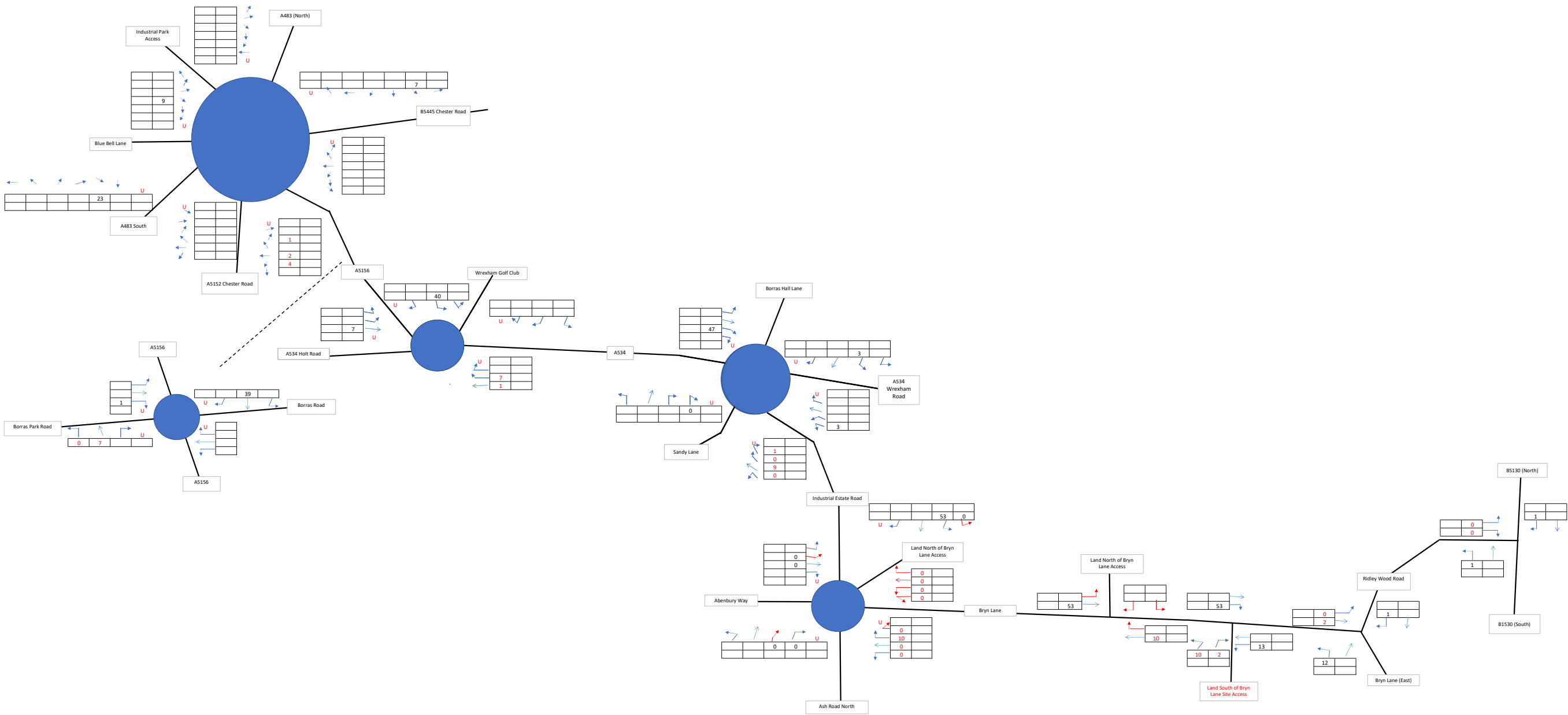


Figure 26f - Land South of Bryn Lane Committed Development Trips
PM Peak: 1630-1730

Notes: 19 Arrivals
56 Departures

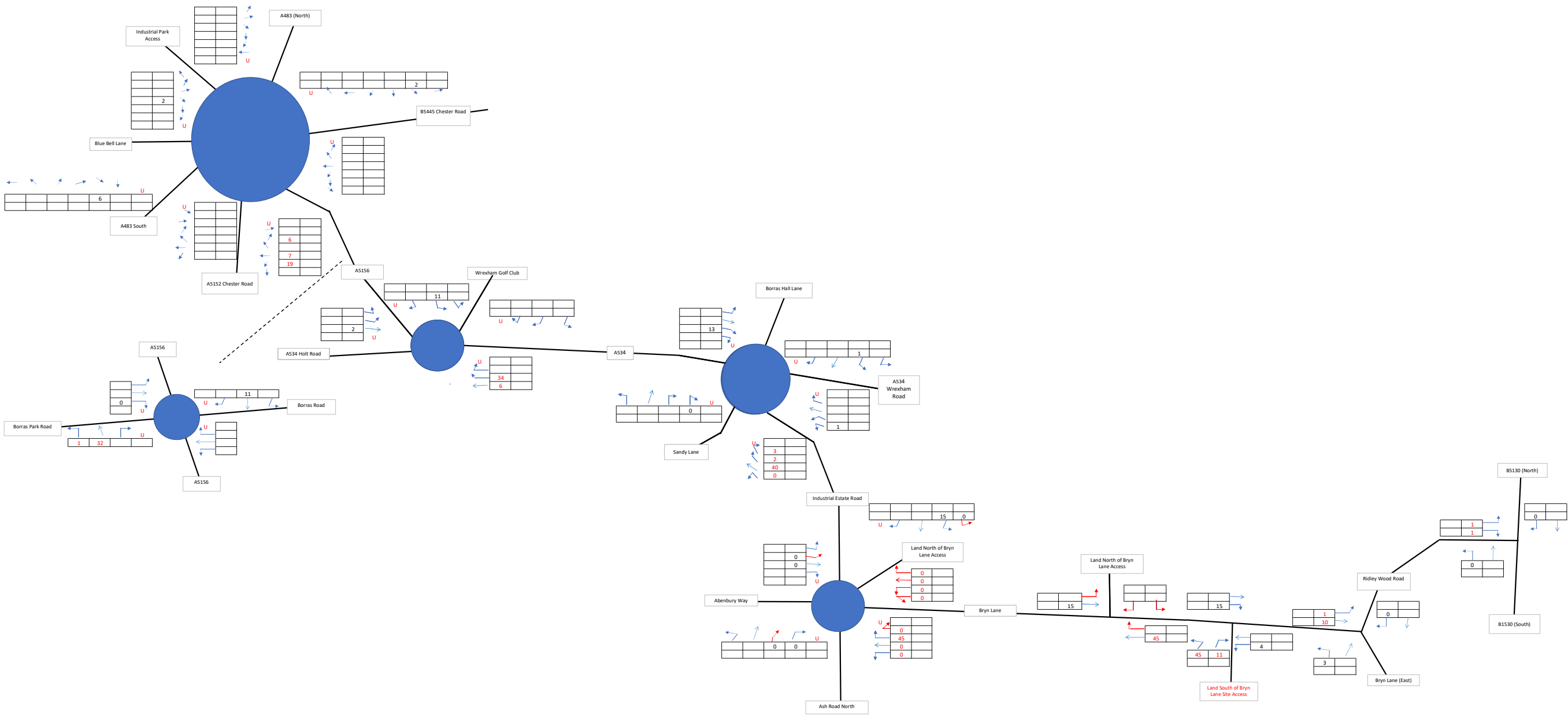


Figure 27 - 2037 Base + Committed
AM Peak: 0800-0900

Notes:

123

 PCUs

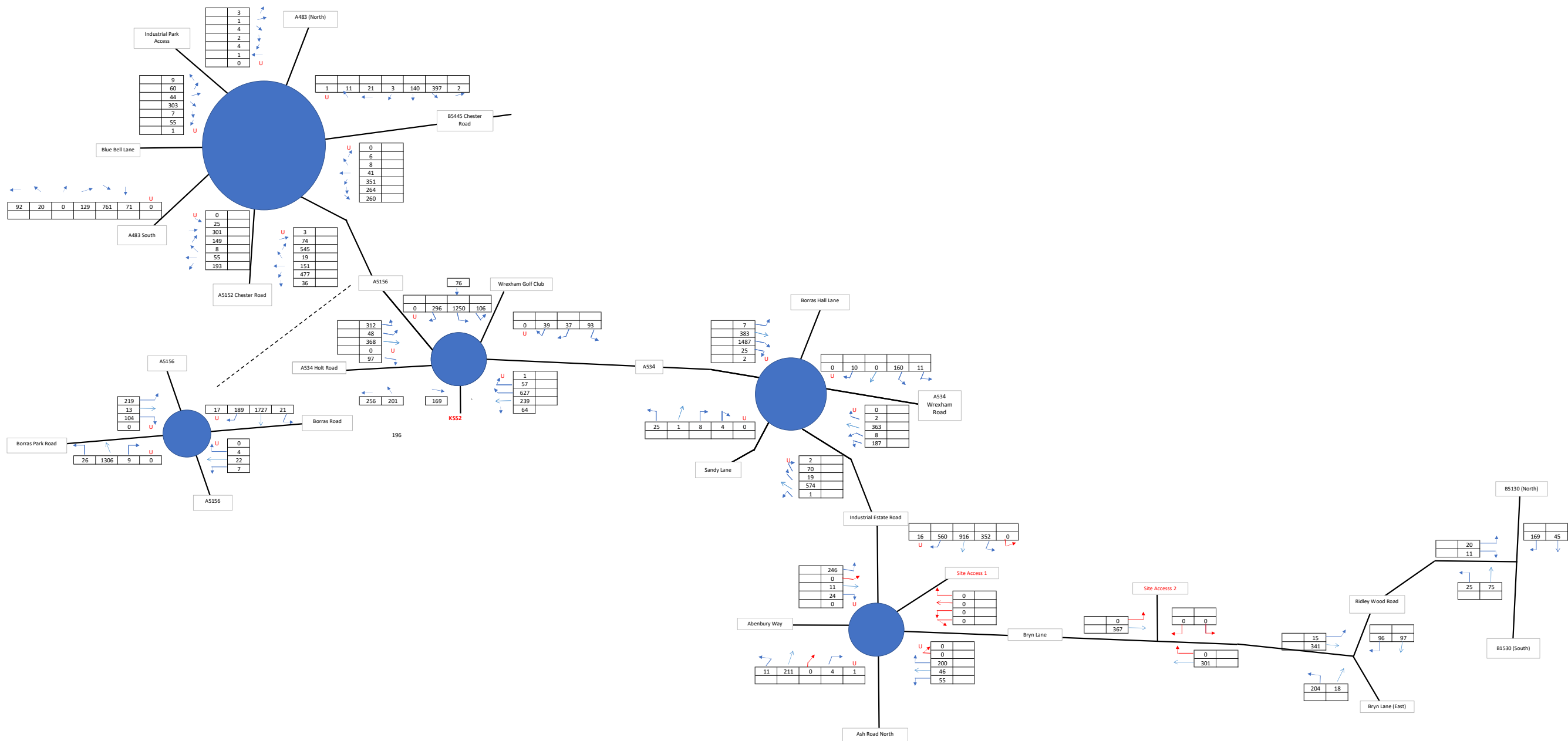


Figure 27a - 2037 Base + Development (Phase 1)
AM Peak: 0800-0900

Notes:

123

 PCUs

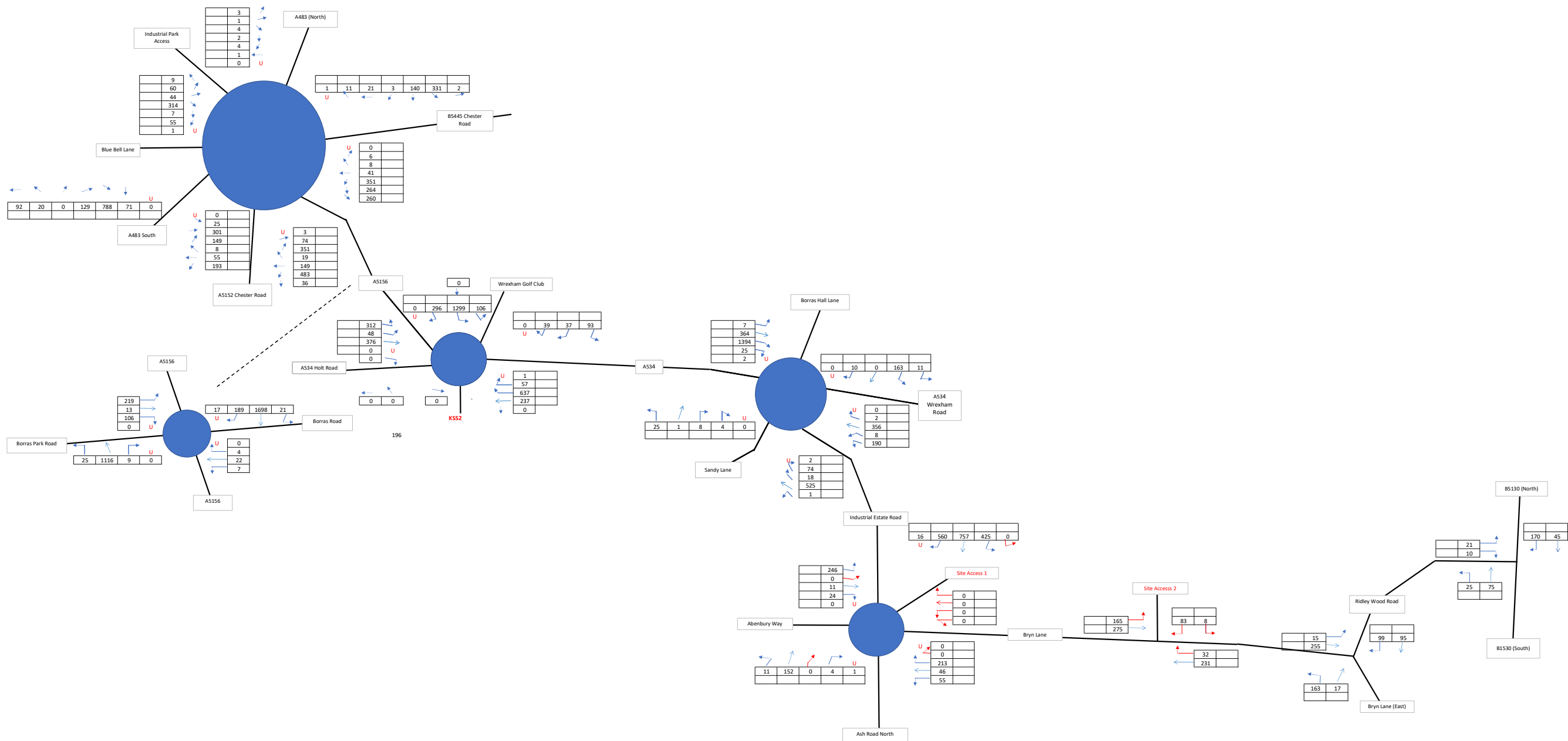
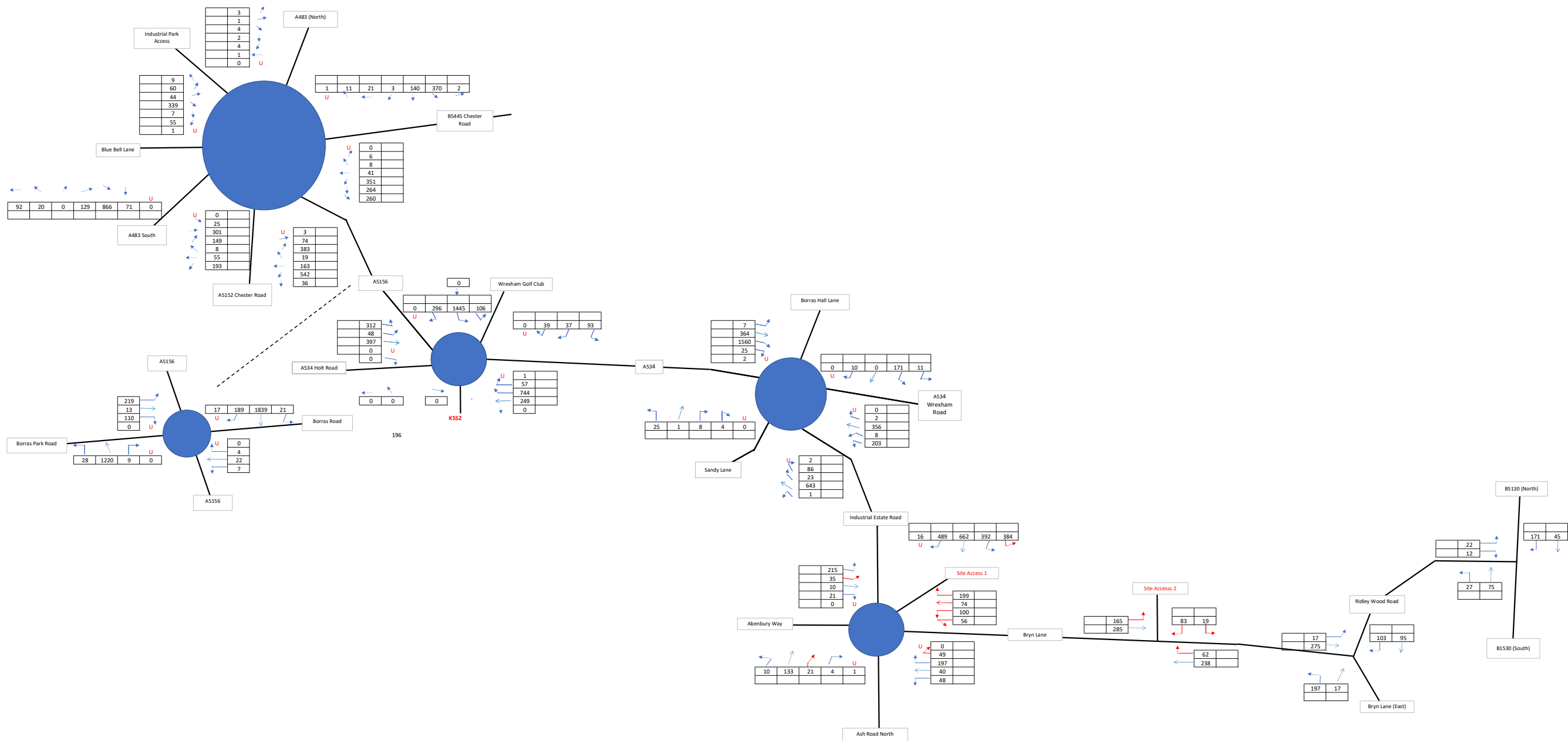


Figure 27b - 2037 Base + Development (Phase 1 + 2)
AM Peak: 0800-0900

Notes:

123

 PCUs



Notes:

123

 PCUs:

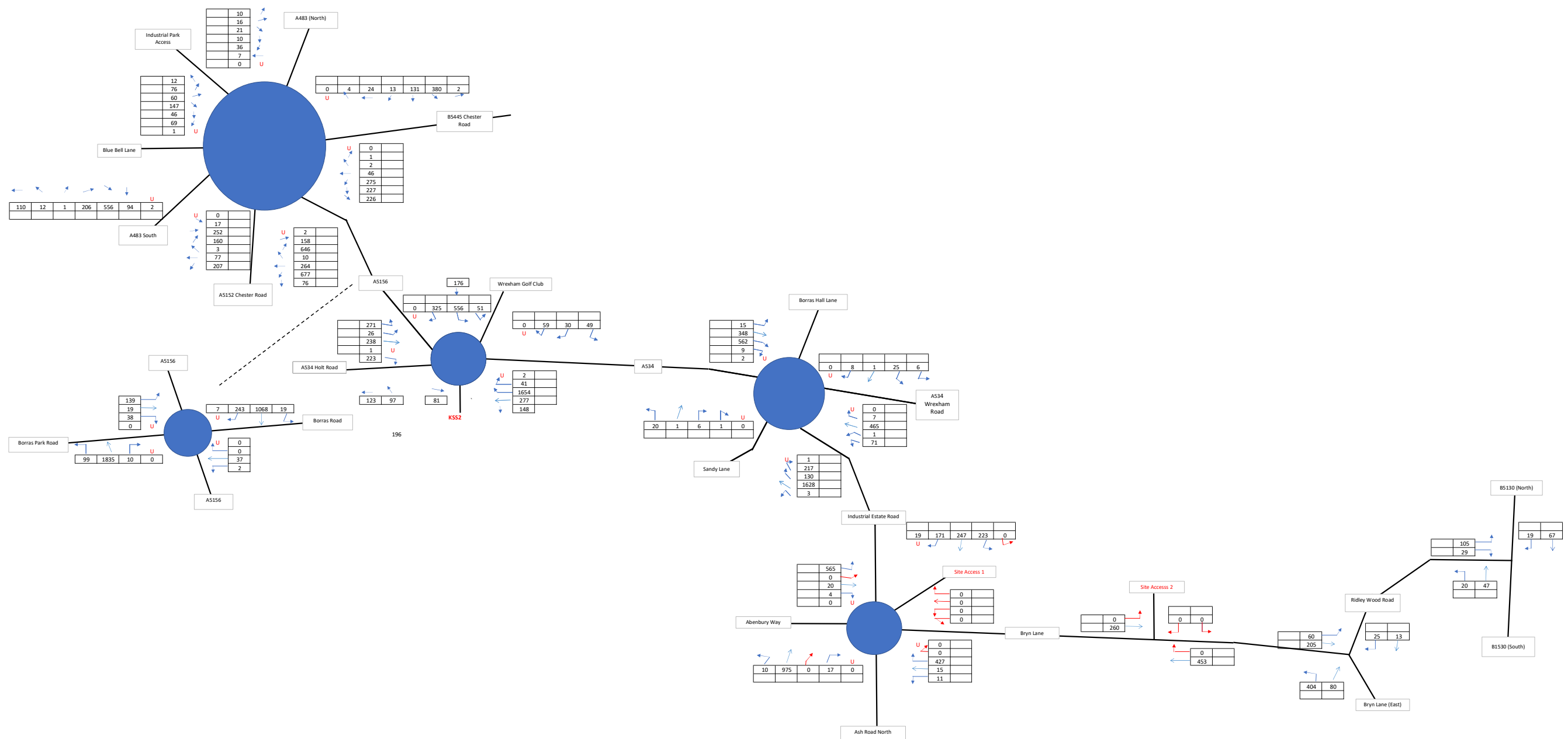


Figure 28a - 2037 Base + Development (Phase 1)
PM Peak: 1630-1730

Notes:

123

 PCUs

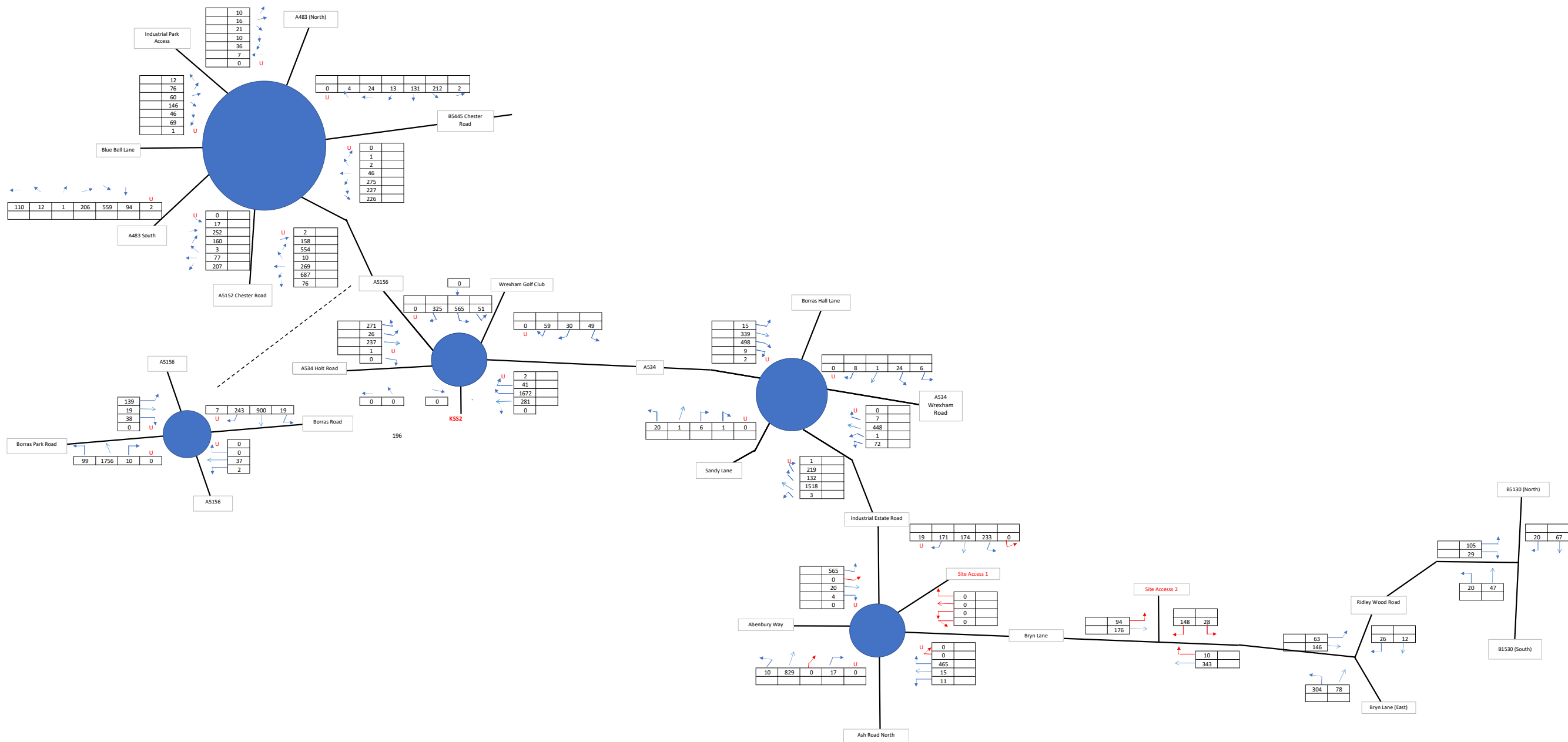
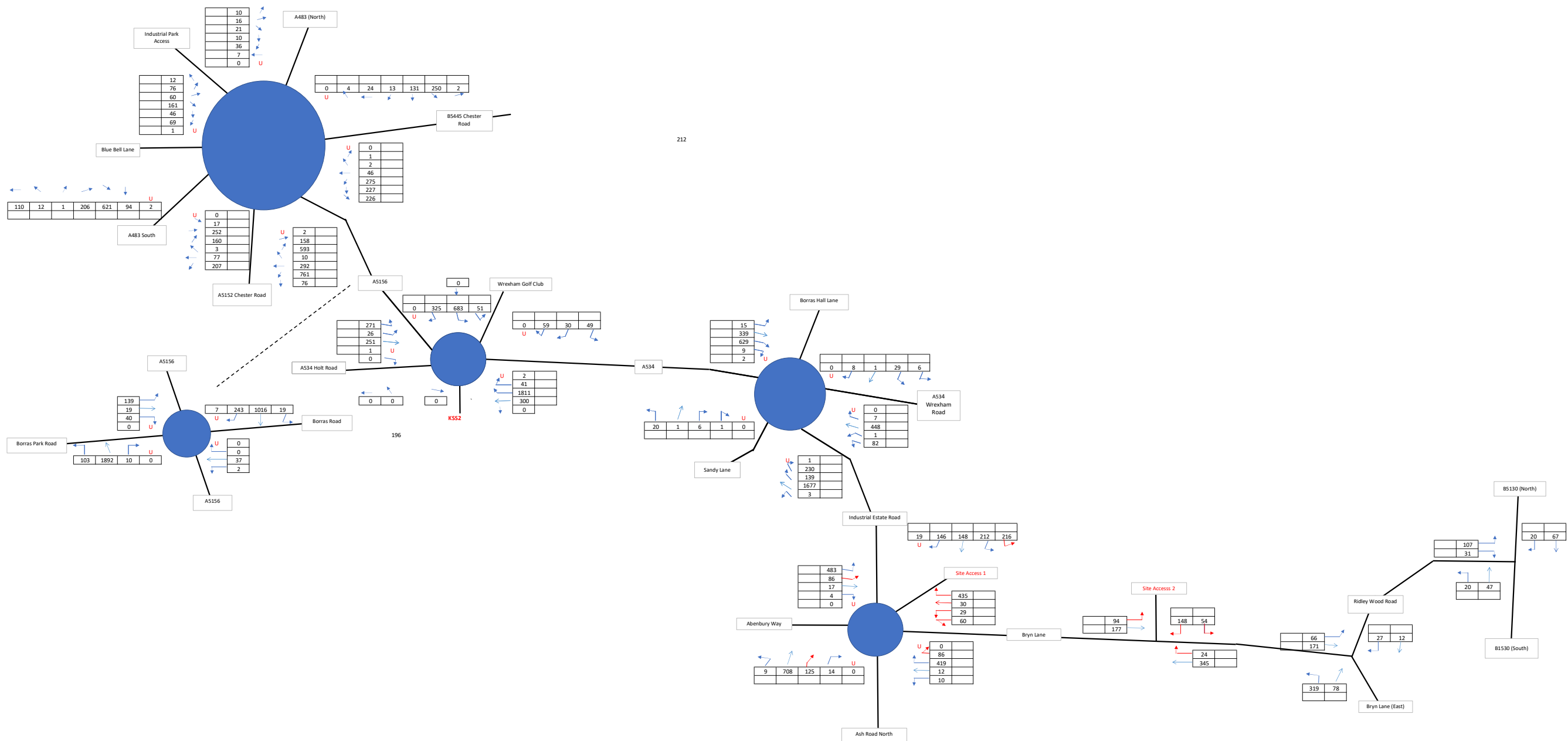


Figure 28b - 2037 Base + Development (Phase 1 + 2)
PM Peak: 1630-1730

Notes:

123

 PCUs



Notes:

123

 PCUs

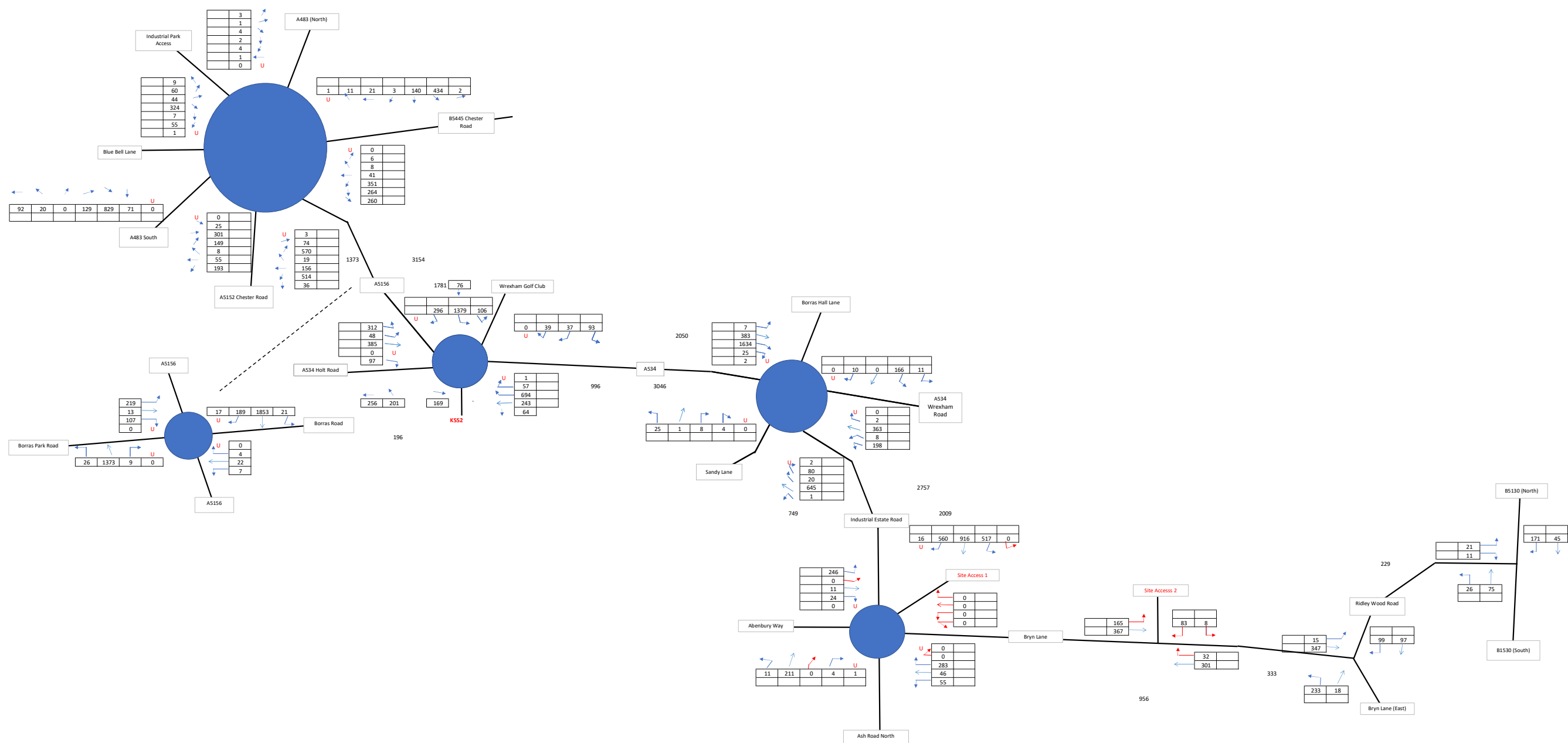


Figure 29a - 2037 Base + Development [Phase 1 + 2] + Committed
AM Peak: 0800-0900

Notes:

123

 PCUs

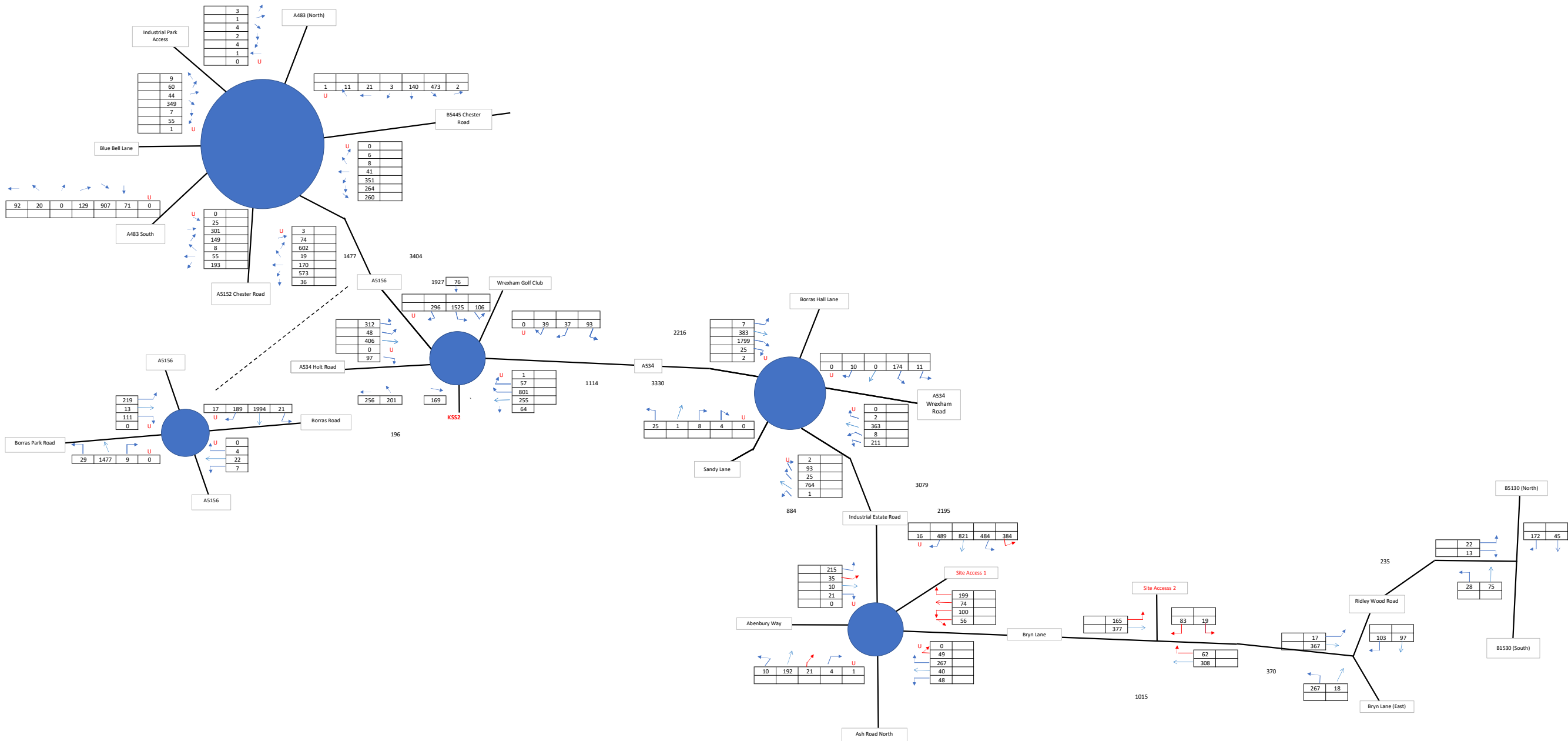


Figure 29b - 2037 Base + Development [Phase 1 + 2] + Committed [Without KSS2]
AM Peak: 0800-0900

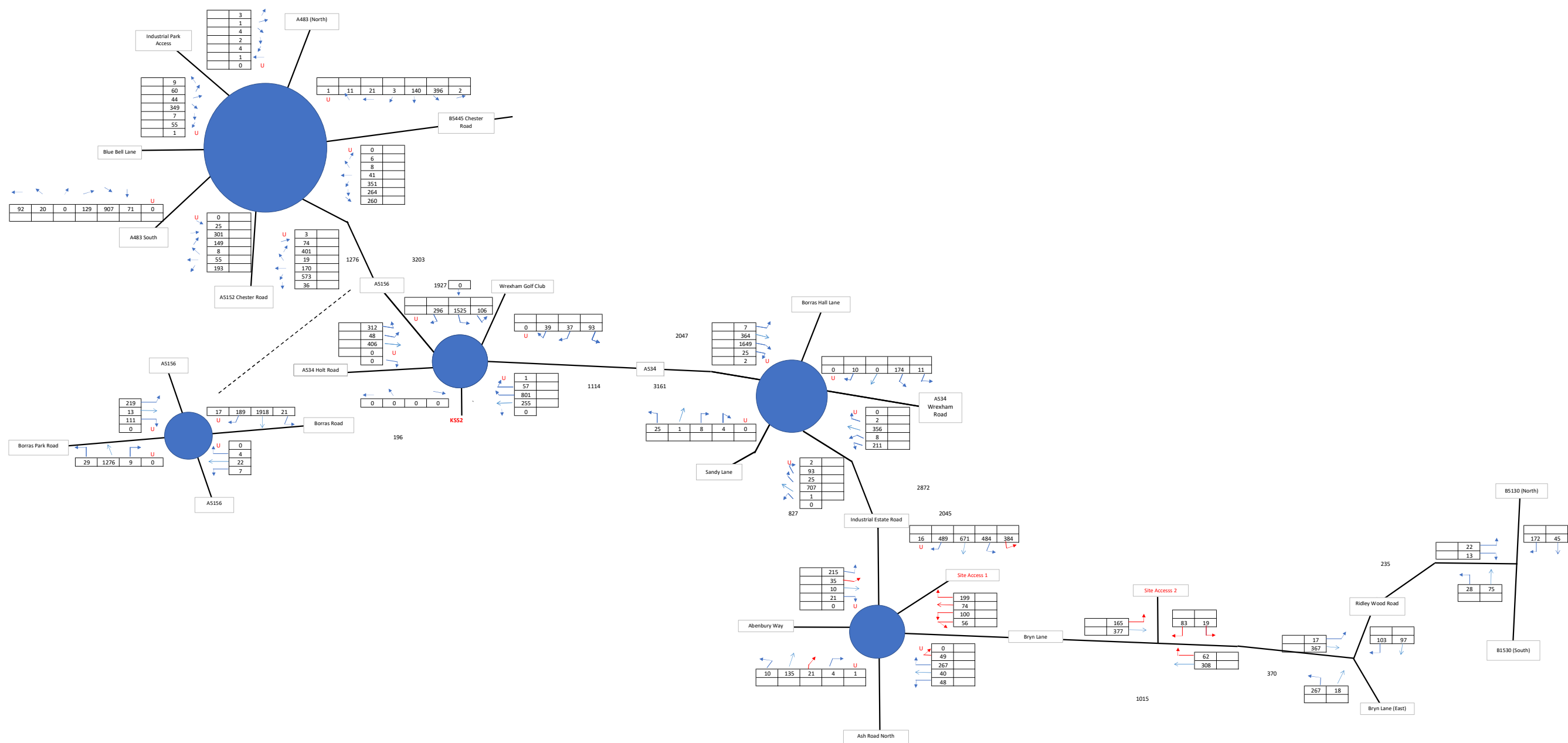


Figure 30 - 2037 Base + Development [Phase 1] + Committed
PM Peak: 1630-1730

Notes:

123

 PCUs

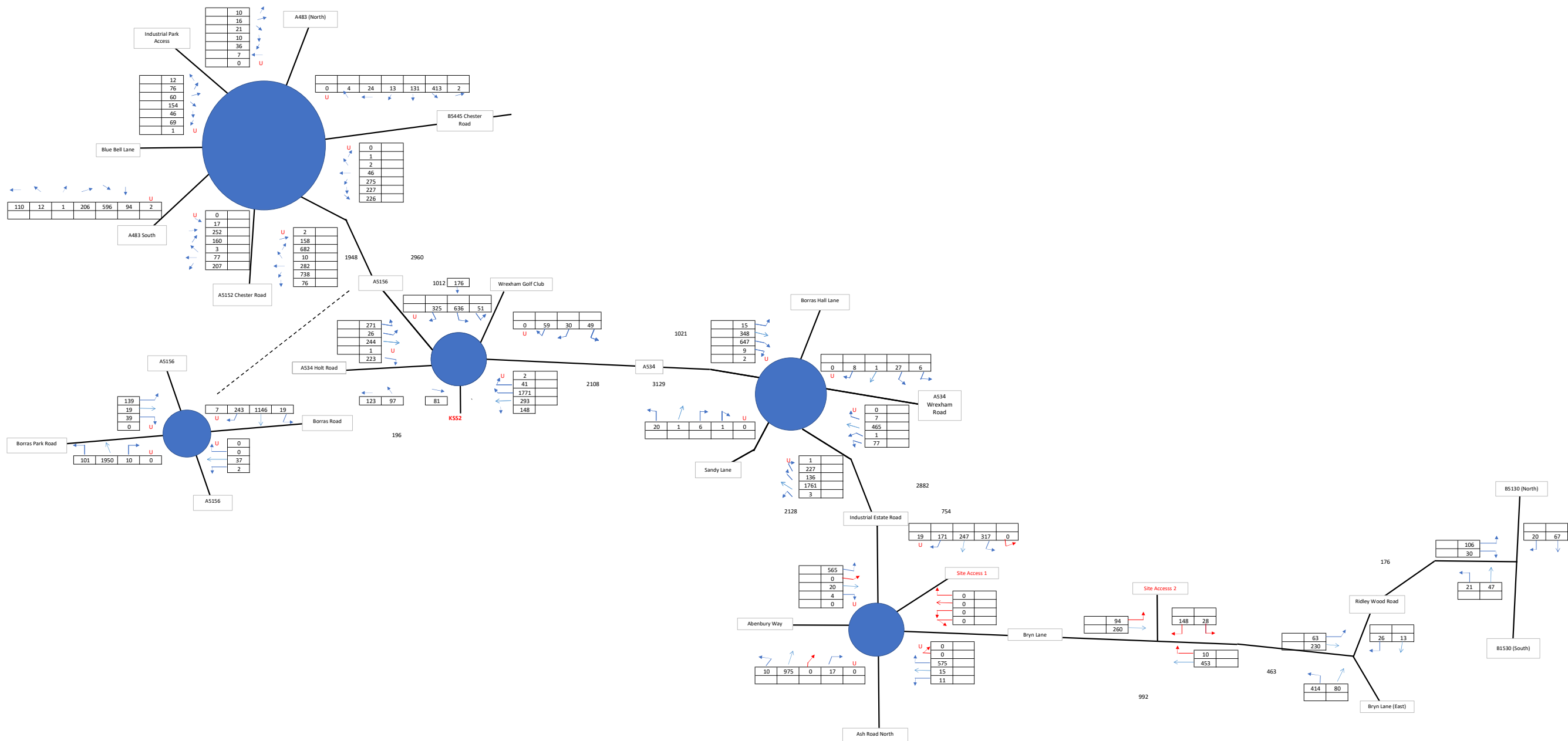


Figure 30a - 2037 Base + Development [Phase 1 + 2] + Committed
PM Peak: 1630-1730

Notes:

123

 PCUs

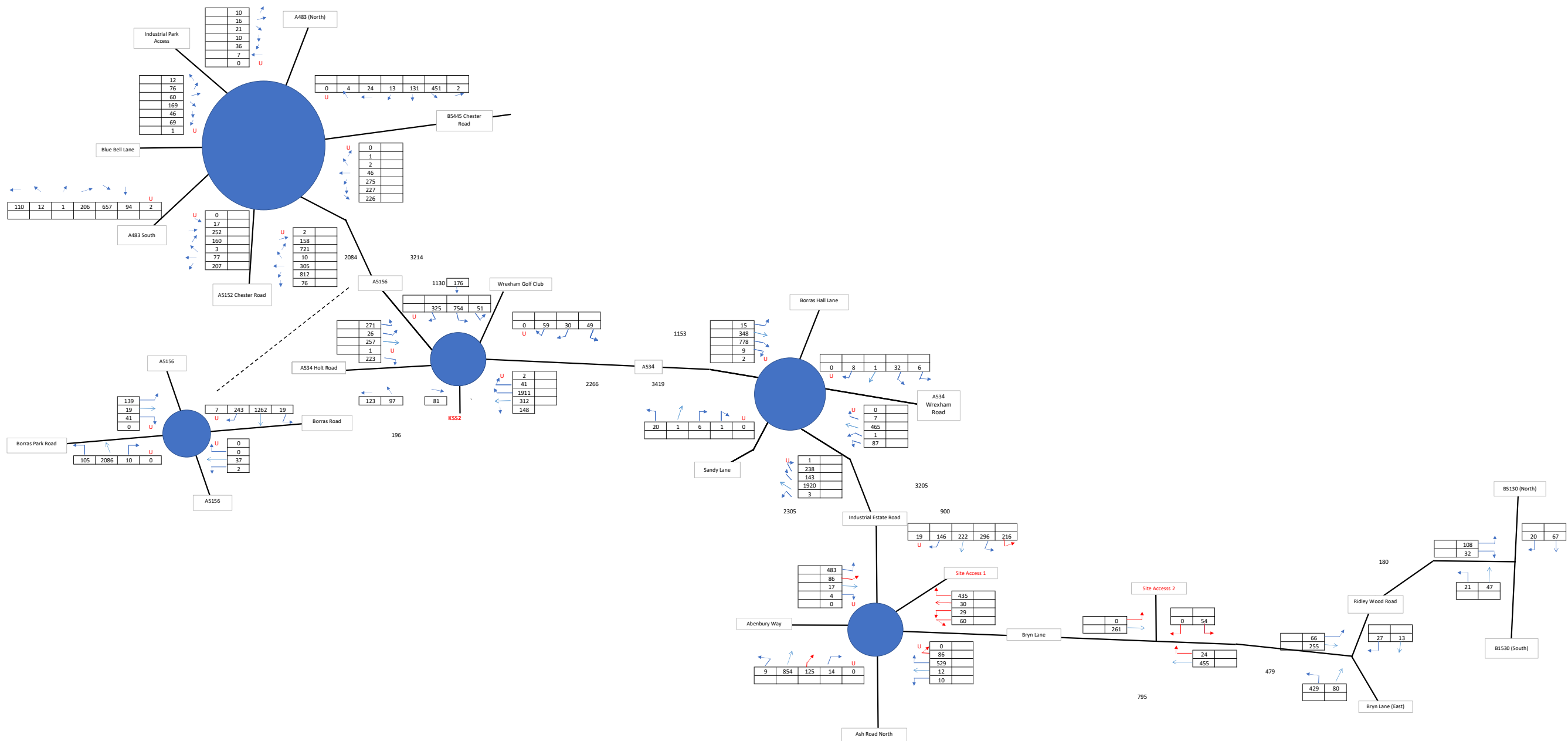
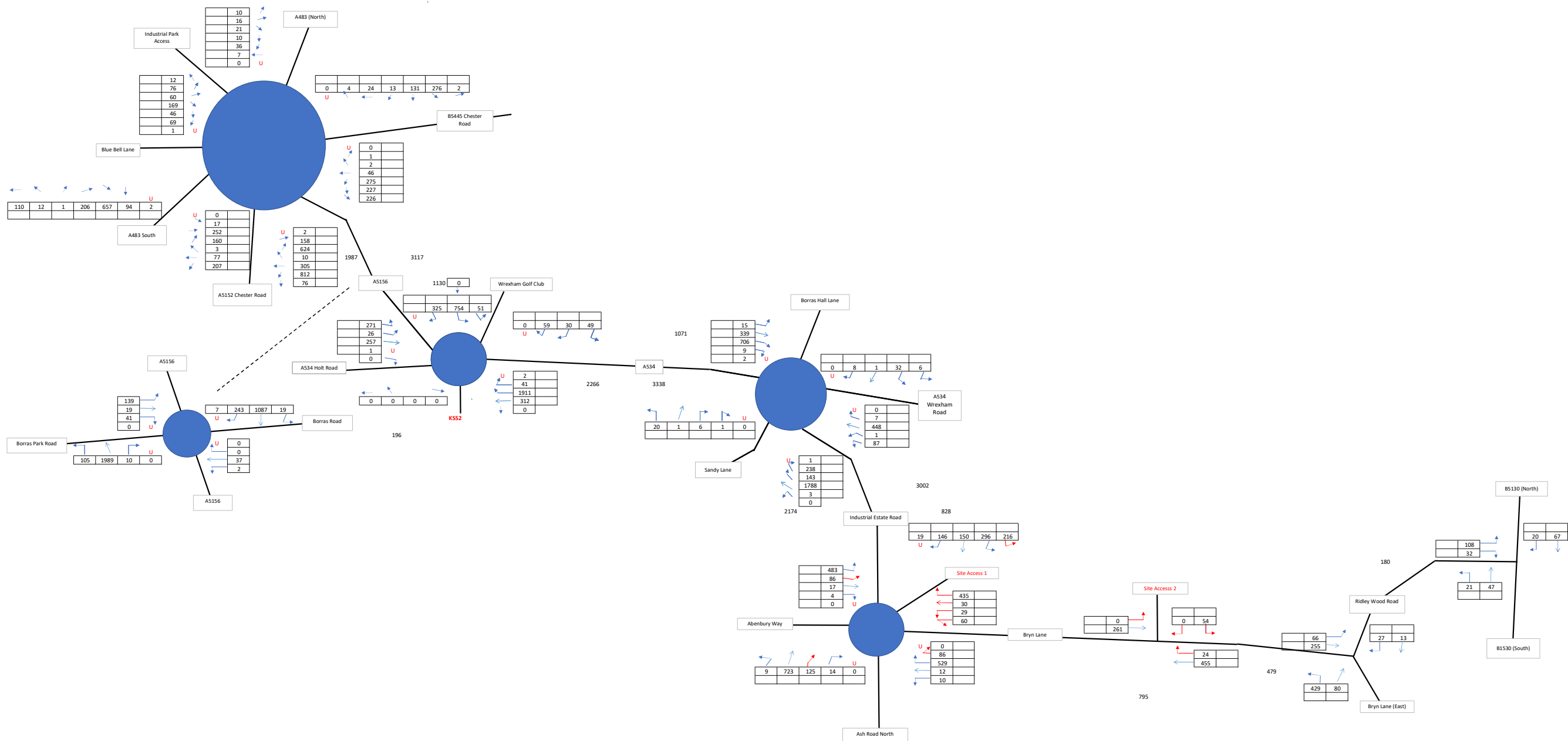


Figure 30b- 2037 Base + Development [Phase 1 + 2] + Committed [Without KSS2]
PM Peak: 1630-1730

Notes:

123

 PCUs



Appendices

Appendix TN1 - Designers response and updated site access drawings

Appendix TN2 - Existing Bryn lane / Industrial Estate Road ARCADY

Appendix TN3 – Proposed Access / Bryn lane / Industrial Estate Road ARCADY

Appendix TN4 - A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane Roundabout ARCADY

Appendix TN5 - A534 / Industrial Estate Road roundabout junction Improvements

Appendix TN6 - A534 / Industrial Estate Road roundabout junction LINSIG

Appendix TN7 - Existing A534 / A5156 / Stryt Holt roundabout junction ARCADY

Appendix TN8 - A534 / A5156 / Stryt Holt Roundabout Improvements

Appendix TN9 - A534 / A5156 / Stryt Holt Roundabout Improved ARCADY

Appendix TN10 - A534 / A5156 / Stryt Holt Roundabout KSS2 Roundabout ARCADY

Appendices

Appendix TN1 - Designers response and updated site access drawings

GG 119 Road Safety Audit Response Report	
Project Details <i>(To be completed by Design Organisation)</i>	LAND NORTH OF BRYN LANE, WREXHAM PROPOSED S278 HIGHWAY WORKS

1.0 Project Details <i>(To be completed by Design Organisation)</i>			
Report Title	LAND NORTH OF BRYN LANE, WREXHAM PROPOSED S278 HIGHWAY WORKS	Stage of RSA	Stage 1
Date	Dec 2024	Scheme Ref No.	
Prepared By	SixTen	On behalf of:	Wrexham Council

2.0 Authorisation Sheet <i>(To be completed by Design Organisation)</i>			
Prepared By		Approved By (Person in Design Organisation who is senior to Designer)	
Name	Garry Eyres	Name	Toan Chau
Position	Associate	Position	Director
Signed		Signed	
Organisation	Cora IHT Limited	Organisation	Cora IHT Limited
Date	10/10/2025	Date	10/10/2025

3.0 Key Personnel <i>(To be completed by Design Organisation)</i>		
Overseeing Organisation <i>(Delete as appropriate)</i>	Name: K W Edwards (Wrexham Council)	
Road Safety Audit Team	Jon Preston - Leader	Tristan Brook - Member
Design Organisation	Toan Chau Cora IHT Limited	

GG 119 Road Safety Audit - Decision Log

INFORMATION NOTE:

STEP 1 - (1), (2) & (3) to be completed by Design Organisation (DO). Form then to be returned to Overseeing Organisation (OO);

STEP 2 - (4) & (5) to be completed by OO and OO to sign (7), following any discussions required between the DO & OO. Form then returned to DO, by OO, for Signature; and

STEP 3 - DO sign (6) and return fully complete form to OO, copying in the RSA Team for retention on Audit file (see contact details on Audit Brief).

(1) RSA Problem	(2) RSA recommendation	(3) Design Organisation Response (see also Note 1)	(4) Overseeing Organisation Response	(5) Agreed RSA Action
Problem No: 2.3.1 Location: Proposed junction on Bryn Lane and Bryn Lane Roundabout amendments Summary: Excessive vehicular encroachment into opposing or adjacent lanes or onto the footway when manoeuvring through the junction/roundabout	<i>It is recommended that amendments should be made to the proposed design to ensure any vehicle encroachment into opposing/adjacent lanes is kept to a minimum and that vehicles do not over-run the footway.</i>	<i>Accepted</i> <i>Design updated and details to be provided at S278 stage</i>	<i><Insert the Overseeing Organisations response></i>	<i><Insert the Design Organisation and the Overseeing Organisations agreed action to the problem></i>
Problem No: 2.3.2 Location: At the proposed junction on Bryn Lane Summary: Width of right-turn lane may result in vehicles encroaching into adjacent traffic lanes resulting in head-on or side-swipe collisions	Recommendation: <i>It is recommended that the width of the right-turn lane on Bryn Lane should be increased to ensure vehicles within it do not encroach into adjacent traffic lanes.</i>	<i>Not-Accepted</i> <i>The encroachment is only for service vehicles. The site access has been designed in accordance with DMRB with a 3m right turn lane..</i> <i>If required the radii could be enlarged, at detailed design.</i>	<i><Insert the Overseeing Organisations response></i>	<i><Insert the Design Organisation and the Overseeing Organisations agreed action to the problem></i>
Problem No: 2.4.1 Location: Proposed refuge island at the Bryn Lane junction Summary: Refuge island may not be wide enough to accommodate a bicycle increasing the risk of vehicle/cyclist collisions	Recommendation: <i>It is recommended that the proposed refuge island on Bryn Lane is designed so it is wide enough to accommodate a bicycle.</i>	<i>Not-Accepted</i> <i>The ped refuge island is 2m wide and only for peds. Cyclists would be on Bryn Lane and then designated cycle lanes are provided within the site.</i>	<i><Insert the Overseeing Organisations response></i>	<i><Insert the Design Organisation and the Overseeing Organisations agreed action to the problem></i>
Problem No: 2.4.2 Location: At the proposed junction on Bryn Lane Summary: Lack of appropriate facilities for pedestrians which may result in pedestrian trips/falls	Recommendation: <i>It is recommended that uncontrolled pedestrian crossing facilities, such as dropped kerbs and tactile paving, should be provided on the proposed access road at the Bryn Lane junction.</i>	<i>Accepted</i> <i>To be provided at detailed design stage</i>	<i><Insert the Overseeing Organisations response></i>	<i><Insert the Design Organisation and the Overseeing Organisations agreed action to the problem></i>
Problem No: 2.4.3 Location: At the Bryn Lane roundabout	Recommendation:	<i>Accepted</i> <i>Design updated and details to be provided at S278 stage.</i>	<i><Insert the Overseeing Organisations response></i>	<i><Insert the Design Organisation and the Overseeing Organisations agreed action to the problem></i>

Summary: Incorrect tactile paving layout increases the risk pedestrian/vehicular collisions	It is recommended that the tactile paving layout should be amended to a standard layout for uncontrolled crossings on the arms of the Bryn Lane roundabout.			
Problem No: 2.4.4 Location: Abenbury Way arm of the Bryn Lane roundabout Summary: Uncontrolled pedestrian crossing away from the pedestrian desire line which may result in pedestrian trips/falls	Recommendation: Nearer the roundabout to incorporate the splitter islands as per the other arms of the roundabout.	Not-Accepted The ped route is as existing and the crossing points already improved.	<Insert the Overseeing Organisations response>	<Insert the Design Organisation and the Overseeing Organisations agreed action to the problem>
Problem No: 2.5.1 Location: Proposed junction on Bryn Lane Summary: Lack of street lighting for new junction arrangement may increase the risk of collisions during the hours of darkness	Recommendation: It is recommended that street lighting is provided on Bryn Lane to incorporate the proposed junction and the approaches to it.	Accepted Street lighting to be provided at detailed design stage.	<Insert the Overseeing Organisations response>	<Insert the Design Organisation and the Overseeing Organisations agreed action to the problem>

(6) DESIGN ORGANISATION STATEMENT – To be completed ONLY when RSA Action is agreed, and Overseeing Organisation has completed (4) (5) & (7)

On behalf of the Design Organisation I certify that:					
(1) the RSA actions identified in the response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.					
Name:	Toan Chau	Signed:	<Signature>	Date:	10/10/2025
Position:	Director	Organisation:	Cora IHT Limited		

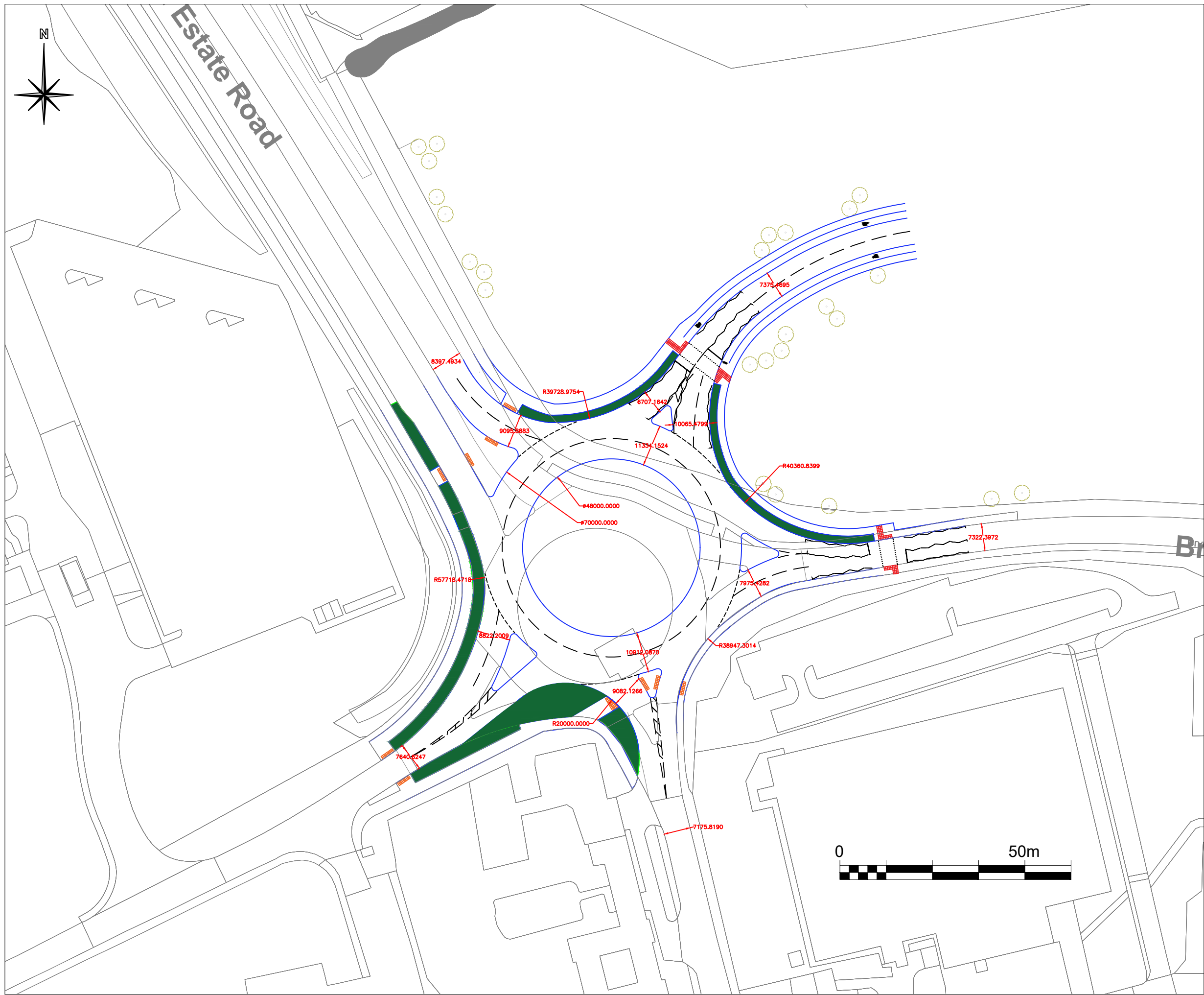
(7) OVERSEEING ORGANISATION STATEMENT - To be completed ONLY when RSA Action is agreed and boxes (4) &(5) above are complete.

On behalf of the Overseeing Organisation I certify that:					
(1) the RSA actions identified in the response to the road safety audit problems in this road safety audit have been discussed and agreed with the Design Organisation; and					
(2) the agreed RSA actions will be progressed.					
Name:	<Name>	Signed:	<Signature>	Date:	<DD/MM/YYYY>
Position:	<Job Title>	Organisation:	<Organisation Name>		

NOTE: The RSA will not be considered “closed out” until all boxes are completed and the form is signed and dated by both the DO and OO.

Note 1 – Advice (for the information of the Design Organisation) when responding to the RSreport in accordance with the requirements of GG 119. The Design Organisation shall, for each RSA problem and recommendation, do one of the following.

Response	Scenario
Accepted	Accept the RSA problem and recommendation made by the RSA Team.
Accepted – but with alternative solution	Accept the RSA problem raised, but suggest an alternative solution, giving appropriate reasoning.
Disagree	Disagree with the RSA problem and recommendation raised, giving appropriate reasoning for rejecting both.



Notes:

1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

Rev	Date	Description	Ckd	By
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CoraiHt

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Client

Net World Sports Limited

Project

North of Bryn Lane
Wrexham

Title

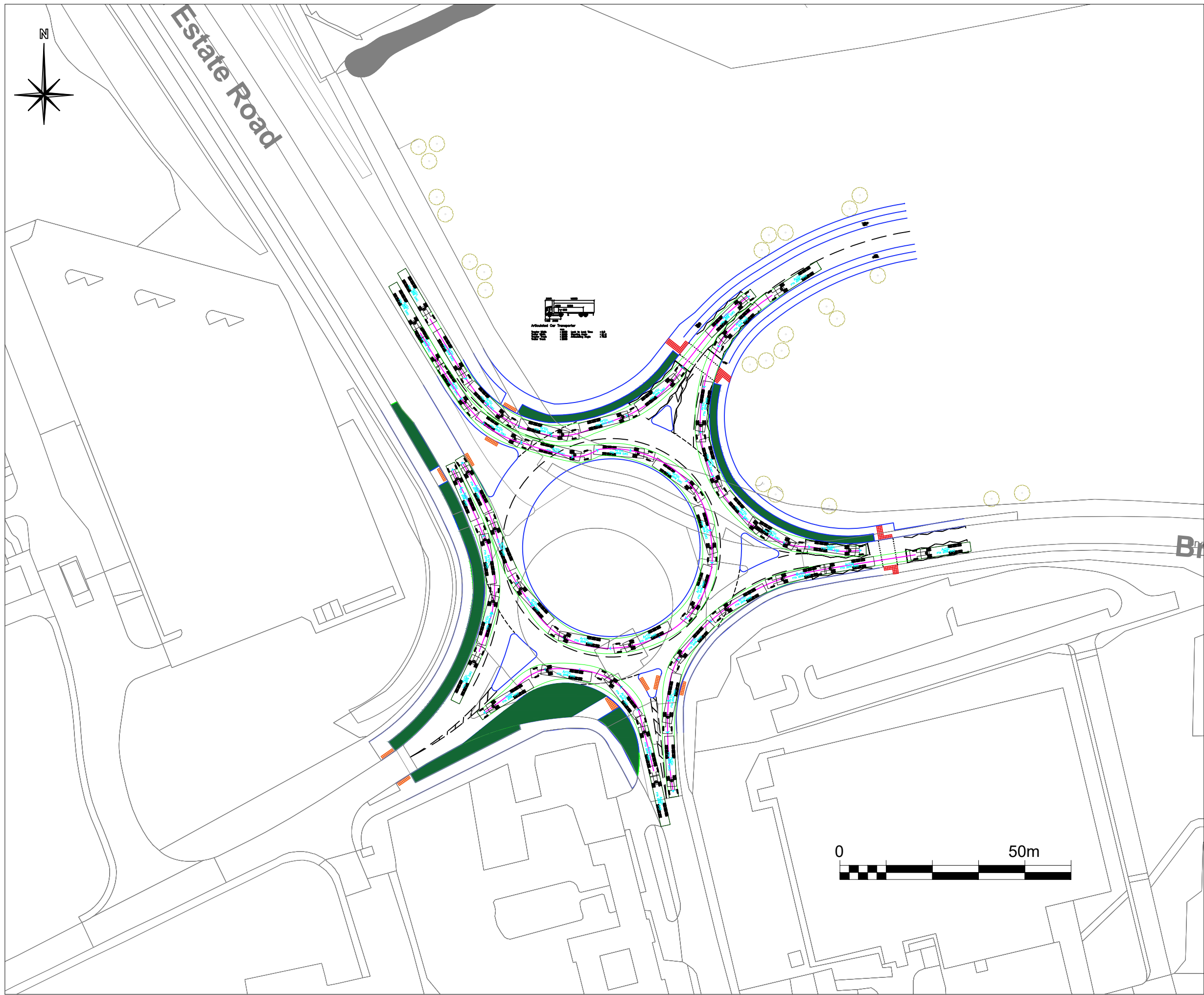
Proposed Roundabout Access
Arrangement

Drawing Status

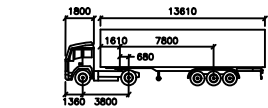
Job No. 16-2067

Drawn	Checked	Scale at A3	Date	Issue Date
MC	TC	1:1000	08/10/25	-

Drawing No. 101 C



- Notes:**
1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.



