



MIRA Technology Park
South Site

(LPA Ref. PAP/2022/0423)

TA Addendum (II)
Prepared on behalf of ERI MTP Ltd

December 2023

MIRA Technology Park South Site

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Client Name: ERI MTP Limited
Project Manager: Matt Stevens
Author: Matt Stevens

Produced By: [Milestone Transport Planning Limited](#)
7 Ancells Court, Rye Close, Fleet, Hampshire GU51 2UY - Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, Tyne & Wear, NE8 1AN - Tel: 0191 3387220
Email: mail@milestonetp.co.uk
Web: www.milestonetp.co.uk

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- Appendix 6 NH Email Confirmation 10.11.23
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1. Introduction

NH Planning Response to TAA(i)

- 1.1 In September 2022, a planning application was submitted by ERI MTP Limited (LPA Ref. PAP/2022/0423) for the following development:
- “Outline planning permission for extension of MIRA Technology Park to comprise employment use (Class B2); associated office and service uses (Class Eg); storage (Class B8); new spine road; car parking, landscaping and enabling works – All matters reserved”.*
- 1.2 The purpose of this Transport Assessment Addendum (TAA(ii)) is to respond to the latest National Highways (NH) Planning Response (NHPR 21-09) dated 4 October 2023 that further recommended that planning permission not be granted for a period of three months to allow for additional information to be provided by the applicant.
- 1.3 NH comments are included as Appendix 1 and relate to the impacts arising from the proposed development on the operational and safety characteristics of the A5 Watling Street that forms part of the Strategic Road Network (SRN).
- 1.4 The latest NH Planning Response followed a review of the Transport Assessment Addendum (TAA(i)) (September 2023) that was prepared as a summary of post submission / pre determination consultation with the Highway Authorities including NH, Warwickshire County Council (WCC) and Leicestershire County Council (LCC) as well as to address feedback from local Parish Councils, residents and business owners impacted by the proposed development.
- 1.5 TAA(i) provided additional traffic modelling including updated assessments of junction operation along the A5 corridor using flows extracted from Leicestershire’s Pan Regional Transport Model (PRTM). These were then compared with the assessments using flows extracted from Warwickshire’s Nuneaton and Bedworth Wide Area (NBWA) Paramics model that was included in the original Transport Assessment (September 2022) that accompanied the Planning Application submission.
- 1.6 In addition, TAA(i) included a summary of the impacts arising from the proposed development at the A5 Longshoot / Dodwells junctions taken from the NH approved VISSIM model used to assess the impacts of the Padge Hall Farm development (LPA Ref. 21/01191/HYB).
- 1.7 TAA(i) then included a review and update of the off-site mitigation package proposed to offset the additional impacts arising from the proposed development that included the following key, agreed, nodes along the A5 Watling Street corridor in the vicinity of the application site.
- Longshoot / Dodwells junction complex
 - Higham Lane
 - MIRA Roundabout
 - Redgate Island
 - Woodford Lane / Drayton Lane junction complex
 - Mancetter Island

NH / Applicant Meeting

- 1.8 A meeting was held at NH offices, The Cube, Birmingham on Wednesday 8 November 2023 to review the latest NH Planning Response and resolve outstanding concerns such that the holding objection can be lifted, and the LPA can determine the planning application.
- 1.9 The meeting was attended by:
- Ben Simm National Highways Spatial Planning Manager – Midlands Operations Directorate
 - Russell Gray National Highways Spatial Planning Manager – Midlands Operations Directorate
 - Martin Seldon National Highways Assistant Spatial Planner
 - Andy MacDonald Swanvale Developments Limited (Agent on behalf of Applicant)
 - Graeme Warriner Stantec (Planning Consultant on behalf of Applicant)
 - Matt Stevens Milestone Transport Planning (Transport Consultant on behalf of Applicant)
- 1.10 The format of the meeting was framed around a detailed review of the operational characteristics and mitigation proposals for each of the key nodes along the A5 Watling Street corridor.
- 1.11 A further virtual meeting was attended by Matt Stevens and Ben Simm on 28 November 2023 to review the initial findings within TAA(ii).

Sensitivity Test

- 1.12 It was agreed at the meeting that, in addition to the results of the assessments of junction operation based on flows extracted from the PRTM and NWBA models included in TAA(i), a sensitivity test would be undertaken to take account of the targeted reduction in travel demand generated by the proposed development, as set out within the Framework Travel Plan (FTP) that accompanied the original planning application submission.
- 1.13 Table 6.4 of the submitted FTP provides details of the Travel Plan mode split targets for MIRA Technology Park – South Site. The baseline mode split for vehicle driver trips at the implementation of the Travel Plan at first occupation (prior to site specific surveys being conducted) is identified as 74.4%. The Target mode split for vehicle driver trips at Year 5 is 61.5%.
- 1.14 This equates to an overall reduction in vehicle driver trips of 17.5% over the initial 5-year lifetime of the Travel Plan.
- 1.15 Table 1.1 provides a summary of trip rates / resultant vehicle trips taking account of the mode split targets used for the purpose of the sensitivity test with a comparison made to the trip rates / vehicle trips contained within the original TA and which formed the basis upon which the PRTM / NWBA modelling was undertaken.

Table 1.1 Sensitivity Test Trip Rates / Vehicle Trips

Time Period	Hourly Period	Original TA (Table 6.4)				Sensitivity Test (Mode Share Targets)			
		Arrivals		Departures		Arrivals		Departures	
		Trip Rate	No. Vehs	Trip Rate	No. Vehs	Trip Rate	No. Vehs	Trip Rate	No. Vehs
AM Peak	0700-0800	0.239	510	0.142	303	0.198	423	0.117	250
	0800-0900	0.277	591	0.077	164	0.229	489	0.064	137
	0900-1000	0.168	359	0.103	220	0.139	297	0.085	181
	0700-1000		1460		687		1209		568
PM Peak	1600-1700	0.062	132	0.254	542	0.051	109	0.210	448
	1700-1800	0.034	73	0.187	399	0.028	60	0.155	331
	1800-1900	0.112	239	0.153	327	0.093	199	0.126	269
	1600-1900		444		1268		368		1048

Scope of Document

1.16 The remaining section of TAA(ii) therefore follow the same format and address matters raised in the NH Planning Response (4 October 2023) and the subsequent meetings (8 November 2023 & 28 November 2023).

2. Longshoot / Dodwells

- 2.1 At the meeting held on 8 November 2023, NH reiterated concerns outlined in the Planning Response (4 October 2023) regarding the VISSIM modelling and analysis provided and sought further understanding as to why the model was yielding capacity / queuing issues when the Padge Hall Farm development proposals were required to take account of MIRA South, as an allocated site, in their Reference Case traffic forecasts. It was agreed that further investigation of the Padge Hall version of the Longshoot / Dodwells VISSIM model was required to check assumptions made regarding traffic forecasts for allocated sites.
- 2.2 Following the meeting, a further review of the submitted TA and TA Addendum reports for the Padge Hall Farm development proposals was conducted. This exercise confirmed, in Appendix H of the Addendum TA dated April 2022 that MIRA South was included in the Reference Case modelling.
- 2.3 It is therefore the case that the results of the updated Longshoot / Dodwells VISSIM model contained within TAA(i) effectively double counted traffic demand from the MIRA South development in Scenarios 2, 4, 6 & 8. This will have a material impact on the network wide statistics, queue lengths and journey times summarised in TAA(i).
- 2.4 Additional traffic model runs have been commissioned that remove MIRA South from the previous Reference Case scenarios to provide a new comparison of operational characteristics at Longshoot / Dodwells. The results of the additional model runs are included as Appendix 2.
- 2.5 Key conclusions arising from the additional model runs, comparing 2031 Ref + PHF with 2031 Ref + PHF + MIRA South AM and PM outputs are as follows:
- The overall delay per vehicle in seconds increases by 6.3 seconds (+7.5%) in the AM peak and 2.6 seconds (+3.6%) in the PM peak as a result of traffic demand generated by the MIRA South development.
 - In general queue lengths on each approach experience only marginal changes and, in some cases reduce during both AM and PM peak periods.
 - In the AM peak, maximum queues reduce by 8 vehicles and 10 vehicles respectively on the A5(NW) and A47 Dodwells Road approaches to the Dodwells Roundabout and by 4 vehicles on the A5(NW) approach to the Longshoot junction. Maximum queues increase on the A5(SE) and the A47 Longshoot approaches to the Longshoot junction by 7 vehicles (43 metres) and 12 vehicles (73 metres) respectively.
 - In the PM peak, maximum queues increase by 4 vehicles (22 metres) on the B4666 Coventry Road approach to the Dodwells Roundabout and by 5 vehicles (31 metres) on the A5(NW) approach to the Longshoot junction.
- 2.6 Overall, based on the results of the additional model runs that resolve the issue of double-counting MIRA South traffic demand, the impact of the proposed development on the future operational characteristics of the Longshoot / Dodwells junction complex is minimal and no further mitigation is required.

3. Higham Lane

- 3.1 The NH Planning Response (4 October 2023) referenced concerns regarding the impacts of MIRA South traffic demands at the Higham Lane Roundabout and noted that further mitigation is likely to be required to overcome these issues.
- 3.2 The results of the capacity modelling summarised within Tables 2.7 and 2.8 of TAA(i) show significantly varying results between the flows extracted from the NBWA and PRTM models with the latter showing increased capacity, reduced queues, and substantially less overall junction delay.
- 3.3 Taking the worst case assessment using the NBWA flows, the junction was shown to be operating below design capacity (RFC value of 0.85) on all approach arms in the AM peak except for the A5(E) which was shown to have an RFC value of 0.91 and a queue of 9.1 vehicles in the 2031 'Without Development' model and an RFC value of 0.99 and a queue of 23.6 vehicles in the 2031 'With Development' model.
- 3.4 The A5(E) arm of the junction has a flared two-lane approach where the two-lane section is c. 41.0m in length, equivalent to 7 vehicles in each lane. Therefore, the maximum length of the queue on the A5(E) approach, in the AM peak, with MIRA South traffic demand would be no more than c. 100m.
- 3.5 In the PM peak, all approach arms were shown to be operating below design capacity except for the A5(W) which had an RFC value of 1.03 and a queue of 46.0 vehicles in the 2031 'Without Development' model and an RFC value of 1.10 and a queue of 94.8 vehicles in the 2031 'With Development' model.
- 3.6 The A5(W) arm of the junction has a flared two-lane approach where the two-lane section is c. 69.0m in length, equivalent to 11 vehicles in each lane. Therefore, the maximum length of the queue on the A5(W) approach, in the PM peak, with MIRA South traffic demand would be c. 500m, i.e., up to the access to Lindley Lodge Gardens.
- 3.7 At the meeting on 8 November 2023, a plan was tabled (MTP Ref. 17059/SK09) that proposes an increase in flare length on both the A5(E) and A5(W) approaches to the Higham Lane Roundabout aimed at providing additional capacity to mitigate the impact of MIRA South traffic demand. On both the A5(E) and A5(W) approaches the flare length is increase to c. 90m in length, equivalent to 15 vehicles in each lane.
- 3.8 A copy of Plan 17059/SK09 is included as Appendix 3. Additional modelling was undertaken to analyse the effect of the increased flare lengths on the A5(E) and A5(W) approach arms, the results of which are included as Appendix 4 and are summarised in Table 3.1.

Table 3.1 A5 / Higham Lane Rbt (with Mitigation) – 2031 With Development NBWA Flows

Arm	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	RFC	Queue	RFC	Queue
Nuneaton Lane	0.44	0.8	0.27	0.4
A5(E)	0.90	8.3	0.72	2.5
Higham Lane	0.77	3.2	0.45	0.8
A5(W)	0.72	2.6	1.02	39.1
JUNCTION DELAY (s)	14.67		40.06	

- 3.9 From Table 3.1 it can be seen that in the AM Peak, the RFC value reduces to 0.90 and the queue length reduces to 8.3 vehicles (c. 24m in two lanes) on the A5(E) approach arm in the 2031 'With Development' model. This is less than the RFC / queue levels in the 2031 'Without Development' model, as detailed in Table 2.7 of TAA(i).
- 3.10 Table 3.1 also shows that in the PM Peak, the RFC value reduces to 1.02 and the queue length reduces to 39.1 vehicles (c. 144m in 1+1 lanes taking account of the extended flare) on the A5(W) approach arm in the 2031 'With Development' model.
- 3.11 Again, this is less than the RFC / queue levels in the 2031 'Without Development' model, as detailed in Table 2.8 of TAA(i), albeit this approach arm is still operating over capacity (RFC value 1.00). However, there is a significant benefit in terms of reduced queue length (500m to 144m) as a result of the proposed extension to the flared two-lane approach.
- 3.12 To see if the 'Mode Share Target' sensitivity test flows (referenced in Section 1) have the effect of reducing the RFC value on the A5(W) approach arm, further additional modelling has been undertaken, the results of which are included as Appendix 4 and are summarised in Table 3.2.

Table 3.2 A5 Watling Street / Higham Lane Rbt (with Mitigation) – Sensitivity Test Flows

Arm	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	RFC	Queue	RFC	Queue
Nuneaton Lane	0.43	0.8	0.27	0.4
A5(E)	0.89	7.6	0.72	2.5
Higham Lane	0.76	3.0	0.45	0.8
A5(W)	0.72	2.5	1.01	34.6
JUNCTION DELAY (s)	13.81		36.60	

- 3.13 From Table 3.2 it can be seen the effect of the 'Mode Share Target' sensitivity test flows is marginal and would only decrease the RFC value to 1.01 and the queue to 34.6 vehicles (c. 120m) in the 2031 'With Development' PM peak model.
- 3.14 That noted, the queue length reduction is significant with the maximum queue extending no more than half the distance between the Higham Lane Roundabout and the Kings Lodge (YWAM) access.
- 3.15 It is considered that, on balance, the proposed extending flare lengths on the A5(E) and A5(W) approach arms of the Higham Lane Roundabout, as shown on Plan 17059/SK09, more than adequately mitigates the impact of MIRA South traffic demand, whilst not impacting on safety, and address the concerns raised by NH.
- 3.16 In overall terms, and in the context of paragraph 111 of the NPPF (2023) and paragraph 51 of the DfT Circular 01-2022, the impact of development-related traffic on the operation of the Higham Lane Roundabout, with the additional mitigation proposed, is not severe, and there would not be an unacceptable impact on highway safety.

4. MIRA Roundabout

- 4.1 The NH Planning Response (4 October 2023) referenced concerns regarding the impacts of MIRA South traffic demands at the MIRA Roundabout and noted that further mitigation is likely to be required to overcome these issues.
- 4.2 The results of the capacity modelling summarised in Table 2.6 of TAA(i) show significantly varying results between the flows extracted from the NBWA and PRTM models with the latter showing increased capacity, reduced queues, and less overall junction delay.
- 4.3 Taking the worst-case assessment using the NBWA flows, the 2031 'With Development' AM peak model shows MIRA Drive and the proposed Site Access to be operating below design capacity (RFC value of 0.85). The A5(E) arm has an RFC value of 0.87 and a queue of 6.4 vehicles (c. 20m on the flared 2-lane approach). The A5(W) arm has an RFC value of 0.94 and a queue of 11.9 vehicles (36m on the 2-lane approach).
- 4.4 In the PM peak, all approach arms operate below design capacity (RFC value of 0.85).
- 4.5 Further modelling has been undertaken to assess the effect of 'Mode Share Target' sensitivity test flows (referenced in Section 1) on the A5(W) approach arm in the 2031 'With Development' AM peak model, the results of which are included as Appendix 5 and are summarised in Table 4.1.

Table 4.1 A5 Watling Street / MIRA Rbt (with Mitigation) – Sensitivity Test Flows

Arm	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	RFC	Queue	RFC	Queue
MIRA Drive	0.09	0.1	0.82	4.1
A5(E)	0.86	5.9	0.60	1.5
Site Access	0.51	1.0	0.40	0.6
A5(W)	0.92	10.2	0.73	2.6
JUNCTION DELAY (s)	17.00		8.40	

- 4.6 From Table 4.1 it can be seen the effect of the 'Mode Share Target' sensitivity test flows is marginal. On the A5(E) arm, the sensitivity test results in a decrease in the RFC value to 0.86 and the queue to 5.9 vehicles in the 2031 'With Development' AM peak model. On the A5(W) arm, the sensitivity test results in a decrease in the RFC value to 0.92 and the queue to 10.2 vehicles (c. 31m on the 2-lane approach) in the 2031 'With Development' AM peak model.
- 4.7 An important consideration in the modelling that has been undertaken to date on the MIRA Roundabout is that there is an assumption that the upstream Left-In / Left-Out (LILLO) junction constructed as part of the original off-site highway works package supporting the 2011 outline masterplan consent for MIRA Technology Park – North Site is not connected to MIRA Drive and the main body of the development.

- 4.8 Work is progressing on the phased delivery of the MIRA Technology Park – North Site. Phase 4 of the phased delivery will see the completion of the link between the LILO junction and MIRA Drive that will significantly alter the distribution of traffic approaching the North Site from the Atherstone direction, the majority of which will turn left at the LILO and not continue through to the A5(W) arm of the MIRA Roundabout as they currently do.
- 4.9 Whilst there will be some additional traffic turning left out of the LILO, particularly from the development towards the western end of the MIRA Technology Park – North Site, the overall effect will be a noticeable reduction in traffic demand on the A5(W) arm which in turn should bring RFC values down below design capacity and the benefit of reducing queuing beyond the 11.9 vehicles (36m length) predicted in the NBWA 2031 ‘With Development’ AM peak model.
- 4.10 It is therefore considered that, on balance, no further mitigation is required at the MIRA Roundabout, given that capacity will be released when the upstream Left-In / Left-Out junction serving the MIRA Technology Park – North Site is fully operational, which is anticipated to occur before the 2031 Assessment Year that has been modelled.
- 4.11 In overall terms, and in the context of paragraph 111 of the NPPF (2023) and paragraph 51 of the DfT Circular 01-2022, the impact of development-related traffic on the operation of the MIRA Roundabout, with the additional mitigation proposed, is not severe, and there would not be an unacceptable impact on highway safety.

5. Redgate Island

- 5.1 The NH Planning Response (4 October 2023) did not reference any concerns regarding the impacts of MIRA South traffic demands at the proposed mitigation scheme at Redgate Island and this was confirmed by the NH Consultant (AECOM) reviewing the modelling at the meeting on 8 November 2023.
- 5.2 It is evident from the results of the capacity modelling summarised in Table 2.4 of TAA(i) that the proposed mitigation scheme operates within capacity and all arms show RFC values of less than 0.85 using flows extracted from both the NBWA and PRTM models with minimal queues and junction delays.

6. Woodford Lane / Drayton Lane

- 6.1 The NH Planning Response (4 October 2023) did not make specific reference to the junctions of Woodford Lane and Drayton Lane with the A5 Watling Street.
- 6.2 As summarised in TAA(i), the modelling included within the original TA showed that queuing occurs on both Woodford Lane and Drayton Lane approaches to the A5 Watling Street in both the AM and PM peak periods, primarily attributed to the limited gaps in traffic for turning vehicles to enter the main carriageway.
- 6.3 The mitigation scheme put forward in the original TA was to provide traffic signal control at both junctions to create gaps in the main carriageway traffic streams for turning vehicles. Feedback on the original mitigation scheme was mixed. Concern was expressed regarding the interaction of queuing between the two junctions on the A5 carriageway and the delays to traffic on the SRN. Concern was also expressed that providing additional capacity on both Woodford Lane and Drayton Lane would not address the reported rat-running that occurs along both these corridors. The retention of all movements access to / from both Woodford Lane and Drayton Lane was however welcomed.
- 6.4 Through further discussions with NH, WCC and LCC post the submission of the original TA, an alternative mitigation scheme was put forward whereby both junctions retained give-way control however turning movements at the side roads would be restricted to Left-In and Left-Out only. Details of the alternative mitigation scheme and associated revised modelling was included within TAA(i).
- 6.5 The revised modelling demonstrated that the queuing and delay issues on the SRN were resolved and the associated reduction in traffic demand on both Woodford Lane and Drayton Lane as a result of the restricted movements resulted in these both operating within design capacity as well. It was also noted that the restricted movements at both junctions would significantly address the rat-running issue. Concern was also expressed by other stakeholders that the restriction of movements on Woodford Lane and Drayton Lane would have a negative impact on access and place additional pressure on other parts of the surrounding local road network.
- 6.6 Based on discussions with NH at the meeting on 8 November 2023, it is evident that the alternative mitigation scheme identified in post submission discussions is not suitable. One of the key issues, aside from restricting access for end users on both Woodford Lane and Drayton Lane, was that the redistribution of traffic resulting from the Left In / Left Out proposed mitigation would have a significant, negative impact on the operational characteristics of the A5 Mancetter Island to the north-west, if implemented.
- 6.7 Through our discussions, NH have been identifying options for safety enhancements at both the A5 / Woodford Lane and A5 / Drayton Lane junctions and have proposed that a planning contribution be sought to support the delivery of the preferred scheme, when identified.

7. Mancetter Island

- 7.1 The NH Planning Response (4 October 2023) did not reference any concerns regarding the impacts of MIRA South traffic demands at the Mancetter Island and this was confirmed by the NH Consultant (AECOM) reviewing the modelling at the meeting on 8 November 2023.
- 7.2 It is evident from the results of the capacity modelling summarised in Table 2.1 of TAA(i) that Mancetter Island operates within capacity with RFC values of less than 0.85 using flows extracted from both the NBWA and PRTM models, minimal queues, and junction delays.

8. Geometric Review of Mitigation

- 8.1 Within the latest National Highways (NH) Planning Response (NHPR 21-09) dated 4 October 2023 a request was made for further details to be provided to enable a geometric check of the proposed off-site mitigation to be completed by the NH Asset Needs Team. This was followed by email confirmation of the additional details sought, issued on 10 November 2023, post the meeting held on 8 November 2023. A copy of the email confirmation is included as Appendix 6.
- 8.2 Appendix 7 provides copies of the updated General Arrangement (GA) plans, previous revisions of which were included in the original TA (September 2022) and TAA(i) (September 2023). The updated GA plans include details of NH, WCC and LCC administrative boundaries as well as swept path analysis, as requested in the email confirmation dated 10 November 2023.
- 8.3 Appendix 7 also includes a new set of drawings numbered 17059/VIS/01 – 17059/VIS/10 that includes further details regarding junction entry, exit and forward visibility splays as well as entry / exit widths and kerb radii in accordance with CD116 (Roundabouts) and CD123 (Priority Junctions), as requested in the email confirmation dated 10 November 2023.
- 8.4 As noted in paragraph 1.1 of TAA(ii), the planning application for MIRA South is in outline with all matters reserved. Therefore, at this stage, only agreement to the principle of off-site mitigation is sought, and therefore the schemes included within TAA(ii) have appropriately been based on digital OS mapping.
- 8.5 In due course, full topographical survey information will be obtained for the full extent of all off-site mitigation. This will then form the basis upon which the full suite of drawings required to accompany the S38/S278 detailed design will be produced, including details of visibilities in the vertical plane, cross sections, and long sections, as requested in the email confirmation dated 10 November 2023.
- 8.6 The full S38/S278 detailed design packages will then be submitted to NH, WCC and LCC for Technical Approval as part of the discharge of Conditions on the Outline Planning Application, should permission be granted.

9. Summary & Conclusion

- 9.1 This TAA(ii) has been prepared to respond to the latest National Highways (NH) Planning Response (NHPR 21-09) dated 4 October 2023 on the planning application submitted by ERI MTP Limited (LPA Ref. PAP/2022/0423) for *“Outline planning permission for extension of MIRA Technology Park to comprise employment use (Class B2); associated office and service uses (Class Eg); storage (Class B8); new spine road; car parking, landscaping and enabling works – All matters reserved”*
- 9.2 A meeting was also held at NH offices, The Cube, Birmingham on Wednesday 8 November 2023 to review the latest NH Planning Response and resolve outstanding concerns such that the holding objection can be lifted, and the LPA can determine the planning application.
- 9.3 TAA(ii) has provided a detailed response regarding the impacts of MIRA South traffic demand on the operational and safety characteristics of key junctions / nodes on the A5 Watling Street that forms part of the Strategic Road Network (SRN).
- 9.4 Where necessary, TAA(ii) includes a review and update of the modelling and off-site mitigation packages required to offset the additional impacts arising from MIRA South development.
- 9.5 Based on the findings within TAA(ii) it is concluded that, in the context of paragraph 111 of the NPPF (2023) and paragraph 51 of the DfT Circular 01-2022, there are no residual cumulative impacts in terms of highway safety and therefore the NH recommendation that planning permission is not granted for a period of three months to allow for additional information to be provided by the applicant can be lifted.

Appendix 1



National Highways Planning Response (NHPR 21-09) Formal Recommendation to an Application for Planning Permission

From: Andrew Jinks (Regional Director)
Operations Directorate
Midlands Region
National Highways
PlanningM@nationalhighways.co.uk

To: North Warwickshire Borough Council FAO Jeff Brown

CC: transportplanning@dft.gov.uk
spatialplanning@nationalhighways.co.uk

Council's Reference: PAP/2022/0423

Location: Land to the south of, Watling Street, Caldecote, CV10 0TS (Grid Ref: Easting 435922.21, Northing 295043.17)

Proposal: Outline planning permission for Extension of MIRA Technology Park to comprise employment use (Class B2); associated office and service uses (Class Eg); storage (Class B8); new spine road; car parking, landscaping and enabling works - All matters reserved

National Highways Ref: 96231

Referring to the consultation on a planning application dated 21 September 2022 referenced above, in the vicinity of the A5 that forms part of the Strategic Road Network, notice is hereby given that National Highways' formal recommendation is that we:

- ~~a) offer no objection (see reasons at Annex A);~~
- ~~b) recommend that conditions should be attached to any planning permission that may be granted (see Annex A – National Highways' recommended Planning Conditions & reasons);~~
- c) recommend that planning permission not be granted for a specified period (see reasons at Annex A);
- ~~d) recommend that the application be refused (see reasons at Annex A)~~

Highways Act 1980 Section 175B is relevant to this application.¹

This represents National Highways' formal recommendation and is copied to the Department for Transport as per the terms of our Licence.

Should the Local Planning Authority not propose to determine the application in accordance with this recommendation they are required to consult the Secretary of State for Transport, as set out in the [Town and Country Planning \(Development Affecting Trunk Roads\) Direction 2018](#), via transportplanning@dft.gov.uk and may not determine the application until the consultation process is complete.

Date: 4 October 2023	
<i>M Seldon</i>	
Signature:	
Name: Martin Seldon	Position: Assistant Spatial Planner
National Highways National Highways The Cube 199 Wharfside Street Birmingham B1 1RN	

¹ Where relevant, further information will be provided within Annex A.

Annex A National Highway's assessment of the proposed development

National Highways has been appointed by the Secretary of State for Transport as a strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such we work to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

Recommended Non-Approval

It is recommended that the application should not be approved for a period of three months to allow the applicant to submit the requested information below.

Update – October 2023

Summary

Strategic Transport Modelling:

National Highways has completed its consideration of the modelling outputs provided in regards to the PRTM modelling provided by the applicants consultants, Milestone. Based on this assessment further discussions are required with the applicants and their consultants to address the development proposals impacts on the A5 Corridor notably the following locations:

- A5 / Mira / Proposed Access Roundabout Junction
- A5 / Higham Lane Roundabout Junction

We will seek a meeting with the applicants to discuss the outputs and get further clarification. However, we consider it likely that further mitigation is required at these locations for the development to be considered acceptable in accordance with Circular 01/2022 and paragraph 111 of the NPPF. At this time National Highways has not agreed to the Strategic Transport Modelling.

A5 / A47 The Longhoot – Dodwells Junction:

National Highways has considered the VISSIM modelling and analysis provided. Based on our conclusions the junction cannot suitably operate with the scale of development proposed, which would undermine highway safety. In addition, the proposed mitigation is not suitable to accommodate the development. National Highways will be seeking a meeting with their applicants and transport consultants, and therefore at this time National Highways has not agreed the VISSIM modelling for the Longshoot – Dodwells Junction nor the proposed mitigation.

We have also carried out an initial technical review of the proposed geometry of the improvement schemes at:

- A5 / Mira / Proposed Access Roundabout Junction
 - A5 / Drayton Lane
 - A5 / Woodford Lane
 - A5 / A444 Redgate Island
-
- The proposals appear to be based on Ordinance Survey maps rather than site measurements and as such this may affect scheme viability/delivery
 - Drawings issued do not show scheme extents, land ownership, highway boundaries, SRN interface with the Local Road Network (LRN), constraints, levels, etc
 - Confirmation should be provided on whether any potential Departures from Standard, whether existing (to be retained) or proposed, have been identified
 - Similarly, confirmation should be provided on whether any Relaxations from Standards are required. If so, have these been recorded (with their justification) in a Design Strategy Record (DSR)
 - Furthermore, dimensions of all proposed geometric changes are not provided on the drawings issued to enable checking
 - Visibility requirements cannot be checked to DMRB requirements due to insufficient information. Appropriately sized drawings are necessary to demonstrate visibility in the horizontal and vertical planes
 - Existing and proposed cross sections and long sections have not been provided to enable alignment checks
 - Swept paths are required to demonstrate proposed geometry is appropriate

Due therefore to insufficient information being provided, a technical review of the proposed schemes for DMRB compliance is not possible at this time.

Update – July 2023

Since issuing our response of April 2023 we have agreed the methodology for the use of PRTM. Under this the outputs will be reviewed to understand the change in predicted traffic flows at the A5 junctions. Following this we may request that some of the junction analysis is re-run using PRTM data for any capacity changes. Following the recent submission of the PRTM Forecasting Report and junction flows, we reviewed these with the following comments:

- The levels of trip generation and distribution have been previously agreed;
- It is noted that the turning movements at the A5 / Drayton Lane and A5 / Woodford Lane junctions has been restricted, which is in line with previous discussions, however, no details regarding the exact proposals has been provided and this should be submitted;
- The process as set out in the report is considered to be reasonable and can be agreed;
- The proposed Area of Influence (AoI) is considered to be appropriate, as it relates to the Strategic Road Network (SRN), and again reflects previous discussions with the following junctions being taken included:
 - A5 / B4111 / B4116 Mancetter Island;
 - A5 / Drayton Lane;
 - A5 / Woodford Lane;
 - A5 / A444 Redgate Island;
 - A5 / MIRA Roundabout (proposed access roundabout);
 - A5 / Higham Lane;
 - A5 / A47 The Long Shoot; and
 - A5 / A47 / B4666 Dodwells Roundabout
- We have also reviewed the provided turning count data: in relation to the Higham Lane junction it is noted that the approach flows are higher in the Without Development scenario, whereas the V/C is higher in With Development scenario; we would request some further explanation regarding this.

Discussions are continuing with the applicants regarding the traffic modelling. As noted in our previous responses the design of the proposed improvements at the site access, Woodford Lane, Drayton Lane and Redgate Junctions have not yet been agreed; following which Stage 1 Road Safety Audits would need to be undertaken.

The application is supported by a Transport Assessment (TA) prepared by Milestone Transport Planning (MTP). Although we carried out an initial review of the TA, the traffic impact has not been fully assessed as further details were required in terms of the PARAMICS model.

The PARAMICS model has now been supplied and we will continue to review the modelling. However, to enable us to do so, fully dimensioned drawings should be provided to verify the traffic models, as well as to allow a check to be made to ensure that they comply with the relevant DMRB standards.

In addition, the proposed highway works will need to be a subject to Stage 1 Road Safety Audit (RSA) in line with DMRB GG119. An RSA 1 Brief will need to be submitted to us for approval prior to undertaking the RSA.

Further, in line with paragraph 11 of DfT Circular 02/2013:

“Local authorities and developers will be required to ensure that their proposals comply in all respects with design standards. Where there would be physical changes to the network,

schemes must be submitted to road safety, environmental, and non-motorised user audit [WCHAR] procedures, as well as any other assessment appropriate to the proposed development...”.

On this basis, the Applicant should undertake WCHAR in line with GG 142.

We would also request that vehicle swept paths are shown to ensure that the layout can safely accommodate all vehicle types.

We have provided a note on our review of the Transport Assessment to date to MTP: however, some of the key point can be summarised as follows:

- it would be useful if walking and cycling isochrones could be provided showing the catchments within acceptable walking distances. This would then assist in determining the likely demand for these modes of travel;
- there is only one crossing of the A5, an existing underpass on the NCN, and this may then deter some users from accessing the footway on the north side of the A5, consideration should be given to providing an at-grade facility;
- whilst the diversion of the existing bus route through the site is welcomed, further agreement and discussion will be required with the local authority and bus operators in order to provide certainty over its deliverability;
- whilst drawings have been provided showing the highway works, we would require these to be fully dimensioned so that we can verify that the traffic models accurately reflect the proposals;
- the traffic assessment has been determined using the NBWA PARAMICS model and further information has been requested, and now received, to allow us to undertake a full review,
- the site access roundabout onto the A5 shows an increase in queuing and RFC in the with development scenario;
- the A5 / Higham Lane roundabout again shows increases in queuing on the A5 as a result of the addition of the development traffic;
- the A5 / Woodford Lane / Drayton Lane junctions are proposed to be signalised, although the queue from Woodford Lane is predicted to reach the Drayton Lane junction. Consideration should be given to using a single traffic model so that the interactions can be better modelled.

- It should then be restated that the traffic impact is not yet accepted and will be subject to the ongoing review of the PARAMICS model and a review of the fully dimensioned drawings against the supplied traffic models.

Update – January 2023

Having reviewed the PARAMICS model we noted a number of concerns which we forwarded to the applicant:

Base Model Review

- The Redgate junction was not included in the calibration and validation process, which means the accuracy of the future conditions within this area need to be considered carefully;
- There are several links within the base model that generally display lower traffic flows than the observed traffic flows along the A5, which could result in an underestimation of the disbenefits attributed to the MIRA Development; and
- Base modelled journey times along the A5 between Higham Lane and the A47 in the eastbound direction were found to be lower than that observed, this will underestimate of the forecast journey times attributed to the MIRA Development within this area

Network Review

- Clarification is required on several elements of the Reference Case models;
- In the DS models, speed limits on the A444 between the A5 and the new Development roundabout have not been reduced as specified; and
- Of most note is the number of inconsistencies in the visibility, gap adjustment, and gap acceptance parameters between the Base model, the Reference Case / Local Plan models and the Development + DS models. For a true comparison these parameters should be kept consistent with the Base model

Demands Review

- The background light vehicle flows are lower within the Local Plan models compared to the Reference Case models. Clarification is required;
- There is a discrepancy with the Local Plan Report which indicates that the total AM peak demands in Matrix 6 should be 8,421 vehicles, as opposed to the 6,734 vehicles observed in the model. Similarly, the Local Plan Report indicates that the total PM peak demands in Matrix 6 should be 8,864 vehicles, as

opposed to the 7,265 vehicles observed in the model. Clarification of where the modelled demands come from is required; and

- The approach adopted for profiling the demands is appropriate, with survey data being used to inform the profiles

Flow Assessment

- Traffic flows during the AM and PM peak periods have increased between the Reference Case / Local Plan models and the Reference Case / Local Plan + Development models, most significantly on the A444. Between the Reference Case / Local Plan + Development model and the Reference Case / Local Plan + Development + DS model, traffic flows on the A444 decrease significantly. Conversely, traffic flows on Mira Drive, the new Development access, have increased between the Development and DS models. It is assumed that these changes in traffic flows on the A444 and Mira Drive can be attributed to the mitigation measures within the DS model which closes the northern section of the A444 to MIRA Development traffic and HGVs; and
- The modelled flow information indicates that traffic flows on Higham Lane have increased by during the AM peak period in the southbound direction between the Reference Case + Development and the Reference Case + Development + Ds models. Further explanation is required as to why this might be

Model Results

- During the AM period in the eastbound direction the journey times remain similar between the reference case and local plan scenarios. In the westbound direction the inclusion of DS reduces the journey times and in general mitigates against the development in both the Reference and Local Plan scenarios;
- During the PM period the journey times in the eastbound direction increase in both the reference case and local plan scenarios once the development and DS is introduced. A similar trend is being displayed in the westbound direction, however in the reference case the inclusion of the DS mitigates against the development whereas in the local Plan scenario it does not

The applicant is also intending to assess their proposed mitigation works, using LCC's PRTM model, together the Longshoot – Dodwells VISSIM model.

Regarding the Stage 1 RSA for the proposed highways works, National Highways has confirmed to the applicant that, this should only be undertaken once the works have been agreed with the highway authorities.

Update – April 2023

National Highways has continued to work with the applicant as well as the local highway authorities, to progress the traffic modelling. The applicant has commissioned a review of the proposals using LCC's Pan Regional Traffic Model (PRTM). Following an inception meeting, between the various parties, in February to agree the scope and parameters a Base Model run was undertaken. A further meeting is scheduled for later this month to discuss the results and consider whether the Base Model can be signed off. Once this has been agreed, there will be further 'with development' model runs.

Appendix 2

AM

	Scenario 1		Scenario 2	Scenario 3	Scenario 4
	AM Peak (07:15-08:15)				
	AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA
Average Delay per Vehicle in the Network (s)	72.4	71.7	77.2	83.2	89.4
Overall Delay per Vehicle (including time off network) (s)	72.9	72.2	77.7	83.7	90.0
Average Speed per Vehicle (mph)	21.9	21.8	21.5	20.7	20.4
Vehicles Active in the Network	224	241	252	253	271
Vehicle Trips Completed	3690	4020	4123	4100	4199
Latent Demand at End of Peak Hour	0	0	0	0	0
Total Peak Hour Input Vehicle Numbers	3914	4261	4375	4353	4470
Total Delay (hrs)	78.7	84.9	93.8	100.6	111.1
Latent Delay (hrs)	0.6	0.6	0.6	0.7	0.7

PM

	Scenario 1		Scenario 2	Scenario 3	Scenario 4
	PM Peak (16:00-17:00)				
	PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA
Average Delay per Vehicle in the Network (s)	66.2	70.7	73.9	71.7	74.5
Overall Delay per Vehicle (including time off network) (s)	66.8	71.3	74.5	72.4	75.0
Average Speed per Vehicle (mph)	22.6	22.2	22.0	22.1	22.0
Vehicles Active in the Network	247	268	275	273	283
Vehicle Trips Completed	3810	4146	4213	4193	4255
Latent Demand at End of Peak Hour	0	0	0	0	0
Total Peak Hour Input Vehicle Numbers	4057	4414	4488	4466	4538
Total Delay (hrs)	74.7	86.7	92.1	88.9	93.9
Latent Delay (hrs)	0.7	0.7	0.7	0.9	0.7

Time Period >>	AM
Vehicle Type >>	All Vehicles

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	AM Peak (07:15-08:15)				
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	598 77	656 76	679 76	675 66	695 66
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	599 684	582 719	665 719	562 738	649 737
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	58 802	58 726	59 726	58 746	58 748
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi	18	18	18	18	18
			PFS	34	34	34	34	34
		Aldi	A5 Watling Street (SE)	1349	1331	1354	1370	1392
			PFS	2	2	2	2	2
		PFS	A5 Watling Street (NW)	12	12	11	11	12
			A5 Watling Street (SE)	4	5	5	5	5
A5 Watling Street (SE)	A5 Watling Street (NW)	0	0	0	0	0		
	Aldi	47	47	46	47	47		
	PFS	1278	1295	1379	1295	1382		
3	Jacknell Road / A47	A47 N	Jacknell Road	95	103	102	120	120
			A47 S	699	756	765	836	844
		A47 S	Jacknell Road	114	118	117	114	114
			A47 N	473	490	495	520	523
Jacknell Road	A47 S	21	24	24	24	24		
	A47 N	24	27	27	28	28		
4	Dodwells Roundabout	A5 Watling Street (NW)	A47 Dodwells Road	364	325	330	348	352
			B4866 Coventry Road	601	589	588	594	591
			A5 Watling Street (SE)	403	438	457	449	467
		A47 Dodwells Road	A5 Watling Street (NW)	427	406	414	428	436
			B4866 Coventry Road	118	128	127	147	147
		B4866 Coventry Road	A5 Watling Street (SE)	129	197	197	233	232
			A5 Watling Street (NW)	440	485	487	487	493
A5 Watling Street (SE)	A47 Dodwells Road	62	64	65	53	53		
	A5 Watling Street (SE)	15	21	21	21	21		
	A5 Watling Street (NW)	390	382	455	358	431		
5	Harrowbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E)	A47 Dodwells Road	111	169	169	183	183
			B4666 Coventry Road	22	30	30	27	27
		Harrowbrook Road	B4866 Coventry Road (W)	487	534	538	523	531
			Harrowbrook Road	157	162	162	158	157
B4666 Coventry Road (W)	B4666 Coventry Road (E)	29	29	29	20	20		
	B4666 Coventry Road (W)	33	40	40	41	41		
Harrowbrook Road	Harrowbrook Road	161	165	165	175	175		
	B4666 Coventry Road (E)	582	583	582	594	592		
6	A5 / Development Site Access	A5 W	A5 E	-	575	595	619	638
			Development Site	-	127	127	127	127
		A5 E	Development Site	-	134	134	134	134
			A5 W	-	540	614	525	600
Development Site	A5 W	-	89	89	89	89		
	A5 E	-	-	-	-	-		

Time Period >>	AM
Vehicle Type >>	Base Lights

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	AM Peak (07:15-08:15)				
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	526 65	513 65	524 65	514 65	524 65
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	529 645	422 628	492 628	413 616	484 614
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	47 768	48 667	48 667	48 685	48 687
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	18 34 1243	18 34 1128	18 34 1140	18 34 1150	18 34 1160
		Aldi	PFS A5 Watling Street (SE)	2 12	2 12	2 11	2 11	2 12
		PFS	A5 Watling Street (NW) Aldi A5 Watling Street (SE)	4 0 47	5 0 47	5 0 46	5 0 47	5 0 47
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	1166 14 4	1042 14 4	1112 14 3	1021 14 3	1092 14 3
		A47 N	Jacknell Road A47 S	93 643	93 600	93 602	93 596	93 598
3	Jacknell Road / A47	A47 S	Jacknell Road A47 N	109 422	104 387	104 386	101 388	102 388
		Jacknell Road	A47 S A47 N	17 17	17 17	17 17	17 17	
		A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	334 586 347	294 543 318	294 542 329	306 558 312	306 555 323
4	Dodwells Roundabout	A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	395 116 113	356 116 109	358 116 109	347 115 113	349 116 113
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	420 61 15	416 61 15	418 62 15	415 50 15	418 50 15
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	333 98 20	250 97 20	316 97 20	239 95 16	305 95 16
		B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	467 147	462 147	467 147	450 148	455 147
5	Harrowbrooks Road / B4666 Coventry Road	Harrowbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	20 33	20 33	20 33	20 33	20 33
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	161 563	152 528	152 528	151 540	151 539
		A5 W	A5 E Development Site	- -	450 0	462 0	448 0	459 0
6	A5 / Development Site Access	A5 E	Development Site A5 W	- -	0 371	0 438	0 354	0 421
		Development Site	A5 W A5 E	- -	0 -	0 -	0 -	0 -

Time Period >>	AM
Vehicle Type >>	Base Heavies

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	AM Peak (07:15-08:15)				
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	71 11	57 11	70 11	60 1	71 1
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	70 33	56 31	70 32	54 32	70 32
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	11 27	11 23	11 23	11 22	11 21
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	0 0 97	0 0 80	0 0 93	0 0 81	0 0 93
		Aldi	PFS A5 Watling Street (SE)	0 0	0 0	0 0	0 0	0 0
		PFS	A5 Watling Street (NW) Aldi A5 Watling Street (SE)	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	103 0 0	87 0 0	101 0 0	85 0 0	102 0 0
		A47 N	Jacknell Road A47 S	2 55	2 48	2 55	2 48	2 54
3	Jacknell Road / A47	A47 S	Jacknell Road A47 N	5 49	5 43	5 48	5 46	5 50
		Jacknell Road	A47 S A47 N	4 7	4 7	4 7	4 7	4 7
		A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	28 8 57	23 8 46	27 7 54	25 8 45	29 8 53
4	Dodwells Roundabout	A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	30 2 15	23 2 15	30 2 15	24 2 15	30 2 15
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	13 1 0	12 1 0	12 1 0	9 1 0	12 1 0
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	57 14 2	49 14 2	57 14 2	50 14 2	57 14 2
		B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	14 10	13 10	13 10	10 10	13 10
5	Harrowbrooks Road / B4666 Coventry Road	Harrowbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	9 0	9 0	9 0	0 0	0 0
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	0 12	0 11	0 11	0 11	0 11
		A5 W	A5 E Development Site	- -	69 0	77 0	67 0	75 0
6	A5 / Development Site Access	A5 E	Development Site A5 W	- -	0 72	0 80	0 73	0 81
		Development Site	A5 W A5 E	- -	0 -	0 -	0 -	0 -

Time Period >>	AM
Vehicle Type >>	Growth Lights

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	AM Peak (07:15-08:15)				
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	-	52	52	58	57
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	-	0	0	0	0
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	-	76	76	59	59
2	Aldi / Petrol Pump	A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	-	38	38	68	68
		A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	-	0	0	0	0
		Aldi	PFS A5 Watling Street (SE)	-	0	0	0	0
		PFS	A5 Watling Street (NW) Aldi A5 Watling Street (SE)	-	0	0	0	0
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	-	0	0	0	0
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	-	115	115	129	129
3	Jacknell Road / A47	A47 N	Jacknell Road A47 S	-	8	8	23	23
		A47 S	Jacknell Road A47 N	-	24	24	100	100
		Jacknell Road	A47 S A47 N	-	8	8	8	8
		Jacknell Road	A47 S A47 N	-	40	40	58	58
4	Dodwells Roundabout	A47 N	A47 S A47 N	-	2	2	2	2
		A47 S	A47 S A47 N	-	3	3	4	4
		A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	-	7	7	10	10
		A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	-	31	31	22	22
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	-	16	16	43	43
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	-	10	10	29	29
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	-	0	0	28	28
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	-	50	50	56	56
5	Harrowbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	-	47	47	52	52
		Harrowbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	-	5	5	0	0
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	-	0	0	0	0
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	-	6	6	7	7
6	A5 / Development Site Access	A5 W	A5 E Development Site	-	13	12	53	53
		A5 E	Development Site A5 W	-	0	0	0	0
		Development Site	A5 W A5 E	-	90	90	86	86
		Development Site	A5 W A5 E	-	0	0	0	0

Time Period >>	AM
Vehicle Type >>	PHF Lights

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	AM Peak (07:15-08:15)				
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	-	22 0	22 0	22 0	22 0
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	-	6 11	6 11	6 11	6 11
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	-	0 28	0 28	0 28	0 28
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	-	0 0 50	0 0 50	0 0 50	0 0 50
		Aldi	PFS A5 Watling Street (SE)	-	0 0	0 0	0 0	0 0
		PFS	A5 Watling Street (NW) Aldi A5 Watling Street (SE)	-	0 0 0	0 0 0	0 0 0	0 0 0
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi	-	17 0	17 0	17 0	17 0
			PFS	-	0	0	0	0
3	Jacknell Road / A47	A47 N	Jacknell Road A47 S	-	0 60	0 61	0 60	0 61
		A47 S	Jacknell Road A47 N	-	0 14	0 14	0 15	0 15
		Jacknell Road	A47 S A47 N	-	1 0	1 0	1 0	1 0
			A47 N	-	0	0	0	0
4	Dodwells Roundabout	A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	-	0 0 49	0 0 49	0 0 49	0 0 49
		A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	-	0 0 61	0 0 60	0 0 61	0 0 61
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	-	0 0 6	0 0 6	0 0 6	0 0 6
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road	-	17 14	17 14	17 15	17 15
			B4666 Coventry Road	-	9	9	9	9
5	Harrowbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	-	5 0	5 0	5 0	5 0
		Harrowbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	-	0 1	0 1	0 1	0 1
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	-	0 9	0 9	0 9	0 9
			A5 W	A5 E Development Site	-	19 114	19 114	18 115
6	A5 / Development Site Access	A5 E	Development Site A5 W	-	120 0	120 0	120 0	120 0
		Development Site	A5 W A5 E	-	60 -	60 -	60 -	60 -
			A5 E	-	-	-	-	-

Time Period >>	AM
Vehicle Type >>	PHF Heavies

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	AM Peak (07:15-08:15)				
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	-	10	10	10	10
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	-	0	0	0	0
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	-	8	8	8	8
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi	-	3	3	3	3
			PFS	-	0	0	0	0
		Aldi	A5 Watling Street (SE)	-	1	1	1	1
			A5 Watling Street (SE)	-	0	0	0	0
		PFS	A5 Watling Street (NW)	-	0	0	0	0
			A5 Watling Street (SE)	-	0	0	0	0
3	Jacknell Road / A47	A47 N	Jacknell Road A47 S	-	11	11	11	11
		A47 S	Jacknell Road A47 N	-	0	0	0	0
		Jacknell Road	A47 S A47 N	-	0	0	0	0
4	Dodwells Roundabout	A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	-	0	0	0	0
		A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	-	0	0	0	0
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	-	2	2	2	2
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	-	11	11	11	11
5	Harrowbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	-	0	0	0	0
		Harrowbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	-	0	0	0	0
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	-	0	0	0	0
6	A5 / Development Site Access	A5 W	A5 E Development Site	-	13	13	13	13
		A5 E	Development Site A5 W	-	15	15	15	15
		Development Site	A5 W A5 E	-	0	0	0	0
				-	29	29	29	29
				-	-	-	-	-

Time Period >>	PM
Vehicle Type >>	All Vehicles

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	PM Peak (16:00-17:00)				
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	534 58	638 58	694 58	629 54	685 53
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	685 693	679 682	695 680	684 740	701 738
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	110 708	111 707	110 705	110 721	110 718
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	52 35 1154	52 34 1257	52 34 1313	53 34 1262	52 34 1316
		Aldi	PFS A5 Watling Street (SE)	4 85	4 84	4 84	5 83	4 83
		PFS	A5 Watling Street (NW) Aldi A5 Watling Street (SE)	9 0 30	9 0 29	9 0 29	9 0 29	8 0 29
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	1373 55 0	1354 55 0	1368 55 0	1419 55 0	1435 55 0
		Jacknell Road	Jacknell Road A47 S A47 N	31 550 34	32 516 37	32 520 38	33 494 37	33 498 37
3	Jacknell Road / A47	A47 N	Jacknell Road A47 S	544	630	631	588	587
		A47 S	Jacknell Road A47 N	97 146	99 151	99 151	98 174	98 174
		Jacknell Road	A47 S A47 N	146	151	151	174	174
4	Dodwells Roundabout	A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	379 404 446	364 448 517	365 448 572	352 457 525	352 457 577
		A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	434 83 125	360 85 166	362 85 166	335 86 167	340 86 167
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	539 92 46	525 117 34	526 117 34	531 113 33	531 114 33
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	417 108 17	487 189 39	498 189 39	571 161 40	583 160 40
		B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	515 52	512 52	513 52	501 49	502 49
		Harrowbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	139 167	131 169	131 169	122 183	122 183
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	35 473	37 539	37 538	39 546	39 546
6	A5 / Development Site Access	A5 W	A5 E Development Site	- -	779 25	832 25	787 25	838 25
		A5 E	Development Site A5 W	- -	36 573	36 584	36 630	36 642
		Development Site	A5 W A5 E	- -	233 -	233 -	234 -	234 -