Artic		mm	Lock to Lock Time	: 6.0
Tractor Width	: 2550	Steering Angle	: 42.7	
Tractor Track	: 2550	Articulating Angle	: 70.0	
Tractor Track	: 2550			

Rev	Date	Description	Ckd	By
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Cora^{iHt}

Adamson House, Towers Business Park
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Client

Net World Sports Limited

Project

North of Bryn Lane
Wrexham

Title

Proposed Roundabout
Access Arrangement
Tracking

Drawing Status

Job No. 16-2067

Drawn	Checked	Scale at A3	Date	Issue Date
MC	TC	1:1000	08/10/25	-

Drawing No. 104 A

Appendix TN2 - Existing Bryn lane / Industrial Estate Road ARCADY

Junctions 10		
ARCADY 10 - Roundabout Module		
Version: 10.0.1.1519		
© Copyright TRL Software Limited, 2021		
For sales and distribution information, program advice and maintenance, contact TRL Software:		
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com		
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution		

Filename: Industrial Estate Road, Wrexham ARCADY (Existing).j10

Path: D:\Cora IHT\Wrexham (2)\September 2025

Report generation date: 13/11/2025 13:27:57

-
- »2030 Base, AM
 - »2030 Base, PM
 - »2030 Base + Committed, AM
 - »2030 Base + Committed, PM
 - »2030 Base + Committed + Development (Phase 1), AM
 - »2030 Base + Committed + Development (Phase 1), PM
 - »2030 Base + Committed + Development (Phase 1) [Sens], AM
 - »2030 Base + Committed + Development (Phase 1) [Sens], PM
 - »2030 Base + Development (Phase 1), AM
 - »2030 Base + Development (Phase 1), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2030 Base									
1 - Bryn Lane	D1	0.4	6.07	0.26	A	D2	0.3	3.24	0.23	A
2 - Ash Road North		0.2	4.23	0.14	A		1.7	7.04	0.63	A
3 - Abenbury Way		0.3	4.15	0.25	A		5.1	32.02	0.85	D
4 - Industrial Estate Road		2.0	4.47	0.66	A		0.3	2.00	0.21	A
	2030 Base + Committed									
1 - Bryn Lane	D3	0.9	8.90	0.41	A	D4	0.7	4.20	0.39	A
2 - Ash Road North		0.3	4.77	0.20	A		4.3	15.23	0.81	C
3 - Abenbury Way		0.4	4.59	0.27	A		48.3	258.63	1.16	F
4 - Industrial Estate Road		4.3	7.81	0.81	A		0.5	2.23	0.29	A
	2030 Base + Committed + Development (Phase 1)									
1 - Bryn Lane	D5	1.3	11.05	0.52	B	D6	1.1	5.13	0.50	A
2 - Ash Road North		0.3	5.02	0.20	A		6.5	23.51	0.88	C
3 - Abenbury Way		0.4	4.87	0.28	A		86.9	493.19	1.37	F
4 - Industrial Estate Road		7.3	12.35	0.88	B		0.5	2.35	0.34	A
	2030 Base + Committed + Development (Phase 1) [Sens]									
1 - Bryn Lane	D7	1.1	8.97	0.47	A	D8	1.0	4.84	0.49	A
2 - Ash Road North		0.2	4.70	0.15	A		3.1	12.45	0.76	B
3 - Abenbury Way		0.4	4.68	0.27	A		53.2	285.41	1.19	F
4 - Industrial Estate Road		4.5	8.10	0.81	A		0.5	2.24	0.30	A
	2030 Base + Development (Phase 1)									
1 - Bryn Lane	D9	0.7	7.16	0.35	A	D10	0.5	3.75	0.34	A
2 - Ash Road North		0.2	4.42	0.14	A		2.1	8.47	0.67	A
3 - Abenbury Way		0.4	4.37	0.26	A		11.9	73.28	0.96	F
4 - Industrial Estate Road		2.9	5.69	0.73	A		0.4	2.09	0.25	A

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

File summary

File Description

Title	Industrial Estate Road / Bryn Lane / Ash Road North / Abenbury Way
Location	Wrexham
Site number	
Date	09/02/2023
Version	
Status	(new file)
Identifier	
Client	LIDL
Jobnumber	
Enumerator	LAPTOP-DTQ9HGBB\mchau
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base	AM	ONE HOUR	07:45	09:15	15
D2	2030 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D5	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D6	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15
D9	2030 Base + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D10	2030 Base + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2030 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

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

Junction Network

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

Arms

Arms

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

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Bryn Lane	3.60	7.00	17.7	40.7	59.7	34.6		
2 - Ash Road North	3.60	7.50	21.0	10.0	59.7	35.2		
3 - Abenbury Way	3.60	5.00	5.0	60.3	59.7	34.5		
4 - Industrial Estate Road	7.00	9.70	7.5	48.0	59.7	34.2		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bryn Lane	0.569	1744
2 - Ash Road North	0.543	1709
3 - Abenbury Way	0.500	1337
4 - Industrial Estate Road	0.708	2536

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

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	218	100.000
2 - Ash Road North		✓	160	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1506	100.000

Origin-Destination Data

Demand (PCU/hr)

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

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.26	6.07	0.4	A
2 - Ash Road North	0.14	4.23	0.2	A
3 - Abenbury Way	0.25	4.15	0.3	A
4 - Industrial Estate Road	0.66	4.47	2.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	164	963	1197	0.137	163	0.2	4.118	A
2 - Ash Road North	120	533	1420	0.085	120	0.1	3.605	A
3 - Abenbury Way	200	215	1229	0.163	199	0.2	3.566	A
4 - Industrial Estate Road	1134	28	2516	0.451	1130	0.9	2.729	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	196	1152	1089	0.180	196	0.3	4.765	A
2 - Ash Road North	144	638	1363	0.106	144	0.2	3.843	A
3 - Abenbury Way	239	258	1208	0.198	239	0.3	3.790	A
4 - Industrial Estate Road	1354	34	2512	0.539	1352	1.2	3.265	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	240	1410	942	0.255	239	0.4	6.051	A
2 - Ash Road North	176	780	1286	0.137	176	0.2	4.223	A
3 - Abenbury Way	293	315	1179	0.248	293	0.3	4.143	A
4 - Industrial Estate Road	1658	42	2506	0.662	1655	2.0	4.435	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	240	1413	941	0.255	240	0.4	6.074	A
2 - Ash Road North	176	782	1285	0.137	176	0.2	4.226	A
3 - Abenbury Way	293	316	1179	0.248	293	0.3	4.145	A
4 - Industrial Estate Road	1658	42	2506	0.662	1658	2.0	4.469	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	196	1156	1087	0.180	197	0.3	4.785	A
2 - Ash Road North	144	640	1362	0.106	144	0.2	3.849	A
3 - Abenbury Way	239	259	1208	0.198	239	0.3	3.797	A
4 - Industrial Estate Road	1354	34	2512	0.539	1357	1.2	3.294	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	164	967	1194	0.137	164	0.2	4.137	A
2 - Ash Road North	120	535	1419	0.085	121	0.1	3.612	A
3 - Abenbury Way	200	216	1229	0.163	200	0.2	3.572	A
4 - Industrial Estate Road	1134	29	2516	0.451	1135	0.9	2.751	A

2030 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	11.80	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.80	B

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	325	100.000
2 - Ash Road North		✓	810	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	475	100.000

Origin-Destination Data

Demand (PCU/hr)

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

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.23	3.24	0.3	A
2 - Ash Road North	0.63	7.04	1.7	A
3 - Abenbury Way	0.85	32.02	5.1	D
4 - Industrial Estate Road	0.21	2.00	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	245	261	1596	0.153	244	0.2	2.798	A
2 - Ash Road North	610	371	1508	0.404	607	0.7	4.072	A
3 - Abenbury Way	420	838	918	0.458	417	0.8	7.153	A
4 - Industrial Estate Road	358	29	2515	0.142	357	0.2	1.836	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	292	313	1566	0.187	292	0.2	2.969	A
2 - Ash Road North	728	444	1468	0.496	727	1.0	4.954	A
3 - Abenbury Way	502	1004	835	0.601	499	1.5	10.656	B
4 - Industrial Estate Road	427	35	2511	0.170	427	0.2	1.901	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	358	383	1526	0.234	358	0.3	3.237	A
2 - Ash Road North	892	543	1414	0.631	889	1.7	6.966	A
3 - Abenbury Way	614	1228	723	0.850	601	4.7	27.219	D
4 - Industrial Estate Road	523	42	2506	0.209	523	0.3	1.999	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	358	383	1526	0.234	358	0.3	3.238	A
2 - Ash Road North	892	544	1414	0.631	892	1.7	7.041	A
3 - Abenbury Way	614	1231	721	0.852	613	5.1	32.022	D
4 - Industrial Estate Road	523	43	2506	0.209	523	0.3	1.999	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	292	313	1566	0.187	292	0.2	2.971	A
2 - Ash Road North	728	444	1468	0.496	731	1.0	5.012	A
3 - Abenbury Way	502	1008	833	0.602	516	1.6	11.869	B
4 - Industrial Estate Road	427	36	2511	0.170	427	0.2	1.902	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	245	262	1595	0.153	245	0.2	2.804	A
2 - Ash Road North	610	372	1507	0.405	611	0.7	4.111	A
3 - Abenbury Way	420	843	915	0.459	423	0.9	7.368	A
4 - Industrial Estate Road	358	30	2515	0.142	358	0.2	1.837	A

2030 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.37	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	317	100.000
2 - Ash Road North		✓	218	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1837	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	52	43	222
	2 - Ash Road North	4	1	11	202
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	418	875	529	15

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.41	8.90	0.9	A
2 - Ash Road North	0.20	4.77	0.3	A
3 - Abenbury Way	0.27	4.59	0.4	A
4 - Industrial Estate Road	0.81	7.81	4.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	239	1082	1129	0.211	237	0.3	4.906	A
2 - Ash Road North	164	606	1380	0.119	163	0.2	3.864	A
3 - Abenbury Way	200	333	1171	0.171	199	0.2	3.779	A
4 - Industrial Estate Road	1383	28	2516	0.550	1378	1.3	3.315	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	285	1294	1008	0.283	284	0.5	6.047	A
2 - Ash Road North	196	726	1315	0.149	196	0.2	4.202	A
3 - Abenbury Way	239	399	1138	0.210	239	0.3	4.086	A
4 - Industrial Estate Road	1651	34	2512	0.657	1649	2.0	4.374	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	349	1581	845	0.413	348	0.8	8.778	A
2 - Ash Road North	240	887	1228	0.195	240	0.3	4.758	A
3 - Abenbury Way	293	487	1093	0.268	292	0.4	4.586	A
4 - Industrial Estate Road	2023	42	2506	0.807	2014	4.2	7.555	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	349	1587	841	0.415	349	0.9	8.896	A
2 - Ash Road North	240	891	1226	0.196	240	0.3	4.770	A
3 - Abenbury Way	293	489	1092	0.268	293	0.4	4.594	A
4 - Industrial Estate Road	2023	42	2506	0.807	2022	4.3	7.812	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	285	1303	1003	0.284	286	0.5	6.128	A
2 - Ash Road North	196	731	1313	0.149	196	0.2	4.215	A
3 - Abenbury Way	239	401	1137	0.210	240	0.3	4.096	A
4 - Industrial Estate Road	1651	34	2512	0.657	1660	2.0	4.496	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	239	1088	1125	0.212	239	0.3	4.946	A
2 - Ash Road North	164	610	1378	0.119	164	0.2	3.876	A
3 - Abenbury Way	200	335	1169	0.171	201	0.2	3.794	A
4 - Industrial Estate Road	1383	29	2516	0.550	1386	1.3	3.362	A

2030 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	59.91	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	59.91	F

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	530	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	670	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	14	505
	2 - Ash Road North	16	0	10	930
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	252	238	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.39	4.20	0.7	A
2 - Ash Road North	0.81	15.23	4.3	C
3 - Abenbury Way	1.16	258.63	48.3	F
4 - Industrial Estate Road	0.29	2.23	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	399	317	1564	0.255	398	0.4	3.226	A
2 - Ash Road North	720	525	1425	0.505	716	1.0	5.158	A
3 - Abenbury Way	420	1100	787	0.534	416	1.1	9.612	A
4 - Industrial Estate Road	504	29	2515	0.201	503	0.3	1.959	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	379	1529	0.312	476	0.5	3.578	A
2 - Ash Road North	859	628	1369	0.628	857	1.7	7.150	A
3 - Abenbury Way	502	1318	678	0.740	496	2.6	19.160	C
4 - Industrial Estate Road	602	35	2511	0.240	602	0.3	2.066	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	584	464	1480	0.394	583	0.7	4.194	A
2 - Ash Road North	1053	769	1292	0.815	1043	4.1	14.218	B
3 - Abenbury Way	614	1607	533	1.152	520	26.3	118.785	F
4 - Industrial Estate Road	738	39	2509	0.294	737	0.5	2.227	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	584	464	1480	0.394	584	0.7	4.202	A
2 - Ash Road North	1053	770	1292	0.815	1052	4.3	15.231	C
3 - Abenbury Way	614	1617	528	1.163	526	48.3	258.633	F
4 - Industrial Estate Road	738	39	2508	0.294	738	0.5	2.227	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	381	1528	0.312	477	0.5	3.589	A
2 - Ash Road North	859	629	1368	0.628	870	1.8	7.526	A
3 - Abenbury Way	502	1331	671	0.748	657	9.4	165.245	F
4 - Industrial Estate Road	602	42	2507	0.240	603	0.3	2.072	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	399	318	1563	0.255	399	0.4	3.241	A
2 - Ash Road North	720	527	1423	0.506	723	1.1	5.270	A
3 - Abenbury Way	420	1109	782	0.537	453	1.2	12.026	B
4 - Industrial Estate Road	504	31	2514	0.201	505	0.3	1.963	A

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

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.93	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.93	B

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	400	100.000
2 - Ash Road North		✓	218	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	2002	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	52	43	305
	2 - Ash Road North	4	1	11	202
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	583	875	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.52	11.05	1.3	B
2 - Ash Road North	0.20	5.02	0.3	A
3 - Abenbury Way	0.28	4.87	0.4	A
4 - Industrial Estate Road	0.88	12.35	7.3	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	1081	1129	0.267	299	0.4	5.339	A
2 - Ash Road North	164	668	1347	0.122	163	0.2	3.973	A
3 - Abenbury Way	200	395	1140	0.176	199	0.2	3.904	A
4 - Industrial Estate Road	1507	28	2516	0.599	1501	1.6	3.714	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1293	1009	0.357	359	0.7	6.821	A
2 - Ash Road North	196	800	1275	0.154	196	0.2	4.356	A
3 - Abenbury Way	239	473	1100	0.217	239	0.3	4.263	A
4 - Industrial Estate Road	1800	34	2512	0.716	1796	2.6	5.261	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1575	848	0.519	438	1.3	10.752	B
2 - Ash Road North	240	975	1180	0.203	240	0.3	4.999	A
3 - Abenbury Way	293	578	1048	0.279	292	0.4	4.859	A
4 - Industrial Estate Road	2204	42	2506	0.879	2187	7.0	11.290	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1587	842	0.523	440	1.3	11.051	B
2 - Ash Road North	240	982	1177	0.204	240	0.3	5.022	A
3 - Abenbury Way	293	580	1047	0.280	293	0.4	4.872	A
4 - Industrial Estate Road	2204	42	2506	0.879	2203	7.3	12.355	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1309	1000	0.360	362	0.7	6.994	A
2 - Ash Road North	196	809	1270	0.154	196	0.2	4.381	A
3 - Abenbury Way	239	476	1099	0.218	240	0.3	4.279	A
4 - Industrial Estate Road	1800	34	2512	0.717	1818	2.7	5.603	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	1089	1125	0.268	302	0.5	5.401	A
2 - Ash Road North	164	674	1344	0.122	164	0.2	3.990	A
3 - Abenbury Way	200	398	1138	0.176	201	0.2	3.919	A
4 - Industrial Estate Road	1507	29	2516	0.599	1512	1.6	3.792	A

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

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	102.45	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	102.45	F

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	679	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	764	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	14	654
	2 - Ash Road North	16	0	10	930
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	346	238	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.50	5.13	1.1	A
2 - Ash Road North	0.88	23.51	6.5	C
3 - Abenbury Way	1.37	493.19	86.9	F
4 - Industrial Estate Road	0.34	2.35	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	317	1564	0.327	509	0.5	3.562	A
2 - Ash Road North	720	636	1364	0.528	715	1.1	5.632	A
3 - Abenbury Way	420	1212	731	0.575	415	1.3	11.232	B
4 - Industrial Estate Road	575	29	2515	0.229	574	0.3	2.020	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	379	1529	0.399	610	0.7	4.091	A
2 - Ash Road North	859	762	1296	0.663	856	2.0	8.297	A
3 - Abenbury Way	502	1451	612	0.820	491	3.9	27.902	D
4 - Industrial Estate Road	687	35	2512	0.273	686	0.4	2.150	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	463	1481	0.505	746	1.1	5.112	A
2 - Ash Road North	1053	932	1203	0.875	1036	6.0	20.287	C
3 - Abenbury Way	614	1764	455	1.351	450	45.0	214.415	F
4 - Industrial Estate Road	841	36	2511	0.335	841	0.5	2.349	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	463	1481	0.505	748	1.1	5.133	A
2 - Ash Road North	1053	934	1203	0.875	1051	6.5	23.510	C
3 - Abenbury Way	614	1780	447	1.375	447	86.9	493.191	F
4 - Industrial Estate Road	841	36	2511	0.335	841	0.5	2.350	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	380	1528	0.400	612	0.7	4.115	A
2 - Ash Road North	859	764	1295	0.664	877	2.1	9.162	A
3 - Abenbury Way	502	1474	600	0.836	593	64.0	442.516	F
4 - Industrial Estate Road	687	39	2508	0.274	687	0.4	2.156	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	320	1562	0.327	512	0.5	3.584	A
2 - Ash Road North	720	639	1362	0.528	723	1.2	5.790	A
3 - Abenbury Way	420	1222	726	0.579	670	1.6	148.361	F
4 - Industrial Estate Road	575	40	2508	0.229	576	0.3	2.032	A

2030 Base + Committed + Development (Phase 1) [Sens], AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.68	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2030 Base + Committed + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	400	100.000
2 - Ash Road North		✓	162	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1852	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	52	43	305
	2 - Ash Road North	4	1	11	146
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	583	725	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.47	8.97	1.1	A
2 - Ash Road North	0.15	4.70	0.2	A
3 - Abenbury Way	0.27	4.68	0.4	A
4 - Industrial Estate Road	0.81	8.10	4.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	969	1193	0.252	299	0.4	4.959	A
2 - Ash Road North	122	669	1347	0.091	121	0.1	3.824	A
3 - Abenbury Way	200	353	1161	0.173	199	0.2	3.818	A
4 - Industrial Estate Road	1394	28	2516	0.554	1389	1.3	3.354	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1159	1085	0.331	359	0.6	6.109	A
2 - Ash Road North	146	800	1275	0.114	145	0.2	4.150	A
3 - Abenbury Way	239	423	1126	0.212	239	0.3	4.142	A
4 - Industrial Estate Road	1665	34	2512	0.663	1662	2.0	4.449	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1416	939	0.469	439	1.1	8.841	A
2 - Ash Road North	178	978	1179	0.151	178	0.2	4.683	A
3 - Abenbury Way	293	517	1078	0.272	292	0.4	4.672	A
4 - Industrial Estate Road	2039	42	2506	0.814	2030	4.4	7.808	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1422	935	0.471	440	1.1	8.967	A
2 - Ash Road North	178	982	1176	0.152	178	0.2	4.696	A
3 - Abenbury Way	293	519	1078	0.272	293	0.4	4.681	A
4 - Industrial Estate Road	2039	42	2506	0.814	2039	4.5	8.096	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1168	1080	0.333	361	0.6	6.197	A
2 - Ash Road North	146	806	1272	0.115	146	0.2	4.164	A
3 - Abenbury Way	239	425	1124	0.213	240	0.3	4.153	A
4 - Industrial Estate Road	1665	34	2512	0.663	1674	2.1	4.583	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	975	1190	0.253	302	0.4	5.006	A
2 - Ash Road North	122	673	1344	0.091	122	0.1	3.836	A
3 - Abenbury Way	200	355	1159	0.173	201	0.2	3.835	A
4 - Industrial Estate Road	1394	29	2516	0.554	1397	1.3	3.402	A

2030 Base + Committed + Development (Phase 1) [Sens], PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	63.31	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	63.31	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 Base + Committed + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	679	100.000
2 - Ash Road North		✓	825	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	692	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	11	14	654
	2 - Ash Road North	16	0	10	799
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	346	166	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.49	4.84	1.0	A
2 - Ash Road North	0.76	12.45	3.1	B
3 - Abenbury Way	1.19	285.41	53.2	F
4 - Industrial Estate Road	0.30	2.24	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	263	1595	0.321	509	0.5	3.461	A
2 - Ash Road North	621	636	1364	0.455	618	0.8	4.909	A
3 - Abenbury Way	420	1114	780	0.539	416	1.1	9.786	A
4 - Industrial Estate Road	521	29	2515	0.207	520	0.3	1.956	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	314	1565	0.390	610	0.7	3.935	A
2 - Ash Road North	742	762	1296	0.572	740	1.3	6.590	A
3 - Abenbury Way	502	1334	670	0.749	495	2.8	19.967	C
4 - Industrial Estate Road	622	35	2511	0.248	622	0.4	2.067	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	384	1526	0.490	746	1.0	4.821	A
2 - Ash Road North	908	932	1203	0.755	902	3.0	11.943	B
3 - Abenbury Way	614	1629	522	1.177	510	28.8	129.636	F
4 - Industrial Estate Road	762	39	2509	0.304	761	0.5	2.235	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	385	1525	0.490	748	1.0	4.837	A
2 - Ash Road North	908	934	1203	0.755	908	3.1	12.453	B
3 - Abenbury Way	614	1637	518	1.185	517	53.2	285.406	F
4 - Industrial Estate Road	762	39	2509	0.304	762	0.5	2.235	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	316	1565	0.390	612	0.7	3.956	A
2 - Ash Road North	742	764	1295	0.573	748	1.4	6.812	A
3 - Abenbury Way	502	1345	664	0.755	652	15.6	194.919	F
4 - Industrial Estate Road	622	41	2507	0.248	623	0.4	2.074	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	264	1594	0.321	512	0.5	3.481	A
2 - Ash Road North	621	639	1362	0.456	623	0.9	4.993	A
3 - Abenbury Way	420	1122	776	0.542	477	1.2	14.536	B
4 - Industrial Estate Road	521	32	2514	0.207	521	0.3	1.962	A

2030 Base + Development (Phase 1), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.64	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2030 Base + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	301	100.000
2 - Ash Road North		✓	160	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1671	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	52	43	206
	2 - Ash Road North	4	1	11	144
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	411	716	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.35	7.16	0.7	A
2 - Ash Road North	0.14	4.42	0.2	A
3 - Abenbury Way	0.26	4.37	0.4	A
4 - Industrial Estate Road	0.73	5.69	2.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	227	963	1197	0.189	225	0.3	4.491	A
2 - Ash Road North	120	595	1387	0.087	120	0.1	3.700	A
3 - Abenbury Way	200	277	1198	0.167	199	0.2	3.674	A
4 - Industrial Estate Road	1258	28	2516	0.500	1254	1.0	2.996	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	271	1152	1089	0.248	270	0.4	5.329	A
2 - Ash Road North	144	712	1323	0.109	144	0.2	3.974	A
3 - Abenbury Way	239	332	1171	0.204	239	0.3	3.941	A
4 - Industrial Estate Road	1502	34	2512	0.598	1500	1.6	3.741	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	331	1409	943	0.351	330	0.6	7.115	A
2 - Ash Road North	176	871	1237	0.142	176	0.2	4.416	A
3 - Abenbury Way	293	406	1134	0.258	293	0.4	4.365	A
4 - Industrial Estate Road	1840	42	2506	0.734	1835	2.8	5.603	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	331	1413	941	0.352	331	0.7	7.163	A
2 - Ash Road North	176	873	1236	0.143	176	0.2	4.424	A
3 - Abenbury Way	293	407	1133	0.258	293	0.4	4.371	A
4 - Industrial Estate Road	1840	42	2506	0.734	1840	2.9	5.688	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	271	1157	1086	0.249	272	0.4	5.369	A
2 - Ash Road North	144	715	1321	0.109	144	0.2	3.984	A
3 - Abenbury Way	239	334	1170	0.204	239	0.3	3.948	A
4 - Industrial Estate Road	1502	34	2512	0.598	1507	1.6	3.798	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	227	968	1194	0.190	227	0.3	4.519	A
2 - Ash Road North	120	598	1385	0.087	121	0.1	3.707	A
3 - Abenbury Way	200	279	1197	0.167	200	0.2	3.688	A
4 - Industrial Estate Road	1258	29	2516	0.500	1260	1.1	3.025	A

2030 Base + Development (Phase 1), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	21.04	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.04	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2030 Base + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	473	100.000
2 - Ash Road North		✓	810	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	569	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	14	448
	2 - Ash Road North	16	0	10	784
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	225	164	162	18

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.34	3.75	0.5	A
2 - Ash Road North	0.67	8.47	2.1	A
3 - Abenbury Way	0.96	73.28	11.9	F
4 - Industrial Estate Road	0.25	2.09	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	356	261	1596	0.223	355	0.3	3.037	A
2 - Ash Road North	610	482	1448	0.421	607	0.7	4.361	A
3 - Abenbury Way	420	949	862	0.487	416	0.9	8.023	A
4 - Industrial Estate Road	428	29	2515	0.170	427	0.2	1.883	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	425	313	1566	0.271	425	0.4	3.304	A
2 - Ash Road North	728	577	1396	0.521	727	1.1	5.482	A
3 - Abenbury Way	502	1136	769	0.653	498	1.8	13.164	B
4 - Industrial Estate Road	512	35	2511	0.204	511	0.3	1.966	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	521	383	1527	0.341	520	0.5	3.746	A
2 - Ash Road North	892	706	1326	0.673	888	2.0	8.328	A
3 - Abenbury Way	614	1390	642	0.957	585	9.2	48.508	E
4 - Industrial Estate Road	626	42	2507	0.250	626	0.4	2.091	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	521	383	1526	0.341	521	0.5	3.750	A
2 - Ash Road North	892	707	1326	0.673	892	2.1	8.471	A
3 - Abenbury Way	614	1394	640	0.960	603	11.9	73.278	F
4 - Industrial Estate Road	626	42	2506	0.250	626	0.4	2.092	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	425	313	1566	0.272	426	0.4	3.311	A
2 - Ash Road North	728	578	1396	0.522	732	1.1	5.575	A
3 - Abenbury Way	502	1142	766	0.655	541	2.0	18.745	C
4 - Industrial Estate Road	512	37	2510	0.204	512	0.3	1.970	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	356	262	1595	0.223	356	0.3	3.047	A
2 - Ash Road North	610	484	1447	0.421	611	0.8	4.411	A
3 - Abenbury Way	420	955	859	0.489	424	1.0	8.364	A
4 - Industrial Estate Road	428	30	2515	0.170	429	0.2	1.887	A

Appendix TN3 – Proposed Access / Bryn lane / Industrial Estate Road ARCADY

Junctions 10		
ARCADY 10 - Roundabout Module		
Version: 10.0.1.1519		
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Filename: Proposed Site Access ARCADY (Impr) v2.j10

Path: D:\Cora IHT\Wrexham (2)\September 2025

Report generation date: 13/11/2025 13:45:44

-
- »2030 Base + Committed, AM
 - »2030 Base + Committed, PM
 - »2030 Base + Committed + Development (Phase 1), AM
 - »2030 Base + Committed + Development (Phase 1), PM
 - »2030 Base + Committed + Development (Phase 1 + 2), AM
 - »2030 Base + Committed + Development (Phase 1 + 2), PM
 - »2037 Base + Committed, AM
 - »2037 Base + Committed, PM
 - »2037 Base + Committed + Development (Phase 1), AM
 - »2037 Base + Committed + Development (Phase 1), PM
 - »2037 Base + Committed + Development (Phase 1 + 2), AM
 - »2037 Base + Committed + Development (Phase 1 + 2), PM
 - »2030 Base + Committed + Development (Phase 1) [Sens], AM
 - »2030 Base + Committed + Development (Phase 1) [Sens], PM
 - »2037 Base + Committed + Development (Phase 1 + 2) [Sens], AM
 - »2037 Base + Committed + Development (Phase 1 + 2) [Sens], PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2030 Base + Committed									
1 - Bryn Lane	D1	0.6	5.74	0.31	A	D2	0.5	3.26	0.34	A
2 - Ash Road North		0.3	4.24	0.18	A		2.9	10.07	0.74	B
3 - Abenbury Way		0.2	2.88	0.15	A		1.0	6.05	0.50	A
4 - Industrial Estate Road		3.2	5.70	0.75	A		0.4	2.03	0.27	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2030 Base + Committed + Development (Phase 1)									
1 - Bryn Lane	D3	0.8	6.62	0.40	A	D4	0.8	3.80	0.43	A
2 - Ash Road North		0.3	4.42	0.18	A		3.7	13.12	0.79	B
3 - Abenbury Way		0.2	2.98	0.16	A		1.2	7.17	0.54	A
4 - Industrial Estate Road		4.7	7.85	0.82	A		0.5	2.13	0.31	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2030 Base + Committed + Development (Phase 1 + 2)									
1 - Bryn Lane	D5	1.1	8.27	0.47	A	D6	1.2	5.51	0.54	A
2 - Ash Road North		0.3	4.92	0.18	A		21.5	73.96	1.00	F
3 - Abenbury Way		0.3	3.15	0.17	A		2.7	16.17	0.73	C
4 - Industrial Estate Road		10.5	16.53	0.92	C		0.7	2.61	0.41	A
5 - Proposed Site Access		1.0	7.94	0.50	A		0.6	3.53	0.37	A
	2037 Base + Committed									
1 - Bryn Lane	D7	0.5	5.14	0.34	A	D8	0.6	3.35	0.35	A
2 - Ash Road North		0.2	3.34	0.19	A		3.7	12.33	0.79	B
3 - Abenbury Way		0.2	2.28	0.16	A		1.2	6.90	0.54	A
4 - Industrial Estate Road		3.7	6.37	0.79	A		0.4	2.06	0.29	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2037 Base + Committed + Development (Phase 1)									
1 - Bryn Lane	D9	0.9	7.26	0.43	A	D10	0.8	3.92	0.45	A
2 - Ash Road North		0.3	4.57	0.20	A		5.0	17.04	0.84	C
3 - Abenbury Way		0.3	3.03	0.17	A		1.5	8.37	0.59	A
4 - Industrial Estate Road		6.1	9.81	0.86	A		0.5	2.17	0.32	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2037 Base + Committed + Development (Phase 1 + 2)									
1 - Bryn Lane	D11	1.2	9.25	0.50	A	D12	1.3	5.78	0.56	A
2 - Ash Road North		0.4	5.08	0.22	A		43.0	129.34	1.06	F
3 - Abenbury Way		0.3	3.25	0.18	A		3.5	20.41	0.78	C
4 - Industrial Estate Road		18.3	27.97	0.96	D		0.8	2.66	0.42	A
5 - Proposed Site Access		1.2	8.93	0.53	A		0.6	3.59	0.37	A
	2030 Base + Committed + Development (Phase 1) [Sens]									
1 - Bryn Lane	D13	0.8	6.26	0.39	A	D14	0.8	3.75	0.43	A
2 - Ash Road North		0.2	4.28	0.15	A		2.7	10.28	0.73	B
3 - Abenbury Way		0.3	2.96	0.17	A		1.3	7.05	0.55	A
4 - Industrial Estate Road		4.0	6.88	0.80	A		0.5	2.07	0.30	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2037 Base + Committed + Development (Phase 1 + 2) [Sens]									
1 - Bryn Lane	D15	1.0	7.78	0.46	A	D16	1.2	5.41	0.54	A
2 - Ash Road North		0.2	4.70	0.16	A		9.4	37.83	0.92	E
3 - Abenbury Way		0.3	3.17	0.18	A		2.9	16.41	0.74	C
4 - Industrial Estate Road		8.5	13.60	0.90	B		0.7	2.52	0.39	A
5 - Proposed Site Access		1.0	7.35	0.48	A		0.6	3.44	0.36	A

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

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

File summary

File Description

Title	Industrial Estate Road / Bryn Lane / Ash Road North / Abenbury Way
Location	Wrexham
Site number	
Date	09/02/2023
Version	
Status	(new file)
Identifier	
Client	LIDL
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGBB\mchau
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D2	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D5	2030 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D6	2030 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D7	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D9	2037 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D10	2037 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D11	2037 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D12	2037 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D13	2030 Base + Committed + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15
D14	2030 Base + Committed + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15
D15	2037 Base + Committed + Development (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15
D16	2037 Base + Committed + Development (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2030 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.30	A

Arms

Arms

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

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Bryn Lane	3.66	7.98	25.6	38.9	70.0	32.0		
2 - Ash Road North	3.75	9.10	13.5	20.0	70.0	36.0		
3 - Abenbury Way	3.82	8.82	27.8	57.7	70.0	30.0		
4 - Industrial Estate Road	8.40	9.10	9.5	39.7	70.0	37.5		
5 - Proposed Site Access	3.67	10.10	19.5	40.4	70.0	31.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bryn Lane	0.555	1992
2 - Ash Road North	0.518	1812
3 - Abenbury Way	0.590	2187
4 - Industrial Estate Road	0.664	2712
5 - Proposed Site Access	0.574	2104

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

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	317	100.000
2 - Ash Road North		✓	217	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1837	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	52	43	222	0
	2 - Ash Road North	4	0	11	202	0
	3 - Abenbury Way	11	22	0	233	0
	4 - Industrial Estate Road	418	875	529	15	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.31	5.74	0.6	A
2 - Ash Road North	0.18	4.24	0.3	A
3 - Abenbury Way	0.15	2.88	0.2	A
4 - Industrial Estate Road	0.75	5.70	3.2	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	239	1081	1391	0.172	238	0.3	3.789	A
2 - Ash Road North	163	607	1498	0.109	163	0.2	3.526	A
3 - Abenbury Way	200	332	1991	0.101	200	0.1	2.582	A
4 - Industrial Estate Road	1383	28	2694	0.513	1379	1.1	2.865	A
5 - Proposed Site Access	0	1406	1296	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	285	1294	1273	0.224	285	0.3	4.423	A
2 - Ash Road North	195	726	1436	0.136	195	0.2	3.795	A
3 - Abenbury Way	239	398	1952	0.122	239	0.2	2.699	A
4 - Industrial Estate Road	1651	33	2690	0.614	1649	1.7	3.624	A
5 - Proposed Site Access	0	1682	1138	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	349	1582	1113	0.314	348	0.6	5.713	A
2 - Ash Road North	239	888	1352	0.177	239	0.3	4.230	A
3 - Abenbury Way	293	487	1900	0.154	293	0.2	2.878	A
4 - Industrial Estate Road	2023	41	2685	0.753	2017	3.1	5.606	A
5 - Proposed Site Access	0	2057	923	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	349	1586	1111	0.314	349	0.6	5.743	A
2 - Ash Road North	239	891	1351	0.177	239	0.3	4.236	A
3 - Abenbury Way	293	488	1899	0.154	293	0.2	2.879	A
4 - Industrial Estate Road	2023	41	2685	0.753	2022	3.2	5.700	A
5 - Proposed Site Access	0	2063	919	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	285	1300	1270	0.224	286	0.4	4.451	A
2 - Ash Road North	195	730	1434	0.136	195	0.2	3.802	A
3 - Abenbury Way	239	399	1951	0.123	239	0.2	2.701	A
4 - Industrial Estate Road	1651	33	2690	0.614	1657	1.7	3.679	A
5 - Proposed Site Access	0	1691	1133	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	239	1087	1388	0.172	239	0.3	3.810	A
2 - Ash Road North	163	610	1496	0.109	164	0.2	3.537	A
3 - Abenbury Way	200	334	1990	0.101	200	0.1	2.586	A
4 - Industrial Estate Road	1383	28	2694	0.513	1385	1.1	2.895	A
5 - Proposed Site Access	0	1413	1292	0.000	0	0.0	0.000	A

2030 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.93	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	530	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	670	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	14	505	0
	2 - Ash Road North	16	0	10	930	0
	3 - Abenbury Way	19	4	0	535	0
	4 - Industrial Estate Road	252	238	162	18	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.34	3.26	0.5	A
2 - Ash Road North	0.74	10.07	2.9	B
3 - Abenbury Way	0.50	6.05	1.0	A
4 - Industrial Estate Road	0.27	2.03	0.4	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	399	317	1816	0.220	398	0.3	2.640	A
2 - Ash Road North	720	525	1540	0.467	716	0.9	4.402	A
3 - Abenbury Way	420	1101	1537	0.273	419	0.4	3.343	A
4 - Industrial Estate Road	504	29	2693	0.187	503	0.3	1.801	A
5 - Proposed Site Access	0	533	1798	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	379	1781	0.267	476	0.4	2.871	A
2 - Ash Road North	859	628	1487	0.578	857	1.4	5.771	A
3 - Abenbury Way	502	1318	1409	0.356	501	0.6	4.119	A
4 - Industrial Estate Road	602	35	2689	0.224	602	0.3	1.889	A
5 - Proposed Site Access	0	637	1738	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	584	464	1734	0.337	583	0.5	3.254	A
2 - Ash Road North	1053	769	1414	0.744	1047	2.8	9.767	A
3 - Abenbury Way	614	1611	1237	0.497	613	1.0	5.984	A
4 - Industrial Estate Road	738	43	2684	0.275	737	0.4	2.026	A
5 - Proposed Site Access	0	780	1656	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	584	465	1734	0.337	584	0.5	3.257	A
2 - Ash Road North	1053	770	1414	0.745	1052	2.9	10.068	B
3 - Abenbury Way	614	1617	1233	0.498	614	1.0	6.052	A
4 - Industrial Estate Road	738	43	2684	0.275	738	0.4	2.027	A
5 - Proposed Site Access	0	781	1656	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	380	1781	0.268	477	0.4	2.874	A
2 - Ash Road North	859	629	1486	0.578	865	1.4	5.922	A
3 - Abenbury Way	502	1327	1404	0.357	503	0.6	4.167	A
4 - Industrial Estate Road	602	35	2689	0.224	603	0.3	1.890	A
5 - Proposed Site Access	0	638	1737	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	399	318	1815	0.220	399	0.3	2.647	A
2 - Ash Road North	720	527	1539	0.468	722	0.9	4.466	A
3 - Abenbury Way	420	1108	1533	0.274	421	0.4	3.371	A
4 - Industrial Estate Road	504	29	2693	0.187	505	0.3	1.802	A
5 - Proposed Site Access	0	534	1797	0.000	0	0.0	0.000	A

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

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.98	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	400	100.000
2 - Ash Road North		✓	218	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	2002	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	52	43	305	0
	2 - Ash Road North	4	1	11	202	0
	3 - Abenbury Way	11	22	0	233	0
	4 - Industrial Estate Road	583	875	529	15	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.40	6.62	0.8	A
2 - Ash Road North	0.18	4.42	0.3	A
3 - Abenbury Way	0.16	2.98	0.2	A
4 - Industrial Estate Road	0.82	7.85	4.7	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	1082	1391	0.217	300	0.3	4.059	A
2 - Ash Road North	164	669	1466	0.112	163	0.2	3.610	A
3 - Abenbury Way	200	395	1954	0.103	200	0.1	2.637	A
4 - Industrial Estate Road	1507	29	2693	0.560	1502	1.3	3.161	A
5 - Proposed Site Access	0	1530	1225	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1294	1273	0.282	359	0.5	4.849	A
2 - Ash Road North	196	801	1397	0.140	196	0.2	3.914	A
3 - Abenbury Way	239	473	1908	0.125	239	0.2	2.771	A
4 - Industrial Estate Road	1800	34	2689	0.669	1797	2.1	4.223	A
5 - Proposed Site Access	0	1831	1053	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1581	1114	0.395	439	0.8	6.560	A
2 - Ash Road North	240	978	1305	0.184	240	0.3	4.413	A
3 - Abenbury Way	293	579	1845	0.159	293	0.2	2.978	A
4 - Industrial Estate Road	2204	42	2684	0.821	2194	4.6	7.565	A
5 - Proposed Site Access	0	2236	820	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1587	1110	0.397	440	0.8	6.621	A
2 - Ash Road North	240	982	1303	0.184	240	0.3	4.423	A
3 - Abenbury Way	293	580	1845	0.159	293	0.2	2.980	A
4 - Industrial Estate Road	2204	42	2684	0.821	2204	4.7	7.855	A
5 - Proposed Site Access	0	2246	814	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1304	1268	0.284	361	0.5	4.896	A
2 - Ash Road North	196	806	1395	0.141	196	0.2	3.927	A
3 - Abenbury Way	239	475	1907	0.125	239	0.2	2.776	A
4 - Industrial Estate Road	1800	34	2689	0.669	1810	2.2	4.350	A
5 - Proposed Site Access	0	1844	1045	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	1088	1388	0.217	302	0.3	4.087	A
2 - Ash Road North	164	673	1464	0.112	164	0.2	3.620	A
3 - Abenbury Way	200	397	1952	0.103	200	0.1	2.639	A
4 - Industrial Estate Road	1507	29	2693	0.560	1510	1.3	3.206	A
5 - Proposed Site Access	0	1539	1220	0.000	0	0.0	0.000	A

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

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	7.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.02	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	679	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	764	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	14	654	0
	2 - Ash Road North	16	0	10	930	0
	3 - Abenbury Way	19	4	0	535	0
	4 - Industrial Estate Road	346	238	162	18	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.43	3.80	0.8	A
2 - Ash Road North	0.79	13.12	3.7	B
3 - Abenbury Way	0.54	7.17	1.2	A
4 - Industrial Estate Road	0.31	2.13	0.5	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	317	1816	0.282	510	0.4	2.864	A
2 - Ash Road North	720	637	1483	0.485	716	0.9	4.730	A
3 - Abenbury Way	420	1213	1472	0.285	418	0.4	3.557	A
4 - Industrial Estate Road	575	29	2693	0.214	574	0.3	1.852	A
5 - Proposed Site Access	0	603	1757	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	379	1781	0.343	610	0.5	3.197	A
2 - Ash Road North	859	762	1418	0.606	857	1.5	6.472	A
3 - Abenbury Way	502	1452	1331	0.377	501	0.6	4.508	A
4 - Industrial Estate Road	687	35	2689	0.255	687	0.4	1.959	A
5 - Proposed Site Access	0	721	1689	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	464	1734	0.431	747	0.8	3.791	A
2 - Ash Road North	1053	933	1329	0.792	1044	3.6	12.439	B
3 - Abenbury Way	614	1772	1142	0.538	612	1.2	7.044	A
4 - Industrial Estate Road	841	43	2684	0.313	841	0.5	2.129	A
5 - Proposed Site Access	0	883	1597	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	465	1734	0.431	748	0.8	3.798	A
2 - Ash Road North	1053	934	1329	0.792	1052	3.7	13.122	B
3 - Abenbury Way	614	1781	1136	0.541	614	1.2	7.170	A
4 - Industrial Estate Road	841	43	2684	0.313	841	0.5	2.129	A
5 - Proposed Site Access	0	884	1596	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	380	1781	0.343	611	0.5	3.208	A
2 - Ash Road North	859	763	1417	0.607	868	1.6	6.740	A
3 - Abenbury Way	502	1464	1323	0.379	504	0.6	4.584	A
4 - Industrial Estate Road	687	35	2689	0.255	687	0.4	1.960	A
5 - Proposed Site Access	0	723	1689	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	318	1815	0.282	512	0.4	2.877	A
2 - Ash Road North	720	639	1481	0.486	722	1.0	4.817	A
3 - Abenbury Way	420	1221	1467	0.286	421	0.4	3.583	A
4 - Industrial Estate Road	575	29	2692	0.214	575	0.3	1.852	A
5 - Proposed Site Access	0	605	1756	0.000	0	0.0	0.000	A

2030 Base + Committed + Development (Phase 1 + 2), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	12.82	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.82	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	420	100.000
2 - Ash Road North		✓	197	100.000
3 - Abenbury Way		✓	265	100.000
4 - Industrial Estate Road		✓	2189	100.000
5 - Proposed Site Access		✓	429	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	45	38	288	49
	2 - Ash Road North	4	1	9	183	0
	3 - Abenbury Way	9	19	0	202	35
	4 - Industrial Estate Road	551	780	459	15	384
	5 - Proposed Site Access	56	100	74	199	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.47	8.27	1.1	A
2 - Ash Road North	0.18	4.92	0.3	A
3 - Abenbury Way	0.17	3.15	0.3	A
4 - Industrial Estate Road	0.92	16.53	10.5	C
5 - Proposed Site Access	0.50	7.94	1.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	316	1235	1306	0.242	315	0.4	4.362	A
2 - Ash Road North	148	841	1377	0.108	148	0.2	3.824	A
3 - Abenbury Way	200	554	1860	0.107	199	0.1	2.684	A
4 - Industrial Estate Road	1648	88	2654	0.621	1641	1.7	3.680	A
5 - Proposed Site Access	323	1378	1313	0.246	322	0.3	3.773	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	378	1477	1171	0.322	377	0.6	5.445	A
2 - Ash Road North	177	1006	1291	0.137	177	0.2	4.221	A
3 - Abenbury Way	238	663	1796	0.133	238	0.2	2.862	A
4 - Industrial Estate Road	1968	105	2642	0.745	1963	3.0	5.476	A
5 - Proposed Site Access	386	1648	1158	0.333	385	0.5	4.841	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	462	1796	994	0.465	461	1.0	8.087	A
2 - Ash Road North	217	1227	1177	0.184	217	0.3	4.896	A
3 - Abenbury Way	292	811	1709	0.171	292	0.3	3.146	A
4 - Industrial Estate Road	2410	129	2627	0.918	2383	9.7	14.066	B
5 - Proposed Site Access	472	2001	955	0.495	470	1.0	7.699	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	462	1811	986	0.469	462	1.1	8.271	A
2 - Ash Road North	217	1235	1173	0.185	217	0.3	4.919	A
3 - Abenbury Way	292	814	1707	0.171	292	0.3	3.150	A
4 - Industrial Estate Road	2410	129	2626	0.918	2407	10.5	16.530	C
5 - Proposed Site Access	472	2021	943	0.501	472	1.0	7.941	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	378	1499	1159	0.326	379	0.6	5.566	A
2 - Ash Road North	177	1018	1285	0.138	177	0.2	4.246	A
3 - Abenbury Way	238	667	1793	0.133	238	0.2	2.867	A
4 - Industrial Estate Road	1968	105	2642	0.745	1997	3.1	6.071	A
5 - Proposed Site Access	386	1677	1141	0.338	388	0.5	4.982	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	316	1244	1301	0.243	317	0.4	4.403	A
2 - Ash Road North	148	847	1373	0.108	149	0.2	3.841	A
3 - Abenbury Way	200	558	1858	0.107	200	0.1	2.690	A
4 - Industrial Estate Road	1648	88	2653	0.621	1654	1.7	3.769	A
5 - Proposed Site Access	323	1388	1307	0.247	324	0.3	3.813	A

2030 Base + Committed + Development (Phase 1 + 2), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	23.82	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.82	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	714	100.000
2 - Ash Road North		✓	955	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	910	100.000
5 - Proposed Site Access		✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	9	12	607	86
	2 - Ash Road North	13	0	8	809	125
	3 - Abenbury Way	16	4	0	452	86
	4 - Industrial Estate Road	326	213	137	18	216
	5 - Proposed Site Access	60	29	30	435	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.54	5.51	1.2	A
2 - Ash Road North	1.00	73.96	21.5	F
3 - Abenbury Way	0.73	16.17	2.7	C
4 - Industrial Estate Road	0.41	2.61	0.7	A
5 - Proposed Site Access	0.37	3.53	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	538	650	1631	0.330	536	0.5	3.399	A
2 - Ash Road North	719	994	1297	0.554	714	1.2	6.186	A
3 - Abenbury Way	420	1568	1262	0.333	418	0.5	4.399	A
4 - Industrial Estate Road	685	247	2548	0.269	684	0.4	2.056	A
5 - Proposed Site Access	417	546	1790	0.233	416	0.3	2.657	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	642	778	1560	0.412	641	0.7	4.055	A
2 - Ash Road North	859	1190	1196	0.718	854	2.5	10.480	B
3 - Abenbury Way	502	1876	1081	0.464	500	0.9	6.394	A
4 - Industrial Estate Road	818	296	2516	0.325	818	0.5	2.260	A
5 - Proposed Site Access	498	653	1729	0.288	498	0.4	2.970	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	786	952	1463	0.537	784	1.2	5.478	A
2 - Ash Road North	1051	1456	1058	0.994	1000	15.3	44.220	E
3 - Abenbury Way	614	2251	859	0.715	608	2.5	14.475	B
4 - Industrial Estate Road	1002	354	2477	0.405	1001	0.7	2.599	A
5 - Proposed Site Access	610	799	1645	0.371	609	0.6	3.528	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	786	953	1462	0.538	786	1.2	5.513	A
2 - Ash Road North	1051	1459	1056	0.995	1027	21.5	73.963	F
3 - Abenbury Way	614	2280	842	0.730	614	2.7	16.173	C
4 - Industrial Estate Road	1002	360	2473	0.405	1002	0.7	2.607	A
5 - Proposed Site Access	610	800	1644	0.371	610	0.6	3.533	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	642	780	1559	0.412	644	0.7	4.083	A
2 - Ash Road North	859	1194	1194	0.719	933	2.7	17.914	C
3 - Abenbury Way	502	1958	1032	0.486	508	1.0	7.196	A
4 - Industrial Estate Road	818	309	2507	0.326	819	0.5	2.274	A
5 - Proposed Site Access	498	655	1727	0.288	499	0.4	2.976	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	538	653	1629	0.330	538	0.5	3.419	A
2 - Ash Road North	719	999	1295	0.555	725	1.3	6.442	A
3 - Abenbury Way	420	1583	1253	0.335	422	0.5	4.487	A
4 - Industrial Estate Road	685	250	2546	0.269	686	0.4	2.062	A
5 - Proposed Site Access	417	548	1789	0.233	417	0.3	2.665	A

2037 Base + Committed, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.56	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	330	100.000
2 - Ash Road North		✓	227	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	1924	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	55	46	229	0
	2 - Ash Road North	4	1	11	211	0
	3 - Abenbury Way	11	24	0	246	0
	4 - Industrial Estate Road	432	916	560	16	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.34	5.14	0.5	A
2 - Ash Road North	0.19	3.34	0.2	A
3 - Abenbury Way	0.16	2.28	0.2	A
4 - Industrial Estate Road	0.79	6.37	3.7	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	248	1138	1360	0.183	248	0.2	3.234	A
2 - Ash Road North	171	639	1481	0.115	170	0.1	2.744	A
3 - Abenbury Way	212	346	1983	0.107	211	0.1	2.032	A
4 - Industrial Estate Road	1448	30	2692	0.538	1444	1.2	2.873	A
5 - Proposed Site Access	0	1474	1258	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	297	1362	1235	0.240	296	0.3	3.830	A
2 - Ash Road North	204	764	1416	0.144	204	0.2	2.968	A
3 - Abenbury Way	253	414	1943	0.130	252	0.1	2.129	A
4 - Industrial Estate Road	1730	36	2688	0.643	1727	1.8	3.737	A
5 - Proposed Site Access	0	1763	1092	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	363	1664	1067	0.340	363	0.5	5.103	A
2 - Ash Road North	250	934	1328	0.188	250	0.2	3.337	A
3 - Abenbury Way	309	507	1888	0.164	309	0.2	2.280	A
4 - Industrial Estate Road	2118	44	2683	0.790	2111	3.6	6.215	A
5 - Proposed Site Access	0	2155	867	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	363	1670	1064	0.341	363	0.5	5.135	A
2 - Ash Road North	250	937	1327	0.188	250	0.2	3.342	A
3 - Abenbury Way	309	508	1887	0.164	309	0.2	2.280	A
4 - Industrial Estate Road	2118	44	2683	0.790	2118	3.7	6.369	A
5 - Proposed Site Access	0	2162	862	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	297	1370	1231	0.241	297	0.3	3.858	A
2 - Ash Road North	204	768	1414	0.144	204	0.2	2.974	A
3 - Abenbury Way	253	415	1942	0.130	253	0.1	2.131	A
4 - Industrial Estate Road	1730	36	2688	0.643	1737	1.8	3.813	A
5 - Proposed Site Access	0	1773	1086	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	248	1144	1356	0.183	249	0.2	3.253	A
2 - Ash Road North	171	642	1480	0.115	171	0.1	2.750	A
3 - Abenbury Way	212	347	1982	0.107	212	0.1	2.035	A
4 - Industrial Estate Road	1448	30	2692	0.538	1451	1.2	2.908	A
5 - Proposed Site Access	0	1481	1253	0.000	0	0.0	0.000	A

2037 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.94	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	549	100.000
2 - Ash Road North		✓	1002	100.000
3 - Abenbury Way		✓	589	100.000
4 - Industrial Estate Road		✓	697	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	15	523	0
	2 - Ash Road North	17	0	10	975	0
	3 - Abenbury Way	20	4	0	565	0
	4 - Industrial Estate Road	260	247	171	19	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.35	3.35	0.6	A
2 - Ash Road North	0.79	12.33	3.7	B
3 - Abenbury Way	0.54	6.90	1.2	A
4 - Industrial Estate Road	0.29	2.06	0.4	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	413	331	1808	0.229	412	0.3	2.682	A
2 - Ash Road North	754	547	1529	0.493	750	1.0	4.655	A
3 - Abenbury Way	443	1150	1509	0.294	442	0.4	3.504	A
4 - Industrial Estate Road	525	31	2692	0.195	524	0.3	1.819	A
5 - Proposed Site Access	0	554	1785	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	494	396	1772	0.279	493	0.4	2.931	A
2 - Ash Road North	901	654	1473	0.611	898	1.6	6.308	A
3 - Abenbury Way	529	1376	1375	0.385	529	0.6	4.420	A
4 - Industrial Estate Road	627	37	2688	0.233	626	0.3	1.913	A
5 - Proposed Site Access	0	663	1723	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	604	485	1722	0.351	604	0.6	3.349	A
2 - Ash Road North	1103	801	1397	0.790	1095	3.6	11.750	B
3 - Abenbury Way	649	1680	1196	0.542	646	1.2	6.786	A
4 - Industrial Estate Road	767	45	2682	0.286	767	0.4	2.060	A
5 - Proposed Site Access	0	812	1638	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	604	486	1722	0.351	604	0.6	3.352	A
2 - Ash Road North	1103	802	1397	0.790	1103	3.7	12.335	B
3 - Abenbury Way	649	1689	1191	0.545	648	1.2	6.900	A
4 - Industrial Estate Road	767	45	2682	0.286	767	0.4	2.060	A
5 - Proposed Site Access	0	813	1637	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	494	397	1772	0.279	494	0.4	2.937	A
2 - Ash Road North	901	655	1473	0.612	909	1.6	6.552	A
3 - Abenbury Way	529	1388	1368	0.387	532	0.7	4.488	A
4 - Industrial Estate Road	627	37	2687	0.233	627	0.3	1.914	A
5 - Proposed Site Access	0	664	1722	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	413	332	1807	0.229	414	0.3	2.691	A
2 - Ash Road North	754	549	1528	0.494	757	1.0	4.740	A
3 - Abenbury Way	443	1158	1504	0.295	444	0.4	3.539	A
4 - Industrial Estate Road	525	31	2691	0.195	525	0.3	1.823	A
5 - Proposed Site Access	0	556	1785	0.000	0	0.0	0.000	A

2037 Base + Committed + Development (Phase 1), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	8.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2037 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	413	100.000
2 - Ash Road North		✓	227	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	2089	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	55	46	312	0
	2 - Ash Road North	4	1	11	211	0
	3 - Abenbury Way	11	24	0	246	0
	4 - Industrial Estate Road	597	916	560	16	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.43	7.26	0.9	A
2 - Ash Road North	0.20	4.57	0.3	A
3 - Abenbury Way	0.17	3.03	0.3	A
4 - Industrial Estate Road	0.86	9.81	6.1	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	311	1138	1360	0.229	309	0.4	4.210	A
2 - Ash Road North	171	700	1449	0.118	170	0.2	3.676	A
3 - Abenbury Way	212	408	1946	0.109	211	0.2	2.666	A
4 - Industrial Estate Road	1573	30	2692	0.584	1567	1.5	3.343	A
5 - Proposed Site Access	0	1597	1187	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	371	1361	1236	0.300	371	0.5	5.115	A
2 - Ash Road North	204	838	1378	0.148	204	0.2	4.008	A
3 - Abenbury Way	253	488	1899	0.133	252	0.2	2.809	A
4 - Industrial Estate Road	1878	36	2688	0.699	1874	2.4	4.626	A
5 - Proposed Site Access	0	1910	1007	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	455	1660	1070	0.425	453	0.9	7.166	A
2 - Ash Road North	250	1023	1282	0.195	250	0.3	4.557	A
3 - Abenbury Way	309	597	1834	0.169	309	0.3	3.032	A
4 - Industrial Estate Road	2300	44	2683	0.857	2286	5.9	9.220	A
5 - Proposed Site Access	0	2330	766	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	455	1670	1064	0.427	455	0.9	7.262	A
2 - Ash Road North	250	1028	1280	0.195	250	0.3	4.570	A
3 - Abenbury Way	309	599	1834	0.169	309	0.3	3.034	A
4 - Industrial Estate Road	2300	44	2683	0.857	2299	6.1	9.807	A
5 - Proposed Site Access	0	2343	758	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	371	1374	1229	0.302	373	0.5	5.184	A
2 - Ash Road North	204	845	1375	0.148	204	0.2	4.022	A
3 - Abenbury Way	253	491	1897	0.133	253	0.2	2.815	A
4 - Industrial Estate Road	1878	36	2688	0.699	1892	2.5	4.838	A
5 - Proposed Site Access	0	1928	997	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	311	1145	1356	0.229	312	0.4	4.244	A
2 - Ash Road North	171	705	1447	0.118	171	0.2	3.687	A
3 - Abenbury Way	212	410	1945	0.109	212	0.2	2.669	A
4 - Industrial Estate Road	1573	30	2692	0.584	1577	1.5	3.402	A
5 - Proposed Site Access	0	1607	1181	0.000	0	0.0	0.000	A

2037 Base + Committed + Development (Phase 1), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	8.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.59	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2037 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	697	100.000
2 - Ash Road North		✓	1001	100.000
3 - Abenbury Way		✓	589	100.000
4 - Industrial Estate Road		✓	791	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	15	671	0
	2 - Ash Road North	17	0	10	974	0
	3 - Abenbury Way	20	4	0	565	0
	4 - Industrial Estate Road	354	247	171	19	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.45	3.92	0.8	A
2 - Ash Road North	0.84	17.04	5.0	C
3 - Abenbury Way	0.59	8.37	1.5	A
4 - Industrial Estate Road	0.32	2.17	0.5	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	525	331	1808	0.290	523	0.4	2.912	A
2 - Ash Road North	754	658	1472	0.512	749	1.1	5.015	A
3 - Abenbury Way	443	1260	1444	0.307	442	0.5	3.731	A
4 - Industrial Estate Road	596	31	2692	0.221	594	0.3	1.871	A
5 - Proposed Site Access	0	625	1745	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	627	396	1772	0.354	626	0.6	3.268	A
2 - Ash Road North	900	787	1405	0.641	897	1.8	7.138	A
3 - Abenbury Way	529	1508	1298	0.408	528	0.7	4.864	A
4 - Industrial Estate Road	711	37	2688	0.265	711	0.4	1.985	A
5 - Proposed Site Access	0	748	1675	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	767	485	1722	0.446	766	0.8	3.915	A
2 - Ash Road North	1102	963	1313	0.839	1090	4.8	15.556	C
3 - Abenbury Way	649	1838	1103	0.588	646	1.5	8.138	A
4 - Industrial Estate Road	871	45	2682	0.325	870	0.5	2.166	A
5 - Proposed Site Access	0	915	1578	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	767	486	1722	0.446	767	0.8	3.924	A
2 - Ash Road North	1102	964	1313	0.840	1101	5.0	17.039	C
3 - Abenbury Way	649	1850	1096	0.592	648	1.5	8.365	A
4 - Industrial Estate Road	871	45	2682	0.325	871	0.5	2.166	A
5 - Proposed Site Access	0	916	1578	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	627	397	1772	0.354	628	0.6	3.277	A
2 - Ash Road North	900	789	1404	0.641	913	1.8	7.602	A
3 - Abenbury Way	529	1525	1288	0.411	533	0.7	4.981	A
4 - Industrial Estate Road	711	37	2687	0.265	712	0.4	1.986	A
5 - Proposed Site Access	0	749	1674	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	525	332	1807	0.290	525	0.4	2.925	A
2 - Ash Road North	754	660	1470	0.513	757	1.1	5.126	A
3 - Abenbury Way	443	1269	1438	0.308	444	0.5	3.771	A
4 - Industrial Estate Road	596	31	2691	0.221	596	0.3	1.875	A
5 - Proposed Site Access	0	627	1744	0.000	0	0.0	0.000	A

2037 Base + Committed + Development (Phase 1 + 2), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	20.17	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	20.17	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2037 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	432	100.000
2 - Ash Road North		✓	228	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	2275	100.000
5 - Proposed Site Access		✓	429	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	48	40	295	49
	2 - Ash Road North	4	1	10	192	21
	3 - Abenbury Way	10	21	0	215	35
	4 - Industrial Estate Road	565	821	489	16	384
	5 - Proposed Site Access	56	100	74	199	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.50	9.25	1.2	A
2 - Ash Road North	0.22	5.08	0.4	A
3 - Abenbury Way	0.18	3.25	0.3	A
4 - Industrial Estate Road	0.96	27.97	18.3	D
5 - Proposed Site Access	0.53	8.93	1.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	325	1290	1275	0.255	324	0.4	4.540	A
2 - Ash Road North	172	871	1361	0.126	171	0.2	3.840	A
3 - Abenbury Way	212	582	1843	0.115	211	0.2	2.734	A
4 - Industrial Estate Road	1713	106	2642	0.648	1705	1.9	3.973	A
5 - Proposed Site Access	323	1444	1274	0.253	322	0.4	3.923	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	388	1543	1135	0.342	388	0.6	5.784	A
2 - Ash Road North	205	1042	1272	0.161	205	0.2	4.282	A
3 - Abenbury Way	253	697	1776	0.142	252	0.2	2.932	A
4 - Industrial Estate Road	2045	127	2628	0.778	2039	3.5	6.293	A
5 - Proposed Site Access	386	1727	1112	0.347	385	0.5	5.140	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	1865	956	0.498	473	1.2	8.930	A
2 - Ash Road North	251	1265	1157	0.217	251	0.3	5.046	A
3 - Abenbury Way	309	852	1684	0.184	309	0.3	3.248	A
4 - Industrial Estate Road	2505	155	2609	0.960	2457	15.5	20.261	C
5 - Proposed Site Access	472	2082	908	0.520	470	1.1	8.497	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	1888	943	0.504	475	1.2	9.250	A
2 - Ash Road North	251	1277	1151	0.218	251	0.4	5.083	A
3 - Abenbury Way	309	855	1682	0.184	309	0.3	3.252	A
4 - Industrial Estate Road	2505	155	2609	0.960	2493	18.3	27.969	D
5 - Proposed Site Access	472	2112	891	0.530	472	1.2	8.928	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	388	1583	1113	0.349	391	0.7	6.014	A
2 - Ash Road North	205	1061	1263	0.162	205	0.2	4.328	A
3 - Abenbury Way	253	702	1773	0.143	253	0.2	2.941	A
4 - Industrial Estate Road	2045	127	2628	0.778	2103	3.8	7.918	A
5 - Proposed Site Access	386	1781	1081	0.357	388	0.6	5.417	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	325	1301	1269	0.256	326	0.4	4.592	A
2 - Ash Road North	172	878	1357	0.126	172	0.2	3.858	A
3 - Abenbury Way	212	586	1841	0.115	212	0.2	2.741	A
4 - Industrial Estate Road	1713	106	2641	0.648	1720	1.9	4.103	A
5 - Proposed Site Access	323	1457	1267	0.255	324	0.4	3.971	A

2037 Base + Committed + Development (Phase 1 + 2), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	39.40	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	39.40	E

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)
D12	2037 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	732	100.000
2 - Ash Road North		✓	1001	100.000
3 - Abenbury Way		✓	589	100.000
4 - Industrial Estate Road		✓	936	100.000
5 - Proposed Site Access		✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	10	12	624	86
	2 - Ash Road North	14	0	9	853	125
	3 - Abenbury Way	17	4	0	482	86
	4 - Industrial Estate Road	333	222	146	19	216
	5 - Proposed Site Access	60	29	30	435	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.56	5.78	1.3	A
2 - Ash Road North	1.06	129.34	43.0	F
3 - Abenbury Way	0.78	20.41	3.5	C
4 - Industrial Estate Road	0.42	2.66	0.8	A
5 - Proposed Site Access	0.37	3.59	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	551	664	1623	0.340	549	0.5	3.465	A
2 - Ash Road North	754	1014	1287	0.586	748	1.4	6.687	A
3 - Abenbury Way	443	1615	1235	0.359	441	0.6	4.679	A
4 - Industrial Estate Road	705	249	2547	0.277	703	0.4	2.081	A
5 - Proposed Site Access	417	567	1778	0.235	416	0.3	2.681	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	658	795	1550	0.424	657	0.8	4.171	A
2 - Ash Road North	900	1214	1183	0.761	893	3.0	12.277	B
3 - Abenbury Way	529	1930	1048	0.505	528	1.0	7.125	A
4 - Industrial Estate Road	841	297	2515	0.335	841	0.5	2.295	A
5 - Proposed Site Access	498	678	1714	0.291	498	0.4	3.005	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	806	973	1451	0.555	804	1.3	5.742	A
2 - Ash Road North	1102	1486	1042	1.057	1011	25.7	64.239	F
3 - Abenbury Way	649	2281	841	0.771	640	3.2	17.766	C
4 - Industrial Estate Road	1031	351	2479	0.416	1030	0.8	2.649	A
5 - Proposed Site Access	610	829	1628	0.375	609	0.6	3.588	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	806	974	1451	0.556	806	1.3	5.783	A
2 - Ash Road North	1102	1489	1041	1.059	1033	43.0	129.340	F
3 - Abenbury Way	649	2305	827	0.784	647	3.5	20.406	C
4 - Industrial Estate Road	1031	356	2476	0.416	1031	0.8	2.657	A
5 - Proposed Site Access	610	830	1627	0.375	610	0.6	3.593	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	658	797	1549	0.425	660	0.8	4.202	A
2 - Ash Road North	900	1218	1181	0.762	1058	3.6	53.204	F
3 - Abenbury Way	529	2097	950	0.557	538	1.3	9.225	A
4 - Industrial Estate Road	841	322	2498	0.337	842	0.5	2.322	A
5 - Proposed Site Access	498	682	1712	0.291	499	0.4	3.014	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	551	667	1621	0.340	552	0.5	3.491	A
2 - Ash Road North	754	1019	1284	0.587	762	1.5	7.081	A
3 - Abenbury Way	443	1633	1224	0.362	446	0.6	4.806	A
4 - Industrial Estate Road	705	252	2545	0.277	705	0.4	2.088	A
5 - Proposed Site Access	417	569	1777	0.235	418	0.3	2.691	A

2030 Base + Committed + Development (Phase 1) [Sens], AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.24	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2030 Base + Committed + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	407	100.000
2 - Ash Road North		✓	170	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	1938	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	52	43	312	0
	2 - Ash Road North	4	1	11	154	0
	3 - Abenbury Way	11	24	0	246	0
	4 - Industrial Estate Road	597	766	560	15	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.39	6.26	0.8	A
2 - Ash Road North	0.15	4.28	0.2	A
3 - Abenbury Way	0.17	2.96	0.3	A
4 - Industrial Estate Road	0.80	6.88	4.0	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	306	1025	1423	0.215	305	0.3	3.967	A
2 - Ash Road North	128	698	1451	0.088	127	0.1	3.544	A
3 - Abenbury Way	212	364	1972	0.107	211	0.2	2.627	A
4 - Industrial Estate Road	1459	30	2692	0.542	1454	1.2	3.045	A
5 - Proposed Site Access	0	1484	1252	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	366	1226	1311	0.279	365	0.5	4.691	A
2 - Ash Road North	153	835	1380	0.111	153	0.2	3.822	A
3 - Abenbury Way	253	436	1929	0.131	252	0.2	2.758	A
4 - Industrial Estate Road	1742	36	2688	0.648	1740	1.9	3.979	A
5 - Proposed Site Access	0	1775	1084	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	448	1498	1160	0.386	447	0.8	6.218	A
2 - Ash Road North	187	1021	1283	0.146	187	0.2	4.276	A
3 - Abenbury Way	309	534	1872	0.165	309	0.3	2.960	A
4 - Industrial Estate Road	2134	44	2683	0.795	2126	3.9	6.697	A
5 - Proposed Site Access	0	2170	858	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	448	1504	1157	0.387	448	0.8	6.265	A
2 - Ash Road North	187	1024	1282	0.146	187	0.2	4.285	A
3 - Abenbury Way	309	535	1871	0.165	309	0.3	2.961	A
4 - Industrial Estate Road	2134	44	2683	0.795	2134	4.0	6.883	A
5 - Proposed Site Access	0	2178	854	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	366	1234	1307	0.280	367	0.5	4.730	A
2 - Ash Road North	153	840	1377	0.111	153	0.2	3.834	A
3 - Abenbury Way	253	438	1928	0.131	253	0.2	2.763	A
4 - Industrial Estate Road	1742	36	2688	0.648	1750	2.0	4.072	A
5 - Proposed Site Access	0	1786	1078	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	306	1030	1420	0.216	307	0.3	3.993	A
2 - Ash Road North	128	701	1449	0.088	128	0.1	3.554	A
3 - Abenbury Way	212	366	1971	0.107	212	0.2	2.630	A
4 - Industrial Estate Road	1459	30	2692	0.542	1462	1.3	3.085	A
5 - Proposed Site Access	0	1492	1247	0.000	0	0.0	0.000	A

2030 Base + Committed + Development (Phase 1) [Sens], PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.98	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2030 Base + Committed + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	697	100.000
2 - Ash Road North		✓	871	100.000
3 - Abenbury Way		✓	589	100.000
4 - Industrial Estate Road		✓	719	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	15	671	0
	2 - Ash Road North	17	0	10	844	0
	3 - Abenbury Way	20	4	0	565	0
	4 - Industrial Estate Road	354	175	171	19	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.43	3.75	0.8	A
2 - Ash Road North	0.73	10.28	2.7	B
3 - Abenbury Way	0.55	7.05	1.3	A
4 - Industrial Estate Road	0.30	2.07	0.5	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	525	277	1838	0.286	523	0.4	2.846	A
2 - Ash Road North	656	658	1472	0.446	653	0.8	4.433	A
3 - Abenbury Way	443	1163	1501	0.295	442	0.4	3.529	A
4 - Industrial Estate Road	541	31	2692	0.201	540	0.3	1.816	A
5 - Proposed Site Access	0	571	1776	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	627	332	1808	0.347	626	0.5	3.169	A
2 - Ash Road North	783	787	1405	0.557	781	1.3	5.830	A
3 - Abenbury Way	529	1392	1366	0.388	529	0.7	4.469	A
4 - Industrial Estate Road	646	37	2688	0.241	646	0.3	1.913	A
5 - Proposed Site Access	0	683	1712	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	767	406	1766	0.434	766	0.8	3.744	A
2 - Ash Road North	959	963	1313	0.730	953	2.6	9.983	A
3 - Abenbury Way	649	1701	1183	0.548	646	1.2	6.940	A
4 - Industrial Estate Road	792	45	2682	0.295	791	0.5	2.066	A
5 - Proposed Site Access	0	836	1624	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	767	406	1766	0.434	767	0.8	3.750	A
2 - Ash Road North	959	964	1313	0.731	959	2.7	10.284	B
3 - Abenbury Way	649	1707	1180	0.550	648	1.3	7.045	A
4 - Industrial Estate Road	792	45	2682	0.295	792	0.5	2.066	A
5 - Proposed Site Access	0	837	1623	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	627	332	1808	0.347	628	0.6	3.177	A
2 - Ash Road North	783	789	1404	0.558	789	1.3	5.978	A
3 - Abenbury Way	529	1401	1361	0.389	532	0.7	4.533	A
4 - Industrial Estate Road	646	37	2687	0.241	647	0.3	1.917	A
5 - Proposed Site Access	0	684	1711	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	525	278	1838	0.286	525	0.4	2.858	A
2 - Ash Road North	656	660	1470	0.446	658	0.8	4.494	A
3 - Abenbury Way	443	1170	1497	0.296	444	0.4	3.561	A
4 - Industrial Estate Road	541	31	2691	0.201	542	0.3	1.819	A
5 - Proposed Site Access	0	573	1775	0.000	0	0.0	0.000	A

2037 Base + Committed + Development (Phase 1 + 2) [Sens], AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	10.79	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.79	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D15	2037 Base + Committed + Development (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	432	100.000
2 - Ash Road North		✓	171	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	2125	100.000
5 - Proposed Site Access		✓	429	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	48	40	295	49
	2 - Ash Road North	4	1	10	135	21
	3 - Abenbury Way	10	21	0	215	35
	4 - Industrial Estate Road	565	671	489	16	384
	5 - Proposed Site Access	56	100	74	199	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.46	7.78	1.0	A
2 - Ash Road North	0.16	4.70	0.2	A
3 - Abenbury Way	0.18	3.17	0.3	A
4 - Industrial Estate Road	0.90	13.60	8.5	B
5 - Proposed Site Access	0.48	7.35	1.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	325	1178	1338	0.243	324	0.4	4.263	A
2 - Ash Road North	129	871	1361	0.095	128	0.1	3.662	A
3 - Abenbury Way	212	540	1868	0.113	211	0.2	2.695	A
4 - Industrial Estate Road	1600	106	2642	0.606	1593	1.6	3.556	A
5 - Proposed Site Access	323	1333	1339	0.241	322	0.3	3.675	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	388	1409	1209	0.321	388	0.6	5.264	A
2 - Ash Road North	154	1042	1272	0.121	154	0.2	4.038	A
3 - Abenbury Way	253	646	1806	0.140	252	0.2	2.875	A
4 - Industrial Estate Road	1910	127	2628	0.727	1906	2.7	5.161	A
5 - Proposed Site Access	386	1594	1189	0.324	385	0.5	4.653	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	1716	1038	0.458	474	1.0	7.643	A
2 - Ash Road North	188	1272	1153	0.163	188	0.2	4.678	A
3 - Abenbury Way	309	790	1721	0.180	309	0.3	3.164	A
4 - Industrial Estate Road	2340	155	2609	0.897	2319	8.0	12.113	B
5 - Proposed Site Access	472	1939	990	0.477	471	0.9	7.176	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	1729	1032	0.461	476	1.0	7.782	A
2 - Ash Road North	188	1279	1150	0.164	188	0.2	4.698	A
3 - Abenbury Way	309	793	1719	0.180	309	0.3	3.167	A
4 - Industrial Estate Road	2340	155	2609	0.897	2338	8.5	13.600	B
5 - Proposed Site Access	472	1955	981	0.481	472	1.0	7.350	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	388	1426	1200	0.324	390	0.6	5.359	A
2 - Ash Road North	154	1053	1267	0.121	154	0.2	4.060	A
3 - Abenbury Way	253	650	1803	0.140	253	0.2	2.882	A
4 - Industrial Estate Road	1910	127	2628	0.727	1933	2.8	5.568	A
5 - Proposed Site Access	386	1616	1176	0.328	387	0.5	4.757	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	325	1186	1333	0.244	326	0.4	4.302	A
2 - Ash Road North	129	877	1358	0.095	129	0.1	3.675	A
3 - Abenbury Way	212	543	1866	0.113	212	0.2	2.699	A
4 - Industrial Estate Road	1600	106	2641	0.606	1605	1.6	3.633	A
5 - Proposed Site Access	323	1342	1333	0.242	324	0.3	3.712	A

2037 Base + Committed + Development (Phase 1 + 2) [Sens], PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	14.03	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.03	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D16	2037 Base + Committed + Development (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	732	100.000
2 - Ash Road North		✓	871	100.000
3 - Abenbury Way		✓	590	100.000
4 - Industrial Estate Road		✓	864	100.000
5 - Proposed Site Access		✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	10	12	624	86
	2 - Ash Road North	14	0	9	723	125
	3 - Abenbury Way	17	4	0	483	86
	4 - Industrial Estate Road	333	150	146	19	216
	5 - Proposed Site Access	60	29	30	435	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.54	5.41	1.2	A
2 - Ash Road North	0.92	37.83	9.4	E
3 - Abenbury Way	0.74	16.41	2.9	C
4 - Industrial Estate Road	0.39	2.52	0.7	A
5 - Proposed Site Access	0.36	3.44	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	551	610	1653	0.333	549	0.5	3.373	A
2 - Ash Road North	656	1015	1287	0.510	652	1.0	5.693	A
3 - Abenbury Way	444	1518	1291	0.344	442	0.5	4.373	A
4 - Industrial Estate Road	650	249	2547	0.255	649	0.4	2.012	A
5 - Proposed Site Access	417	513	1809	0.231	416	0.3	2.621	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	658	730	1586	0.415	657	0.7	4.011	A
2 - Ash Road North	783	1214	1183	0.662	779	1.9	8.933	A
3 - Abenbury Way	530	1817	1115	0.476	529	0.9	6.331	A
4 - Industrial Estate Road	777	298	2514	0.309	776	0.5	2.198	A
5 - Proposed Site Access	498	614	1751	0.284	498	0.4	2.916	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	806	894	1495	0.539	804	1.2	5.382	A
2 - Ash Road North	959	1486	1042	0.920	934	8.2	28.773	D
3 - Abenbury Way	650	2204	887	0.732	643	2.7	14.824	B
4 - Industrial Estate Road	951	360	2473	0.385	951	0.7	2.508	A
5 - Proposed Site Access	610	751	1673	0.365	609	0.6	3.436	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	806	895	1495	0.539	806	1.2	5.413	A
2 - Ash Road North	959	1489	1041	0.921	954	9.4	37.832	E
3 - Abenbury Way	650	2226	874	0.743	649	2.9	16.406	C
4 - Industrial Estate Road	951	365	2470	0.385	951	0.7	2.515	A
5 - Proposed Site Access	610	752	1672	0.365	610	0.6	3.441	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	658	732	1585	0.415	660	0.7	4.038	A
2 - Ash Road North	783	1218	1181	0.663	812	2.0	10.618	B
3 - Abenbury Way	530	1853	1094	0.485	538	1.0	6.781	A
4 - Industrial Estate Road	777	305	2510	0.310	777	0.5	2.206	A
5 - Proposed Site Access	498	615	1750	0.285	499	0.4	2.922	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	551	613	1652	0.334	552	0.5	3.395	A
2 - Ash Road North	656	1019	1284	0.511	660	1.1	5.859	A
3 - Abenbury Way	444	1530	1284	0.346	446	0.6	4.450	A
4 - Industrial Estate Road	650	251	2545	0.256	651	0.4	2.018	A
5 - Proposed Site Access	417	515	1808	0.231	417	0.3	2.629	A

**Appendix TN4 - A534 / Industrial Estate Road / Sandy Lane / Borrass
Hall Lane Roundabout ARCADY**

Junctions 10				
ARCADY 10 - Roundabout Module				
Version: 10.0.1.1519				
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Filename: A534, Borrás Hall Lane, Industrial Estate Road ARCADY v3.j10

Path: D:\Cora IHT\Wrexham (2)\September 2025\ss

Report generation date: 13/11/2025 15:23:22

»2023 Base, AM
 »2023 Base, PM
 »2030 Base, AM
 »2030 Base, PM
 »2037 Base, AM
 »2037 Base, PM
 »2030 Base + Committed, AM
 »2030 Base + Committed, PM
 »2037 Base + Committed, AM
 »2037 Base + Committed, PM
 »2030 Base + Committed + Developement (Phase 1), AM
 »2030 Base + Committed + Developement (Phase 1), PM
 »2037 Base + Committed + Developement (Phase 1), AM
 »2037 Base + Committed + Developement (Phase 1), PM
 »2030 Base + Committed + Developement (Phase 1 + 2), AM
 »2030 Base + Committed + Developement (Phase 1 + 2), PM
 »2037 Base + Committed + Developement (Phase 1 + 2), AM
 »2037 Base + Committed + Developement (Phase 1 + 2), PM
 »2030 Base + Committed + Developement (Phase 1) [Sens], AM
 »2030 Base + Committed + Developement (Phase 1) [Sens], PM
 »2037 Base + Committed + Developement (Phase 1 + 2) [Sens], AM
 »2037 Base + Committed + Developement (Phase 1 + 2) [Sens], PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
1 - Borrás Hall Lane	D1	0.3	7.06	0.25	A	D2	0.0	3.63	0.04	A
2 - A534 Wrexham Road (East)		1.4	9.31	0.56	A		0.6	3.96	0.36	A
3 - Industrial Estate Road		0.4	2.66	0.23	A		3.1	6.74	0.76	A
4 - Sandy Lane		0.1	5.15	0.04	A		0.1	8.80	0.06	A
5 - A534 (West)		1.7	3.81	0.62	A		0.5	2.28	0.31	A
	2030 Base									
1 - Borrás Hall Lane	D3	0.4	7.93	0.29	A	D4	0.0	3.73	0.04	A
2 - A534 Wrexham Road (East)		1.7	11.26	0.62	B		0.6	4.15	0.38	A
3 - Industrial Estate Road		0.4	2.73	0.25	A		4.2	8.53	0.81	A
4 - Sandy Lane		0.1	5.30	0.04	A		0.1	10.15	0.07	B
5 - A534 (West)		2.0	4.21	0.65	A		0.5	2.36	0.33	A

2037 Base										
1 - Borrás Hall Lane	D5	0.5	9.10	0.33	A	D6	0.0	3.85	0.04	A
2 - A534 Wrexham Road (East)		2.4	14.47	0.69	B		0.7	4.37	0.41	A
3 - Industrial Estate Road		0.5	2.81	0.26	A		6.2	12.05	0.86	B
4 - Sandy Lane		0.1	5.48	0.04	A		0.1	12.32	0.09	B
5 - A534 (West)		2.4	4.77	0.69	A		0.6	2.45	0.35	A
	2030 Base + Committed									
1 - Borrás Hall Lane	D7	0.7	13.17	0.41	B	D8	0.1	4.21	0.05	A
2 - A534 Wrexham Road (East)		4.0	25.96	0.80	D		0.8	4.87	0.43	A
3 - Industrial Estate Road		0.6	3.05	0.32	A		25.5	43.27	0.98	F
4 - Sandy Lane		0.1	5.79	0.04	A		0.1	18.80	0.12	C
5 - A534 (West)		4.1	7.15	0.80	A		0.8	2.76	0.42	A
	2037 Base + Committed									
1 - Borrás Hall Lane	D9	0.9	16.63	0.48	C	D10	0.1	4.35	0.05	A
2 - A534 Wrexham Road (East)		7.6	47.20	0.90	E		0.9	5.18	0.46	A
3 - Industrial Estate Road		0.7	3.14	0.34	A		61.8	88.73	1.04	F
4 - Sandy Lane		0.1	5.99	0.05	A		0.2	21.92	0.15	C
5 - A534 (West)		5.2	8.88	0.84	A		0.8	2.86	0.44	A
	2030 Base + Committed + Developement (Phase 1)									
1 - Borrás Hall Lane	D11	1.0	19.22	0.52	C	D12	0.1	4.45	0.05	A
2 - A534 Wrexham Road (East)		9.2	58.95	0.93	F		0.8	5.26	0.45	A
3 - Industrial Estate Road		0.7	3.24	0.36	A		78.8	107.67	1.06	F
4 - Sandy Lane		0.1	6.05	0.04	A		0.2	21.33	0.14	C
5 - A534 (West)		6.3	10.43	0.86	B		0.9	2.96	0.46	A
	2037 Base + Committed + Developement (Phase 1)									
1 - Borrás Hall Lane	D13	1.5	27.40	0.62	D	D14	0.1	4.59	0.06	A
2 - A534 Wrexham Road (East)		25.0	134.64	1.05	F		0.9	5.62	0.48	A
3 - Industrial Estate Road		0.8	3.31	0.37	A		136.2	176.50	1.11	F
4 - Sandy Lane		0.1	6.20	0.05	A		0.2	22.57	0.15	C
5 - A534 (West)		8.9	14.31	0.90	B		1.0	3.07	0.48	A
	2030 Base + Committed + Developement (Phase 1 + 2)									
1 - Borrás Hall Lane	D15	2.1	38.81	0.70	E	D16	0.1	4.76	0.06	A
2 - A534 Wrexham Road (East)		35.7	190.13	1.11	F		0.9	5.82	0.48	A
3 - Industrial Estate Road		1.0	3.54	0.42	A		173.3	238.01	1.15	F
4 - Sandy Lane		0.1	6.44	0.04	A		0.2	21.70	0.14	C
5 - A534 (West)		13.1	20.68	0.94	C		1.1	3.21	0.50	A
	2037 Base + Committed + Developement (Phase 1 + 2)									
1 - Borrás Hall Lane	D17	2.6	46.05	0.74	E	D18	0.1	4.92	0.07	A
2 - A534 Wrexham Road (East)		47.4	239.23	1.16	F		1.1	6.25	0.51	A
3 - Industrial Estate Road		1.0	3.56	0.42	A		181.6	255.39	1.15	F
4 - Sandy Lane		0.1	6.53	0.05	A		0.2	22.64	0.15	C
5 - A534 (West)		14.8	23.19	0.94	C		1.2	3.35	0.52	A
	2030 Base + Committed + Developement (Phase 1) [Sens]									
1 - Borrás Hall Lane	D19	0.7	13.19	0.42	B	D20	0.1	4.28	0.05	A
2 - A534 Wrexham Road (East)		4.3	27.19	0.81	D		0.7	4.85	0.42	A
3 - Industrial Estate Road		0.7	3.10	0.33	A		26.7	44.70	0.99	E
4 - Sandy Lane		0.1	5.85	0.04	A		0.1	18.67	0.12	C
5 - A534 (West)		3.9	6.96	0.79	A		0.8	2.81	0.43	A
	2037 Base + Committed + Developement (Phase 1 + 2) [Sens]									
1 - Borrás Hall Lane	D21	1.4	24.20	0.59	C	D22	0.1	4.73	0.06	A
2 - A534 Wrexham Road (East)		17.4	98.75	1.00	F		0.9	5.68	0.48	A
3 - Industrial Estate Road		0.9	3.45	0.40	A		104.1	137.61	1.08	F
4 - Sandy Lane		0.1	6.42	0.05	A		0.2	22.06	0.15	C
5 - A534 (West)		7.4	12.16	0.88	B		1.0	3.17	0.49	A

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	Borras Hall Lane / Wrexham Road / Industrial Estate Road
Location	Wrexham
Site number	
Date	31/01/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGBB\mchau
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D11	2030 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D12	2030 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D13	2037 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D14	2037 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D15	2030 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D16	2030 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D17	2037 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D18	2037 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D19	2030 Base + Committed + Developement (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15
D20	2030 Base + Committed + Developement (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15
D21	2037 Base + Committed + Developement (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15
D22	2037 Base + Committed + Developement (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.83	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Borras Hall Lane		
2	A534 Wrexham Road (East)		
3	Industrial Estate Road		
4	Sandy Lane		
5	A534 (West)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Borras Hall Lane	3.60	5.80	11.0	17.3	70.0	31.3		
2 - A534 Wrexham Road (East)	3.50	7.30	13.0	26.2	70.0	31.8		
3 - Industrial Estate Road	7.00	8.70	15.7	38.8	70.0	31.8		
4 - Sandy Lane	3.70	5.30	18.1	16.0	70.0	30.9		
5 - A534 (West)	7.80	10.10	5.0	32.0	70.0	31.3		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Borras Hall Lane	0.468	1479
2 - A534 Wrexham Road (East)	0.501	1664
3 - Industrial Estate Road	0.643	2547
4 - Sandy Lane	0.467	1476
5 - A534 (West)	0.663	2682

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	159	100.000
2 - A534 Wrexham Road (East)		✓	486	100.000
3 - Industrial Estate Road		✓	480	100.000
4 - Sandy Lane		✓	34	100.000
5 - A534 (West)		✓	1469	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	10	140	0	9
	2 - A534 Wrexham Road (East)	2	0	159	7	318
	3 - Industrial Estate Road	15	57	2	1	405
	4 - Sandy Lane	1	7	4	0	22
	5 - A534 (West)	6	325	1114	22	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrás Hall Lane	0.25	7.06	0.3	A
2 - A534 Wrexham Road (East)	0.56	9.31	1.4	A
3 - Industrial Estate Road	0.23	2.66	0.4	A
4 - Sandy Lane	0.04	5.15	0.1	A
5 - A534 (West)	0.62	3.81	1.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	120	1151	941	0.127	119	0.1	4.418	A
2 - A534 Wrexham Road (East)	366	971	1178	0.311	364	0.5	4.751	A
3 - Industrial Estate Road	361	270	2374	0.152	360	0.2	2.327	A
4 - Sandy Lane	26	608	1192	0.021	25	0.0	4.509	A
5 - A534 (West)	1106	66	2638	0.419	1103	0.8	2.475	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	143	1377	835	0.171	143	0.2	5.246	A
2 - A534 Wrexham Road (East)	437	1161	1082	0.404	436	0.7	5.983	A
3 - Industrial Estate Road	432	323	2340	0.184	431	0.3	2.457	A
4 - Sandy Lane	31	727	1137	0.027	31	0.0	4.757	A
5 - A534 (West)	1321	79	2629	0.502	1319	1.1	2.904	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	1685	690	0.254	175	0.3	7.031	A
2 - A534 Wrexham Road (East)	535	1421	952	0.562	533	1.4	9.179	A
3 - Industrial Estate Road	528	395	2294	0.230	528	0.4	2.656	A
4 - Sandy Lane	37	890	1061	0.035	37	0.1	5.141	A
5 - A534 (West)	1617	97	2618	0.618	1615	1.7	3.788	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	1688	689	0.254	175	0.3	7.061	A
2 - A534 Wrexham Road (East)	535	1424	951	0.563	535	1.4	9.311	A
3 - Industrial Estate Road	528	396	2292	0.231	528	0.4	2.658	A
4 - Sandy Lane	37	892	1060	0.035	37	0.1	5.146	A
5 - A534 (West)	1617	97	2618	0.618	1617	1.7	3.806	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	143	1381	833	0.172	143	0.2	5.272	A
2 - A534 Wrexham Road (East)	437	1165	1080	0.404	439	0.7	6.064	A
3 - Industrial Estate Road	432	325	2338	0.185	432	0.3	2.462	A
4 - Sandy Lane	31	730	1135	0.027	31	0.0	4.763	A
5 - A534 (West)	1321	79	2629	0.502	1323	1.1	2.920	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	120	1155	938	0.128	120	0.1	4.438	A
2 - A534 Wrexham Road (East)	366	975	1176	0.311	367	0.5	4.793	A
3 - Industrial Estate Road	361	272	2373	0.152	362	0.2	2.333	A
4 - Sandy Lane	26	611	1191	0.021	26	0.0	4.516	A
5 - A534 (West)	1106	66	2638	0.419	1107	0.8	2.491	A

2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.13	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	33	100.000
2 - A534 Wrexham Road (East)		✓	466	100.000
3 - Industrial Estate Road		✓	1541	100.000
4 - Sandy Lane		✓	25	100.000
5 - A534 (West)		✓	694	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	20	1	7
	2 - A534 Wrexham Road (East)	6	0	59	1	400
	3 - Industrial Estate Road	113	187	1	3	1237
	4 - Sandy Lane	1	5	1	0	18
	5 - A534 (West)	13	303	368	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.04	3.63	0.0	A
2 - A534 Wrexham Road (East)	0.36	3.96	0.6	A
3 - Industrial Estate Road	0.76	6.74	3.1	A
4 - Sandy Lane	0.06	8.80	0.1	A
5 - A534 (West)	0.31	2.28	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	25	657	1172	0.021	25	0.0	3.138	A
2 - A534 Wrexham Road (East)	351	306	1511	0.232	350	0.3	3.158	A
3 - Industrial Estate Road	1160	319	2342	0.495	1156	1.0	3.116	A
4 - Sandy Lane	19	1465	792	0.024	19	0.0	5.063	A
5 - A534 (West)	522	236	2526	0.207	521	0.3	1.918	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	30	786	1111	0.027	30	0.0	3.327	A
2 - A534 Wrexham Road (East)	419	367	1480	0.283	419	0.4	3.455	A
3 - Industrial Estate Road	1385	382	2302	0.602	1383	1.5	4.026	A
4 - Sandy Lane	22	1753	658	0.034	22	0.0	6.163	A
5 - A534 (West)	624	282	2495	0.250	624	0.4	2.055	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	36	962	1029	0.035	36	0.0	3.626	A
2 - A534 Wrexham Road (East)	513	449	1439	0.356	512	0.6	3.957	A
3 - Industrial Estate Road	1697	467	2247	0.755	1690	3.1	6.592	A
4 - Sandy Lane	28	2144	476	0.058	27	0.1	8.736	A
5 - A534 (West)	764	344	2453	0.311	764	0.5	2.276	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	36	963	1028	0.035	36	0.0	3.628	A
2 - A534 Wrexham Road (East)	513	449	1439	0.357	513	0.6	3.962	A
3 - Industrial Estate Road	1697	468	2246	0.755	1696	3.1	6.737	A
4 - Sandy Lane	28	2150	473	0.058	28	0.1	8.799	A
5 - A534 (West)	764	346	2453	0.312	764	0.5	2.277	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	30	788	1110	0.027	30	0.0	3.333	A
2 - A534 Wrexham Road (East)	419	367	1480	0.283	420	0.4	3.463	A
3 - Industrial Estate Road	1385	383	2301	0.602	1392	1.6	4.105	A
4 - Sandy Lane	22	1762	653	0.034	23	0.0	6.208	A
5 - A534 (West)	624	284	2494	0.250	624	0.4	2.059	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	25	659	1171	0.021	25	0.0	3.141	A
2 - A534 Wrexham Road (East)	351	307	1510	0.232	351	0.3	3.166	A
3 - Industrial Estate Road	1160	320	2341	0.496	1162	1.0	3.150	A
4 - Sandy Lane	19	1473	789	0.024	19	0.0	5.087	A
5 - A534 (West)	522	237	2525	0.207	523	0.3	1.921	A

2030 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.48	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.48	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	169	100.000
2 - A534 Wrexham Road (East)		✓	514	100.000
3 - Industrial Estate Road		✓	508	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	1554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	148	0	10
	2 - A534 Wrexham Road (East)	2	0	168	7	337
	3 - Industrial Estate Road	16	60	2	1	429
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	344	1179	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.29	7.93	0.4	A
2 - A534 Wrexham Road (East)	0.62	11.26	1.7	B
3 - Industrial Estate Road	0.25	2.73	0.4	A
4 - Sandy Lane	0.04	5.30	0.1	A
5 - A534 (West)	0.65	4.21	2.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	127	1217	910	0.140	127	0.2	4.633	A
2 - A534 Wrexham Road (East)	387	1027	1150	0.337	385	0.5	5.047	A
3 - Industrial Estate Road	382	285	2364	0.162	381	0.3	2.364	A
4 - Sandy Lane	26	643	1176	0.022	26	0.0	4.595	A
5 - A534 (West)	1170	69	2636	0.444	1167	0.8	2.587	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	152	1456	798	0.190	152	0.2	5.617	A
2 - A534 Wrexham Road (East)	462	1228	1049	0.441	461	0.8	6.574	A
3 - Industrial Estate Road	457	342	2328	0.196	456	0.3	2.506	A
4 - Sandy Lane	31	770	1117	0.028	31	0.0	4.867	A
5 - A534 (West)	1397	83	2627	0.532	1396	1.2	3.090	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	186	1782	645	0.288	185	0.4	7.882	A
2 - A534 Wrexham Road (East)	566	1503	911	0.621	562	1.7	11.001	B
3 - Industrial Estate Road	559	417	2279	0.245	559	0.4	2.726	A
4 - Sandy Lane	39	942	1036	0.037	38	0.1	5.293	A
5 - A534 (West)	1711	101	2615	0.654	1708	2.0	4.185	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	186	1785	644	0.289	186	0.4	7.930	A
2 - A534 Wrexham Road (East)	566	1506	909	0.622	566	1.7	11.259	B
3 - Industrial Estate Road	559	419	2278	0.246	559	0.4	2.728	A
4 - Sandy Lane	39	945	1035	0.037	39	0.1	5.299	A
5 - A534 (West)	1711	101	2615	0.654	1711	2.0	4.214	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	152	1460	796	0.191	153	0.2	5.654	A
2 - A534 Wrexham Road (East)	462	1233	1046	0.442	466	0.9	6.705	A
3 - Industrial Estate Road	457	345	2325	0.196	457	0.3	2.510	A
4 - Sandy Lane	31	774	1115	0.028	32	0.0	4.878	A
5 - A534 (West)	1397	83	2627	0.532	1400	1.2	3.113	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	127	1222	907	0.140	128	0.2	4.658	A
2 - A534 Wrexham Road (East)	387	1031	1147	0.337	388	0.6	5.107	A
3 - Industrial Estate Road	382	288	2362	0.162	383	0.3	2.369	A
4 - Sandy Lane	26	647	1174	0.022	26	0.0	4.604	A
5 - A534 (West)	1170	69	2636	0.444	1171	0.8	2.604	A

2030 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.20	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	34	100.000
2 - A534 Wrexham Road (East)		✓	492	100.000
3 - Industrial Estate Road		✓	1632	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	734	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	21	1	7
	2 - A534 Wrexham Road (East)	6	0	62	1	423
	3 - Industrial Estate Road	120	198	1	3	1310
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	13	321	390	8	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
1 - Borrass Hall Lane		0	0	0	0	0
2 - A534 Wrexham Road (East)		0	0	9	0	1
3 - Industrial Estate Road		0	5	0	0	3
4 - Sandy Lane		0	25	0	0	6
5 - A534 (West)		0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.04	3.73	0.0	A
2 - A534 Wrexham Road (East)	0.38	4.15	0.6	A
3 - Industrial Estate Road	0.81	8.53	4.2	A
4 - Sandy Lane	0.07	10.15	0.1	B
5 - A534 (West)	0.33	2.36	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	26	695	1154	0.022	26	0.0	3.190	A
2 - A534 Wrexham Road (East)	370	324	1502	0.247	369	0.3	3.236	A
3 - Industrial Estate Road	1229	336	2331	0.527	1224	1.1	3.336	A
4 - Sandy Lane	20	1550	752	0.026	19	0.0	5.337	A
5 - A534 (West)	553	249	2517	0.220	551	0.3	1.956	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	832	1090	0.028	31	0.0	3.397	A
2 - A534 Wrexham Road (East)	442	387	1470	0.301	442	0.4	3.566	A
3 - Industrial Estate Road	1467	402	2289	0.641	1464	1.8	4.485	A
4 - Sandy Lane	23	1855	610	0.038	23	0.0	6.665	A
5 - A534 (West)	660	298	2484	0.266	660	0.4	2.107	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1018	1003	0.037	37	0.0	3.728	A
2 - A534 Wrexham Road (East)	542	474	1427	0.380	541	0.6	4.140	A
3 - Industrial Estate Road	1797	493	2231	0.806	1788	4.1	8.211	A
4 - Sandy Lane	29	2266	418	0.068	28	0.1	10.030	B
5 - A534 (West)	808	364	2441	0.331	808	0.5	2.355	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1019	1002	0.037	37	0.0	3.731	A
2 - A534 Wrexham Road (East)	542	475	1426	0.380	542	0.6	4.147	A
3 - Industrial Estate Road	1797	493	2230	0.806	1796	4.2	8.532	A
4 - Sandy Lane	29	2275	414	0.069	29	0.1	10.149	B
5 - A534 (West)	808	365	2439	0.331	808	0.5	2.357	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	834	1089	0.028	31	0.0	3.401	A
2 - A534 Wrexham Road (East)	442	388	1470	0.301	443	0.4	3.575	A
3 - Industrial Estate Road	1467	403	2288	0.641	1476	1.9	4.621	A
4 - Sandy Lane	23	1868	604	0.039	24	0.0	6.738	A
5 - A534 (West)	660	300	2483	0.266	660	0.4	2.112	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	26	698	1153	0.022	26	0.0	3.196	A
2 - A534 Wrexham Road (East)	370	325	1501	0.247	371	0.3	3.248	A
3 - Industrial Estate Road	1229	338	2330	0.527	1231	1.2	3.385	A
4 - Sandy Lane	20	1559	748	0.026	20	0.0	5.371	A
5 - A534 (West)	553	251	2516	0.220	553	0.3	1.961	A

2037 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.47	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	178	100.000
2 - A534 Wrexham Road (East)		✓	544	100.000
3 - Industrial Estate Road		✓	537	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	1645	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	157	0	10
	2 - A534 Wrexham Road (East)	2	0	178	8	356
	3 - Industrial Estate Road	17	64	2	1	453
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	364	1247	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.33	9.10	0.5	A
2 - A534 Wrexham Road (East)	0.69	14.47	2.4	B
3 - Industrial Estate Road	0.26	2.81	0.5	A
4 - Sandy Lane	0.04	5.48	0.1	A
5 - A534 (West)	0.69	4.77	2.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	134	1288	876	0.153	133	0.2	4.883	A
2 - A534 Wrexham Road (East)	410	1086	1120	0.366	407	0.6	5.414	A
3 - Industrial Estate Road	404	302	2353	0.172	403	0.3	2.403	A
4 - Sandy Lane	29	679	1159	0.025	28	0.0	4.692	A
5 - A534 (West)	1238	74	2633	0.470	1235	0.9	2.717	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	160	1541	758	0.211	160	0.3	6.067	A
2 - A534 Wrexham Road (East)	489	1299	1013	0.483	488	1.0	7.349	A
3 - Industrial Estate Road	483	361	2315	0.209	482	0.3	2.559	A
4 - Sandy Lane	34	813	1096	0.031	34	0.0	4.993	A
5 - A534 (West)	1479	88	2624	0.564	1477	1.4	3.318	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	196	1885	597	0.328	195	0.5	9.019	A
2 - A534 Wrexham Road (East)	599	1589	868	0.690	594	2.3	13.882	B
3 - Industrial Estate Road	591	440	2264	0.261	591	0.5	2.802	A
4 - Sandy Lane	42	994	1012	0.041	42	0.1	5.465	A
5 - A534 (West)	1811	108	2610	0.694	1807	2.4	4.718	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	196	1889	595	0.329	196	0.5	9.100	A
2 - A534 Wrexham Road (East)	599	1593	866	0.692	599	2.4	14.467	B
3 - Industrial Estate Road	591	444	2262	0.261	591	0.5	2.806	A
4 - Sandy Lane	42	997	1011	0.041	42	0.1	5.475	A
5 - A534 (West)	1811	108	2610	0.694	1811	2.4	4.765	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	160	1547	755	0.212	161	0.3	6.120	A
2 - A534 Wrexham Road (East)	489	1305	1010	0.484	494	1.0	7.583	A
3 - Industrial Estate Road	483	366	2312	0.209	483	0.3	2.564	A
4 - Sandy Lane	34	818	1094	0.031	34	0.0	5.007	A
5 - A534 (West)	1479	88	2623	0.564	1483	1.4	3.352	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	134	1294	874	0.153	134	0.2	4.915	A
2 - A534 Wrexham Road (East)	410	1091	1117	0.367	411	0.6	5.495	A
3 - Industrial Estate Road	404	305	2351	0.172	405	0.3	2.410	A
4 - Sandy Lane	29	683	1157	0.025	29	0.0	4.702	A
5 - A534 (West)	1238	74	2633	0.470	1240	0.9	2.739	A

2037 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	8.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.25	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrass Hall Lane		✓	37	100.000
2 - A534 Wrexham Road (East)		✓	521	100.000
3 - Industrial Estate Road		✓	1732	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	777	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	6	22	1	8
	2 - A534 Wrexham Road (East)	7	0	66	1	447
	3 - Industrial Estate Road	126	209	1	3	1393
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	339	412	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.04	3.85	0.0	A
2 - A534 Wrexham Road (East)	0.41	4.37	0.7	A
3 - Industrial Estate Road	0.86	12.05	6.2	B
4 - Sandy Lane	0.09	12.32	0.1	B
5 - A534 (West)	0.35	2.45	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	28	735	1135	0.025	28	0.0	3.250	A
2 - A534 Wrexham Road (East)	392	343	1493	0.263	391	0.4	3.326	A
3 - Industrial Estate Road	1304	356	2318	0.562	1299	1.3	3.621	A
4 - Sandy Lane	21	1644	709	0.030	21	0.0	5.711	A
5 - A534 (West)	585	263	2507	0.233	584	0.3	1.998	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	879	1068	0.031	33	0.0	3.479	A
2 - A534 Wrexham Road (East)	468	410	1459	0.321	468	0.5	3.700	A
3 - Industrial Estate Road	1557	427	2273	0.685	1553	2.2	5.128	A
4 - Sandy Lane	25	1967	558	0.045	25	0.1	7.372	A
5 - A534 (West)	699	315	2473	0.282	698	0.4	2.167	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	41	1075	976	0.042	41	0.0	3.849	A
2 - A534 Wrexham Road (East)	574	502	1413	0.406	573	0.7	4.363	A
3 - Industrial Estate Road	1907	522	2211	0.862	1892	5.9	11.126	B
4 - Sandy Lane	31	2399	356	0.086	31	0.1	12.045	B
5 - A534 (West)	855	384	2428	0.352	855	0.6	2.444	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	41	1078	975	0.042	41	0.0	3.854	A
2 - A534 Wrexham Road (East)	574	502	1413	0.406	574	0.7	4.373	A
3 - Industrial Estate Road	1907	523	2211	0.863	1906	6.2	12.053	B
4 - Sandy Lane	31	2414	350	0.088	31	0.1	12.317	B
5 - A534 (West)	855	386	2426	0.353	855	0.6	2.449	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	33	883	1066	0.031	33	0.0	3.487	A
2 - A534 Wrexham Road (East)	468	410	1459	0.321	469	0.5	3.714	A
3 - Industrial Estate Road	1557	428	2272	0.685	1573	2.3	5.413	A
4 - Sandy Lane	25	1988	548	0.046	25	0.1	7.514	A
5 - A534 (West)	699	319	2471	0.283	699	0.4	2.173	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	28	738	1134	0.025	28	0.0	3.257	A
2 - A534 Wrexham Road (East)	392	344	1492	0.263	393	0.4	3.341	A
3 - Industrial Estate Road	1304	358	2317	0.563	1308	1.3	3.686	A
4 - Sandy Lane	21	1655	704	0.030	21	0.0	5.757	A
5 - A534 (West)	585	265	2506	0.233	585	0.3	2.004	A

2030 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	9.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.68	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	176	100.000
2 - A534 Wrexham Road (East)		✓	534	100.000
3 - Industrial Estate Road		✓	665	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	1885	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	155	0	10
	2 - A534 Wrexham Road (East)	2	0	181	7	344
	3 - Industrial Estate Road	19	68	2	1	575
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	363	1491	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.41	13.17	0.7	B
2 - A534 Wrexham Road (East)	0.80	25.96	4.0	D
3 - Industrial Estate Road	0.32	3.05	0.6	A
4 - Sandy Lane	0.04	5.79	0.1	A
5 - A534 (West)	0.80	7.15	4.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	133	1470	791	0.168	132	0.2	5.501	A
2 - A534 Wrexham Road (East)	402	1265	1030	0.390	399	0.7	6.112	A
3 - Industrial Estate Road	501	290	2361	0.212	499	0.4	2.525	A
4 - Sandy Lane	26	766	1118	0.024	26	0.0	4.836	A
5 - A534 (West)	1419	77	2631	0.539	1414	1.2	3.118	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	158	1759	656	0.241	158	0.3	7.285	A
2 - A534 Wrexham Road (East)	480	1514	905	0.530	478	1.2	9.013	A
3 - Industrial Estate Road	598	347	2324	0.257	597	0.5	2.723	A
4 - Sandy Lane	31	917	1048	0.030	31	0.0	5.195	A
5 - A534 (West)	1695	93	2621	0.647	1692	1.9	4.088	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	194	2150	473	0.410	192	0.7	12.865	B
2 - A534 Wrexham Road (East)	588	1849	737	0.797	578	3.8	22.927	C
3 - Industrial Estate Road	732	420	2277	0.322	732	0.6	3.040	A
4 - Sandy Lane	39	1118	954	0.040	38	0.1	5.767	A
5 - A534 (West)	2075	113	2607	0.796	2067	4.0	6.951	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	194	2158	469	0.413	194	0.7	13.167	B
2 - A534 Wrexham Road (East)	588	1857	733	0.802	587	4.0	25.956	D
3 - Industrial Estate Road	732	426	2273	0.322	732	0.6	3.050	A
4 - Sandy Lane	39	1124	951	0.041	39	0.1	5.787	A
5 - A534 (West)	2075	113	2607	0.796	2075	4.1	7.154	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	158	1770	651	0.243	160	0.3	7.418	A
2 - A534 Wrexham Road (East)	480	1525	900	0.533	491	1.3	9.714	A
3 - Industrial Estate Road	598	356	2318	0.258	598	0.5	2.734	A
4 - Sandy Lane	31	927	1044	0.030	32	0.0	5.221	A
5 - A534 (West)	1695	93	2620	0.647	1703	2.0	4.190	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	133	1478	787	0.168	133	0.2	5.556	A
2 - A534 Wrexham Road (East)	402	1273	1026	0.392	404	0.7	6.246	A
3 - Industrial Estate Road	501	294	2358	0.212	501	0.4	2.531	A
4 - Sandy Lane	26	771	1116	0.024	26	0.0	4.849	A
5 - A534 (West)	1419	78	2630	0.540	1422	1.2	3.158	A

2030 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	26.20	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.20	D

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	39	100.000
2 - A534 Wrexham Road (East)		✓	517	100.000
3 - Industrial Estate Road		✓	1982	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	927	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	26	1	7
	2 - A534 Wrexham Road (East)	6	0	70	1	440
	3 - Industrial Estate Road	129	212	1	3	1637
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	573	8	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
1 - Borrass Hall Lane		0	0	0	0	0
2 - A534 Wrexham Road (East)		0	0	9	0	1
3 - Industrial Estate Road		0	5	0	0	3
4 - Sandy Lane		0	25	0	0	6
5 - A534 (West)		0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.05	4.21	0.1	A
2 - A534 Wrexham Road (East)	0.43	4.87	0.8	A
3 - Industrial Estate Road	0.98	43.27	25.5	E
4 - Sandy Lane	0.12	18.80	0.1	C
5 - A534 (West)	0.42	2.76	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	29	850	1081	0.027	29	0.0	3.420	A
2 - A534 Wrexham Road (East)	389	465	1431	0.272	388	0.4	3.514	A
3 - Industrial Estate Road	1492	349	2323	0.642	1485	1.8	4.387	A
4 - Sandy Lane	20	1824	625	0.031	19	0.0	6.460	A
5 - A534 (West)	698	266	2505	0.279	696	0.4	2.138	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1016	1003	0.035	35	0.0	3.716	A
2 - A534 Wrexham Road (East)	465	556	1386	0.335	464	0.5	3.984	A
3 - Industrial Estate Road	1782	418	2279	0.782	1775	3.6	7.259	A
4 - Sandy Lane	23	2181	458	0.051	23	0.1	8.991	A
5 - A534 (West)	833	318	2471	0.337	833	0.5	2.364	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	43	1239	900	0.048	43	0.0	4.202	A
2 - A534 Wrexham Road (East)	569	681	1323	0.430	568	0.8	4.859	A
3 - Industrial Estate Road	2182	511	2219	0.984	2119	19.4	27.460	D
4 - Sandy Lane	29	2616	255	0.112	28	0.1	17.214	C
5 - A534 (West)	1021	380	2430	0.420	1020	0.8	2.745	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	43	1244	897	0.048	43	0.1	4.214	A
2 - A534 Wrexham Road (East)	569	682	1323	0.430	569	0.8	4.873	A
3 - Industrial Estate Road	2182	512	2218	0.984	2158	25.5	43.266	E
4 - Sandy Lane	29	2656	237	0.121	29	0.1	18.800	C
5 - A534 (West)	1021	387	2425	0.421	1021	0.8	2.756	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	35	1028	998	0.035	35	0.0	3.740	A
2 - A534 Wrexham Road (East)	465	557	1385	0.336	466	0.5	4.000	A
3 - Industrial Estate Road	1782	419	2278	0.782	1868	3.9	10.927	B
4 - Sandy Lane	23	2275	414	0.056	24	0.1	10.028	B
5 - A534 (West)	833	334	2460	0.339	834	0.6	2.384	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	29	854	1080	0.027	29	0.0	3.429	A
2 - A534 Wrexham Road (East)	389	466	1430	0.272	390	0.4	3.529	A
3 - Industrial Estate Road	1492	351	2322	0.643	1500	1.9	4.556	A
4 - Sandy Lane	20	1841	617	0.032	20	0.0	6.554	A
5 - A534 (West)	698	269	2504	0.279	698	0.4	2.145	A

2037 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	14.37	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.37	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	184	100.000
2 - A534 Wrexham Road (East)		✓	564	100.000
3 - Industrial Estate Road		✓	694	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	1976	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	163	0	10
	2 - A534 Wrexham Road (East)	2	0	191	8	363
	3 - Industrial Estate Road	20	72	2	1	599
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1559	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.48	16.63	0.9	C
2 - A534 Wrexham Road (East)	0.90	47.20	7.6	E
3 - Industrial Estate Road	0.34	3.14	0.7	A
4 - Sandy Lane	0.05	5.99	0.1	A
5 - A534 (West)	0.84	8.88	5.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	139	1541	758	0.183	138	0.2	5.848	A
2 - A534 Wrexham Road (East)	425	1324	1001	0.424	421	0.8	6.648	A
3 - Industrial Estate Road	522	306	2350	0.222	521	0.4	2.567	A
4 - Sandy Lane	29	802	1102	0.026	28	0.0	4.942	A
5 - A534 (West)	1488	82	2628	0.566	1482	1.4	3.309	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	165	1844	616	0.268	165	0.4	8.037	A
2 - A534 Wrexham Road (East)	507	1583	871	0.582	504	1.5	10.494	B
3 - Industrial Estate Road	624	367	2311	0.270	623	0.5	2.785	A
4 - Sandy Lane	34	960	1028	0.033	34	0.1	5.336	A
5 - A534 (West)	1776	98	2617	0.679	1773	2.2	4.495	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	203	2251	426	0.476	201	0.9	15.977	C
2 - A534 Wrexham Road (East)	621	1932	696	0.892	601	6.4	35.405	E
3 - Industrial Estate Road	764	438	2266	0.337	763	0.7	3.127	A
4 - Sandy Lane	42	1164	933	0.045	42	0.1	5.954	A
5 - A534 (West)	2176	120	2602	0.836	2164	5.1	8.471	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	203	2262	421	0.482	202	0.9	16.630	C
2 - A534 Wrexham Road (East)	621	1943	691	0.899	616	7.6	47.202	E
3 - Industrial Estate Road	764	448	2259	0.338	764	0.7	3.144	A
4 - Sandy Lane	42	1175	928	0.045	42	0.1	5.988	A
5 - A534 (West)	2176	120	2602	0.836	2175	5.2	8.884	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	165	1859	609	0.272	168	0.4	8.267	A
2 - A534 Wrexham Road (East)	507	1598	863	0.587	531	1.6	12.461	B
3 - Industrial Estate Road	624	385	2300	0.271	625	0.5	2.809	A
4 - Sandy Lane	34	978	1019	0.034	34	0.1	5.386	A
5 - A534 (West)	1776	98	2617	0.679	1788	2.3	4.663	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	139	1551	753	0.184	139	0.2	5.919	A
2 - A534 Wrexham Road (East)	425	1332	997	0.426	428	0.8	6.842	A
3 - Industrial Estate Road	522	311	2347	0.223	523	0.4	2.576	A
4 - Sandy Lane	29	808	1099	0.026	29	0.0	4.956	A
5 - A534 (West)	1488	82	2627	0.566	1491	1.4	3.364	A

2037 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	52.07	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	52.07	F

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)
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	42	100.000
2 - A534 Wrexham Road (East)		✓	545	100.000
3 - Industrial Estate Road		✓	2075	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	969	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	27	1	8
	2 - A534 Wrexham Road (East)	7	0	73	1	464
	3 - Industrial Estate Road	136	223	1	3	1712
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	595	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.05	4.35	0.1	A
2 - A534 Wrexham Road (East)	0.46	5.18	0.9	A
3 - Industrial Estate Road	1.04	88.73	61.8	F
4 - Sandy Lane	0.15	21.92	0.2	C
5 - A534 (West)	0.44	2.86	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	32	889	1063	0.030	31	0.0	3.490	A
2 - A534 Wrexham Road (East)	410	484	1422	0.289	409	0.4	3.617	A
3 - Industrial Estate Road	1562	369	2310	0.676	1554	2.1	4.851	A
4 - Sandy Lane	21	1912	584	0.036	21	0.0	6.977	A
5 - A534 (West)	730	281	2496	0.292	728	0.4	2.188	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	38	1064	981	0.038	38	0.0	3.814	A
2 - A534 Wrexham Road (East)	490	579	1374	0.357	489	0.6	4.146	A
3 - Industrial Estate Road	1865	442	2263	0.824	1856	4.6	8.885	A
4 - Sandy Lane	25	2285	410	0.061	25	0.1	10.205	B
5 - A534 (West)	871	335	2459	0.354	871	0.6	2.437	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	46	1289	876	0.053	46	0.1	4.339	A
2 - A534 Wrexham Road (East)	600	708	1309	0.458	599	0.9	5.160	A
3 - Industrial Estate Road	2285	541	2200	1.039	2154	37.4	43.866	E
4 - Sandy Lane	31	2679	226	0.137	30	0.2	20.067	C
5 - A534 (West)	1067	390	2423	0.440	1066	0.8	2.851	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	46	1294	874	0.053	46	0.1	4.351	A
2 - A534 Wrexham Road (East)	600	709	1309	0.458	600	0.9	5.179	A
3 - Industrial Estate Road	2285	542	2199	1.039	2187	61.8	88.734	F
4 - Sandy Lane	31	2713	210	0.147	31	0.2	21.921	C
5 - A534 (West)	1067	396	2419	0.441	1067	0.8	2.862	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	38	1091	969	0.039	38	0.0	3.867	A
2 - A534 Wrexham Road (East)	490	580	1374	0.357	491	0.6	4.166	A
3 - Industrial Estate Road	1865	443	2262	0.825	2091	5.4	39.704	E
4 - Sandy Lane	25	2522	299	0.084	25	0.1	14.367	B
5 - A534 (West)	871	376	2432	0.358	872	0.6	2.484	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	32	894	1061	0.030	32	0.0	3.500	A
2 - A534 Wrexham Road (East)	410	485	1421	0.289	411	0.4	3.639	A
3 - Industrial Estate Road	1562	371	2309	0.677	1575	2.2	5.140	A
4 - Sandy Lane	21	1935	573	0.037	21	0.0	7.123	A
5 - A534 (West)	730	285	2493	0.293	730	0.4	2.198	A

2030 Base + Committed + Developement (Phase 1), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	16.80	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.80	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2030 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	182	100.000
2 - A534 Wrexham Road (East)		✓	546	100.000
3 - Industrial Estate Road		✓	746	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	2032	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	161	0	10
	2 - A534 Wrexham Road (East)	2	0	193	7	344
	3 - Industrial Estate Road	19	78	2	1	646
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	363	1638	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.52	19.22	1.0	C
2 - A534 Wrexham Road (East)	0.93	58.95	9.2	F
3 - Industrial Estate Road	0.36	3.24	0.7	A
4 - Sandy Lane	0.04	6.05	0.1	A
5 - A534 (West)	0.86	10.43	6.3	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	137	1588	736	0.186	136	0.2	6.044	A
2 - A534 Wrexham Road (East)	411	1380	973	0.423	408	0.8	6.816	A
3 - Industrial Estate Road	562	290	2361	0.238	560	0.4	2.611	A
4 - Sandy Lane	26	827	1090	0.024	26	0.0	4.965	A
5 - A534 (West)	1530	85	2626	0.583	1524	1.5	3.439	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	164	1899	590	0.277	163	0.4	8.487	A
2 - A534 Wrexham Road (East)	491	1650	837	0.586	488	1.5	11.000	B
3 - Industrial Estate Road	671	347	2324	0.289	670	0.5	2.845	A
4 - Sandy Lane	31	989	1014	0.031	31	0.0	5.373	A
5 - A534 (West)	1827	101	2615	0.699	1823	2.4	4.789	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	200	2316	395	0.507	198	1.0	18.185	C
2 - A534 Wrexham Road (East)	601	2012	656	0.916	578	7.4	41.061	E
3 - Industrial Estate Road	821	412	2283	0.360	821	0.7	3.217	A
4 - Sandy Lane	39	1199	917	0.042	38	0.1	6.014	A
5 - A534 (West)	2237	124	2600	0.861	2223	6.1	9.747	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	200	2330	389	0.515	200	1.0	19.220	C
2 - A534 Wrexham Road (East)	601	2025	649	0.926	594	9.2	58.947	F
3 - Industrial Estate Road	821	422	2276	0.361	821	0.7	3.235	A
4 - Sandy Lane	39	1210	911	0.042	39	0.1	6.050	A
5 - A534 (West)	2237	124	2599	0.861	2236	6.3	10.426	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	164	1918	581	0.281	166	0.4	8.798	A
2 - A534 Wrexham Road (East)	491	1669	828	0.593	521	1.6	13.816	B
3 - Industrial Estate Road	671	369	2310	0.290	671	0.5	2.872	A
4 - Sandy Lane	31	1012	1004	0.031	32	0.0	5.432	A
5 - A534 (West)	1827	102	2614	0.699	1842	2.5	5.026	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	137	1598	731	0.187	138	0.2	6.125	A
2 - A534 Wrexham Road (East)	411	1389	968	0.425	414	0.8	7.029	A
3 - Industrial Estate Road	562	294	2358	0.238	562	0.4	2.620	A
4 - Sandy Lane	26	833	1087	0.024	26	0.0	4.979	A
5 - A534 (West)	1530	85	2625	0.583	1534	1.5	3.501	A

2030 Base + Committed + Developement (Phase 1), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	63.17	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	63.17	F

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)
D12	2030 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	41	100.000
2 - A534 Wrexham Road (East)		✓	523	100.000
3 - Industrial Estate Road		✓	2129	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	1012	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	28	1	7
	2 - A534 Wrexham Road (East)	6	0	76	1	440
	3 - Industrial Estate Road	134	221	1	3	1770
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	658	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.05	4.45	0.1	A
2 - A534 Wrexham Road (East)	0.45	5.26	0.8	A
3 - Industrial Estate Road	1.06	107.67	78.8	F
4 - Sandy Lane	0.14	21.33	0.2	C
5 - A534 (West)	0.46	2.96	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	920	1049	0.029	31	0.0	3.536	A
2 - A534 Wrexham Road (East)	394	530	1399	0.282	392	0.4	3.640	A
3 - Industrial Estate Road	1603	349	2323	0.690	1594	2.3	5.025	A
4 - Sandy Lane	20	1933	574	0.034	19	0.0	7.052	A
5 - A534 (West)	762	276	2499	0.305	760	0.5	2.231	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1100	964	0.038	37	0.0	3.881	A
2 - A534 Wrexham Road (East)	470	634	1346	0.349	470	0.5	4.188	A
3 - Industrial Estate Road	1914	418	2279	0.840	1903	5.1	9.579	A
4 - Sandy Lane	23	2308	399	0.059	23	0.1	10.418	B
5 - A534 (West)	910	330	2463	0.369	909	0.6	2.497	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	45	1332	856	0.053	45	0.1	4.440	A
2 - A534 Wrexham Road (East)	576	776	1275	0.452	575	0.8	5.238	A
3 - Industrial Estate Road	2344	511	2219	1.057	2183	45.4	50.287	F
4 - Sandy Lane	29	2680	225	0.127	28	0.2	19.811	C
5 - A534 (West)	1114	379	2430	0.458	1113	0.9	2.944	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	45	1336	854	0.053	45	0.1	4.450	A
2 - A534 Wrexham Road (East)	576	777	1275	0.452	576	0.8	5.257	A
3 - Industrial Estate Road	2344	512	2218	1.057	2211	78.8	107.668	F
4 - Sandy Lane	29	2709	212	0.135	29	0.2	21.329	C
5 - A534 (West)	1114	384	2427	0.459	1114	0.9	2.956	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	37	1133	949	0.039	37	0.0	3.948	A
2 - A534 Wrexham Road (East)	470	636	1346	0.349	471	0.6	4.207	A
3 - Industrial Estate Road	1914	419	2278	0.840	2202	6.7	65.402	F
4 - Sandy Lane	23	2609	258	0.090	24	0.1	16.681	C
5 - A534 (West)	910	380	2430	0.374	911	0.6	2.557	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	31	926	1046	0.030	31	0.0	3.545	A
2 - A534 Wrexham Road (East)	394	532	1398	0.282	394	0.4	3.666	A
3 - Industrial Estate Road	1603	351	2322	0.690	1620	2.3	5.413	A
4 - Sandy Lane	20	1961	561	0.035	20	0.0	7.237	A
5 - A534 (West)	762	281	2496	0.305	763	0.5	2.240	A

2037 Base + Committed + Developement (Phase 1), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	31.32	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	31.32	D

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)
D13	2037 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	191	100.000
2 - A534 Wrexham Road (East)		✓	576	100.000
3 - Industrial Estate Road		✓	774	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	2123	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	170	0	10
	2 - A534 Wrexham Road (East)	2	0	203	8	363
	3 - Industrial Estate Road	20	80	2	1	671
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1706	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.62	27.40	1.5	D
2 - A534 Wrexham Road (East)	1.05	134.64	25.0	F
3 - Industrial Estate Road	0.37	3.31	0.8	A
4 - Sandy Lane	0.05	6.20	0.1	A
5 - A534 (West)	0.90	14.31	8.9	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	144	1657	704	0.204	143	0.3	6.463	A
2 - A534 Wrexham Road (East)	434	1438	943	0.460	430	0.9	7.492	A
3 - Industrial Estate Road	583	306	2350	0.248	581	0.4	2.657	A
4 - Sandy Lane	29	862	1074	0.027	28	0.0	5.074	A
5 - A534 (West)	1598	88	2624	0.609	1592	1.6	3.670	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	172	1982	552	0.311	171	0.4	9.521	A
2 - A534 Wrexham Road (East)	518	1721	802	0.646	514	1.9	13.265	B
3 - Industrial Estate Road	696	366	2312	0.301	695	0.6	2.911	A
4 - Sandy Lane	34	1031	995	0.034	34	0.1	5.520	A
5 - A534 (West)	1909	105	2612	0.731	1904	2.8	5.341	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	210	2411	351	0.599	206	1.4	24.534	C
2 - A534 Wrexham Road (East)	634	2091	616	1.029	581	15.2	70.623	F
3 - Industrial Estate Road	852	417	2279	0.374	851	0.8	3.294	A
4 - Sandy Lane	42	1231	901	0.046	42	0.1	6.171	A
5 - A534 (West)	2337	128	2597	0.900	2315	8.4	12.646	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	210	2431	341	0.616	210	1.5	27.401	D
2 - A534 Wrexham Road (East)	634	2111	606	1.046	595	25.0	134.637	F
3 - Industrial Estate Road	852	426	2273	0.375	852	0.8	3.310	A
4 - Sandy Lane	42	1241	897	0.047	42	0.1	6.204	A
5 - A534 (West)	2337	129	2597	0.900	2335	8.9	14.307	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	172	2011	538	0.319	176	0.5	10.137	B
2 - A534 Wrexham Road (East)	518	1749	788	0.657	609	2.2	32.654	D
3 - Industrial Estate Road	696	428	2272	0.306	697	0.6	2.988	A
4 - Sandy Lane	34	1093	966	0.035	34	0.1	5.692	A
5 - A534 (West)	1909	106	2612	0.731	1932	2.9	5.795	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	144	1669	698	0.206	145	0.3	6.571	A
2 - A534 Wrexham Road (East)	434	1450	938	0.462	439	0.9	7.835	A
3 - Industrial Estate Road	583	312	2347	0.248	583	0.4	2.669	A
4 - Sandy Lane	29	870	1070	0.027	29	0.0	5.095	A
5 - A534 (West)	1598	88	2623	0.609	1603	1.7	3.755	A

2037 Base + Committed + Developement (Phase 1), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	102.42	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	102.42	F

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)
D14	2037 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	44	100.000
2 - A534 Wrexham Road (East)		✓	552	100.000
3 - Industrial Estate Road		✓	2223	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	1054	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	29	1	8
	2 - A534 Wrexham Road (East)	7	0	79	1	465
	3 - Industrial Estate Road	141	233	1	3	1845
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	680	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.06	4.59	0.1	A
2 - A534 Wrexham Road (East)	0.48	5.62	0.9	A
3 - Industrial Estate Road	1.11	176.50	136.2	F
4 - Sandy Lane	0.15	22.57	0.2	C
5 - A534 (West)	0.48	3.07	1.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	961	1030	0.032	33	0.0	3.611	A
2 - A534 Wrexham Road (East)	416	549	1389	0.299	414	0.4	3.761	A
3 - Industrial Estate Road	1674	370	2310	0.725	1663	2.6	5.647	A
4 - Sandy Lane	21	2022	532	0.040	21	0.0	7.677	A
5 - A534 (West)	794	292	2488	0.319	791	0.5	2.284	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	40	1148	942	0.042	40	0.0	3.989	A
2 - A534 Wrexham Road (East)	496	657	1335	0.372	496	0.6	4.372	A
3 - Industrial Estate Road	1998	443	2263	0.883	1981	7.0	12.465	B
4 - Sandy Lane	25	2411	351	0.072	25	0.1	12.053	B
5 - A534 (West)	948	348	2451	0.387	947	0.7	2.578	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	48	1380	833	0.058	48	0.1	4.586	A
2 - A534 Wrexham Road (East)	608	804	1261	0.482	606	0.9	5.598	A
3 - Industrial Estate Road	2448	542	2199	1.113	2182	73.4	74.196	F
4 - Sandy Lane	31	2708	212	0.145	30	0.2	21.582	C
5 - A534 (West)	1160	384	2427	0.478	1159	1.0	3.059	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	48	1383	832	0.058	48	0.1	4.594	A
2 - A534 Wrexham Road (East)	608	805	1261	0.482	608	0.9	5.624	A
3 - Industrial Estate Road	2448	543	2198	1.113	2196	136.2	176.498	F
4 - Sandy Lane	31	2724	205	0.151	31	0.2	22.574	C
5 - A534 (West)	1160	387	2425	0.479	1160	1.0	3.068	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	40	1178	928	0.043	40	0.0	4.052	A
2 - A534 Wrexham Road (East)	496	658	1334	0.372	498	0.6	4.397	A
3 - Industrial Estate Road	1998	444	2262	0.884	2245	74.7	170.265	F
4 - Sandy Lane	25	2676	227	0.111	25	0.1	19.484	C
5 - A534 (West)	948	392	2422	0.391	949	0.7	2.636	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	33	995	1014	0.033	33	0.0	3.670	A
2 - A534 Wrexham Road (East)	416	551	1388	0.299	416	0.4	3.785	A
3 - Industrial Estate Road	1674	372	2308	0.725	1961	2.8	24.218	C
4 - Sandy Lane	21	2322	392	0.054	21	0.1	10.592	B
5 - A534 (West)	794	342	2455	0.323	794	0.5	2.339	A

2030 Base + Committed + Developement (Phase 1 + 2), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	42.05	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	42.05	E

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)
D15	2030 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	190	100.000
2 - A534 Wrexham Road (East)		✓	559	100.000
3 - Industrial Estate Road		✓	881	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	2198	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	169	0	10
	2 - A534 Wrexham Road (East)	2	0	206	7	344
	3 - Industrial Estate Road	24	89	2	1	765
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	363	1804	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.70	38.81	2.1	E
2 - A534 Wrexham Road (East)	1.11	190.13	35.7	F
3 - Industrial Estate Road	0.42	3.54	1.0	A
4 - Sandy Lane	0.04	6.44	0.1	A
5 - A534 (West)	0.94	20.68	13.1	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	143	1720	674	0.212	142	0.3	6.807	A
2 - A534 Wrexham Road (East)	421	1509	908	0.464	417	0.9	7.831	A
3 - Industrial Estate Road	663	290	2361	0.281	661	0.5	2.764	A
4 - Sandy Lane	26	928	1043	0.025	26	0.0	5.195	A
5 - A534 (West)	1655	97	2618	0.632	1648	1.8	3.899	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	171	2056	517	0.331	170	0.5	10.443	B
2 - A534 Wrexham Road (East)	503	1805	760	0.662	498	2.0	14.561	B
3 - Industrial Estate Road	792	346	2325	0.341	791	0.7	3.067	A
4 - Sandy Lane	31	1110	958	0.033	31	0.0	5.699	A
5 - A534 (West)	1976	116	2605	0.759	1970	3.2	5.946	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	209	2492	313	0.668	204	1.8	31.825	D
2 - A534 Wrexham Road (East)	615	2184	570	1.081	545	19.5	90.011	F
3 - Industrial Estate Road	970	382	2301	0.421	969	0.9	3.528	A
4 - Sandy Lane	39	1318	861	0.045	38	0.1	6.423	A
5 - A534 (West)	2420	142	2588	0.935	2386	11.8	16.625	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	209	2520	300	0.698	208	2.1	38.812	E
2 - A534 Wrexham Road (East)	615	2212	556	1.108	551	35.7	190.129	F
3 - Industrial Estate Road	970	386	2299	0.422	970	1.0	3.540	A
4 - Sandy Lane	39	1323	859	0.045	39	0.1	6.440	A
5 - A534 (West)	2420	142	2588	0.935	2415	13.1	20.681	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	171	2101	496	0.344	177	0.5	11.611	B
2 - A534 Wrexham Road (East)	503	1849	738	0.681	635	2.6	69.980	F
3 - Industrial Estate Road	792	433	2269	0.349	793	0.7	3.193	A
4 - Sandy Lane	31	1196	918	0.034	32	0.1	5.963	A
5 - A534 (West)	1976	117	2605	0.759	2015	3.4	6.861	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	143	1733	668	0.214	144	0.3	6.948	A
2 - A534 Wrexham Road (East)	421	1523	901	0.467	427	1.0	8.273	A
3 - Industrial Estate Road	663	296	2357	0.281	664	0.5	2.780	A
4 - Sandy Lane	26	937	1039	0.025	26	0.0	5.219	A
5 - A534 (West)	1655	97	2617	0.632	1661	1.8	4.011	A

2030 Base + Committed + Developement (Phase 1 + 2), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	138.43	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	138.43	F

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)
D16	2030 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	46	100.000
2 - A534 Wrexham Road (East)		✓	532	100.000
3 - Industrial Estate Road		✓	2308	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	1110	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	33	1	7
	2 - A534 Wrexham Road (East)	6	0	85	1	440
	3 - Industrial Estate Road	142	233	1	3	1929
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	756	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.06	4.76	0.1	A
2 - A534 Wrexham Road (East)	0.48	5.82	0.9	A
3 - Industrial Estate Road	1.15	238.01	173.3	F
4 - Sandy Lane	0.14	21.70	0.2	C
5 - A534 (West)	0.50	3.21	1.1	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1002	1010	0.034	34	0.0	3.689	A
2 - A534 Wrexham Road (East)	401	607	1360	0.295	399	0.4	3.821	A
3 - Industrial Estate Road	1738	349	2323	0.748	1726	3.0	6.092	A
4 - Sandy Lane	20	2065	512	0.038	19	0.0	7.932	A
5 - A534 (West)	836	291	2489	0.336	833	0.5	2.348	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	41	1198	919	0.045	41	0.0	4.103	A
2 - A534 Wrexham Road (East)	478	727	1300	0.368	478	0.6	4.469	A
3 - Industrial Estate Road	2075	417	2279	0.910	2051	8.8	14.968	B
4 - Sandy Lane	23	2457	329	0.071	23	0.1	12.778	B
5 - A534 (West)	998	346	2453	0.407	997	0.7	2.673	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	51	1436	807	0.063	51	0.1	4.757	A
2 - A534 Wrexham Road (East)	586	890	1218	0.481	584	0.9	5.789	A
3 - Industrial Estate Road	2541	511	2219	1.145	2208	92.2	89.746	F
4 - Sandy Lane	29	2704	214	0.134	28	0.2	21.043	C
5 - A534 (West)	1222	374	2434	0.502	1221	1.1	3.206	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	51	1438	806	0.063	51	0.1	4.764	A
2 - A534 Wrexham Road (East)	586	891	1218	0.481	586	0.9	5.818	A
3 - Industrial Estate Road	2541	512	2218	1.146	2217	173.3	219.294	F
4 - Sandy Lane	29	2715	209	0.137	29	0.2	21.700	C
5 - A534 (West)	1222	375	2433	0.502	1222	1.1	3.214	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	41	1222	907	0.046	41	0.0	4.158	A
2 - A534 Wrexham Road (East)	478	728	1299	0.368	480	0.6	4.497	A
3 - Industrial Estate Road	2075	419	2278	0.911	2264	125.9	238.008	F
4 - Sandy Lane	23	2671	229	0.102	24	0.1	19.036	C
5 - A534 (West)	998	381	2429	0.411	999	0.8	2.723	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	35	1056	985	0.035	35	0.0	3.791	A
2 - A534 Wrexham Road (East)	401	610	1359	0.295	401	0.4	3.846	A
3 - Industrial Estate Road	1738	351	2322	0.748	2227	3.5	91.461	F
4 - Sandy Lane	20	2567	278	0.070	20	0.1	15.173	C
5 - A534 (West)	836	373	2435	0.343	836	0.6	2.436	A

2037 Base + Committed + Developement (Phase 1 + 2), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	51.94	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	51.94	F

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)
D17	2037 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	195	100.000
2 - A534 Wrexham Road (East)		✓	584	100.000
3 - Industrial Estate Road		✓	885	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	2216	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	174	0	10
	2 - A534 Wrexham Road (East)	2	0	211	8	363
	3 - Industrial Estate Road	25	93	2	1	764
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1799	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.74	46.05	2.6	E
2 - A534 Wrexham Road (East)	1.16	239.23	47.4	F
3 - Industrial Estate Road	0.42	3.56	1.0	A
4 - Sandy Lane	0.05	6.53	0.1	A
5 - A534 (West)	0.94	23.19	14.8	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	147	1736	667	0.220	146	0.3	6.957	A
2 - A534 Wrexham Road (East)	440	1511	907	0.485	436	1.0	8.146	A
3 - Industrial Estate Road	666	306	2350	0.283	664	0.5	2.785	A
4 - Sandy Lane	29	945	1035	0.028	28	0.0	5.270	A
5 - A534 (West)	1668	101	2615	0.638	1661	1.8	3.965	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	175	2076	508	0.345	174	0.5	10.864	B
2 - A534 Wrexham Road (East)	525	1806	759	0.692	520	2.3	15.866	C
3 - Industrial Estate Road	796	365	2312	0.344	795	0.7	3.097	A
4 - Sandy Lane	34	1130	949	0.036	34	0.1	5.799	A
5 - A534 (West)	1992	121	2601	0.766	1986	3.4	6.129	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	215	2511	304	0.706	208	2.1	35.889	E
2 - A534 Wrexham Road (East)	643	2182	571	1.127	553	24.9	107.166	F
3 - Industrial Estate Road	974	393	2295	0.425	973	1.0	3.556	A
4 - Sandy Lane	42	1331	855	0.049	42	0.1	6.522	A
5 - A534 (West)	2440	148	2584	0.944	2401	13.0	17.995	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	215	2543	289	0.743	213	2.6	46.046	E
2 - A534 Wrexham Road (East)	643	2212	555	1.158	553	47.4	239.229	F
3 - Industrial Estate Road	974	394	2294	0.425	974	1.0	3.562	A
4 - Sandy Lane	42	1332	854	0.049	42	0.1	6.527	A
5 - A534 (West)	2440	148	2584	0.944	2433	14.8	23.192	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	2127	484	0.362	183	0.6	12.385	B
2 - A534 Wrexham Road (East)	525	1857	734	0.716	700	3.5	128.448	F
3 - Industrial Estate Road	796	482	2238	0.356	797	0.7	3.265	A
4 - Sandy Lane	34	1245	895	0.038	34	0.1	6.164	A
5 - A534 (West)	1992	122	2601	0.766	2037	3.6	7.267	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	147	1750	660	0.222	148	0.3	7.111	A
2 - A534 Wrexham Road (East)	440	1524	900	0.488	450	1.0	8.777	A
3 - Industrial Estate Road	666	315	2345	0.284	667	0.5	2.804	A
4 - Sandy Lane	29	956	1030	0.028	29	0.0	5.301	A
5 - A534 (West)	1668	102	2614	0.638	1675	1.9	4.084	A

2037 Base + Committed + Developement (Phase 1 + 2), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	145.87	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	145.87	F

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)
D18	2037 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	47	100.000
2 - A534 Wrexham Road (East)		✓	560	100.000
3 - Industrial Estate Road		✓	2305	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	1152	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	32	1	8
	2 - A534 Wrexham Road (East)	7	0	87	1	465
	3 - Industrial Estate Road	143	238	1	3	1920
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	778	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.07	4.92	0.1	A
2 - A534 Wrexham Road (East)	0.51	6.25	1.1	A
3 - Industrial Estate Road	1.15	255.39	181.6	F
4 - Sandy Lane	0.15	22.64	0.2	C
5 - A534 (West)	0.52	3.35	1.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1038	994	0.036	35	0.0	3.756	A
2 - A534 Wrexham Road (East)	422	625	1351	0.312	420	0.5	3.940	A
3 - Industrial Estate Road	1735	370	2310	0.751	1723	3.0	6.201	A
4 - Sandy Lane	21	2082	504	0.042	21	0.0	8.125	A
5 - A534 (West)	867	297	2485	0.349	865	0.6	2.399	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	42	1240	899	0.047	42	0.0	4.202	A
2 - A534 Wrexham Road (East)	503	747	1290	0.390	503	0.6	4.669	A
3 - Industrial Estate Road	2072	443	2263	0.916	2047	9.3	15.659	C
4 - Sandy Lane	25	2477	320	0.079	25	0.1	13.307	B
5 - A534 (West)	1036	353	2448	0.423	1035	0.8	2.752	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	52	1485	784	0.066	52	0.1	4.914	A
2 - A534 Wrexham Road (East)	617	915	1206	0.511	615	1.1	6.206	A
3 - Industrial Estate Road	2538	541	2199	1.154	2189	96.5	94.219	F
4 - Sandy Lane	31	2715	209	0.148	30	0.2	21.982	C
5 - A534 (West)	1268	379	2430	0.522	1267	1.2	3.339	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	52	1487	783	0.066	52	0.1	4.922	A
2 - A534 Wrexham Road (East)	617	916	1205	0.512	617	1.1	6.246	A
3 - Industrial Estate Road	2538	543	2198	1.154	2197	181.6	231.258	F
4 - Sandy Lane	31	2725	204	0.151	31	0.2	22.643	C
5 - A534 (West)	1268	381	2429	0.522	1268	1.2	3.350	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	42	1263	888	0.048	42	0.1	4.258	A
2 - A534 Wrexham Road (East)	503	749	1289	0.391	505	0.7	4.701	A
3 - Industrial Estate Road	2072	445	2261	0.916	2249	137.5	255.390	F
4 - Sandy Lane	25	2680	225	0.112	25	0.1	19.684	C
5 - A534 (West)	1036	386	2426	0.427	1037	0.8	2.804	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	35	1097	966	0.037	35	0.0	3.871	A
2 - A534 Wrexham Road (East)	422	627	1350	0.312	422	0.5	3.967	A
3 - Industrial Estate Road	1735	372	2308	0.752	2269	4.0	110.887	F
4 - Sandy Lane	21	2630	249	0.085	21	0.1	17.274	C
5 - A534 (West)	867	387	2425	0.358	868	0.6	2.500	A

2030 Base + Committed + Developement (Phase 1) [Sens], AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	9.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.77	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D19	2030 Base + Committed + Developement (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	182	100.000
2 - A534 Wrexham Road (East)		✓	539	100.000
3 - Industrial Estate Road		✓	692	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	1863	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	161	0	10
	2 - A534 Wrexham Road (East)	2	0	193	7	337
	3 - Industrial Estate Road	21	78	2	1	590
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	344	1488	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.42	13.19	0.7	B
2 - A534 Wrexham Road (East)	0.81	27.19	4.3	D
3 - Industrial Estate Road	0.33	3.10	0.7	A
4 - Sandy Lane	0.04	5.85	0.1	A
5 - A534 (West)	0.79	6.96	3.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	137	1462	795	0.172	136	0.2	5.504	A
2 - A534 Wrexham Road (East)	406	1268	1029	0.394	403	0.7	6.157	A
3 - Industrial Estate Road	521	285	2364	0.220	520	0.4	2.543	A
4 - Sandy Lane	26	781	1111	0.024	26	0.0	4.867	A
5 - A534 (West)	1403	86	2625	0.534	1398	1.2	3.094	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	164	1749	661	0.248	163	0.3	7.291	A
2 - A534 Wrexham Road (East)	485	1517	904	0.536	482	1.2	9.135	A
3 - Industrial Estate Road	622	341	2328	0.267	622	0.5	2.752	A
4 - Sandy Lane	31	935	1040	0.030	31	0.0	5.238	A
5 - A534 (West)	1675	103	2613	0.641	1672	1.9	4.036	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	200	2137	479	0.418	199	0.7	12.889	B
2 - A534 Wrexham Road (East)	593	1853	736	0.807	583	3.9	23.795	C
3 - Industrial Estate Road	762	412	2282	0.334	761	0.7	3.085	A
4 - Sandy Lane	39	1140	944	0.041	38	0.1	5.832	A
5 - A534 (West)	2051	126	2598	0.790	2043	3.8	6.773	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	200	2145	476	0.421	200	0.7	13.189	B
2 - A534 Wrexham Road (East)	593	1860	732	0.811	592	4.3	27.188	D
3 - Industrial Estate Road	762	419	2278	0.334	762	0.7	3.096	A
4 - Sandy Lane	39	1146	941	0.041	39	0.1	5.852	A
5 - A534 (West)	2051	127	2598	0.790	2051	3.9	6.956	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	164	1759	656	0.249	165	0.3	7.422	A
2 - A534 Wrexham Road (East)	485	1527	899	0.539	496	1.3	9.892	A
3 - Industrial Estate Road	622	350	2322	0.268	623	0.5	2.766	A
4 - Sandy Lane	31	945	1035	0.030	32	0.0	5.264	A
5 - A534 (West)	1675	104	2613	0.641	1683	1.9	4.128	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	137	1469	792	0.173	138	0.2	5.559	A
2 - A534 Wrexham Road (East)	406	1275	1025	0.396	408	0.7	6.294	A
3 - Industrial Estate Road	521	288	2362	0.221	521	0.4	2.551	A
4 - Sandy Lane	26	786	1109	0.024	26	0.0	4.880	A
5 - A534 (West)	1403	87	2624	0.534	1405	1.2	3.131	A

2030 Base + Committed + Developement (Phase 1) [Sens], PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	27.08	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	27.08	D

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)
D20	2030 Base + Committed + Developement (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	41	100.000
2 - A534 Wrexham Road (East)		✓	506	100.000
3 - Industrial Estate Road		✓	1998	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	940	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	28	1	7
	2 - A534 Wrexham Road (East)	6	0	76	1	423
	3 - Industrial Estate Road	134	221	1	3	1639
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	586	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.05	4.28	0.1	A
2 - A534 Wrexham Road (East)	0.42	4.85	0.7	A
3 - Industrial Estate Road	0.99	44.70	26.7	E
4 - Sandy Lane	0.12	18.67	0.1	C
5 - A534 (West)	0.43	2.81	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	866	1074	0.029	31	0.0	3.451	A
2 - A534 Wrexham Road (East)	381	476	1426	0.267	379	0.4	3.509	A
3 - Industrial Estate Road	1504	336	2331	0.645	1497	1.8	4.406	A
4 - Sandy Lane	20	1823	625	0.031	19	0.0	6.456	A
5 - A534 (West)	708	276	2499	0.283	706	0.4	2.159	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1036	994	0.037	37	0.0	3.759	A
2 - A534 Wrexham Road (East)	455	570	1379	0.330	454	0.5	3.975	A
3 - Industrial Estate Road	1796	402	2289	0.785	1789	3.6	7.320	A
4 - Sandy Lane	23	2180	459	0.051	23	0.1	8.981	A
5 - A534 (West)	845	330	2463	0.343	844	0.6	2.394	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	45	1262	888	0.051	45	0.1	4.268	A
2 - A534 Wrexham Road (East)	557	697	1315	0.424	556	0.7	4.840	A
3 - Industrial Estate Road	2200	492	2231	0.986	2134	20.1	28.008	D
4 - Sandy Lane	29	2612	257	0.111	28	0.1	17.092	C
5 - A534 (West)	1035	394	2420	0.428	1034	0.8	2.793	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	45	1268	886	0.051	45	0.1	4.281	A
2 - A534 Wrexham Road (East)	557	698	1314	0.424	557	0.7	4.853	A
3 - Industrial Estate Road	2200	493	2230	0.986	2174	26.7	44.699	E
4 - Sandy Lane	29	2653	238	0.120	29	0.1	18.668	C
5 - A534 (West)	1035	402	2416	0.428	1035	0.8	2.805	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1049	988	0.037	37	0.0	3.782	A
2 - A534 Wrexham Road (East)	455	571	1378	0.330	456	0.5	3.989	A
3 - Industrial Estate Road	1796	404	2288	0.785	1887	3.9	11.319	B
4 - Sandy Lane	23	2279	412	0.057	24	0.1	10.070	B
5 - A534 (West)	845	348	2451	0.345	846	0.6	2.416	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	870	1072	0.029	31	0.0	3.460	A
2 - A534 Wrexham Road (East)	381	478	1425	0.267	381	0.4	3.524	A
3 - Industrial Estate Road	1504	338	2330	0.646	1512	1.9	4.578	A
4 - Sandy Lane	20	1840	617	0.032	20	0.0	6.551	A
5 - A534 (West)	708	279	2497	0.283	708	0.4	2.166	A

2037 Base + Committed + Developement (Phase 1 + 2) [Sens], AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	24.28	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	24.28	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D21	2037 Base + Committed + Developement (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	195	100.000
2 - A534 Wrexham Road (East)		✓	577	100.000
3 - Industrial Estate Road		✓	828	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	2066	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	174	0	10
	2 - A534 Wrexham Road (East)	2	0	211	8	356
	3 - Industrial Estate Road	25	93	2	1	707
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1649	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.59	24.20	1.4	C
2 - A534 Wrexham Road (East)	1.00	98.75	17.4	F
3 - Industrial Estate Road	0.40	3.45	0.9	A
4 - Sandy Lane	0.05	6.42	0.1	A
5 - A534 (West)	0.88	12.16	7.4	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	147	1624	719	0.204	146	0.3	6.324	A
2 - A534 Wrexham Road (East)	434	1399	963	0.451	431	0.9	7.230	A
3 - Industrial Estate Road	623	301	2354	0.265	621	0.5	2.709	A
4 - Sandy Lane	29	897	1057	0.027	28	0.0	5.156	A
5 - A534 (West)	1555	101	2615	0.595	1549	1.5	3.555	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	175	1943	570	0.308	175	0.4	9.169	A
2 - A534 Wrexham Road (East)	519	1673	826	0.628	515	1.8	12.335	B
3 - Industrial Estate Road	744	360	2316	0.321	744	0.6	2.988	A
4 - Sandy Lane	34	1073	975	0.035	34	0.1	5.636	A
5 - A534 (West)	1857	121	2601	0.714	1853	2.6	5.062	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	215	2367	372	0.578	211	1.3	22.203	C
2 - A534 Wrexham Road (East)	635	2037	643	0.987	595	11.8	57.396	F
3 - Industrial Estate Road	912	418	2279	0.400	911	0.9	3.432	A
4 - Sandy Lane	42	1292	873	0.048	42	0.1	6.380	A
5 - A534 (West)	2275	148	2584	0.880	2257	7.1	11.096	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	215	2383	364	0.590	214	1.4	24.198	C
2 - A534 Wrexham Road (East)	635	2053	635	1.000	613	17.4	98.753	F
3 - Industrial Estate Road	912	429	2271	0.401	912	0.9	3.454	A
4 - Sandy Lane	42	1304	868	0.048	42	0.1	6.424	A
5 - A534 (West)	2275	149	2583	0.881	2273	7.4	12.155	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	1966	559	0.314	179	0.5	9.645	A
2 - A534 Wrexham Road (East)	519	1696	814	0.637	581	2.0	20.913	C
3 - Industrial Estate Road	744	402	2289	0.325	745	0.6	3.044	A
4 - Sandy Lane	34	1116	955	0.036	34	0.1	5.761	A
5 - A534 (West)	1857	122	2601	0.714	1876	2.7	5.384	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	147	1635	714	0.206	148	0.3	6.422	A
2 - A534 Wrexham Road (East)	434	1409	958	0.453	439	0.9	7.516	A
3 - Industrial Estate Road	623	306	2350	0.265	624	0.5	2.721	A
4 - Sandy Lane	29	905	1054	0.027	29	0.0	5.176	A
5 - A534 (West)	1555	102	2614	0.595	1560	1.6	3.629	A