Time Period >>	PM
Vehicle Type >>	Base Lights

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	PM Peak (16:00-17:00)				
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	474 53	415 52	470 53	421 53	477 52
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	607 672	558 619	567 618	525 603	534 602
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	103 676	103 654	103 652	102 629	102 627
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	52 35 1061	52 34 981	52 34 1037	53 34 964	52 34 1018
		Aldi	PFS A5 Watling Street (SE)	4 85	4 84	4 84	5 83	4 83
		PFS	A5 Watling Street (NW) Aldi A5 Watling Street (SE)	9 0 30	9 0 29	9 0 29	9 0 29	8 0 29
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	1274 55 0	1169 55 0	1175 55 0	1121 55 0	1130 55 0
		A47 N	Jacknell Road A47 S	28 509	28 430	28 430	28 404	28 404
3	Jacknell Road / A47	A47 S	Jacknell Road A47 N	26 512	26 488	26 488	26 446	26 445
		Jacknell Road	A47 S A47 N	91 141	90 141	90 141	89 141	89 141
		A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	349 392 400	323 391 347	324 391 402	303 392 349	303 392 400
4	Dodwells Roundabout	A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	404 83 105	327 83 106	326 83 106	303 81 106	303 81 105
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	528 92 46	509 92 33	510 92 33	485 91 32	485 91 32
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	365 98 17	357 99 16	364 99 16	357 77 17	365 77 17
		B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	504 43	477 43	478 43	448 40	449 40
5	Harrowbrooks Road / B4666 Coventry Road	Harrowbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	134 167	131 162	131 162	122 166	122 166
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	35 460	34 460	34 459	34 458	34 458
		A5 W	A5 E Development Site	- -	494 0	546 0	493 0	545 0
6	A5 / Development Site Access	A5 E	Development Site A5 W	- -	0 480	0 488	0 458	0 466
		Development Site	A5 W A5 E	- -	0 -	0 -	0 -	0 -

Time Period >>	PM
Vehicle Type >>	Base Heavies

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	PM Peak (16:00-17:00)				
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	60 6	60 6	60 6	60 1	60 1
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	78 10	71 9	78 9	70 9	78 9
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	8 21	8 22	8 22	8 22	8 22
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	0 0 82	0 0 82	0 0 82	0 0 82	0 0 82
		Aldi	PFS A5 Watling Street (SE)	0 0	0 0	0 0	0 0	0 0
		PFS	A5 Watling Street (NW) Aldi A5 Watling Street (SE)	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	88 0 0	80 0 0	88 0 0	80 0 0	88 0 0
3	Jacknell Road / A47	A47 N	Jacknell Road A47 S	3 39	3 35	3 39	3 35	3 39
		A47 S	Jacknell Road A47 N	9 28	9 28	9 28	9 28	9 28
		Jacknell Road	A47 S A47 N	6 5	6 5	6 5	6 5	6 5
4	Dodwells Roundabout	A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	26 5 45	27 5 45	27 5 46	27 5 45	27 5 46
		A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	26 0 19	22 0 19	26 0 19	22 0 19	26 0 19
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	3 0 0	3 0 0	3 0 0	3 0 0	3 0 0
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	53 9 0	49 10 0	53 10 0	50 10 0	53 10 0
5	Harrowbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	3 9	3 9	3 9	3 9	3 9
		Harrowbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	5 0	0 0	0 0	0 0	0 0
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	0 5	0 5	0 5	0 5	0 5
6	A5 / Development Site Access	A5 W	A5 E Development Site	- -	73 0	73 0	73 0	72 0
		A5 E	Development Site A5 W	- -	0 65	0 69	0 65	0 69
		Development Site	A5 W A5 E	- -	0 -	0 -	0 -	0 -

Time Period >>	PM
Vehicle Type >>	Growth Lights

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	PM Peak (16:00-17:00)				
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	-	144	145	119	120
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	-	0	0	0	0
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	-	10	10	36	36
2	Aldi / Petrol Pump	A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	-	8	8	80	79
		A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	-	0	0	0	0
		Aldi	PFS A5 Watling Street (SE)	-	0	0	0	0
		PFS	A5 Watling Street (NW) Aldi A5 Watling Street (SE)	-	0	0	0	0
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	-	17	17	117	117
		Jacknell Road / A47	Jacknell Road A47 S A47 N A47 S A47 N	-	0	0	0	0
3	Jacknell Road / A47	A47 N	Jacknell Road A47 S	-	1	1	3	3
		A47 S	Jacknell Road A47 N	-	2	2	2	2
		Jacknell Road	A47 S A47 N	-	33	33	27	27
4	Dodwells Roundabout	A47 N	A47 S A47 N	-	3	3	3	3
		A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	-	2	2	7	7
		A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	-	45	45	53	53
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	-	107	107	105	105
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	-	3	3	3	3
		Harrobbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E) Harrobbrook Road B4666 Coventry Road (W)	-	2	2	4	4
5	Harrobbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrobbrook Road	-	23	23	41	41
		Harrobbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	-	0	0	0	0
		B4666 Coventry Road (W)	Harrobbrook Road B4666 Coventry Road (E)	-	7	7	17	17
6	A5 / Development Site Access	A5 W	A5 E Development Site	-	2	2	4	4
		A5 E	Development Site A5 W	-	48	48	58	58
		Development Site	A5 W A5 E	-	10	10	79	79
6	A5 / Development Site Access	A5 W	A5 E Development Site	-	9	9	0	0
		A5 E	Development Site A5 W	-	3	3	4	4
		Development Site	A5 W A5 E	-	22	22	84	84
6	A5 / Development Site Access	A5 W	A5 E Development Site	-	0	0	0	0
		A5 E	Development Site A5 W	-	0	0	0	0
		Development Site	A5 W A5 E	-	0	0	0	0

Time Period >>	PM
Vehicle Type >>	Growth Heavies

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	PM Peak (16:00-17:00)				
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	-	10	10	20	20
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	-	0	0	0	0
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	-	10	10	25	25
2	Aldi / Petrol Pump	Aldi	A5 Watling Street (NW)	-	1	1	2	2
		PFS	A5 Watling Street (NW) A5 Watling Street (SE)	-	0	0	0	0
		A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	-	0	0	0	0
		Aldi	A5 Watling Street (NW) A5 Watling Street (SE)	-	0	0	0	0
		PFS	A5 Watling Street (NW) A5 Watling Street (SE)	-	0	0	0	0
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	-	11	11	27	27
3	Jacknell Road / A47	A47 N	Jacknell Road A47 S	-	0	0	0	0
		A47 S	Jacknell Road A47 N	-	34	34	34	34
		A47 N	Jacknell Road A47 S	-	0	0	0	0
		Jacknell Road	A47 S A47 N	-	8	8	12	12
4	Dodwells Roundabout	A47 N	Jacknell Road A47 S	-	0	0	0	0
		A47 S	Jacknell Road A47 N	-	0	0	0	0
		A47 N	Jacknell Road A47 S	-	0	0	0	0
		Jacknell Road	A47 S A47 N	-	0	0	0	0
		A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	-	8	8	12	12
		A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	-	0	0	0	0
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	-	5	5	13	14
A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	-	5	5	5	5		
5	Harrowbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	-	0	0	0	0
		Harrowbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	-	0	0	0	0
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	-	0	0	0	0
		B4666 Coventry Road (E)	B4666 Coventry Road (W) B4666 Coventry Road (E)	-	0	0	0	0
6	A5 / Development Site Access	A5 W	A5 E Development Site	-	7	7	23	23
		A5 E	Development Site A5 W	-	0	0	0	0
		Development Site	A5 W A5 E	-	0	0	0	0
		A5 W	A5 E Development Site	-	34	33	42	42

Time Period >>	PM
Vehicle Type >>	PHF Lights

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Junction No.	Junction Name	From	To	PM Peak (16:00-17:00)				
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	-	6	6	6	6
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	-	0	0	0	0
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	-	27	27	25	25
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi PFS A5 Watling Street (SE)	-	33	33	34	34
		Aldi	PFS A5 Watling Street (SE)	-	0	0	0	0
		PFS	A5 Watling Street (NW) Aldi A5 Watling Street (SE)	-	0	0	0	0
		A5 Watling Street (SE)	A5 Watling Street (NW) Aldi PFS	-	0	0	0	0
				-	60	60	59	59
				-	0	0	0	0
3	Jacknell Road / A47	A47 N	Jacknell Road A47 S	-	0	0	0	0
		A47 S	Jacknell Road A47 N	-	13	13	13	13
		Jacknell Road	A47 S A47 N	-	1	1	1	1
4	Dodwells Roundabout	A5 Watling Street (NW)	A47 Dodwells Road B4866 Coventry Road A5 Watling Street (SE)	-	69	69	70	70
		A47 Dodwells Road	A5 Watling Street (NW) B4866 Coventry Road A5 Watling Street (SE)	-	0	0	0	0
		B4866 Coventry Road	A5 Watling Street (NW) A47 Dodwells Road A5 Watling Street (SE)	-	0	0	0	0
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Dodwells Road B4666 Coventry Road	-	12	12	12	12
5	Harrowbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E)	B4866 Coventry Road (W) Harrowbrook Road	-	0	0	0	0
		Harrowbrook Road	B4666 Coventry Road (E) B4666 Coventry Road (W)	-	0	0	0	0
		B4666 Coventry Road (W)	Harrowbrook Road B4666 Coventry Road (E)	-	1	1	1	1
6	A5 / Development Site Access	A5 W	A5 E Development Site	-	18	18	18	18
		A5 E	Development Site A5 W	-	68	68	69	69
		Development Site	A5 W A5 E	-	22	23	22	22
		-	31	31	31	31		
		-	0	0	0	0		
		-	222	222	223	223		
		-	-	-	-	-		

Time Period >>	PM
Vehicle Type >>	PHF Heavies

Scenario 1 Scenario 2 Scenario 3 Scenario 4

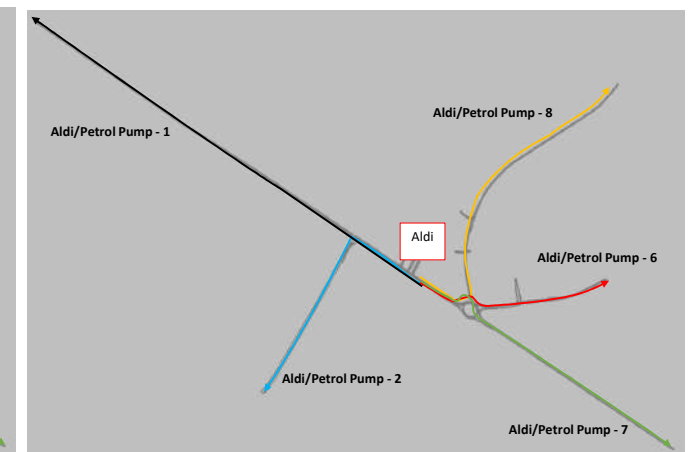
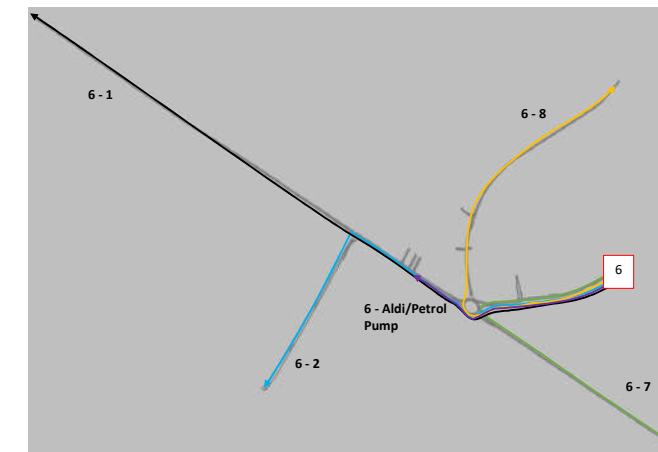
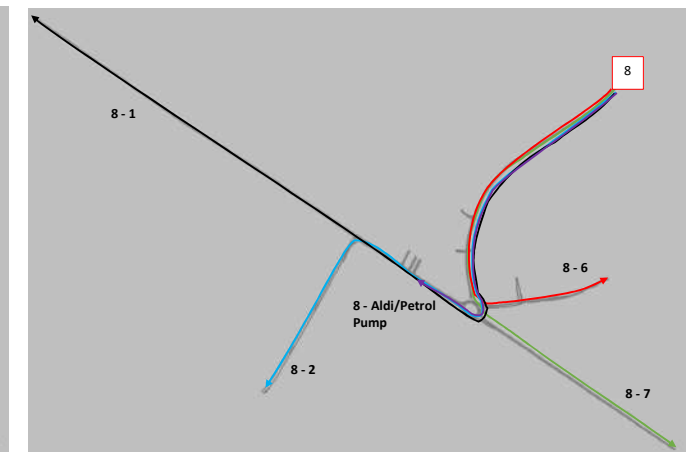
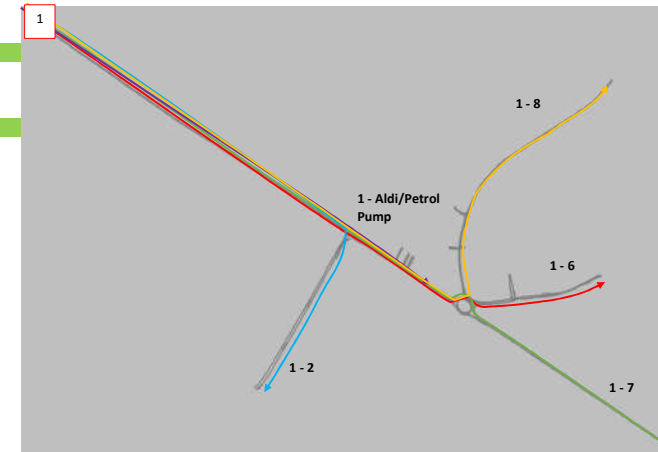
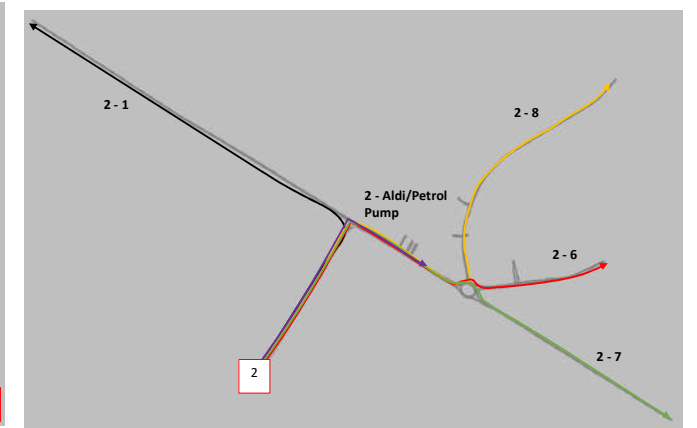
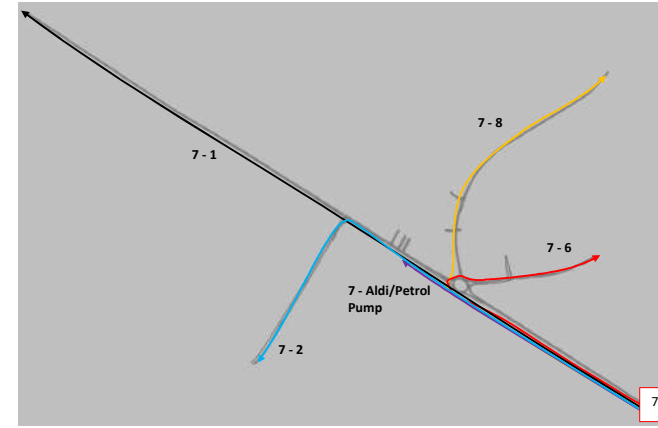
Junction No.	Junction Name	From	To	PM Peak (16:00-17:00)				
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA
1	Long Shoot	A5 Watling Street (NW)	A5 Watling Street (SE) A47 Long Shoot	-	3	3	3	3
		A5 Watling Street (SE)	A5 Watling Street (NW) A47 Long Shoot	-	0	0	0	0
		A47 Long Shoot	A5 Watling Street (NW) A5 Watling Street (SE)	-	4	4	3	3
2	Aldi / Petrol Pump	A5 Watling Street (NW)	Aldi	-	1	1	1	1
			PFS	-	0	0	0	0
		Aldi	A5 Watling Street (SE)	-	0	0	0	0
			A5 Watling Street (NW)	-	3	3	3	3
		PFS	Aldi	-	0	0	0	0
			A5 Watling Street (SE)	-	0	0	0	0
3	Jacknell Road / A47	A47 N	Jacknell Road	-	5	5	4	4
			A47 S	-	0	0	0	0
		Jacknell Road	Aldi	-	0	0	0	0
4	Dodwells Roundabout	A5 Watling Street (NW)	Jacknell Road	-	0	0	0	0
			A47 S	-	0	0	0	0
			Jacknell Road	A47 S	-	1	1	2
		A47 Dodwells Road	A47 S	-	0	0	0	0
			A5 Watling Street (SE)	-	0	0	0	0
		B4866 Coventry Road	A47 N	-	0	0	0	0
			A5 Watling Street (SE)	-	0	0	0	0
5	Harrowbrooks Road / B4666 Coventry Road	B4666 Coventry Road (E)	Aldi	-	0	0	0	0
			PFS	-	0	0	0	0
		Harrowbrook Road	A47 S	-	0	0	0	0
			B4666 Coventry Road (W)	-	0	0	0	0
6	A5 / Development Site Access	A5 W	Jacknell Road	-	0	0	0	0
			A47 N	-	0	0	0	0
		Development Site	A47 N	-	0	0	0	0

Time Period >>	AM
Vehicle Type	All Vehicles

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Journey Times by Segment (s)

No.	JT Segment	Description	AM Peak (07:15-08:15)					% Difference	
			AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIR A v Ref+PHF	2031 Ref+PHF+MIR A v Ref+PHF
1	7 - 1	A5 Watling Street SE to A5 Watling Street NW	265	280	286	280	285	2%	2%
2	7 - 2	A5 Watling Street SE to A47 The Long Shoot	201	219	224	219	223	2%	1%
3	7 - 8	A5 Watling Street SE to A47 Dodwells Road	216	227	227	226	228	0%	1%
4	7 - 6	A5 Watling Street SE to B4666 Coventry Road	157	167	168	169	167	1%	-2%
5	7 - Aldi/Petrol Pump	A5 Watling Street SE to Aldi/Petrol Pump	102	123	127	124	127	3%	2%
6	2 - 1	A47 The Long Shoot to A5 Watling Street NW	194	189	194	190	197	3%	4%
7	2 - 8	A47 The Long Shoot to A47 Dodwells Road	324	313	319	318	324	2%	2%
8	2 - 6	A47 The Long Shoot to B4666 Coventry Road	251	242	248	248	252	3%	2%
9	2 - 7	A47 The Long Shoot to A5 Watling Street SE	332	337	346	368	397	3%	8%
10	2 - Aldi/Petrol Pump	A47 The Long Shoot to Aldi/Petrol Pump	155	146	153	150	156	5%	4%
11	1 - 8	A5 Watling Street NE to A47 Dodwells Road	339	333	339	341	345	2%	1%
12	1 - 6	A5 Watling Street NE to B4666 Coventry Road	266	264	266	270	269	1%	0%
13	1 - 7	A5 Watling Street NE to A5 Watling Street SE	345	355	363	385	410	2%	6%
14	1 - 2	A5 Watling Street NE to A47 The Long Shoot	183	182	188	181	185	3%	2%
15	1 - Aldi/Petrol Pump	A5 Watling Street NE to Aldi/Petrol Pump	171	168	172	174	176	2%	1%
16	8 - 7	A47 Dodwells Road to A5 Watling Street SE	282	300	306	352	371	2%	6%
17	8 - 6	A47 Dodwells Road to B4666 Coventry Road	197	204	206	234	231	1%	-1%
18	8 - 2	A47 Dodwells Road to A47 The Long Shoot	296	306	311	328	330	2%	1%
19	8 - Aldi/Petrol Pump	A47 Dodwells Road to Aldi/Petrol Pump	195	205	210	228	231	2%	1%
20	8 - 1	A47 Dodwells Road to A5 Watling Street NW	356	363	371	385	389	2%	1%
21	6 - 7	B4666 Coventry Road to A5 Watling Street SE	197	212	222	245	274	5%	12%
22	6 - 2	B4666 Coventry Road to A47 The Long Shoot	207	213	220	213	217	3%	2%
23	6 - 1	B4666 Coventry Road to A5 Watling Street NW	267	271	280	272	278	3%	2%
24	6 - 8	B4666 Coventry Road to A47 Dodwells Road	242	241	249	240	247	3%	3%
25	6 - Aldi/Petrol Pump	B4666 Coventry Road to Aldi/Petrol Pump	107	114	120	113	118	5%	4%
26	Aldi/Petrol Pump - 2	Aldi/Petrol Pump to A47 The Long Shoot	99	99	100	99	99	1%	0%
27	Aldi/Petrol Pump - 1	Aldi/Petrol Pump to A5 Watling Street NW	162	157	160	158	159	2%	1%
28	Aldi/Petrol Pump - 8	Aldi/Petrol Pump to A47 Dodwells Road	167	165	165	167	167	0%	0%
29	Aldi/Petrol Pump - 6	Aldi/Petrol Pump to B4666 Dodwells Road	97	96	95	97	96	0%	-1%
30	Aldi/Petrol Pump - 7	Aldi/Petrol Pump to A5 Watling Street SE	176	188	192	213	235	2%	10%

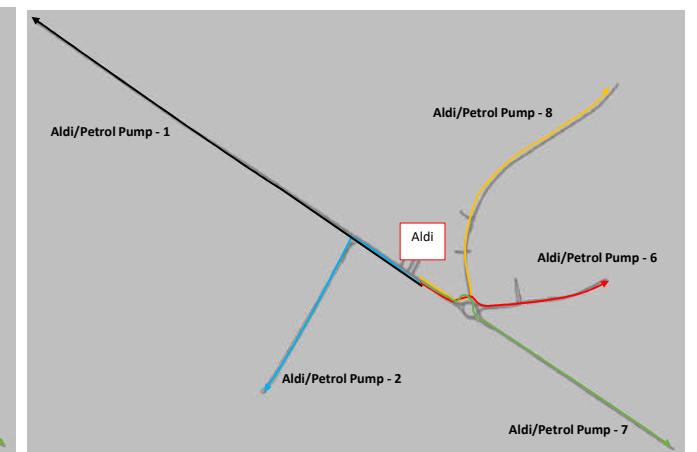
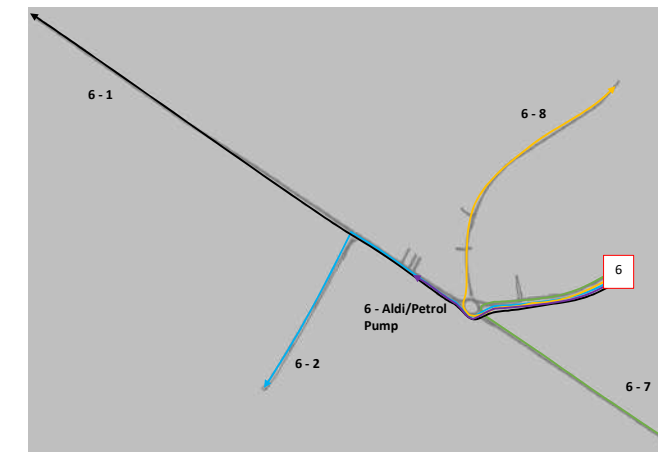
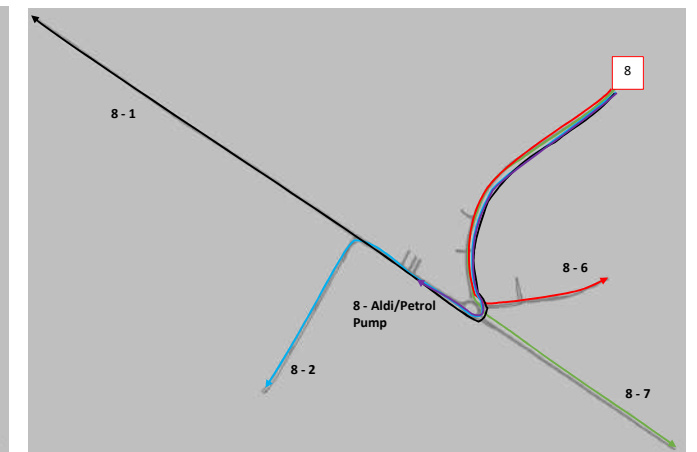
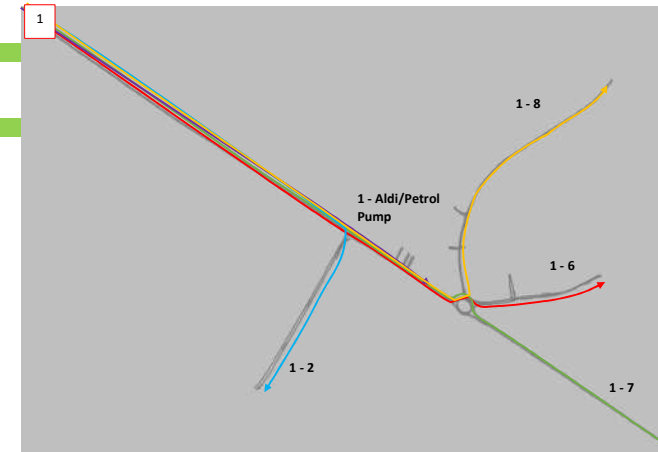
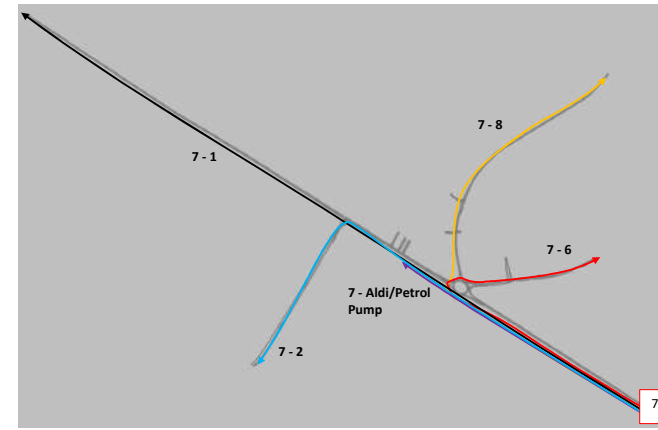