2037 Base + Committed + Developement (Phase 1 + 2) [Sens], PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	79.15	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	79.15	F

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)
D22	2037 Base + Committed + Developement (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	47	100.000
2 - A534 Wrexham Road (East)		✓	543	100.000
3 - Industrial Estate Road		✓	2173	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	1080	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	32	1	8
	2 - A534 Wrexham Road (East)	7	0	87	1	448
	3 - Industrial Estate Road	143	238	1	3	1788
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	706	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.06	4.73	0.1	A
2 - A534 Wrexham Road (East)	0.48	5.68	0.9	A
3 - Industrial Estate Road	1.08	137.61	104.1	F
4 - Sandy Lane	0.15	22.06	0.2	C
5 - A534 (West)	0.49	3.17	1.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	984	1019	0.035	35	0.0	3.660	A
2 - A534 Wrexham Road (East)	409	571	1378	0.297	407	0.4	3.781	A
3 - Industrial Estate Road	1636	357	2318	0.706	1626	2.4	5.291	A
4 - Sandy Lane	21	1973	555	0.038	21	0.0	7.346	A
5 - A534 (West)	813	297	2485	0.327	811	0.5	2.317	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	42	1176	929	0.046	42	0.0	4.061	A
2 - A534 Wrexham Road (East)	488	683	1322	0.369	487	0.6	4.404	A
3 - Industrial Estate Road	1953	427	2272	0.860	1940	5.8	10.732	B
4 - Sandy Lane	25	2355	377	0.067	25	0.1	11.146	B
5 - A534 (West)	971	354	2447	0.397	970	0.7	2.629	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	52	1419	815	0.064	52	0.1	4.716	A
2 - A534 Wrexham Road (East)	598	836	1245	0.480	596	0.9	5.658	A
3 - Industrial Estate Road	2393	523	2211	1.082	2185	57.6	60.560	F
4 - Sandy Lane	31	2693	219	0.141	30	0.2	20.777	C
5 - A534 (West)	1189	401	2416	0.492	1188	1.0	3.159	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	52	1423	813	0.064	52	0.1	4.727	A
2 - A534 Wrexham Road (East)	598	837	1245	0.480	598	0.9	5.684	A
3 - Industrial Estate Road	2393	524	2210	1.082	2207	104.1	137.614	F
4 - Sandy Lane	31	2715	209	0.148	31	0.2	22.060	C
5 - A534 (West)	1189	404	2414	0.493	1189	1.0	3.171	A

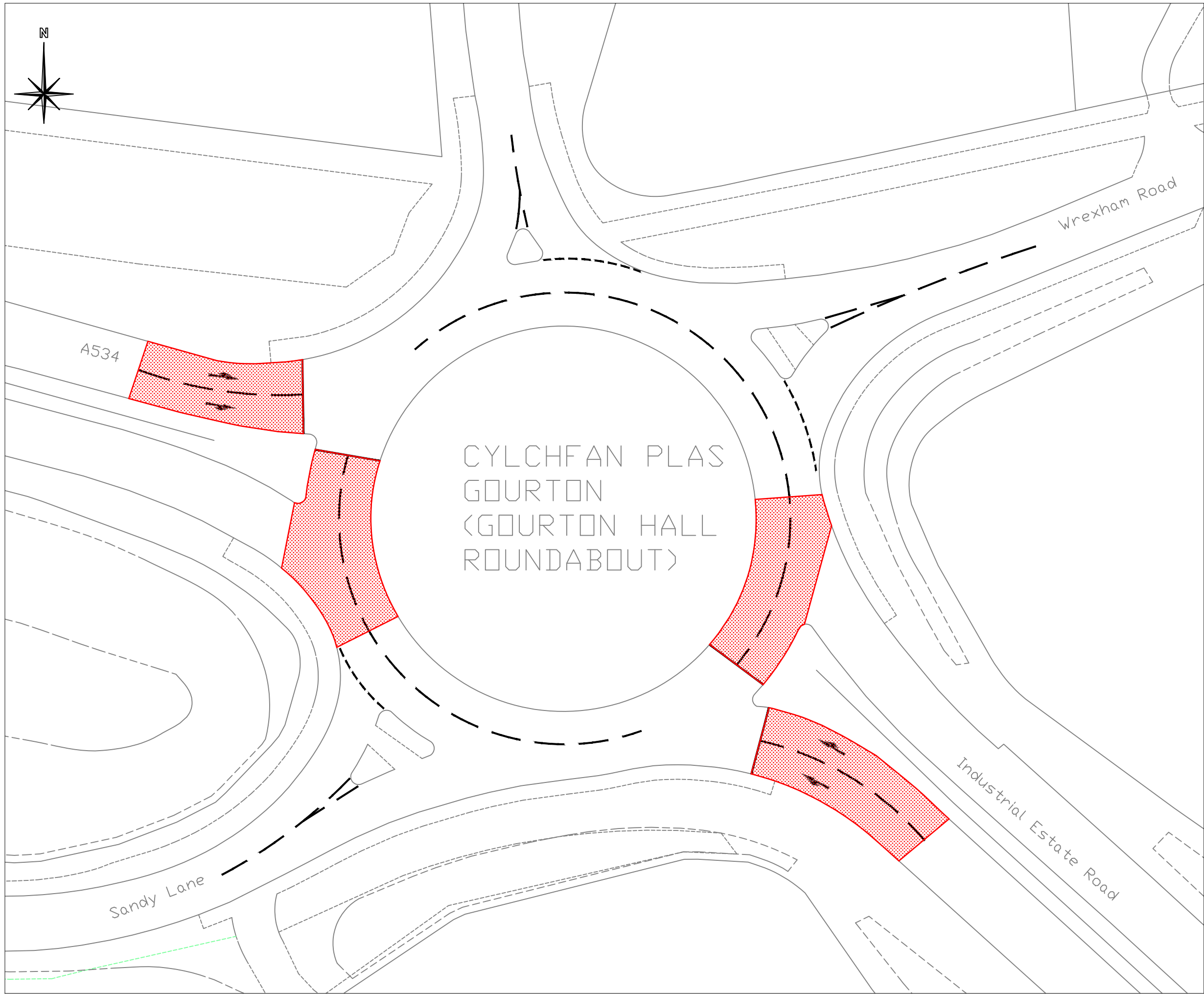
17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	42	1212	912	0.046	42	0.0	4.142	A
2 - A534 Wrexham Road (East)	488	684	1321	0.369	489	0.6	4.429	A
3 - Industrial Estate Road	1953	429	2271	0.860	2249	30.2	110.254	F
4 - Sandy Lane	25	2665	232	0.108	25	0.1	19.007	C
5 - A534 (West)	971	409	2411	0.403	972	0.7	2.702	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	35	1000	1011	0.035	35	0.0	3.688	A
2 - A534 Wrexham Road (East)	409	573	1377	0.297	409	0.4	3.806	A
3 - Industrial Estate Road	1636	359	2316	0.706	1747	2.5	7.867	A
4 - Sandy Lane	21	2095	498	0.042	21	0.0	8.240	A
5 - A534 (West)	813	318	2471	0.329	814	0.5	2.345	A

Appendix TN5 - A534 / Industrial Estate Road roundabout junction Improvements



- Notes:**
1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

A	30/10/25	A534 Signalisation	TC	MC
Rev	Date	Description	Ckd	By

CoraiHt

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Tel: 0161 955 4422
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Client

Net World Sports Limited

Project

North of Bryn Lane
Wrexham

Title

A534 / Wrexham Road
Roundabout
Improvements

Drawing Status

Job No. 16-2067

Drawn MC	Checked TC	Scale at A3 1:500	Date 29/10/25	Issue Date -
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Drawing No. 107 A

Appendix TN6 - A534 / Industrial Estate Road roundabout junction LINSIG

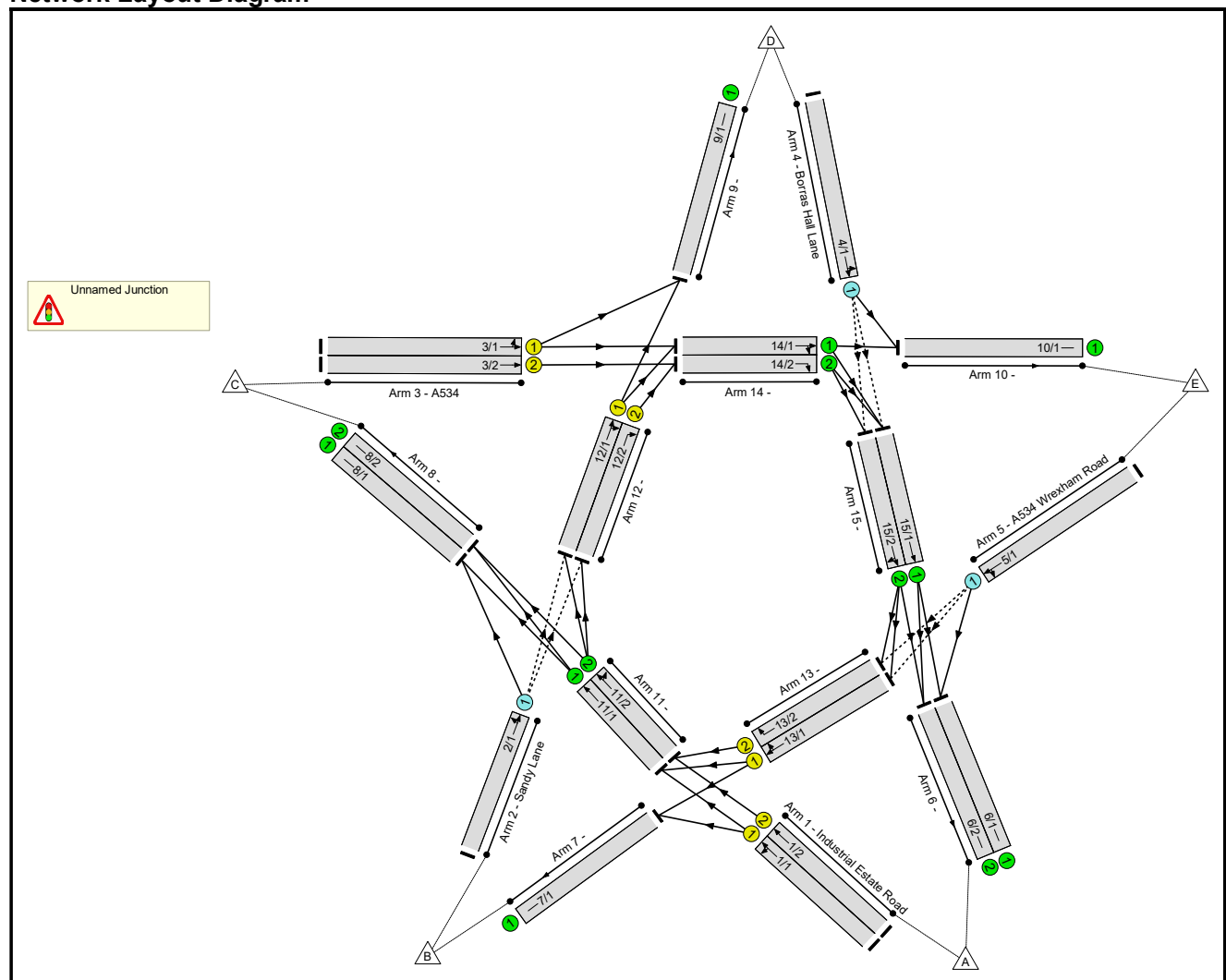
Full Input Data And Results

Full Input Data And Results

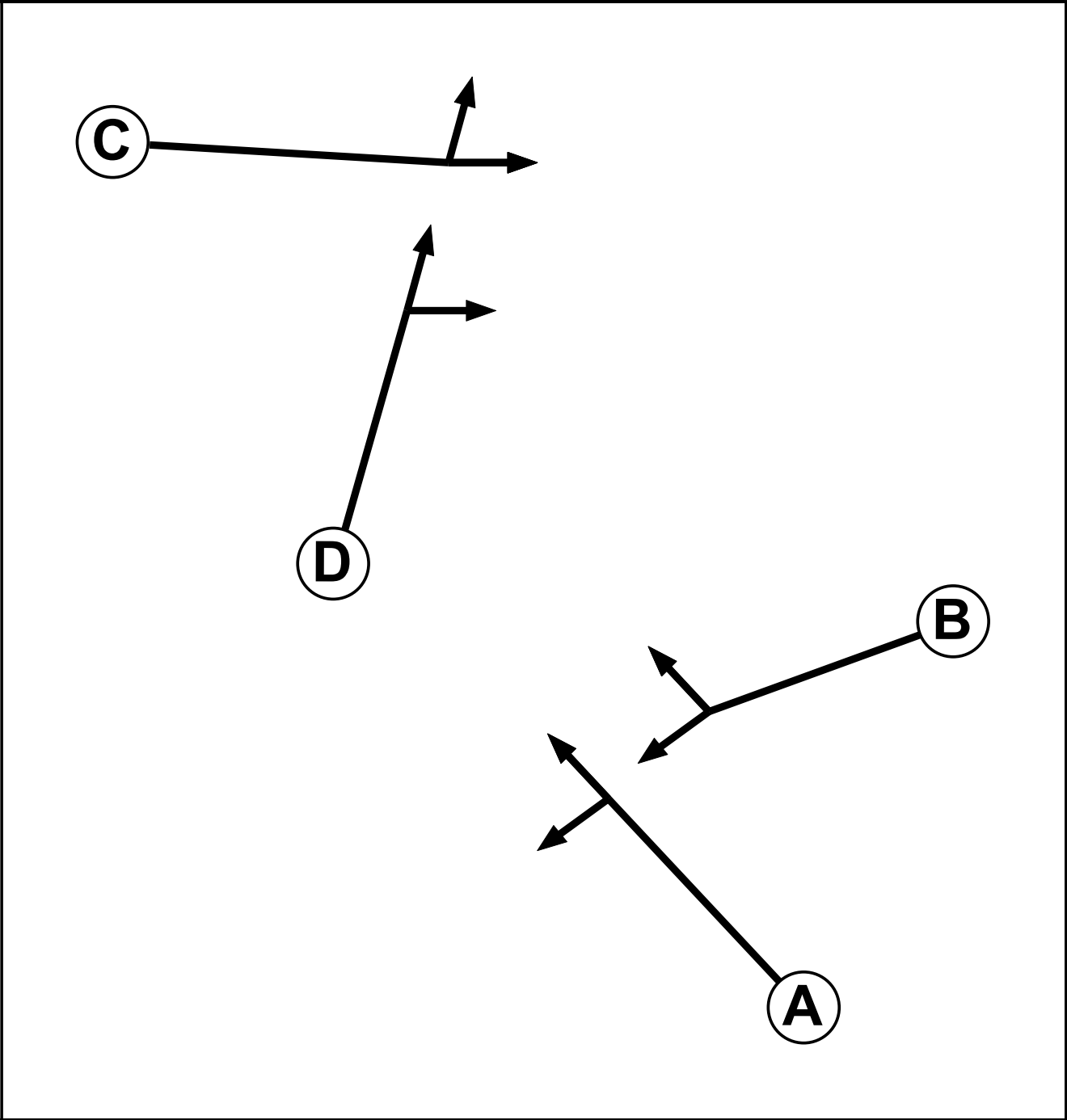
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	A534, Industrial Estate Road, Borrás Hall Lane LINSIG v3.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		5	5
B	Traffic		5	5
C	Traffic		5	5
D	Traffic		5	5

Full Input Data And Results

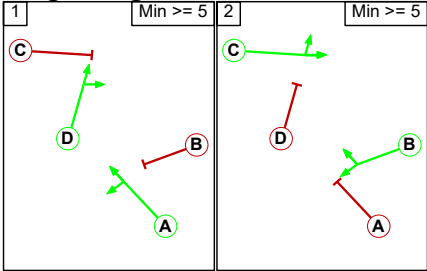
Phase Intergreens Matrix

	Starting Phase				
Terminating Phase		A	B	C	D
	A		5	-	-
	B	5		-	-
	C	-	-		5
	D	-	-	5	

Phases in Stage

Stage No.	Phases in Stage
1	A D
2	B C

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

	To Stage	
From Stage		1 2
	1	5
	2	5

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/1 (Sandy Lane)	12/1 (Ahead)	1439	0	11/1	1.09	All	-	-	-	-	-
				11/2	1.09	All					
	12/2 (Ahead)	1439	0	11/1	1.09	All					
				11/2	1.09	All					
4/1 (Borras Hall Lane)	15/1 (Ahead)	1439	0	14/1	1.09	All	-	-	-	-	-
				14/2	1.09	All					
	15/2 (Ahead)	1439	0	14/1	1.09	All					
				14/2	1.09	All					
5/1 (A534 Wrexham Road)	13/1 (Ahead)	1439	0	15/1	1.09	All	-	-	-	-	-
				15/2	1.09	All					
	13/2 (Ahead)	1439	0	15/1	1.09	All					
				15/2	1.09	All					

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Industrial Estate Road)	U	A	2	3	173.9	User	2400	-	-	-	-	-
1/2 (Industrial Estate Road)	U	A	2	3	173.9	User	2400	-	-	-	-	-
2/1 (Sandy Lane)	O		2	3	60.0	User	2200	-	-	-	-	-
3/1 (A534)	U	C	2	3	173.9	User	2400	-	-	-	-	-
3/2 (A534)	U	C	2	3	173.9	User	2400	-	-	-	-	-
4/1 (Borras Hall Lane)	O		2	3	60.0	User	2200	-	-	-	-	-
5/1 (A534 Wrexham Road)	O		2	3	60.0	User	2200	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1	U		2	3	5.0	User	2200	-	-	-	-	-
11/2	U		2	3	5.0	User	2200	-	-	-	-	-
12/1	U	D	2	3	5.0	User	2200	-	-	-	-	-
12/2	U	C	2	3	5.0	User	2200	-	-	-	-	-
13/1	U	B	2	3	5.0	User	2200	-	-	-	-	-
13/2	U	B	2	3	5.0	User	2200	-	-	-	-	-
14/1	U		2	3	5.0	User	2200	-	-	-	-	-
14/2	U		2	3	5.0	User	2200	-	-	-	-	-
15/1	U		2	3	5.0	User	2200	-	-	-	-	-
15/2	U		2	3	5.0	User	2200	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2023 Surveyed Flows AM'	08:00	09:00	01:00	
2: '2023 Surveyed Flows PM'	16:30	17:30	01:00	
3: '2030 Growthed Flows AM'	08:00	09:00	01:00	$F1 * 1.0587$
4: '2030 Growthed Flows PM'	16:30	17:30	01:00	$F2 * 1.0587$
5: '2037 Growthed Flows AM'	08:00	09:00	01:00	$F1 * 1.1194$
6: '2037 Growthed Flows PM'	16:30	17:30	01:00	$F2 * 1.1194$
7: 'Committed Development AM'	08:00	09:00	01:00	
8: 'Committed Development PM'	16:30	17:30	01:00	
9: 'Committed Development AM (No KSS2)'	08:00	09:00	01:00	
10: 'Committed Development PM (No KSS2)'	16:30	17:30	01:00	
11: 'Proposed Development AM (Phase 1)'	08:00	09:00	01:00	
12: 'Proposed Development PM (Phase 1)'	16:30	17:30	01:00	
13: 'Proposed Development AM (Phase 1 + 2)'	08:00	09:00	01:00	
14: 'Proposed Development PM (Phase 1 + 2)'	16:30	17:30	01:00	
15: '2030 Base + Committed AM'	08:00	09:00	01:00	$F3 + F7$
16: '2030 Base + Committed PM'	16:30	17:30	01:00	$F4 + F8$
17: '2037 Base + Committed AM'	08:00	09:00	01:00	$F5 + F7$
18: '2037 Base + Committed PM'	16:30	17:30	01:00	$F6 + F8$
19: '2030 Base + Committed + Phase 1 AM'	08:00	09:00	01:00	$F3 + F7 + F11$
20: '2030 Base + Committed + Phase 1 PM'	16:30	17:30	01:00	$F4 + F8 + F12$
21: '2037 Base + Committed + Phase 1 and 2 AM'	08:00	09:00	01:00	$F5 + F7 + F13$
22: '2037 Base + Committed + Phase 1 and 2 PM'	16:30	17:30	01:00	$F6 + F8 + F14$
23: '2030 Base + Committed + Phase 1 AM (No KSS2)'	08:00	09:00	01:00	$F3 + F9 + F11$
24: '2030 Base + Committed + Phase 1 PM (No KSS2)'	16:30	17:30	01:00	$F4 + F10 + F12$
25: '2037 Base + Committed + Phase 1 and 2 AM (No KSS2)'	08:00	09:00	01:00	$F5 + F9 + F13$
26: '2037 Base + Committed + Phase 1 and 2 PM (No KSS2)'	16:30	17:30	01:00	$F6 + F10 + F14$
27: '2037 Base + Committed + Phase 1 AM'	08:00	09:00	01:00	$F5 + F7 + F11$
28: '2037 Base + Committed + Phase 1 PM'	16:30	17:30	01:00	$F6 + F8 + F12$
29: '2030 Base + Committed + Phase 1 and 2 AM'	08:00	09:00	01:00	$F3 + F7 + F13$
30: '2030 Base + Committed + Phase 1 and 2 PM'	16:30	17:30	01:00	$F4 + F8 + F14$

Scenario 1: '2023 Surveyed Flows AM' (FG1: '2023 Surveyed Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	2	1	405	15	57	480
	B	4	0	22	1	7	34
	C	1114	22	2	6	325	1469
	D	140	0	9	10	0	159
	E	159	7	318	2	0	486
	Tot.	1419	30	756	34	389	2628

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2023 Surveyed Flows AM
Junction: Unnamed Junction	
1/1	239
1/2	239
2/1	34
3/1	731
3/2	736
4/1	149
5/1	486
6/1	492
6/2	925
7/1	30
8/1	217
8/2	537
9/1	24
10/1	389
11/1	390
11/2	416
12/1	82
12/2	4
13/1	181
13/2	177
14/1	789
14/2	740
15/1	666
15/2	623

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 2: '2023 Surveyed Flows PM' (FG2: '2023 Surveyed Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	1	187	113	1237	3	1541
	B	1	0	18	1	5	25
	C	368	8	2	13	303	694
	D	20	1	7	0	5	33
	E	59	1	400	6	0	466
	Tot.	449	197	540	1257	316	2759

Traffic Lane Flows

Lane	Scenario 2: 2023 Surveyed Flows PM
Junction: Unnamed Junction	
1/1	300
1/2	1240
2/1	25
3/1	346
3/2	346
4/1	33
5/1	466
6/1	149
6/2	299
7/1	197
8/1	176
8/2	362
9/1	1257
10/1	316
11/1	317
11/2	1449
12/1	1253
12/2	0
13/1	214
13/2	209
14/1	342
14/2	346
15/1	178
15/2	227

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 3: '2030 Growthed Flows AM' (FG3: '2030 Growthed Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	2	1	429	16	60	508
	B	4	0	23	1	7	35
	C	1179	23	2	6	344	1554
	D	148	0	10	11	0	169
	E	168	7	337	2	0	514
	Tot.	1501	31	801	36	411	2780

Traffic Lane Flows

Lane	Scenario 3: 2030 Growthed Flows AM
Junction: Unnamed Junction	
1/1	253
1/2	253
2/1	35
3/1	774
3/2	778
4/1	158
5/1	514
6/1	517
6/2	982
7/1	31
8/1	229
8/2	570
9/1	25
10/1	411
11/1	412
11/2	442
12/1	86
12/2	4
13/1	190
13/2	189
14/1	835
14/2	782
15/1	698
15/2	666

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 4: '2030 Growthed Flows PM' (FG4: '2030 Growthed Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	1	198	120	1310	3	1632
	B	1	0	19	1	5	26
	C	390	8	2	14	321	735
	D	21	1	7	0	5	34
	E	62	1	423	6	0	492
	Tot.	475	208	571	1331	334	2919

Traffic Lane Flows

Lane	Scenario 4: 2030 Growthed Flows PM
Junction: Unnamed Junction	
1/1	318
1/2	1313
2/1	26
3/1	367
3/2	366
4/1	34
5/1	492
6/1	169
6/2	305
7/1	208
8/1	194
8/2	375
9/1	1331
10/1	334
11/1	350
11/2	1519
12/1	1326
12/2	0
13/1	240
13/2	206
14/1	362
14/2	366
15/1	213
15/2	215

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 5: '2037 Growthed Flows AM' (FG5: '2037 Growthed Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	2	1	453	17	64	537
	B	4	0	25	1	8	38
	C	1247	25	2	7	364	1645
	D	157	0	10	11	0	178
	E	178	8	356	2	0	544
	Tot.	1588	34	846	38	436	2942

Traffic Lane Flows

Lane	Scenario 5: 2037 Growthed Flows AM
Junction: Unnamed Junction	
1/1	269
1/2	266
2/1	38
3/1	821
3/2	822
4/1	167
5/1	544
6/1	548
6/2	1038
7/1	34
8/1	242
8/2	602
9/1	27
10/1	436
11/1	434
11/2	468
12/1	92
12/2	4
13/1	199
13/2	202
14/1	886
14/2	826
15/1	740
15/2	703

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 6: '2037 Growthed Flows PM' (FG6: '2037 Growthed Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	1	209	126	1385	3	1724
	B	1	0	20	1	6	28
	C	412	9	2	15	339	777
	D	22	1	8	0	6	37
	E	66	1	448	7	0	522
	Tot.	502	220	604	1408	354	3088

Traffic Lane Flows

Lane	Scenario 6: 2037 Growthed Flows PM
Junction: Unnamed Junction	
1/1	335
1/2	1388
2/1	28
3/1	388
3/2	387
4/1	37
5/1	522
6/1	179
6/2	322
7/1	220
8/1	205
8/2	397
9/1	1408
10/1	354
11/1	370
11/2	1607
12/1	1402
12/2	1
13/1	255
13/2	219
14/1	382
14/2	388
15/1	225
15/2	228

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 7: '2030 Base + Committed AM' (FG15: '2030 Base + Committed AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	2	1	575	19	68	665
	B	4	0	23	1	7	35
	C	1491	23	2	6	363	1885
	D	155	0	10	11	0	176
	E	181	7	344	2	0	534
	Tot.	1833	31	954	39	438	3295

Traffic Lane Flows

Lane	Scenario 7: 2030 Base + Committed AM
Junction: Unnamed Junction	
1/1	333
1/2	330
2/1	35
3/1	941
3/2	942
4/1	165
5/1	534
6/1	756
6/2	1075
7/1	31
8/1	275
8/2	677
9/1	28
10/1	438
11/1	504
11/2	514
12/1	101
12/2	0
13/1	202
13/2	184
14/1	1014
14/2	942
15/1	1150
15/2	533

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 8: '2030 Base + Committed PM' (FG16: '2030 Base + Committed PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	1	198	451	1319	17	1986
	B	1	0	19	1	5	26
	C	577	8	2	14	330	931
	D	26	1	7	0	5	39
	E	69	1	440	6	0	516
	Tot.	674	208	919	1340	357	3498

Traffic Lane Flows

Lane	Scenario 8: 2030 Base + Committed PM
Junction: Unnamed Junction	
1/1	649
1/2	1336
2/1	26
3/1	464
3/2	465
4/1	39
5/1	516
6/1	228
6/2	445
7/1	208
8/1	364
8/2	553
9/1	1340
10/1	357
11/1	691
11/2	1549
12/1	1348
12/2	1
13/1	250
13/2	213
14/1	472
14/2	466
15/1	318
15/2	302

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 9: '2030 Base + Committed + Development (Phase 1) AM' (FG19: '2030 Base + Committed + Phase 1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	73	577	29	68	749
	B	4	0	23	1	7	35
	C	1638	23	2	6	363	2032
	D	161	0	10	11	0	182
	E	193	7	344	2	0	546
	Tot.	1998	103	956	49	438	3544

Traffic Lane Flows

Lane	Scenario 9: 2030 Base + Committed + Development (Phase 1) AM
Junction: Unnamed Junction	
1/1	377
1/2	370
2/1	35
3/1	1013
3/2	1017
4/1	171
5/1	546
6/1	671
6/2	1325
7/1	103
8/1	255
8/2	699
9/1	38
10/1	438
11/1	464
11/2	566
12/1	107
12/2	4
13/1	190
13/2	196
14/1	1082
14/2	1021
15/1	956
15/2	880

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 10: '2030 Base + Committed + Development (Phase 1) PM' (FG20: '2030 Base + Committed + Phase 1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	1	331	457	1329	17	2135
	B	1	0	19	1	5	26
	C	663	8	2	14	330	1017
	D	28	1	7	0	5	41
	E	75	1	440	6	0	522
	Tot.	768	341	925	1350	357	3741

Traffic Lane Flows

Lane	Scenario 10: 2030 Base + Committed + Development (Phase 1) PM
Junction: Unnamed Junction	
1/1	788
1/2	1346
2/1	26
3/1	508
3/2	507
4/1	41
5/1	522
6/1	262
6/2	505
7/1	341
8/1	367
8/2	556
9/1	1350
10/1	357
11/1	697
11/2	1559
12/1	1358
12/2	1
13/1	250
13/2	213
14/1	516
14/2	508
15/1	374
15/2	334

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 11: '2037 Base + Committed + Development (Phase 1) AM' (FG27: '2037 Base + Committed + Phase 1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	73	601	30	72	778
	B	4	0	25	1	8	38
	C	1706	25	2	7	383	2123
	D	170	0	10	11	0	191
	E	203	8	363	2	0	576
	Tot.	2085	106	1001	51	463	3706

Traffic Lane Flows

Lane	Scenario 11: 2037 Base + Committed + Development (Phase 1) AM
Junction: Unnamed Junction	
1/1	391
1/2	385
2/1	38
3/1	1060
3/2	1061
4/1	180
5/1	576
6/1	692
6/2	1391
7/1	106
8/1	266
8/2	733
9/1	40
10/1	463
11/1	482
11/2	596
12/1	113
12/2	4
13/1	197
13/2	211
14/1	1133
14/2	1065
15/1	978
15/2	937

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 12: '2037 Base + Committed + Development (Phase 1) PM' (FG28: '2037 Base + Committed + Phase 1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	1	342	463	1404	17	2227
	B	1	0	20	1	6	28
	C	685	9	2	15	348	1059
	D	29	1	8	0	6	44
	E	79	1	465	7	0	552
	Tot.	795	353	958	1427	377	3910

Traffic Lane Flows

Lane	Scenario 12: 2037 Base + Committed + Development (Phase 1) PM
Junction: Unnamed Junction	
1/1	805
1/2	1421
2/1	28
3/1	529
3/2	528
4/1	44
5/1	552
6/1	272
6/2	522
7/1	353
8/1	381
8/2	575
9/1	1427
10/1	377
11/1	723
11/2	1641
12/1	1435
12/2	1
13/1	271
13/2	220
14/1	537
14/2	529
15/1	386
15/2	347

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 13: '2030 Base + Committed + Development (Phase 1 and 2) AM' (FG29: '2030 Base + Committed + Phase 1 and 2 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	119	579	32	68	800
	B	4	0	23	1	7	35
	C	1657	23	2	6	363	2051
	D	163	0	10	11	0	184
	E	194	7	344	2	0	547
	Tot.	2020	149	958	52	438	3617

Traffic Lane Flows

Lane	Scenario 13: 2030 Base + Committed + Development (Phase 1 and 2) AM
Junction: Unnamed Junction	
1/1	403
1/2	395
2/1	35
3/1	1025
3/2	1024
4/1	173
5/1	547
6/1	657
6/2	1361
7/1	149
8/1	248
8/2	708
9/1	41
10/1	438
11/1	450
11/2	585
12/1	110
12/2	4
13/1	196
13/2	190
14/1	1094
14/2	1028
15/1	926
15/2	931

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 14: '2030 Base + Committed + Development (Phase 1 and 2) PM' (FG30: '2030 Base + Committed + Phase 1 and 2 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	1	357	458	1330	17	2163
	B	1	0	19	1	5	26
	C	708	8	2	14	330	1062
	D	31	1	7	0	5	44
	E	78	1	440	6	0	525
	Tot.	819	367	926	1351	357	3820

Traffic Lane Flows

Lane	Scenario 14: 2030 Base + Committed + Development (Phase 1 and 2) PM
Junction: Unnamed Junction	
1/1	815
1/2	1347
2/1	26
3/1	530
3/2	530
4/1	44
5/1	525
6/1	270
6/2	548
7/1	367
8/1	369
8/2	555
9/1	1351
10/1	357
11/1	700
11/2	1558
12/1	1359
12/2	1
13/1	252
13/2	211
14/1	538
14/2	531
15/1	384
15/2	372

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 15: '2037 Base + Committed + Development (Phase 1 and 2) AM' (FG21: '2037 Base + Committed + Phase 1 and 2 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	119	603	33	72	829
	B	4	0	25	1	8	38
	C	1725	25	2	7	383	2142
	D	172	0	10	11	0	193
	E	204	8	363	2	0	577
	Tot.	2107	152	1003	54	463	3779

Traffic Lane Flows

Lane	Scenario 15: 2037 Base + Committed + Development (Phase 1 and 2) AM
Junction: Unnamed Junction	
1/1	419
1/2	408
2/1	38
3/1	1070
3/2	1070
4/1	182
5/1	577
6/1	701
6/2	1404
7/1	152
8/1	258
8/2	743
9/1	43
10/1	463
11/1	466
11/2	617
12/1	116
12/2	4
13/1	199
13/2	209
14/1	1143
14/2	1074
15/1	994
15/2	942

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 16: '2037 Base + Committed + Development (Phase 1 and 2) PM' (FG22: '2037 Base + Committed + Phase 1 and 2 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	1	368	464	1405	17	2255
	B	1	0	20	1	6	28
	C	730	9	2	15	348	1104
	D	32	1	8	0	6	47
	E	82	1	465	7	0	555
	Tot.	846	379	959	1428	377	3989

Traffic Lane Flows

Lane	Scenario 16: 2037 Base + Committed + Development (Phase 1 and 2) PM
Junction: Unnamed Junction	
1/1	832
1/2	1422
2/1	28
3/1	551
3/2	551
4/1	47
5/1	555
6/1	268
6/2	577
7/1	379
8/1	381
8/2	576
9/1	1428
10/1	377
11/1	722
11/2	1644
12/1	1436
12/2	1
13/1	269
13/2	222
14/1	559
14/2	552
15/1	371
15/2	410

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 17: '2030 Base + Committed + Development (Phase 1) AM [Sens]' (FG23: '2030 Base + Committed + Phase 1 AM (No KSS2)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	73	520	29	68	692
	B	4	0	23	1	7	35
	C	1488	23	2	6	344	1863
	D	161	0	10	11	0	182
	E	193	7	337	2	0	539
	Tot.	1848	103	892	49	419	3311

Traffic Lane Flows

Lane	Scenario 17: 2030 Base + Committed + Development (Phase 1) AM [Sens]
Junction: Unnamed Junction	
1/1	347
1/2	343
2/1	35
3/1	930
3/2	931
4/1	171
5/1	539
6/1	632
6/2	1214
7/1	103
8/1	240
8/2	650
9/1	38
10/1	419
11/1	434
11/2	532
12/1	107
12/2	4
13/1	190
13/2	189
14/1	999
14/2	935
15/1	878
15/2	808

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 18: '2030 Base + Committed + Development (Phase 1) PM [Sens]' (FG24: '2030 Base + Committed + Phase 1 PM (No KSS2)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	1	331	326	1329	17	2004
	B	1	0	19	1	5	26
	C	590	8	2	14	321	935
	D	28	1	7	0	5	41
	E	75	1	423	6	0	505
	Tot.	695	341	777	1350	348	3511

Traffic Lane Flows

Lane	Scenario 18: 2030 Base + Committed + Development (Phase 1) PM [Sens]
Junction: Unnamed Junction	
1/1	657
1/2	1346
2/1	26
3/1	467
3/2	466
4/1	41
5/1	505
6/1	241
6/2	453
7/1	341
8/1	300
8/2	475
9/1	1350
10/1	348
11/1	562
11/2	1546
12/1	1358
12/2	1
13/1	246
13/2	200
14/1	475
14/2	467
15/1	332
15/2	303

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 19: '2037 Base + Committed + Development (Phase 1 and 2) AM [Sens]' (FG25: '2037 Base + Committed + Phase 1 and 2 AM (No KSS2)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	2	119	546	33	72	772
	B	4	0	25	1	8	38
	C	1575	25	2	7	364	1973
	D	172	0	10	11	0	193
	E	204	8	356	2	0	570
	Tot.	1957	152	939	54	444	3546

Traffic Lane Flows

Lane	Scenario 19: 2037 Base + Committed + Development (Phase 1 and 2) AM [Sens]
Junction: Unnamed Junction	
1/1	389
1/2	381
2/1	38
3/1	985
3/2	986
4/1	182
5/1	570
6/1	666
6/2	1289
7/1	152
8/1	242
8/2	695
9/1	43
10/1	444
11/1	434
11/2	585
12/1	116
12/2	4
13/1	197
13/2	204
14/1	1058
14/2	990
15/1	924
15/2	862

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Full Input Data And Results

Scenario 20: '2037 Base + Committed + Development (Phase 1 and 2) PM [Sens]' (FG26: '2037 Base + Committed + Phase 1 and 2 PM (No KSS2)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

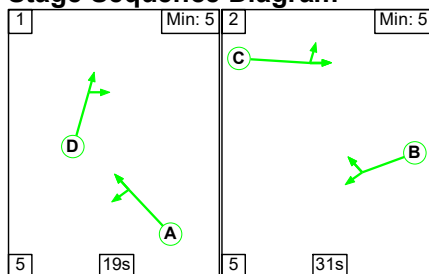
	Destination						
Origin		A	B	C	D	E	Tot.
	A	1	368	333	1405	17	2124
	B	1	0	20	1	6	28
	C	657	9	2	15	339	1022
	D	32	1	8	0	6	47
	E	82	1	448	7	0	538
	Tot.	773	379	811	1428	368	3759

Traffic Lane Flows

Lane	Scenario 20: 2037 Base + Committed + Development (Phase 1 and 2) PM [Sens]
Junction: Unnamed Junction	
1/1	701
1/2	1422
2/1	28
3/1	510
3/2	510
4/1	47
5/1	538
6/1	266
6/2	506
7/1	379
8/1	312
8/2	497
9/1	1428
10/1	368
11/1	585
11/2	1633
12/1	1436
12/2	1
13/1	263
13/2	211
14/1	518
14/2	511
15/1	368
15/2	340

Lane Saturation Flows

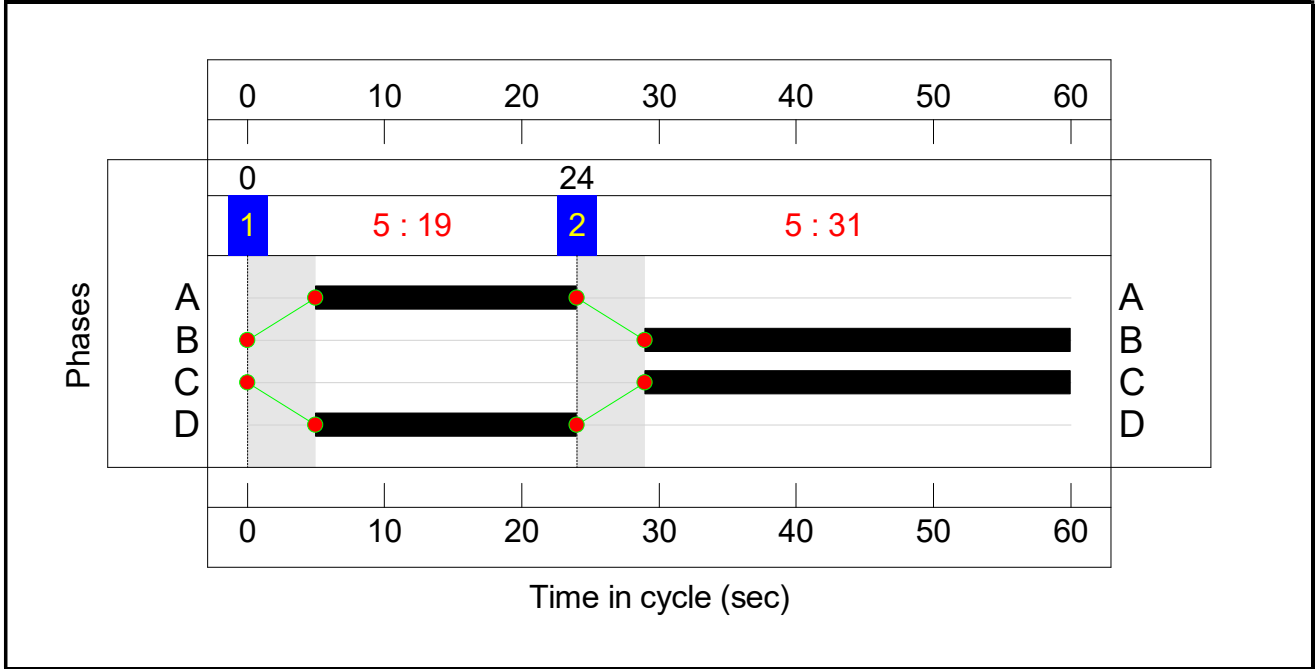
Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Industrial Estate Road Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
1/2 (Industrial Estate Road Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
2/1 (Sandy Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
3/1 (A534 Lane 1)	This lane uses a directly entered Saturation Flow						2400	2400
3/2 (A534 Lane 2)	This lane uses a directly entered Saturation Flow						2400	2400
4/1 (Borras Hall Lane Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
5/1 (A534 Wrexham Road Lane 1)	This lane uses a directly entered Saturation Flow						2200	2200
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						2200	2200
11/2	This lane uses a directly entered Saturation Flow						2200	2200
12/1	This lane uses a directly entered Saturation Flow						2200	2200
12/2	This lane uses a directly entered Saturation Flow						2200	2200
13/1	This lane uses a directly entered Saturation Flow						2200	2200
13/2	This lane uses a directly entered Saturation Flow						2200	2200
14/1	This lane uses a directly entered Saturation Flow						2200	2200
14/2	This lane uses a directly entered Saturation Flow						2200	2200
15/1	This lane uses a directly entered Saturation Flow						2200	2200
15/2	This lane uses a directly entered Saturation Flow						2200	2200

Scenario 1: '2023 Surveyed Flows AM' (FG1: '2023 Surveyed Flows AM', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram


Stage Timings

Stage	1	2
Duration	19	31
Change Point	0	24

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

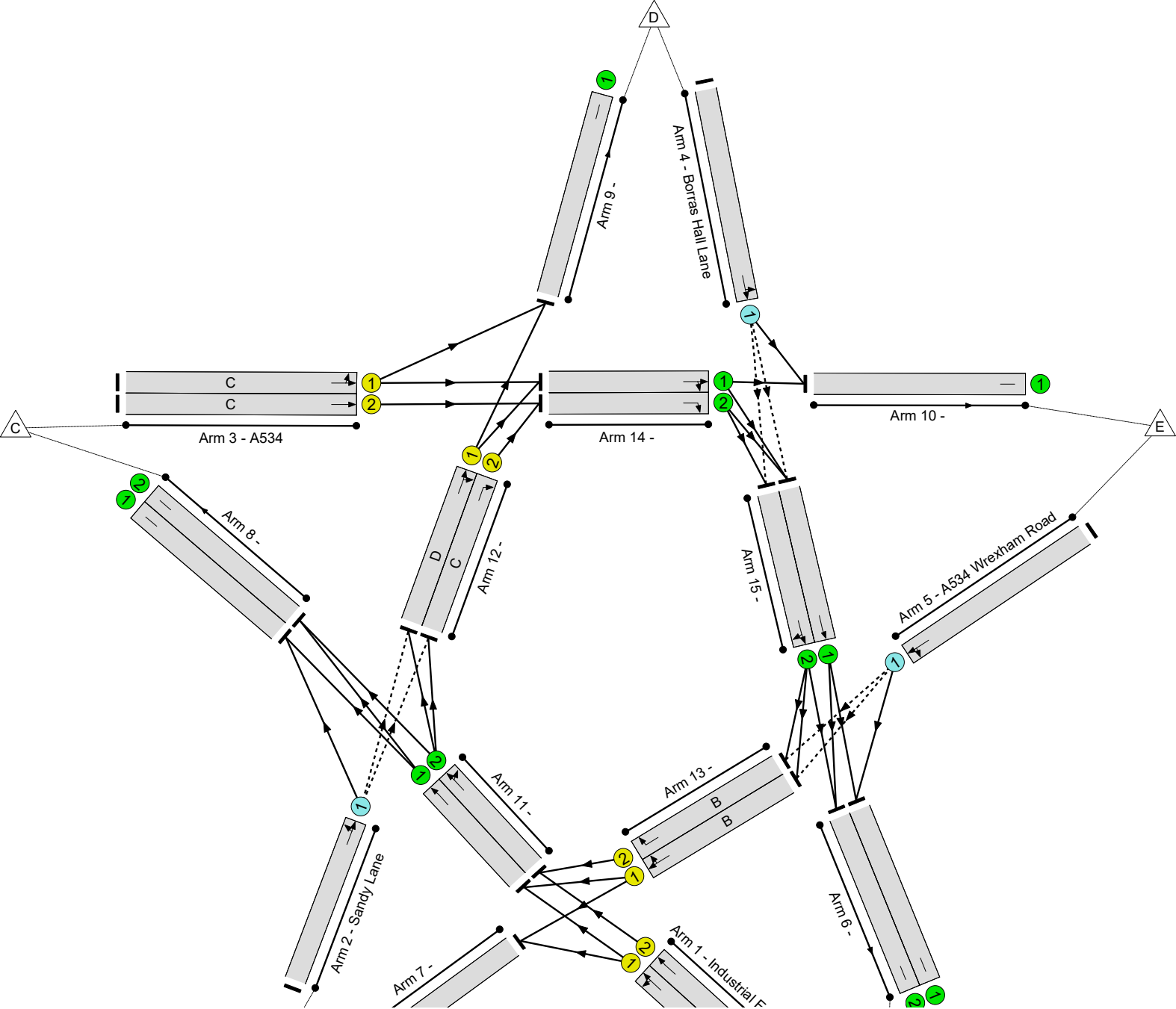
Full Input Data And Results



Unnamed Junction

PRC: 12.5 %

Total Traffic Delay: 14.0 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	80.0%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	19	-	239	2400	800	29.9%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	19	-	239	2400	800	29.9%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	34	2200	1227	2.8%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	31	-	731	2400	1280	57.1%
3/2	A534 Ahead	U	N/A	N/A	C		1	31	-	736	2400	1280	57.5%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	149	2200	565	26.4%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	486	2200	608	80.0%
6/1		U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	925	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	390	2200	2200	17.7%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	416	2200	2200	18.9%
12/1	Ahead Right	U	N/A	N/A	D		1	19	-	82	2200	733	11.2%
12/2	Right	U	N/A	N/A	C		1	31	-	4	2200	1173	0.3%
13/1	Ahead Right	U	N/A	N/A	B		1	31	-	181	2200	1173	15.4%
13/2	Right	U	N/A	N/A	B		1	31	-	177	2200	1173	15.1%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	789	2200	2200	35.9%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	740	2200	2200	33.6%
15/1	Ahead	U	N/A	N/A	-		-	-	-	666	2200	2200	30.3%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	623	2200	2200	28.3%

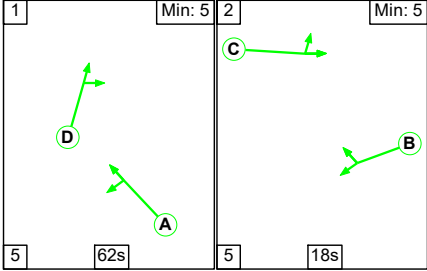
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	488	0	0	8.7	5.3	0.0	14.0	-	-	-	-
Unnamed Junction	-	-	488	0	0	8.7	5.3	0.0	14.0	-	-	-	-
1/1	239	239	-	-	-	1.0	0.2	-	1.2	18.0	2.9	0.2	3.1
1/2	239	239	-	-	-	1.0	0.2	-	1.2	18.0	2.9	0.2	3.1
2/1	34	34	12	0	0	0.0	0.0	-	0.0	2.3	0.1	0.0	0.1
3/1	731	731	-	-	-	1.9	0.7	-	2.6	12.7	8.1	0.7	8.8
3/2	736	736	-	-	-	1.9	0.7	-	2.6	12.7	8.2	0.7	8.9
4/1	149	149	149	0	0	0.4	0.2	-	0.6	14.6	1.5	0.2	1.7
5/1	486	486	327	0	0	1.8	1.9	-	3.7	27.8	6.9	1.9	8.8
6/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	925	925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	30	30	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	217	217	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	389	389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	390	390	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	416	416	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
12/1	82	82	-	-	-	0.2	0.1	-	0.2	10.7	0.4	0.1	0.4
12/2	4	4	-	-	-	0.0	0.0	-	0.0	7.8	0.0	0.0	0.0
13/1	181	181	-	-	-	0.2	0.1	-	0.3	6.4	1.6	0.1	1.7
13/2	177	177	-	-	-	0.2	0.1	-	0.3	6.2	1.6	0.1	1.7
14/1	789	789	-	-	-	0.0	0.3	-	0.3	1.4	5.7	0.3	6.0
14/2	740	740	-	-	-	0.0	0.3	-	0.3	1.4	6.2	0.3	6.4
15/1	666	666	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
15/2	623	623	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	56.5	Total Delay for Signalled Lanes (pcuHr):	8.45	Cycle Time (s):	60
	PRC Over All Lanes (%):	12.5	Total Delay Over All Lanes(pcuHr):	14.04		

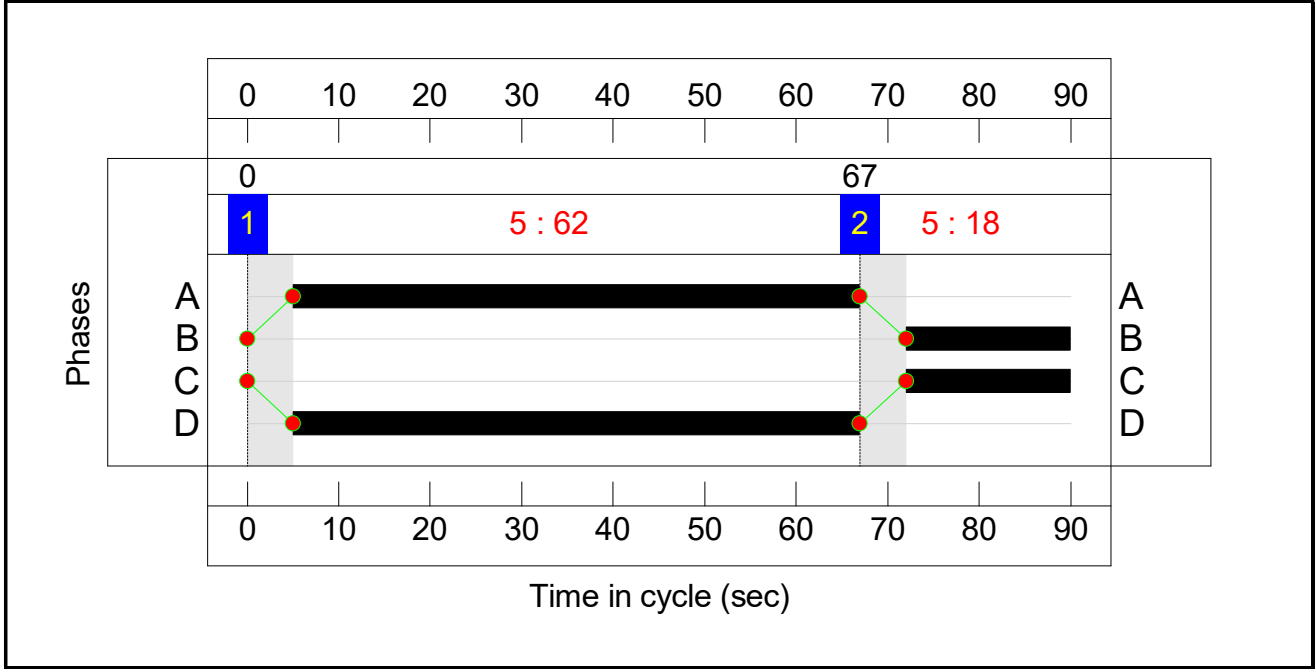
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	62	18
Change Point	0	67

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

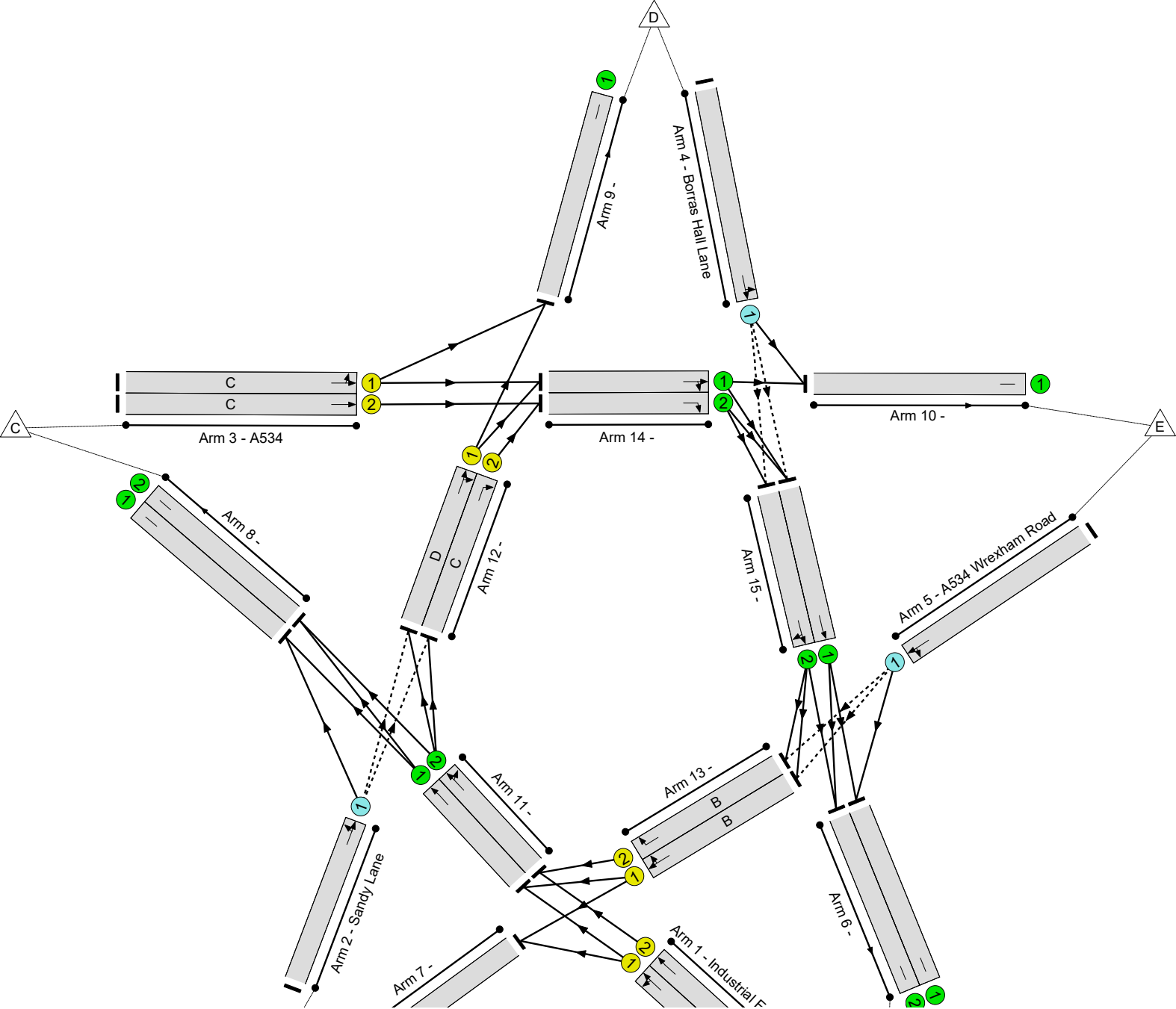
Full Input Data And Results



Unnamed Junction

PRC: 10.6 %

Total Traffic Delay: 23.3 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	81.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	81.4%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	62	-	300	2400	1680	17.9%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	62	-	1240	2400	1680	73.8%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	25	2200	302	8.3%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	18	-	346	2400	507	68.3%
3/2	A534 Ahead	U	N/A	N/A	C		1	18	-	346	2400	507	68.3%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	33	2200	1198	2.8%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	466	2200	1181	39.4%
6/1		U	N/A	N/A	-		-	-	-	149	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	197	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	176	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1257	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	317	2200	2200	14.4%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1449	2200	2200	65.9%
12/1	Ahead Right	U	N/A	N/A	D		1	62	-	1253	2200	1540	81.4%
12/2	Right	U	N/A	N/A	C		1	18	-	0	2200	464	0.0%
13/1	Ahead Right	U	N/A	N/A	B		1	18	-	214	2200	464	46.1%
13/2	Right	U	N/A	N/A	B		1	18	-	209	2200	464	45.0%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	342	2200	2200	15.5%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	346	2200	2200	15.7%
15/1	Ahead	U	N/A	N/A	-		-	-	-	178	2200	2200	8.1%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	227	2200	2200	10.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	442	0	0	15.0	8.3	0.0	23.3	-	-	-	-
Unnamed Junction	-	-	442	0	0	15.0	8.3	0.0	23.3	-	-	-	-
1/1	300	300	-	-	-	0.4	0.1	-	0.5	5.9	2.5	0.1	2.6
1/2	1240	1240	-	-	-	2.9	1.4	-	4.3	12.4	18.9	1.4	20.3
2/1	25	25	7	0	0	0.2	0.0	-	0.2	29.7	0.4	0.0	0.5
3/1	346	346	-	-	-	3.1	1.1	-	4.2	43.8	7.9	1.1	8.9
3/2	346	346	-	-	-	3.1	1.1	-	4.2	43.8	7.9	1.1	8.9
4/1	33	33	28	0	0	0.0	0.0	-	0.0	3.0	0.1	0.0	0.2
5/1	466	466	407	0	0	0.3	0.3	-	0.6	4.7	3.2	0.3	3.6
6/1	149	149	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	197	197	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	176	176	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1257	1257	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	316	316	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	317	317	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	1449	1449	-	-	-	0.2	1.0	-	1.2	2.9	19.0	1.0	20.0
12/1	1253	1253	-	-	-	1.1	2.2	-	3.2	9.2	4.0	2.2	6.2
12/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	214	214	-	-	-	1.9	0.4	-	2.3	38.6	4.7	0.4	5.2
13/2	209	209	-	-	-	1.8	0.4	-	2.2	37.6	4.6	0.4	5.1
14/1	342	342	-	-	-	0.0	0.1	-	0.1	1.0	4.4	0.1	4.5
14/2	346	346	-	-	-	0.0	0.1	-	0.1	1.1	5.6	0.1	5.7
15/1	178	178	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/2	227	227	-	-	-	0.0	0.1	-	0.1	0.9	0.0	0.1	0.1

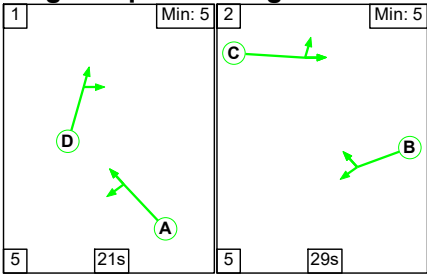
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	10.6	Total Delay for Signalled Lanes (pcuHr):	20.89	Cycle Time (s):	90
	PRC Over All Lanes (%):	10.6	Total Delay Over All Lanes(pcuHr):	23.30		

Full Input Data And Results

Scenario 3: '2030 Growthed Flows AM' (FG3: '2030 Growthed Flows AM', Plan 1: 'Network Control Plan 1')

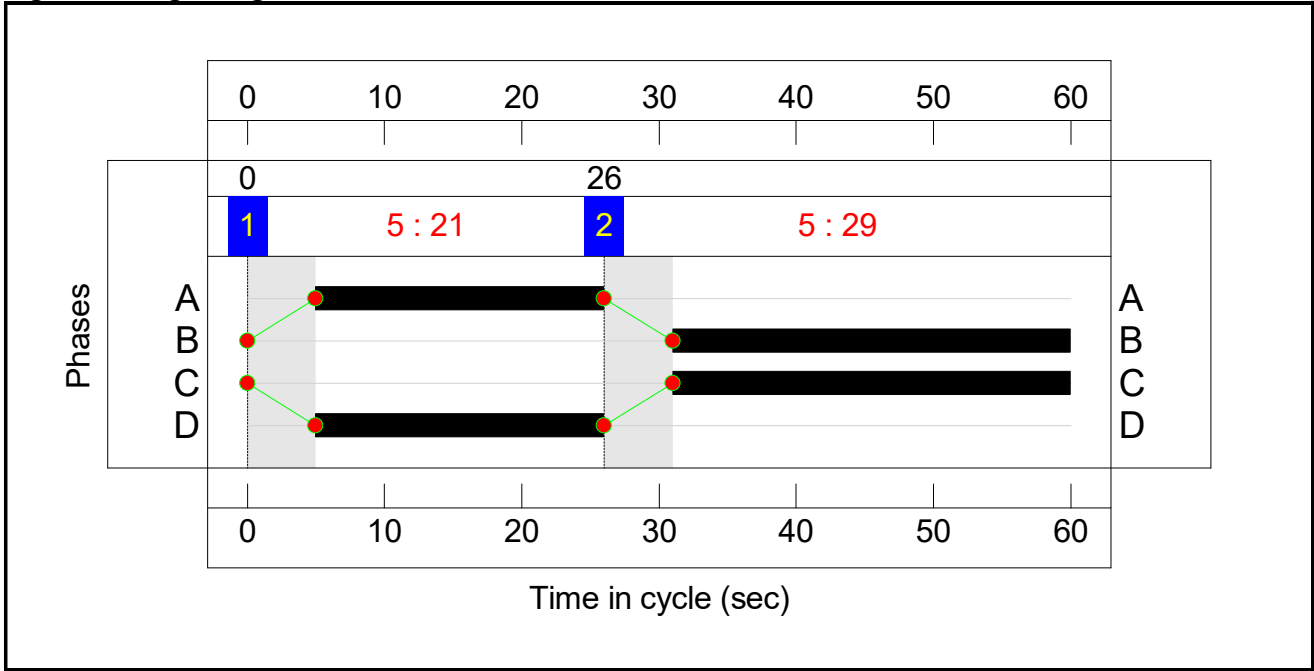
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	21	29
Change Point	0	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

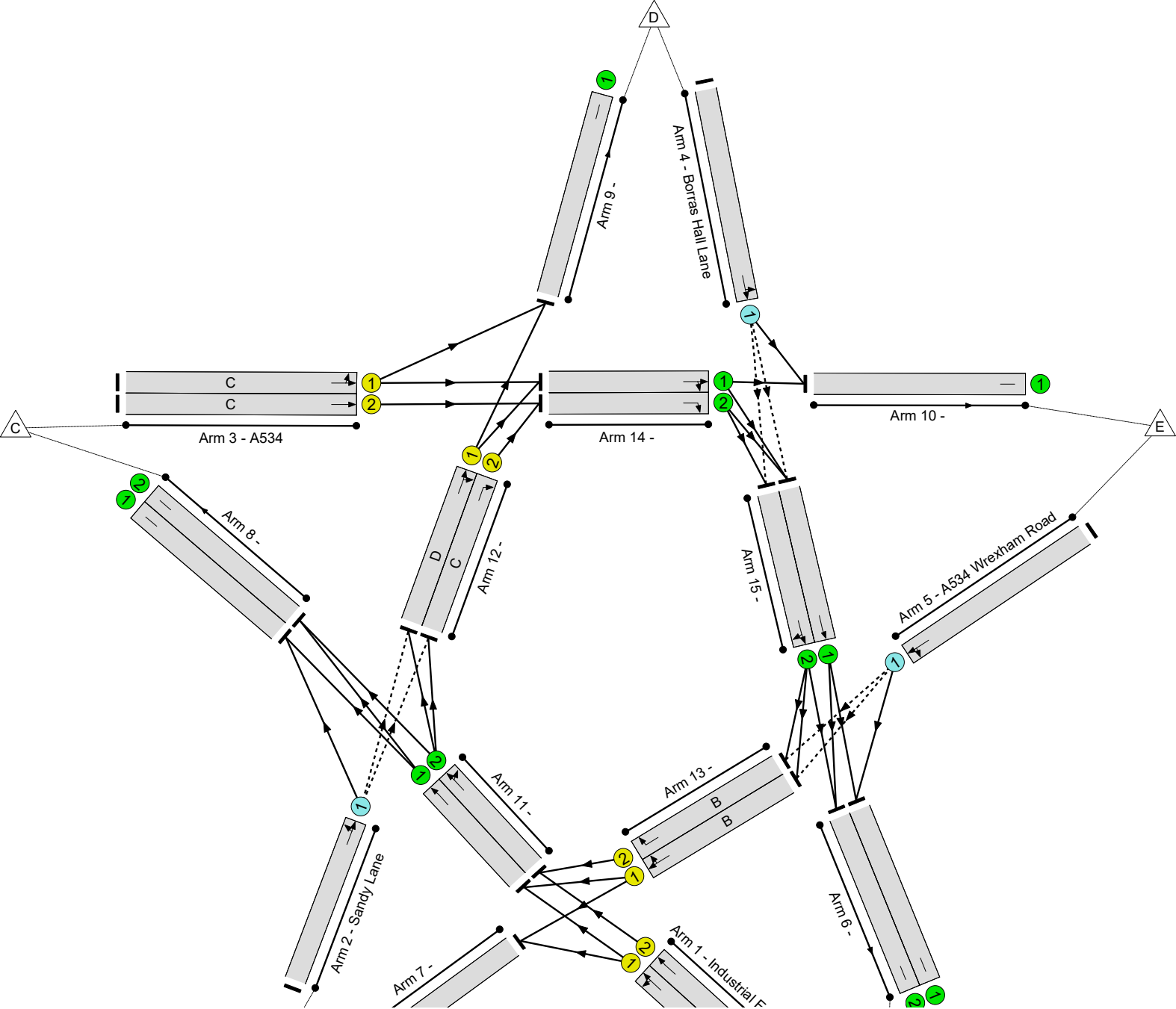
Full Input Data And Results



Unnamed Junction

PRC: 8.1 %

Total Traffic Delay: 16.1 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	83.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	83.3%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	21	-	253	2400	880	28.8%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	21	-	253	2400	880	28.8%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	35	2200	1197	2.9%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	29	-	774	2400	1200	64.5%
3/2	A534 Ahead	U	N/A	N/A	C		1	29	-	778	2400	1200	64.8%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	158	2200	607	26.0%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	514	2200	617	83.3%
6/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	982	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	31	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	229	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	570	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	411	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	412	2200	2200	18.7%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	442	2200	2200	20.1%
12/1	Ahead Right	U	N/A	N/A	D		1	21	-	86	2200	807	10.7%
12/2	Right	U	N/A	N/A	C		1	29	-	4	2200	1100	0.4%
13/1	Ahead Right	U	N/A	N/A	B		1	29	-	190	2200	1100	17.3%
13/2	Right	U	N/A	N/A	B		1	29	-	189	2200	1100	17.2%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	835	2200	2200	38.0%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	782	2200	2200	35.5%
15/1	Ahead	U	N/A	N/A	-		-	-	-	698	2200	2200	31.7%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	666	2200	2200	30.3%

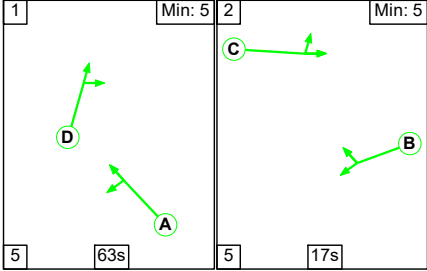
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	516	0	0	9.8	6.3	0.0	16.1	-	-	-	-
Unnamed Junction	-	-	516	0	0	9.8	6.3	0.0	16.1	-	-	-	-
1/1	253	253	-	-	-	0.9	0.2	-	1.1	16.3	3.0	0.2	3.2
1/2	253	253	-	-	-	0.9	0.2	-	1.1	16.3	3.0	0.2	3.2
2/1	35	35	12	0	0	0.0	0.0	-	0.0	2.4	0.1	0.0	0.1
3/1	774	774	-	-	-	2.4	0.9	-	3.3	15.3	9.5	0.9	10.4
3/2	778	778	-	-	-	2.4	0.9	-	3.3	15.3	9.5	0.9	10.4
4/1	158	158	158	0	0	0.4	0.2	-	0.6	13.2	1.6	0.2	1.8
5/1	514	514	346	0	0	2.0	2.4	-	4.4	30.9	7.4	2.4	9.8
6/1	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	982	982	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	31	31	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	229	229	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	570	570	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	411	411	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	412	412	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	442	442	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
12/1	86	86	-	-	-	0.2	0.1	-	0.2	9.5	0.4	0.1	0.4
12/2	4	4	-	-	-	0.0	0.0	-	0.0	8.9	0.0	0.0	0.0
13/1	190	190	-	-	-	0.2	0.1	-	0.3	6.3	1.6	0.1	1.8
13/2	189	189	-	-	-	0.2	0.1	-	0.3	5.8	1.9	0.1	2.0
14/1	835	835	-	-	-	0.0	0.3	-	0.3	1.5	7.4	0.3	7.7
14/2	782	782	-	-	-	0.0	0.3	-	0.3	1.5	7.5	0.3	7.8
15/1	698	698	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
15/2	666	666	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	38.8	Total Delay for Signalled Lanes (pcuHr):	9.77	Cycle Time (s):	60
	PRC Over All Lanes (%):	8.1	Total Delay Over All Lanes(pcuHr):	16.14		

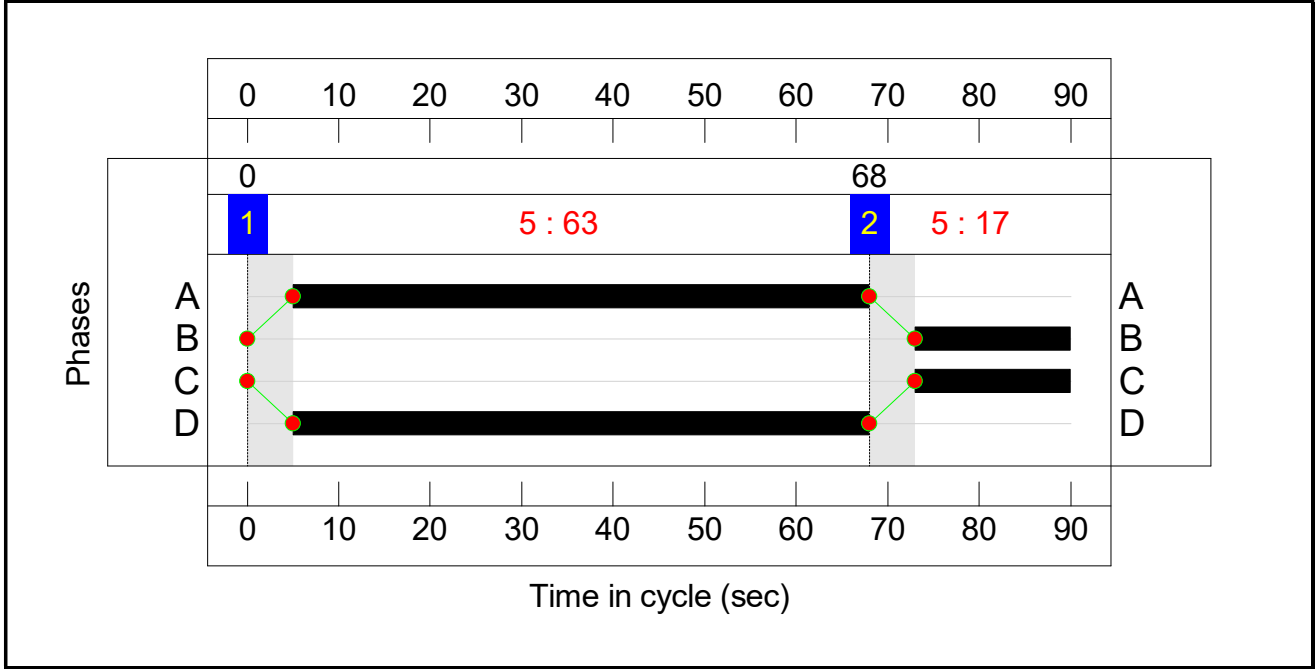
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	63	17
Change Point	0	68

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

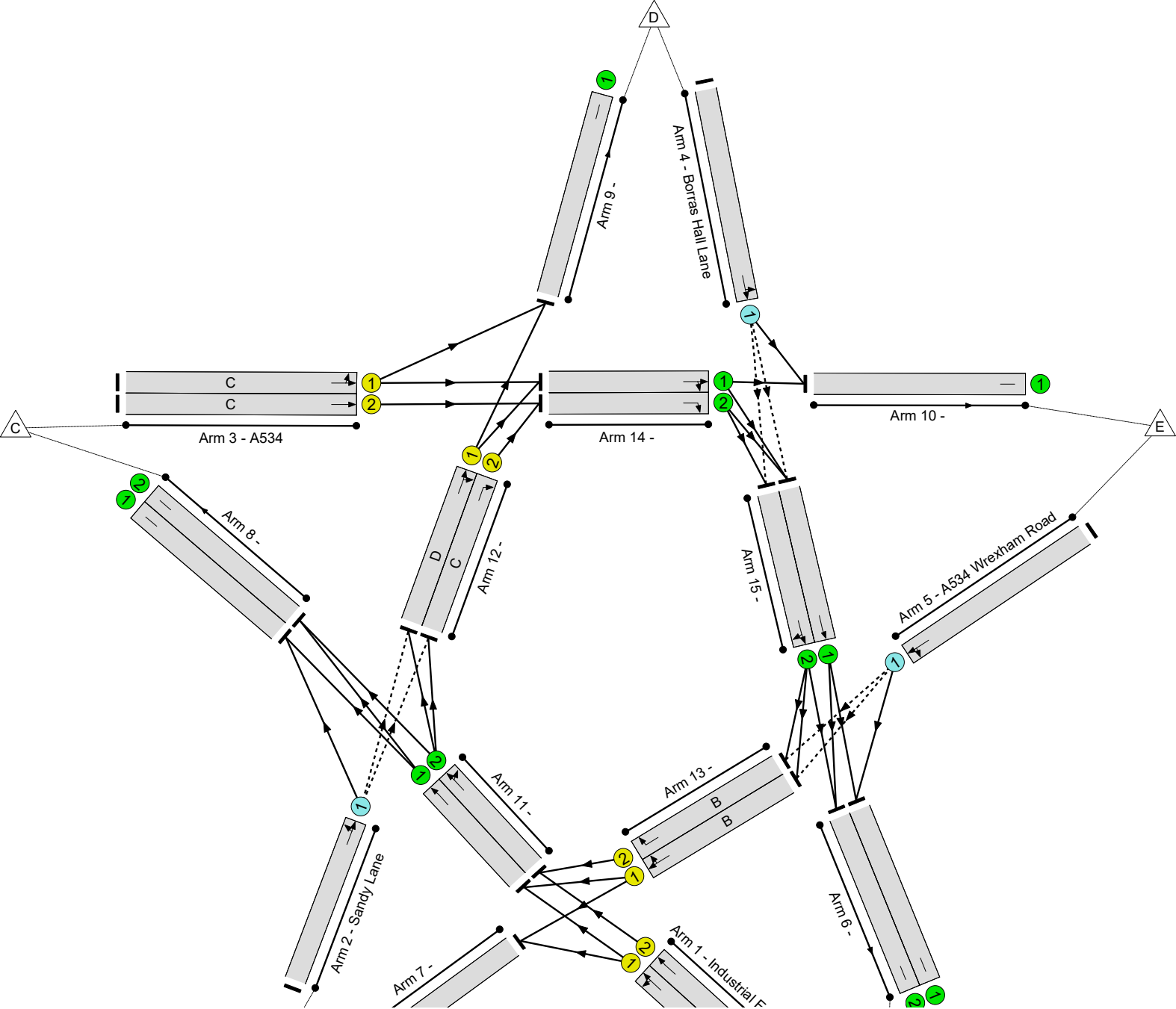
Full Input Data And Results



Unnamed Junction

PRC: 6.2 %

Total Traffic Delay: 26.7 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	84.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	84.8%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	63	-	318	2400	1707	18.6%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	63	-	1313	2400	1707	76.9%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	26	2200	268	9.7%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	17	-	367	2400	480	76.5%
3/2	A534 Ahead	U	N/A	N/A	C		1	17	-	366	2400	480	76.3%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	34	2200	1194	2.8%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	492	2200	1170	42.0%
6/1		U	N/A	N/A	-		-	-	-	169	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	305	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	208	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	194	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	375	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1331	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	334	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	350	2200	2200	15.9%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1519	2200	2200	69.0%
12/1	Ahead Right	U	N/A	N/A	D		1	63	-	1326	2200	1564	84.8%
12/2	Right	U	N/A	N/A	C		1	17	-	0	2200	440	0.0%
13/1	Ahead Right	U	N/A	N/A	B		1	17	-	240	2200	440	54.5%
13/2	Right	U	N/A	N/A	B		1	17	-	206	2200	440	46.8%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	362	2200	2200	16.5%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	366	2200	2200	16.6%
15/1	Ahead	U	N/A	N/A	-		-	-	-	213	2200	2200	9.7%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	215	2200	2200	9.8%

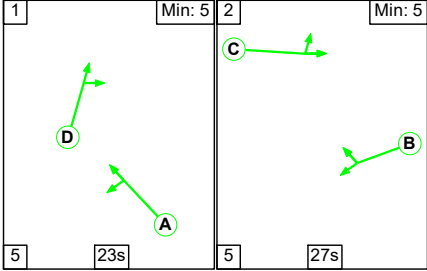
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	466	0	0	16.1	10.6	0.0	26.7	-	-	-	-
Unnamed Junction	-	-	466	0	0	16.1	10.6	0.0	26.7	-	-	-	-
1/1	318	318	-	-	-	0.4	0.1	-	0.5	5.6	2.6	0.1	2.7
1/2	1313	1313	-	-	-	3.0	1.7	-	4.7	12.8	20.8	1.7	22.4
2/1	26	26	7	0	0	0.2	0.1	-	0.2	31.5	0.5	0.1	0.5
3/1	367	367	-	-	-	3.5	1.6	-	5.0	49.5	8.6	1.6	10.1
3/2	366	366	-	-	-	3.5	1.6	-	5.0	49.4	8.5	1.6	10.1
4/1	34	34	29	0	0	0.0	0.0	-	0.0	3.2	0.2	0.0	0.2
5/1	492	492	430	0	0	0.3	0.4	-	0.7	5.1	3.7	0.4	4.1
6/1	169	169	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	305	305	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	208	208	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	194	194	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	375	375	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1331	1331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	334	334	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	350	350	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	1519	1519	-	-	-	0.3	1.1	-	1.4	3.3	21.0	1.1	22.1
12/1	1326	1326	-	-	-	1.1	2.7	-	3.8	10.3	4.3	2.7	7.0
12/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	240	240	-	-	-	2.1	0.6	-	2.7	40.8	5.4	0.6	6.0
13/2	206	206	-	-	-	1.7	0.4	-	2.2	38.1	4.6	0.4	5.0
14/1	362	362	-	-	-	0.0	0.1	-	0.1	1.1	5.1	0.1	5.2
14/2	366	366	-	-	-	0.0	0.1	-	0.1	1.2	6.3	0.1	6.4
15/1	213	213	-	-	-	0.0	0.1	-	0.1	0.9	0.0	0.1	0.1
15/2	215	215	-	-	-	0.0	0.1	-	0.1	0.9	0.0	0.1	0.1

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	6.2	Total Delay for Signalled Lanes (pcuHr):	23.94	Cycle Time (s):	90
	PRC Over All Lanes (%):	6.2	Total Delay Over All Lanes(pcuHr):	26.71		

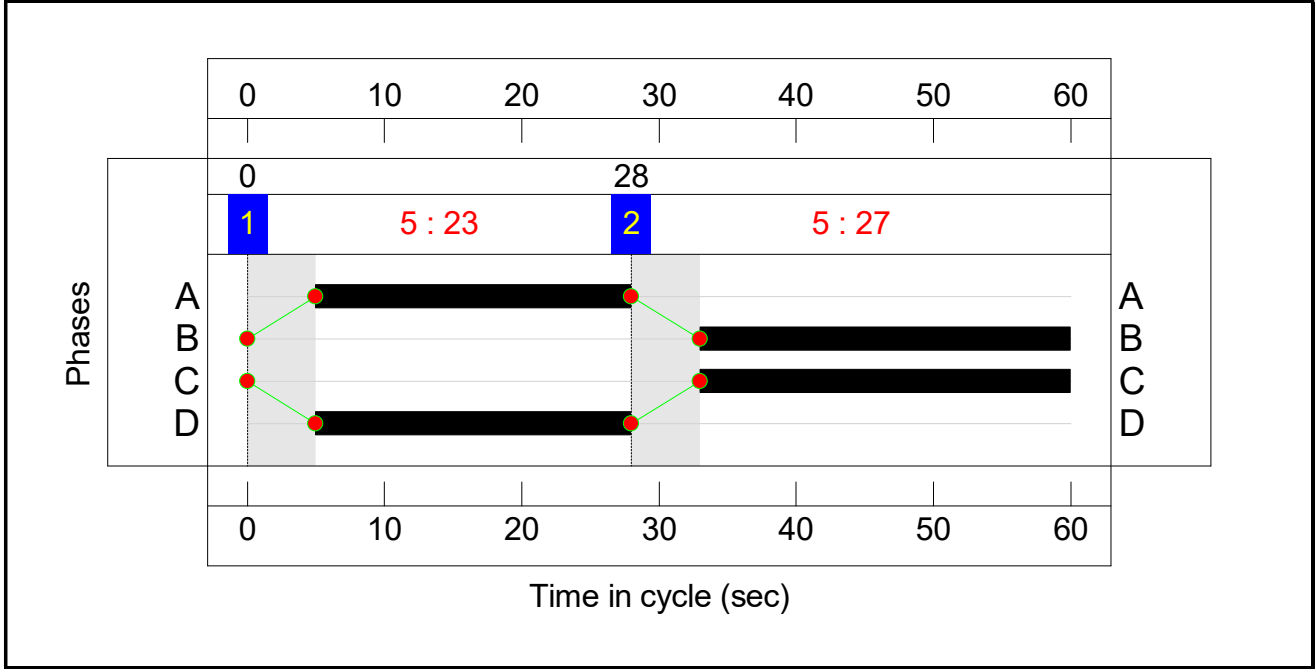
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	23	27
Change Point	0	28

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

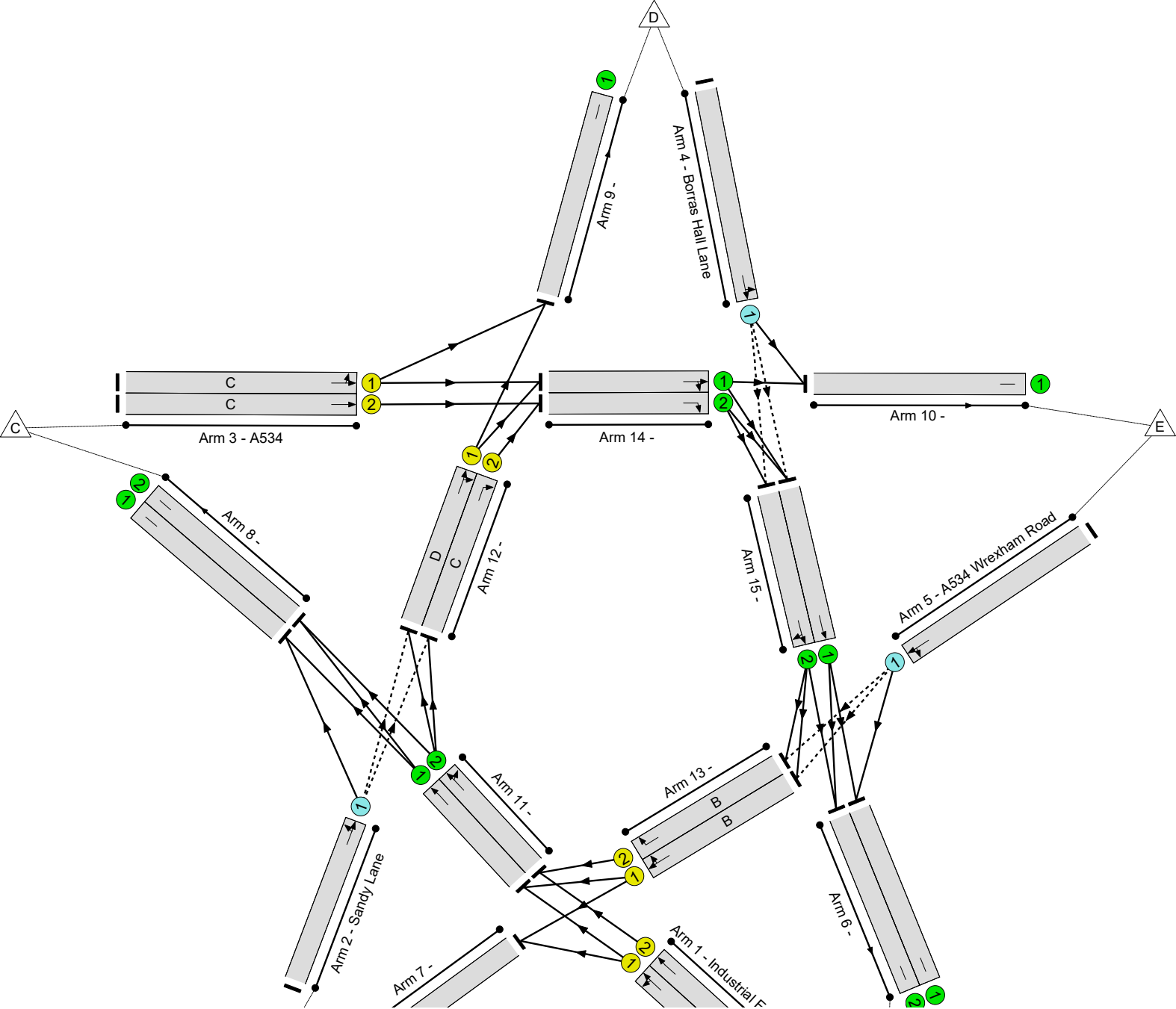
Full Input Data And Results



Unnamed Junction

PRC: 6.3 %

Total Traffic Delay: 18.7 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	84.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	84.6%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	23	-	269	2400	960	28.0%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	23	-	266	2400	960	27.7%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	38	2200	1165	3.3%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	27	-	821	2400	1120	73.3%
3/2	A534 Ahead	U	N/A	N/A	C		1	27	-	822	2400	1120	73.4%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	167	2200	647	25.8%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	544	2200	643	84.6%
6/1		U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1038	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	34	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	602	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	27	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	436	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	434	2200	2200	19.7%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	468	2200	2200	21.3%
12/1	Ahead Right	U	N/A	N/A	D		1	23	-	92	2200	880	10.5%
12/2	Right	U	N/A	N/A	C		1	27	-	4	2200	1027	0.4%
13/1	Ahead Right	U	N/A	N/A	B		1	27	-	199	2200	1027	19.4%
13/2	Right	U	N/A	N/A	B		1	27	-	202	2200	1027	19.7%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	886	2200	2200	40.3%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	826	2200	2200	37.5%
15/1	Ahead	U	N/A	N/A	-		-	-	-	740	2200	2200	33.6%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	703	2200	2200	32.0%

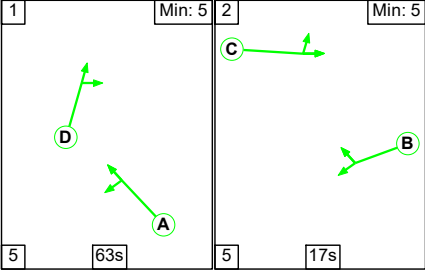
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	546	0	0	11.0	7.6	0.0	18.7	-	-	-	-
Unnamed Junction	-	-	546	0	0	11.0	7.6	0.0	18.7	-	-	-	-
1/1	269	269	-	-	-	0.9	0.2	-	1.1	14.8	3.0	0.2	3.2
1/2	266	266	-	-	-	0.9	0.2	-	1.1	14.8	3.0	0.2	3.1
2/1	38	38	13	0	0	0.0	0.0	-	0.0	2.5	0.1	0.0	0.1
3/1	821	821	-	-	-	3.0	1.4	-	4.3	18.9	10.9	1.4	12.3
3/2	822	822	-	-	-	3.0	1.4	-	4.3	19.0	11.0	1.4	12.3
4/1	167	167	167	0	0	0.4	0.2	-	0.6	11.9	1.6	0.2	1.8
5/1	544	544	366	0	0	2.1	2.6	-	4.7	31.3	7.9	2.6	10.5
6/1	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1038	1038	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	34	34	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	602	602	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	27	27	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	436	436	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	434	434	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	468	468	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
12/1	92	92	-	-	-	0.2	0.1	-	0.2	8.7	0.4	0.1	0.4
12/2	4	4	-	-	-	0.0	0.0	-	0.0	10.1	0.0	0.0	0.0
13/1	199	199	-	-	-	0.3	0.1	-	0.4	7.2	2.0	0.1	2.1
13/2	202	202	-	-	-	0.2	0.1	-	0.4	6.3	2.1	0.1	2.2
14/1	886	886	-	-	-	0.1	0.3	-	0.4	1.6	9.2	0.3	9.6
14/2	826	826	-	-	-	0.1	0.3	-	0.4	1.6	9.3	0.3	9.6
15/1	740	740	-	-	-	0.0	0.3	-	0.3	1.2	0.0	0.3	0.3
15/2	703	703	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	22.6	Total Delay for Signalled Lanes (pcuHr):	11.83	Cycle Time (s):	60
	PRC Over All Lanes (%):	6.3	Total Delay Over All Lanes(pcuHr):	18.65		

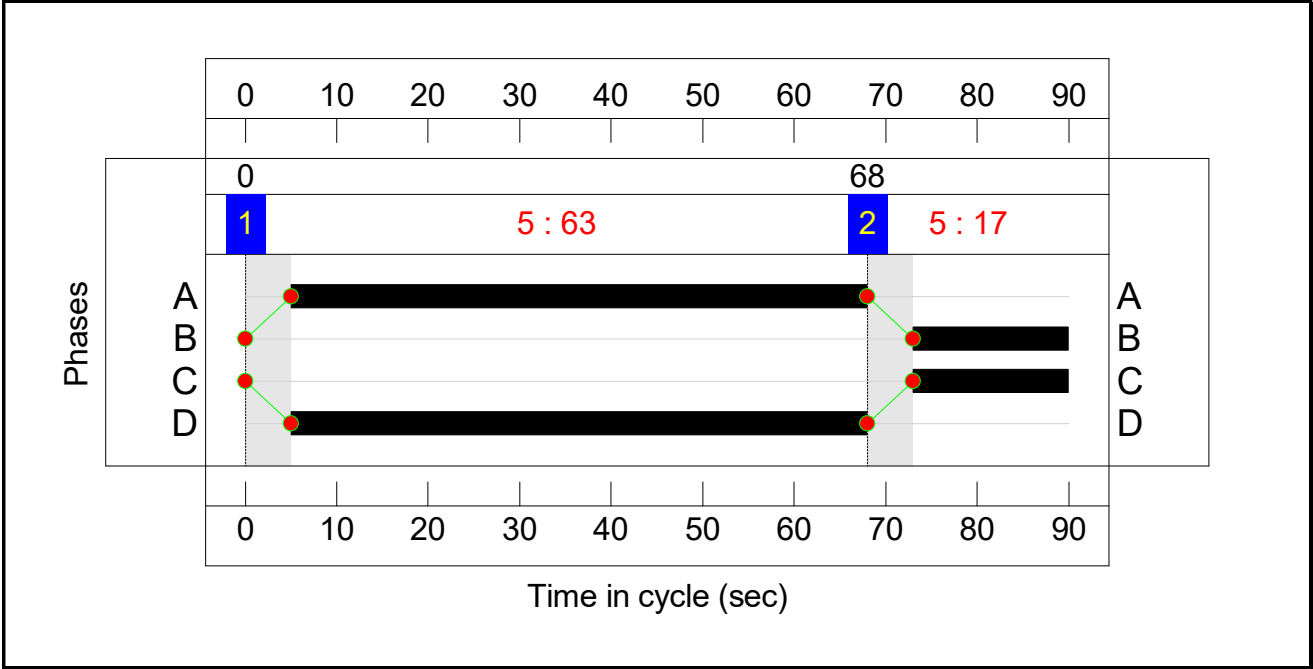
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	63	17
Change Point	0	68

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

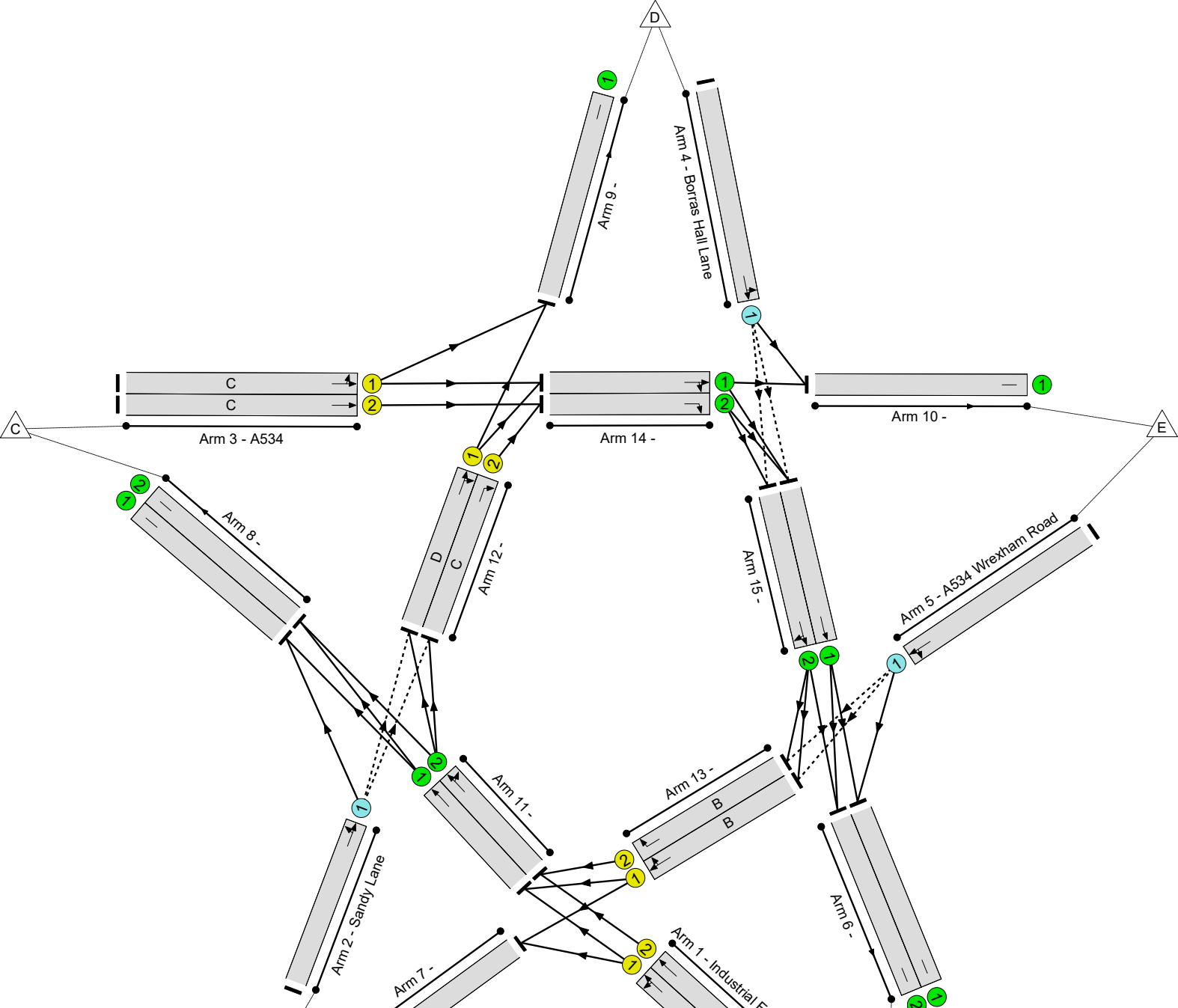
Full Input Data And Results



Unnamed Junction

PRC: 0.4 %

Total Traffic Delay: 31.4 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	63	-	335	2400	1707	19.6%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	63	-	1388	2400	1707	81.3%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	28	2200	250	11.2%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	17	-	388	2400	480	80.8%
3/2	A534 Ahead	U	N/A	N/A	C		1	17	-	387	2400	480	80.6%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	37	2200	1192	3.1%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	522	2200	1157	45.1%
6/1		U	N/A	N/A	-		-	-	-	179	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	220	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	205	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	397	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1408	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	370	2200	2200	16.8%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1607	2200	2200	73.0%
12/1	Ahead Right	U	N/A	N/A	D		1	63	-	1402	2200	1564	89.6%
12/2	Right	U	N/A	N/A	C		1	17	-	1	2200	440	0.2%
13/1	Ahead Right	U	N/A	N/A	B		1	17	-	255	2200	440	58.0%
13/2	Right	U	N/A	N/A	B		1	17	-	219	2200	440	49.8%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	382	2200	2200	17.4%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	388	2200	2200	17.6%
15/1	Ahead	U	N/A	N/A	-		-	-	-	225	2200	2200	10.2%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	228	2200	2200	10.4%

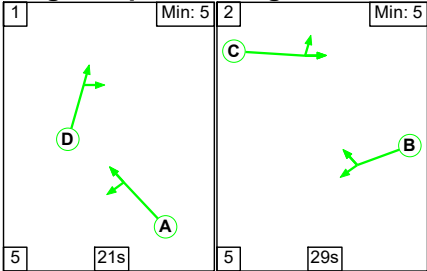
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	495	0	0	17.5	13.8	0.0	31.4	-	-	-	-
Unnamed Junction	-	-	495	0	0	17.5	13.8	0.0	31.4	-	-	-	-
1/1	335	335	-	-	-	0.4	0.1	-	0.5	5.7	2.8	0.1	2.9
1/2	1388	1388	-	-	-	3.4	2.1	-	5.6	14.5	23.5	2.1	25.7
2/1	28	28	8	0	0	0.2	0.1	-	0.3	32.3	0.5	0.1	0.6
3/1	388	388	-	-	-	3.7	2.0	-	5.7	53.1	9.2	2.0	11.2
3/2	387	387	-	-	-	3.7	2.0	-	5.7	52.9	9.1	2.0	11.1
4/1	37	37	31	0	0	0.0	0.0	-	0.0	3.4	0.2	0.0	0.2
5/1	522	522	456	0	0	0.4	0.4	-	0.8	5.7	4.2	0.4	4.6
6/1	179	179	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	220	220	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	205	205	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	397	397	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1408	1408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	370	370	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	1607	1607	-	-	-	0.4	1.3	-	1.7	3.8	24.6	1.3	26.0
12/1	1402	1402	-	-	-	1.2	4.1	-	5.3	13.5	4.9	4.1	9.0
12/2	1	1	-	-	-	0.0	0.0	-	0.0	20.1	0.0	0.0	0.0
13/1	255	255	-	-	-	2.3	0.7	-	2.9	41.6	5.8	0.7	6.5
13/2	219	219	-	-	-	1.8	0.5	-	2.3	38.5	4.9	0.5	5.4
14/1	382	382	-	-	-	0.0	0.1	-	0.1	1.1	5.7	0.1	5.8
14/2	388	388	-	-	-	0.0	0.1	-	0.1	1.2	7.0	0.1	7.1
15/1	225	225	-	-	-	0.0	0.1	-	0.1	0.9	0.0	0.1	0.1
15/2	228	228	-	-	-	0.0	0.1	-	0.1	0.9	0.0	0.1	0.1

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	0.4	Total Delay for Signalled Lanes (pcuHr):	28.08	Cycle Time (s):	90
	PRC Over All Lanes (%):	0.4	Total Delay Over All Lanes(pcuHr):	31.36		

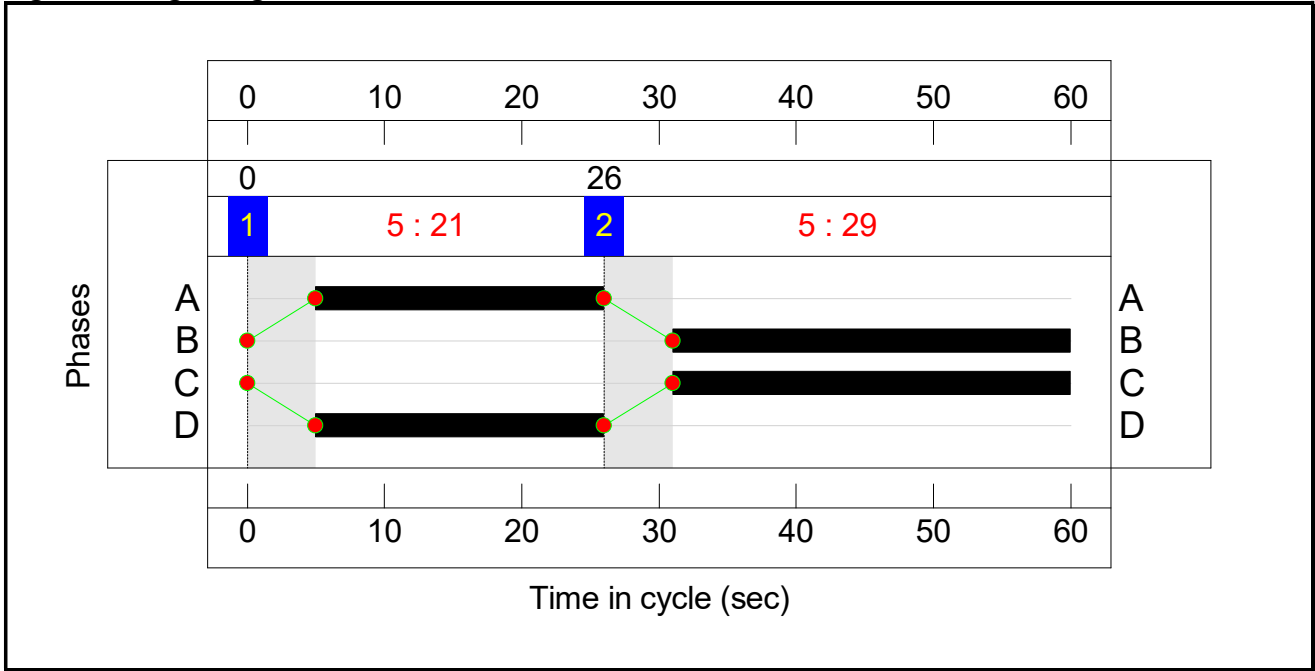
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	21	29
Change Point	0	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

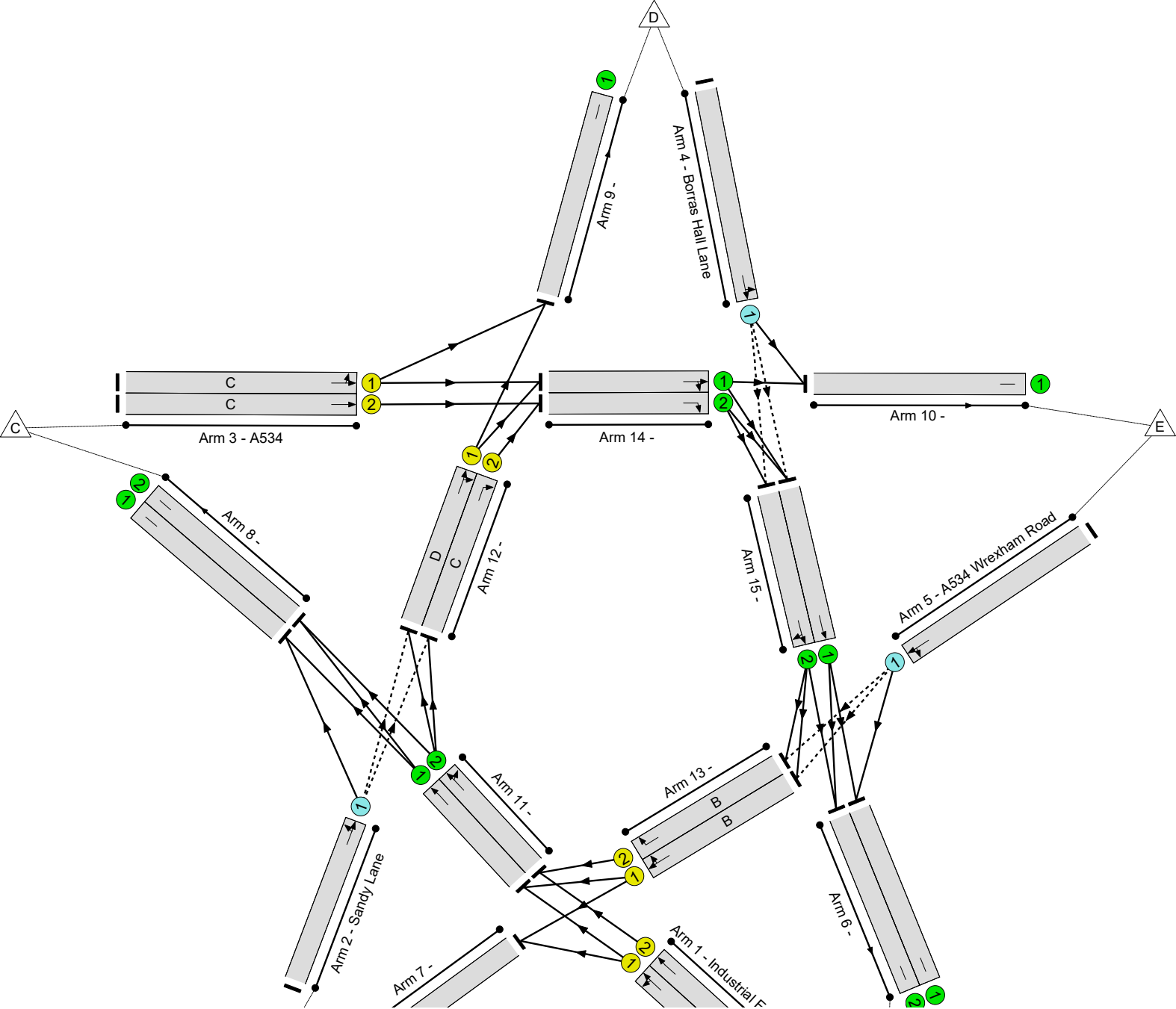
Full Input Data And Results



Unnamed Junction

PRC: -6.2 %

Total Traffic Delay: 26.7 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	95.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	95.6%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	21	-	333	2400	880	37.8%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	21	-	330	2400	880	37.5%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	35	2200	1064	3.3%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	29	-	941	2400	1200	78.4%
3/2	A534 Ahead	U	N/A	N/A	C		1	29	-	942	2400	1200	78.5%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	165	2200	586	28.2%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	534	2200	558	95.6%
6/1		U	N/A	N/A	-		-	-	-	756	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1075	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	31	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	677	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	28	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	438	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	504	2200	2200	22.9%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	514	2200	2200	23.4%
12/1	Ahead Right	U	N/A	N/A	D		1	21	-	101	2200	807	12.5%
12/2	Right	U	N/A	N/A	C		1	29	-	0	2200	1100	0.0%
13/1	Ahead Right	U	N/A	N/A	B		1	29	-	202	2200	1100	18.4%
13/2	Right	U	N/A	N/A	B		1	29	-	184	2200	1100	16.7%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	1014	2200	2200	46.1%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	942	2200	2200	42.8%
15/1	Ahead	U	N/A	N/A	-		-	-	-	1150	2200	2200	52.3%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	533	2200	2200	24.2%

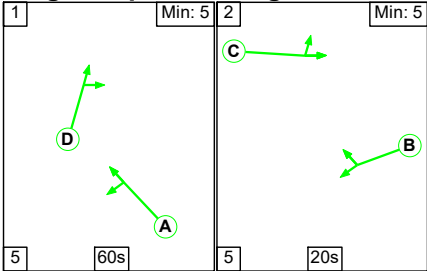
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	530	0	0	13.3	13.5	0.0	26.7	-	-	-	-
Unnamed Junction	-	-	530	0	0	13.3	13.5	0.0	26.7	-	-	-	-
1/1	333	333	-	-	-	1.3	0.3	-	1.6	17.3	4.1	0.3	4.4
1/2	330	330	-	-	-	1.3	0.3	-	1.6	17.2	4.0	0.3	4.3
2/1	35	35	12	0	0	0.0	0.0	-	0.0	2.7	0.1	0.0	0.1
3/1	941	941	-	-	-	3.2	1.8	-	5.0	19.2	12.8	1.8	14.6
3/2	942	942	-	-	-	3.2	1.8	-	5.0	19.2	12.8	1.8	14.6
4/1	165	165	165	0	0	0.4	0.2	-	0.6	13.8	1.7	0.2	1.8
5/1	534	534	353	0	0	2.6	7.0	-	9.5	64.1	8.5	7.0	15.4
6/1	756	756	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1075	1075	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	31	31	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	677	677	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	28	28	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	504	504	-	-	-	0.0	0.1	-	0.1	1.1	1.3	0.1	1.4
11/2	514	514	-	-	-	0.0	0.2	-	0.2	1.1	1.3	0.2	1.4
12/1	101	101	-	-	-	0.2	0.1	-	0.3	9.9	0.4	0.1	0.5
12/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	202	202	-	-	-	0.2	0.1	-	0.3	5.1	1.4	0.1	1.5
13/2	184	184	-	-	-	0.1	0.1	-	0.2	4.1	1.3	0.1	1.4
14/1	1014	1014	-	-	-	0.1	0.4	-	0.5	1.9	11.2	0.4	11.6
14/2	942	942	-	-	-	0.1	0.4	-	0.5	1.9	11.3	0.4	11.6
15/1	1150	1150	-	-	-	0.5	0.5	-	1.1	3.4	17.2	0.5	17.7
15/2	533	533	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	14.6	Total Delay for Signalled Lanes (pcuHr):	14.00	Cycle Time (s):	60
	PRC Over All Lanes (%):	-6.2	Total Delay Over All Lanes(pcuHr):	26.73		

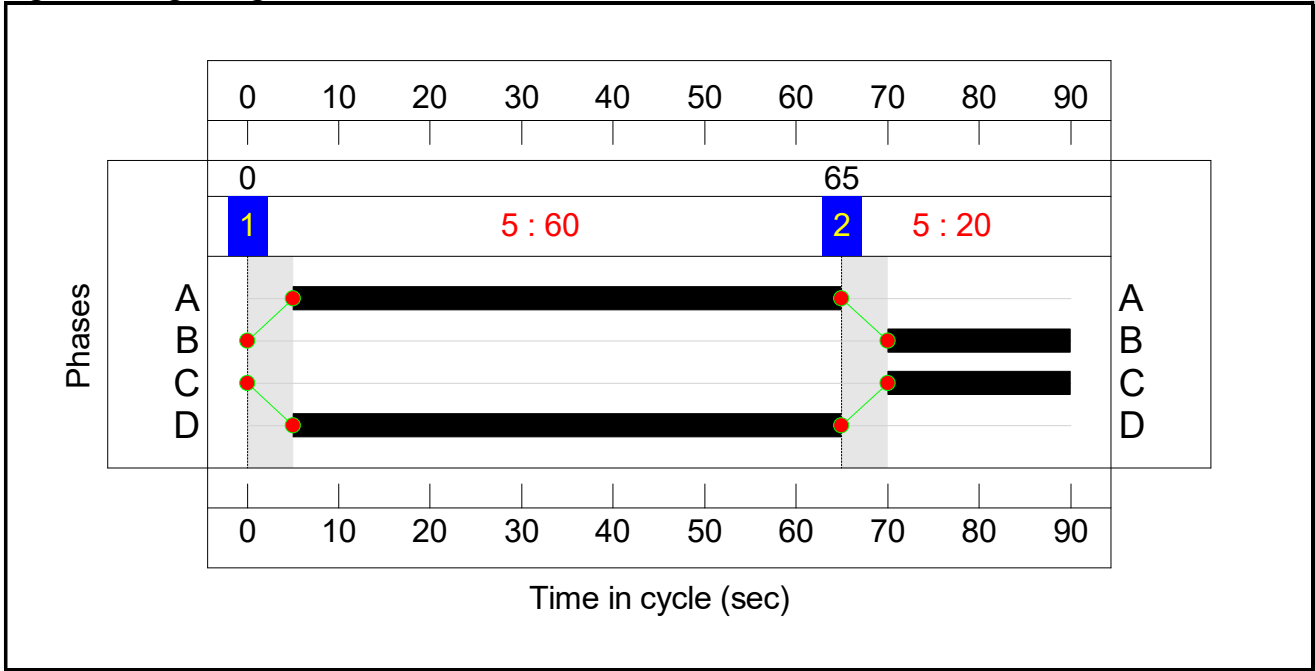
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	60	20
Change Point	0	65

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

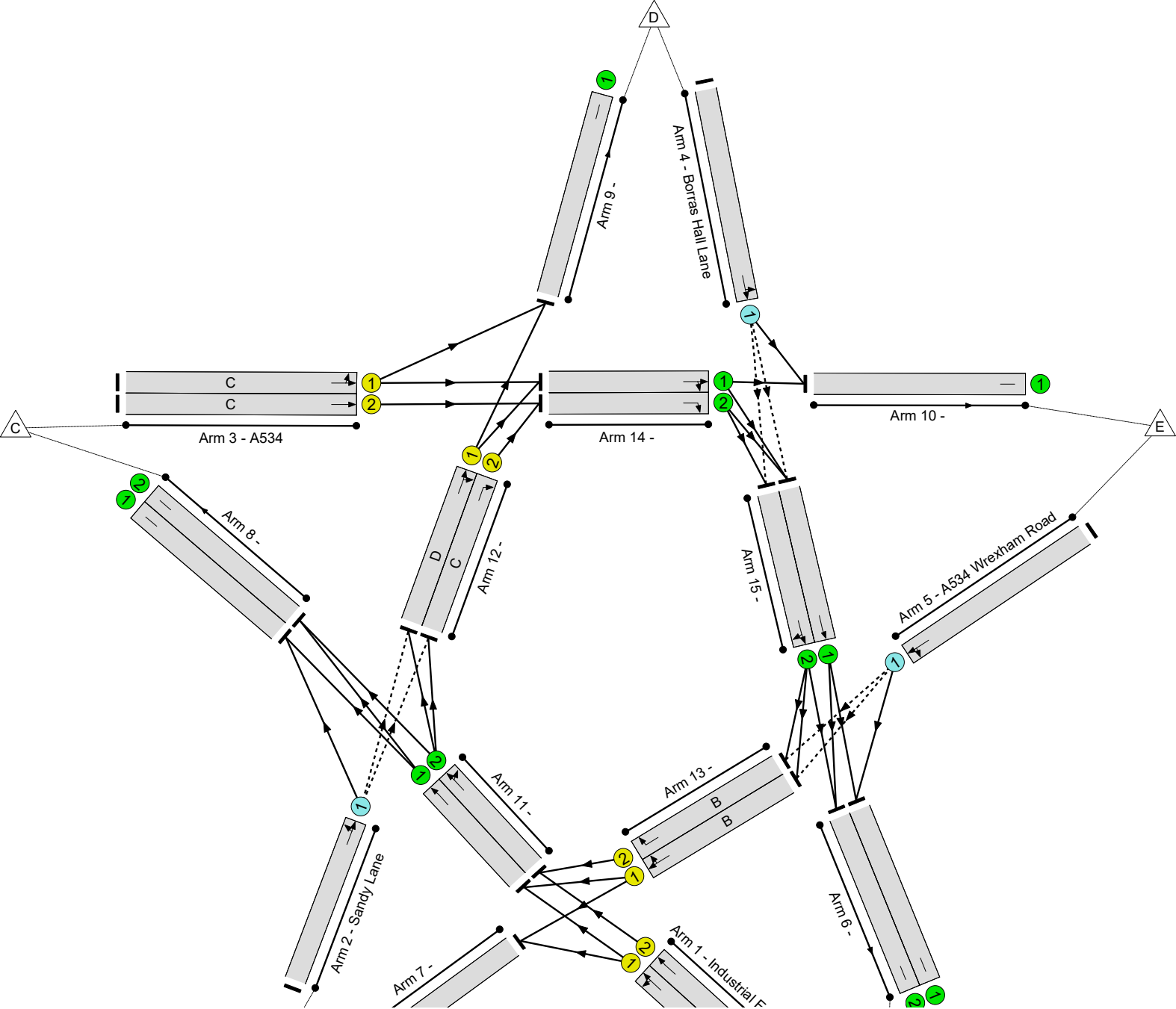
Full Input Data And Results



Unnamed Junction

PRC: -0.4 %

Total Traffic Delay: 34.7 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	90.4%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	60	-	649	2400	1627	39.9%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	60	-	1336	2400	1627	82.1%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	26	2200	319	8.2%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	20	-	464	2400	560	82.9%
3/2	A534 Ahead	U	N/A	N/A	C		1	20	-	465	2400	560	83.0%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	39	2200	1111	3.5%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	516	2200	1095	47.1%
6/1		U	N/A	N/A	-		-	-	-	228	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	208	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	364	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	553	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1340	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	691	2200	2200	31.4%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1549	2200	2200	70.4%
12/1	Ahead Right	U	N/A	N/A	D		1	60	-	1348	2200	1491	90.4%
12/2	Right	U	N/A	N/A	C		1	20	-	1	2200	513	0.2%
13/1	Ahead Right	U	N/A	N/A	B		1	20	-	250	2200	513	48.7%
13/2	Right	U	N/A	N/A	B		1	20	-	213	2200	513	41.5%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	472	2200	2200	21.5%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	466	2200	2200	21.2%
15/1	Ahead	U	N/A	N/A	-		-	-	-	318	2200	2200	14.5%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	302	2200	2200	13.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	488	0	0	19.8	14.9	0.0	34.7	-	-	-	-
Unnamed Junction	-	-	488	0	0	19.8	14.9	0.0	34.7	-	-	-	-
1/1	649	649	-	-	-	1.2	0.3	-	1.5	8.2	7.0	0.3	7.4
1/2	1336	1336	-	-	-	3.9	2.3	-	6.2	16.6	24.1	2.3	26.4
2/1	26	26	7	0	0	0.2	0.0	-	0.2	28.2	0.4	0.0	0.5
3/1	464	464	-	-	-	4.2	2.3	-	6.5	50.7	11.0	2.3	13.3
3/2	465	465	-	-	-	4.2	2.3	-	6.6	50.9	11.0	2.3	13.3
4/1	39	39	34	0	0	0.0	0.0	-	0.0	4.3	0.2	0.0	0.3
5/1	516	516	447	0	0	0.6	0.4	-	1.0	7.3	4.9	0.4	5.3
6/1	228	228	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	208	208	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	364	364	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	553	553	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1340	1340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	357	357	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	691	691	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/2	1549	1549	-	-	-	0.4	1.2	-	1.6	3.6	25.1	1.2	26.3
12/1	1348	1348	-	-	-	1.2	4.4	-	5.7	15.2	5.5	4.4	9.9
12/2	1	1	-	-	-	0.0	0.0	-	0.0	21.3	0.0	0.0	0.0
13/1	250	250	-	-	-	2.1	0.5	-	2.6	36.9	5.7	0.5	6.2
13/2	213	213	-	-	-	1.7	0.4	-	2.1	34.9	4.8	0.4	5.1
14/1	472	472	-	-	-	0.0	0.1	-	0.2	1.2	8.0	0.1	8.1
14/2	466	466	-	-	-	0.0	0.1	-	0.2	1.4	8.9	0.1	9.0
15/1	318	318	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/2	302	302	-	-	-	0.0	0.1	-	0.1	0.9	0.0	0.1	0.1

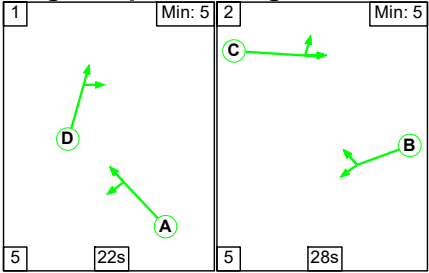
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-0.4	Total Delay for Signalled Lanes (pcuHr):	31.08	Cycle Time (s):	90
	PRC Over All Lanes (%):	-0.4	Total Delay Over All Lanes(pcuHr):	34.67		

Full Input Data And Results

Scenario 9: '2030 Base + Committed + Development (Phase 1) AM' (FG19: '2030 Base + Committed + Phase 1 AM', Plan 1: 'Network Control Plan 1')

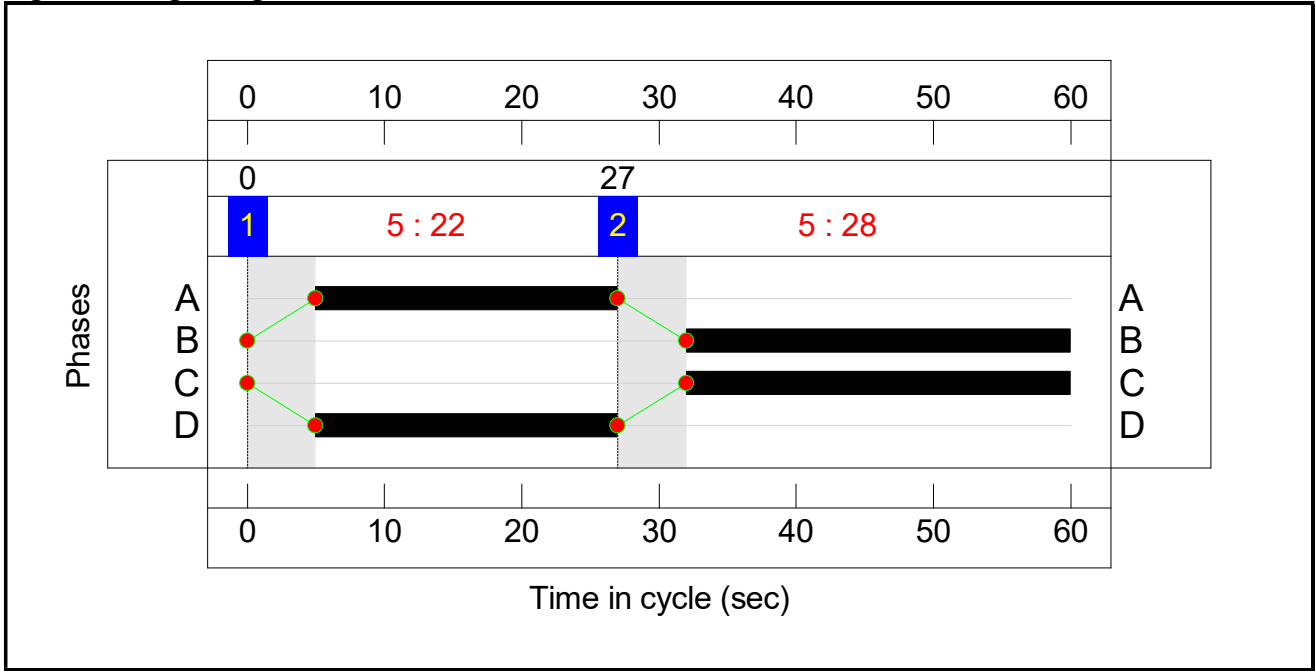
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	22	28
Change Point	0	27

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

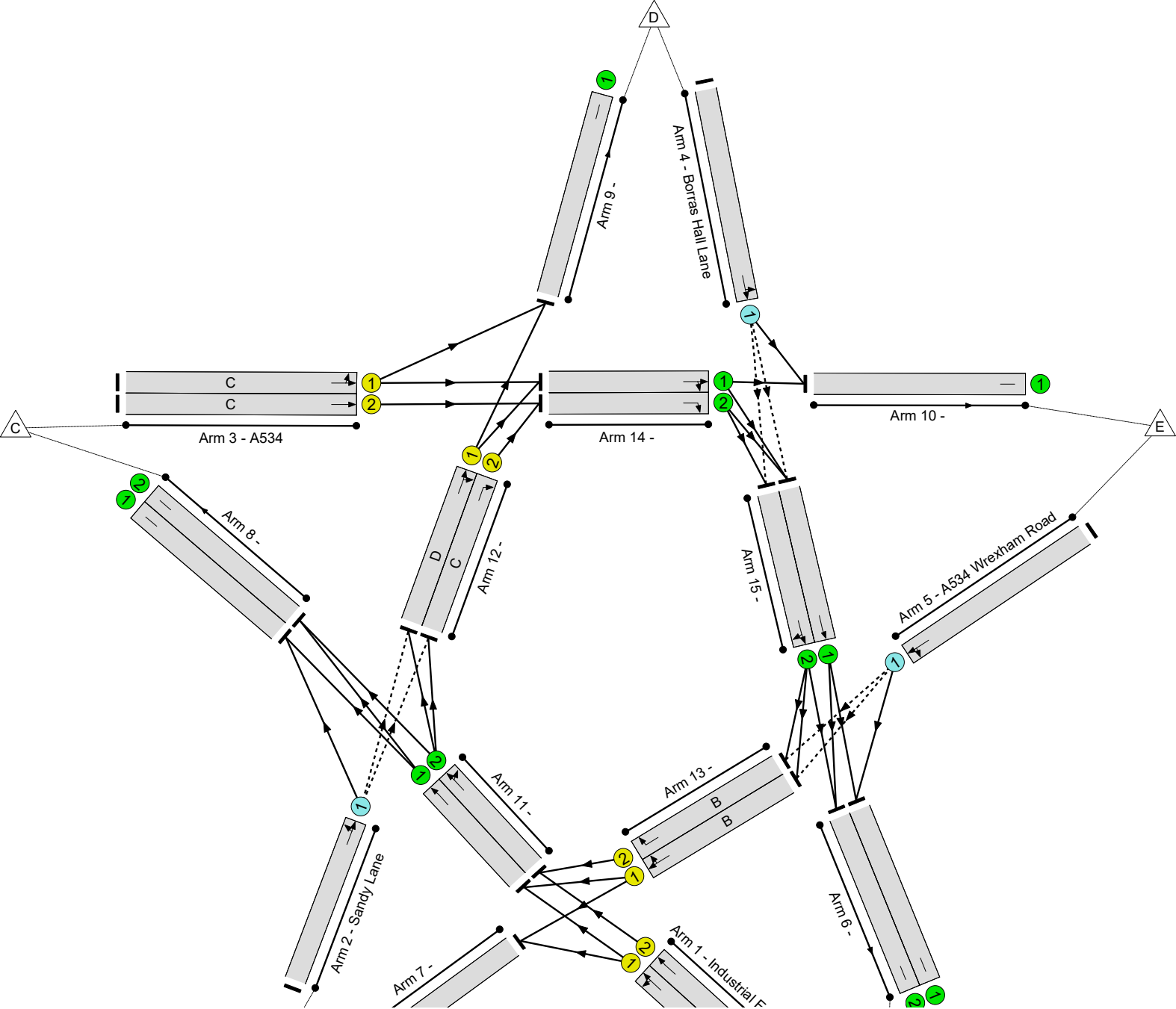
Full Input Data And Results



Unnamed Junction

PRC: -4.3 %

Total Traffic Delay: 30.0 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	93.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	93.8%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	22	-	377	2400	920	41.0%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	22	-	370	2400	920	40.2%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	35	2200	1045	3.3%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	28	-	1013	2400	1160	87.3%
3/2	A534 Ahead	U	N/A	N/A	C		1	28	-	1017	2400	1160	87.7%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	171	2200	608	28.1%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	546	2200	582	93.8%
6/1		U	N/A	N/A	-		-	-	-	671	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1325	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	103	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	255	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	38	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	438	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	464	2200	2200	21.1%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	566	2200	2200	25.7%
12/1	Ahead Right	U	N/A	N/A	D		1	22	-	107	2200	843	12.7%
12/2	Right	U	N/A	N/A	C		1	28	-	4	2200	1063	0.4%
13/1	Ahead Right	U	N/A	N/A	B		1	28	-	190	2200	1063	17.9%
13/2	Right	U	N/A	N/A	B		1	28	-	196	2200	1063	18.4%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	1082	2200	2200	49.2%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	1021	2200	2200	46.4%
15/1	Ahead	U	N/A	N/A	-		-	-	-	956	2200	2200	43.5%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	880	2200	2200	40.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	536	0	0	14.5	15.6	0.0	30.0	-	-	-	-
Unnamed Junction	-	-	536	0	0	14.5	15.6	0.0	30.0	-	-	-	-
1/1	377	377	-	-	-	1.4	0.3	-	1.8	16.8	4.5	0.3	4.8
1/2	370	370	-	-	-	1.4	0.3	-	1.7	16.8	4.4	0.3	4.8
2/1	35	35	12	0	0	0.0	0.0	-	0.0	3.0	0.1	0.0	0.1
3/1	1013	1013	-	-	-	3.9	3.3	-	7.2	25.6	14.9	3.3	18.2
3/2	1017	1017	-	-	-	3.9	3.4	-	7.3	25.9	15.0	3.4	18.4
4/1	171	171	171	0	0	0.4	0.2	-	0.6	13.3	1.7	0.2	1.9
5/1	546	546	353	0	0	2.5	5.8	-	8.3	54.5	8.5	5.8	14.2
6/1	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1325	1325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	103	103	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	255	255	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	38	38	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	464	464	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	566	566	-	-	-	0.0	0.2	-	0.2	1.1	1.9	0.2	2.0
12/1	107	107	-	-	-	0.2	0.1	-	0.3	9.1	0.4	0.1	0.5
12/2	4	4	-	-	-	0.0	0.0	-	0.0	9.1	0.0	0.0	0.0
13/1	190	190	-	-	-	0.2	0.1	-	0.3	5.7	1.4	0.1	1.6
13/2	196	196	-	-	-	0.1	0.1	-	0.3	4.6	1.5	0.1	1.6
14/1	1082	1082	-	-	-	0.2	0.5	-	0.6	2.1	13.6	0.5	14.1
14/2	1021	1021	-	-	-	0.2	0.4	-	0.6	2.2	14.1	0.4	14.6
15/1	956	956	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4
15/2	880	880	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3

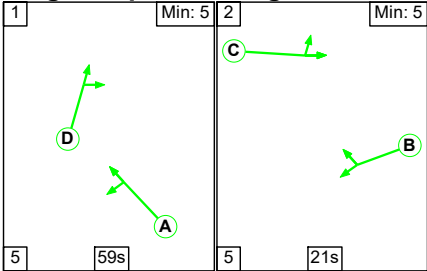
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	2.7	Total Delay for Signalled Lanes (pcuHr):	18.84	Cycle Time (s):	60
	PRC Over All Lanes (%):	-4.3	Total Delay Over All Lanes(pcuHr):	30.04		

Full Input Data And Results

Scenario 10: '2030 Base + Committed + Development (Phase 1) PM' (FG20: '2030 Base + Committed + Phase 1 PM', Plan 1: 'Network Control Plan 1')

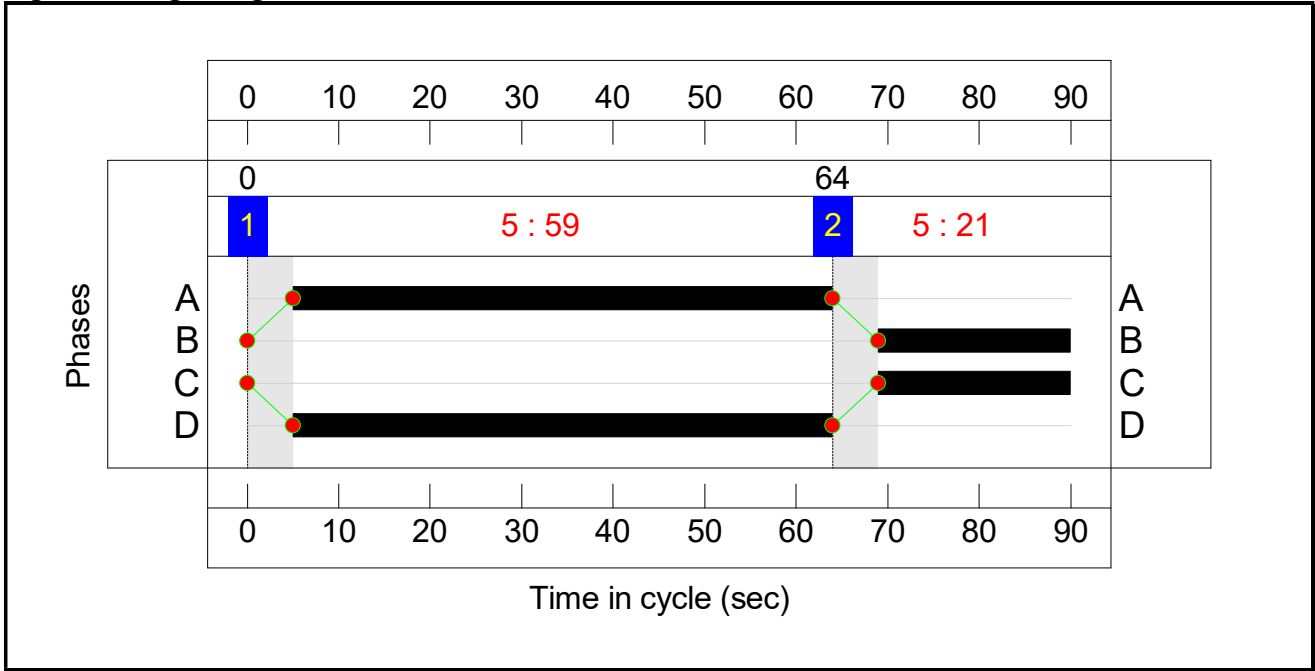
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	59	21
Change Point	0	64

Signal Timings Diagram



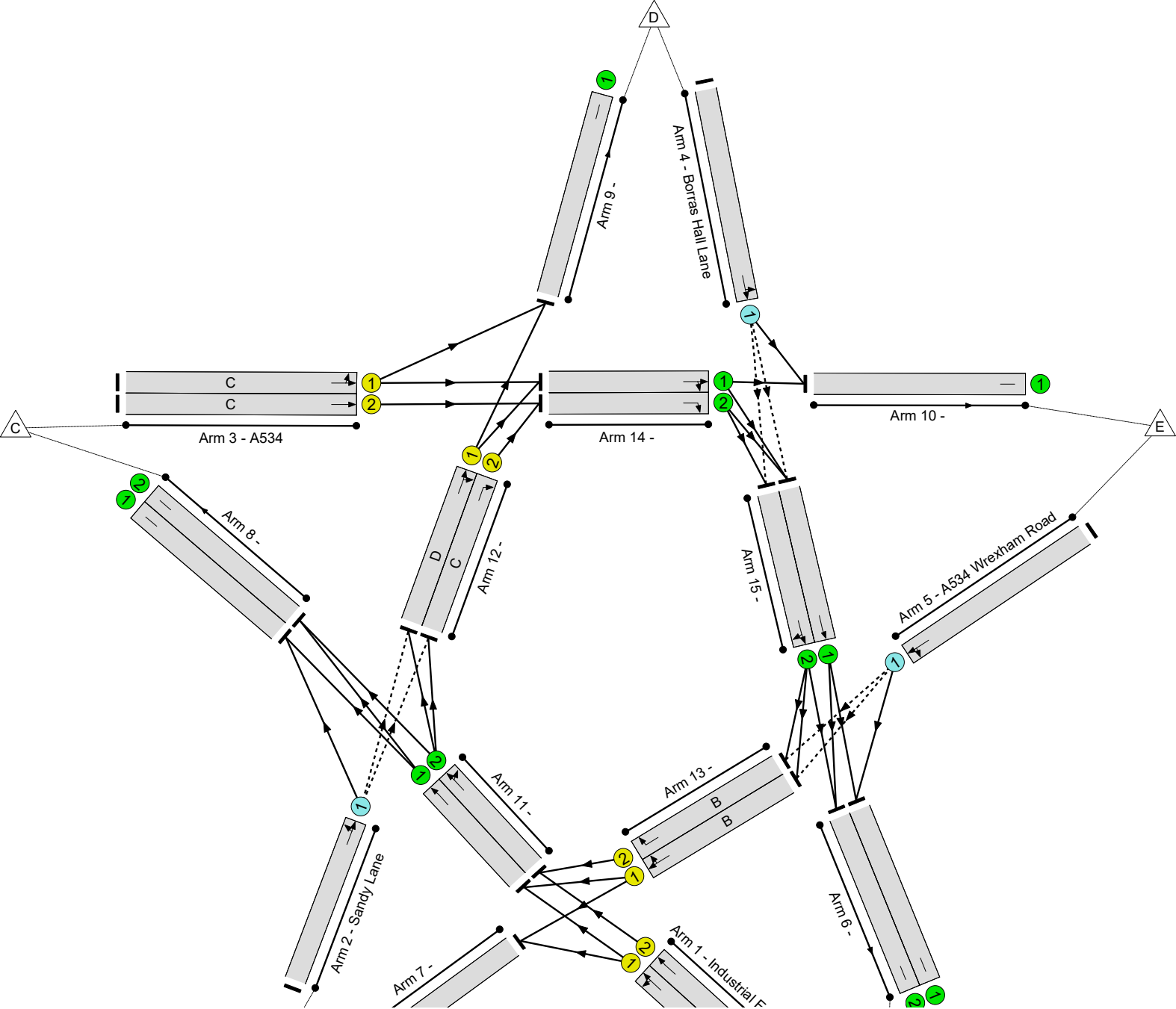
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Unnamed Junction
PRC: -2.9 %
Total Traffic Delay: 39.5 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	92.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	92.6%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	59	-	788	2400	1600	49.3%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	59	-	1346	2400	1600	84.1%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	26	2200	340	7.6%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	21	-	508	2400	587	86.6%
3/2	A534 Ahead	U	N/A	N/A	C		1	21	-	507	2400	587	86.4%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	41	2200	1087	3.8%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	522	2200	1068	48.9%
6/1		U	N/A	N/A	-		-	-	-	262	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	505	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	341	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	556	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1350	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	697	2200	2200	31.7%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1559	2200	2200	70.9%
12/1	Ahead Right	U	N/A	N/A	D		1	59	-	1358	2200	1467	92.6%
12/2	Right	U	N/A	N/A	C		1	21	-	1	2200	538	0.2%
13/1	Ahead Right	U	N/A	N/A	B		1	21	-	250	2200	538	46.5%
13/2	Right	U	N/A	N/A	B		1	21	-	213	2200	538	39.6%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	516	2200	2200	23.5%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	508	2200	2200	23.1%
15/1	Ahead	U	N/A	N/A	-		-	-	-	374	2200	2200	17.0%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	334	2200	2200	15.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	490	0	0	21.5	17.9	0.0	39.5	-	-	-	-
Unnamed Junction	-	-	490	0	0	21.5	17.9	0.0	39.5	-	-	-	-
1/1	788	788	-	-	-	1.6	0.5	-	2.1	9.7	9.6	0.5	10.1
1/2	1346	1346	-	-	-	4.3	2.6	-	6.9	18.3	25.4	2.6	28.0
2/1	26	26	7	0	0	0.2	0.0	-	0.2	27.1	0.4	0.0	0.5
3/1	508	508	-	-	-	4.6	3.0	-	7.6	53.9	12.1	3.0	15.1
3/2	507	507	-	-	-	4.6	3.0	-	7.5	53.6	12.1	3.0	15.1
4/1	41	41	36	0	0	0.0	0.0	-	0.1	4.6	0.3	0.0	0.3
5/1	522	522	447	0	0	0.7	0.5	-	1.2	8.3	5.4	0.5	5.8
6/1	262	262	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	505	505	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	341	341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	556	556	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1350	1350	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	357	357	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	697	697	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/2	1559	1559	-	-	-	0.4	1.2	-	1.6	3.8	26.4	1.2	27.6
12/1	1358	1358	-	-	-	1.3	5.7	-	7.0	18.5	6.7	5.7	12.4
12/2	1	1	-	-	-	0.0	0.0	-	0.0	17.9	0.0	0.0	0.0
13/1	250	250	-	-	-	2.0	0.4	-	2.5	35.6	5.7	0.4	6.1
13/2	213	213	-	-	-	1.7	0.3	-	2.0	33.7	4.8	0.3	5.1
14/1	516	516	-	-	-	0.0	0.2	-	0.2	1.3	9.2	0.2	9.4
14/2	508	508	-	-	-	0.1	0.2	-	0.2	1.5	10.1	0.2	10.2
15/1	374	374	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/2	334	334	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1

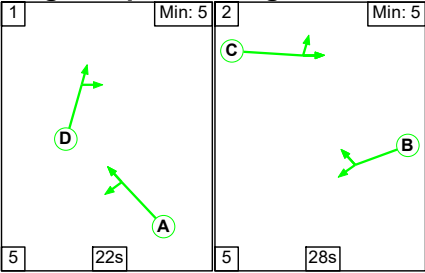
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-2.9	Total Delay for Signalled Lanes (pcuHr):	35.56	Cycle Time (s):	90
	PRC Over All Lanes (%):	-2.9	Total Delay Over All Lanes(pcuHr):	39.48		

Full Input Data And Results

Scenario 11: '2037 Base + Committed + Development (Phase 1) AM' (FG27: '2037 Base + Committed + Phase 1 AM', Plan 1: 'Network Control Plan 1')

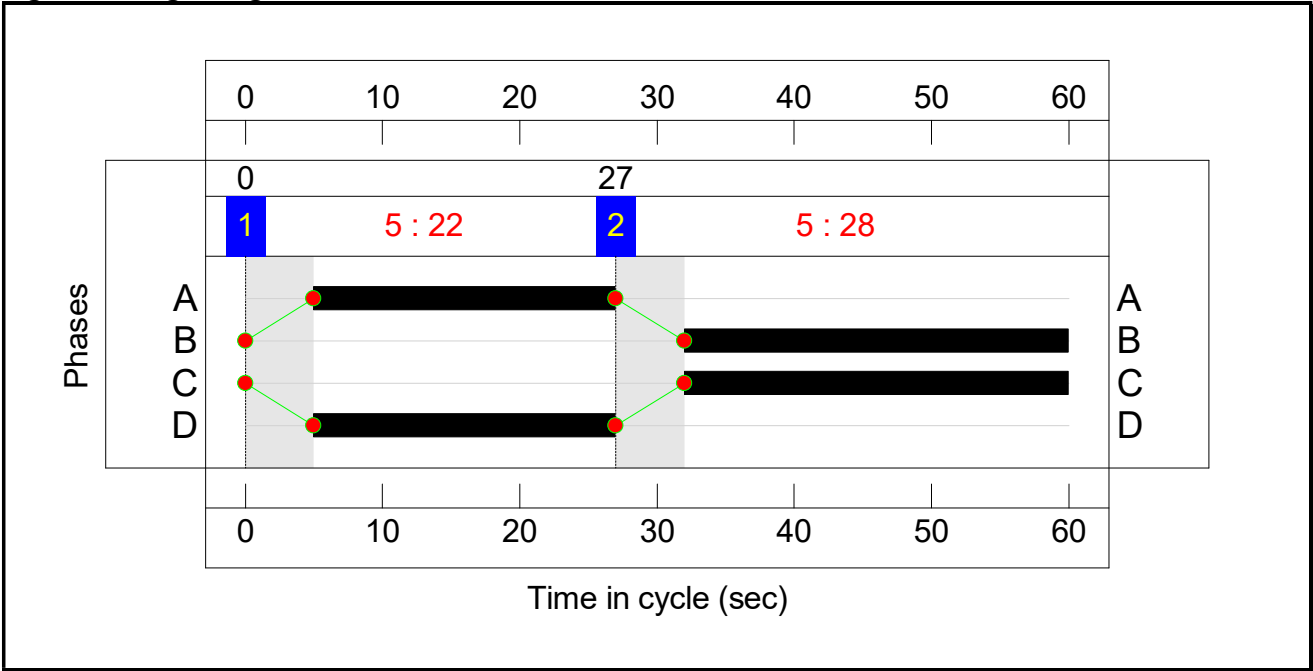
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	22	28
Change Point	0	27