Time Period >>	PM
Vehicle Type	All Vehicles

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Journey Times by Segment (s)

No.	JT Segment	Description	PM Peak (16:00-17:00)					% Difference	
			PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIR A v Ref+PHF	2031 Ref+PHF+MIR A v Ref+PHF
1	7 - 1	A5 Watling Street SE to A5 Watling Street NW	268	285	288	290	290	1%	0%
2	7 - 2	A5 Watling Street SE to A47 The Long Shoot	200	215	217	220	221	1%	0%
3	7 - 8	A5 Watling Street SE to A47 Dodwells Road	213	231	232	231	230	0%	0%
4	7 - 6	A5 Watling Street SE to B4666 Coventry Road	152	161	164	163	166	2%	2%
5	7 - Aldi/Petrol Pump	A5 Watling Street SE to Aldi/Petrol Pump	105	124	126	128	129	1%	0%
6	2 - 1	A47 The Long Shoot to A5 Watling Street NW	191	194	195	192	196	1%	2%
7	2 - 8	A47 The Long Shoot to A47 Dodwells Road	319	304	309	303	307	2%	1%
8	2 - 6	A47 The Long Shoot to B4666 Coventry Road	236	228	234	228	232	2%	2%
9	2 - 7	A47 The Long Shoot to A5 Watling Street SE	272	275	282	275	279	2%	1%
10	2 - Aldi/Petrol Pump	A47 The Long Shoot to Aldi/Petrol Pump	136	139	143	139	142	3%	2%
11	1 - 8	A5 Watling Street NE to A47 Dodwells Road	340	328	330	327	331	1%	1%
12	1 - 6	A5 Watling Street NE to B4666 Coventry Road	265	253	258	252	255	2%	1%
13	1 - 7	A5 Watling Street NE to A5 Watling Street SE	299	301	307	301	306	2%	2%
14	1 - 2	A5 Watling Street NE to A47 The Long Shoot	181	183	182	182	182	0%	0%
15	1 - Aldi/Petrol Pump	A5 Watling Street NE to Aldi/Petrol Pump	161	163	166	163	165	2%	1%
16	8 - 7	A47 Dodwells Road to A5 Watling Street SE	236	264	266	261	263	0%	1%
17	8 - 6	A47 Dodwells Road to B4666 Coventry Road	190	209	211	207	208	1%	0%
18	8 - 2	A47 Dodwells Road to A47 The Long Shoot	291	313	314	314	315	0%	0%
19	8 - Aldi/Petrol Pump	A47 Dodwells Road to Aldi/Petrol Pump	194	216	217	216	218	0%	1%
20	8 - 1	A47 Dodwells Road to A5 Watling Street NW	352	377	378	376	379	0%	1%
21	6 - 7	B4666 Coventry Road to A5 Watling Street SE	160	165	172	172	176	4%	3%
22	6 - 2	B4666 Coventry Road to A47 The Long Shoot	210	216	218	223	227	1%	2%
23	6 - 1	B4666 Coventry Road to A5 Watling Street NW	275	282	285	287	291	1%	2%
24	6 - 8	B4666 Coventry Road to A47 Dodwells Road	248	257	256	258	263	0%	2%
25	6 - Aldi/Petrol Pump	B4666 Coventry Road to Aldi/Petrol Pump	115	120	123	127	130	3%	3%
26	Aldi/Petrol Pump - 2	Aldi/Petrol Pump to A47 The Long Shoot	96	95	95	96	96	0%	0%
27	Aldi/Petrol Pump - 1	Aldi/Petrol Pump to A5 Watling Street NW	162	161	162	161	162	1%	0%
28	Aldi/Petrol Pump - 8	Aldi/Petrol Pump to A47 Dodwells Road	182	165	166	164	165	1%	1%
29	Aldi/Petrol Pump - 6	Aldi/Petrol Pump to B4666 Coventry Road	101	89	91	89	90	2%	0%
30	Aldi/Petrol Pump - 7	Aldi/Petrol Pump to A5 Watling Street SE	137	137	140	137	140	2%	2%



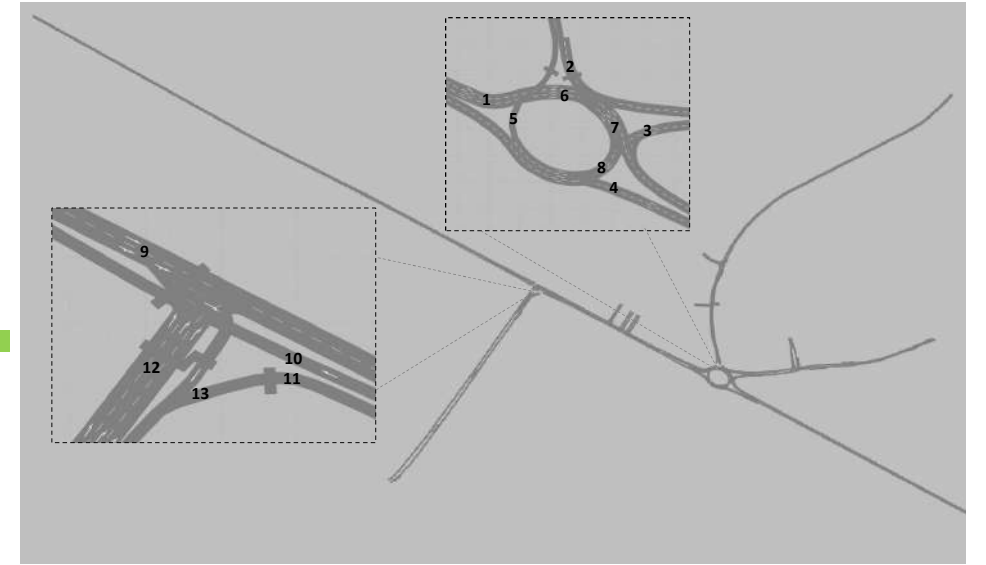
Time Period >>	AM
Queue Type>>	Average

Metres per vehicle **6**

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Queue Lengths (metres)

Junction No.	Junction Description	Queue Marker No.	Location	AM Peak (07:15-08:15)					Difference	
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIRA v Ref+PHF	2031 Ref+PHF+MIRA v Ref+PHF
1	Dodwells Roundabout	1	A5 Watling Street NW	28	19	19	23	22	0	-1
		2	A47 Dodwells Road	23	34	38	110	104	4	-6
		3	B4666 Coventry Road	14	16	18	15	17	1	1
		4	A5 Watling Street SE	10	8	9	8	9	1	1
		5	West Circulatory	5	5	5	4	4	0	0
		6	North Circulatory	4	6	6	6	6	0	0
		7	North-East Circulatory	6	5	6	6	6	0	0
		8	South-East Circulatory	2	1	2	1	2	0	0
2	Long Shoot	9	A5 Watling Street NW	19	20	25	27	30	4	3
		10	A5 Watling Street SE (ahead)	29	15	27	15	19	12	4
		11	A5 Watling Street SE (left turn before signals)	0	0	0	0	0	0	0
		12	A47 The Long Shoot	41	25	33	28	38	8	10
		13	A5 Watling Street SE (left turn give way)	0	0	0	0	0	0	0
3	Development Site	14	A5 W (right turn)	-	3	3	2	3	0	0
		15	A5 W (ahead)	-	1	1	1	1	0	0
		16	A5 E	-	3	4	3	4	1	0
		17	Development Site	-	2	2	2	2	0	0



Queue Lengths (Vehs)

Junction No.	Junction Description	Queue Marker No.	Location	AM Peak (07:15-08:15)					Difference	
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIRA v Ref+PHF	2031 Ref+PHF+MIRA v Ref+PHF
1	Dodwells Roundabout	1	A5 Watling Street NW	5	3	3	4	4	0	0
		2	A47 Dodwells Road	4	6	6	18	17	1	-1
		3	B4666 Coventry Road	2	3	3	3	3	0	0
		4	A5 Watling Street SE	2	1	1	1	1	0	0
		5	West Circulatory	1	1	1	1	1	0	0
		6	North Circulatory	1	1	1	1	1	0	0
		7	North-East Circulatory	1	1	1	1	1	0	0
		8	South-East Circulatory	0	0	0	0	0	0	0
2	Long Shoot	9	A5 Watling Street NW	3	3	4	4	5	1	0
		10	A5 Watling Street SE (ahead)	5	3	4	2	3	2	1
		11	A5 Watling Street SE (left turn before signals)	0	0	0	0	0	0	0
		12	A47 The Long Shoot	7	4	6	5	6	1	2
		13	A5 Watling Street SE (left turn give way)	0	0	0	0	0	0	0
3	Development Site	14	A5 W (right turn)	-	0	0	0	0	0	0
		15	A5 W (ahead)	-	0	0	0	0	0	0
		16	A5 E	-	1	1	1	1	0	0
		17	Development Site	-	0	0	0	0	0	0



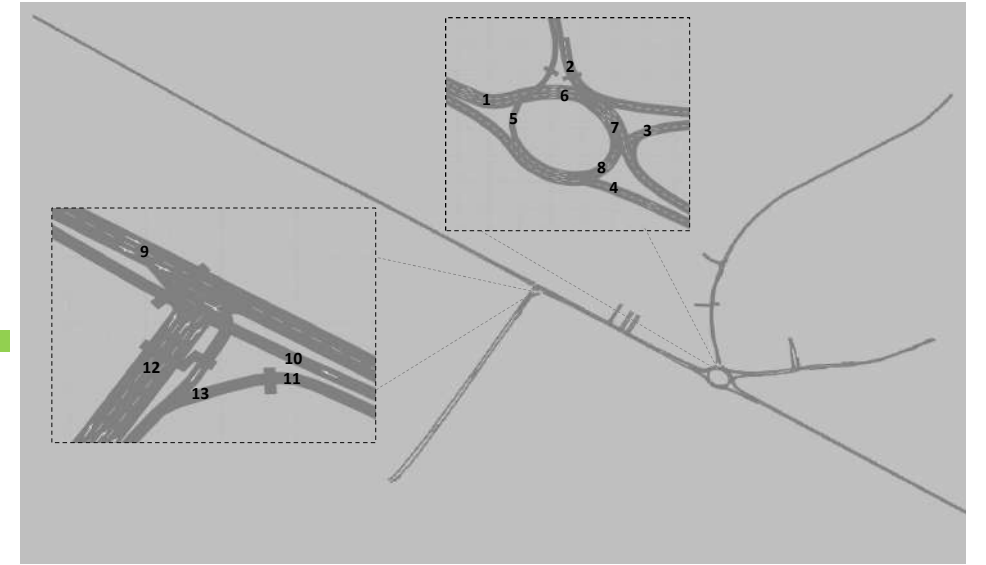
Time Period >>	AM
Queue Type>>	Max

Metres per vehicle **6**

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Queue Lengths (metres)

Junction No.	Junction Description	Queue Marker No.	Location	AM Peak (07:15-08:15)					Difference	
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIRA v Ref+PHF	2031 Ref+PHF+MIRA v Ref+PHF
1	Dodwells Roundabout	1	A5 Watling Street NW	196	105	105	166	117	0	-49
		2	A47 Dodwells Road	174	219	220	451	392	2	-58
		3	B4666 Coventry Road	64	73	77	75	76	4	1
		4	A5 Watling Street SE	72	57	58	55	56	1	1
		5	West Circulatory	62	69	68	60	71	-1	11
		6	North Circulatory	53	51	51	50	54	-1	4
		7	North-East Circulatory	57	58	59	61	59	1	-1
		8	South-East Circulatory	42	41	41	40	41	-1	1
2	Long Shoot	9	A5 Watling Street NW	168	182	196	241	220	14	-21
		10	A5 Watling Street SE (ahead)	357	163	277	160	203	114	43
		11	A5 Watling Street SE (left turn before signals)	29	38	38	26	33	0	7
		12	A47 The Long Shoot	341	223	258	259	332	35	73
		13	A5 Watling Street SE (left turn give way)	31	29	29	29	29	0	0
3	Development Site	14	A5 W (right turn)	-	34	35	34	38	0	5
		15	A5 W (ahead)	-	56	64	57	59	8	2
		16	A5 E	-	46	51	43	47	6	4
		17	Development Site	-	33	33	33	33	0	0



Queue Lengths (Vehs)

Junction No.	Junction Description	Queue Marker No.	Location	AM Peak (07:15-08:15)					Difference	
				AM Base	AM 2023 Ref + PHF	AM 2023 Ref + PHF + MIRA	AM 2031 Ref + PHF	AM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIRA v Ref+PHF	2031 Ref+PHF+MIRA v Ref+PHF
1	Dodwells Roundabout	1	A5 Watling Street NW	33	17	17	28	20	0	-8
		2	A47 Dodwells Road	29	36	37	75	65	0	-10
		3	B4666 Coventry Road	11	12	13	13	13	1	0
		4	A5 Watling Street SE	12	10	10	9	9	0	0
		5	West Circulatory	10	11	11	10	12	0	2
		6	North Circulatory	9	9	8	8	9	0	1
		7	North-East Circulatory	10	10	10	10	10	0	0
		8	South-East Circulatory	7	7	7	7	7	0	0
2	Long Shoot	9	A5 Watling Street NW	28	30	33	40	37	2	-4
		10	A5 Watling Street SE (ahead)	60	27	46	27	34	19	7
		11	A5 Watling Street SE (left turn before signals)	5	6	6	4	6	0	1
		12	A47 The Long Shoot	57	37	43	43	55	6	12
		13	A5 Watling Street SE (left turn give way)	5	5	5	5	5	0	0
3	Development Site	14	A5 W (right turn)	-	6	6	6	6	0	1
		15	A5 W (ahead)	-	9	11	9	10	1	0
		16	A5 E	-	8	9	7	8	1	1
		17	Development Site	-	6	6	6	6	0	0



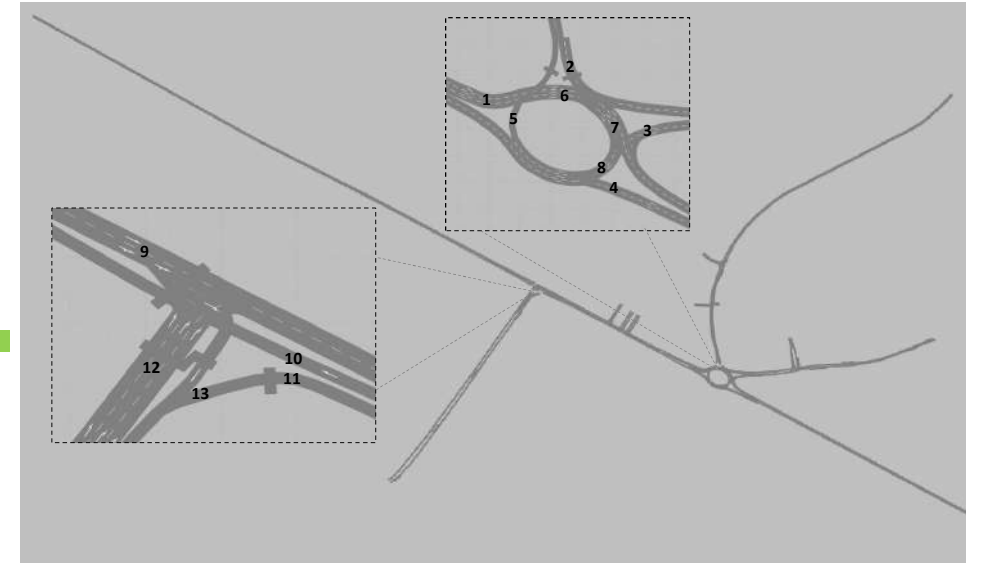
Time Period >>	PM
Queue Type>>	Average

Metres per vehicle **6**

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Queue Lengths (metres)

Junction No.	Junction Description	Queue Marker No.	Location	PM Peak (16:00-17:00)					Difference	
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIRA v Ref+PHF	2031 Ref+PHF+MIRA v Ref+PHF
1	Dodwells Roundabout	1	A5 Watling Street NW	65	28	33	20	21	5	1
		2	A47 Dodwells Road	13	45	45	39	39	0	0
		3	B4666 Coventry Road	23	23	25	26	30	2	4
		4	A5 Watling Street SE	9	10	10	11	11	0	0
		5	West Circulatory	4	8	8	7	7	0	0
		6	North Circulatory	3	5	6	5	6	1	1
		7	North-East Circulatory	7	6	6	5	6	0	1
		8	South-East Circulatory	3	2	2	2	3	0	1
2	Long Shoot	9	A5 Watling Street NW	11	17	22	16	20	5	4
		10	A5 Watling Street SE (ahead)	18	19	23	17	18	5	1
		11	A5 Watling Street SE (left turn before signals)	0	0	0	0	0	0	0
		12	A47 The Long Shoot	20	23	26	23	27	3	3
		13	A5 Watling Street SE (left turn give way)	0	0	0	0	0	0	0
3	Development Site	14	A5 W (right turn)	-	0	0	0	0	0	0
		15	A5 W (ahead)	-	1	1	1	1	0	0
		16	A5 E	-	3	3	3	3	0	0
		17	Development Site	-	6	6	6	6	0	0



Queue Lengths (Vehs)

Junction No.	Junction Description	Queue Marker No.	Location	PM Peak (16:00-17:00)					Difference	
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIRA v Ref+PHF	2031 Ref+PHF+MIRA v Ref+PHF
1	Dodwells Roundabout	1	A5 Watling Street NW	11	5	6	3	3	1	0
		2	A47 Dodwells Road	2	7	7	7	6	0	0
		3	B4666 Coventry Road	4	4	4	4	5	0	1
		4	A5 Watling Street SE	1	2	2	2	2	0	0
		5	West Circulatory	1	1	1	1	1	0	0
		6	North Circulatory	0	1	1	1	1	0	0
		7	North-East Circulatory	1	1	1	1	1	0	0
		8	South-East Circulatory	0	0	0	0	1	0	0
2	Long Shoot	9	A5 Watling Street NW	2	3	4	3	3	1	1
		10	A5 Watling Street SE (ahead)	3	3	4	3	3	1	0
		11	A5 Watling Street SE (left turn before signals)	0	0	0	0	0	0	0
		12	A47 The Long Shoot	3	4	4	4	4	1	1
		13	A5 Watling Street SE (left turn give way)	0	0	0	0	0	0	0
3	Development Site	14	A5 W (right turn)	-	0	0	0	0	0	0
		15	A5 W (ahead)	-	0	0	0	0	0	0
		16	A5 E	-	0	0	1	1	0	0
		17	Development Site	-	1	1	1	1	0	0



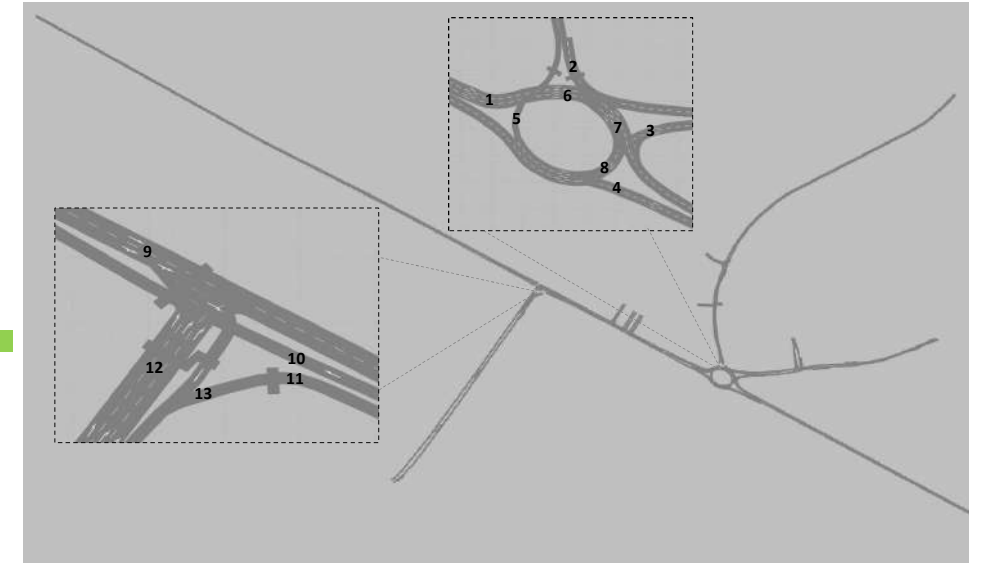
Time Period >>	PM
Queue Type>>	Max

Metres per vehicle **6**

Scenario 1 Scenario 2 Scenario 3 Scenario 4

Queue Lengths (metres)

Junction No.	Junction Description	Queue Marker No.	Location	PM Peak (16:00-17:00)					Difference	
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIRA v Ref+PHF	2031 Ref+PHF+MIRA v Ref+PHF
1	Dodwells Roundabout	1	A5 Watling Street NW	382	189	285	111	110	96	0
		2	A47 Dodwells Road	135	238	236	208	200	-2	-8
		3	B4666 Coventry Road	98	93	115	120	142	22	22
		4	A5 Watling Street SE	72	59	61	63	63	2	0
		5	West Circulatory	44	88	84	81	83	-4	3
		6	North Circulatory	52	49	52	51	51	3	0
		7	North-East Circulatory	58	58	58	58	59	-1	2
		8	South-East Circulatory	46	44	44	43	46	0	3
2	Long Shoot	9	A5 Watling Street NW	136	179	204	163	194	24	31
		10	A5 Watling Street SE (ahead)	192	170	192	136	150	21	14
		11	A5 Watling Street SE (left turn before signals)	28	30	18	17	19	-12	2
		12	A47 The Long Shoot	102	115	153	131	146	38	15
		13	A5 Watling Street SE (left turn give way)	26	29	27	28	26	-3	-1
3	Development Site	14	A5 W (right turn)	-	18	16	20	17	-2	-3
		15	A5 W (ahead)	-	85	84	83	91	-1	8
		16	A5 E	-	44	45	42	46	1	4
		17	Development Site	-	52	52	51	51	0	0

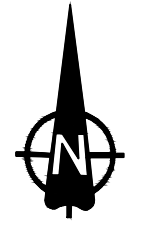


Queue Lengths (Vehs)

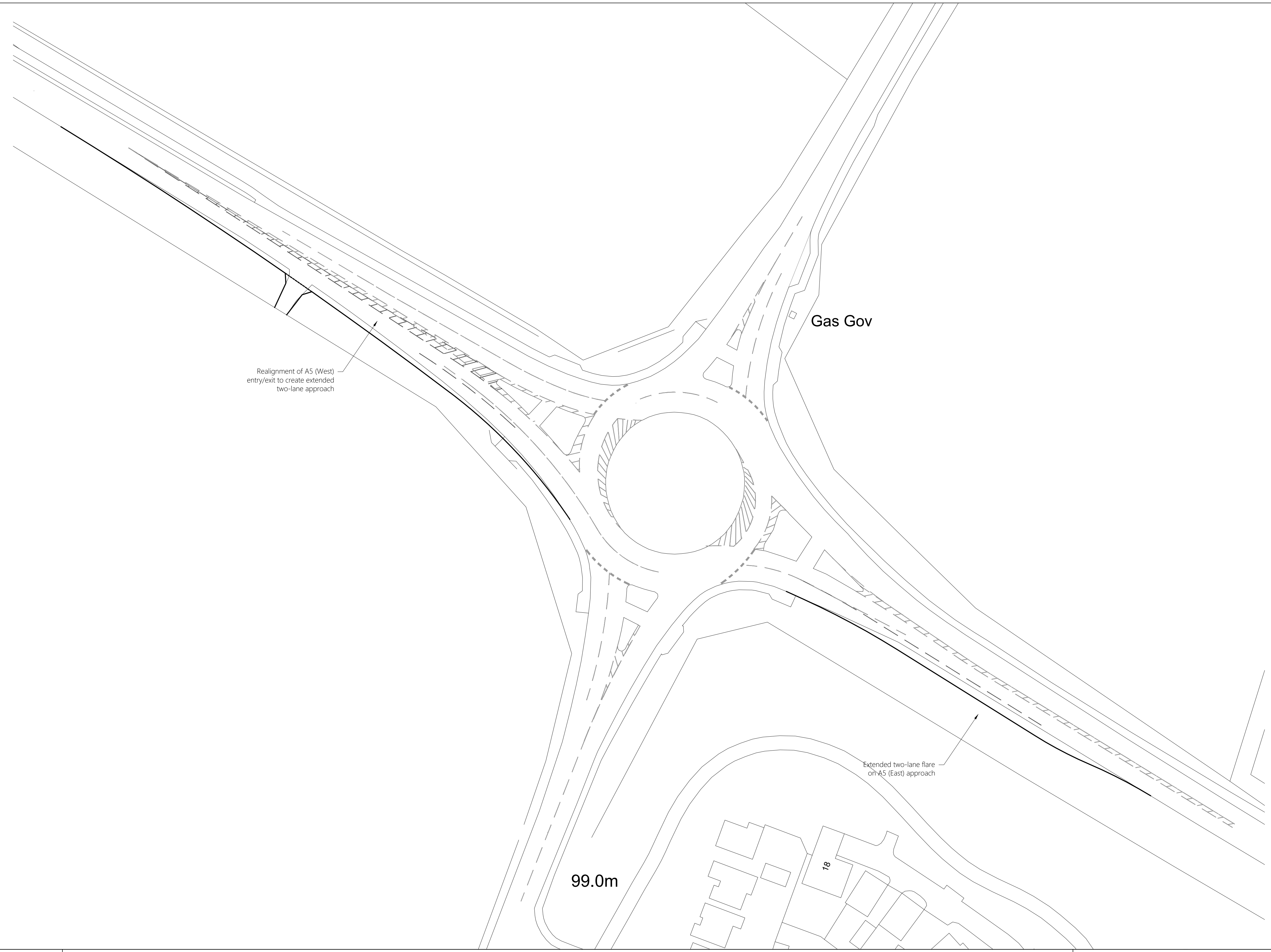
Junction No.	Junction Description	Queue Marker No.	Location	PM Peak (16:00-17:00)					Difference	
				PM Base	PM 2023 Ref + PHF	PM 2023 Ref + PHF + MIRA	PM 2031 Ref + PHF	PM 2031 Ref + PHF + MIRA	2023 Ref+PHF+MIRA v Ref+PHF	2031 Ref+PHF+MIRA v Ref+PHF
1	Dodwells Roundabout	1	A5 Watling Street NW	64	31	47	18	18	16	0
		2	A47 Dodwells Road	22	40	39	35	33	0	-1
		3	B4666 Coventry Road	16	15	19	20	24	4	4
		4	A5 Watling Street SE	12	10	10	11	10	0	0
		5	West Circulatory	7	15	14	13	14	-1	0
		6	North Circulatory	9	8	9	9	8	0	0
		7	North-East Circulatory	10	10	10	10	10	0	0
		8	South-East Circulatory	8	7	7	7	8	0	1
2	Long Shoot	9	A5 Watling Street NW	23	30	34	27	32	4	5
		10	A5 Watling Street SE (ahead)	32	28	32	23	25	4	2
		11	A5 Watling Street SE (left turn before signals)	5	5	3	3	3	-2	0
		12	A47 The Long Shoot	17	19	25	22	24	6	2
		13	A5 Watling Street SE (left turn give way)	4	5	4	5	4	0	0
3	Development Site	14	A5 W (right turn)	-	3	3	3	3	0	-1
		15	A5 W (ahead)	-	14	14	14	15	0	1
		16	A5 E	-	7	7	7	8	0	1
		17	Development Site	-	9	9	8	8	0	0