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

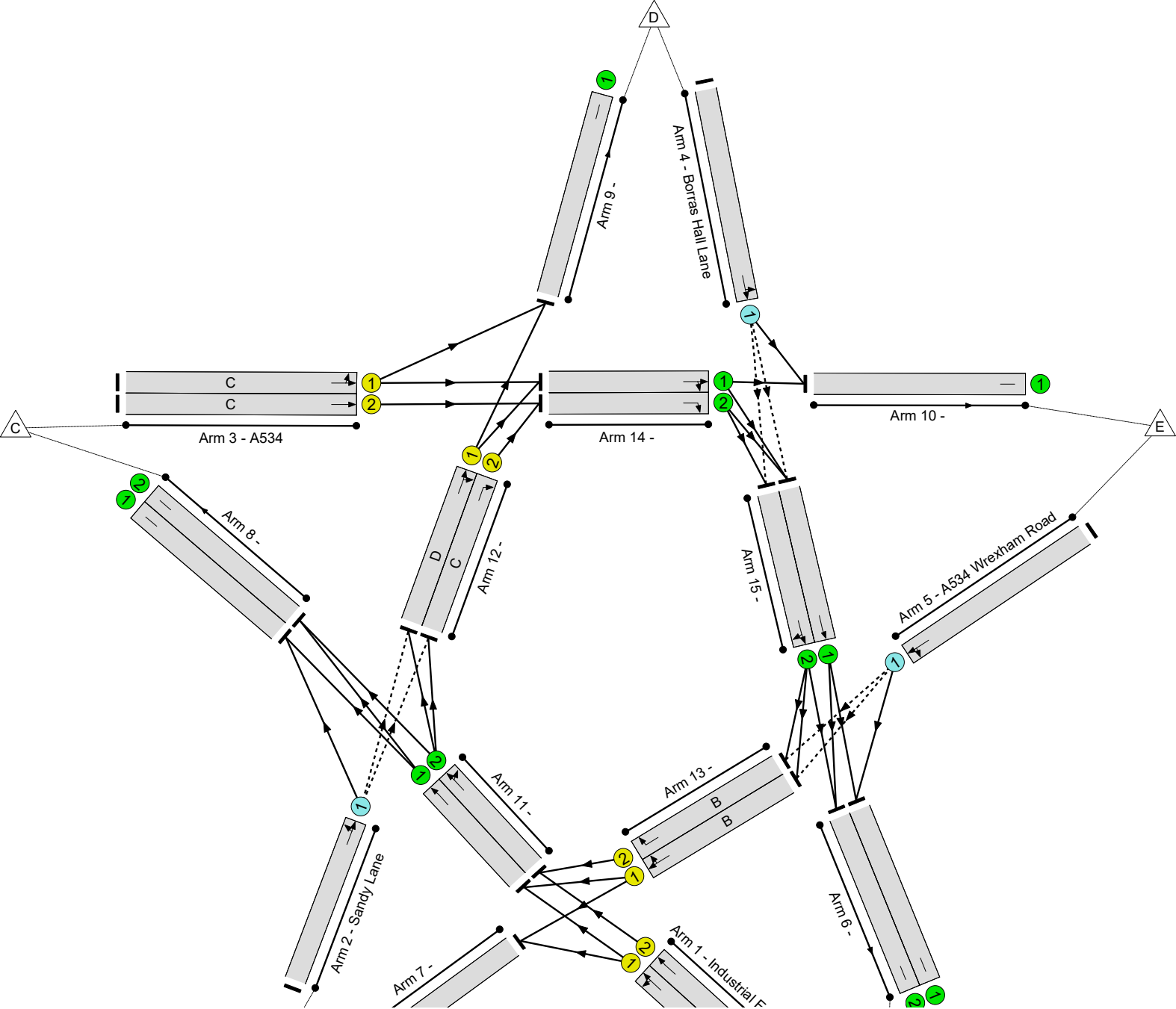
Full Input Data And Results



Unnamed Junction

PRC: -16.1 %

Total Traffic Delay: 49.1 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	104.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	104.5%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	22	-	391	2400	920	42.5%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	22	-	385	2400	920	41.8%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	38	2200	1016	3.7%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	28	-	1060	2400	1160	91.4%
3/2	A534 Ahead	U	N/A	N/A	C		1	28	-	1061	2400	1160	91.5%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	180	2200	598	30.1%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	576	2200	551	104.5%
6/1		U	N/A	N/A	-		-	-	-	692	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1391	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	106	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	266	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	733	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	40	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	463	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	482	2200	2200	21.6%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	596	2200	2200	26.7%
12/1	Ahead Right	U	N/A	N/A	D		1	22	-	113	2200	843	13.4%
12/2	Right	U	N/A	N/A	C		1	28	-	4	2200	1063	0.4%
13/1	Ahead Right	U	N/A	N/A	B		1	28	-	197	2200	1063	17.8%
13/2	Right	U	N/A	N/A	B		1	28	-	211	2200	1063	19.0%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	1133	2200	2200	51.5%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	1065	2200	2200	48.4%
15/1	Ahead	U	N/A	N/A	-		-	-	-	978	2200	2200	44.5%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	937	2200	2200	42.6%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	550	0	0	16.2	32.8	0.0	49.1	-	-	-	-
Unnamed Junction	-	-	550	0	0	16.2	32.8	0.0	49.1	-	-	-	-
1/1	391	391	-	-	-	1.5	0.4	-	1.9	17.0	4.8	0.4	5.1
1/2	385	385	-	-	-	1.5	0.4	-	1.8	17.0	4.7	0.4	5.1
2/1	38	38	13	0	0	0.0	0.0	-	0.0	3.0	0.1	0.0	0.1
3/1	1060	1060	-	-	-	4.2	4.8	-	9.1	30.8	16.2	4.8	21.0
3/2	1061	1061	-	-	-	4.2	4.9	-	9.1	30.9	16.2	4.9	21.1
4/1	180	180	180	0	0	0.5	0.2	-	0.7	13.7	1.8	0.2	2.0
5/1	576	551	357	0	0	3.5	19.8	-	23.2	145.2	21.6	19.8	41.4
6/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1391	1391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	106	106	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	263	263	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	721	721	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	40	40	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	463	463	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	475	475	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	587	587	-	-	-	0.0	0.2	-	0.2	1.1	1.9	0.2	2.1
12/1	113	113	-	-	-	0.2	0.1	-	0.3	9.2	0.4	0.1	0.5
12/2	4	4	-	-	-	0.0	0.0	-	0.0	9.1	0.0	0.0	0.0
13/1	190	190	-	-	-	0.2	0.1	-	0.3	5.4	1.3	0.1	1.4
13/2	202	202	-	-	-	0.1	0.1	-	0.2	4.0	1.3	0.1	1.5
14/1	1133	1133	-	-	-	0.2	0.5	-	0.7	2.3	14.9	0.5	15.5
14/2	1065	1065	-	-	-	0.2	0.5	-	0.7	2.3	15.4	0.5	15.9
15/1	978	978	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
15/2	937	937	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4

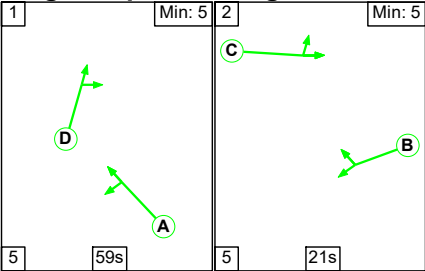
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-1.6	Total Delay for Signalled Lanes (pcuHr):	22.64	Cycle Time (s):	60
	PRC Over All Lanes (%):	-16.1	Total Delay Over All Lanes(pcuHr):	49.08		

Full Input Data And Results

Scenario 12: '2037 Base + Committed + Development (Phase 1) PM' (FG28: '2037 Base + Committed + Phase 1 PM', Plan 1: 'Network Control Plan 1')

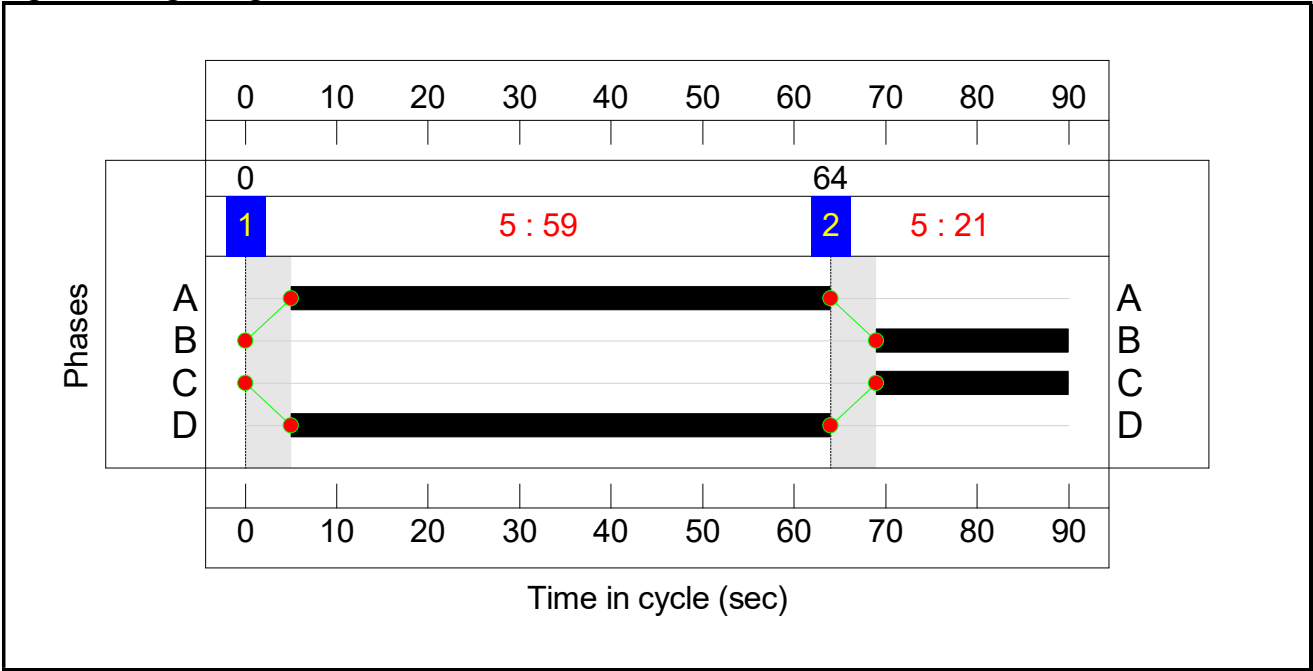
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	59	21
Change Point	0	64

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

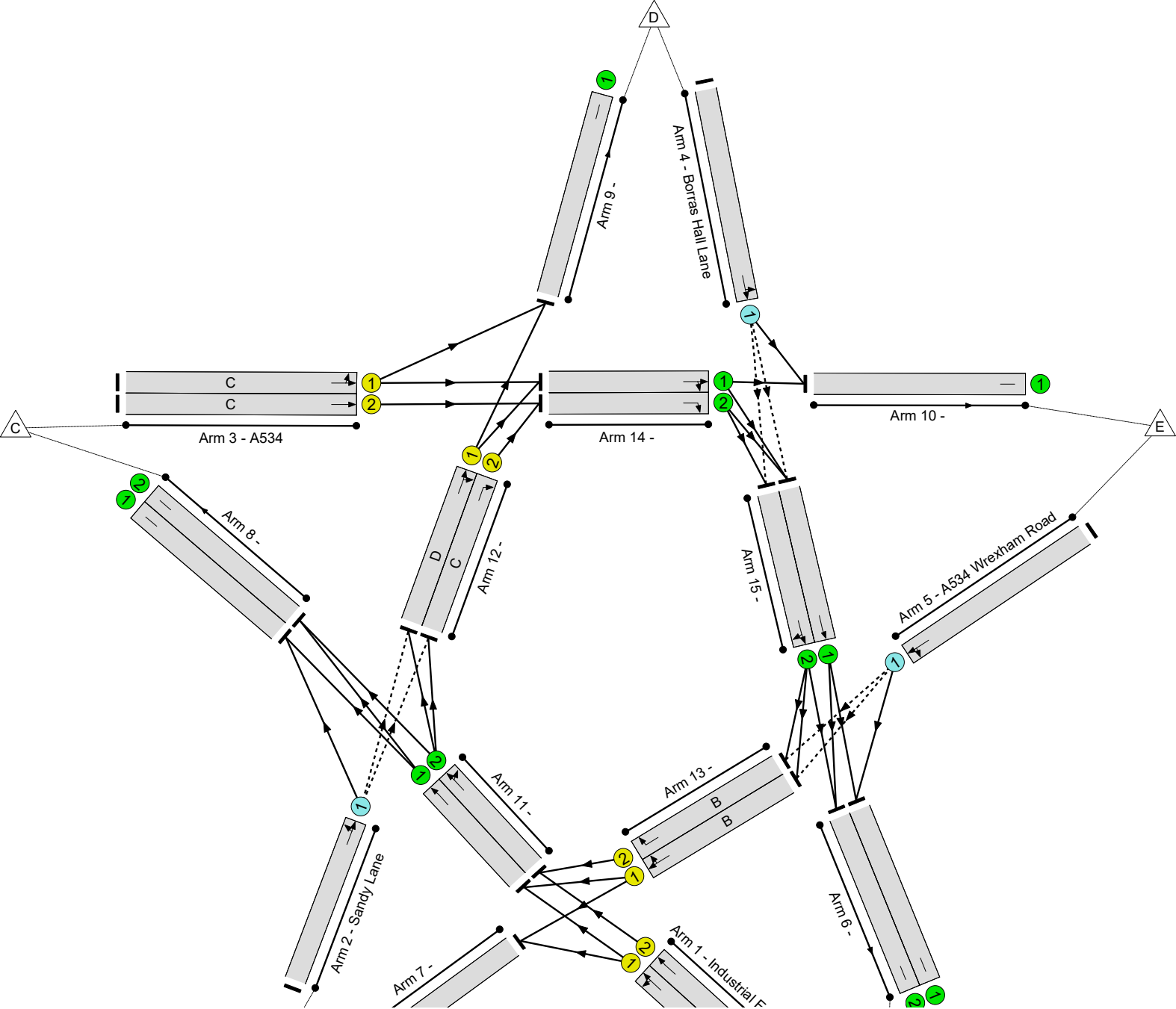
Full Input Data And Results



Unnamed Junction

PRC: -8.7 %

Total Traffic Delay: 52.2 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	97.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	97.8%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	59	-	805	2400	1600	50.3%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	59	-	1421	2400	1600	88.8%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	28	2200	319	8.8%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	21	-	529	2400	587	90.2%
3/2	A534 Ahead	U	N/A	N/A	C		1	21	-	528	2400	587	90.0%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	44	2200	1085	4.1%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	552	2200	1054	52.4%
6/1		U	N/A	N/A	-		-	-	-	272	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	522	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	353	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	381	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	575	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1427	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	377	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	723	2200	2200	32.9%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1641	2200	2200	74.6%
12/1	Ahead Right	U	N/A	N/A	D		1	59	-	1435	2200	1467	97.8%
12/2	Right	U	N/A	N/A	C		1	21	-	1	2200	538	0.2%
13/1	Ahead Right	U	N/A	N/A	B		1	21	-	271	2200	538	50.4%
13/2	Right	U	N/A	N/A	B		1	21	-	220	2200	538	40.9%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	537	2200	2200	24.4%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	529	2200	2200	24.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	386	2200	2200	17.5%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	347	2200	2200	15.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	519	0	0	23.6	28.6	0.0	52.2	-	-	-	-
Unnamed Junction	-	-	519	0	0	23.6	28.6	0.0	52.2	-	-	-	-
1/1	805	805	-	-	-	1.7	0.5	-	2.2	9.8	10.1	0.5	10.6
1/2	1421	1421	-	-	-	4.8	3.8	-	8.6	21.9	28.8	3.8	32.6
2/1	28	28	8	0	0	0.2	0.0	-	0.2	27.8	0.5	0.0	0.5
3/1	529	529	-	-	-	4.8	4.0	-	8.9	60.3	12.8	4.0	16.8
3/2	528	528	-	-	-	4.8	4.0	-	8.8	60.0	12.8	4.0	16.7
4/1	44	44	38	0	0	0.0	0.0	-	0.1	4.7	0.3	0.0	0.3
5/1	552	552	473	0	0	0.8	0.5	-	1.4	9.1	6.1	0.5	6.7
6/1	272	272	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	522	522	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	353	353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	381	381	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	575	575	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1427	1427	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	723	723	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/2	1641	1641	-	-	-	0.6	1.5	-	2.0	4.5	30.8	1.5	32.2
12/1	1435	1435	-	-	-	1.8	12.6	-	14.4	36.1	9.8	12.6	22.4
12/2	1	1	-	-	-	0.0	0.0	-	0.0	21.6	0.0	0.0	0.0
13/1	271	271	-	-	-	2.2	0.5	-	2.7	36.0	6.2	0.5	6.7
13/2	220	220	-	-	-	1.7	0.3	-	2.0	33.5	5.0	0.3	5.3
14/1	537	537	-	-	-	0.0	0.2	-	0.2	1.3	9.8	0.2	10.0
14/2	529	529	-	-	-	0.1	0.2	-	0.2	1.6	11.0	0.2	11.2
15/1	386	386	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/2	347	347	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1

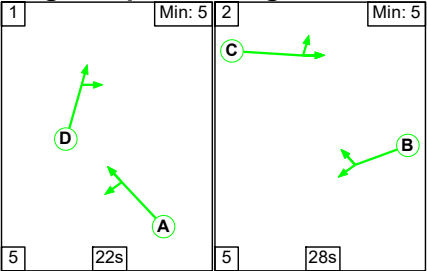
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-8.7	Total Delay for Signalled Lanes (pcuHr):	47.63	Cycle Time (s):	90
	PRC Over All Lanes (%):	-8.7	Total Delay Over All Lanes(pcuHr):	52.22		

Full Input Data And Results

Scenario 13: '2030 Base + Committed + Development (Phase 1 and 2) AM' (FG29: '2030 Base + Committed + Phase 1 and 2 AM', Plan 1: 'Network Control Plan 1')

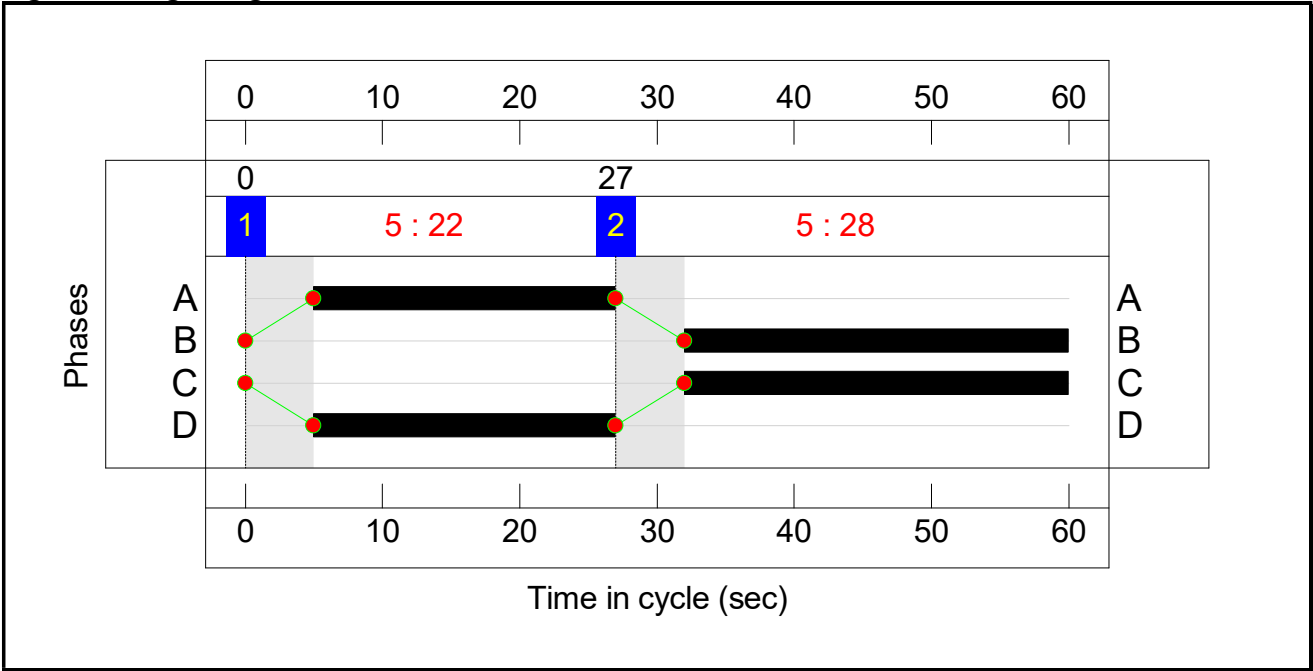
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	22	28
Change Point	0	27

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

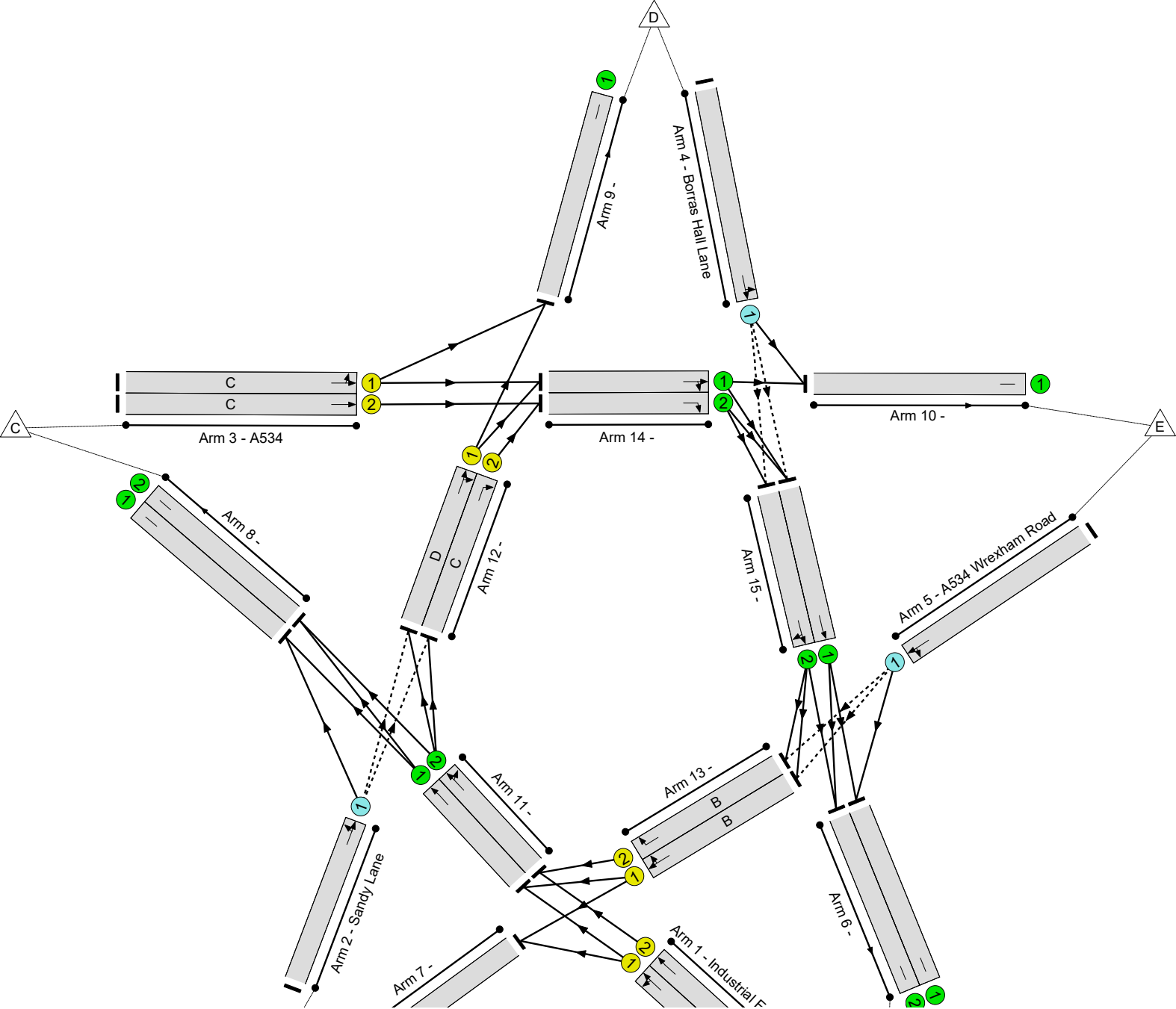
Full Input Data And Results



Unnamed Junction

PRC: -5.3 %

Total Traffic Delay: 31.6 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	94.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	94.7%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	22	-	403	2400	920	43.8%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	22	-	395	2400	920	42.9%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	35	2200	1034	3.4%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	28	-	1025	2400	1160	88.4%
3/2	A534 Ahead	U	N/A	N/A	C		1	28	-	1024	2400	1160	88.3%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	173	2200	607	28.5%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	547	2200	577	94.7%
6/1		U	N/A	N/A	-		-	-	-	657	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1361	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	149	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	708	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	41	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	438	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	450	2200	2200	20.5%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	585	2200	2200	26.6%
12/1	Ahead Right	U	N/A	N/A	D		1	22	-	110	2200	843	13.0%
12/2	Right	U	N/A	N/A	C		1	28	-	4	2200	1063	0.4%
13/1	Ahead Right	U	N/A	N/A	B		1	28	-	196	2200	1063	18.4%
13/2	Right	U	N/A	N/A	B		1	28	-	190	2200	1063	17.9%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	1094	2200	2200	49.7%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	1028	2200	2200	46.7%
15/1	Ahead	U	N/A	N/A	-		-	-	-	926	2200	2200	42.1%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	931	2200	2200	42.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	538	0	0	14.9	16.8	0.0	31.6	-	-	-	-
Unnamed Junction	-	-	538	0	0	14.9	16.8	0.0	31.6	-	-	-	-
1/1	403	403	-	-	-	1.5	0.4	-	1.9	17.2	4.9	0.4	5.3
1/2	395	395	-	-	-	1.5	0.4	-	1.9	17.1	4.8	0.4	5.2
2/1	35	35	12	0	0	0.0	0.0	-	0.0	3.0	0.1	0.0	0.1
3/1	1025	1025	-	-	-	4.0	3.6	-	7.6	26.6	15.4	3.6	19.0
3/2	1024	1024	-	-	-	4.0	3.6	-	7.5	26.5	15.4	3.6	18.9
4/1	173	173	173	0	0	0.4	0.2	-	0.6	13.4	1.7	0.2	1.9
5/1	547	547	353	0	0	2.5	6.3	-	8.9	58.4	8.7	6.3	15.0
6/1	657	657	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1361	1361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	149	149	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	708	708	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	41	41	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	450	450	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	585	585	-	-	-	0.0	0.2	-	0.2	1.1	1.9	0.2	2.1
12/1	110	110	-	-	-	0.2	0.1	-	0.3	9.2	0.4	0.1	0.5
12/2	4	4	-	-	-	0.0	0.0	-	0.0	9.1	0.0	0.0	0.0
13/1	196	196	-	-	-	0.2	0.1	-	0.3	5.7	1.5	0.1	1.6
13/2	190	190	-	-	-	0.1	0.1	-	0.2	4.5	1.4	0.1	1.5
14/1	1094	1094	-	-	-	0.2	0.5	-	0.7	2.2	14.1	0.5	14.6
14/2	1028	1028	-	-	-	0.2	0.4	-	0.6	2.2	14.2	0.4	14.7
15/1	926	926	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4
15/2	931	931	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4

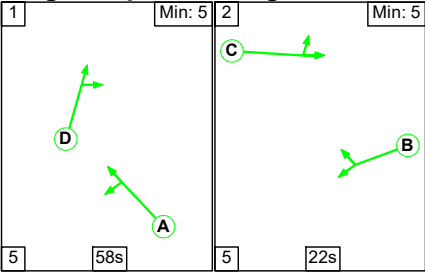
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	1.9	Total Delay for Signalled Lanes (pcuHr):	19.77	Cycle Time (s):	60
	PRC Over All Lanes (%):	-5.3	Total Delay Over All Lanes(pcuHr):	31.64		

Full Input Data And Results

Scenario 14: '2030 Base + Committed + Development (Phase 1 and 2) PM' (FG30: '2030 Base + Committed + Phase 1 and 2 PM', Plan 1: 'Network Control Plan 1')

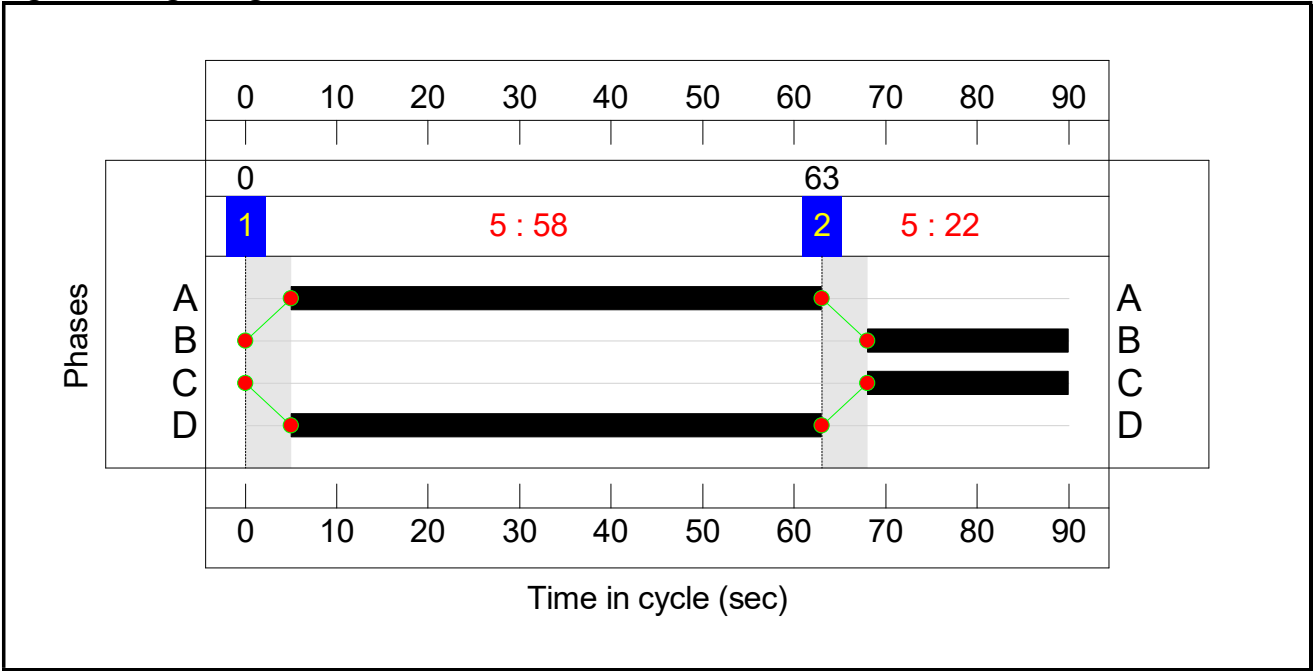
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	58	22
Change Point	0	63

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

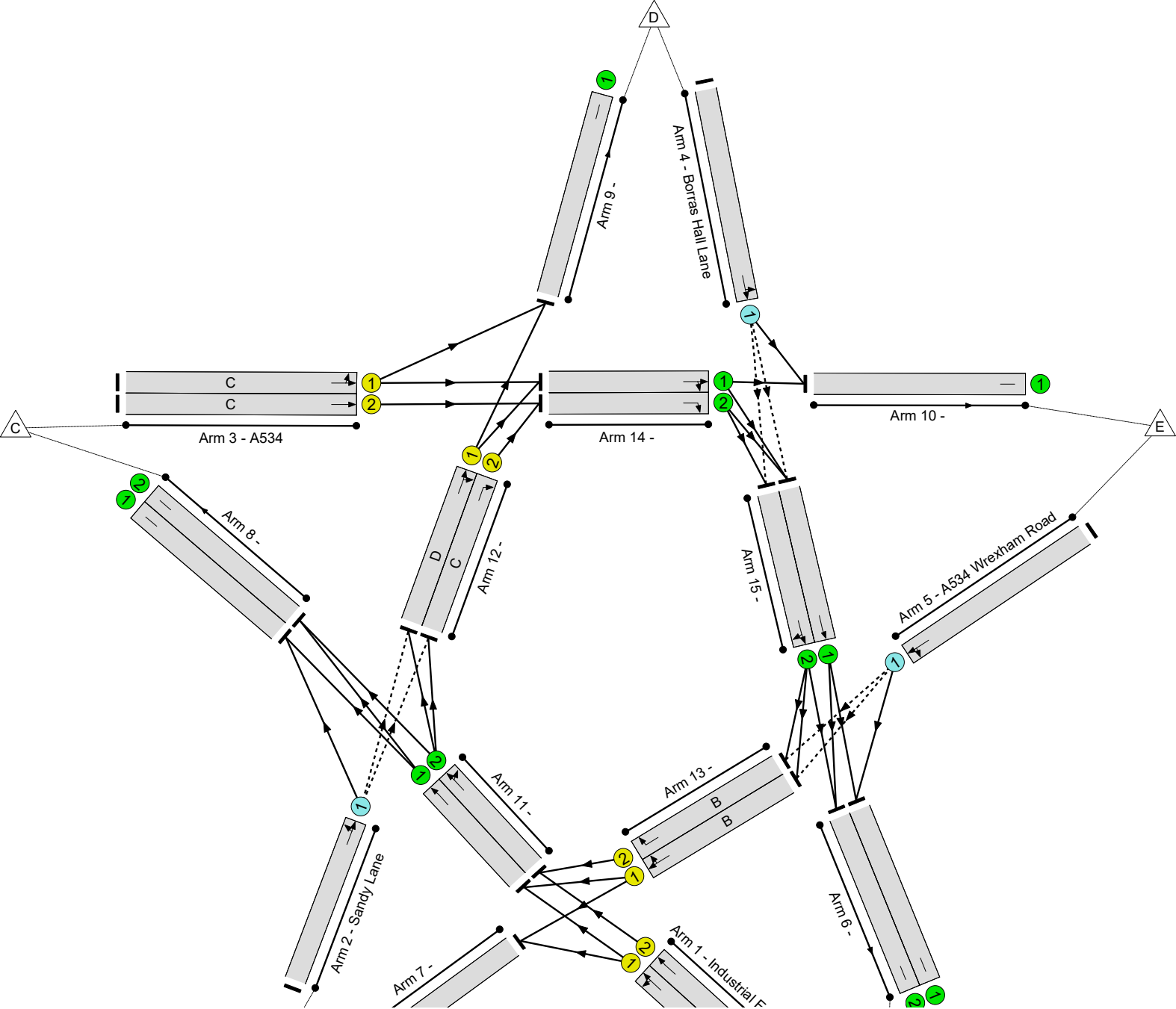
Full Input Data And Results



Unnamed Junction

PRC: -4.7 %

Total Traffic Delay: 42.0 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	94.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	94.2%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	58	-	815	2400	1573	51.8%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	58	-	1347	2400	1573	85.6%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	26	2200	361	7.2%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	22	-	530	2400	613	86.4%
3/2	A534 Ahead	U	N/A	N/A	C		1	22	-	530	2400	613	86.4%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	44	2200	1067	4.1%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	525	2200	1050	50.0%
6/1		U	N/A	N/A	-		-	-	-	270	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	555	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1351	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	700	2200	2200	31.8%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1558	2200	2200	70.8%
12/1	Ahead Right	U	N/A	N/A	D		1	58	-	1359	2200	1442	94.2%
12/2	Right	U	N/A	N/A	C		1	22	-	1	2200	562	0.2%
13/1	Ahead Right	U	N/A	N/A	B		1	22	-	252	2200	562	44.8%
13/2	Right	U	N/A	N/A	B		1	22	-	211	2200	562	37.5%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	538	2200	2200	24.5%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	531	2200	2200	24.1%
15/1	Ahead	U	N/A	N/A	-		-	-	-	384	2200	2200	17.5%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	372	2200	2200	16.9%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	493	0	0	22.4	19.6	0.0	42.0	-	-	-	-
Unnamed Junction	-	-	493	0	0	22.4	19.6	0.0	42.0	-	-	-	-
1/1	815	815	-	-	-	1.8	0.5	-	2.4	10.5	10.4	0.5	11.0
1/2	1347	1347	-	-	-	4.6	2.9	-	7.5	19.9	26.2	2.9	29.1
2/1	26	26	7	0	0	0.1	0.0	-	0.2	26.1	0.4	0.0	0.5
3/1	530	530	-	-	-	4.7	3.0	-	7.7	52.2	12.5	3.0	15.5
3/2	530	530	-	-	-	4.7	3.0	-	7.7	52.2	12.5	3.0	15.5
4/1	44	44	39	0	0	0.0	0.0	-	0.1	5.0	0.3	0.0	0.3
5/1	525	525	447	0	0	0.8	0.5	-	1.3	8.9	5.7	0.5	6.2
6/1	270	270	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	555	555	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1351	1351	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	357	357	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	700	700	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/2	1558	1558	-	-	-	0.5	1.2	-	1.7	3.9	27.6	1.2	28.8
12/1	1359	1359	-	-	-	1.4	7.0	-	8.4	22.2	7.9	7.0	14.9
12/2	1	1	-	-	-	0.0	0.0	-	0.0	15.8	0.0	0.0	0.0
13/1	252	252	-	-	-	2.0	0.4	-	2.4	34.6	5.7	0.4	6.1
13/2	211	211	-	-	-	1.6	0.3	-	1.9	32.8	4.7	0.3	5.0
14/1	538	538	-	-	-	0.0	0.2	-	0.2	1.3	9.5	0.2	9.6
14/2	531	531	-	-	-	0.1	0.2	-	0.2	1.5	10.7	0.2	10.8
15/1	384	384	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/2	372	372	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1

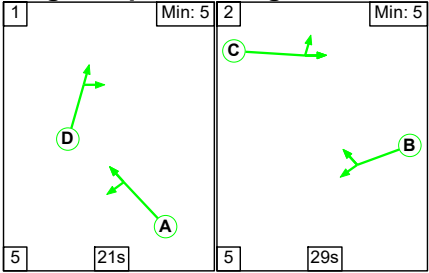
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-4.7	Total Delay for Signalled Lanes (pcuHr):	37.93	Cycle Time (s):	90
	PRC Over All Lanes (%):	-4.7	Total Delay Over All Lanes(pcuHr):	42.03		

Full Input Data And Results

Scenario 15: '2037 Base + Committed + Development (Phase 1 and 2) AM' (FG21: '2037 Base + Committed + Phase 1 and 2 AM', Plan 1: 'Network Control Plan 1')

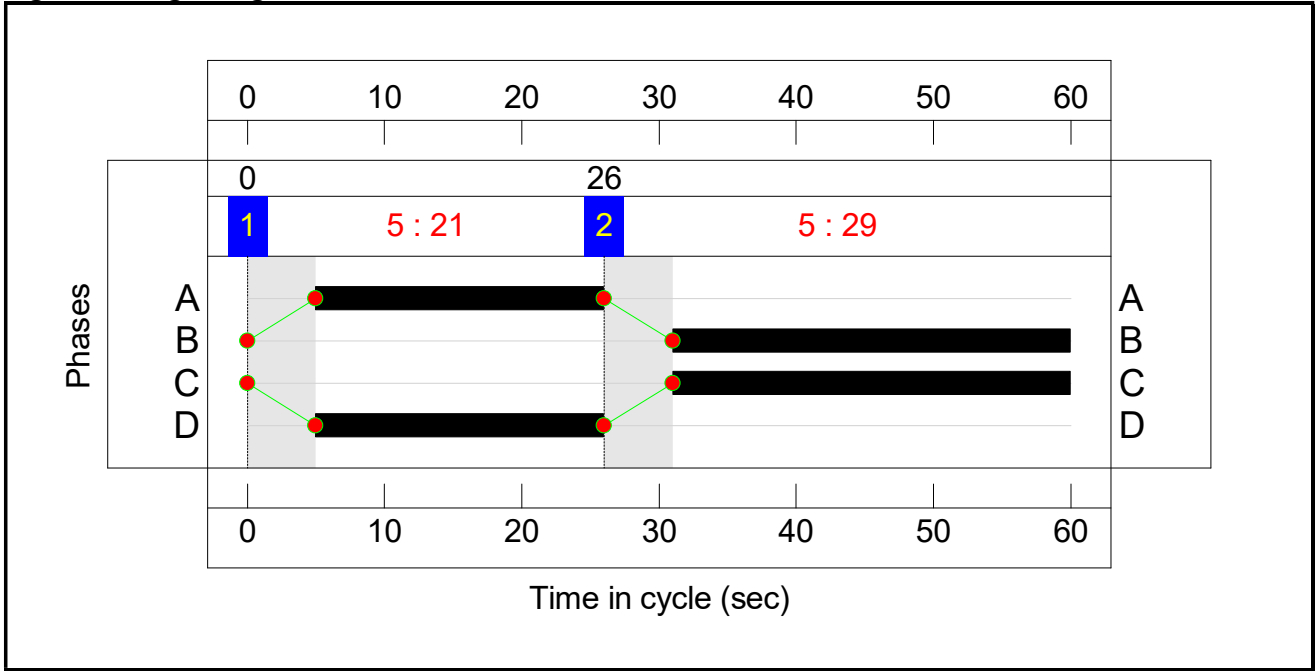
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	21	29
Change Point	0	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

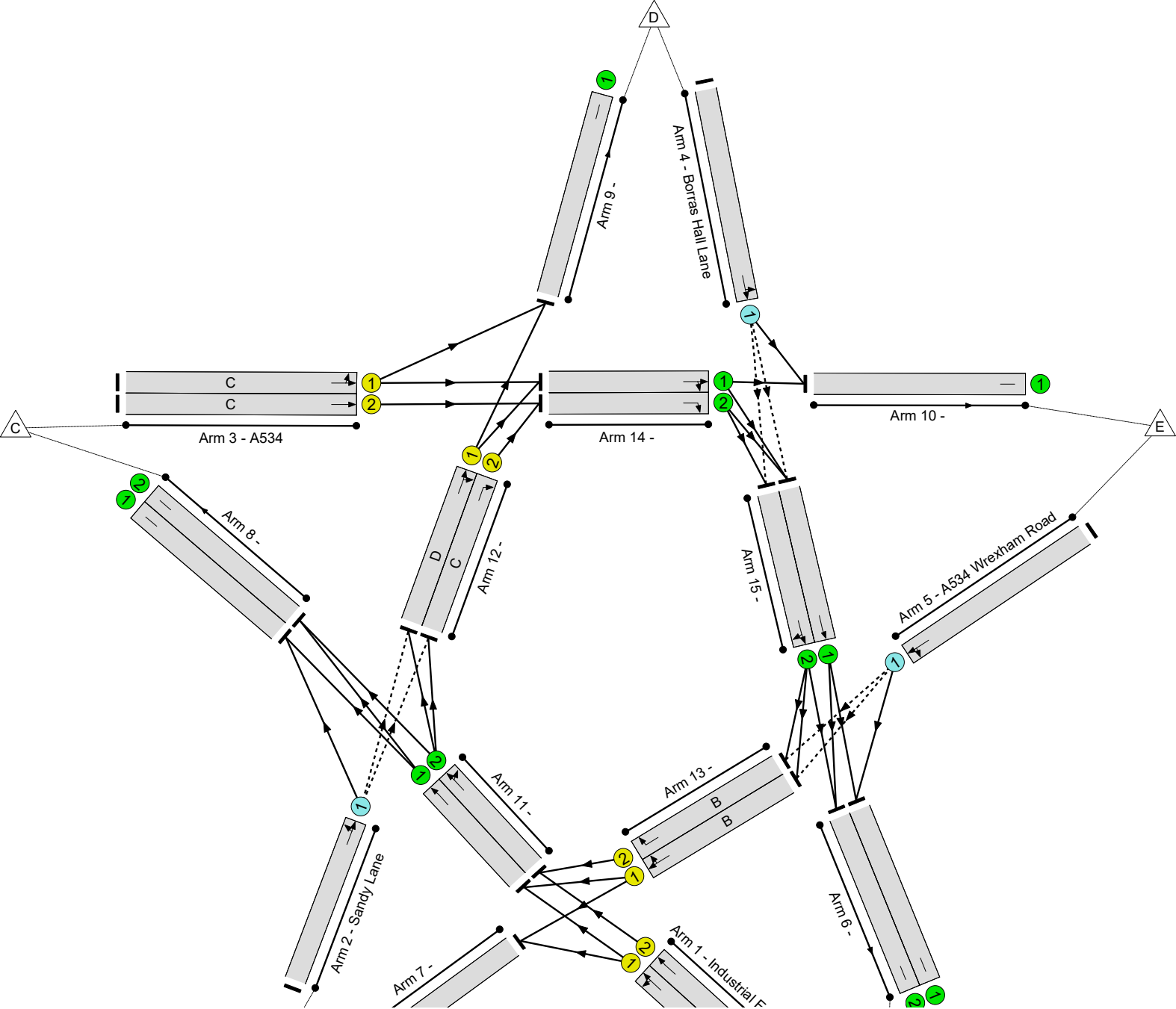
Full Input Data And Results



Unnamed Junction

PRC: -19.6 %

Total Traffic Delay: 54.1 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	107.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	107.7%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	21	-	419	2400	880	47.6%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	21	-	408	2400	880	46.4%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	38	2200	1016	3.7%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	29	-	1070	2400	1200	89.2%
3/2	A534 Ahead	U	N/A	N/A	C		1	29	-	1070	2400	1200	89.2%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	182	2200	576	31.6%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	577	2200	536	107.7%
6/1		U	N/A	N/A	-		-	-	-	701	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1404	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	152	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	743	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	43	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	463	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	466	2200	2200	20.7%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	617	2200	2200	27.4%
12/1	Ahead Right	U	N/A	N/A	D		1	21	-	116	2200	807	14.4%
12/2	Right	U	N/A	N/A	C		1	29	-	4	2200	1100	0.4%
13/1	Ahead Right	U	N/A	N/A	B		1	29	-	199	2200	1100	17.0%
13/2	Right	U	N/A	N/A	B		1	29	-	209	2200	1100	17.7%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	1143	2200	2200	52.0%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	1074	2200	2200	48.8%
15/1	Ahead	U	N/A	N/A	-		-	-	-	994	2200	2200	45.2%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	942	2200	2200	42.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	541	0	0	16.7	37.4	0.0	54.1	-	-	-	-
Unnamed Junction	-	-	541	0	0	16.7	37.4	0.0	54.1	-	-	-	-
1/1	419	419	-	-	-	1.7	0.5	-	2.2	18.5	5.4	0.5	5.8
1/2	408	408	-	-	-	1.6	0.4	-	2.1	18.3	5.1	0.4	5.5
2/1	38	38	13	0	0	0.0	0.0	-	0.0	3.2	0.1	0.0	0.1
3/1	1070	1070	-	-	-	4.0	3.9	-	7.9	26.6	16.0	3.9	19.9
3/2	1070	1070	-	-	-	4.0	3.9	-	7.9	26.6	16.0	3.9	19.9
4/1	182	182	182	0	0	0.5	0.2	-	0.7	14.6	1.9	0.2	2.1
5/1	577	536	346	0	0	3.9	26.1	-	30.0	187.0	21.8	26.1	47.9
6/1	686	686	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1404	1404	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	151	151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	723	723	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	43	43	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	463	463	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	454	454	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	603	603	-	-	-	0.0	0.2	-	0.2	1.1	2.5	0.2	2.7
12/1	116	116	-	-	-	0.2	0.1	-	0.3	10.0	0.5	0.1	0.6
12/2	4	4	-	-	-	0.0	0.0	-	0.0	8.3	0.0	0.0	0.0
13/1	187	187	-	-	-	0.2	0.1	-	0.3	5.2	1.2	0.1	1.3
13/2	195	195	-	-	-	0.1	0.1	-	0.2	3.8	1.2	0.1	1.3
14/1	1143	1143	-	-	-	0.2	0.5	-	0.7	2.3	14.8	0.5	15.4
14/2	1074	1074	-	-	-	0.2	0.5	-	0.7	2.3	14.9	0.5	15.4
15/1	994	994	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
15/2	942	942	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4

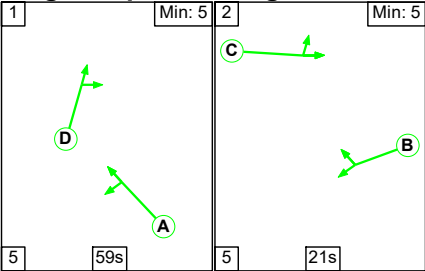
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	0.9	Total Delay for Signalled Lanes (pcuHr):	20.85	Cycle Time (s):	60
	PRC Over All Lanes (%):	-19.6	Total Delay Over All Lanes(pcuHr):	54.11		

Full Input Data And Results

Scenario 16: '2037 Base + Committed + Development (Phase 1 and 2) PM' (FG22: '2037 Base + Committed + Phase 1 and 2 PM', Plan 1: 'Network Control Plan 1')

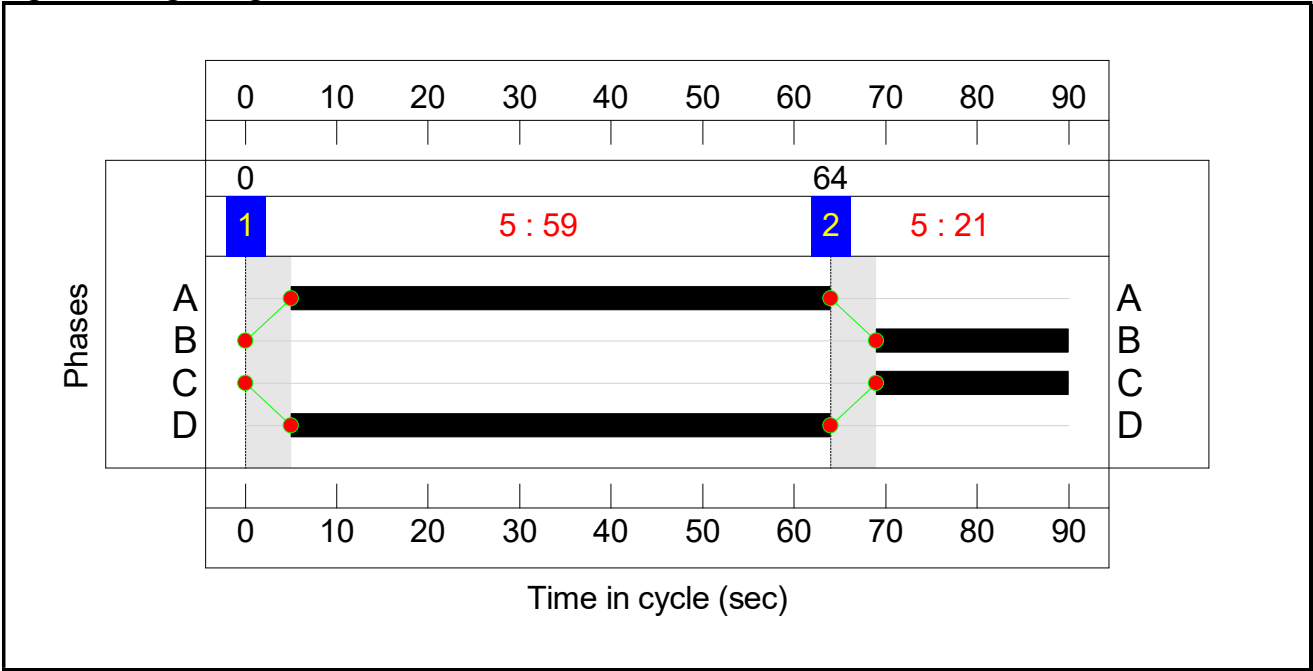
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	59	21
Change Point	0	64

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

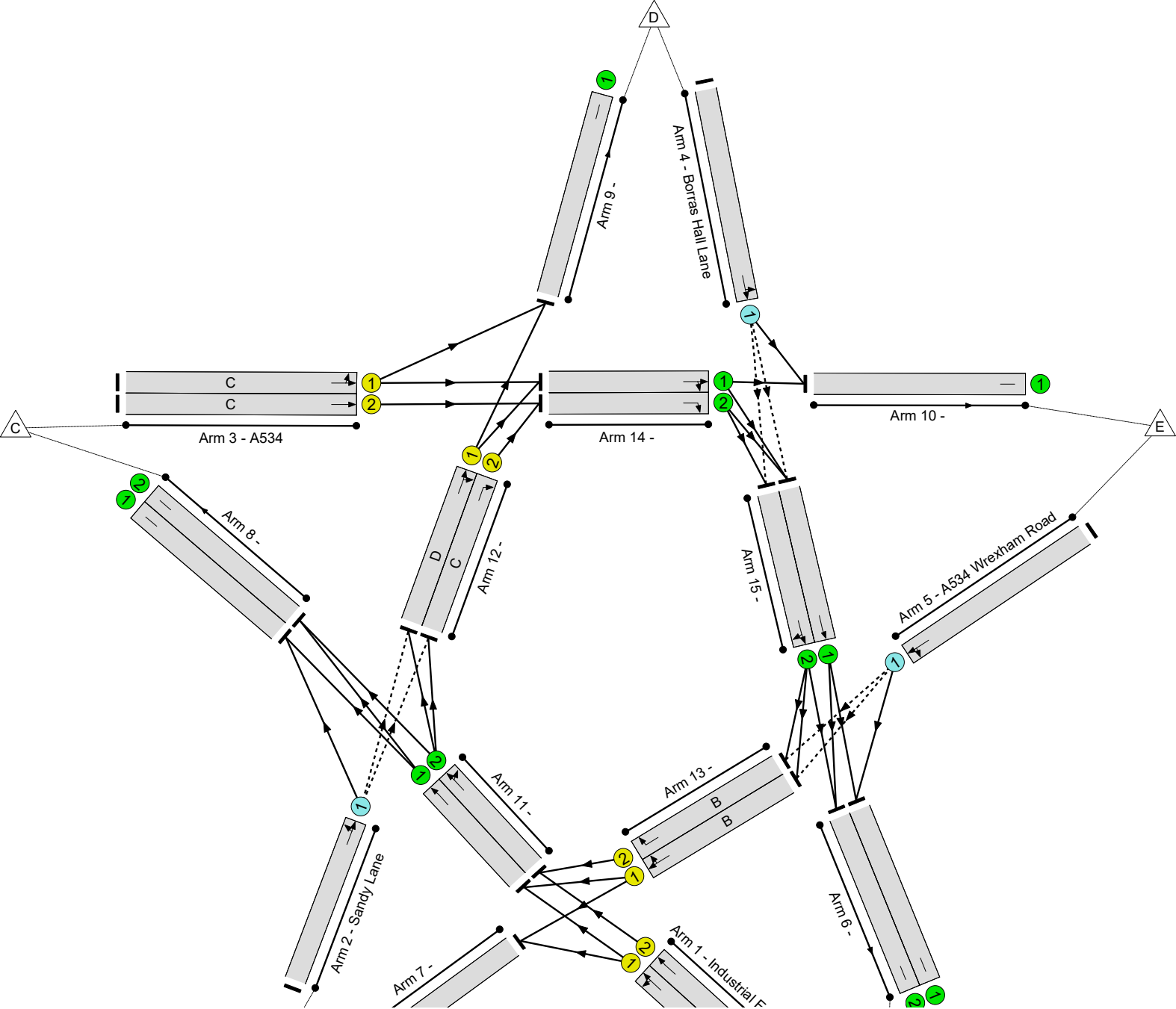
Full Input Data And Results



Unnamed Junction

PRC: -8.8 %

Total Traffic Delay: 56.9 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	97.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	97.9%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	59	-	832	2400	1600	52.0%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	59	-	1422	2400	1600	88.9%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	28	2200	319	8.8%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	21	-	551	2400	587	93.9%
3/2	A534 Ahead	U	N/A	N/A	C		1	21	-	551	2400	587	93.9%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	47	2200	1069	4.4%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	555	2200	1037	53.5%
6/1		U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	577	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	381	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1428	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	377	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	722	2200	2200	32.8%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1644	2200	2200	74.7%
12/1	Ahead Right	U	N/A	N/A	D		1	59	-	1436	2200	1467	97.9%
12/2	Right	U	N/A	N/A	C		1	21	-	1	2200	538	0.2%
13/1	Ahead Right	U	N/A	N/A	B		1	21	-	269	2200	538	50.0%
13/2	Right	U	N/A	N/A	B		1	21	-	222	2200	538	41.3%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	559	2200	2200	25.4%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	552	2200	2200	25.1%
15/1	Ahead	U	N/A	N/A	-		-	-	-	371	2200	2200	16.9%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	410	2200	2200	18.6%

Full Input Data And Results

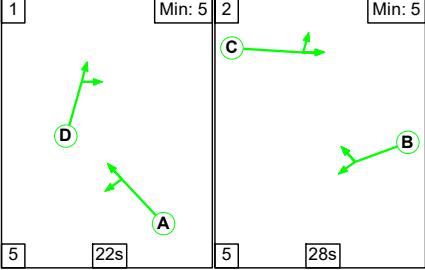
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	522	0	0	24.3	32.6	0.0	56.9	-	-	-	-
Unnamed Junction	-	-	522	0	0	24.3	32.6	0.0	56.9	-	-	-	-
1/1	832	832	-	-	-	1.8	0.5	-	2.3	10.0	10.4	0.5	10.9
1/2	1422	1422	-	-	-	4.8	3.8	-	8.7	22.0	28.8	3.8	32.7
2/1	28	28	8	0	0	0.2	0.0	-	0.2	27.8	0.5	0.0	0.5
3/1	551	551	-	-	-	5.1	5.8	-	10.9	71.4	13.5	5.8	19.3
3/2	551	551	-	-	-	5.1	5.8	-	10.9	71.4	13.5	5.8	19.3
4/1	47	47	41	0	0	0.0	0.0	-	0.1	5.0	0.3	0.0	0.3
5/1	555	555	473	0	0	0.9	0.6	-	1.5	9.8	6.5	0.6	7.0
6/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	577	577	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	379	379	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	381	381	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1428	1428	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	722	722	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/2	1644	1644	-	-	-	0.6	1.5	-	2.1	4.5	31.2	1.5	32.7
12/1	1436	1436	-	-	-	1.8	12.8	-	14.5	36.5	9.8	12.8	22.6
12/2	1	1	-	-	-	0.0	0.0	-	0.0	21.6	0.0	0.0	0.0
13/1	269	269	-	-	-	2.2	0.5	-	2.7	35.5	6.2	0.5	6.7
13/2	222	222	-	-	-	1.7	0.4	-	2.0	33.1	5.0	0.4	5.4
14/1	559	559	-	-	-	0.0	0.2	-	0.2	1.4	10.5	0.2	10.7
14/2	552	552	-	-	-	0.1	0.2	-	0.2	1.6	11.7	0.2	11.8
15/1	371	371	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/2	410	410	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-8.8	Total Delay for Signalled Lanes (pcuHr):	52.08	Cycle Time (s):	90
	PRC Over All Lanes (%):	-8.8	Total Delay Over All Lanes(pcuHr):	56.86		

Full Input Data And Results
Scenario 17: '2030 Base + Committed + Development (Phase 1) AM [Sens]' (FG23: '2030 Base + Committed + Phase 1 AM (No KSS2)', Plan 1: 'Network Control Plan 1')

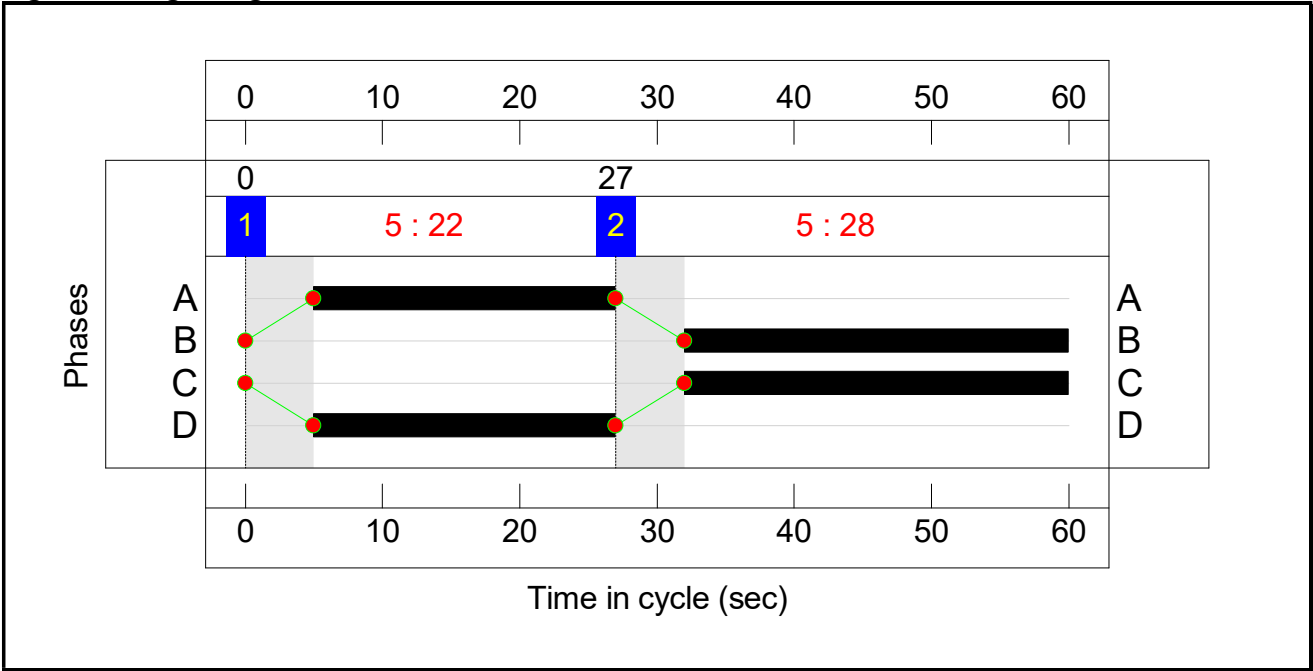
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	22	28
Change Point	0	27

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

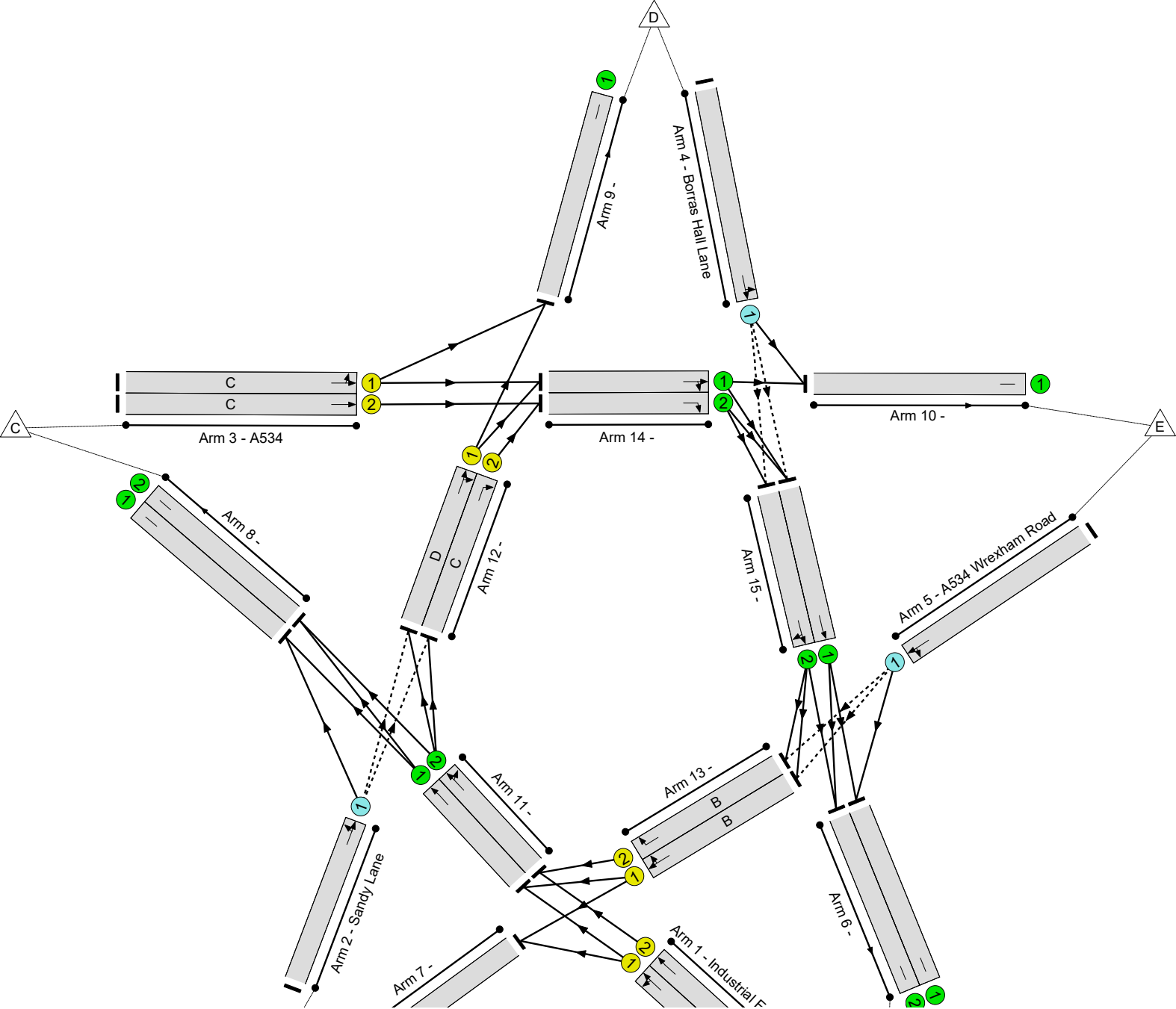
Full Input Data And Results



Unnamed Junction

PRC: 0.8 %

Total Traffic Delay: 23.4 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	89.3%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	22	-	347	2400	920	37.7%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	22	-	343	2400	920	37.3%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	35	2200	1097	3.2%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	28	-	930	2400	1160	80.2%
3/2	A534 Ahead	U	N/A	N/A	C		1	28	-	931	2400	1160	80.3%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	171	2200	614	27.8%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	539	2200	604	89.3%
6/1		U	N/A	N/A	-		-	-	-	632	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1214	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	103	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	240	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	650	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	38	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	434	2200	2200	19.7%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	532	2200	2200	24.2%
12/1	Ahead Right	U	N/A	N/A	D		1	22	-	107	2200	843	12.7%
12/2	Right	U	N/A	N/A	C		1	28	-	4	2200	1063	0.4%
13/1	Ahead Right	U	N/A	N/A	B		1	28	-	190	2200	1063	17.9%
13/2	Right	U	N/A	N/A	B		1	28	-	189	2200	1063	17.8%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	999	2200	2200	45.4%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	935	2200	2200	42.5%
15/1	Ahead	U	N/A	N/A	-		-	-	-	878	2200	2200	39.9%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	808	2200	2200	36.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	529	0	0	12.9	10.5	0.0	23.4	-	-	-	-
Unnamed Junction	-	-	529	0	0	12.9	10.5	0.0	23.4	-	-	-	-
1/1	347	347	-	-	-	1.3	0.3	-	1.6	16.5	4.1	0.3	4.4
1/2	343	343	-	-	-	1.3	0.3	-	1.6	16.4	4.1	0.3	4.4
2/1	35	35	12	0	0	0.0	0.0	-	0.0	2.8	0.1	0.0	0.1
3/1	930	930	-	-	-	3.4	2.0	-	5.4	20.8	12.9	2.0	14.9
3/2	931	931	-	-	-	3.4	2.0	-	5.4	20.8	12.9	2.0	14.9
4/1	171	171	171	0	0	0.4	0.2	-	0.6	13.0	1.7	0.2	1.9
5/1	539	539	346	0	0	2.3	3.7	-	6.1	40.4	8.2	3.7	12.0
6/1	632	632	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1214	1214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	103	103	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	240	240	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	650	650	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	38	38	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	419	419	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	434	434	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	532	532	-	-	-	0.0	0.2	-	0.2	1.1	1.3	0.2	1.4
12/1	107	107	-	-	-	0.2	0.1	-	0.3	9.1	0.4	0.1	0.5
12/2	4	4	-	-	-	0.0	0.0	-	0.0	9.2	0.0	0.0	0.0
13/1	190	190	-	-	-	0.2	0.1	-	0.3	6.1	1.5	0.1	1.7
13/2	189	189	-	-	-	0.2	0.1	-	0.3	5.1	1.6	0.1	1.7
14/1	999	999	-	-	-	0.1	0.4	-	0.5	1.9	11.3	0.4	11.7
14/2	935	935	-	-	-	0.1	0.4	-	0.5	1.9	11.7	0.4	12.1
15/1	878	878	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
15/2	808	808	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3

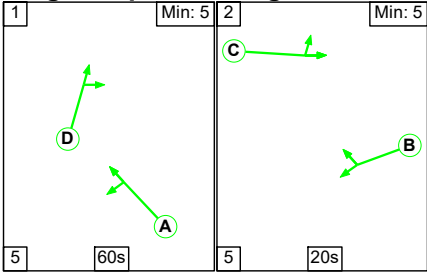
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	12.1	Total Delay for Signalled Lanes (pcuHr):	14.77	Cycle Time (s):	60
	PRC Over All Lanes (%):	0.8	Total Delay Over All Lanes(pcuHr):	23.38		

Full Input Data And Results

Scenario 18: '2030 Base + Committed + Development (Phase 1) PM [Sens]' (FG24: '2030 Base + Committed + Phase 1 PM (No KSS2)', Plan 1: 'Network Control Plan 1')

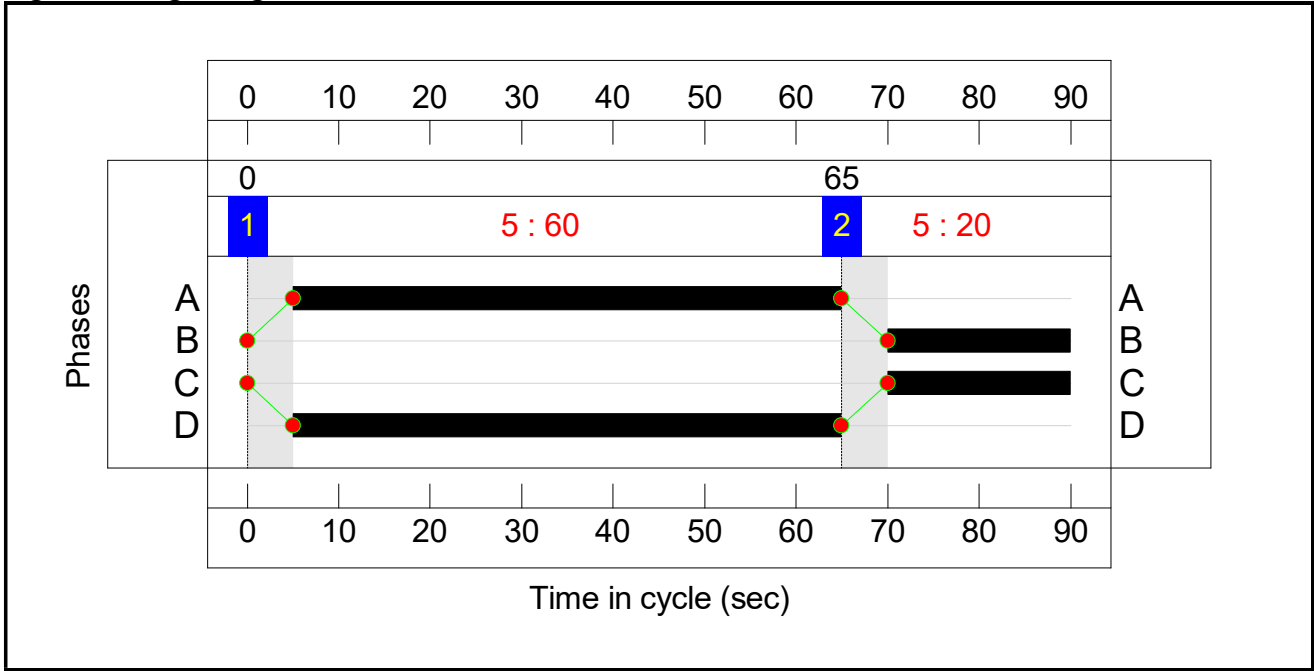
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	60	20
Change Point	0	65

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

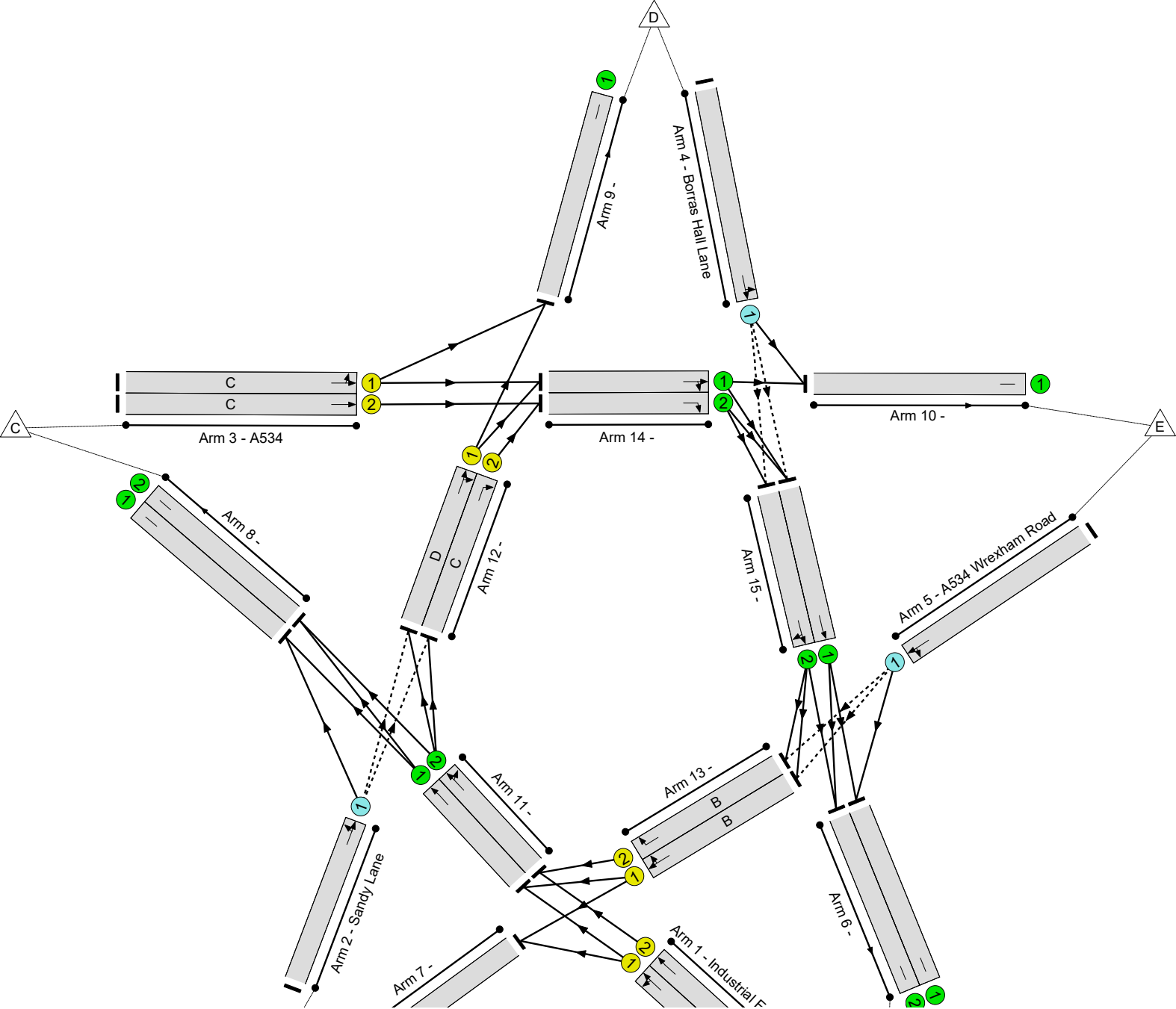
Full Input Data And Results



Unnamed Junction

PRC: -1.2 %

Total Traffic Delay: 35.1 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	91.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	91.1%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	60	-	657	2400	1627	40.4%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	60	-	1346	2400	1627	82.7%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	26	2200	327	8.0%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	20	-	467	2400	560	83.4%
3/2	A534 Ahead	U	N/A	N/A	C		1	20	-	466	2400	560	83.2%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	41	2200	1107	3.7%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	505	2200	1098	46.0%
6/1		U	N/A	N/A	-		-	-	-	241	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	453	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	341	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	300	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	475	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1350	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	562	2200	2200	25.5%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1546	2200	2200	70.3%
12/1	Ahead Right	U	N/A	N/A	D		1	60	-	1358	2200	1491	91.1%
12/2	Right	U	N/A	N/A	C		1	20	-	1	2200	513	0.2%
13/1	Ahead Right	U	N/A	N/A	B		1	20	-	246	2200	513	47.9%
13/2	Right	U	N/A	N/A	B		1	20	-	200	2200	513	39.0%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	475	2200	2200	21.6%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	467	2200	2200	21.2%
15/1	Ahead	U	N/A	N/A	-		-	-	-	332	2200	2200	15.1%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	303	2200	2200	13.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	473	0	0	19.8	15.3	0.0	35.1	-	-	-	-
Unnamed Junction	-	-	473	0	0	19.8	15.3	0.0	35.1	-	-	-	-
1/1	657	657	-	-	-	1.2	0.3	-	1.5	8.3	7.1	0.3	7.5
1/2	1346	1346	-	-	-	4.0	2.4	-	6.3	16.9	24.7	2.4	27.0
2/1	26	26	7	0	0	0.2	0.0	-	0.2	28.0	0.4	0.0	0.5
3/1	467	467	-	-	-	4.3	2.4	-	6.6	51.3	11.0	2.4	13.4
3/2	466	466	-	-	-	4.2	2.4	-	6.6	51.1	11.0	2.4	13.4
4/1	41	41	36	0	0	0.0	0.0	-	0.0	4.3	0.3	0.0	0.3
5/1	505	505	430	0	0	0.6	0.4	-	1.0	7.2	4.8	0.4	5.2
6/1	241	241	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	453	453	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	341	341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	475	475	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1350	1350	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	348	348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	562	562	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
11/2	1546	1546	-	-	-	0.4	1.2	-	1.6	3.7	25.7	1.2	26.9
12/1	1358	1358	-	-	-	1.3	4.8	-	6.0	15.9	6.1	4.8	10.9
12/2	1	1	-	-	-	0.0	0.0	-	0.0	21.3	0.0	0.0	0.0
13/1	246	246	-	-	-	2.1	0.5	-	2.5	36.8	5.6	0.5	6.0
13/2	200	200	-	-	-	1.6	0.3	-	1.9	34.5	4.5	0.3	4.8
14/1	475	475	-	-	-	0.0	0.1	-	0.2	1.2	8.0	0.1	8.2
14/2	467	467	-	-	-	0.0	0.1	-	0.2	1.4	9.2	0.1	9.3
15/1	332	332	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/2	303	303	-	-	-	0.0	0.1	-	0.1	0.9	0.0	0.1	0.1

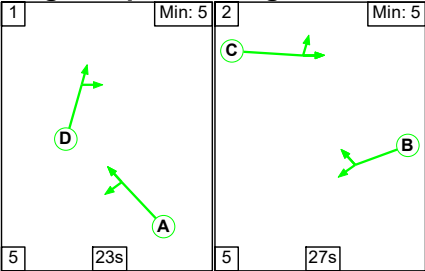
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-1.2	Total Delay for Signalled Lanes (pcuHr):	31.56	Cycle Time (s):	90
	PRC Over All Lanes (%):	-1.2	Total Delay Over All Lanes(pcuHr):	35.08		

Full Input Data And Results

Scenario 19: '2037 Base + Committed + Development (Phase 1 and 2) AM [Sens]' (FG25: '2037 Base + Committed + Phase 1 and 2 AM (No KSS2)', Plan 1: 'Network Control Plan 1')

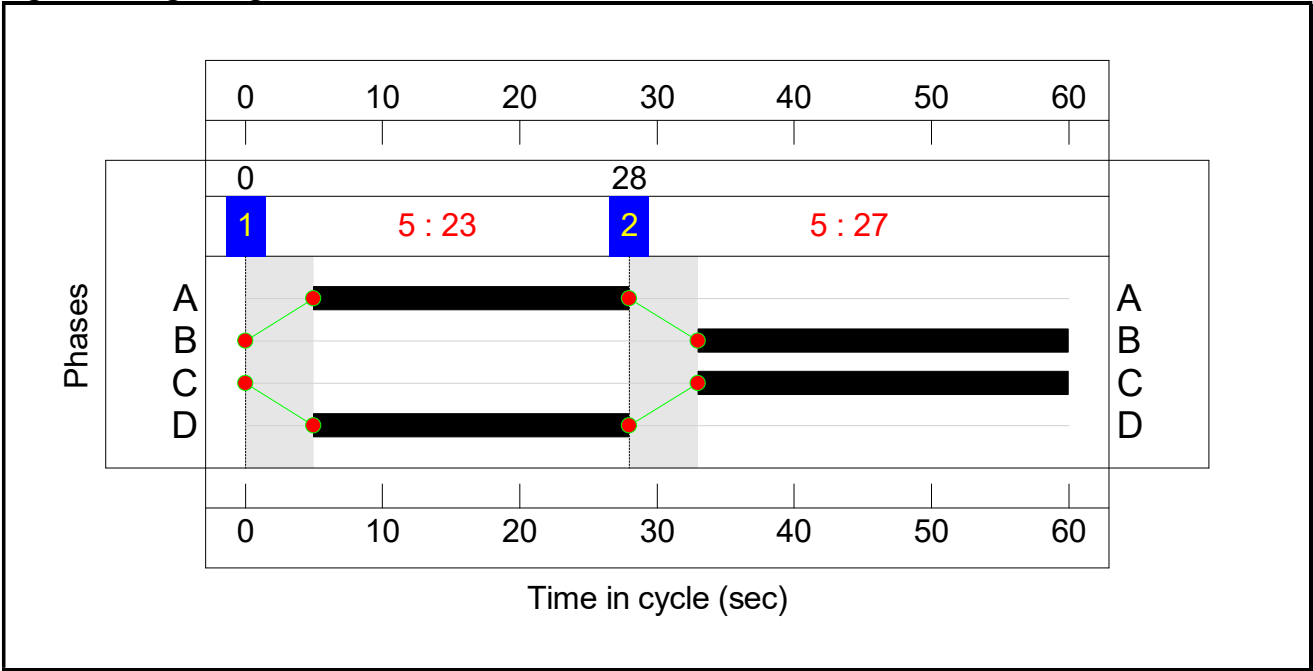
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	23	27
Change Point	0	28

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

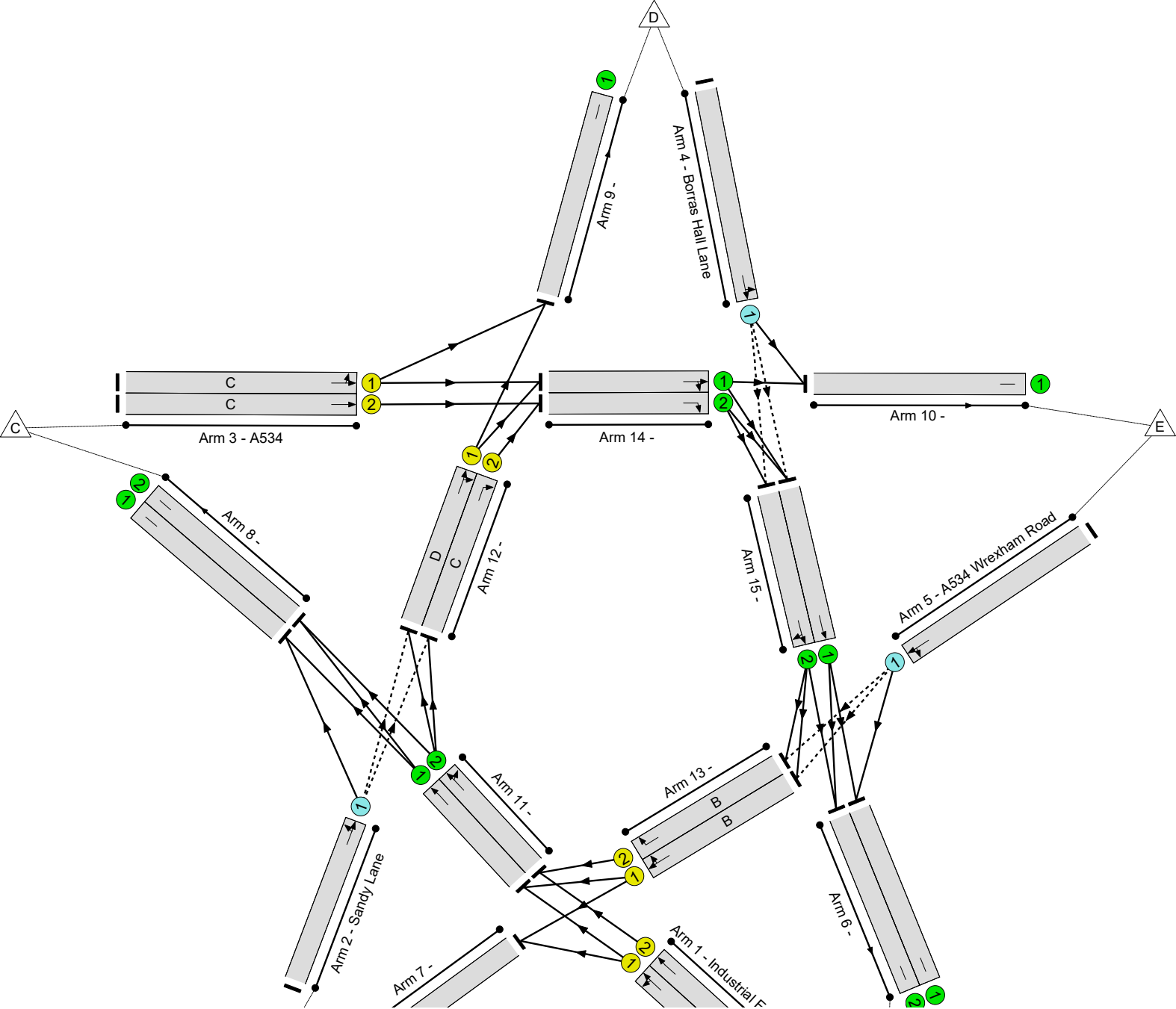
Full Input Data And Results



Unnamed Junction

PRC: -5.7 %

Total Traffic Delay: 31.4 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	95.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	95.1%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	23	-	389	2400	960	40.5%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	23	-	381	2400	960	39.7%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	38	2200	1041	3.6%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	27	-	985	2400	1120	87.9%
3/2	A534 Ahead	U	N/A	N/A	C		1	27	-	986	2400	1120	88.0%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	182	2200	627	29.0%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	570	2200	599	95.1%
6/1		U	N/A	N/A	-		-	-	-	666	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1289	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	152	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	695	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	43	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	434	2200	2200	19.7%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	585	2200	2200	26.6%
12/1	Ahead Right	U	N/A	N/A	D		1	23	-	116	2200	880	13.2%
12/2	Right	U	N/A	N/A	C		1	27	-	4	2200	1027	0.4%
13/1	Ahead Right	U	N/A	N/A	B		1	27	-	197	2200	1027	19.2%
13/2	Right	U	N/A	N/A	B		1	27	-	204	2200	1027	19.9%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	1058	2200	2200	48.1%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	990	2200	2200	45.0%
15/1	Ahead	U	N/A	N/A	-		-	-	-	924	2200	2200	42.0%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	862	2200	2200	39.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	561	0	0	14.6	16.7	0.0	31.4	-	-	-	-
Unnamed Junction	-	-	561	0	0	14.6	16.7	0.0	31.4	-	-	-	-
1/1	389	389	-	-	-	1.4	0.3	-	1.7	16.0	4.5	0.3	4.9
1/2	381	381	-	-	-	1.4	0.3	-	1.7	16.0	4.4	0.3	4.8
2/1	38	38	13	0	0	0.0	0.0	-	0.0	3.0	0.1	0.0	0.1
3/1	985	985	-	-	-	4.0	3.5	-	7.4	27.2	14.8	3.5	18.2
3/2	986	986	-	-	-	4.0	3.5	-	7.5	27.3	14.8	3.5	18.3
4/1	182	182	182	0	0	0.4	0.2	-	0.6	12.7	1.8	0.2	2.0
5/1	570	570	366	0	0	2.6	6.7	-	9.3	58.6	9.0	6.7	15.7
6/1	666	666	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1289	1289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	152	152	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	695	695	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	43	43	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	444	444	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	434	434	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
11/2	585	585	-	-	-	0.0	0.2	-	0.2	1.1	1.9	0.2	2.0
12/1	116	116	-	-	-	0.2	0.1	-	0.3	8.7	0.4	0.1	0.5
12/2	4	4	-	-	-	0.0	0.0	-	0.0	9.7	0.0	0.0	0.0
13/1	197	197	-	-	-	0.2	0.1	-	0.3	6.3	1.5	0.1	1.7
13/2	204	204	-	-	-	0.2	0.1	-	0.3	5.0	1.6	0.1	1.7
14/1	1058	1058	-	-	-	0.1	0.5	-	0.6	2.1	13.5	0.5	13.9
14/2	990	990	-	-	-	0.2	0.4	-	0.6	2.1	13.6	0.4	14.0
15/1	924	924	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4
15/2	862	862	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3

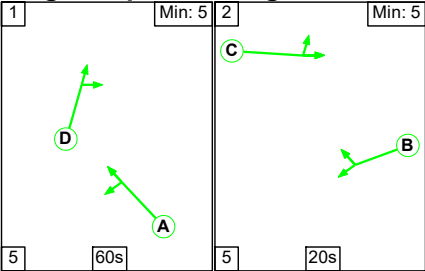
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	2.2	Total Delay for Signalled Lanes (pcuHr):	19.24	Cycle Time (s):	60
	PRC Over All Lanes (%):	-5.7	Total Delay Over All Lanes(pcuHr):	31.36		

Full Input Data And Results

Scenario 20: '2037 Base + Committed + Development (Phase 1 and 2) PM [Sens]' (FG26: '2037 Base + Committed + Phase 1 and 2 PM (No KSS2)', Plan 1: 'Network Control Plan 1')

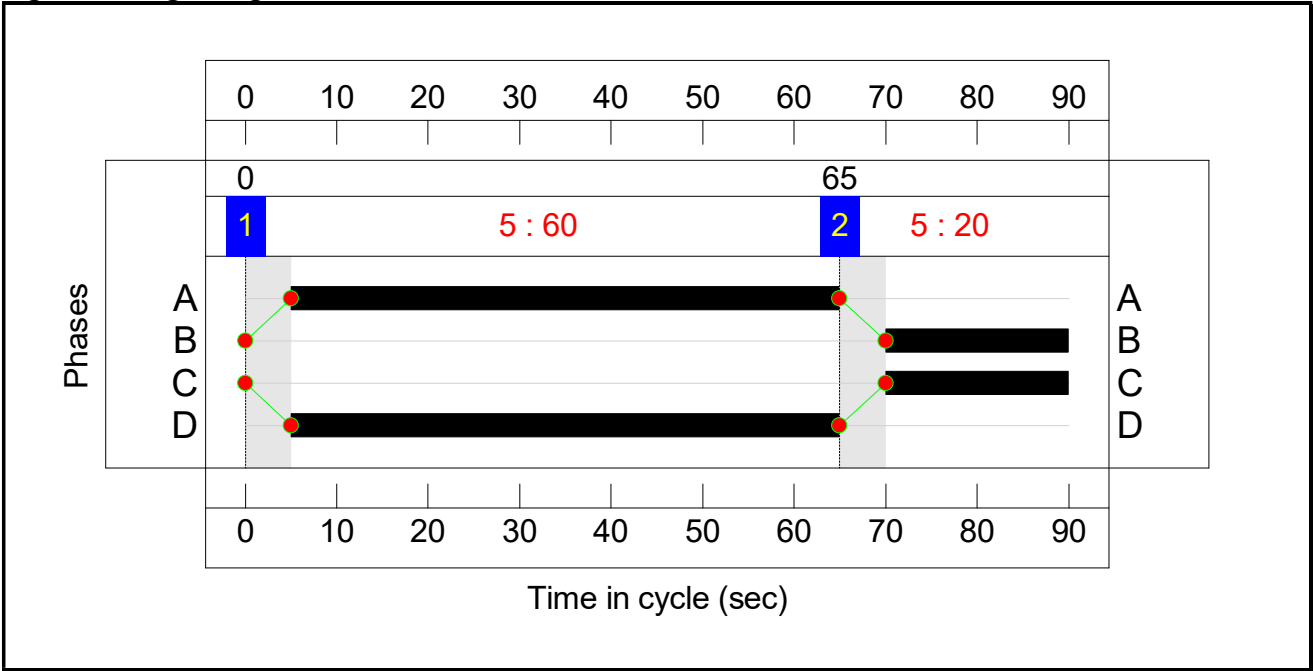
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	60	20
Change Point	0	65

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

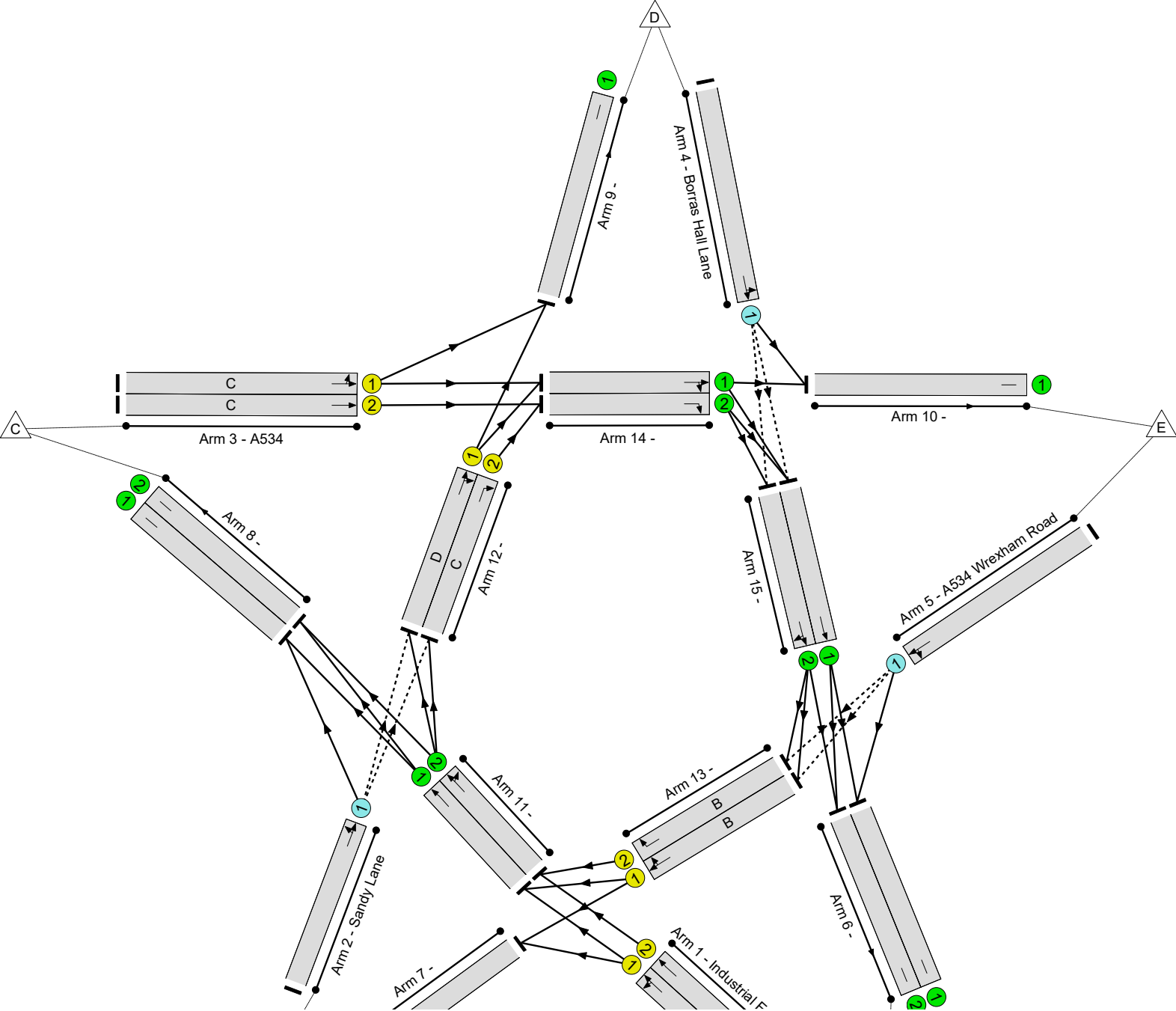
Full Input Data And Results



Unnamed Junction

PRC: -7.0 %

Total Traffic Delay: 47.9 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	96.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	96.3%
1/1	Industrial Estate Road Left Ahead	U	N/A	N/A	A		1	60	-	701	2400	1627	43.1%
1/2	Industrial Estate Road Ahead	U	N/A	N/A	A		1	60	-	1422	2400	1627	87.4%
2/1	Sandy Lane Left Ahead	O	N/A	N/A	-		-	-	-	28	2200	307	9.1%
3/1	A534 Left Ahead	U	N/A	N/A	C		1	20	-	510	2400	560	91.1%
3/2	A534 Ahead	U	N/A	N/A	C		1	20	-	510	2400	560	91.1%
4/1	Borras Hall Lane Left Ahead	O	N/A	N/A	-		-	-	-	47	2200	1093	4.3%
5/1	A534 Wrexham Road Left Ahead	O	N/A	N/A	-		-	-	-	538	2200	1068	50.4%
6/1		U	N/A	N/A	-		-	-	-	266	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	506	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	312	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	497	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	1428	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	368	Inf	Inf	0.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	585	2200	2200	26.6%
11/2	Ahead Right	U	N/A	N/A	-		-	-	-	1633	2200	2200	74.2%
12/1	Ahead Right	U	N/A	N/A	D		1	60	-	1436	2200	1491	96.3%
12/2	Right	U	N/A	N/A	C		1	20	-	1	2200	513	0.2%
13/1	Ahead Right	U	N/A	N/A	B		1	20	-	263	2200	513	51.2%
13/2	Right	U	N/A	N/A	B		1	20	-	211	2200	513	41.1%
14/1	Ahead Right	U	N/A	N/A	-		-	-	-	518	2200	2200	23.5%

Full Input Data And Results

14/2	Right	U	N/A	N/A	-		-	-	-	511	2200	2200	23.2%
15/1	Ahead	U	N/A	N/A	-		-	-	-	368	2200	2200	16.7%
15/2	Ahead Right	U	N/A	N/A	-		-	-	-	340	2200	2200	15.5%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	505	0	0	22.2	25.6	0.0	47.9	-	-	-	-
Unnamed Junction	-	-	505	0	0	22.2	25.6	0.0	47.9	-	-	-	-
1/1	701	701	-	-	-	1.3	0.4	-	1.7	8.5	7.8	0.4	8.2
1/2	1422	1422	-	-	-	4.5	3.4	-	7.9	20.0	28.0	3.4	31.4
2/1	28	28	8	0	0	0.2	0.1	-	0.2	28.7	0.5	0.1	0.5
3/1	510	510	-	-	-	4.8	4.3	-	9.1	64.3	12.3	4.3	16.7
3/2	510	510	-	-	-	4.8	4.3	-	9.1	64.3	12.3	4.3	16.7
4/1	47	47	41	0	0	0.0	0.0	-	0.1	4.6	0.3	0.0	0.3
5/1	538	538	456	0	0	0.8	0.5	-	1.3	8.5	5.7	0.5	6.2
6/1	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	506	506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	379	379	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	312	312	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	497	497	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1428	1428	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	368	368	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	585	585	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
11/2	1633	1633	-	-	-	0.5	1.4	-	2.0	4.4	30.0	1.4	31.4
12/1	1436	1436	-	-	-	1.5	9.6	-	11.1	27.9	10.4	9.6	20.0
12/2	1	1	-	-	-	0.0	0.0	-	0.0	21.2	0.0	0.0	0.0
13/1	263	263	-	-	-	2.2	0.5	-	2.7	36.8	6.0	0.5	6.5
13/2	211	211	-	-	-	1.6	0.3	-	2.0	34.0	4.7	0.3	5.1
14/1	518	518	-	-	-	0.0	0.2	-	0.2	1.3	9.3	0.2	9.5
14/2	511	511	-	-	-	0.1	0.2	-	0.2	1.5	10.5	0.2	10.7
15/1	368	368	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/2	340	340	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-7.0	Total Delay for Signalled Lanes (pcuHr):	43.58	Cycle Time (s):	90
	PRC Over All Lanes (%):	-7.0	Total Delay Over All Lanes(pcuHr):	47.89		

**Appendix TN7 - Existing A534 / A5156 / Stryt Holt roundabout
junction ARCADY**

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.1.1519	
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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: A534, A5156 ARCADY (Existing).j10

Path: D:\Cora IHT\Wrexham (2)\September 2025

Report generation date: 13/11/2025 14:37:25

»2023 Base, AM
 »2023 Base, PM
 »2030 Base, AM
 »2030 Base, PM
 »2037 Base, AM
 »2037 Base, PM
 »2030 Base + Committed, AM
 »2030 Base + Committed, PM
 »2037 Base + Committed, AM
 »2037 Base + Committed, PM
 »2030 Base + Committed + Development (Phase 1), AM
 »2030 Base + Committed + Development (Phase 1), PM
 »2037 Base + Committed + Development (Phase 1&2), AM
 »2037 Base + Committed + Development (Phase 1&2), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
1 - Golf Site Access	D1	0.4	8.56	0.26	A	D2	0.2	4.66	0.14	A
2 - A534 (East)		0.6	2.63	0.34	A		2.8	5.66	0.74	A
3 - Stryt Holt		1.0	5.02	0.49	A		1.1	7.72	0.53	A
4 - A5156		1.6	3.64	0.60	A		0.5	2.08	0.32	A
	2030 Base									
1 - Golf Site Access	D3	0.5	9.66	0.30	A	D4	0.2	4.86	0.16	A
2 - A534 (East)		0.7	2.73	0.36	A		3.7	6.95	0.79	A
3 - Stryt Holt		1.1	5.46	0.52	A		1.4	9.16	0.58	A
4 - A5156		1.8	4.06	0.64	A		0.5	2.15	0.34	A
	2037 Base									
1 - Golf Site Access	D5	0.6	11.14	0.34	B	D6	0.2	5.07	0.17	A
2 - A534 (East)		0.7	2.85	0.38	A		5.0	9.02	0.83	A
3 - Stryt Holt		1.3	5.99	0.56	A		1.8	11.40	0.65	B
4 - A5156		2.2	4.62	0.68	A		0.6	2.23	0.36	A
	2030 Base + Committed									
1 - Golf Site Access	D7	0.5	10.71	0.32	B	D8	0.2	5.09	0.16	A
2 - A534 (East)		0.8	2.86	0.39	A		5.0	9.02	0.84	A
3 - Stryt Holt		1.2	5.79	0.54	A		1.6	10.73	0.62	B
4 - A5156		2.2	4.53	0.68	A		0.6	2.26	0.37	A
	2037 Base + Committed									
1 - Golf Site Access	D9	0.6	12.56	0.37	B	D10	0.2	5.32	0.17	A
2 - A534 (East)		0.8	2.99	0.41	A		7.5	12.89	0.89	B
3 - Stryt Holt		1.4	6.41	0.58	A		2.2	13.95	0.69	B
4 - A5156		2.6	5.23	0.72	A		0.7	2.35	0.39	A
	2030 Base + Committed + Development (Phase 1)									
1 - Golf Site Access	D11	0.6	13.03	0.36	B	D12	0.2	5.37	0.17	A
2 - A534 (East)		0.9	3.03	0.42	A		5.6	9.90	0.85	A
3 - Stryt Holt		1.4	6.33	0.57	A		2.0	13.36	0.68	B
4 - A5156		2.9	5.57	0.74	A		0.7	2.40	0.40	A
	2037 Base + Committed + Development (Phase 1&2)									
1 - Golf Site Access	D13	1.1	22.59	0.51	C	D14	0.3	6.17	0.20	A
2 - A534 (East)		1.2	3.47	0.49	A		35.7	51.79	1.00	F
3 - Stryt Holt		1.9	8.28	0.65	A		4.5	28.10	0.83	D
4 - A5156		5.5	9.61	0.85	A		0.9	2.75	0.47	A

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	A534 / A5156 / Golf Access
Location	Wrexham
Site number	
Date	01/02/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGB\mchau
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D11	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D12	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D13	2037 Base + Committed + Development (Phase 1&2)	AM	ONE HOUR	07:45	09:15	15
D14	2037 Base + Committed + Development (Phase 1&2)	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
AL	100.000

2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.93	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Golf Site Access		
2	A534 (East)		
3	Stryt Holt		
4	A5156		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Golf Site Access	3.40	5.60	6.9	20.0	89.3	25.3		
2 - A534 (East)	7.10	9.30	17.2	41.6	89.3	25.2		
3 - Stryt Holt	3.60	7.10	16.7	24.2	89.3	27.7		
4 - A5156	8.00	10.00	9.1	32.0	89.3	26.6		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Golf Site Access	0.415	1382
2 - A534 (East)	0.613	2735
3 - Stryt Holt	0.468	1754
4 - A5156	0.629	2864

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	151	100.000
2 - A534 (East)		✓	769	100.000
3 - Stryt Holt		✓	642	100.000
4 - A5156		✓	1404	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	83	33	35
	2 - A534 (East)	51	1	208	509
	3 - Stryt Holt	43	320	0	279
	4 - A5156	95	1045	264	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.26	8.56	0.4	A
2 - A534 (East)	0.34	2.63	0.6	A
3 - Stryt Holt	0.49	5.02	1.0	A
4 - A5156	0.60	3.64	1.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	114	1224	874	0.130	113	0.2	5.292	A
2 - A534 (East)	579	249	2582	0.224	578	0.4	2.182	A
3 - Stryt Holt	483	448	1544	0.313	481	0.5	3.487	A
4 - A5156	1057	311	2668	0.396	1054	0.7	2.319	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	136	1464	774	0.175	135	0.2	6.306	A
2 - A534 (East)	691	298	2552	0.271	691	0.5	2.351	A
3 - Stryt Holt	577	535	1503	0.384	576	0.6	4.004	A
4 - A5156	1262	373	2629	0.480	1261	1.0	2.737	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	166	1792	638	0.261	166	0.4	8.519	A
2 - A534 (East)	847	365	2511	0.337	846	0.6	2.626	A
3 - Stryt Holt	707	656	1447	0.488	706	1.0	4.998	A
4 - A5156	1546	456	2577	0.600	1543	1.5	3.621	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	166	1795	637	0.261	166	0.4	8.562	A
2 - A534 (East)	847	366	2511	0.337	847	0.6	2.629	A
3 - Stryt Holt	707	656	1447	0.489	707	1.0	5.017	A
4 - A5156	1546	457	2576	0.600	1546	1.6	3.637	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	136	1468	773	0.176	136	0.2	6.343	A
2 - A534 (East)	691	299	2551	0.271	692	0.5	2.354	A
3 - Stryt Holt	577	536	1503	0.384	578	0.6	4.022	A
4 - A5156	1262	374	2628	0.480	1265	1.0	2.754	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	114	1229	872	0.130	114	0.2	5.318	A
2 - A534 (East)	579	250	2581	0.224	579	0.4	2.187	A
3 - Stryt Holt	483	449	1544	0.313	484	0.5	3.505	A
4 - A5156	1057	313	2667	0.396	1058	0.7	2.331	A

2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.03	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	124	100.000
2 - A534 (East)		✓	1664	100.000
3 - Stryt Holt		✓	473	100.000
4 - A5156		✓	769	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	44	27	53
	2 - A534 (East)	37	2	237	1388
	3 - Stryt Holt	23	207	1	242
	4 - A5156	46	433	290	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.14	4.66	0.2	A
2 - A534 (East)	0.74	5.66	2.8	A
3 - Stryt Holt	0.53	7.72	1.1	A
4 - A5156	0.32	2.08	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	93	701	1091	0.086	93	0.1	3.822	A
2 - A534 (East)	1253	279	2564	0.489	1249	1.0	2.800	A
3 - Stryt Holt	356	1111	1234	0.289	354	0.4	4.124	A
4 - A5156	579	202	2736	0.212	578	0.3	1.763	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	111	838	1034	0.108	111	0.1	4.138	A
2 - A534 (East)	1496	333	2530	0.591	1494	1.5	3.557	A
3 - Stryt Holt	425	1329	1132	0.376	424	0.6	5.131	A
4 - A5156	691	242	2711	0.255	691	0.4	1.883	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	137	1026	956	0.143	136	0.2	4.656	A
2 - A534 (East)	1832	408	2484	0.737	1827	2.8	5.568	A
3 - Stryt Holt	521	1625	993	0.524	519	1.1	7.627	A
4 - A5156	847	296	2677	0.316	846	0.5	2.079	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	137	1027	956	0.143	137	0.2	4.661	A
2 - A534 (East)	1832	408	2484	0.737	1832	2.8	5.658	A
3 - Stryt Holt	521	1629	991	0.525	521	1.1	7.721	A
4 - A5156	847	297	2677	0.316	847	0.5	2.079	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	111	840	1033	0.108	112	0.1	4.143	A
2 - A534 (East)	1496	334	2530	0.591	1501	1.5	3.606	A
3 - Stryt Holt	425	1335	1129	0.377	427	0.6	5.194	A
4 - A5156	691	244	2710	0.255	692	0.4	1.885	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	93	703	1090	0.086	93	0.1	3.833	A
2 - A534 (East)	1253	280	2563	0.489	1255	1.0	2.825	A
3 - Stryt Holt	356	1116	1232	0.289	357	0.4	4.160	A
4 - A5156	579	204	2735	0.212	579	0.3	1.764	A

2030 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.30	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	814	100.000
3 - Stryt Holt		✓	680	100.000
4 - A5156		✓	1486	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	220	539
	3 - Stryt Holt	46	339	0	295
	4 - A5156	101	1106	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.30	9.66	0.5	A
2 - A534 (East)	0.36	2.73	0.7	A
3 - Stryt Holt	0.52	5.46	1.1	A
4 - A5156	0.64	4.06	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1295	845	0.143	120	0.2	5.554	A
2 - A534 (East)	613	263	2573	0.238	611	0.4	2.230	A
3 - Stryt Holt	512	474	1532	0.334	510	0.5	3.624	A
4 - A5156	1119	330	2656	0.421	1116	0.8	2.430	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1549	739	0.195	144	0.3	6.766	A
2 - A534 (East)	732	315	2541	0.288	731	0.5	2.417	A
3 - Stryt Holt	611	567	1489	0.411	611	0.7	4.225	A
4 - A5156	1336	395	2615	0.511	1335	1.1	2.925	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1896	595	0.296	175	0.5	9.586	A
2 - A534 (East)	896	386	2498	0.359	895	0.7	2.729	A
3 - Stryt Holt	749	694	1429	0.524	747	1.1	5.431	A
4 - A5156	1636	483	2560	0.639	1633	1.8	4.034	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1899	594	0.297	176	0.5	9.655	A
2 - A534 (East)	896	386	2498	0.359	896	0.7	2.732	A
3 - Stryt Holt	749	695	1429	0.524	749	1.1	5.459	A
4 - A5156	1636	484	2559	0.639	1636	1.8	4.062	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1554	737	0.195	145	0.3	6.814	A
2 - A534 (East)	732	316	2541	0.288	733	0.5	2.421	A
3 - Stryt Holt	611	568	1488	0.411	613	0.7	4.250	A
4 - A5156	1336	397	2614	0.511	1339	1.1	2.945	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1300	842	0.143	121	0.2	5.590	A
2 - A534 (East)	613	265	2572	0.238	613	0.4	2.234	A
3 - Stryt Holt	512	475	1531	0.334	513	0.5	3.647	A
4 - A5156	1119	332	2655	0.421	1120	0.8	2.444	A

2030 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.99	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1761	100.000
3 - Stryt Holt		✓	500	100.000
4 - A5156		✓	814	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	251	1469
	3 - Stryt Holt	24	219	1	256
	4 - A5156	49	458	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.16	4.86	0.2	A
2 - A534 (East)	0.79	6.95	3.7	A
3 - Stryt Holt	0.58	9.16	1.4	A
4 - A5156	0.34	2.15	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	741	1075	0.092	99	0.1	3.913	A
2 - A534 (East)	1326	295	2554	0.519	1321	1.1	2.984	A
3 - Stryt Holt	376	1175	1204	0.313	375	0.5	4.372	A
4 - A5156	613	214	2729	0.225	612	0.3	1.797	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	887	1014	0.117	119	0.1	4.264	A
2 - A534 (East)	1583	353	2518	0.629	1581	1.7	3.928	A
3 - Stryt Holt	449	1406	1096	0.410	449	0.7	5.605	A
4 - A5156	732	256	2703	0.271	731	0.4	1.931	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1085	932	0.156	145	0.2	4.854	A
2 - A534 (East)	1939	432	2470	0.785	1931	3.6	6.763	A
3 - Stryt Holt	551	1718	950	0.580	548	1.4	8.979	A
4 - A5156	896	312	2667	0.336	896	0.5	2.149	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1087	931	0.156	145	0.2	4.860	A
2 - A534 (East)	1939	433	2469	0.785	1939	3.7	6.948	A
3 - Stryt Holt	551	1724	947	0.581	550	1.4	9.160	A
4 - A5156	896	314	2666	0.336	896	0.5	2.150	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	889	1013	0.117	119	0.1	4.273	A
2 - A534 (East)	1583	354	2518	0.629	1591	1.8	4.014	A
3 - Stryt Holt	449	1414	1092	0.412	452	0.7	5.706	A
4 - A5156	732	258	2702	0.271	732	0.4	1.934	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	744	1073	0.093	100	0.1	3.923	A
2 - A534 (East)	1326	296	2553	0.519	1328	1.1	3.020	A
3 - Stryt Holt	376	1181	1201	0.313	377	0.5	4.419	A
4 - A5156	613	215	2728	0.225	613	0.3	1.801	A

2037 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.79	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	861	100.000
3 - Stryt Holt		✓	718	100.000
4 - A5156		✓	1572	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	233	570
	3 - Stryt Holt	48	358	0	312
	4 - A5156	106	1170	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.34	11.14	0.6	B
2 - A534 (East)	0.38	2.85	0.7	A
3 - Stryt Holt	0.56	5.99	1.3	A
4 - A5156	0.68	4.62	2.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1370	814	0.156	126	0.2	5.858	A
2 - A534 (East)	648	279	2564	0.253	647	0.4	2.280	A
3 - Stryt Holt	541	501	1520	0.356	538	0.6	3.776	A
4 - A5156	1183	348	2645	0.447	1180	0.8	2.554	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1639	702	0.216	152	0.3	7.320	A
2 - A534 (East)	774	334	2530	0.306	774	0.5	2.491	A
3 - Stryt Holt	645	599	1473	0.438	645	0.8	4.475	A
4 - A5156	1413	417	2602	0.543	1412	1.2	3.146	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2005	550	0.338	185	0.6	11.021	B
2 - A534 (East)	948	408	2484	0.382	947	0.7	2.845	A
3 - Stryt Holt	791	734	1411	0.560	789	1.3	5.950	A
4 - A5156	1731	510	2543	0.681	1727	2.2	4.573	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2009	548	0.340	186	0.6	11.137	B
2 - A534 (East)	948	410	2484	0.382	948	0.7	2.849	A
3 - Stryt Holt	791	734	1410	0.561	790	1.3	5.991	A
4 - A5156	1731	511	2542	0.681	1731	2.2	4.619	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1645	699	0.217	153	0.3	7.395	A
2 - A534 (East)	774	336	2529	0.306	775	0.5	2.495	A
3 - Stryt Holt	645	600	1473	0.438	647	0.8	4.508	A
4 - A5156	1413	418	2601	0.543	1417	1.2	3.179	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1376	811	0.157	128	0.2	5.901	A
2 - A534 (East)	648	281	2563	0.253	649	0.4	2.286	A
3 - Stryt Holt	541	503	1519	0.356	541	0.6	3.805	A
4 - A5156	1183	350	2644	0.448	1185	0.8	2.574	A

2037 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.51	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	1860	100.000
3 - Stryt Holt		✓	530	100.000
4 - A5156		✓	859	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	265	1552
	3 - Stryt Holt	26	232	1	271
	4 - A5156	51	484	324	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.17	5.07	0.2	A
2 - A534 (East)	0.83	9.02	5.0	A
3 - Stryt Holt	0.65	11.40	1.8	B
4 - A5156	0.36	2.23	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	783	1057	0.098	103	0.1	4.003	A
2 - A534 (East)	1400	311	2544	0.550	1395	1.2	3.202	A
3 - Stryt Holt	399	1241	1173	0.340	397	0.5	4.670	A
4 - A5156	647	226	2721	0.238	645	0.3	1.833	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	937	993	0.125	124	0.2	4.393	A
2 - A534 (East)	1672	372	2507	0.667	1669	2.0	4.390	A
3 - Stryt Holt	476	1484	1059	0.450	475	0.8	6.211	A
4 - A5156	772	271	2693	0.287	772	0.4	1.981	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1146	906	0.168	152	0.2	5.059	A
2 - A534 (East)	2048	455	2455	0.834	2036	4.9	8.586	A
3 - Stryt Holt	584	1811	906	0.644	580	1.8	11.009	B
4 - A5156	946	330	2656	0.356	945	0.6	2.225	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1148	905	0.168	152	0.2	5.067	A
2 - A534 (East)	2048	456	2455	0.834	2047	5.0	9.019	A
3 - Stryt Holt	584	1821	902	0.647	583	1.8	11.401	B
4 - A5156	946	332	2655	0.356	946	0.6	2.227	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	940	992	0.125	124	0.2	4.402	A
2 - A534 (East)	1672	373	2506	0.667	1684	2.1	4.550	A
3 - Stryt Holt	476	1497	1053	0.452	480	0.8	6.385	A
4 - A5156	772	274	2691	0.287	773	0.4	1.985	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	786	1056	0.098	104	0.1	4.014	A
2 - A534 (East)	1400	312	2543	0.551	1404	1.3	3.250	A
3 - Stryt Holt	399	1248	1170	0.341	400	0.5	4.732	A
4 - A5156	647	228	2720	0.238	647	0.3	1.835	A

2030 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.65	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	877	100.000
3 - Stryt Holt		✓	689	100.000
4 - A5156		✓	1567	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	226	596
	3 - Stryt Holt	46	348	0	295
	4 - A5156	101	1187	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.32	10.71	0.5	B
2 - A534 (East)	0.39	2.86	0.8	A
3 - Stryt Holt	0.54	5.79	1.2	A
4 - A5156	0.68	4.53	2.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1362	817	0.148	120	0.2	5.778	A
2 - A534 (East)	660	263	2573	0.257	659	0.4	2.289	A
3 - Stryt Holt	519	517	1512	0.343	517	0.5	3.721	A
4 - A5156	1180	337	2652	0.445	1176	0.8	2.535	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1630	705	0.204	143	0.3	7.167	A
2 - A534 (East)	788	315	2541	0.310	788	0.5	2.502	A
3 - Stryt Holt	619	618	1465	0.423	619	0.7	4.383	A
4 - A5156	1409	403	2610	0.540	1407	1.2	3.112	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1994	554	0.318	175	0.5	10.610	B
2 - A534 (East)	966	385	2498	0.386	965	0.8	2.860	A
3 - Stryt Holt	759	757	1400	0.542	757	1.2	5.757	A
4 - A5156	1725	493	2553	0.676	1722	2.1	4.487	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1998	552	0.319	176	0.5	10.709	B
2 - A534 (East)	966	386	2498	0.387	966	0.8	2.863	A
3 - Stryt Holt	759	757	1399	0.542	759	1.2	5.793	A
4 - A5156	1725	494	2553	0.676	1725	2.2	4.530	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1636	703	0.205	145	0.3	7.232	A
2 - A534 (East)	788	317	2541	0.310	789	0.6	2.508	A
3 - Stryt Holt	619	619	1464	0.423	621	0.8	4.413	A
4 - A5156	1409	405	2609	0.540	1412	1.2	3.141	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1368	814	0.148	121	0.2	5.819	A
2 - A534 (East)	660	265	2572	0.257	661	0.4	2.297	A
3 - Stryt Holt	519	518	1511	0.343	520	0.5	3.748	A
4 - A5156	1180	339	2651	0.445	1181	0.8	2.555	A

2030 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.36	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1873	100.000
3 - Stryt Holt		✓	506	100.000
4 - A5156		✓	886	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	263	1569
	3 - Stryt Holt	24	225	1	256
	4 - A5156	49	530	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.16	5.09	0.2	A
2 - A534 (East)	0.84	9.02	5.0	A
3 - Stryt Holt	0.62	10.73	1.6	B
4 - A5156	0.37	2.26	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	800	1050	0.095	99	0.1	4.013	A
2 - A534 (East)	1410	295	2554	0.552	1405	1.3	3.200	A
3 - Stryt Holt	381	1250	1169	0.326	379	0.5	4.590	A
4 - A5156	667	218	2726	0.245	666	0.3	1.851	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	957	985	0.120	119	0.1	4.407	A
2 - A534 (East)	1684	353	2518	0.669	1681	2.0	4.391	A
3 - Stryt Holt	455	1495	1054	0.432	454	0.8	6.042	A
4 - A5156	796	261	2699	0.295	796	0.4	2.005	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1170	896	0.162	145	0.2	5.083	A
2 - A534 (East)	2062	432	2470	0.835	2051	4.9	8.586	A
3 - Stryt Holt	557	1824	900	0.619	554	1.6	10.400	B
4 - A5156	976	318	2663	0.366	975	0.6	2.258	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1173	895	0.162	145	0.2	5.091	A
2 - A534 (East)	2062	433	2469	0.835	2062	5.0	9.023	A
3 - Stryt Holt	557	1834	895	0.622	557	1.6	10.725	B
4 - A5156	976	320	2662	0.366	975	0.6	2.262	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	960	984	0.121	119	0.1	4.418	A
2 - A534 (East)	1684	354	2518	0.669	1696	2.1	4.554	A
3 - Stryt Holt	455	1508	1048	0.434	458	0.8	6.196	A
4 - A5156	796	264	2698	0.295	797	0.4	2.009	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	803	1049	0.095	100	0.1	4.024	A
2 - A534 (East)	1410	296	2553	0.552	1413	1.3	3.248	A
3 - Stryt Holt	381	1257	1165	0.327	382	0.5	4.645	A
4 - A5156	667	220	2725	0.245	667	0.3	1.853	A

2037 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.24	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	924	100.000
3 - Stryt Holt		✓	728	100.000
4 - A5156		✓	1652	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	239	627
	3 - Stryt Holt	48	368	0	312
	4 - A5156	106	1250	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.37	12.56	0.6	B
2 - A534 (East)	0.41	2.99	0.8	A
3 - Stryt Holt	0.58	6.41	1.4	A
4 - A5156	0.72	5.23	2.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1437	786	0.162	126	0.2	6.107	A
2 - A534 (East)	696	279	2564	0.271	694	0.5	2.344	A
3 - Stryt Holt	548	544	1500	0.366	546	0.6	3.883	A
4 - A5156	1244	355	2640	0.471	1240	0.9	2.671	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1719	668	0.227	151	0.3	7.793	A
2 - A534 (East)	831	334	2530	0.328	830	0.6	2.581	A
3 - Stryt Holt	654	650	1450	0.452	653	0.8	4.658	A
4 - A5156	1485	426	2596	0.572	1483	1.4	3.363	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2103	509	0.366	185	0.6	12.386	B
2 - A534 (East)	1017	408	2484	0.409	1016	0.8	2.987	A
3 - Stryt Holt	802	796	1381	0.580	799	1.4	6.355	A
4 - A5156	1819	521	2536	0.717	1814	2.6	5.155	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2108	507	0.367	186	0.6	12.563	B
2 - A534 (East)	1017	410	2484	0.410	1017	0.8	2.991	A
3 - Stryt Holt	802	797	1381	0.580	801	1.4	6.408	A
4 - A5156	1819	522	2535	0.717	1819	2.6	5.229	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1727	665	0.228	153	0.3	7.893	A
2 - A534 (East)	831	336	2529	0.328	832	0.6	2.588	A
3 - Stryt Holt	654	652	1449	0.452	657	0.9	4.699	A
4 - A5156	1485	427	2595	0.572	1490	1.4	3.409	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1444	783	0.163	128	0.2	6.160	A
2 - A534 (East)	696	281	2563	0.271	696	0.5	2.351	A
3 - Stryt Holt	548	546	1499	0.366	549	0.6	3.915	A
4 - A5156	1244	357	2639	0.471	1246	0.9	2.693	A

2037 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.02	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.02	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	1974	100.000
3 - Stryt Holt		✓	536	100.000
4 - A5156		✓	932	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	277	1654
	3 - Stryt Holt	26	238	1	271
	4 - A5156	51	556	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.17	5.32	0.2	A
2 - A534 (East)	0.89	12.89	7.5	B
3 - Stryt Holt	0.69	13.95	2.2	B
4 - A5156	0.39	2.35	0.7	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	842	1033	0.101	103	0.1	4.109	A
2 - A534 (East)	1486	312	2544	0.584	1480	1.4	3.455	A
3 - Stryt Holt	404	1317	1137	0.355	401	0.6	4.922	A
4 - A5156	702	231	2719	0.258	700	0.4	1.890	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1008	964	0.129	124	0.2	4.547	A
2 - A534 (East)	1775	373	2506	0.708	1771	2.4	4.991	A
3 - Stryt Holt	482	1575	1017	0.474	480	0.9	6.760	A
4 - A5156	838	276	2690	0.311	837	0.5	2.059	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1232	871	0.175	152	0.2	5.312	A
2 - A534 (East)	2173	456	2455	0.885	2155	7.1	11.642	B
3 - Stryt Holt	590	1917	856	0.689	585	2.1	13.164	B
4 - A5156	1026	336	2652	0.387	1025	0.7	2.344	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1235	869	0.175	152	0.2	5.322	A
2 - A534 (East)	2173	457	2455	0.885	2172	7.5	12.895	B
3 - Stryt Holt	590	1932	849	0.695	590	2.2	13.954	B
4 - A5156	1026	339	2650	0.387	1026	0.7	2.348	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1012	962	0.129	124	0.2	4.559	A
2 - A534 (East)	1775	374	2506	0.708	1794	2.5	5.329	A
3 - Stryt Holt	482	1596	1007	0.479	487	0.9	7.058	A
4 - A5156	838	280	2688	0.312	839	0.5	2.063	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	846	1031	0.101	104	0.1	4.121	A
2 - A534 (East)	1486	313	2543	0.584	1490	1.5	3.521	A
3 - Stryt Holt	404	1326	1133	0.356	405	0.6	5.001	A
4 - A5156	702	233	2717	0.258	702	0.4	1.895	A

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

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.38	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	950	100.000
3 - Stryt Holt		✓	707	100.000
4 - A5156		✓	1696	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	231	664
	3 - Stryt Holt	46	366	0	295
	4 - A5156	101	1316	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.36	13.03	0.6	B
2 - A534 (East)	0.42	3.03	0.9	A
3 - Stryt Holt	0.57	6.33	1.4	A
4 - A5156	0.74	5.57	2.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1472	771	0.156	120	0.2	6.181	A
2 - A534 (East)	715	263	2573	0.278	713	0.5	2.364	A
3 - Stryt Holt	532	568	1488	0.358	530	0.6	3.863	A
4 - A5156	1277	350	2643	0.483	1273	1.0	2.727	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1761	651	0.221	143	0.3	7.937	A
2 - A534 (East)	854	315	2542	0.336	853	0.6	2.607	A
3 - Stryt Holt	636	679	1436	0.443	635	0.8	4.625	A
4 - A5156	1525	419	2600	0.586	1523	1.5	3.474	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2154	488	0.361	175	0.6	12.835	B
2 - A534 (East)	1046	385	2499	0.419	1045	0.9	3.027	A
3 - Stryt Holt	778	831	1365	0.570	776	1.3	6.284	A
4 - A5156	1867	513	2541	0.735	1862	2.8	5.475	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2160	485	0.363	176	0.6	13.034	B
2 - A534 (East)	1046	386	2498	0.419	1046	0.9	3.031	A
3 - Stryt Holt	778	832	1364	0.571	778	1.4	6.333	A
4 - A5156	1867	514	2540	0.735	1867	2.9	5.567	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1770	647	0.222	145	0.3	8.045	A
2 - A534 (East)	854	317	2540	0.336	855	0.6	2.613	A
3 - Stryt Holt	636	681	1435	0.443	638	0.8	4.665	A
4 - A5156	1525	421	2599	0.587	1530	1.5	3.524	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1480	768	0.157	121	0.2	6.236	A
2 - A534 (East)	715	265	2572	0.278	716	0.5	2.373	A
3 - Stryt Holt	532	570	1487	0.358	533	0.6	3.894	A
4 - A5156	1277	352	2642	0.483	1279	1.0	2.755	A

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

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.18	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1906	100.000
3 - Stryt Holt		✓	512	100.000
4 - A5156		✓	965	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	178	1687
	3 - Stryt Holt	24	231	1	256
	4 - A5156	49	609	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.17	5.37	0.2	A
2 - A534 (East)	0.85	9.90	5.6	A
3 - Stryt Holt	0.68	13.36	2.0	B
4 - A5156	0.40	2.40	0.7	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	863	1024	0.097	99	0.1	4.128	A
2 - A534 (East)	1435	295	2554	0.562	1430	1.3	3.275	A
3 - Stryt Holt	385	1338	1128	0.342	383	0.5	4.870	A
4 - A5156	727	222	2724	0.267	725	0.4	1.914	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	1033	953	0.124	119	0.1	4.575	A
2 - A534 (East)	1713	353	2518	0.680	1710	2.2	4.556	A
3 - Stryt Holt	460	1601	1005	0.458	459	0.8	6.644	A
4 - A5156	868	266	2696	0.322	867	0.5	2.091	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1263	858	0.169	145	0.2	5.359	A
2 - A534 (East)	2099	432	2470	0.850	2085	5.4	9.319	A
3 - Stryt Holt	564	1952	840	0.671	559	2.0	12.739	B
4 - A5156	1062	324	2660	0.400	1062	0.7	2.392	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1266	857	0.170	145	0.2	5.369	A
2 - A534 (East)	2099	433	2469	0.850	2098	5.6	9.902	A
3 - Stryt Holt	564	1964	835	0.675	563	2.0	13.364	B
4 - A5156	1062	327	2658	0.400	1062	0.7	2.396	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	1037	952	0.125	119	0.2	4.586	A
2 - A534 (East)	1713	354	2518	0.681	1727	2.2	4.755	A
3 - Stryt Holt	460	1616	997	0.461	465	0.9	6.883	A
4 - A5156	868	270	2694	0.322	868	0.5	2.095	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	867	1022	0.097	100	0.1	4.140	A
2 - A534 (East)	1435	296	2553	0.562	1439	1.3	3.327	A
3 - Stryt Holt	385	1346	1124	0.343	387	0.5	4.942	A
4 - A5156	727	224	2722	0.267	727	0.4	1.916	A

2037 Base + Committed + Development (Phase 1&2), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.20	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2037 Base + Committed + Development (Phase 1&2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	1098	100.000
3 - Stryt Holt		✓	766	100.000
4 - A5156		✓	1927	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	239	801
	3 - Stryt Holt	48	406	0	312
	4 - A5156	106	1525	296	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.51	22.59	1.1	C
2 - A534 (East)	0.49	3.47	1.2	A
3 - Stryt Holt	0.65	8.28	1.9	A
4 - A5156	0.85	9.61	5.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1671	688	0.185	126	0.3	7.157	A
2 - A534 (East)	827	279	2564	0.322	824	0.6	2.541	A
3 - Stryt Holt	577	674	1438	0.401	574	0.7	4.278	A
4 - A5156	1451	384	2622	0.553	1446	1.3	3.173	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1999	552	0.275	151	0.4	10.037	B
2 - A534 (East)	987	334	2530	0.390	986	0.8	2.865	A
3 - Stryt Holt	689	807	1376	0.500	687	1.0	5.373	A
4 - A5156	1732	459	2575	0.673	1729	2.1	4.414	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2439	369	0.504	183	1.1	21.374	C
2 - A534 (East)	1209	406	2486	0.486	1207	1.2	3.458	A
3 - Stryt Holt	843	987	1292	0.653	840	1.9	8.145	A
4 - A5156	2122	562	2510	0.845	2109	5.3	9.052	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2452	364	0.511	186	1.1	22.585	C
2 - A534 (East)	1209	409	2484	0.487	1209	1.2	3.471	A
3 - Stryt Holt	843	989	1291	0.653	843	1.9	8.279	A
4 - A5156	2122	564	2509	0.846	2121	5.5	9.610	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	2017	545	0.279	155	0.4	10.412	B
2 - A534 (East)	987	338	2528	0.391	989	0.8	2.880	A
3 - Stryt Holt	689	809	1375	0.501	692	1.0	5.460	A
4 - A5156	1732	462	2573	0.673	1746	2.2	4.601	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1681	684	0.186	128	0.3	7.259	A
2 - A534 (East)	827	281	2562	0.323	827	0.6	2.551	A
3 - Stryt Holt	577	677	1437	0.401	578	0.7	4.326	A
4 - A5156	1451	386	2621	0.554	1454	1.3	3.222	A

2037 Base + Committed + Development (Phase 1&2), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	33.33	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	33.33	D

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)
D14	2037 Base + Committed + Development (Phase 1&2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	2231	100.000
3 - Stryt Holt		✓	555	100.000
4 - A5156		✓	1130	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	277	1911
	3 - Stryt Holt	26	257	1	271
	4 - A5156	51	754	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.20	6.17	0.3	A
2 - A534 (East)	1.00	51.79	35.7	F
3 - Stryt Holt	0.83	28.10	4.5	D
4 - A5156	0.47	2.75	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	1005	965	0.108	103	0.1	4.429	A
2 - A534 (East)	1680	312	2544	0.660	1672	2.0	4.199	A
3 - Stryt Holt	418	1508	1048	0.399	415	0.7	5.720	A
4 - A5156	851	245	2710	0.314	849	0.5	2.058	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1202	883	0.140	124	0.2	5.028	A
2 - A534 (East)	2006	373	2506	0.800	1998	4.0	7.155	A
3 - Stryt Holt	499	1803	910	0.548	497	1.2	8.747	A
4 - A5156	1016	293	2679	0.379	1015	0.6	2.302	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1468	773	0.197	152	0.3	6.147	A
2 - A534 (East)	2456	456	2455	1.001	2372	25.2	30.090	D
3 - Stryt Holt	611	2142	751	0.813	600	3.9	22.665	C
4 - A5156	1244	353	2642	0.471	1243	0.9	2.738	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1473	771	0.197	152	0.3	6.172	A
2 - A534 (East)	2456	457	2455	1.001	2414	35.7	51.793	F
3 - Stryt Holt	611	2179	734	0.833	609	4.5	28.099	D
4 - A5156	1244	358	2638	0.472	1244	0.9	2.748	A

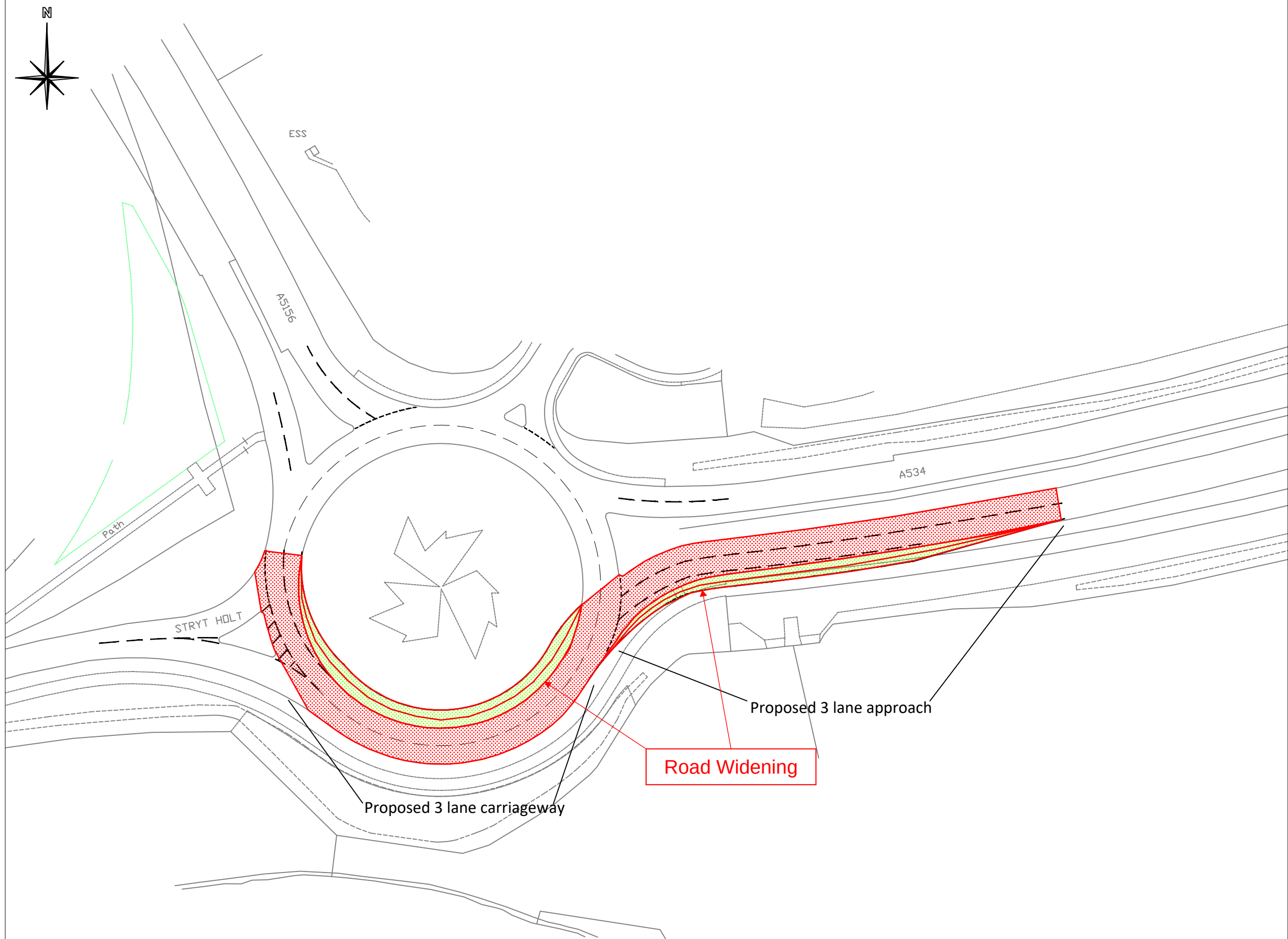
17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1211	880	0.141	124	0.2	5.059	A
2 - A534 (East)	2006	374	2506	0.800	2131	4.3	13.209	B
3 - Stryt Holt	499	1920	855	0.583	511	1.5	10.913	B
4 - A5156	1016	303	2673	0.380	1017	0.7	2.317	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	1010	963	0.108	104	0.1	4.447	A
2 - A534 (East)	1680	313	2543	0.661	1689	2.0	4.372	A
3 - Stryt Holt	418	1524	1041	0.401	421	0.7	5.891	A
4 - A5156	851	248	2708	0.314	851	0.5	2.067	A

Appendix TN8 - A534 / A5156 / Stryt Holt Roundabout Improvements



- Notes:**
1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

Rev	Date	Description	Ckd	By
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Client	Net World Sports Limited			
Project	North of Bryn Lane Wrexham			
Title	Stryt Holt Roundabout Improvements			
Drawing Status				
Job No.	16-2067			
Drawn MC	Checked TC	Scale at A3 1:1000	Date 29/10/25	Issue Date -
Drawing No. 108				-

Appendix TN9 - A534 / A5156 / Stryt Holt Roundabout Improved ARCADY

Junctions 10		
ARCADY 10 - Roundabout Module		
Version: 10.0.1.1519		
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Filename: A534, A5156 ARCADY (Impr).j10

Path: D:\Cora IHT\Wrexham (2)\September 2025

Report generation date: 13/11/2025 14:26:32

»2023 Base, AM
 »2023 Base, PM
 »2030 Base, AM
 »2030 Base, PM
 »2037 Base, AM
 »2037 Base, PM
 »2030 Base + Committed, AM
 »2030 Base + Committed, PM
 »2037 Base + Committed, AM
 »2037 Base + Committed, PM
 »2030 Base + Committed + Development (Phase 1), AM
 »2030 Base + Committed + Development (Phase 1), PM
 »2037 Base + Committed + Development (Phase 1&2), AM
 »2037 Base + Committed + Development (Phase 1&2), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
1 - Golf Site Access	D1	0.4	8.56	0.26	A	D2	0.2	4.66	0.14	A
2 - A534 (East)		0.4	1.85	0.26	A		1.4	2.75	0.58	A
3 - Stryt Holt		1.0	5.02	0.49	A		1.1	7.72	0.53	A
4 - A5156		1.6	3.64	0.60	A		0.5	2.08	0.32	A
	2030 Base									
1 - Golf Site Access	D3	0.5	9.66	0.30	A	D4	0.2	4.86	0.16	A
2 - A534 (East)		0.5	1.91	0.28	A		1.6	3.03	0.61	A
3 - Stryt Holt		1.1	5.46	0.52	A		1.4	9.16	0.58	A
4 - A5156		1.8	4.06	0.64	A		0.5	2.15	0.34	A
	2037 Base									
1 - Golf Site Access	D5	0.6	11.14	0.34	B	D6	0.2	5.07	0.17	A
2 - A534 (East)		0.5	1.96	0.30	A		1.9	3.38	0.65	A
3 - Stryt Holt		1.3	5.99	0.56	A		1.8	11.41	0.65	B
4 - A5156		2.2	4.62	0.68	A		0.6	2.23	0.36	A
	2030 Base + Committed									
1 - Golf Site Access	D7	0.5	10.71	0.32	B	D8	0.2	5.09	0.16	A
2 - A534 (East)		0.5	1.97	0.30	A		1.9	3.37	0.65	A
3 - Stryt Holt		1.2	5.79	0.54	A		1.6	10.73	0.62	B
4 - A5156		2.2	4.53	0.68	A		0.6	2.26	0.37	A
	2037 Base + Committed									
1 - Golf Site Access	D9	0.6	12.56	0.37	B	D10	0.2	5.32	0.17	A
2 - A534 (East)		0.6	2.03	0.32	A		2.3	3.82	0.69	A
3 - Stryt Holt		1.4	6.41	0.58	A		2.2	14.00	0.70	B
4 - A5156		2.6	5.23	0.72	A		0.7	2.35	0.39	A
	2030 Base + Committed + Development (Phase 1)									
1 - Golf Site Access	D11	0.6	13.03	0.36	B	D12	0.2	5.37	0.17	A
2 - A534 (East)		0.6	2.05	0.33	A		2.0	3.49	0.66	A
3 - Stryt Holt		1.4	6.33	0.57	A		2.1	13.39	0.68	B
4 - A5156		2.9	5.57	0.74	A		0.7	2.40	0.40	A
	2037 Base + Committed + Development (Phase 1&2)									
1 - Golf Site Access	D13	1.1	22.59	0.51	C	D14	0.3	6.17	0.20	A
2 - A534 (East)		0.8	2.25	0.38	A		3.6	5.39	0.78	A
3 - Stryt Holt		1.9	8.28	0.65	A		5.2	32.59	0.85	D
4 - A5156		5.5	9.61	0.85	A		0.9	2.75	0.47	A

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

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

File summary

File Description

Title	A534 / A5156 / Golf Access
Location	Wrexham
Site number	
Date	01/02/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGB\mchau
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D11	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D12	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D13	2037 Base + Committed + Development (Phase 1&2)	AM	ONE HOUR	07:45	09:15	15
D14	2037 Base + Committed + Development (Phase 1&2)	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
AL	100.000

2023 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.72	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Golf Site Access		
2	A534 (East)		
3	Stryt Holt		
4	A5156		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Golf Site Access	3.40	5.60	6.9	20.0	89.3	25.3		
2 - A534 (East)	7.10	12.00	60.0	41.6	89.3	25.2		
3 - Stryt Holt	3.60	7.10	16.7	24.2	89.3	27.7		
4 - A5156	8.00	10.00	9.1	32.0	89.3	26.6		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Golf Site Access	0.415	1382
2 - A534 (East)	0.717	3468
3 - Stryt Holt	0.468	1754
4 - A5156	0.629	2864

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	151	100.000
2 - A534 (East)		✓	769	100.000
3 - Stryt Holt		✓	642	100.000
4 - A5156		✓	1404	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	83	33	35
	2 - A534 (East)	51	1	208	509
	3 - Stryt Holt	43	320	0	279
	4 - A5156	95	1045	264	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.26	8.56	0.4	A
2 - A534 (East)	0.26	1.85	0.4	A
3 - Stryt Holt	0.49	5.02	1.0	A
4 - A5156	0.60	3.64	1.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	114	1224	874	0.130	113	0.2	5.292	A
2 - A534 (East)	579	249	3290	0.176	578	0.3	1.613	A
3 - Stryt Holt	483	448	1544	0.313	481	0.5	3.487	A
4 - A5156	1057	311	2668	0.396	1054	0.7	2.319	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	136	1464	774	0.175	135	0.2	6.306	A
2 - A534 (East)	691	298	3254	0.212	691	0.3	1.706	A
3 - Stryt Holt	577	536	1503	0.384	576	0.6	4.004	A
4 - A5156	1262	373	2629	0.480	1261	1.0	2.737	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	166	1792	638	0.261	166	0.4	8.519	A
2 - A534 (East)	847	365	3207	0.264	846	0.4	1.853	A
3 - Stryt Holt	707	656	1447	0.489	706	1.0	4.998	A
4 - A5156	1546	456	2577	0.600	1543	1.5	3.621	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	166	1795	637	0.261	166	0.4	8.562	A
2 - A534 (East)	847	366	3206	0.264	847	0.4	1.853	A
3 - Stryt Holt	707	656	1447	0.489	707	1.0	5.017	A
4 - A5156	1546	457	2576	0.600	1546	1.6	3.637	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	136	1468	773	0.176	136	0.2	6.341	A
2 - A534 (East)	691	299	3254	0.212	692	0.3	1.707	A
3 - Stryt Holt	577	536	1503	0.384	578	0.6	4.023	A
4 - A5156	1262	374	2628	0.480	1265	1.0	2.754	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	114	1229	872	0.130	114	0.2	5.320	A
2 - A534 (East)	579	250	3289	0.176	579	0.3	1.617	A
3 - Stryt Holt	483	449	1544	0.313	484	0.5	3.507	A
4 - A5156	1057	313	2667	0.396	1058	0.7	2.333	A

2023 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	124	100.000
2 - A534 (East)		✓	1664	100.000
3 - Stryt Holt		✓	473	100.000
4 - A5156		✓	769	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	44	27	53
	2 - A534 (East)	37	2	237	1388
	3 - Stryt Holt	23	207	1	242
	4 - A5156	46	433	290	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.14	4.66	0.2	A
2 - A534 (East)	0.58	2.75	1.4	A
3 - Stryt Holt	0.53	7.72	1.1	A
4 - A5156	0.32	2.08	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	93	701	1091	0.086	93	0.1	3.822	A
2 - A534 (East)	1253	279	3268	0.383	1250	0.6	1.827	A
3 - Stryt Holt	356	1112	1233	0.289	354	0.4	4.127	A
4 - A5156	579	202	2736	0.212	578	0.3	1.763	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	111	838	1034	0.108	111	0.1	4.138	A
2 - A534 (East)	1496	333	3229	0.463	1495	0.9	2.128	A
3 - Stryt Holt	425	1330	1132	0.376	424	0.6	5.134	A
4 - A5156	691	242	2711	0.255	691	0.4	1.883	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	137	1026	956	0.143	136	0.2	4.656	A
2 - A534 (East)	1832	408	3176	0.577	1830	1.4	2.741	A
3 - Stryt Holt	521	1628	992	0.525	519	1.1	7.649	A
4 - A5156	847	296	2677	0.316	846	0.5	2.079	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	137	1027	956	0.143	137	0.2	4.661	A
2 - A534 (East)	1832	408	3175	0.577	1832	1.4	2.748	A
3 - Stryt Holt	521	1629	991	0.525	521	1.1	7.724	A
4 - A5156	847	297	2677	0.316	847	0.5	2.079	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	111	840	1033	0.108	112	0.1	4.145	A
2 - A534 (East)	1496	334	3229	0.463	1498	0.9	2.135	A
3 - Stryt Holt	425	1332	1130	0.376	427	0.6	5.182	A
4 - A5156	691	244	2710	0.255	692	0.4	1.888	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	93	703	1090	0.086	93	0.1	3.833	A
2 - A534 (East)	1253	280	3268	0.383	1254	0.6	1.833	A
3 - Stryt Holt	356	1115	1232	0.289	357	0.4	4.158	A
4 - A5156	579	204	2735	0.212	579	0.3	1.764	A

2030 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.09	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	814	100.000
3 - Stryt Holt		✓	680	100.000
4 - A5156		✓	1486	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	220	539
	3 - Stryt Holt	46	339	0	295
	4 - A5156	101	1106	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.30	9.66	0.5	A
2 - A534 (East)	0.28	1.91	0.5	A
3 - Stryt Holt	0.52	5.46	1.1	A
4 - A5156	0.64	4.06	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1295	845	0.143	120	0.2	5.554	A
2 - A534 (East)	613	263	3279	0.187	612	0.3	1.640	A
3 - Stryt Holt	512	474	1532	0.334	510	0.5	3.624	A
4 - A5156	1119	330	2656	0.421	1116	0.8	2.430	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1549	739	0.195	144	0.3	6.766	A
2 - A534 (East)	732	315	3242	0.226	731	0.4	1.742	A
3 - Stryt Holt	611	567	1489	0.411	611	0.7	4.225	A
4 - A5156	1336	395	2615	0.511	1335	1.1	2.925	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1896	595	0.296	175	0.5	9.586	A
2 - A534 (East)	896	386	3192	0.281	896	0.5	1.905	A
3 - Stryt Holt	749	694	1429	0.524	747	1.1	5.431	A
4 - A5156	1636	483	2560	0.639	1633	1.8	4.034	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1899	594	0.297	176	0.5	9.655	A
2 - A534 (East)	896	386	3191	0.281	896	0.5	1.906	A
3 - Stryt Holt	749	695	1429	0.524	749	1.1	5.459	A
4 - A5156	1636	484	2559	0.639	1636	1.8	4.062	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1554	737	0.195	145	0.3	6.814	A
2 - A534 (East)	732	316	3241	0.226	732	0.4	1.746	A
3 - Stryt Holt	611	568	1488	0.411	613	0.7	4.249	A
4 - A5156	1336	396	2614	0.511	1339	1.1	2.945	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1300	842	0.143	121	0.2	5.590	A
2 - A534 (East)	613	265	3278	0.187	613	0.3	1.641	A
3 - Stryt Holt	512	475	1531	0.334	513	0.5	3.646	A
4 - A5156	1119	332	2655	0.421	1120	0.8	2.444	A