Appendix 3



INDICATIVE



Notes

- Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.
- This drawing has been based upon Ordnance Survey information produced by others and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Ordnance Survey Licence number: 100057360

Drawing Revisions			
Rev.	Drn.	Date:	Details
-	JB	07/11/2023	First issue
A	ZM	15/12/2023	Revised title

Title

A5 Watling Street / Higham Lane and Nuneaton Lane Mitigation

Client

ERI MTP Ltd

MILESTONE
TRANSPORT PLANNING

7 Ancells Court, Rye Close, Fleet, Hampshire, GU51 2UY
Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220
web: www.milestonetp.co.uk

Project

MIRA Technology Park South Site

Drawing Number: 17059/SK09

Scale: 1:500 @ A1

Revision: A

Appendix 4

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.0.1820

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+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

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Filename: 17059 - A5 Watling St-Higham Lane Roundabout (With Travel Plan Targets) - Mitigation.j10

Path: P:\17 jobs\059 MIRA - Southern Manufacturing Sector\Technical Assessments\Modelling - Travel Plan Targets

Report generation date: 10/11/2023 16:58:56

- »Ref Case, AM (07:00 - 08:00)
- »Ref Case, AM (08:00 - 09:00)
- »Ref Case, AM (09:00 - 10:00)
- »Ref Case, PM (16:00 - 17:00)
- »Ref Case, PM (17:00 - 18:00)
- »Ref Case, PM (18:00 - 19:00)
- »Ref Case + Development, AM (07:00 - 08:00)
- »Ref Case + Development, AM (08:00 - 09:00)
- »Ref Case + Development, AM (09:00 - 10:00)
- »Ref Case + Development, PM (16:00 - 17:00)
- »Ref Case + Development, PM (17:00 - 18:00)
- »Ref Case + Development, PM (18:00 - 19:00)
- »Ref Case + Development (with Travel Plan Targets Met), AM (07:00 - 08:00)
- »Ref Case + Development (with Travel Plan Targets Met), AM (08:00 - 09:00)
- »Ref Case + Development (with Travel Plan Targets Met), AM (09:00 - 10:00)
- »Ref Case + Development (with Travel Plan Targets Met), PM (16:00 - 17:00)
- »Ref Case + Development (with Travel Plan Targets Met), PM (17:00 - 18:00)

»Ref Case + Development (with Travel Plan Targets Met), PM (18:00 - 19:00)

Summary of junction performance

	AM (07:00 - 08:00)					AM (08:00 - 09:00)					AM (09:00 - 10:00)					PM (16:00 - 17:00)					PM (17:00 - 18:00)					PM (18:00 - 19:00)				
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
Ref Case																														
1 - Nuneaton Lane	0.6	6.21	0.39	A	6.35	0.7	6.67	0.42	A	9.96	0.3	5.06	0.23	A	6.00	0.2	5.43	0.20	A	6.99	0.3	6.93	0.25	A	20.00	0.2	5.30	0.16	A	8.51
2 - A5 Watling Street (South-East)	2.2	7.33	0.69	A		4.7	13.75	0.83	B		1.7	6.10	0.63	A		1.5	5.55	0.60	A		2.3	7.88	0.70	A		1.5	5.49	0.60	A	
3 - Higham Lane	0.8	5.49	0.45	A		2.1	10.86	0.69	B		0.7	4.79	0.41	A		0.6	4.19	0.38	A		0.8	4.94	0.45	A		0.6	4.22	0.39	A	
4 - A5 Watling Street (North-West)	2.0	5.87	0.66	A		2.2	6.47	0.69	A		2.2	6.55	0.69	A		3.5	9.17	0.78	A		15.4	33.99	0.96	D		5.1	12.27	0.84	B	
Ref Case + Development																														
1 - Nuneaton Lane	0.7	6.89	0.41	A	7.56	0.8	7.25	0.44	A	14.67	0.3	5.39	0.24	A	7.02	0.3	6.26	0.22	A	9.80	0.4	7.54	0.27	A	40.06	0.2	5.79	0.17	A	11.52
2 - A5 Watling Street (South-East)	2.9	9.07	0.75	A		8.3	22.89	0.90	C		2.2	7.46	0.69	A		1.6	6.00	0.62	A		2.5	8.34	0.72	A		1.8	6.13	0.64	A	
3 - Higham Lane	1.0	6.23	0.50	A		3.2	15.56	0.77	C		0.8	5.39	0.45	A		0.6	4.29	0.39	A		0.8	4.96	0.45	A		0.7	4.45	0.41	A	
4 - A5 Watling Street (North-West)	2.5	6.93	0.71	A		2.6	7.44	0.72	A		2.6	7.52	0.73	A		6.0	14.41	0.86	B		39.1	73.19	1.02	F		7.7	17.83	0.89	C	
Ref Case + Development (with Travel Plan Targets Met)																														
1 - Nuneaton Lane	0.7	6.80	0.41	A	7.38	0.8	7.19	0.43	A	13.81	0.3	5.36	0.24	A	6.90	0.3	6.15	0.22	A	9.31	0.4	7.49	0.27	A	36.60	0.2	5.73	0.17	A	11.06
2 - A5 Watling Street (South-East)	2.8	8.81	0.74	A		7.6	21.13	0.89	C		2.1	7.30	0.68	A		1.6	5.94	0.62	A		2.5	8.30	0.72	A		1.7	6.06	0.64	A	
3 - Higham Lane	1.0	6.12	0.49	A		3.0	14.73	0.76	B		0.8	5.31	0.44	A		0.6	4.28	0.39	A		0.8	4.96	0.45	A		0.7	4.42	0.40	A	
4 - A5 Watling Street (North-West)	2.4	6.78	0.71	A		2.5	7.34	0.72	A		2.6	7.41	0.72	A		5.6	13.49	0.85	B		34.6	66.48	1.01	F		7.3	16.97	0.89	C	

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	
Location	
Site number	
Date	24/02/2022
Version	
Status	(new file)
Identifier	

Client	
Jobnumber	
Enumerator	mtp\MTPGeneral
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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref Case	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓
D2	Ref Case	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓
D3	Ref Case	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓
D4	Ref Case	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓
D5	Ref Case	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓
D6	Ref Case	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓
D7	Ref Case + Development	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓
D8	Ref Case + Development	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓
D9	Ref Case + Development	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓
D10	Ref Case + Development	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓
D11	Ref Case + Development	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓
D12	Ref Case + Development	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓
D13	Ref Case + Development (with Travel Plan Targets Met)	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓
D14	Ref Case + Development (with Travel Plan Targets Met)	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓

D15	Ref Case + Development (with Travel Plan Targets Met)	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓
D16	Ref Case + Development (with Travel Plan Targets Met)	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓
D17	Ref Case + Development (with Travel Plan Targets Met)	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓
D18	Ref Case + Development (with Travel Plan Targets Met)	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓

Analysis Set Details

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

Ref Case, AM (07:00 - 08:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	6.35	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.35	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Nuneaton Lane		
2	A5 Watling Street (South-East)		
3	Higham Lane		
4	A5 Watling Street (North-West)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Nuneaton Lane	2.50	8.10	27.2	25.0	54.0	35.0		
2 - A5 Watling Street (South-East)	3.81	8.00	91.3	20.0	54.0	47.0		
3 - Higham Lane	3.75	8.95	27.9	30.0	54.0	43.0		
4 - A5 Watling Street (North-West)	4.16	7.65	82.7	20.0	54.0	51.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Nuneaton Lane	0.600	1767
2 - A5 Watling Street (South-East)	0.652	2128
3 - Higham Lane	0.648	2062
4 - A5 Watling Street (North-West)	0.630	2032

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref Case	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
-----	------------	--------------	--------------	-------------------------	--------------------

1 - Nuneaton Lane		ONE HOUR	✓	332	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	985	100.000
3 - Higham Lane		ONE HOUR	✓	494	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1100	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	18	126	188
	2 - A5 Watling Street (South-East)	7	0	42	936
	3 - Higham Lane	28	73	8	385
	4 - A5 Watling Street (North-West)	24	783	283	10

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	6	1	0
	2 - A5 Watling Street (South-East)	0	0	2	7
	3 - Higham Lane	1	0	0	0
	4 - A5 Watling Street (North-West)	0	9	2	11

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.39	6.21	0.6	A	305	457
2 - A5 Watling Street (South-East)	0.69	7.33	2.2	A	904	1356
3 - Higham Lane	0.45	5.49	0.8	A	453	680
4 - A5 Watling Street (North-West)	0.66	5.87	2.0	A	1009	1514

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	250	62	868	1203	0.208	249	44	0.0	0.3	3.768	A
2 - A5 Watling Street (South-East)	742	185	461	1709	0.434	739	655	0.0	0.8	3.701	A
3 - Higham Lane	372	93	855	1475	0.252	371	344	0.0	0.3	3.256	A
4 - A5 Watling Street (North-West)	828	207	87	1848	0.448	825	1139	0.0	0.8	3.520	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	298	75	1039	1095	0.273	298	53	0.3	0.4	4.517	A
2 - A5 Watling Street (South-East)	885	221	552	1652	0.536	884	785	0.8	1.1	4.675	A
3 - Higham Lane	444	111	1024	1359	0.327	444	412	0.3	0.5	3.929	A
4 - A5 Watling Street (North-West)	989	247	104	1838	0.538	987	1363	0.8	1.2	4.228	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	366	91	1271	947	0.386	365	65	0.4	0.6	6.166	A
2 - A5 Watling Street (South-East)	1085	271	675	1576	0.688	1080	960	1.1	2.2	7.204	A
3 - Higham Lane	544	136	1252	1203	0.452	543	504	0.5	0.8	5.440	A
4 - A5 Watling Street (North-West)	1211	303	127	1824	0.664	1208	1667	1.2	1.9	5.815	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	366	91	1274	945	0.387	366	65	0.6	0.6	6.207	A
2 - A5 Watling Street (South-East)	1085	271	677	1575	0.689	1084	962	2.2	2.2	7.332	A
3 - Higham Lane	544	136	1256	1200	0.453	544	505	0.8	0.8	5.486	A
4 - A5 Watling Street (North-West)	1211	303	128	1824	0.664	1211	1672	1.9	2.0	5.874	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	298	75	1043	1092	0.273	299	53	0.6	0.4	4.550	A
2 - A5 Watling Street (South-East)	885	221	555	1651	0.536	890	788	2.2	1.2	4.755	A
3 - Higham Lane	444	111	1030	1355	0.328	445	414	0.8	0.5	3.965	A
4 - A5 Watling Street (North-West)	989	247	105	1837	0.538	992	1371	2.0	1.2	4.275	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	250	62	873	1200	0.208	250	44	0.4	0.3	3.793	A
2 - A5 Watling Street (South-East)	742	185	464	1707	0.434	743	659	1.2	0.8	3.740	A
3 - Higham Lane	372	93	861	1471	0.253	373	346	0.5	0.3	3.278	A
4 - A5 Watling Street (North-West)	828	207	87	1847	0.448	830	1146	1.2	0.8	3.541	A

Ref Case, AM (08:00 - 09:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	9.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.96	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)	Run automatically
D2	Ref Case	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	349	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	1158	100.000
3 - Higham Lane		ONE HOUR	✓	657	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1108	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	21	116	212
	2 - A5 Watling Street (South-East)	10	0	63	1085
	3 - Higham Lane	55	78	8	516
	4 - A5 Watling Street (North-West)	16	791	296	5

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	0	1	0
	2 - A5 Watling Street (South-East)	14	0	0	9
	3 - Higham Lane	0	1	0	0
	4 - A5 Watling Street (North-West)	0	11	2	19

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.42	6.67	0.7	A	320	480

2 - A5 Watling Street (South-East)	0.83	13.75	4.7	B	1063	1594
3 - Higham Lane	0.69	10.86	2.1	B	603	904
4 - A5 Watling Street (North-West)	0.69	6.47	2.2	A	1017	1525

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	263	66	883	1191	0.221	262	61	0.0	0.3	3.869	A
2 - A5 Watling Street (South-East)	872	218	478	1670	0.522	867	667	0.0	1.1	4.461	A
3 - Higham Lane	495	124	983	1375	0.360	492	362	0.0	0.6	4.069	A
4 - A5 Watling Street (North-West)	834	209	113	1807	0.462	831	1362	0.0	0.9	3.676	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	314	78	1057	1078	0.291	313	73	0.3	0.4	4.702	A
2 - A5 Watling Street (South-East)	1041	260	572	1613	0.645	1038	799	1.1	1.8	6.233	A
3 - Higham Lane	591	148	1176	1240	0.476	589	433	0.6	0.9	5.519	A
4 - A5 Watling Street (North-West)	996	249	135	1794	0.555	995	1630	0.9	1.2	4.496	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	384	96	1293	926	0.415	383	89	0.4	0.7	6.612	A
2 - A5 Watling Street (South-East)	1275	319	699	1535	0.830	1264	977	1.8	4.5	12.778	B
3 - Higham Lane	723	181	1433	1061	0.682	719	530	0.9	2.1	10.368	B
4 - A5 Watling Street (North-West)	1220	305	165	1776	0.687	1216	1987	1.2	2.1	6.386	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	384	96	1297	924	0.416	384	89	0.7	0.7	6.673	A
2 - A5 Watling Street (South-East)	1275	319	701	1534	0.831	1274	980	4.5	4.7	13.749	B
3 - Higham Lane	723	181	1444	1054	0.686	723	532	2.1	2.1	10.857	B
4 - A5 Watling Street (North-West)	1220	305	166	1776	0.687	1220	2001	2.1	2.2	6.474	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	314	78	1063	1075	0.292	315	73	0.7	0.4	4.747	A
2 - A5 Watling Street (South-East)	1041	260	575	1611	0.646	1052	803	4.7	1.9	6.572	A
3 - Higham Lane	591	148	1191	1230	0.480	595	436	2.1	0.9	5.716	A
4 - A5 Watling Street (North-West)	996	249	137	1793	0.556	1000	1650	2.2	1.3	4.558	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	263	66	889	1187	0.221	263	61	0.4	0.3	3.898	A
2 - A5 Watling Street (South-East)	872	218	481	1668	0.523	875	671	1.9	1.1	4.553	A
3 - Higham Lane	495	124	991	1369	0.361	496	364	0.9	0.6	4.128	A
4 - A5 Watling Street (North-West)	834	209	114	1806	0.462	836	1373	1.3	0.9	3.716	A

Ref Case, AM (09:00 - 10:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	6.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.00	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)	Run automatically
D3	Ref Case	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	189	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	910	100.000
3 - Higham Lane		ONE HOUR	✓	474	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1112	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	7	54	128
	2 - A5 Watling Street (South-East)	24	0	53	833
	3 - Higham Lane	48	61	5	360
	4 - A5 Watling Street (North-West)	10	774	321	7

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	17	1	0
	2 - A5 Watling Street (South-East)	0	0	0	11
	3 - Higham Lane	1	2	0	1
	4 - A5 Watling Street (North-West)	0	12	2	29

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.23	5.06	0.3	A	173	260
2 - A5 Watling Street (South-East)	0.63	6.10	1.7	A	835	1253

3 - Higham Lane	0.41	4.79	0.7	A	435	652
4 - A5 Watling Street (North-West)	0.69	6.55	2.2	A	1020	1531

Main Results for each time segment

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	142	36	876	1185	0.120	142	62	0.0	0.1	3.449	A
2 - A5 Watling Street (South-East)	685	171	386	1701	0.403	682	631	0.0	0.7	3.526	A
3 - Higham Lane	357	89	744	1518	0.235	356	325	0.0	0.3	3.095	A
4 - A5 Watling Street (North-West)	837	209	104	1802	0.465	834	996	0.0	0.9	3.703	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	170	42	1048	1073	0.158	170	74	0.1	0.2	3.983	A
2 - A5 Watling Street (South-East)	818	205	462	1655	0.494	817	756	0.7	1.0	4.289	A
3 - Higham Lane	426	107	891	1415	0.301	426	389	0.3	0.4	3.637	A
4 - A5 Watling Street (North-West)	1000	250	124	1790	0.558	998	1192	0.9	1.3	4.535	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	208	52	1282	922	0.226	208	90	0.2	0.3	5.037	A
2 - A5 Watling Street (South-East)	1002	250	566	1593	0.629	999	924	1.0	1.7	6.035	A
3 - Higham Lane	522	130	1089	1275	0.409	521	475	0.4	0.7	4.763	A
4 - A5 Watling Street (North-West)	1224	306	152	1774	0.690	1221	1459	1.3	2.2	6.461	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	208	52	1286	920	0.226	208	90	0.3	0.3	5.058	A
2 - A5 Watling Street (South-East)	1002	250	567	1592	0.629	1002	927	1.7	1.7	6.099	A
3 - Higham Lane	522	130	1092	1273	0.410	522	477	0.7	0.7	4.789	A
4 - A5 Watling Street (North-West)	1224	306	152	1774	0.690	1224	1462	2.2	2.2	6.548	A

09:45 - 10:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	170	42	1054	1070	0.159	170	74	0.3	0.2	4.004	A
2 - A5 Watling Street (South-East)	818	205	464	1654	0.495	821	760	1.7	1.0	4.336	A
3 - Higham Lane	426	107	895	1412	0.302	427	391	0.7	0.4	3.661	A
4 - A5 Watling Street (North-West)	1000	250	124	1790	0.558	1003	1197	2.2	1.3	4.599	A

10:00 - 10:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	142	36	881	1181	0.120	142	62	0.2	0.1	3.467	A
2 - A5 Watling Street (South-East)	685	171	388	1699	0.403	686	635	1.0	0.7	3.559	A
3 - Higham Lane	357	89	748	1515	0.236	357	327	0.4	0.3	3.113	A
4 - A5 Watling Street (North-West)	837	209	104	1802	0.465	839	1001	1.3	0.9	3.746	A

Ref Case, PM (16:00 - 17:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	6.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.99	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)	Run automatically
D4	Ref Case	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	147	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	885	100.000
3 - Higham Lane		ONE HOUR	✓	481	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1282	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	20	79	48
	2 - A5 Watling Street (South-East)	22	0	62	801
	3 - Higham Lane	87	70	4	320
	4 - A5 Watling Street (North-West)	51	815	409	7

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	26	1	0
	2 - A5 Watling Street (South-East)	12	0	0	7
	3 - Higham Lane	1	1	0	0
	4 - A5 Watling Street (North-West)	0	8	1	22

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.20	5.43	0.2	A	135	202
2 - A5 Watling Street (South-East)	0.60	5.55	1.5	A	812	1218

3 - Higham Lane	0.38	4.19	0.6	A	441	662
4 - A5 Watling Street (North-West)	0.78	9.17	3.5	A	1176	1765

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	111	28	978	1103	0.100	110	120	0.0	0.1	3.623	A
2 - A5 Watling Street (South-East)	666	167	410	1742	0.382	664	678	0.0	0.6	3.332	A
3 - Higham Lane	362	91	659	1601	0.226	361	415	0.0	0.3	2.900	A
4 - A5 Watling Street (North-West)	965	241	137	1842	0.524	961	882	0.0	1.1	4.066	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	132	33	1171	986	0.134	132	144	0.1	0.2	4.213	A
2 - A5 Watling Street (South-East)	796	199	491	1692	0.470	795	812	0.6	0.9	4.005	A
3 - Higham Lane	432	108	788	1511	0.286	432	497	0.3	0.4	3.333	A
4 - A5 Watling Street (North-West)	1152	288	164	1826	0.631	1150	1056	1.1	1.7	5.310	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	162	40	1430	829	0.195	162	176	0.2	0.2	5.394	A
2 - A5 Watling Street (South-East)	974	244	600	1625	0.600	972	992	0.9	1.5	5.494	A
3 - Higham Lane	530	132	964	1390	0.381	529	607	0.4	0.6	4.176	A
4 - A5 Watling Street (North-West)	1412	353	201	1803	0.783	1404	1292	1.7	3.5	8.875	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	162	40	1437	825	0.196	162	176	0.2	0.2	5.431	A
2 - A5 Watling Street (South-East)	974	244	602	1623	0.600	974	996	1.5	1.5	5.546	A
3 - Higham Lane	530	132	967	1388	0.381	530	610	0.6	0.6	4.192	A
4 - A5 Watling Street (North-West)	1412	353	201	1803	0.783	1411	1295	3.5	3.5	9.172	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	132	33	1180	980	0.135	132	144	0.2	0.2	4.246	A
2 - A5 Watling Street (South-East)	796	199	494	1690	0.471	798	818	1.5	0.9	4.047	A
3 - Higham Lane	432	108	792	1509	0.287	433	501	0.6	0.4	3.348	A
4 - A5 Watling Street (North-West)	1152	288	165	1825	0.631	1160	1060	3.5	1.7	5.464	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	111	28	985	1099	0.101	111	121	0.2	0.1	3.642	A
2 - A5 Watling Street (South-East)	666	167	413	1740	0.383	667	683	0.9	0.6	3.357	A
3 - Higham Lane	362	91	662	1598	0.227	363	418	0.4	0.3	2.915	A
4 - A5 Watling Street (North-West)	965	241	138	1842	0.524	968	887	1.7	1.1	4.130	A

Ref Case, PM (17:00 - 18:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	20.00	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	20.00	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)	Run automatically
D5	Ref Case	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	159	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	976	100.000
3 - Higham Lane		ONE HOUR	✓	534	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1574	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	14	78	67
	2 - A5 Watling Street (South-East)	37	0	86	853
	3 - Higham Lane	116	51	4	363
	4 - A5 Watling Street (North-West)	95	943	529	7

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	29	0	2
	2 - A5 Watling Street (South-East)	11	0	2	7
	3 - Higham Lane	0	2	0	1
	4 - A5 Watling Street (North-West)	0	6	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.25	6.93	0.3	A	146	219
2 - A5 Watling Street (South-East)	0.70	7.88	2.3	A	896	1343

3 - Higham Lane	0.45	4.94	0.8	A	490	735
4 - A5 Watling Street (North-West)	0.96	33.99	15.4	D	1444	2166

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	120	30	1148	1016	0.118	119	186	0.0	0.1	4.013	A
2 - A5 Watling Street (South-East)	735	184	513	1678	0.438	732	755	0.0	0.8	3.791	A
3 - Higham Lane	402	101	723	1549	0.260	401	522	0.0	0.3	3.131	A
4 - A5 Watling Street (North-West)	1185	296	156	1859	0.638	1178	967	0.0	1.7	5.239	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	143	36	1373	880	0.162	143	222	0.1	0.2	4.884	A
2 - A5 Watling Street (South-East)	877	219	614	1616	0.543	876	903	0.8	1.2	4.852	A
3 - Higham Lane	480	120	865	1451	0.331	479	624	0.3	0.5	3.703	A
4 - A5 Watling Street (North-West)	1415	354	187	1840	0.769	1409	1158	1.7	3.2	8.249	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	175	44	1652	711	0.246	175	270	0.2	0.3	6.702	A
2 - A5 Watling Street (South-East)	1075	269	740	1538	0.699	1070	1086	1.2	2.3	7.630	A
3 - Higham Lane	588	147	1057	1319	0.446	587	754	0.5	0.8	4.905	A
4 - A5 Watling Street (North-West)	1733	433	228	1814	0.956	1694	1415	3.2	12.9	24.628	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	175	44	1680	695	0.252	175	272	0.3	0.3	6.925	A
2 - A5 Watling Street (South-East)	1075	269	751	1531	0.702	1074	1104	2.3	2.3	7.875	A
3 - Higham Lane	588	147	1061	1317	0.447	588	764	0.8	0.8	4.939	A
4 - A5 Watling Street (North-West)	1733	433	229	1813	0.956	1723	1420	12.9	15.4	33.985	D

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	143	36	1424	849	0.168	143	226	0.3	0.2	5.104	A
2 - A5 Watling Street (South-East)	877	219	633	1604	0.547	882	935	2.3	1.2	5.011	A
3 - Higham Lane	480	120	871	1447	0.332	481	643	0.8	0.5	3.731	A
4 - A5 Watling Street (North-West)	1415	354	188	1839	0.769	1463	1165	15.4	3.5	10.695	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	120	30	1161	1008	0.119	120	187	0.2	0.1	4.057	A
2 - A5 Watling Street (South-East)	735	184	518	1675	0.439	737	763	1.2	0.8	3.845	A
3 - Higham Lane	402	101	727	1545	0.260	403	527	0.5	0.4	3.151	A
4 - A5 Watling Street (North-West)	1185	296	157	1858	0.638	1192	973	3.5	1.8	5.455	A

Ref Case, PM (18:00 - 19:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	8.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.51	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)	Run automatically
D6	Ref Case	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	118	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	909	100.000
3 - Higham Lane		ONE HOUR	✓	492	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1395	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	14	65	39
	2 - A5 Watling Street (South-East)	30	0	76	803
	3 - Higham Lane	121	46	4	321
	4 - A5 Watling Street (North-West)	73	908	409	5

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	21	0	0
	2 - A5 Watling Street (South-East)	14	0	0	6
	3 - Higham Lane	0	2	0	0
	4 - A5 Watling Street (North-West)	0	5	0	48

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.16	5.30	0.2	A	108	162
2 - A5 Watling Street (South-East)	0.60	5.49	1.5	A	834	1251

3 - Higham Lane	0.39	4.22	0.6	A	451	677
4 - A5 Watling Street (North-West)	0.84	12.27	5.1	B	1280	1920

Main Results for each time segment

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	89	22	1028	1101	0.081	88	168	0.0	0.1	3.555	A
2 - A5 Watling Street (South-East)	684	171	391	1770	0.387	682	725	0.0	0.6	3.302	A
3 - Higham Lane	370	93	658	1606	0.231	369	415	0.0	0.3	2.907	A
4 - A5 Watling Street (North-West)	1050	263	151	1871	0.561	1045	876	0.0	1.3	4.335	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	106	27	1230	979	0.108	106	201	0.1	0.1	4.126	A
2 - A5 Watling Street (South-East)	817	204	468	1722	0.474	816	868	0.6	0.9	3.967	A
3 - Higham Lane	442	111	787	1517	0.292	442	497	0.3	0.4	3.345	A
4 - A5 Watling Street (North-West)	1254	314	181	1852	0.677	1251	1049	1.3	2.1	5.954	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	130	32	1500	815	0.159	130	246	0.1	0.2	5.246	A
2 - A5 Watling Street (South-East)	1001	250	571	1659	0.603	998	1058	0.9	1.5	5.433	A
3 - Higham Lane	542	135	963	1396	0.388	541	606	0.4	0.6	4.203	A
4 - A5 Watling Street (North-West)	1536	384	221	1827	0.841	1525	1283	2.1	4.9	11.492	B

18:30 - 18:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	130	32	1510	809	0.161	130	247	0.2	0.2	5.299	A
2 - A5 Watling Street (South-East)	1001	250	575	1657	0.604	1001	1065	1.5	1.5	5.489	A
3 - Higham Lane	542	135	966	1395	0.388	542	610	0.6	0.6	4.219	A
4 - A5 Watling Street (North-West)	1536	384	221	1827	0.841	1535	1286	4.9	5.1	12.265	B

18:45 - 19:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	106	27	1245	970	0.109	106	202	0.2	0.1	4.171	A
2 - A5 Watling Street (South-East)	817	204	473	1719	0.475	820	878	1.5	0.9	4.011	A
3 - Higham Lane	442	111	791	1515	0.292	443	502	0.6	0.4	3.361	A
4 - A5 Watling Street (North-West)	1254	314	181	1852	0.677	1266	1053	5.1	2.1	6.259	A

19:00 - 19:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	89	22	1036	1096	0.081	89	169	0.1	0.1	3.576	A
2 - A5 Watling Street (South-East)	684	171	394	1768	0.387	685	731	0.9	0.6	3.330	A
3 - Higham Lane	370	93	661	1604	0.231	371	418	0.4	0.3	2.922	A
4 - A5 Watling Street (North-West)	1050	263	152	1870	0.562	1054	881	2.1	1.3	4.425	A

Ref Case + Development, AM (07:00 - 08:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	7.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.56	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)	Run automatically
D7	Ref Case + Development	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	332	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	1057	100.000
3 - Higham Lane		ONE HOUR	✓	515	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1174	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	18	126	188
	2 - A5 Watling Street (South-East)	7	0	42	1008
	3 - Higham Lane	28	73	8	406
	4 - A5 Watling Street (North-West)	24	835	305	10

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	6	1	0
	2 - A5 Watling Street (South-East)	0	0	2	7
	3 - Higham Lane	1	0	0	0
	4 - A5 Watling Street (North-West)	0	10	2	11

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.41	6.89	0.7	A	305	457
2 - A5 Watling Street (South-East)	0.75	9.07	2.9	A	970	1455

3 - Higham Lane	0.50	6.23	1.0	A	473	709
4 - A5 Watling Street (North-West)	0.71	6.93	2.5	A	1077	1616

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	250	62	923	1164	0.215	249	44	0.0	0.3	3.926	A
2 - A5 Watling Street (South-East)	796	199	478	1698	0.469	792	694	0.0	0.9	3.959	A
3 - Higham Lane	388	97	909	1437	0.270	386	361	0.0	0.4	3.420	A
4 - A5 Watling Street (North-West)	884	221	87	1836	0.482	880	1208	0.0	0.9	3.754	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	298	75	1105	1048	0.285	298	53	0.3	0.4	4.795	A
2 - A5 Watling Street (South-East)	950	238	572	1640	0.579	948	831	0.9	1.4	5.191	A
3 - Higham Lane	463	116	1088	1315	0.352	462	432	0.4	0.5	4.220	A
4 - A5 Watling Street (North-West)	1055	264	104	1826	0.578	1054	1446	0.9	1.4	4.653	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	366	91	1351	891	0.410	364	65	0.4	0.7	6.822	A
2 - A5 Watling Street (South-East)	1164	291	699	1561	0.746	1158	1016	1.4	2.8	8.801	A
3 - Higham Lane	567	142	1329	1149	0.493	565	528	0.5	1.0	6.147	A
4 - A5 Watling Street (North-West)	1293	323	127	1812	0.713	1288	1767	1.4	2.4	6.819	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	366	91	1355	888	0.412	366	65	0.7	0.7	6.888	A
2 - A5 Watling Street (South-East)	1164	291	701	1560	0.746	1164	1019	2.8	2.9	9.073	A
3 - Higham Lane	567	142	1335	1145	0.495	567	530	1.0	1.0	6.225	A
4 - A5 Watling Street (North-West)	1293	323	128	1812	0.713	1292	1775	2.4	2.5	6.928	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	298	75	1111	1044	0.286	300	53	0.7	0.4	4.844	A
2 - A5 Watling Street (South-East)	950	238	575	1638	0.580	956	836	2.9	1.4	5.327	A
3 - Higham Lane	463	116	1097	1309	0.354	465	434	1.0	0.6	4.273	A
4 - A5 Watling Street (North-West)	1055	264	105	1825	0.578	1060	1457	2.5	1.4	4.727	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	250	62	929	1161	0.215	250	45	0.4	0.3	3.956	A
2 - A5 Watling Street (South-East)	796	199	481	1696	0.469	798	699	1.4	0.9	4.015	A
3 - Higham Lane	388	97	915	1433	0.271	388	363	0.6	0.4	3.450	A
4 - A5 Watling Street (North-West)	884	221	87	1835	0.482	886	1216	1.4	0.9	3.800	A

Ref Case + Development, AM (08:00 - 09:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	14.67	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.67	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Ref Case + Development	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	349	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	1250	100.000
3 - Higham Lane		ONE HOUR	✓	686	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1153	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	21	116	212
	2 - A5 Watling Street (South-East)	10	0	63	1177
	3 - Higham Lane	55	78	8	545
	4 - A5 Watling Street (North-West)	16	822	310	5

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	0	1	0
	2 - A5 Watling Street (South-East)	14	0	0	9
	3 - Higham Lane	0	1	0	0
	4 - A5 Watling Street (North-West)	0	13	2	19

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.44	7.25	0.8	A	320	480
2 - A5 Watling Street (South-East)	0.90	22.89	8.3	C	1147	1721

3 - Higham Lane	0.77	15.56	3.2	C	629	944
4 - A5 Watling Street (North-West)	0.72	7.44	2.6	A	1058	1587

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	263	66	917	1162	0.226	262	61	0.0	0.3	3.994	A
2 - A5 Watling Street (South-East)	941	235	488	1663	0.566	936	690	0.0	1.3	4.916	A
3 - Higham Lane	516	129	1051	1327	0.389	514	372	0.0	0.6	4.416	A
4 - A5 Watling Street (North-West)	868	217	113	1784	0.487	864	1452	0.0	0.9	3.900	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	314	78	1097	1044	0.301	313	73	0.3	0.4	4.926	A
2 - A5 Watling Street (South-East)	1124	281	584	1605	0.700	1120	826	1.3	2.3	7.363	A
3 - Higham Lane	617	154	1258	1183	0.521	615	446	0.6	1.1	6.321	A
4 - A5 Watling Street (North-West)	1037	259	135	1771	0.585	1035	1738	0.9	1.4	4.879	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	384	96	1341	884	0.435	383	88	0.4	0.8	7.162	A
2 - A5 Watling Street (South-East)	1376	344	714	1526	0.902	1355	1010	2.3	7.5	19.132	C
3 - Higham Lane	755	189	1525	997	0.758	748	544	1.1	2.9	14.059	B
4 - A5 Watling Street (North-West)	1269	317	165	1754	0.724	1265	2108	1.4	2.5	7.293	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	384	96	1346	881	0.436	384	89	0.8	0.8	7.248	A
2 - A5 Watling Street (South-East)	1376	344	717	1524	0.903	1373	1014	7.5	8.3	22.889	C
3 - Higham Lane	755	189	1543	984	0.767	754	547	2.9	3.2	15.562	C
4 - A5 Watling Street (North-West)	1269	317	166	1753	0.724	1269	2131	2.5	2.6	7.437	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	314	78	1105	1039	0.302	315	74	0.8	0.4	4.983	A
2 - A5 Watling Street (South-East)	1124	281	588	1603	0.701	1147	832	8.3	2.4	8.290	A
3 - Higham Lane	617	154	1285	1164	0.530	625	450	3.2	1.1	6.775	A
4 - A5 Watling Street (North-West)	1037	259	138	1769	0.586	1041	1772	2.6	1.4	4.975	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	263	66	923	1158	0.227	263	61	0.4	0.3	4.027	A
2 - A5 Watling Street (South-East)	941	235	491	1661	0.566	945	695	2.4	1.3	5.060	A
3 - Higham Lane	516	129	1061	1320	0.391	518	375	1.1	0.6	4.503	A
4 - A5 Watling Street (North-West)	868	217	114	1783	0.487	870	1466	1.4	1.0	3.951	A

Ref Case + Development, AM (09:00 - 10:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	7.02	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)	Run automatically
D9	Ref Case + Development	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	189	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	973	100.000
3 - Higham Lane		ONE HOUR	✓	494	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1167	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	7	54	128
	2 - A5 Watling Street (South-East)	24	0	53	896
	3 - Higham Lane	48	61	5	380
	4 - A5 Watling Street (North-West)	10	811	339	7

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	17	1	0
	2 - A5 Watling Street (South-East)	0	0	0	13
	3 - Higham Lane	1	2	0	1
	4 - A5 Watling Street (North-West)	0	13	2	29

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.24	5.39	0.3	A	173	260
2 - A5 Watling Street (South-East)	0.69	7.46	2.2	A	893	1339

3 - Higham Lane	0.45	5.39	0.8	A	453	680
4 - A5 Watling Street (North-West)	0.73	7.52	2.6	A	1071	1606

Main Results for each time segment

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	142	36	917	1155	0.123	142	61	0.0	0.1	3.552	A
2 - A5 Watling Street (South-East)	733	183	400	1664	0.440	729	659	0.0	0.8	3.840	A
3 - Higham Lane	372	93	791	1476	0.252	371	338	0.0	0.3	3.253	A
4 - A5 Watling Street (North-West)	879	220	104	1791	0.491	875	1058	0.0	1.0	3.912	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	170	42	1098	1037	0.164	170	74	0.1	0.2	4.149	A
2 - A5 Watling Street (South-East)	875	219	478	1617	0.541	873	789	0.8	1.2	4.828	A
3 - Higham Lane	444	111	947	1365	0.325	444	405	0.3	0.5	3.906	A
4 - A5 Watling Street (North-West)	1049	262	124	1779	0.590	1047	1266	1.0	1.4	4.905	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	208	52	1342	878	0.237	208	90	0.2	0.3	5.364	A
2 - A5 Watling Street (South-East)	1071	268	585	1554	0.689	1067	964	1.2	2.2	7.335	A
3 - Higham Lane	544	136	1157	1214	0.448	543	495	0.5	0.8	5.349	A
4 - A5 Watling Street (North-West)	1285	321	152	1763	0.729	1280	1549	1.4	2.6	7.379	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	208	52	1346	875	0.238	208	90	0.3	0.3	5.395	A
2 - A5 Watling Street (South-East)	1071	268	587	1553	0.690	1071	968	2.2	2.2	7.465	A
3 - Higham Lane	544	136	1161	1212	0.449	544	497	0.8	0.8	5.391	A
4 - A5 Watling Street (North-West)	1285	321	152	1763	0.729	1285	1553	2.6	2.6	7.521	A

09:45 - 10:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	170	42	1104	1033	0.165	170	74	0.3	0.2	4.176	A
2 - A5 Watling Street (South-East)	875	219	481	1616	0.541	879	794	2.2	1.2	4.910	A
3 - Higham Lane	444	111	953	1360	0.326	445	407	0.8	0.5	3.939	A
4 - A5 Watling Street (North-West)	1049	262	124	1779	0.590	1054	1273	2.6	1.5	4.997	A

10:00 - 10:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	142	36	923	1151	0.124	143	62	0.2	0.1	3.570	A
2 - A5 Watling Street (South-East)	733	183	402	1662	0.441	734	663	1.2	0.8	3.885	A
3 - Higham Lane	372	93	796	1472	0.253	373	340	0.5	0.3	3.275	A
4 - A5 Watling Street (North-West)	879	220	104	1791	0.491	881	1064	1.5	1.0	3.964	A

Ref Case + Development, PM (16:00 - 17:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	9.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.80	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)	Run automatically
D10	Ref Case + Development	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	147	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	903	100.000
3 - Higham Lane		ONE HOUR	✓	486	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1414	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	20	79	48
	2 - A5 Watling Street (South-East)	22	0	62	819
	3 - Higham Lane	87	70	4	325
	4 - A5 Watling Street (North-West)	51	903	453	7

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	26	1	0
	2 - A5 Watling Street (South-East)	12	0	0	7
	3 - Higham Lane	1	1	0	0
	4 - A5 Watling Street (North-West)	0	8	1	22

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.22	6.26	0.3	A	135	202
2 - A5 Watling Street (South-East)	0.62	6.00	1.6	A	829	1243

3 - Higham Lane	0.39	4.29	0.6	A	446	669
4 - A5 Watling Street (North-West)	0.86	14.41	6.0	B	1298	1946

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	111	28	1076	1043	0.106	110	120	0.0	0.1	3.856	A
2 - A5 Watling Street (South-East)	680	170	443	1722	0.395	677	744	0.0	0.6	3.437	A
3 - Higham Lane	366	91	672	1592	0.230	365	448	0.0	0.3	2.931	A
4 - A5 Watling Street (North-West)	1065	266	137	1842	0.578	1059	899	0.0	1.4	4.569	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	132	33	1288	915	0.144	132	144	0.1	0.2	4.598	A
2 - A5 Watling Street (South-East)	812	203	530	1668	0.487	811	890	0.6	0.9	4.192	A
3 - Higham Lane	437	109	804	1500	0.291	436	536	0.3	0.4	3.381	A
4 - A5 Watling Street (North-West)	1271	318	164	1825	0.696	1268	1076	1.4	2.2	6.414	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	162	40	1569	744	0.217	161	175	0.2	0.3	6.173	A
2 - A5 Watling Street (South-East)	994	249	646	1596	0.623	991	1084	0.9	1.6	5.924	A
3 - Higham Lane	535	134	984	1376	0.389	534	654	0.4	0.6	4.269	A
4 - A5 Watling Street (North-West)	1557	389	201	1803	0.864	1543	1317	2.2	5.7	13.191	B

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	162	40	1581	737	0.220	162	176	0.3	0.3	6.262	A
2 - A5 Watling Street (South-East)	994	249	650	1594	0.624	994	1093	1.6	1.6	6.003	A
3 - Higham Lane	535	134	986	1375	0.389	535	658	0.6	0.6	4.287	A
4 - A5 Watling Street (North-West)	1557	389	201	1803	0.864	1556	1320	5.7	6.0	14.412	B

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	132	33	1306	904	0.146	133	145	0.3	0.2	4.671	A
2 - A5 Watling Street (South-East)	812	203	536	1664	0.488	815	902	1.6	1.0	4.252	A
3 - Higham Lane	437	109	808	1498	0.292	438	543	0.6	0.4	3.398	A
4 - A5 Watling Street (North-West)	1271	318	165	1825	0.697	1286	1081	6.0	2.3	6.850	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	111	28	1086	1038	0.107	111	121	0.2	0.1	3.885	A
2 - A5 Watling Street (South-East)	680	170	446	1720	0.395	681	750	1.0	0.7	3.472	A
3 - Higham Lane	366	91	676	1589	0.230	366	452	0.4	0.3	2.944	A
4 - A5 Watling Street (North-West)	1065	266	138	1841	0.578	1068	904	2.3	1.4	4.679	A

Ref Case + Development, PM (17:00 - 18:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	40.06	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	40.06	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)	Run automatically
D11	Ref Case + Development	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	159	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	988	100.000
3 - Higham Lane		ONE HOUR	✓	537	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1675	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	14	78	67
	2 - A5 Watling Street (South-East)	37	0	86	865
	3 - Higham Lane	116	51	4	366
	4 - A5 Watling Street (North-West)	95	1012	561	7

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	29	0	2
	2 - A5 Watling Street (South-East)	11	0	2	7
	3 - Higham Lane	0	2	0	0
	4 - A5 Watling Street (North-West)	0	6	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.27	7.54	0.4	A	146	219
2 - A5 Watling Street (South-East)	0.72	8.34	2.5	A	907	1360

3 - Higham Lane	0.45	4.96	0.8	A	493	739
4 - A5 Watling Street (North-West)	1.02	73.19	39.1	F	1537	2306

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	120	30	1223	970	0.123	119	186	0.0	0.1	4.226	A
2 - A5 Watling Street (South-East)	744	186	536	1663	0.447	741	806	0.0	0.8	3.888	A
3 - Higham Lane	404	101	732	1553	0.260	403	545	0.0	0.4	3.125	A
4 - A5 Watling Street (North-West)	1261	315	156	1858	0.679	1253	978	0.0	2.1	5.871	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	143	36	1462	826	0.173	143	222	0.1	0.2	5.262	A
2 - A5 Watling Street (South-East)	888	222	641	1599	0.556	886	963	0.8	1.2	5.042	A
3 - Higham Lane	483	121	876	1454	0.332	482	652	0.4	0.5	3.704	A
4 - A5 Watling Street (North-West)	1506	376	187	1839	0.819	1497	1171	2.1	4.3	10.267	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	175	44	1719	671	0.261	174	268	0.2	0.3	7.243	A
2 - A5 Watling Street (South-East)	1088	272	760	1526	0.713	1083	1134	1.2	2.4	8.046	A
3 - Higham Lane	591	148	1070	1320	0.448	590	773	0.5	0.8	4.926	A
4 - A5 Watling Street (North-West)	1844	461	228	1813	1.017	1758	1431	4.3	25.8	40.322	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	175	44	1750	652	0.268	175	270	0.3	0.4	7.544	A
2 - A5 Watling Street (South-East)	1088	272	771	1519	0.716	1088	1154	2.4	2.5	8.339	A
3 - Higham Lane	591	148	1074	1317	0.449	591	785	0.8	0.8	4.962	A
4 - A5 Watling Street (North-West)	1844	461	229	1813	1.017	1791	1436	25.8	39.1	73.188	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	143	36	1599	743	0.192	143	231	0.4	0.2	6.005	A
2 - A5 Watling Street (South-East)	888	222	691	1568	0.566	893	1051	2.5	1.3	5.367	A
3 - Higham Lane	483	121	882	1449	0.333	484	702	0.8	0.5	3.737	A
4 - A5 Watling Street (North-West)	1506	376	188	1838	0.819	1642	1179	39.1	5.0	28.282	D

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	120	30	1242	959	0.125	120	188	0.2	0.1	4.292	A
2 - A5 Watling Street (South-East)	744	186	544	1659	0.448	746	818	1.3	0.8	3.951	A
3 - Higham Lane	404	101	737	1549	0.261	405	553	0.5	0.4	3.148	A
4 - A5 Watling Street (North-West)	1261	315	157	1858	0.679	1272	985	5.0	2.2	6.263	A

Ref Case + Development, PM (18:00 - 19:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A5 Watling Street (North-West) - 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	11.52	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.52	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	Ref Case + Development	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	118	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	943	100.000
3 - Higham Lane		ONE HOUR	✓	503	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1482	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	14	65	39
	2 - A5 Watling Street (South-East)	30	0	76	837
	3 - Higham Lane	121	46	4	332
	4 - A5 Watling Street (North-West)	73	969	435	5

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	21	0	0
	2 - A5 Watling Street (South-East)	14	0	0	7
	3 - Higham Lane	0	2	0	0
	4 - A5 Watling Street (North-West)	0	5	0	48

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.17	5.79	0.2	A	108	162
2 - A5 Watling Street (South-East)	0.64	6.13	1.8	A	865	1298

3 - Higham Lane	0.41	4.45	0.7	A	462	692
4 - A5 Watling Street (North-West)	0.89	17.83	7.7	C	1360	2040

Main Results for each time segment

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	89	22	1093	1062	0.084	88	168	0.0	0.1	3.698	A
2 - A5 Watling Street (South-East)	710	177	410	1743	0.407	707	771	0.0	0.7	3.466	A
3 - Higham Lane	379	95	683	1585	0.239	377	435	0.0	0.3	2.979	A
4 - A5 Watling Street (North-West)	1116	279	151	1871	0.596	1110	910	0.0	1.5	4.696	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	106	27	1308	932	0.114	106	201	0.1	0.1	4.359	A
2 - A5 Watling Street (South-East)	848	212	491	1694	0.501	846	922	0.7	1.0	4.243	A
3 - Higham Lane	452	113	818	1492	0.303	452	520	0.3	0.4	3.460	A
4 - A5 Watling Street (North-West)	1332	333	180	1852	0.719	1328	1089	1.5	2.5	6.815	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	130	32	1588	762	0.171	130	245	0.1	0.2	5.694	A
2 - A5 Watling Street (South-East)	1038	260	598	1629	0.638	1035	1121	1.0	1.7	6.038	A
3 - Higham Lane	554	138	1000	1365	0.406	553	633	0.4	0.7	4.426	A
4 - A5 Watling Street (North-West)	1632	408	221	1827	0.893	1613	1332	2.5	7.2	15.609	C

18:30 - 18:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	130	32	1604	752	0.173	130	247	0.2	0.2	5.787	A
2 - A5 Watling Street (South-East)	1038	260	603	1625	0.639	1038	1132	1.7	1.8	6.128	A
3 - Higham Lane	554	138	1003	1363	0.406	554	638	0.7	0.7	4.447	A
4 - A5 Watling Street (North-West)	1632	408	221	1827	0.893	1630	1335	7.2	7.7	17.833	C

18:45 - 19:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	106	27	1331	918	0.116	106	203	0.2	0.1	4.440	A
2 - A5 Watling Street (South-East)	848	212	499	1689	0.502	851	938	1.8	1.0	4.310	A
3 - Higham Lane	452	113	822	1489	0.304	453	528	0.7	0.4	3.481	A
4 - A5 Watling Street (North-West)	1332	333	181	1852	0.719	1353	1094	7.7	2.6	7.489	A

19:00 - 19:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	89	22	1103	1056	0.084	89	169	0.1	0.1	3.726	A
2 - A5 Watling Street (South-East)	710	177	414	1741	0.408	711	778	1.0	0.7	3.501	A
3 - Higham Lane	379	95	687	1582	0.239	379	438	0.4	0.3	2.995	A
4 - A5 Watling Street (North-West)	1116	279	152	1870	0.597	1120	915	2.6	1.5	4.830	A

Ref Case + Development (with Travel Plan Targets Met), AM (07:00 - 08:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Warning	Geometry	4 - A5 Watling Street (North-West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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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	7.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.38	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)	Run automatically
D13	Ref Case + Development (with Travel Plan Targets Met)	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	332	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	1048	100.000
3 - Higham Lane		ONE HOUR	✓	512	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1164	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	18	126	188
	2 - A5 Watling Street (South-East)	7	0	42	999
	3 - Higham Lane	28	73	8	403
	4 - A5 Watling Street (North-West)	24	828	302	10

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	6	1	0
	2 - A5 Watling Street (South-East)	0	0	2	7
	3 - Higham Lane	1	0	0	0
	4 - A5 Watling Street (North-West)	0	10	2	11

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.41	6.80	0.7	A	305	457
2 - A5 Watling Street (South-East)	0.74	8.81	2.8	A	962	1442

3 - Higham Lane	0.49	6.12	1.0	A	470	705
4 - A5 Watling Street (North-West)	0.71	6.78	2.4	A	1068	1602