2030 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.84	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1761	100.000
3 - Stryt Holt		✓	500	100.000
4 - A5156		✓	814	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	251	1469
	3 - Stryt Holt	24	219	1	256
	4 - A5156	49	458	307	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.16	4.86	0.2	A
2 - A534 (East)	0.61	3.03	1.6	A
3 - Stryt Holt	0.58	9.16	1.4	A
4 - A5156	0.34	2.15	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	741	1075	0.092	99	0.1	3.913	A
2 - A534 (East)	1326	295	3257	0.407	1323	0.7	1.908	A
3 - Stryt Holt	376	1176	1203	0.313	375	0.5	4.376	A
4 - A5156	613	214	2729	0.225	612	0.3	1.797	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	887	1014	0.117	119	0.1	4.264	A
2 - A534 (East)	1583	353	3215	0.492	1582	1.0	2.260	A
3 - Stryt Holt	449	1407	1095	0.410	449	0.7	5.610	A
4 - A5156	732	256	2703	0.271	731	0.4	1.931	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1085	932	0.156	145	0.2	4.854	A
2 - A534 (East)	1939	432	3158	0.614	1936	1.6	3.015	A
3 - Stryt Holt	551	1722	948	0.581	548	1.4	9.024	A
4 - A5156	896	312	2667	0.336	896	0.5	2.149	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1087	931	0.156	145	0.2	4.860	A
2 - A534 (East)	1939	433	3158	0.614	1939	1.6	3.027	A
3 - Stryt Holt	551	1724	947	0.581	550	1.4	9.164	A
4 - A5156	896	314	2666	0.336	896	0.5	2.150	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	889	1013	0.117	119	0.1	4.271	A
2 - A534 (East)	1583	354	3215	0.492	1586	1.0	2.271	A
3 - Stryt Holt	449	1410	1094	0.411	452	0.7	5.686	A
4 - A5156	732	258	2702	0.271	732	0.4	1.933	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	744	1073	0.093	100	0.1	3.923	A
2 - A534 (East)	1326	296	3256	0.407	1327	0.7	1.917	A
3 - Stryt Holt	376	1180	1202	0.313	377	0.5	4.414	A
4 - A5156	613	215	2728	0.225	613	0.3	1.799	A

2037 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.56	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	861	100.000
3 - Stryt Holt		✓	718	100.000
4 - A5156		✓	1572	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	233	570
	3 - Stryt Holt	48	358	0	312
	4 - A5156	106	1170	296	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.34	11.14	0.6	B
2 - A534 (East)	0.30	1.96	0.5	A
3 - Stryt Holt	0.56	5.99	1.3	A
4 - A5156	0.68	4.62	2.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1370	814	0.156	126	0.2	5.858	A
2 - A534 (East)	648	279	3268	0.198	647	0.3	1.669	A
3 - Stryt Holt	541	501	1519	0.356	538	0.6	3.777	A
4 - A5156	1183	348	2645	0.447	1180	0.8	2.554	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1639	702	0.216	152	0.3	7.320	A
2 - A534 (East)	774	334	3229	0.240	774	0.4	1.781	A
3 - Stryt Holt	645	599	1473	0.438	645	0.8	4.475	A
4 - A5156	1413	417	2602	0.543	1412	1.2	3.146	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2005	550	0.338	185	0.6	11.021	B
2 - A534 (East)	948	408	3175	0.299	947	0.5	1.964	A
3 - Stryt Holt	791	734	1410	0.560	789	1.3	5.951	A
4 - A5156	1731	510	2543	0.681	1727	2.2	4.573	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2009	548	0.340	186	0.6	11.137	B
2 - A534 (East)	948	410	3175	0.299	948	0.5	1.965	A
3 - Stryt Holt	791	734	1410	0.561	790	1.3	5.991	A
4 - A5156	1731	511	2542	0.681	1731	2.2	4.619	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1645	699	0.217	153	0.3	7.395	A
2 - A534 (East)	774	336	3228	0.240	775	0.4	1.786	A
3 - Stryt Holt	645	600	1473	0.438	647	0.8	4.509	A
4 - A5156	1413	418	2601	0.543	1417	1.2	3.176	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1376	811	0.157	128	0.2	5.901	A
2 - A534 (East)	648	281	3267	0.198	649	0.3	1.673	A
3 - Stryt Holt	541	502	1519	0.356	541	0.6	3.802	A
4 - A5156	1183	350	2644	0.448	1185	0.8	2.572	A

2037 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	1860	100.000
3 - Stryt Holt		✓	530	100.000
4 - A5156		✓	859	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	265	1552
	3 - Stryt Holt	26	232	1	271
	4 - A5156	51	484	324	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.17	5.07	0.2	A
2 - A534 (East)	0.65	3.38	1.9	A
3 - Stryt Holt	0.65	11.41	1.8	B
4 - A5156	0.36	2.23	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	783	1057	0.098	103	0.1	4.003	A
2 - A534 (East)	1400	311	3245	0.431	1397	0.8	1.994	A
3 - Stryt Holt	399	1242	1172	0.340	397	0.5	4.674	A
4 - A5156	647	226	2721	0.238	645	0.3	1.833	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	937	993	0.125	124	0.2	4.393	A
2 - A534 (East)	1672	372	3202	0.522	1671	1.1	2.409	A
3 - Stryt Holt	476	1486	1058	0.450	475	0.8	6.219	A
4 - A5156	772	271	2693	0.287	772	0.4	1.981	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1146	906	0.168	152	0.2	5.059	A
2 - A534 (East)	2048	455	3142	0.652	2045	1.9	3.356	A
3 - Stryt Holt	584	1818	903	0.646	580	1.8	11.117	B
4 - A5156	946	331	2656	0.356	945	0.6	2.225	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1148	905	0.168	152	0.2	5.067	A
2 - A534 (East)	2048	456	3141	0.652	2048	1.9	3.375	A
3 - Stryt Holt	584	1821	901	0.647	583	1.8	11.412	B
4 - A5156	946	332	2655	0.356	946	0.6	2.227	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	940	992	0.125	124	0.2	4.402	A
2 - A534 (East)	1672	373	3201	0.522	1675	1.1	2.424	A
3 - Stryt Holt	476	1490	1057	0.451	480	0.8	6.348	A
4 - A5156	772	273	2692	0.287	773	0.4	1.985	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	786	1056	0.098	104	0.1	4.014	A
2 - A534 (East)	1400	312	3245	0.432	1402	0.8	2.006	A
3 - Stryt Holt	399	1246	1170	0.341	400	0.5	4.727	A
4 - A5156	647	228	2720	0.238	647	0.3	1.835	A

2030 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.41	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	877	100.000
3 - Stryt Holt		✓	689	100.000
4 - A5156		✓	1567	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	226	596
	3 - Stryt Holt	46	348	0	295
	4 - A5156	101	1187	279	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.32	10.71	0.5	B
2 - A534 (East)	0.30	1.97	0.5	A
3 - Stryt Holt	0.54	5.79	1.2	A
4 - A5156	0.68	4.53	2.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1362	817	0.148	120	0.2	5.778	A
2 - A534 (East)	660	263	3279	0.201	659	0.3	1.674	A
3 - Stryt Holt	519	517	1512	0.343	517	0.5	3.721	A
4 - A5156	1180	337	2652	0.445	1176	0.8	2.535	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1630	705	0.204	143	0.3	7.167	A
2 - A534 (East)	788	315	3242	0.243	788	0.4	1.787	A
3 - Stryt Holt	619	618	1465	0.423	619	0.7	4.383	A
4 - A5156	1409	403	2610	0.540	1407	1.2	3.112	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1994	554	0.318	175	0.5	10.610	B
2 - A534 (East)	966	385	3192	0.303	965	0.5	1.970	A
3 - Stryt Holt	759	757	1400	0.542	757	1.2	5.758	A
4 - A5156	1725	493	2553	0.676	1722	2.1	4.487	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1998	552	0.319	176	0.5	10.709	B
2 - A534 (East)	966	386	3191	0.303	966	0.5	1.971	A
3 - Stryt Holt	759	757	1399	0.542	759	1.2	5.793	A
4 - A5156	1725	494	2553	0.676	1725	2.2	4.530	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1636	703	0.205	145	0.3	7.235	A
2 - A534 (East)	788	317	3241	0.243	789	0.4	1.788	A
3 - Stryt Holt	619	619	1464	0.423	621	0.8	4.413	A
4 - A5156	1409	405	2609	0.540	1412	1.2	3.143	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1368	814	0.148	121	0.2	5.817	A
2 - A534 (East)	660	265	3278	0.201	661	0.3	1.678	A
3 - Stryt Holt	519	518	1511	0.343	520	0.5	3.745	A
4 - A5156	1180	339	2651	0.445	1181	0.8	2.555	A

2030 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.24	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1873	100.000
3 - Stryt Holt		✓	506	100.000
4 - A5156		✓	886	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	263	1569
	3 - Stryt Holt	24	225	1	256
	4 - A5156	49	530	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.16	5.09	0.2	A
2 - A534 (East)	0.65	3.37	1.9	A
3 - Stryt Holt	0.62	10.73	1.6	B
4 - A5156	0.37	2.26	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	800	1050	0.095	99	0.1	4.013	A
2 - A534 (East)	1410	295	3257	0.433	1407	0.8	1.993	A
3 - Stryt Holt	381	1251	1168	0.326	379	0.5	4.594	A
4 - A5156	667	218	2726	0.245	666	0.3	1.852	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	957	985	0.120	119	0.1	4.407	A
2 - A534 (East)	1684	353	3215	0.524	1682	1.1	2.407	A
3 - Stryt Holt	455	1496	1053	0.432	454	0.8	6.049	A
4 - A5156	796	261	2699	0.295	796	0.4	2.005	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1170	896	0.162	145	0.2	5.083	A
2 - A534 (East)	2062	432	3158	0.653	2059	1.9	3.349	A
3 - Stryt Holt	557	1831	897	0.621	554	1.6	10.496	B
4 - A5156	976	319	2663	0.366	975	0.6	2.258	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1173	895	0.162	145	0.2	5.091	A
2 - A534 (East)	2062	433	3158	0.653	2062	1.9	3.368	A
3 - Stryt Holt	557	1834	895	0.622	557	1.6	10.734	B
4 - A5156	976	320	2662	0.366	975	0.6	2.262	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	960	984	0.121	119	0.1	4.418	A
2 - A534 (East)	1684	354	3215	0.524	1687	1.1	2.423	A
3 - Stryt Holt	455	1500	1052	0.433	458	0.8	6.160	A
4 - A5156	796	263	2698	0.295	797	0.4	2.008	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	803	1049	0.095	100	0.1	4.022	A
2 - A534 (East)	1410	296	3256	0.433	1411	0.8	2.003	A
3 - Stryt Holt	381	1256	1166	0.327	382	0.5	4.642	A
4 - A5156	667	220	2725	0.245	667	0.3	1.856	A

2037 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.98	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	924	100.000
3 - Stryt Holt		✓	728	100.000
4 - A5156		✓	1652	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	239	627
	3 - Stryt Holt	48	368	0	312
	4 - A5156	106	1250	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.37	12.56	0.6	B
2 - A534 (East)	0.32	2.03	0.6	A
3 - Stryt Holt	0.58	6.41	1.4	A
4 - A5156	0.72	5.23	2.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1437	786	0.162	126	0.2	6.107	A
2 - A534 (East)	696	279	3268	0.213	694	0.3	1.704	A
3 - Stryt Holt	548	544	1499	0.366	546	0.6	3.884	A
4 - A5156	1244	355	2640	0.471	1240	0.9	2.671	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1719	668	0.227	151	0.3	7.793	A
2 - A534 (East)	831	334	3229	0.257	830	0.4	1.828	A
3 - Stryt Holt	654	650	1449	0.452	653	0.8	4.658	A
4 - A5156	1485	426	2596	0.572	1483	1.4	3.363	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2103	509	0.366	185	0.6	12.386	B
2 - A534 (East)	1017	408	3176	0.320	1017	0.6	2.032	A
3 - Stryt Holt	802	796	1381	0.580	799	1.4	6.357	A
4 - A5156	1819	521	2536	0.717	1814	2.6	5.155	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2108	507	0.367	186	0.6	12.563	B
2 - A534 (East)	1017	410	3175	0.320	1017	0.6	2.033	A
3 - Stryt Holt	802	797	1381	0.580	801	1.4	6.408	A
4 - A5156	1819	522	2535	0.717	1819	2.6	5.229	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1727	665	0.228	153	0.3	7.893	A
2 - A534 (East)	831	336	3227	0.257	831	0.4	1.830	A
3 - Stryt Holt	654	652	1449	0.452	657	0.9	4.700	A
4 - A5156	1485	427	2595	0.572	1490	1.4	3.406	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1444	783	0.163	128	0.2	6.160	A
2 - A534 (East)	696	281	3267	0.213	696	0.3	1.705	A
3 - Stryt Holt	548	545	1499	0.366	549	0.6	3.915	A
4 - A5156	1244	357	2639	0.471	1246	0.9	2.695	A

2037 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.02	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	1974	100.000
3 - Stryt Holt		✓	536	100.000
4 - A5156		✓	932	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	277	1654
	3 - Stryt Holt	26	238	1	271
	4 - A5156	51	556	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.17	5.32	0.2	A
2 - A534 (East)	0.69	3.82	2.3	A
3 - Stryt Holt	0.70	14.00	2.2	B
4 - A5156	0.39	2.35	0.7	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	842	1033	0.101	103	0.1	4.109	A
2 - A534 (East)	1486	312	3245	0.458	1483	0.9	2.092	A
3 - Stryt Holt	404	1319	1137	0.355	401	0.6	4.928	A
4 - A5156	702	231	2718	0.258	700	0.4	1.890	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1008	964	0.129	124	0.2	4.547	A
2 - A534 (East)	1775	373	3201	0.554	1773	1.3	2.584	A
3 - Stryt Holt	482	1577	1016	0.474	480	0.9	6.772	A
4 - A5156	838	276	2690	0.311	837	0.5	2.059	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1232	871	0.175	152	0.2	5.311	A
2 - A534 (East)	2173	456	3141	0.692	2169	2.3	3.785	A
3 - Stryt Holt	590	1930	851	0.694	585	2.2	13.435	B
4 - A5156	1026	336	2652	0.387	1025	0.7	2.344	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1235	869	0.175	152	0.2	5.322	A
2 - A534 (East)	2173	457	3141	0.692	2173	2.3	3.816	A
3 - Stryt Holt	590	1933	849	0.695	590	2.2	13.998	B
4 - A5156	1026	339	2650	0.387	1026	0.7	2.348	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1012	962	0.129	124	0.2	4.559	A
2 - A534 (East)	1775	374	3200	0.554	1779	1.3	2.603	A
3 - Stryt Holt	482	1582	1013	0.476	487	0.9	6.975	A
4 - A5156	838	280	2688	0.312	839	0.5	2.063	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	846	1031	0.101	104	0.1	4.121	A
2 - A534 (East)	1486	313	3244	0.458	1488	0.9	2.105	A
3 - Stryt Holt	404	1323	1134	0.356	405	0.6	4.993	A
4 - A5156	702	233	2717	0.258	702	0.4	1.895	A

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

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.11	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.11	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	950	100.000
3 - Stryt Holt		✓	707	100.000
4 - A5156		✓	1696	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	231	664
	3 - Stryt Holt	46	366	0	295
	4 - A5156	101	1316	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.36	13.03	0.6	B
2 - A534 (East)	0.33	2.05	0.6	A
3 - Stryt Holt	0.57	6.33	1.4	A
4 - A5156	0.74	5.57	2.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1472	771	0.156	120	0.2	6.181	A
2 - A534 (East)	715	263	3280	0.218	714	0.3	1.715	A
3 - Stryt Holt	532	568	1488	0.358	530	0.6	3.864	A
4 - A5156	1277	350	2643	0.483	1273	1.0	2.727	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1761	651	0.221	143	0.3	7.937	A
2 - A534 (East)	854	315	3242	0.263	854	0.4	1.842	A
3 - Stryt Holt	636	679	1436	0.443	635	0.8	4.625	A
4 - A5156	1525	419	2600	0.586	1523	1.5	3.474	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2154	488	0.361	175	0.6	12.835	B
2 - A534 (East)	1046	385	3192	0.328	1045	0.6	2.050	A
3 - Stryt Holt	778	832	1365	0.570	776	1.3	6.285	A
4 - A5156	1867	513	2541	0.735	1862	2.8	5.475	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2160	485	0.363	176	0.6	13.034	B
2 - A534 (East)	1046	386	3191	0.328	1046	0.6	2.051	A
3 - Stryt Holt	778	832	1364	0.571	778	1.4	6.333	A
4 - A5156	1867	514	2540	0.735	1867	2.9	5.567	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1770	647	0.222	145	0.3	8.047	A
2 - A534 (East)	854	317	3241	0.264	855	0.4	1.847	A
3 - Stryt Holt	636	680	1435	0.443	638	0.8	4.664	A
4 - A5156	1525	421	2599	0.587	1530	1.5	3.524	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1480	768	0.157	121	0.2	6.233	A
2 - A534 (East)	715	265	3278	0.218	716	0.3	1.717	A
3 - Stryt Holt	532	570	1487	0.358	533	0.6	3.893	A
4 - A5156	1277	352	2642	0.483	1279	1.0	2.753	A

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

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.70	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.70	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1906	100.000
3 - Stryt Holt		✓	512	100.000
4 - A5156		✓	965	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	178	1687
	3 - Stryt Holt	24	231	1	256
	4 - A5156	49	609	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.17	5.37	0.2	A
2 - A534 (East)	0.66	3.49	2.0	A
3 - Stryt Holt	0.68	13.39	2.1	B
4 - A5156	0.40	2.40	0.7	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	863	1024	0.097	99	0.1	4.128	A
2 - A534 (East)	1435	295	3257	0.441	1432	0.8	2.023	A
3 - Stryt Holt	385	1340	1127	0.342	383	0.5	4.875	A
4 - A5156	727	222	2724	0.267	725	0.4	1.914	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	1033	953	0.124	119	0.1	4.575	A
2 - A534 (East)	1713	353	3215	0.533	1712	1.2	2.458	A
3 - Stryt Holt	460	1602	1004	0.459	459	0.8	6.654	A
4 - A5156	868	266	2696	0.322	867	0.5	2.091	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1263	858	0.169	145	0.2	5.358	A
2 - A534 (East)	2099	432	3158	0.664	2095	2.0	3.466	A
3 - Stryt Holt	564	1961	836	0.674	559	2.0	12.918	B
4 - A5156	1062	325	2659	0.400	1062	0.7	2.392	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1266	857	0.170	145	0.2	5.369	A
2 - A534 (East)	2099	433	3158	0.665	2098	2.0	3.489	A
3 - Stryt Holt	564	1964	834	0.676	564	2.1	13.389	B
4 - A5156	1062	327	2658	0.400	1062	0.7	2.396	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	1037	952	0.125	119	0.2	4.586	A
2 - A534 (East)	1713	354	3215	0.533	1717	1.2	2.473	A
3 - Stryt Holt	460	1607	1002	0.460	465	0.9	6.829	A
4 - A5156	868	269	2694	0.322	868	0.5	2.095	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	867	1022	0.097	100	0.1	4.139	A
2 - A534 (East)	1435	296	3256	0.441	1436	0.8	2.033	A
3 - Stryt Holt	385	1344	1125	0.343	387	0.5	4.934	A
4 - A5156	727	224	2723	0.267	727	0.4	1.916	A

2037 Base + Committed + Development (Phase 1&2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.87	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2037 Base + Committed + Development (Phase 1&2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	1098	100.000
3 - Stryt Holt		✓	766	100.000
4 - A5156		✓	1927	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	239	801
	3 - Stryt Holt	48	406	0	312
	4 - A5156	106	1525	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.51	22.59	1.1	C
2 - A534 (East)	0.38	2.25	0.8	A
3 - Stryt Holt	0.65	8.28	1.9	A
4 - A5156	0.85	9.61	5.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1671	688	0.185	126	0.3	7.157	A
2 - A534 (East)	827	279	3268	0.253	825	0.4	1.811	A
3 - Stryt Holt	577	675	1438	0.401	574	0.7	4.279	A
4 - A5156	1451	384	2622	0.553	1446	1.3	3.173	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1999	552	0.275	151	0.4	10.037	B
2 - A534 (East)	987	334	3229	0.306	987	0.5	1.973	A
3 - Stryt Holt	689	807	1376	0.500	687	1.0	5.373	A
4 - A5156	1732	459	2575	0.673	1729	2.1	4.414	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2439	369	0.504	183	1.1	21.374	C
2 - A534 (East)	1209	406	3177	0.381	1208	0.8	2.247	A
3 - Stryt Holt	843	987	1292	0.653	840	1.9	8.149	A
4 - A5156	2122	562	2510	0.845	2109	5.3	9.053	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2452	364	0.511	186	1.1	22.585	C
2 - A534 (East)	1209	409	3175	0.381	1209	0.8	2.251	A
3 - Stryt Holt	843	989	1291	0.653	843	1.9	8.280	A
4 - A5156	2122	564	2509	0.846	2121	5.5	9.610	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	2017	545	0.279	155	0.4	10.410	B
2 - A534 (East)	987	338	3226	0.306	988	0.5	1.978	A
3 - Stryt Holt	689	809	1375	0.501	692	1.0	5.456	A
4 - A5156	1732	462	2573	0.673	1746	2.2	4.601	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1681	684	0.186	128	0.3	7.256	A
2 - A534 (East)	827	281	3267	0.253	827	0.4	1.816	A
3 - Stryt Holt	577	677	1437	0.401	578	0.7	4.327	A
4 - A5156	1451	386	2621	0.554	1454	1.3	3.224	A

2037 Base + Committed + Development (Phase 1&2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2037 Base + Committed + Development (Phase 1&2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	2231	100.000
3 - Stryt Holt		✓	555	100.000
4 - A5156		✓	1130	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	277	1911
	3 - Stryt Holt	26	257	1	271
	4 - A5156	51	754	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.20	6.17	0.3	A
2 - A534 (East)	0.78	5.39	3.6	A
3 - Stryt Holt	0.85	32.59	5.2	D
4 - A5156	0.47	2.75	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	1005	965	0.108	103	0.1	4.429	A
2 - A534 (East)	1680	312	3245	0.518	1675	1.1	2.346	A
3 - Stryt Holt	418	1511	1046	0.399	415	0.7	5.733	A
4 - A5156	851	245	2710	0.314	849	0.5	2.058	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1202	883	0.140	124	0.2	5.028	A
2 - A534 (East)	2006	373	3201	0.627	2003	1.7	3.077	A
3 - Stryt Holt	499	1807	908	0.550	497	1.2	8.795	A
4 - A5156	1016	293	2679	0.379	1015	0.6	2.302	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1467	773	0.197	152	0.3	6.141	A
2 - A534 (East)	2456	456	3141	0.782	2449	3.6	5.281	A
3 - Stryt Holt	611	2210	720	0.849	597	4.7	27.103	D
4 - A5156	1244	353	2642	0.471	1243	0.9	2.738	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1473	770	0.197	152	0.3	6.173	A
2 - A534 (East)	2456	457	3141	0.782	2456	3.6	5.394	A
3 - Stryt Holt	611	2216	716	0.853	609	5.2	32.592	D
4 - A5156	1244	359	2638	0.472	1244	0.9	2.750	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1212	879	0.141	124	0.2	5.065	A
2 - A534 (East)	2006	374	3200	0.627	2013	1.7	3.130	A
3 - Stryt Holt	499	1816	904	0.552	515	1.3	9.707	A
4 - A5156	1016	302	2674	0.380	1017	0.7	2.315	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	1010	963	0.108	104	0.1	4.448	A
2 - A534 (East)	1680	313	3244	0.518	1682	1.1	2.368	A
3 - Stryt Holt	418	1518	1043	0.400	420	0.7	5.854	A
4 - A5156	851	247	2708	0.314	851	0.5	2.065	A

**Appendix TN10 - A534 / A5156 / Stryt Holt Roundabout KSS2
Roundabout ARCADY**

Junctions 10		
ARCADY 10 - Roundabout Module		
Version: 10.0.1.1519		
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Filename: A5156, A534, KSS2 Access ARCADY.j10

Path: D:\Cora IHT\Wrexham (2)\September 2025

Report generation date: 13/11/2025 14:38:49

-
- »2030 Base + Committed, AM
 - »2030 Base + Committed, PM
 - »2037 Base + Committed, AM
 - »2037 Base + Committed, PM
 - »2030 Base + Committed + Development (Phase 1), AM
 - »2030 Base + Committed + Development (Phase 1), PM
 - »2037 Base + Committed + Development (Phase 1), AM
 - »2037 Base + Committed + Development (Phase 1), PM
 - »2030 Base + Committed + Development (Phase 1 + 2), AM
 - »2030 Base + Committed + Development (Phase 1 + 2), PM
 - »2037 Base + Committed + Development (Phase 1 + 2), AM
 - »2037 Base + Committed + Development (Phase 1 + 2), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2030 Base + Committed									
1 - A5156	D1	1.2	2.32	0.53	A	D2	0.5	1.60	0.33	A
2 - Shell / Golf Club Access		0.9	18.07	0.44	C		0.3	6.81	0.21	A
3 - A534 (East)		0.5	1.59	0.28	A		1.8	2.85	0.63	A
4 - Holt Spine Road / KSS2 Access		1.5	8.12	0.60	A		1.2	13.14	0.54	B
5 - Stryt Holt		2.5	10.75	0.72	B		19.4	87.03	1.00	F
	2037 Base + Committed									
1 - A5156	D3	1.3	2.50	0.56	A	D4	0.5	1.62	0.34	A
2 - Shell / Golf Club Access		1.2	24.43	0.54	C		0.3	7.04	0.23	A
3 - A534 (East)		0.5	1.63	0.29	A		2.0	3.13	0.66	A
4 - Holt Spine Road / KSS2 Access		1.7	8.82	0.62	A		1.5	16.87	0.61	C
5 - Stryt Holt		3.2	13.06	0.76	B		47.0	183.03	1.10	F
	2030 Base + Committed + Development (Phase 1)									
1 - A5156	D5	1.4	2.57	0.57	A	D6	0.6	1.65	0.35	A
2 - Shell / Golf Club Access		1.2	25.94	0.54	D		0.3	7.17	0.22	A
3 - A534 (East)		0.5	1.64	0.30	A		2.1	3.18	0.67	A
4 - Holt Spine Road / KSS2 Access		1.7	8.85	0.62	A		1.6	17.40	0.61	C
5 - Stryt Holt		3.1	12.76	0.75	B		42.1	170.31	1.09	F
	2037 Base + Committed + Development (Phase 1)									
1 - A5156	D7	1.6	2.79	0.60	A	D8	0.6	1.67	0.36	A
2 - Shell / Golf Club Access		2.0	40.85	0.66	E		0.3	7.37	0.23	A
3 - A534 (East)		0.5	1.69	0.31	A		2.4	3.52	0.70	A
4 - Holt Spine Road / KSS2 Access		1.8	9.65	0.64	A		2.2	24.70	0.69	C
5 - Stryt Holt		4.0	16.02	0.80	C		77.9	302.74	1.21	F
	2030 Base + Committed + Development (Phase 1 + 2)									
1 - A5156	D9	1.7	2.93	0.62	A	D10	0.7	1.73	0.39	A
2 - Shell / Golf Club Access		2.3	50.29	0.70	F		0.3	7.76	0.24	A
3 - A534 (East)		0.6	1.74	0.33	A		2.6	3.67	0.72	A
4 - Holt Spine Road / KSS2 Access		1.9	10.33	0.66	B		2.5	28.25	0.72	D
5 - Stryt Holt		4.2	17.32	0.81	C		81.0	323.50	1.23	F
	2037 Base + Committed + Development (Phase 1 + 2)									
1 - A5156	D11	2.0	3.22	0.65	A	D12	0.7	1.75	0.40	A
2 - Shell / Golf Club Access		6.0	120.28	0.91	F		0.3	7.98	0.25	A
3 - A534 (East)		0.6	1.79	0.35	A		3.0	4.14	0.75	A
4 - Holt Spine Road / KSS2 Access		2.2	11.44	0.68	B		4.4	51.89	0.84	F
5 - Stryt Holt		5.9	23.60	0.86	C		120.1	486.78	1.37	F

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	A534 / A5156 / Golf Access / KSS2 Access
Location	Wrexham
Site number	
Date	31/01/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGB\mchau
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D2	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D3	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D5	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D6	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D7	2037 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D8	2037 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D9	2030 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D10	2030 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D11	2037 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D12	2037 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2030 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.23	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A5156		
2	Shell / Golf Club Access		
3	A534 (East)		
4	Holt Spine Road / KSS2 Access		
5	Stryt Holt		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A5156	12.00	13.50	9.1	32.0	89.3	26.6		
2 - Shell / Golf Club Access	3.40	5.60	6.9	20.0	89.3	25.3		
3 - A534 (East)	12.00	13.90	17.2	41.6	89.3	25.2		
4 - Holt Spine Road / KSS2 Access	3.50	7.50	18.4	24.0	89.3	32.0		
5 - Stryt Holt	3.60	7.10	16.7	24.2	89.3	27.7		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A5156	0.798	4052
2 - Shell / Golf Club Access	0.415	1382
3 - A534 (East)	0.826	4232
4 - Holt Spine Road / KSS2 Access	0.468	1777
5 - Stryt Holt	0.468	1754

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

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1643	100.000
2 - Shell / Golf Club Access		✓	160	100.000
3 - A534 (East)		✓	941	100.000
4 - Holt Spine Road / KSS2 Access		✓	626	100.000
5 - Stryt Holt		✓	786	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	101	1187	76	279
	2 - Shell / Golf Club Access	37	0	88	0	35
	3 - A534 (East)	596	54	1	64	226
	4 - Holt Spine Road / KSS2 Access	201	0	169	0	256
	5 - Stryt Holt	295	46	348	97	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	6	4	2	4
	2 - Shell / Golf Club Access	25	0	8	0	4
	3 - A534 (East)	29	30	0	1	5
	4 - Holt Spine Road / KSS2 Access	8	0	1	0	0
	5 - Stryt Holt	5	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.53	2.32	1.2	A
2 - Shell / Golf Club Access	0.44	18.07	0.9	C
3 - A534 (East)	0.28	1.59	0.5	A
4 - Holt Spine Road / KSS2 Access	0.60	8.12	1.5	A
5 - Stryt Holt	0.72	10.75	2.5	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1237	536	3625	0.341	1235	0.5	1.565	A
2 - Shell / Golf Club Access	120	1620	710	0.170	120	0.2	6.734	A
3 - A534 (East)	708	393	3907	0.181	707	0.3	1.351	A
4 - Holt Spine Road / KSS2 Access	471	923	1345	0.350	469	0.5	4.210	A
5 - Stryt Holt	592	794	1382	0.428	589	0.8	4.643	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1477	641	3540	0.417	1476	0.7	1.814	A
2 - Shell / Golf Club Access	144	1937	578	0.249	143	0.4	9.145	A
3 - A534 (East)	846	470	3844	0.220	846	0.3	1.442	A
4 - Holt Spine Road / KSS2 Access	563	1103	1261	0.446	562	0.8	5.282	A
5 - Stryt Holt	707	950	1309	0.540	705	1.2	6.103	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1809	783	3427	0.528	1807	1.2	2.310	A
2 - Shell / Golf Club Access	176	2370	398	0.442	174	0.8	17.617	C
3 - A534 (East)	1036	575	3757	0.276	1036	0.5	1.588	A
4 - Holt Spine Road / KSS2 Access	689	1350	1145	0.602	686	1.5	8.012	A
5 - Stryt Holt	865	1162	1210	0.715	860	2.5	10.427	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1809	787	3424	0.528	1809	1.2	2.318	A
2 - Shell / Golf Club Access	176	2375	396	0.445	176	0.9	18.070	C
3 - A534 (East)	1036	577	3756	0.276	1036	0.5	1.589	A
4 - Holt Spine Road / KSS2 Access	689	1352	1144	0.602	689	1.5	8.119	A
5 - Stryt Holt	865	1165	1209	0.716	865	2.5	10.749	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1477	647	3536	0.418	1479	0.7	1.823	A
2 - Shell / Golf Club Access	144	1944	575	0.250	146	0.4	9.317	A
3 - A534 (East)	846	473	3842	0.220	846	0.3	1.446	A
4 - Holt Spine Road / KSS2 Access	563	1106	1260	0.447	566	0.8	5.349	A
5 - Stryt Holt	707	954	1308	0.540	712	1.2	6.260	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1237	540	3622	0.342	1238	0.5	1.573	A
2 - Shell / Golf Club Access	120	1626	707	0.170	121	0.2	6.799	A
3 - A534 (East)	708	395	3906	0.181	709	0.3	1.354	A
4 - Holt Spine Road / KSS2 Access	471	925	1344	0.351	472	0.6	4.248	A
5 - Stryt Holt	592	798	1381	0.429	594	0.8	4.708	A

2030 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	17.85	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.85	C

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1062	100.000
2 - Shell / Golf Club Access		✓	132	100.000
3 - A534 (East)		✓	2021	100.000
4 - Holt Spine Road / KSS2 Access		✓	301	100.000
5 - Stryt Holt		✓	729	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	49	530	176	307
	2 - Shell / Golf Club Access	56	0	47	0	29
	3 - A534 (East)	1569	39	2	148	263
	4 - Holt Spine Road / KSS2 Access	97	0	81	0	123
	5 - Stryt Holt	256	24	225	223	1

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
1 - A5156		0	15	9	3	0
2 - Shell / Golf Club Access		2	0	2	0	0
3 - A534 (East)		3	3	0	0	0
4 - Holt Spine Road / KSS2 Access		4	0	1	0	0
5 - Stryt Holt		1	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.33	1.60	0.5	A
2 - Shell / Golf Club Access	0.21	6.81	0.3	A
3 - A534 (East)	0.63	2.85	1.8	A
4 - Holt Spine Road / KSS2 Access	0.54	13.14	1.2	B
5 - Stryt Holt	1.00	87.03	19.4	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	800	445	3697	0.216	798	0.3	1.310	A
2 - Shell / Golf Club Access	99	1159	901	0.110	99	0.1	4.555	A
3 - A534 (East)	1522	594	3741	0.407	1519	0.7	1.656	A
4 - Holt Spine Road / KSS2 Access	227	1703	980	0.231	225	0.3	4.834	A
5 - Stryt Holt	549	1385	1106	0.496	545	1.0	6.419	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	955	532	3628	0.263	954	0.4	1.420	A
2 - Shell / Golf Club Access	119	1386	807	0.147	118	0.2	5.310	A
3 - A534 (East)	1817	710	3645	0.498	1816	1.0	2.013	A
4 - Holt Spine Road / KSS2 Access	271	2036	824	0.328	270	0.5	6.584	A
5 - Stryt Holt	655	1656	979	0.670	651	2.0	10.941	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1169	624	3554	0.329	1169	0.5	1.591	A
2 - Shell / Golf Club Access	145	1671	688	0.211	145	0.3	6.724	A
3 - A534 (East)	2225	857	3524	0.631	2222	1.7	2.825	A
4 - Holt Spine Road / KSS2 Access	331	2492	611	0.543	329	1.2	12.836	B
5 - Stryt Holt	803	2026	805	0.997	756	13.6	51.262	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1169	640	3541	0.330	1169	0.5	1.600	A
2 - Shell / Golf Club Access	145	1687	682	0.213	145	0.3	6.813	A
3 - A534 (East)	2225	865	3518	0.633	2225	1.8	2.850	A
4 - Holt Spine Road / KSS2 Access	331	2495	609	0.544	331	1.2	13.136	B
5 - Stryt Holt	803	2030	804	0.999	780	19.4	87.031	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	955	580	3589	0.266	955	0.4	1.443	A
2 - Shell / Golf Club Access	119	1433	787	0.151	119	0.2	5.472	A
3 - A534 (East)	1817	734	3626	0.501	1820	1.0	2.043	A
4 - Holt Spine Road / KSS2 Access	271	2040	822	0.329	273	0.5	6.694	A
5 - Stryt Holt	655	1662	976	0.671	724	2.2	18.349	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	800	451	3692	0.217	800	0.3	1.312	A
2 - Shell / Golf Club Access	99	1167	898	0.111	100	0.1	4.580	A
3 - A534 (East)	1522	598	3738	0.407	1523	0.7	1.663	A
4 - Holt Spine Road / KSS2 Access	227	1707	978	0.232	227	0.3	4.874	A
5 - Stryt Holt	549	1390	1103	0.497	553	1.0	6.644	A

2037 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.09	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1728	100.000
2 - Shell / Golf Club Access		✓	171	100.000
3 - A534 (East)		✓	988	100.000
4 - Holt Spine Road / KSS2 Access		✓	626	100.000
5 - Stryt Holt		✓	825	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	106	1250	76	296
	2 - Shell / Golf Club Access	39	0	93	0	39
	3 - A534 (East)	627	57	1	64	239
	4 - Holt Spine Road / KSS2 Access	201	0	169	0	256
	5 - Stryt Holt	312	48	368	97	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	6	4	2	4
	2 - Shell / Golf Club Access	25	0	8	0	4
	3 - A534 (East)	29	30	0	1	5
	4 - Holt Spine Road / KSS2 Access	8	0	1	0	0
	5 - Stryt Holt	5	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.56	2.50	1.3	A
2 - Shell / Golf Club Access	0.54	24.43	1.2	C
3 - A534 (East)	0.29	1.63	0.5	A
4 - Holt Spine Road / KSS2 Access	0.62	8.82	1.7	A
5 - Stryt Holt	0.76	13.06	3.2	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1301	554	3610	0.360	1299	0.6	1.618	A
2 - Shell / Golf Club Access	129	1694	679	0.190	128	0.3	7.205	A
3 - A534 (East)	744	410	3893	0.191	743	0.3	1.373	A
4 - Holt Spine Road / KSS2 Access	471	975	1321	0.357	469	0.6	4.330	A
5 - Stryt Holt	621	821	1370	0.454	618	0.8	4.899	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1553	664	3523	0.441	1553	0.8	1.900	A
2 - Shell / Golf Club Access	154	2027	541	0.284	153	0.4	10.240	B
3 - A534 (East)	888	491	3827	0.232	888	0.4	1.472	A
4 - Holt Spine Road / KSS2 Access	563	1166	1231	0.457	562	0.9	5.512	A
5 - Stryt Holt	742	982	1294	0.573	740	1.4	6.645	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1903	809	3406	0.559	1901	1.3	2.484	A
2 - Shell / Golf Club Access	188	2478	353	0.533	185	1.2	23.283	C
3 - A534 (East)	1088	600	3737	0.291	1087	0.5	1.632	A
4 - Holt Spine Road / KSS2 Access	689	1427	1109	0.621	686	1.6	8.672	A
5 - Stryt Holt	908	1202	1191	0.762	901	3.1	12.454	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1903	814	3402	0.559	1903	1.3	2.496	A
2 - Shell / Golf Club Access	188	2485	350	0.537	188	1.2	24.431	C
3 - A534 (East)	1088	602	3735	0.291	1088	0.5	1.634	A
4 - Holt Spine Road / KSS2 Access	689	1429	1108	0.622	689	1.7	8.815	A
5 - Stryt Holt	908	1204	1190	0.763	908	3.2	13.064	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1553	671	3517	0.442	1555	0.8	1.912	A
2 - Shell / Golf Club Access	154	2036	537	0.286	157	0.5	10.549	B
3 - A534 (East)	888	494	3824	0.232	889	0.4	1.474	A
4 - Holt Spine Road / KSS2 Access	563	1169	1230	0.458	566	0.9	5.593	A
5 - Stryt Holt	742	986	1292	0.574	749	1.4	6.897	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1301	559	3606	0.361	1302	0.6	1.627	A
2 - Shell / Golf Club Access	129	1702	676	0.191	129	0.3	7.289	A
3 - A534 (East)	744	413	3891	0.191	744	0.3	1.374	A
4 - Holt Spine Road / KSS2 Access	471	978	1320	0.357	472	0.6	4.371	A
5 - Stryt Holt	621	825	1368	0.454	623	0.9	4.981	A

2037 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	34.67	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	34.67	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1106	100.000
2 - Shell / Golf Club Access		✓	138	100.000
3 - A534 (East)		✓	2120	100.000
4 - Holt Spine Road / KSS2 Access		✓	301	100.000
5 - Stryt Holt		✓	759	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	51	555	176	324
	2 - Shell / Golf Club Access	59	0	49	0	30
	3 - A534 (East)	1652	41	2	148	277
	4 - Holt Spine Road / KSS2 Access	97	0	81	0	123
	5 - Stryt Holt	271	26	238	223	1

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	15	9	3	0
	2 - Shell / Golf Club Access	2	0	2	0	0
	3 - A534 (East)	3	3	0	0	0
	4 - Holt Spine Road / KSS2 Access	4	0	1	0	0
	5 - Stryt Holt	1	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.34	1.62	0.5	A
2 - Shell / Golf Club Access	0.23	7.04	0.3	A
3 - A534 (East)	0.66	3.13	2.0	A
4 - Holt Spine Road / KSS2 Access	0.61	16.87	1.5	C
5 - Stryt Holt	1.10	183.03	47.0	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	833	457	3687	0.226	831	0.3	1.329	A
2 - Shell / Golf Club Access	104	1200	884	0.118	103	0.1	4.681	A
3 - A534 (East)	1596	610	3728	0.428	1593	0.8	1.724	A
4 - Holt Spine Road / KSS2 Access	227	1793	938	0.242	225	0.3	5.118	A
5 - Stryt Holt	571	1451	1075	0.532	567	1.1	7.076	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	994	546	3616	0.275	994	0.4	1.447	A
2 - Shell / Golf Club Access	124	1434	787	0.158	124	0.2	5.515	A
3 - A534 (East)	1906	729	3630	0.525	1904	1.1	2.133	A
4 - Holt Spine Road / KSS2 Access	271	2143	774	0.350	270	0.5	7.238	A
5 - Stryt Holt	682	1735	942	0.725	677	2.5	13.403	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1218	611	3565	0.342	1217	0.5	1.617	A
2 - Shell / Golf Club Access	152	1701	676	0.225	152	0.3	6.968	A
3 - A534 (East)	2334	866	3517	0.664	2331	2.0	3.098	A
4 - Holt Spine Road / KSS2 Access	331	2623	549	0.603	328	1.5	16.230	C
5 - Stryt Holt	836	2122	761	1.099	739	26.6	86.057	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1218	621	3556	0.342	1218	0.5	1.623	A
2 - Shell / Golf Club Access	152	1712	671	0.226	152	0.3	7.038	A
3 - A534 (East)	2334	871	3513	0.664	2334	2.0	3.126	A
4 - Holt Spine Road / KSS2 Access	331	2627	548	0.605	331	1.5	16.867	C
5 - Stryt Holt	836	2127	758	1.102	754	47.0	183.034	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	994	664	3522	0.282	995	0.4	1.504	A
2 - Shell / Golf Club Access	124	1547	740	0.168	124	0.2	5.942	A
3 - A534 (East)	1906	783	3585	0.532	1909	1.2	2.203	A
4 - Holt Spine Road / KSS2 Access	271	2149	771	0.351	274	0.6	7.412	A
5 - Stryt Holt	682	1742	938	0.727	858	3.1	82.317	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	833	466	3680	0.226	833	0.3	1.335	A
2 - Shell / Golf Club Access	104	1210	880	0.118	104	0.1	4.714	A
3 - A534 (East)	1596	615	3724	0.429	1598	0.8	1.733	A
4 - Holt Spine Road / KSS2 Access	227	1798	936	0.242	228	0.3	5.170	A
5 - Stryt Holt	571	1456	1072	0.533	579	1.2	7.458	A

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

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.98	A

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1772	100.000
2 - Shell / Golf Club Access		✓	160	100.000
3 - A534 (East)		✓	1014	100.000
4 - Holt Spine Road / KSS2 Access		✓	626	100.000
5 - Stryt Holt		✓	804	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	101	1316	76	279
	2 - Shell / Golf Club Access	37	0	88	0	35
	3 - A534 (East)	664	54	1	64	231
	4 - Holt Spine Road / KSS2 Access	201	0	169	0	256
	5 - Stryt Holt	295	46	366	97	0

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
1 - A5156		0	6	4	2	4
2 - Shell / Golf Club Access		25	0	8	0	4
3 - A534 (East)		29	30	0	1	5
4 - Holt Spine Road / KSS2 Access		8	0	1	0	0
5 - Stryt Holt		5	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.57	2.57	1.4	A
2 - Shell / Golf Club Access	0.54	25.94	1.2	D
3 - A534 (East)	0.30	1.64	0.5	A
4 - Holt Spine Road / KSS2 Access	0.62	8.85	1.7	A
5 - Stryt Holt	0.75	12.76	3.1	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1334	549	3614	0.369	1332	0.6	1.639	A
2 - Shell / Golf Club Access	120	1730	664	0.181	119	0.2	7.295	A
3 - A534 (East)	763	393	3907	0.195	762	0.3	1.380	A
4 - Holt Spine Road / KSS2 Access	471	978	1320	0.357	469	0.6	4.335	A
5 - Stryt Holt	605	845	1358	0.446	602	0.8	4.870	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1593	657	3528	0.452	1592	0.9	1.933	A
2 - Shell / Golf Club Access	144	2069	523	0.275	143	0.4	10.454	B
3 - A534 (East)	912	470	3844	0.237	911	0.4	1.480	A
4 - Holt Spine Road / KSS2 Access	563	1169	1230	0.457	562	0.9	5.522	A
5 - Stryt Holt	723	1011	1281	0.564	721	1.3	6.581	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1951	802	3412	0.572	1949	1.4	2.556	A
2 - Shell / Golf Club Access	176	2530	332	0.531	173	1.2	24.650	C
3 - A534 (East)	1116	574	3758	0.297	1116	0.5	1.643	A
4 - Holt Spine Road / KSS2 Access	689	1430	1108	0.622	686	1.7	8.703	A
5 - Stryt Holt	885	1237	1175	0.753	879	3.0	12.206	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1951	807	3408	0.572	1951	1.4	2.568	A
2 - Shell / Golf Club Access	176	2537	329	0.536	176	1.2	25.943	D
3 - A534 (East)	1116	577	3756	0.297	1116	0.5	1.644	A
4 - Holt Spine Road / KSS2 Access	689	1432	1107	0.623	689	1.7	8.848	A
5 - Stryt Holt	885	1240	1174	0.754	885	3.1	12.764	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1593	664	3522	0.452	1595	0.9	1.945	A
2 - Shell / Golf Club Access	144	2078	519	0.277	147	0.4	10.779	B
3 - A534 (East)	912	474	3841	0.237	912	0.4	1.482	A
4 - Holt Spine Road / KSS2 Access	563	1172	1229	0.458	566	0.9	5.606	A
5 - Stryt Holt	723	1015	1279	0.565	730	1.4	6.814	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1334	554	3611	0.369	1335	0.6	1.648	A
2 - Shell / Golf Club Access	120	1737	661	0.182	121	0.2	7.384	A
3 - A534 (East)	763	395	3906	0.195	764	0.3	1.381	A
4 - Holt Spine Road / KSS2 Access	471	980	1318	0.357	472	0.6	4.378	A
5 - Stryt Holt	605	849	1357	0.446	607	0.8	4.950	A

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

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	31.39	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	31.39	D

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1141	100.000
2 - Shell / Golf Club Access		✓	132	100.000
3 - A534 (East)		✓	2154	100.000
4 - Holt Spine Road / KSS2 Access		✓	301	100.000
5 - Stryt Holt		✓	735	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	49	609	176	307
	2 - Shell / Golf Club Access	56	0	47	0	29
	3 - A534 (East)	1687	39	2	148	278
	4 - Holt Spine Road / KSS2 Access	97	0	81	0	123
	5 - Stryt Holt	256	24	231	223	1

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
1 - A5156		0	15	9	3	0
2 - Shell / Golf Club Access		2	0	2	0	0
3 - A534 (East)		3	3	0	0	0
4 - Holt Spine Road / KSS2 Access		4	0	1	0	0
5 - Stryt Holt		1	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.35	1.65	0.6	A
2 - Shell / Golf Club Access	0.22	7.17	0.3	A
3 - A534 (East)	0.67	3.18	2.1	A
4 - Holt Spine Road / KSS2 Access	0.61	17.40	1.6	C
5 - Stryt Holt	1.09	170.31	42.1	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	859	449	3694	0.233	858	0.3	1.342	A
2 - Shell / Golf Club Access	99	1223	874	0.114	99	0.1	4.710	A
3 - A534 (East)	1622	594	3741	0.433	1619	0.8	1.735	A
4 - Holt Spine Road / KSS2 Access	227	1803	933	0.243	225	0.3	5.152	A
5 - Stryt Holt	553	1474	1064	0.520	549	1.1	6.980	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1026	537	3624	0.283	1025	0.4	1.464	A
2 - Shell / Golf Club Access	119	1462	775	0.153	118	0.2	5.564	A
3 - A534 (East)	1936	710	3646	0.531	1935	1.2	2.152	A
4 - Holt Spine Road / KSS2 Access	271	2155	768	0.352	270	0.5	7.314	A
5 - Stryt Holt	661	1762	929	0.711	656	2.4	13.009	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1256	604	3571	0.352	1256	0.6	1.643	A
2 - Shell / Golf Club Access	145	1739	660	0.220	145	0.3	7.089	A
3 - A534 (East)	2372	845	3534	0.671	2368	2.1	3.140	A
4 - Holt Spine Road / KSS2 Access	331	2637	543	0.611	328	1.5	16.702	C
5 - Stryt Holt	809	2155	745	1.086	722	24.2	81.751	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1256	615	3561	0.353	1256	0.6	1.650	A
2 - Shell / Golf Club Access	145	1750	655	0.222	145	0.3	7.166	A
3 - A534 (East)	2372	850	3530	0.672	2372	2.1	3.181	A
4 - Holt Spine Road / KSS2 Access	331	2641	541	0.613	331	1.6	17.402	C
5 - Stryt Holt	809	2160	743	1.090	738	42.1	170.306	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1026	644	3538	0.290	1026	0.4	1.517	A
2 - Shell / Golf Club Access	119	1564	733	0.162	119	0.2	5.962	A
3 - A534 (East)	1936	760	3604	0.537	1940	1.2	2.220	A
4 - Holt Spine Road / KSS2 Access	271	2161	766	0.353	275	0.6	7.498	A
5 - Stryt Holt	661	1769	926	0.714	818	2.8	65.608	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	859	457	3687	0.233	859	0.3	1.347	A
2 - Shell / Golf Club Access	99	1232	871	0.114	100	0.1	4.742	A
3 - A534 (East)	1622	599	3738	0.434	1623	0.8	1.746	A
4 - Holt Spine Road / KSS2 Access	227	1808	931	0.243	228	0.3	5.202	A
5 - Stryt Holt	553	1479	1062	0.521	560	1.1	7.321	A

2037 Base + Committed + Development (Phase 1), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	7.35	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.35	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2037 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1857	100.000
2 - Shell / Golf Club Access		✓	171	100.000
3 - A534 (East)		✓	1059	100.000
4 - Holt Spine Road / KSS2 Access		✓	626	100.000
5 - Stryt Holt		✓	842	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	106	1379	76	296
	2 - Shell / Golf Club Access	39	0	93	0	39
	3 - A534 (East)	694	57	1	64	243
	4 - Holt Spine Road / KSS2 Access	201	0	169	0	256
	5 - Stryt Holt	312	48	385	97	0

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
1 - A5156		0	6	4	2	4
2 - Shell / Golf Club Access		25	0	8	0	4
3 - A534 (East)		29	30	0	1	5
4 - Holt Spine Road / KSS2 Access		8	0	1	0	0
5 - Stryt Holt		5	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.60	2.79	1.6	A
2 - Shell / Golf Club Access	0.66	40.85	2.0	E
3 - A534 (East)	0.31	1.69	0.5	A
4 - Holt Spine Road / KSS2 Access	0.64	9.65	1.8	A
5 - Stryt Holt	0.80	16.02	4.0	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1398	567	3600	0.388	1395	0.7	1.697	A
2 - Shell / Golf Club Access	129	1804	633	0.203	128	0.3	7.848	A
3 - A534 (East)	797	410	3893	0.205	796	0.3	1.402	A
4 - Holt Spine Road / KSS2 Access	471	1029	1296	0.364	469	0.6	4.459	A
5 - Stryt Holt	634	872	1346	0.471	630	0.9	5.142	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1669	679	3511	0.476	1668	0.9	2.032	A
2 - Shell / Golf Club Access	154	2157	486	0.316	153	0.5	11.891	B
3 - A534 (East)	952	491	3827	0.249	952	0.4	1.510	A
4 - Holt Spine Road / KSS2 Access	563	1230	1202	0.468	562	0.9	5.764	A
5 - Stryt Holt	757	1043	1266	0.598	755	1.5	7.200	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	2045	827	3393	0.603	2042	1.6	2.768	A
2 - Shell / Golf Club Access	188	2637	287	0.656	183	1.9	36.397	E
3 - A534 (East)	1166	598	3738	0.312	1165	0.5	1.688	A
4 - Holt Spine Road / KSS2 Access	689	1504	1073	0.642	686	1.8	9.452	A
5 - Stryt Holt	927	1274	1157	0.801	918	3.8	14.892	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	2045	833	3388	0.604	2045	1.6	2.788	A
2 - Shell / Golf Club Access	188	2645	284	0.664	188	2.0	40.851	E
3 - A534 (East)	1166	602	3735	0.312	1166	0.5	1.690	A
4 - Holt Spine Road / KSS2 Access	689	1507	1072	0.643	689	1.8	9.655	A
5 - Stryt Holt	927	1278	1156	0.802	926	4.0	16.015	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1669	688	3504	0.476	1672	1.0	2.048	A
2 - Shell / Golf Club Access	154	2169	481	0.319	160	0.5	12.576	B
3 - A534 (East)	952	496	3822	0.249	953	0.4	1.515	A
4 - Holt Spine Road / KSS2 Access	563	1234	1199	0.469	566	0.9	5.875	A
5 - Stryt Holt	757	1048	1264	0.599	767	1.6	7.584	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1398	572	3596	0.389	1399	0.7	1.704	A
2 - Shell / Golf Club Access	129	1812	630	0.204	130	0.3	7.967	A
3 - A534 (East)	797	413	3891	0.205	798	0.3	1.403	A
4 - Holt Spine Road / KSS2 Access	471	1032	1294	0.364	473	0.6	4.508	A
5 - Stryt Holt	634	875	1344	0.472	636	0.9	5.245	A

2037 Base + Committed + Development (Phase 1), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	53.81	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	53.81	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2037 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1187	100.000
2 - Shell / Golf Club Access		✓	138	100.000
3 - A534 (East)		✓	2255	100.000
4 - Holt Spine Road / KSS2 Access		✓	301	100.000
5 - Stryt Holt		✓	765	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	51	636	176	324
	2 - Shell / Golf Club Access	59	0	49	0	30
	3 - A534 (East)	1771	41	2	148	293
	4 - Holt Spine Road / KSS2 Access	97	0	81	0	123
	5 - Stryt Holt	271	26	244	223	1

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	15	9	3	0
	2 - Shell / Golf Club Access	2	0	2	0	0
	3 - A534 (East)	3	3	0	0	0
	4 - Holt Spine Road / KSS2 Access	4	0	1	0	0
	5 - Stryt Holt	1	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.36	1.67	0.6	A
2 - Shell / Golf Club Access	0.23	7.37	0.3	A
3 - A534 (East)	0.70	3.52	2.4	A
4 - Holt Spine Road / KSS2 Access	0.69	24.70	2.2	C
5 - Stryt Holt	1.21	302.74	77.9	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	894	462	3684	0.243	892	0.3	1.363	A
2 - Shell / Golf Club Access	104	1265	857	0.121	103	0.1	4.849	A
3 - A534 (East)	1698	610	3729	0.455	1694	0.9	1.808	A
4 - Holt Spine Road / KSS2 Access	227	1894	891	0.254	225	0.3	5.482	A
5 - Stryt Holt	576	1540	1033	0.558	571	1.2	7.765	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1067	550	3613	0.295	1067	0.4	1.494	A
2 - Shell / Golf Club Access	124	1511	755	0.164	124	0.2	5.794	A
3 - A534 (East)	2027	728	3631	0.558	2025	1.3	2.295	A
4 - Holt Spine Road / KSS2 Access	271	2264	717	0.377	270	0.6	8.145	A
5 - Stryt Holt	688	1842	892	0.771	680	3.1	16.558	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1307	580	3589	0.364	1306	0.6	1.666	A
2 - Shell / Golf Club Access	152	1762	651	0.234	152	0.3	7.318	A
3 - A534 (East)	2483	850	3530	0.703	2478	2.4	3.491	A
4 - Holt Spine Road / KSS2 Access	331	2771	480	0.690	325	2.1	22.833	C
5 - Stryt Holt	842	2251	700	1.203	690	41.3	130.601	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1307	586	3585	0.365	1307	0.6	1.670	A
2 - Shell / Golf Club Access	152	1768	648	0.234	152	0.3	7.366	A
3 - A534 (East)	2483	852	3528	0.704	2483	2.4	3.525	A
4 - Holt Spine Road / KSS2 Access	331	2775	478	0.693	331	2.2	24.703	C
5 - Stryt Holt	842	2258	697	1.209	696	77.9	302.741	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1067	679	3510	0.304	1068	0.5	1.560	A
2 - Shell / Golf Club Access	124	1634	704	0.176	124	0.2	6.316	A
3 - A534 (East)	2027	786	3583	0.566	2031	1.3	2.382	A
4 - Holt Spine Road / KSS2 Access	271	2271	714	0.379	277	0.6	8.475	A
5 - Stryt Holt	688	1851	887	0.775	876	30.8	225.215	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	894	542	3620	0.247	894	0.3	1.395	A
2 - Shell / Golf Club Access	104	1343	825	0.126	104	0.1	5.076	A
3 - A534 (East)	1698	647	3698	0.459	1700	0.9	1.845	A
4 - Holt Spine Road / KSS2 Access	227	1900	888	0.255	228	0.4	5.546	A
5 - Stryt Holt	576	1546	1030	0.559	694	1.3	15.424	C

2030 Base + Committed + Development (Phase 1 + 2), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	7.81	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.81	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2030 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1918	100.000
2 - Shell / Golf Club Access		✓	160	100.000
3 - A534 (East)		✓	1131	100.000
4 - Holt Spine Road / KSS2 Access		✓	626	100.000
5 - Stryt Holt		✓	825	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	101	1462	76	279
	2 - Shell / Golf Club Access	37	0	88	0	35
	3 - A534 (East)	770	54	1	64	242
	4 - Holt Spine Road / KSS2 Access	201	0	169	0	256
	5 - Stryt Holt	295	46	387	97	0

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
1 - A5156		0	6	4	2	4
2 - Shell / Golf Club Access		25	0	8	0	4
3 - A534 (East)		29	30	0	1	5
4 - Holt Spine Road / KSS2 Access		8	0	1	0	0
5 - Stryt Holt		5	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.62	2.93	1.7	A
2 - Shell / Golf Club Access	0.70	50.29	2.3	F
3 - A534 (East)	0.33	1.74	0.6	A
4 - Holt Spine Road / KSS2 Access	0.66	10.33	1.9	B
5 - Stryt Holt	0.81	17.32	4.2	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1444	565	3602	0.401	1441	0.7	1.731	A
2 - Shell / Golf Club Access	120	1855	612	0.197	119	0.3	8.063	A
3 - A534 (East)	851	393	3907	0.218	850	0.3	1.426	A
4 - Holt Spine Road / KSS2 Access	471	1065	1279	0.369	469	0.6	4.554	A
5 - Stryt Holt	621	925	1321	0.470	617	0.9	5.229	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1724	676	3513	0.491	1723	1.0	2.091	A
2 - Shell / Golf Club Access	144	2218	461	0.312	143	0.5	12.477	B
3 - A534 (East)	1017	470	3844	0.265	1016	0.4	1.542	A
4 - Holt Spine Road / KSS2 Access	563	1274	1181	0.477	561	0.9	5.956	A
5 - Stryt Holt	742	1106	1236	0.600	739	1.5	7.403	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	2112	823	3396	0.622	2109	1.7	2.904	A
2 - Shell / Golf Club Access	176	2711	256	0.687	170	2.1	43.200	E
3 - A534 (East)	1245	572	3759	0.331	1245	0.6	1.734	A
4 - Holt Spine Road / KSS2 Access	689	1557	1048	0.658	685	1.9	10.079	B
5 - Stryt Holt	908	1352	1121	0.810	898	4.0	15.940	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	2112	830	3390	0.623	2112	1.7	2.928	A
2 - Shell / Golf Club Access	176	2720	253	0.697	175	2.3	50.288	F
3 - A534 (East)	1245	576	3756	0.332	1245	0.6	1.736	A
4 - Holt Spine Road / KSS2 Access	689	1561	1047	0.659	689	1.9	10.332	B
5 - Stryt Holt	908	1356	1119	0.812	908	4.2	17.318	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1724	686	3505	0.492	1727	1.0	2.110	A
2 - Shell / Golf Club Access	144	2231	456	0.316	151	0.5	13.352	B
3 - A534 (East)	1017	476	3839	0.265	1017	0.4	1.548	A
4 - Holt Spine Road / KSS2 Access	563	1279	1179	0.477	567	1.0	6.081	A
5 - Stryt Holt	742	1112	1233	0.601	752	1.6	7.843	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1444	570	3598	0.401	1445	0.7	1.742	A
2 - Shell / Golf Club Access	120	1863	608	0.198	121	0.3	8.187	A
3 - A534 (East)	851	395	3905	0.218	852	0.3	1.428	A
4 - Holt Spine Road / KSS2 Access	471	1069	1277	0.369	473	0.6	4.605	A
5 - Stryt Holt	621	929	1319	0.471	624	0.9	5.335	A

2030 Base + Committed + Development (Phase 1 + 2), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	55.15	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	55.15	F

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)
D10	2030 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1260	100.000
2 - Shell / Golf Club Access		✓	132	100.000
3 - A534 (East)		✓	2313	100.000
4 - Holt Spine Road / KSS2 Access		✓	301	100.000
5 - Stryt Holt		✓	748	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	49	728	176	307
	2 - Shell / Golf Club Access	56	0	47	0	29
	3 - A534 (East)	1826	39	2	148	298
	4 - Holt Spine Road / KSS2 Access	97	0	81	0	123
	5 - Stryt Holt	256	24	244	223	1

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
1 - A5156		0	15	9	3	0
2 - Shell / Golf Club Access		2	0	2	0	0
3 - A534 (East)		3	3	0	0	0
4 - Holt Spine Road / KSS2 Access		4	0	1	0	0
5 - Stryt Holt		1	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.39	1.73	0.7	A
2 - Shell / Golf Club Access	0.24	7.76	0.3	A
3 - A534 (East)	0.72	3.67	2.6	A
4 - Holt Spine Road / KSS2 Access	0.72	28.25	2.5	D
5 - Stryt Holt	1.23	323.50	81.0	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	949	459	3686	0.257	947	0.4	1.393	A
2 - Shell / Golf Club Access	99	1322	833	0.119	99	0.1	4.974	A
3 - A534 (East)	1741	594	3742	0.465	1738	0.9	1.836	A
4 - Holt Spine Road / KSS2 Access	227	1922	878	0.258	225	0.4	5.591	A
5 - Stryt Holt	563	1578	1015	0.555	558	1.2	7.848	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1133	547	3616	0.313	1132	0.5	1.536	A
2 - Shell / Golf Club Access	119	1578	727	0.163	118	0.2	6.005	A
3 - A534 (East)	2079	709	3646	0.570	2077	1.4	2.346	A
4 - Holt Spine Road / KSS2 Access	271	2298	702	0.386	269	0.6	8.435	A
5 - Stryt Holt	672	1887	871	0.772	665	3.2	16.985	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1387	570	3597	0.386	1387	0.7	1.726	A
2 - Shell / Golf Club Access	145	1838	619	0.235	145	0.3	7.707	A
3 - A534 (East)	2547	824	3552	0.717	2542	2.6	3.633	A
4 - Holt Spine Road / KSS2 Access	331	2811	461	0.719	325	2.4	25.581	D
5 - Stryt Holt	824	2305	675	1.220	665	42.7	138.910	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1387	575	3593	0.386	1387	0.7	1.729	A
2 - Shell / Golf Club Access	145	1844	617	0.236	145	0.3	7.758	A
3 - A534 (East)	2547	826	3550	0.717	2547	2.6	3.673	A
4 - Holt Spine Road / KSS2 Access	331	2816	459	0.722	331	2.5	28.250	D
5 - Stryt Holt	824	2313	671	1.227	670	81.0	323.500	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1133	674	3514	0.322	1133	0.5	1.605	A
2 - Shell / Golf Club Access	119	1701	676	0.176	119	0.2	6.568	A
3 - A534 (East)	2079	767	3598	0.578	2084	1.4	2.443	A
4 - Holt Spine Road / KSS2 Access	271	2305	698	0.387	278	0.7	8.841	A
5 - Stryt Holt	672	1897	866	0.777	855	35.3	245.770	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	949	552	3612	0.263	949	0.4	1.435	A
2 - Shell / Golf Club Access	99	1412	796	0.125	100	0.1	5.256	A
3 - A534 (East)	1741	637	3706	0.470	1743	0.9	1.879	A
4 - Holt Spine Road / KSS2 Access	227	1928	875	0.259	228	0.4	5.662	A
5 - Stryt Holt	563	1584	1012	0.556	699	1.3	18.171	C

2037 Base + Committed + Development (Phase 1 + 2), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	11.70	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.70	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2037 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	2003	100.000
2 - Shell / Golf Club Access		✓	171	100.000
3 - A534 (East)		✓	1178	100.000
4 - Holt Spine Road / KSS2 Access		✓	626	100.000
5 - Stryt Holt		✓	863	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	106	1525	76	296
	2 - Shell / Golf Club Access	39	0	93	0	39
	3 - A534 (East)	801	57	1	64	255
	4 - Holt Spine Road / KSS2 Access	201	0	169	0	256
	5 - Stryt Holt	312	48	406	97	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	6	4	2	4
	2 - Shell / Golf Club Access	25	0	8	0	4
	3 - A534 (East)	29	30	0	1	5
	4 - Holt Spine Road / KSS2 Access	8	0	1	0	0
	5 - Stryt Holt	5	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.65	3.22	2.0	A
2 - Shell / Golf Club Access	0.91	120.28	6.0	F
3 - A534 (East)	0.35	1.79	0.6	A
4 - Holt Spine Road / KSS2 Access	0.68	11.44	2.2	B
5 - Stryt Holt	0.86	23.60	5.9	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1508	582	3587	0.420	1505	0.8	1.797	A
2 - Shell / Golf Club Access	129	1929	581	0.221	127	0.3	8.741	A
3 - A534 (East)	887	410	3893	0.228	885	0.4	1.450	A
4 - Holt Spine Road / KSS2 Access	471	1118	1254	0.376	469	0.6	4.696	A
5 - Stryt Holt	650	952	1308	0.497	646	1.0	5.547	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1801	697	3496	0.515	1799	1.1	2.205	A
2 - Shell / Golf Club Access	154	2307	424	0.362	153	0.6	14.568	B
3 - A534 (East)	1059	491	3827	0.277	1059	0.5	1.575	A
4 - Holt Spine Road / KSS2 Access	563	1337	1152	0.489	561	1.0	6.249	A
5 - Stryt Holt	776	1138	1221	0.635	773	1.7	8.195	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	2205	846	3377	0.653	2202	1.9	3.177	A
2 - Shell / Golf Club Access	188	2817	213	0.886	173	4.5	81.198	F
3 - A534 (East)	1297	593	3742	0.347	1296	0.6	1.783	A
4 - Holt Spine Road / KSS2 Access	689	1630	1014	0.680	685	2.1	11.073	B
5 - Stryt Holt	950	1389	1104	0.861	935	5.5	20.405	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	2205	855	3370	0.654	2205	2.0	3.215	A
2 - Shell / Golf Club Access	188	2828	208	0.907	182	6.0	120.275	F
3 - A534 (East)	1297	599	3737	0.347	1297	0.6	1.787	A
4 - Holt Spine Road / KSS2 Access	689	1636	1012	0.681	689	2.2	11.444	B
5 - Stryt Holt	950	1395	1101	0.863	948	5.9	23.595	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1801	711	3485	0.517	1804	1.1	2.233	A
2 - Shell / Golf Club Access	154	2324	417	0.369	175	0.7	17.812	C
3 - A534 (East)	1059	504	3816	0.278	1060	0.5	1.582	A
4 - Holt Spine Road / KSS2 Access	563	1349	1146	0.491	567	1.0	6.441	A
5 - Stryt Holt	776	1148	1217	0.638	792	1.9	9.027	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1508	588	3583	0.421	1509	0.8	1.806	A
2 - Shell / Golf Club Access	129	1939	577	0.223	130	0.3	8.918	A
3 - A534 (East)	887	413	3891	0.228	887	0.4	1.454	A
4 - Holt Spine Road / KSS2 Access	471	1121	1252	0.376	473	0.6	4.752	A
5 - Stryt Holt	650	956	1306	0.497	653	1.0	5.689	A

2037 Base + Committed + Development (Phase 1 + 2), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	82.58	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	82.58	F

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)
D12	2037 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5156		✓	1306	100.000
2 - Shell / Golf Club Access		✓	138	100.000
3 - A534 (East)		✓	2414	100.000
4 - Holt Spine Road / KSS2 Access		✓	301	100.000
5 - Stryt Holt		✓	778	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	51	754	176	325
	2 - Shell / Golf Club Access	59	0	49	0	30
	3 - A534 (East)	1911	41	2	148	312
	4 - Holt Spine Road / KSS2 Access	97	0	81	0	123
	5 - Stryt Holt	271	26	257	223	1

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - A5156	2 - Shell / Golf Club Access	3 - A534 (East)	4 - Holt Spine Road / KSS2 Access	5 - Stryt Holt
From	1 - A5156	0	15	9	3	0
	2 - Shell / Golf Club Access	2	0	2	0	0
	3 - A534 (East)	3	3	0	0	0
	4 - Holt Spine Road / KSS2 Access	4	0	1	0	0
	5 - Stryt Holt	1	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5156	0.40	1.75	0.7	A
2 - Shell / Golf Club Access	0.25	7.98	0.3	A
3 - A534 (East)	0.75	4.14	3.0	A
4 - Holt Spine Road / KSS2 Access	0.84	51.89	4.4	F
5 - Stryt Holt	1.37	486.78	120.1	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	983	471	3677	0.267	982	0.4	1.416	A
2 - Shell / Golf Club Access	104	1364	816	0.127	103	0.1	5.126	A
3 - A534 (East)	1817	610	3728	0.487	1814	1.0	1.921	A
4 - Holt Spine Road / KSS2 Access	227	2014	834	0.272	225	0.4	5.984	A
5 - Stryt Holt	586	1645	984	0.595	580	1.4	8.854	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1174	559	3606	0.326	1174	0.5	1.568	A
2 - Shell / Golf Club Access	124	1627	707	0.176	124	0.2	6.269	A
3 - A534 (East)	2170	728	3631	0.598	2168	1.5	2.517	A
4 - Holt Spine Road / KSS2 Access	271	2408	650	0.416	269	0.7	9.563	A
5 - Stryt Holt	699	1967	833	0.840	687	4.5	23.104	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1438	541	3621	0.397	1437	0.7	1.747	A
2 - Shell / Golf Club Access	152	1856	612	0.248	151	0.3	7.939	A
3 - A534 (East)	2658	829	3547	0.749	2652	3.0	4.091	A
4 - Holt Spine Road / KSS2 Access	331	2945	398	0.832	319	3.9	40.905	E
5 - Stryt Holt	857	2400	631	1.359	626	62.2	206.016	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1438	543	3619	0.397	1438	0.7	1.749	A
2 - Shell / Golf Club Access	152	1859	610	0.249	152	0.3	7.976	A
3 - A534 (East)	2658	830	3547	0.749	2658	3.0	4.144	A
4 - Holt Spine Road / KSS2 Access	331	2951	396	0.838	329	4.4	51.886	F
5 - Stryt Holt	857	2411	625	1.370	625	120.1	486.777	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	1174	649	3534	0.332	1175	0.5	1.619	A
2 - Shell / Golf Club Access	124	1714	671	0.185	124	0.2	6.700	A
3 - A534 (East)	2170	767	3599	0.603	2176	1.6	2.603	A
4 - Holt Spine Road / KSS2 Access	271	2416	646	0.419	285	0.7	10.533	B
5 - Stryt Holt	699	1983	825	0.847	819	90.3	447.375	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5156	983	706	3489	0.282	984	0.4	1.522	A
2 - Shell / Golf Club Access	104	1589	722	0.144	104	0.2	5.915	A
3 - A534 (East)	1817	715	3642	0.499	1820	1.0	2.027	A
4 - Holt Spine Road / KSS2 Access	227	2021	831	0.273	228	0.4	6.074	A
5 - Stryt Holt	586	1652	980	0.597	940	1.8	164.084	F