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	250	62	915	1169	0.214	249	44	0.0	0.3	3.908	A
2 - A5 Watling Street (South-East)	789	197	475	1700	0.464	786	689	0.0	0.9	3.924	A
3 - Higham Lane	385	96	902	1442	0.267	384	358	0.0	0.4	3.398	A
4 - A5 Watling Street (North-West)	876	219	87	1836	0.477	873	1199	0.0	0.9	3.725	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	298	75	1096	1054	0.283	298	53	0.3	0.4	4.759	A
2 - A5 Watling Street (South-East)	942	236	569	1642	0.574	940	825	0.9	1.3	5.120	A
3 - Higham Lane	460	115	1080	1320	0.349	460	429	0.4	0.5	4.179	A
4 - A5 Watling Street (North-West)	1046	262	104	1826	0.573	1045	1436	0.9	1.3	4.600	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	366	91	1340	898	0.407	364	65	0.4	0.7	6.733	A
2 - A5 Watling Street (South-East)	1154	288	696	1563	0.738	1148	1009	1.3	2.7	8.564	A
3 - Higham Lane	564	141	1320	1156	0.488	562	525	0.5	0.9	6.044	A
4 - A5 Watling Street (North-West)	1282	320	127	1812	0.707	1277	1754	1.3	2.4	6.683	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	366	91	1344	895	0.408	366	65	0.7	0.7	6.796	A
2 - A5 Watling Street (South-East)	1154	288	698	1562	0.739	1154	1012	2.7	2.8	8.809	A
3 - Higham Lane	564	141	1325	1152	0.489	564	526	0.9	1.0	6.118	A
4 - A5 Watling Street (North-West)	1282	320	128	1812	0.707	1281	1761	2.4	2.4	6.784	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	298	75	1102	1050	0.284	300	53	0.7	0.4	4.804	A
2 - A5 Watling Street (South-East)	942	236	572	1640	0.575	948	829	2.8	1.4	5.246	A
3 - Higham Lane	460	115	1088	1315	0.350	462	431	1.0	0.5	4.230	A
4 - A5 Watling Street (North-West)	1046	262	105	1825	0.573	1051	1446	2.4	1.4	4.672	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	250	62	921	1166	0.214	250	45	0.4	0.3	3.936	A
2 - A5 Watling Street (South-East)	789	197	478	1698	0.465	791	693	1.4	0.9	3.978	A
3 - Higham Lane	385	96	909	1438	0.268	386	361	0.5	0.4	3.427	A
4 - A5 Watling Street (North-West)	876	219	87	1835	0.477	878	1207	1.4	0.9	3.769	A

Ref Case + Development (with Travel Plan Targets Met), AM (08:00 - 09:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Warning	Geometry	4 - A5 Watling Street (North-West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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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	13.81	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.81	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	Ref Case + Development (with Travel Plan Targets Met)	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	349	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	1238	100.000
3 - Higham Lane		ONE HOUR	✓	682	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1147	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	21	116	212
	2 - A5 Watling Street (South-East)	10	0	63	1165
	3 - Higham Lane	55	78	8	541
	4 - A5 Watling Street (North-West)	16	818	308	5

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	0	1	0
	2 - A5 Watling Street (South-East)	14	0	0	9
	3 - Higham Lane	0	1	0	0
	4 - A5 Watling Street (North-West)	0	13	2	19

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.43	7.19	0.8	A	320	480
2 - A5 Watling Street (South-East)	0.89	21.13	7.6	C	1136	1704

3 - Higham Lane	0.76	14.73	3.0	B	626	939
4 - A5 Watling Street (North-West)	0.72	7.34	2.5	A	1053	1579

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	263	66	912	1165	0.226	262	61	0.0	0.3	3.981	A
2 - A5 Watling Street (South-East)	932	233	486	1664	0.560	927	687	0.0	1.3	4.850	A
3 - Higham Lane	513	128	1042	1333	0.385	511	371	0.0	0.6	4.366	A
4 - A5 Watling Street (North-West)	864	216	113	1784	0.484	860	1440	0.0	0.9	3.881	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	314	78	1092	1047	0.300	313	73	0.3	0.4	4.902	A
2 - A5 Watling Street (South-East)	1113	278	582	1606	0.693	1109	823	1.3	2.2	7.193	A
3 - Higham Lane	613	153	1247	1190	0.515	611	444	0.6	1.0	6.200	A
4 - A5 Watling Street (North-West)	1031	258	135	1771	0.582	1029	1723	0.9	1.4	4.844	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	384	96	1335	888	0.432	383	88	0.4	0.8	7.102	A
2 - A5 Watling Street (South-East)	1363	341	712	1527	0.893	1344	1006	2.2	7.0	18.031	C
3 - Higham Lane	751	188	1514	1005	0.747	744	542	1.0	2.8	13.454	B
4 - A5 Watling Street (North-West)	1263	316	165	1754	0.720	1258	2093	1.4	2.5	7.202	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	384	96	1340	885	0.434	384	89	0.8	0.8	7.185	A
2 - A5 Watling Street (South-East)	1363	341	714	1526	0.893	1361	1009	7.0	7.6	21.134	C
3 - Higham Lane	751	188	1530	993	0.756	750	545	2.8	3.0	14.733	B
4 - A5 Watling Street (North-West)	1263	316	166	1753	0.720	1263	2114	2.5	2.5	7.340	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	314	78	1099	1042	0.301	315	74	0.8	0.4	4.960	A
2 - A5 Watling Street (South-East)	1113	278	586	1604	0.694	1134	829	7.6	2.3	7.987	A
3 - Higham Lane	613	153	1272	1173	0.523	621	448	3.0	1.1	6.602	A
4 - A5 Watling Street (North-West)	1031	258	137	1769	0.583	1036	1755	2.5	1.4	4.934	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	263	66	918	1161	0.226	263	61	0.4	0.3	4.015	A
2 - A5 Watling Street (South-East)	932	233	490	1662	0.561	936	692	2.3	1.3	4.987	A
3 - Higham Lane	513	128	1052	1326	0.387	515	374	1.1	0.6	4.451	A
4 - A5 Watling Street (North-West)	864	216	114	1783	0.484	865	1453	1.4	0.9	3.932	A

Ref Case + Development (with Travel Plan Targets Met), AM (09:00 - 10:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Warning	Geometry	4 - A5 Watling Street (North-West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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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	6.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.90	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)	Run automatically
D15	Ref Case + Development (with Travel Plan Targets Met)	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	189	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	965	100.000
3 - Higham Lane		ONE HOUR	✓	491	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1160	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	7	54	128
	2 - A5 Watling Street (South-East)	24	0	53	888
	3 - Higham Lane	48	61	5	377
	4 - A5 Watling Street (North-West)	10	807	336	7

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	17	1	0
	2 - A5 Watling Street (South-East)	0	0	0	13
	3 - Higham Lane	1	2	0	1
	4 - A5 Watling Street (North-West)	0	13	2	29

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.24	5.36	0.3	A	173	260
2 - A5 Watling Street (South-East)	0.68	7.30	2.1	A	885	1328

3 - Higham Lane	0.44	5.31	0.8	A	451	676
4 - A5 Watling Street (North-West)	0.72	7.41	2.6	A	1064	1597

Main Results for each time segment

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	142	36	912	1158	0.123	142	61	0.0	0.1	3.540	A
2 - A5 Watling Street (South-East)	727	182	397	1665	0.436	723	656	0.0	0.8	3.809	A
3 - Higham Lane	370	92	785	1480	0.250	368	336	0.0	0.3	3.234	A
4 - A5 Watling Street (North-West)	873	218	104	1791	0.488	870	1050	0.0	0.9	3.892	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	170	42	1091	1041	0.163	170	74	0.1	0.2	4.130	A
2 - A5 Watling Street (South-East)	868	217	476	1619	0.536	866	785	0.8	1.1	4.771	A
3 - Higham Lane	441	110	940	1370	0.322	441	402	0.3	0.5	3.873	A
4 - A5 Watling Street (North-West)	1043	261	124	1779	0.586	1041	1257	0.9	1.4	4.866	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	208	52	1334	883	0.236	208	90	0.2	0.3	5.325	A
2 - A5 Watling Street (South-East)	1062	266	582	1556	0.683	1059	960	1.1	2.1	7.179	A
3 - Higham Lane	541	135	1149	1221	0.443	539	492	0.5	0.8	5.274	A
4 - A5 Watling Street (North-West)	1277	319	152	1763	0.724	1273	1537	1.4	2.6	7.270	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	208	52	1339	880	0.236	208	90	0.3	0.3	5.355	A
2 - A5 Watling Street (South-East)	1062	266	583	1555	0.683	1062	963	2.1	2.1	7.300	A
3 - Higham Lane	541	135	1153	1218	0.444	541	493	0.8	0.8	5.314	A
4 - A5 Watling Street (North-West)	1277	319	152	1763	0.725	1277	1541	2.6	2.6	7.407	A

09:45 - 10:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	170	42	1098	1037	0.164	170	74	0.3	0.2	4.156	A
2 - A5 Watling Street (South-East)	868	217	478	1617	0.536	871	790	2.1	1.2	4.850	A
3 - Higham Lane	441	110	945	1366	0.323	443	404	0.8	0.5	3.906	A
4 - A5 Watling Street (North-West)	1043	261	124	1779	0.586	1047	1263	2.6	1.4	4.955	A

10:00 - 10:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	142	36	917	1154	0.123	143	62	0.2	0.1	3.558	A
2 - A5 Watling Street (South-East)	727	182	400	1664	0.437	728	660	1.2	0.8	3.852	A
3 - Higham Lane	370	92	790	1476	0.250	370	338	0.5	0.3	3.255	A
4 - A5 Watling Street (North-West)	873	218	104	1791	0.488	875	1056	1.4	1.0	3.942	A

Ref Case + Development (with Travel Plan Targets Met), PM (16:00 - 17:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Warning	Geometry	4 - A5 Watling Street (North-West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.31	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.31	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	Ref Case + Development (with Travel Plan Targets Met)	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	147	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	900	100.000
3 - Higham Lane		ONE HOUR	✓	486	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1398	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	20	79	48
	2 - A5 Watling Street (South-East)	22	0	62	816
	3 - Higham Lane	87	70	4	325
	4 - A5 Watling Street (North-West)	51	892	448	7

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	26	1	0
	2 - A5 Watling Street (South-East)	12	0	0	7
	3 - Higham Lane	1	1	0	0
	4 - A5 Watling Street (North-West)	0	8	1	22

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.22	6.15	0.3	A	135	202
2 - A5 Watling Street (South-East)	0.62	5.94	1.6	A	826	1239

3 - Higham Lane	0.39	4.28	0.6	A	446	669
4 - A5 Watling Street (North-West)	0.85	13.49	5.6	B	1283	1924

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	111	28	1065	1051	0.105	110	120	0.0	0.1	3.825	A
2 - A5 Watling Street (South-East)	678	169	439	1724	0.393	675	736	0.0	0.6	3.422	A
3 - Higham Lane	366	91	670	1593	0.230	365	444	0.0	0.3	2.928	A
4 - A5 Watling Street (North-West)	1052	263	137	1842	0.571	1047	897	0.0	1.3	4.501	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	132	33	1274	923	0.143	132	144	0.1	0.2	4.548	A
2 - A5 Watling Street (South-East)	809	202	526	1671	0.484	808	881	0.6	0.9	4.167	A
3 - Higham Lane	437	109	802	1502	0.291	436	532	0.3	0.4	3.376	A
4 - A5 Watling Street (North-West)	1257	314	164	1825	0.688	1253	1074	1.3	2.2	6.256	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	162	40	1552	754	0.215	161	175	0.2	0.3	6.069	A
2 - A5 Watling Street (South-East)	991	248	641	1600	0.620	988	1073	0.9	1.6	5.863	A
3 - Higham Lane	535	134	981	1379	0.388	534	648	0.4	0.6	4.258	A
4 - A5 Watling Street (North-West)	1539	385	201	1803	0.854	1527	1314	2.2	5.3	12.483	B

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	162	40	1564	747	0.217	162	176	0.3	0.3	6.148	A
2 - A5 Watling Street (South-East)	991	248	645	1597	0.621	991	1081	1.6	1.6	5.937	A
3 - Higham Lane	535	134	983	1377	0.389	535	653	0.6	0.6	4.276	A
4 - A5 Watling Street (North-West)	1539	385	201	1803	0.854	1538	1317	5.3	5.6	13.491	B

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	132	33	1290	913	0.145	133	145	0.3	0.2	4.612	A
2 - A5 Watling Street (South-East)	809	202	531	1667	0.485	812	891	1.6	1.0	4.221	A
3 - Higham Lane	437	109	805	1500	0.291	438	538	0.6	0.4	3.392	A
4 - A5 Watling Street (North-West)	1257	314	165	1825	0.689	1270	1078	5.6	2.3	6.635	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	111	28	1073	1045	0.106	111	121	0.2	0.1	3.854	A
2 - A5 Watling Street (South-East)	678	169	443	1722	0.393	679	742	1.0	0.7	3.453	A
3 - Higham Lane	366	91	673	1591	0.230	366	448	0.4	0.3	2.941	A
4 - A5 Watling Street (North-West)	1052	263	138	1842	0.572	1056	902	2.3	1.3	4.606	A

Ref Case + Development (with Travel Plan Targets Met), PM (17:00 - 18:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Warning	Geometry	4 - A5 Watling Street (North-West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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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	36.60	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	36.60	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)	Run automatically
D17	Ref Case + Development (with Travel Plan Targets Met)	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	159	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	987	100.000
3 - Higham Lane		ONE HOUR	✓	537	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1662	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	14	78	67
	2 - A5 Watling Street (South-East)	37	0	86	864
	3 - Higham Lane	116	51	4	366
	4 - A5 Watling Street (North-West)	95	1003	557	7

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	29	0	2
	2 - A5 Watling Street (South-East)	11	0	2	7
	3 - Higham Lane	0	2	0	0
	4 - A5 Watling Street (North-West)	0	6	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.27	7.49	0.4	A	146	219
2 - A5 Watling Street (South-East)	0.72	8.30	2.5	A	906	1359

3 - Higham Lane	0.45	4.96	0.8	A	493	739
4 - A5 Watling Street (North-West)	1.01	66.48	34.6	F	1525	2288

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	120	30	1213	976	0.123	119	186	0.0	0.1	4.198	A
2 - A5 Watling Street (South-East)	743	186	534	1665	0.446	740	799	0.0	0.8	3.877	A
3 - Higham Lane	404	101	731	1554	0.260	403	543	0.0	0.4	3.124	A
4 - A5 Watling Street (North-West)	1251	313	156	1858	0.673	1243	978	0.0	2.0	5.780	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	143	36	1450	833	0.172	143	222	0.1	0.2	5.214	A
2 - A5 Watling Street (South-East)	887	222	638	1601	0.554	886	955	0.8	1.2	5.020	A
3 - Higham Lane	483	121	875	1454	0.332	482	649	0.4	0.5	3.701	A
4 - A5 Watling Street (North-West)	1494	374	187	1839	0.812	1486	1170	2.0	4.1	9.958	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	175	44	1712	675	0.259	174	268	0.2	0.3	7.185	A
2 - A5 Watling Street (South-East)	1087	272	758	1527	0.712	1082	1129	1.2	2.4	8.009	A
3 - Higham Lane	591	148	1069	1320	0.448	590	771	0.5	0.8	4.921	A
4 - A5 Watling Street (North-West)	1830	457	228	1813	1.009	1752	1430	4.1	23.6	37.867	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	175	44	1744	656	0.267	175	271	0.3	0.4	7.489	A
2 - A5 Watling Street (South-East)	1087	272	770	1519	0.715	1086	1149	2.4	2.5	8.302	A
3 - Higham Lane	591	148	1073	1317	0.449	591	783	0.8	0.8	4.957	A
4 - A5 Watling Street (North-West)	1830	457	229	1813	1.009	1786	1435	23.6	34.6	66.482	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	143	36	1571	760	0.188	143	230	0.4	0.2	5.842	A
2 - A5 Watling Street (South-East)	887	222	682	1574	0.564	892	1033	2.5	1.3	5.315	A
3 - Higham Lane	483	121	881	1450	0.333	484	693	0.8	0.5	3.734	A
4 - A5 Watling Street (North-West)	1494	374	188	1839	0.813	1614	1178	34.6	4.7	23.302	C

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	120	30	1231	966	0.124	120	188	0.2	0.1	4.261	A
2 - A5 Watling Street (South-East)	743	186	541	1661	0.447	745	810	1.3	0.8	3.939	A
3 - Higham Lane	404	101	736	1550	0.261	405	550	0.5	0.4	3.144	A
4 - A5 Watling Street (North-West)	1251	313	157	1858	0.674	1262	984	4.7	2.1	6.140	A

Ref Case + Development (with Travel Plan Targets Met), PM (18:00 - 19:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A5 Watling Street (South-East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Warning	Geometry	4 - A5 Watling Street (North-West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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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	11.06	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.06	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	Ref Case + Development (with Travel Plan Targets Met)	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Nuneaton Lane		ONE HOUR	✓	118	100.000
2 - A5 Watling Street (South-East)		ONE HOUR	✓	939	100.000
3 - Higham Lane		ONE HOUR	✓	502	100.000
4 - A5 Watling Street (North-West)		ONE HOUR	✓	1472	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	14	65	39
	2 - A5 Watling Street (South-East)	30	0	76	833
	3 - Higham Lane	121	46	4	331
	4 - A5 Watling Street (North-West)	73	962	432	5

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Nuneaton Lane	2 - A5 Watling Street (South-East)	3 - Higham Lane	4 - A5 Watling Street (North-West)
From	1 - Nuneaton Lane	0	21	0	0
	2 - A5 Watling Street (South-East)	14	0	0	7
	3 - Higham Lane	0	2	0	0
	4 - A5 Watling Street (North-West)	0	5	0	48

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Nuneaton Lane	0.17	5.73	0.2	A	108	162
2 - A5 Watling Street (South-East)	0.64	6.06	1.7	A	862	1292

3 - Higham Lane	0.40	4.42	0.7	A	461	691
4 - A5 Watling Street (North-West)	0.89	16.97	7.3	C	1351	2026

Main Results for each time segment

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	89	22	1085	1066	0.083	88	168	0.0	0.1	3.681	A
2 - A5 Watling Street (South-East)	707	177	408	1745	0.405	704	766	0.0	0.7	3.451	A
3 - Higham Lane	378	94	680	1587	0.238	377	432	0.0	0.3	2.972	A
4 - A5 Watling Street (North-West)	1108	277	151	1871	0.592	1102	906	0.0	1.4	4.652	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	106	27	1299	937	0.113	106	201	0.1	0.1	4.331	A
2 - A5 Watling Street (South-East)	844	211	489	1695	0.498	843	916	0.7	1.0	4.217	A
3 - Higham Lane	451	113	814	1494	0.302	451	517	0.3	0.4	3.448	A
4 - A5 Watling Street (North-West)	1323	331	180	1852	0.714	1319	1085	1.4	2.4	6.704	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	130	32	1579	768	0.169	130	245	0.1	0.2	5.640	A
2 - A5 Watling Street (South-East)	1034	258	595	1630	0.634	1031	1114	1.0	1.7	5.977	A
3 - Higham Lane	553	138	996	1368	0.404	552	630	0.4	0.7	4.403	A
4 - A5 Watling Street (North-West)	1621	405	221	1827	0.887	1603	1327	2.4	6.8	15.017	C

18:30 - 18:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	130	32	1594	758	0.171	130	247	0.2	0.2	5.727	A
2 - A5 Watling Street (South-East)	1034	258	600	1627	0.635	1034	1124	1.7	1.7	6.062	A
3 - Higham Lane	553	138	999	1366	0.405	553	635	0.7	0.7	4.424	A
4 - A5 Watling Street (North-West)	1621	405	221	1827	0.887	1619	1330	6.8	7.3	16.972	C

18:45 - 19:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	106	27	1321	924	0.115	106	203	0.2	0.1	4.405	A
2 - A5 Watling Street (South-East)	844	211	496	1691	0.499	847	931	1.7	1.0	4.281	A
3 - Higham Lane	451	113	818	1491	0.303	452	525	0.7	0.4	3.469	A
4 - A5 Watling Street (North-West)	1323	331	181	1852	0.715	1342	1089	7.3	2.6	7.314	A

19:00 - 19:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Nuneaton Lane	89	22	1095	1060	0.084	89	169	0.1	0.1	3.705	A
2 - A5 Watling Street (South-East)	707	177	412	1743	0.406	708	772	1.0	0.7	3.483	A
3 - Higham Lane	378	94	684	1584	0.239	378	436	0.4	0.3	2.988	A
4 - A5 Watling Street (North-West)	1108	277	152	1870	0.593	1113	911	2.6	1.5	4.779	A

Appendix 5

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.0.1820

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+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

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Filename: 17059- A5-Mira Roundabout Rev A.j10

Path: P:\17 jobs\059 MIRA - Southern Manufacturing Sector\Technical Assessments\Modelling - Travel Plan Targets

Report generation date: 10/11/2023 15:52:06

- »Ref Case, AM (07:00 - 08:00)
- »Ref Case, AM (08:00 - 09:00)
- »Ref Case, AM (09:00 - 10:00)
- »Ref Case, PM (16:00 - 17:00)
- »Ref Case, PM (17:00 - 18:00)
- »Ref Case, PM (18:00 - 19:00)
- »Ref Case + Development, AM (07:00 - 08:00)
- »Ref Case + Development, AM (08:00 - 09:00)
- »Ref Case + Development, AM (09:00 - 10:00)
- »Ref Case + Development, PM (16:00 - 17:00)
- »Ref Case + Development, PM (17:00 - 18:00)
- »Ref Case + Development, PM (18:00 - 19:00)
- »Ref Case + Development (With Travel Plan Targets Met), AM (07:00 - 08:00)
- »Ref Case + Development (With Travel Plan Targets Met), AM (08:00 - 09:00)
- »Ref Case + Development (With Travel Plan Targets Met), AM (09:00 - 10:00)
- »Ref Case + Development (With Travel Plan Targets Met), PM (16:00 - 17:00)
- »Ref Case + Development (With Travel Plan Targets Met), PM (17:00 - 18:00)

»Ref Case + Development (With Travel Plan Targets Met), PM (18:00 - 19:00)

Summary of junction performance

	AM (07:00 - 08:00)					AM (08:00 - 09:00)					AM (09:00 - 10:00)					PM (16:00 - 17:00)					PM (17:00 - 18:00)					PM (18:00 - 19:00)				
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
Ref Case																														
1 - Mira Drive	0.1	3.32	0.07	A	5.00	0.1	3.37	0.07	A	7.60	0.1	3.34	0.10	A	4.31	0.6	5.04	0.37	A	3.66	2.5	13.97	0.72	B	6.29	2.7	11.62	0.74	B	5.71
2 - A5 South-East	2.0	4.52	0.67	A		3.7	7.20	0.79	A		1.6	4.01	0.61	A		1.1	3.27	0.51	A		1.4	4.05	0.59	A		1.3	4.02	0.56	A	
3 - Site Access	0.1	4.65	0.12	A		0.3	7.07	0.25	A		0.1	4.27	0.11	A		0.1	3.56	0.07	A		0.1	4.24	0.09	A		0.1	4.37	0.08	A	
4 - A5 North-West	2.1	5.69	0.68	A		3.2	8.44	0.76	A		1.6	4.73	0.62	A		1.3	3.60	0.56	A		2.1	5.01	0.68	A		1.2	3.47	0.55	A	
Ref Case + Development																														
1 - Mira Drive	0.1	4.17	0.09	A	7.98	0.1	4.37	0.09	A	19.88	0.1	4.28	0.12	A	6.59	0.8	6.56	0.43	A	4.76	4.5	25.73	0.83	D	8.92	5.4	24.01	0.86	C	9.05
2 - A5 South-East	2.5	5.73	0.72	A		6.4	12.68	0.87	B		2.0	5.13	0.67	A		1.1	3.45	0.53	A		1.5	4.26	0.60	A		1.4	4.52	0.59	A	
3 - Site Access	0.9	8.54	0.46	A		1.1	13.16	0.53	B		0.5	6.45	0.34	A		1.0	7.05	0.51	A		0.8	7.00	0.44	A		0.7	7.38	0.41	A	
4 - A5 North-West	4.3	10.33	0.82	B		12.8	29.96	0.94	D		3.3	8.16	0.77	A		1.6	4.48	0.62	A		2.7	6.29	0.73	A		1.7	4.35	0.63	A	
Ref Case + Development (With Travel Plan Targets Met)																														
1 - Mira Drive	0.1	4.05	0.09	A	7.44	0.1	4.25	0.09	A	17.00	0.1	4.16	0.12	A	6.29	0.7	6.32	0.42	A	4.58	4.1	23.29	0.82	C	8.40	4.9	21.50	0.84	C	8.42
2 - A5 South-East	2.4	5.55	0.71	A		5.9	11.73	0.86	B		1.9	4.99	0.66	A		1.1	3.49	0.53	A		1.5	4.23	0.60	A		1.4	4.46	0.59	A	
3 - Site Access	0.7	8.01	0.43	A		1.0	12.63	0.51	B		0.5	6.35	0.32	A		0.8	6.45	0.46	A		0.6	6.53	0.40	A		0.6	6.97	0.37	A	
4 - A5 North-West	3.9	9.44	0.80	A		10.2	24.42	0.92	C		3.0	7.67	0.76	A		1.6	4.35	0.61	A		2.6	6.10	0.73	A		1.6	4.23	0.62	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. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	
Location	
Site number	
Date	24/02/2022
Version	
Status	(new file)
Identifier	

Client	
Jobnumber	
Enumerator	mtp\MTPGeneral
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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref Case	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓
D2	Ref Case	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓
D3	Ref Case	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓
D4	Ref Case	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓
D5	Ref Case	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓
D6	Ref Case	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓
D7	Ref Case + Development	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓
D8	Ref Case + Development	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓
D9	Ref Case + Development	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓
D10	Ref Case + Development	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓
D11	Ref Case + Development	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓
D12	Ref Case + Development	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓
D13	Ref Case + Development (With Travel Plan Targets Met)	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓
D14	Ref Case + Development (With Travel Plan Targets Met)	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓

D15	Ref Case + Development (With Travel Plan Targets Met)	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓
D16	Ref Case + Development (With Travel Plan Targets Met)	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓
D17	Ref Case + Development (With Travel Plan Targets Met)	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓
D18	Ref Case + Development (With Travel Plan Targets Met)	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓

Analysis Set Details

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

Ref Case, AM (07:00 - 08:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	5.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.00	A

Arms

Arms

Arm	Name	Description	No give-way line
-----	------	-------------	------------------

1	Mira Drive		
2	A5 South-East		
3	Site Access		
4	A5 North-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 - Mira Drive	6.64	7.01	4.9	18.0	50.0	23.0		
2 - A5 South-East	8.30	8.30	0.0	25.0	50.0	30.0		
3 - Site Access	3.50	8.16	35.5	15.0	50.0	32.0		
4 - A5 North-West	8.45	8.45	0.0	25.0	50.0	34.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Mira Drive	0.698	2142
2 - A5 South-East	0.770	2539
3 - Site Access	0.660	2007
4 - A5 North-West	0.768	2550

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref Case	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	76	100.000
2 - A5 South-East		ONE HOUR	✓	1445	100.000

3 - Site Access		ONE HOUR	✓	100	100.000
4 - A5 North-West		ONE HOUR	✓	1213	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	48	6	22
	2 - A5 South-East	394	43	0	1008
	3 - Site Access	10	89	0	1
	4 - A5 North-West	198	999	13	3

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	2	4	5
	2 - A5 South-East	1	8	0	6
	3 - Site Access	0	0	0	50
	4 - A5 North-West	2	7	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.07	3.32	0.1	A	70	105
2 - A5 South-East	0.67	4.52	2.0	A	1326	1989
3 - Site Access	0.12	4.65	0.1	A	92	138
4 - A5 North-West	0.68	5.69	2.1	A	1113	1670

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	57	14	861	1458	0.039	57	452	0.0	0.0	2.568	A
2 - A5 South-East	1088	272	33	2400	0.453	1085	885	0.0	0.8	2.730	A
3 - Site Access	75	19	1103	1238	0.061	75	14	0.0	0.1	3.094	A
4 - A5 North-West	913	228	402	2106	0.434	910	776	0.0	0.8	3.003	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	68	17	1030	1336	0.051	68	541	0.0	0.1	2.838	A
2 - A5 South-East	1299	325	40	2395	0.542	1298	1059	0.8	1.2	3.276	A
3 - Site Access	90	22	1320	1089	0.083	90	17	0.1	0.1	3.601	A
4 - A5 North-West	1090	273	481	2048	0.532	1089	929	0.8	1.1	3.749	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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1 - Mira Drive	84	21	1259	1171	0.071	84	661	0.1	0.1	3.311	A
2 - A5 South-East	1591	398	48	2388	0.666	1588	1295	1.2	2.0	4.481	A
3 - Site Access	110	28	1615	886	0.124	110	21	0.1	0.1	4.636	A
4 - A5 North-West	1336	334	589	1969	0.678	1332	1136	1.1	2.1	5.615	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	84	21	1263	1168	0.072	84	663	0.1	0.1	3.318	A
2 - A5 South-East	1591	398	48	2388	0.666	1591	1298	2.0	2.0	4.517	A
3 - Site Access	110	28	1618	884	0.125	110	21	0.1	0.1	4.650	A
4 - A5 North-West	1336	334	590	1968	0.679	1335	1138	2.1	2.1	5.686	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	68	17	1035	1333	0.051	68	543	0.1	0.1	2.848	A
2 - A5 South-East	1299	325	40	2395	0.542	1302	1063	2.0	1.2	3.303	A
3 - Site Access	90	22	1325	1086	0.083	90	17	0.1	0.1	3.614	A
4 - A5 North-West	1090	273	483	2047	0.533	1094	932	2.1	1.2	3.792	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	57	14	865	1455	0.039	57	454	0.1	0.0	2.574	A
2 - A5 South-East	1088	272	33	2400	0.453	1089	889	1.2	0.8	2.749	A
3 - Site Access	75	19	1108	1235	0.061	75	14	0.1	0.1	3.106	A
4 - A5 North-West	913	228	404	2105	0.434	915	779	1.2	0.8	3.028	A

Ref Case, AM (08:00 - 09:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	7.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.60	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)	Run automatically
D2	Ref Case	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	73	100.000
2 - A5 South-East		ONE HOUR	✓	1709	100.000
3 - Site Access		ONE HOUR	✓	150	100.000
4 - A5 North-West		ONE HOUR	✓	1247	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	67	2	4
	2 - A5 South-East	514	35	0	1160
	3 - Site Access	22	127	0	1
	4 - A5 North-West	264	961	12	10

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	0	0	50
	2 - A5 South-East	1	25	0	7
	3 - Site Access	1	1	0	80
	4 - A5 North-West	2	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.07	3.37	0.1	A	67	100
2 - A5 South-East	0.79	7.20	3.7	A	1568	2352

3 - Site Access	0.25	7.07	0.3	A	138	206
4 - A5 North-West	0.76	8.44	3.2	A	1144	1716

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	55	14	859	1447	0.038	55	600	0.0	0.0	2.585	A
2 - A5 South-East	1287	322	21	2389	0.539	1282	893	0.0	1.2	3.240	A
3 - Site Access	113	28	1292	1089	0.104	112	11	0.0	0.1	3.684	A
4 - A5 North-West	939	235	524	1976	0.475	935	881	0.0	0.9	3.447	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	66	16	1027	1322	0.050	66	718	0.0	0.1	2.865	A
2 - A5 South-East	1536	384	25	2385	0.644	1534	1068	1.2	1.8	4.215	A
3 - Site Access	135	34	1546	915	0.147	135	13	0.1	0.2	4.614	A
4 - A5 North-West	1121	280	626	1902	0.589	1119	1055	0.9	1.4	4.587	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	80	20	1255	1153	0.070	80	877	0.1	0.1	3.355	A
2 - A5 South-East	1882	470	31	2381	0.790	1874	1304	1.8	3.6	7.005	A
3 - Site Access	165	41	1890	679	0.243	165	15	0.2	0.3	6.990	A
4 - A5 North-West	1373	343	766	1801	0.762	1366	1289	1.4	3.1	8.160	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	80	20	1260	1149	0.070	80	881	0.1	0.1	3.368	A
2 - A5 South-East	1882	470	31	2381	0.790	1881	1310	3.6	3.7	7.198	A
3 - Site Access	165	41	1897	674	0.245	165	15	0.3	0.3	7.072	A
4 - A5 North-West	1373	343	768	1799	0.763	1373	1294	3.1	3.2	8.436	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	66	16	1035	1316	0.050	66	723	0.1	0.1	2.881	A
2 - A5 South-East	1536	384	25	2385	0.644	1544	1076	3.7	1.8	4.317	A
3 - Site Access	135	34	1556	908	0.149	135	13	0.3	0.2	4.664	A
4 - A5 North-West	1121	280	630	1899	0.590	1128	1061	3.2	1.5	4.709	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	55	14	864	1443	0.038	55	604	0.1	0.0	2.594	A
2 - A5 South-East	1287	322	21	2389	0.539	1289	898	1.8	1.2	3.284	A
3 - Site Access	113	28	1300	1084	0.104	113	11	0.2	0.1	3.708	A
4 - A5 North-West	939	235	527	1974	0.476	941	886	1.5	0.9	3.490	A

Ref Case, AM (09:00 - 10:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	4.31	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.31	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Ref Case	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	105	100.000
2 - A5 South-East		ONE HOUR	✓	1274	100.000
3 - Site Access		ONE HOUR	✓	91	100.000
4 - A5 North-West		ONE HOUR	✓	1145	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	61	3	41
	2 - A5 South-East	304	38	0	932
	3 - Site Access	11	79	0	1
	4 - A5 North-West	154	973	12	6

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	2	5	2
	2 - A5 South-East	2	32	0	9
	3 - Site Access	4	2	0	69
	4 - A5 North-West	2	8	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.10	3.34	0.1	A	96	145
2 - A5 South-East	0.61	4.01	1.6	A	1169	1754

3 - Site Access	0.11	4.27	0.1	A	84	125
4 - A5 North-West	0.62	4.73	1.6	A	1051	1576

Main Results for each time segment

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	79	20	832	1482	0.053	79	352	0.0	0.1	2.565	A
2 - A5 South-East	959	240	47	2316	0.414	956	864	0.0	0.7	2.641	A
3 - Site Access	69	17	992	1264	0.054	68	11	0.0	0.1	3.011	A
4 - A5 North-West	862	216	324	2135	0.404	859	736	0.0	0.7	2.815	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	94	24	995	1361	0.069	94	421	0.1	0.1	2.841	A
2 - A5 South-East	1145	286	56	2310	0.496	1144	1034	0.7	1.0	3.086	A
3 - Site Access	82	20	1186	1129	0.072	82	13	0.1	0.1	3.436	A
4 - A5 North-West	1029	257	388	2087	0.493	1028	880	0.7	1.0	3.396	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	116	29	1217	1196	0.097	115	515	0.1	0.1	3.330	A
2 - A5 South-East	1403	351	68	2300	0.610	1400	1265	1.0	1.5	3.990	A
3 - Site Access	100	25	1452	946	0.106	100	16	0.1	0.1	4.258	A
4 - A5 North-West	1261	315	475	2022	0.623	1258	1077	1.0	1.6	4.695	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	116	29	1220	1194	0.097	116	516	0.1	0.1	3.336	A
2 - A5 South-East	1403	351	68	2300	0.610	1403	1267	1.5	1.6	4.010	A
3 - Site Access	100	25	1454	944	0.106	100	17	0.1	0.1	4.266	A
4 - A5 North-West	1261	315	476	2022	0.624	1261	1079	1.6	1.6	4.730	A

09:45 - 10:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	94	24	999	1358	0.069	95	423	0.1	0.1	2.850	A
2 - A5 South-East	1145	286	56	2310	0.496	1148	1037	1.6	1.0	3.105	A
3 - Site Access	82	20	1190	1127	0.073	82	14	0.1	0.1	3.448	A
4 - A5 North-West	1029	257	389	2087	0.493	1032	883	1.6	1.0	3.421	A

10:00 - 10:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	79	20	835	1479	0.053	79	354	0.1	0.1	2.570	A
2 - A5 South-East	959	240	47	2316	0.414	960	868	1.0	0.7	2.656	A
3 - Site Access	69	17	996	1261	0.054	69	11	0.1	0.1	3.021	A
4 - A5 North-West	862	216	326	2134	0.404	863	739	1.0	0.7	2.836	A

Ref Case, PM (16:00 - 17:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	3.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.66	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)	Run automatically
D4	Ref Case	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	381	100.000
2 - A5 South-East		ONE HOUR	✓	1061	100.000
3 - Site Access		ONE HOUR	✓	69	100.000
4 - A5 North-West		ONE HOUR	✓	1142	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	242	14	125
	2 - A5 South-East	69	55	0	937
	3 - Site Access	6	63	0	0
	4 - A5 North-West	19	1087	14	22

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	0	0	1
	2 - A5 South-East	0	1	0	6
	3 - Site Access	0	0	0	25
	4 - A5 North-West	0	6	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.37	5.04	0.6	A	350	524
2 - A5 South-East	0.51	3.27	1.1	A	974	1460

3 - Site Access	0.07	3.56	0.1	A	63	95
4 - A5 North-West	0.56	3.60	1.3	A	1048	1572

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	287	72	932	1453	0.197	286	71	0.0	0.2	3.082	A
2 - A5 South-East	799	200	131	2314	0.345	797	1086	0.0	0.5	2.370	A
3 - Site Access	52	13	907	1379	0.038	52	21	0.0	0.0	2.711	A
4 - A5 North-West	860	215	145	2306	0.373	857	814	0.0	0.6	2.481	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	343	86	1115	1319	0.260	342	84	0.2	0.3	3.684	A
2 - A5 South-East	954	238	157	2295	0.416	953	1300	0.5	0.7	2.682	A
3 - Site Access	62	16	1085	1256	0.049	62	25	0.0	0.1	3.013	A
4 - A5 North-West	1027	257	173	2285	0.449	1026	974	0.6	0.8	2.857	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	419	105	1364	1136	0.369	419	103	0.3	0.6	5.014	A
2 - A5 South-East	1168	292	192	2269	0.515	1167	1591	0.7	1.1	3.262	A
3 - Site Access	76	19	1328	1088	0.070	76	31	0.1	0.1	3.556	A
4 - A5 North-West	1257	314	212	2257	0.557	1256	1192	0.8	1.2	3.589	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	419	105	1366	1134	0.370	419	103	0.6	0.6	5.035	A
2 - A5 South-East	1168	292	193	2268	0.515	1168	1593	1.1	1.1	3.271	A
3 - Site Access	76	19	1330	1087	0.070	76	31	0.1	0.1	3.560	A
4 - A5 North-West	1257	314	212	2257	0.557	1257	1193	1.2	1.3	3.601	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	343	86	1117	1317	0.260	343	85	0.6	0.4	3.704	A
2 - A5 South-East	954	238	158	2294	0.416	955	1303	1.1	0.7	2.692	A
3 - Site Access	62	16	1088	1254	0.049	62	25	0.1	0.1	3.018	A
4 - A5 North-West	1027	257	174	2285	0.449	1028	976	1.3	0.8	2.870	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	287	72	935	1450	0.198	287	71	0.4	0.2	3.096	A
2 - A5 South-East	799	200	132	2313	0.345	800	1091	0.7	0.5	2.379	A
3 - Site Access	52	13	910	1377	0.038	52	21	0.1	0.0	2.718	A
4 - A5 North-West	860	215	145	2306	0.373	861	817	0.8	0.6	2.492	A

Ref Case, PM (17:00 - 18:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	6.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.29	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)	Run automatically
D5	Ref Case	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	607	100.000
2 - A5 South-East		ONE HOUR	✓	1174	100.000
3 - Site Access		ONE HOUR	✓	74	100.000
4 - A5 North-West		ONE HOUR	✓	1396	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	404	31	172
	2 - A5 South-East	86	50	0	1038
	3 - Site Access	8	65	0	1
	4 - A5 North-West	28	1287	19	62

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	2	0	4
	2 - A5 South-East	3	6	0	5
	3 - Site Access	2	0	0	17
	4 - A5 North-West	4	5	1	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.72	13.97	2.5	B	557	835
2 - A5 South-East	0.59	4.05	1.4	A	1077	1616

3 - Site Access	0.09	4.24	0.1	A	68	102
4 - A5 North-West	0.68	5.01	2.1	A	1281	1921

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	457	114	1113	1296	0.353	455	92	0.0	0.5	4.268	A
2 - A5 South-East	884	221	213	2258	0.391	881	1355	0.0	0.6	2.610	A
3 - Site Access	56	14	1057	1270	0.044	56	37	0.0	0.0	2.964	A
4 - A5 North-West	1051	263	157	2310	0.455	1048	955	0.0	0.8	2.844	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	546	136	1332	1140	0.479	544	110	0.5	0.9	6.029	A
2 - A5 South-East	1055	264	255	2226	0.474	1054	1621	0.6	0.9	3.068	A
3 - Site Access	67	17	1264	1127	0.059	66	45	0.0	0.1	3.395	A
4 - A5 North-West	1255	314	188	2287	0.549	1253	1143	0.8	1.2	3.479	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	668	167	1629	928	0.721	662	134	0.9	2.5	13.269	B
2 - A5 South-East	1293	323	310	2184	0.592	1290	1981	0.9	1.4	4.019	A
3 - Site Access	81	20	1546	932	0.087	81	55	0.1	0.1	4.230	A
4 - A5 North-West	1537	384	230	2255	0.681	1533	1398	1.2	2.1	4.961	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	668	167	1633	925	0.723	668	134	2.5	2.5	13.969	B
2 - A5 South-East	1293	323	313	2182	0.592	1293	1988	1.4	1.4	4.046	A
3 - Site Access	81	20	1550	930	0.088	81	55	0.1	0.1	4.244	A
4 - A5 North-West	1537	384	230	2255	0.682	1537	1401	2.1	2.1	5.010	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	546	136	1337	1136	0.480	552	110	2.5	0.9	6.228	A
2 - A5 South-East	1055	264	258	2224	0.475	1058	1631	1.4	0.9	3.093	A
3 - Site Access	67	17	1270	1123	0.059	67	45	0.1	0.1	3.408	A
4 - A5 North-West	1255	314	188	2287	0.549	1259	1148	2.1	1.2	3.515	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	457	114	1118	1292	0.354	459	92	0.9	0.6	4.327	A
2 - A5 South-East	884	221	214	2257	0.392	885	1362	0.9	0.6	2.626	A
3 - Site Access	56	14	1062	1266	0.044	56	38	0.1	0.0	2.973	A
4 - A5 North-West	1051	263	158	2310	0.455	1053	960	1.2	0.8	2.868	A

Ref Case, PM (18:00 - 19:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	5.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.71	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)	Run automatically
D6	Ref Case	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	779	100.000
2 - A5 South-East		ONE HOUR	✓	1048	100.000
3 - Site Access		ONE HOUR	✓	63	100.000
4 - A5 North-West		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	408	24	347
	2 - A5 South-East	82	29	0	937
	3 - Site Access	7	55	0	1
	4 - A5 North-West	34	1045	12	65

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	1	0	1
	2 - A5 South-East	1	23	0	5
	3 - Site Access	0	1	0	18
	4 - A5 North-West	4	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.74	11.62	2.7	B	715	1072
2 - A5 South-East	0.56	4.02	1.3	A	962	1442

3 - Site Access	0.08	4.37	0.1	A	58	87
4 - A5 North-West	0.55	3.47	1.2	A	1061	1591

Main Results for each time segment

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	586	147	905	1470	0.399	584	92	0.0	0.7	4.049	A
2 - A5 South-East	789	197	336	2166	0.364	787	1153	0.0	0.6	2.605	A
3 - Site Access	47	12	1096	1241	0.038	47	27	0.0	0.0	3.016	A
4 - A5 North-West	870	218	130	2357	0.369	868	1013	0.0	0.6	2.418	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	700	175	1083	1342	0.522	699	110	0.7	1.1	5.578	A
2 - A5 South-East	942	236	402	2118	0.445	941	1380	0.6	0.8	3.060	A
3 - Site Access	57	14	1311	1095	0.052	57	32	0.0	0.1	3.467	A
4 - A5 North-West	1039	260	155	2337	0.445	1038	1212	0.6	0.8	2.771	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	858	214	1326	1168	0.735	851	135	1.1	2.6	11.168	B
2 - A5 South-East	1154	288	490	2052	0.562	1152	1687	0.8	1.3	3.990	A
3 - Site Access	69	17	1603	897	0.077	69	39	0.1	0.1	4.351	A
4 - A5 North-West	1273	318	190	2310	0.551	1271	1482	0.8	1.2	3.459	A

18:30 - 18:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	858	214	1328	1166	0.735	857	135	2.6	2.7	11.624	B
2 - A5 South-East	1154	288	493	2050	0.563	1154	1692	1.3	1.3	4.016	A
3 - Site Access	69	17	1607	894	0.078	69	40	0.1	0.1	4.367	A
4 - A5 North-West	1273	318	190	2310	0.551	1273	1486	1.2	1.2	3.470	A

18:45 - 19:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	700	175	1086	1340	0.522	707	111	2.7	1.1	5.739	A
2 - A5 South-East	942	236	406	2115	0.446	944	1387	1.3	0.8	3.079	A
3 - Site Access	57	14	1317	1090	0.052	57	33	0.1	0.1	3.485	A
4 - A5 North-West	1039	260	156	2337	0.445	1041	1218	1.2	0.8	2.781	A

19:00 - 19:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	586	147	909	1468	0.400	588	93	1.1	0.7	4.102	A
2 - A5 South-East	789	197	338	2165	0.365	790	1159	0.8	0.6	2.622	A
3 - Site Access	47	12	1101	1237	0.038	47	27	0.1	0.0	3.028	A
4 - A5 North-West	870	218	130	2356	0.369	871	1018	0.8	0.6	2.426	A

Ref Case + Development, AM (07:00 - 08:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	7.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.98	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)	Run automatically
D7	Ref Case + Development	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	76	100.000
2 - A5 South-East		ONE HOUR	✓	1445	100.000
3 - Site Access		ONE HOUR	✓	332	100.000
4 - A5 North-West		ONE HOUR	✓	1410	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	48	6	22
	2 - A5 South-East	394	43	0	1008
	3 - Site Access	10	164	2	156
	4 - A5 North-West	198	999	210	3

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	2	4	5
	2 - A5 South-East	1	8	0	6
	3 - Site Access	0	9	0	18
	4 - A5 North-West	2	7	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.09	4.17	0.1	A	70	105
2 - A5 South-East	0.72	5.73	2.5	A	1326	1989

3 - Site Access	0.46	8.54	0.9	A	305	457
4 - A5 North-West	0.82	10.33	4.3	B	1294	1941

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	57	14	1065	1307	0.044	57	452	0.0	0.0	2.878	A
2 - A5 South-East	1088	272	182	2285	0.476	1084	940	0.0	0.9	2.990	A
3 - Site Access	250	62	1103	1102	0.227	249	163	0.0	0.3	4.213	A
4 - A5 North-West	1062	265	460	2061	0.515	1057	892	0.0	1.1	3.574	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	68	17	1275	1156	0.059	68	540	0.0	0.1	3.309	A
2 - A5 South-East	1299	325	218	2257	0.575	1297	1125	0.9	1.3	3.743	A
3 - Site Access	298	75	1320	970	0.308	298	196	0.3	0.4	5.353	A
4 - A5 North-West	1268	317	550	1993	0.636	1265	1067	1.1	1.7	4.929	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	84	21	1555	953	0.088	84	660	0.1	0.1	4.141	A
2 - A5 South-East	1591	398	266	2220	0.717	1586	1373	1.3	2.5	5.638	A
3 - Site Access	366	91	1614	790	0.463	364	239	0.4	0.8	8.423	A
4 - A5 North-West	1552	388	673	1901	0.817	1542	1305	1.7	4.2	9.788	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	84	21	1564	946	0.088	84	663	0.1	0.1	4.172	A
2 - A5 South-East	1591	398	267	2219	0.717	1591	1380	2.5	2.5	5.727	A
3 - Site Access	366	91	1618	787	0.464	365	240	0.8	0.9	8.539	A
4 - A5 North-West	1552	388	675	1899	0.817	1552	1309	4.2	4.3	10.326	B

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	68	17	1287	1147	0.060	68	544	0.1	0.1	3.340	A
2 - A5 South-East	1299	325	220	2256	0.576	1304	1136	2.5	1.4	3.800	A
3 - Site Access	298	75	1326	966	0.309	300	198	0.9	0.5	5.419	A
4 - A5 North-West	1268	317	553	1990	0.637	1278	1073	4.3	1.8	5.122	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	57	14	1073	1302	0.044	57	454	0.1	0.0	2.893	A
2 - A5 South-East	1088	272	183	2284	0.476	1090	946	1.4	0.9	3.020	A
3 - Site Access	250	62	1109	1099	0.227	251	165	0.5	0.3	4.245	A
4 - A5 North-West	1062	265	462	2059	0.516	1064	897	1.8	1.1	3.632	A

Ref Case + Development, AM (08:00 - 09:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	19.88	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.88	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)	Run automatically
D8	Ref Case + Development	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	73	100.000
2 - A5 South-East		ONE HOUR	✓	1709	100.000
3 - Site Access		ONE HOUR	✓	281	100.000
4 - A5 North-West		ONE HOUR	✓	1491	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	67	2	4
	2 - A5 South-East	514	35	0	1160
	3 - Site Access	22	171	1	87
	4 - A5 North-West	264	961	256	10

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	0	0	50
	2 - A5 South-East	1	25	7	7
	3 - Site Access	1	10	0	37
	4 - A5 North-West	2	10	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.09	4.37	0.1	A	67	100
2 - A5 South-East	0.87	12.68	6.4	B	1568	2352

3 - Site Access	0.53	13.16	1.1	B	258	387
4 - A5 North-West	0.94	29.96	12.8	D	1368	2052

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	55	14	1074	1278	0.043	55	600	0.0	0.0	2.943	A
2 - A5 South-East	1287	322	205	2239	0.575	1281	925	0.0	1.3	3.739	A
3 - Site Access	212	53	1292	940	0.225	210	194	0.0	0.3	4.916	A
4 - A5 North-West	1123	281	557	1933	0.581	1117	945	0.0	1.4	4.384	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	66	16	1285	1120	0.059	66	717	0.0	0.1	3.414	A
2 - A5 South-East	1536	384	245	2206	0.697	1533	1106	1.3	2.3	5.320	A
3 - Site Access	253	63	1545	790	0.320	252	232	0.3	0.5	6.679	A
4 - A5 North-West	1340	335	666	1852	0.724	1336	1131	1.4	2.5	6.903	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	80	20	1550	921	0.087	80	870	0.1	0.1	4.284	A
2 - A5 South-East	1882	470	295	2165	0.869	1866	1335	2.3	6.1	11.513	B
3 - Site Access	309	77	1882	591	0.524	307	279	0.5	1.1	12.577	B
4 - A5 North-West	1642	410	812	1746	0.940	1608	1377	2.5	10.9	22.242	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	80	20	1572	903	0.089	80	879	0.1	0.1	4.373	A
2 - A5 South-East	1882	470	299	2161	0.871	1880	1354	6.1	6.4	12.677	B
3 - Site Access	309	77	1896	583	0.531	309	284	1.1	1.1	13.157	B
4 - A5 North-West	1642	410	818	1741	0.943	1634	1387	10.9	12.8	29.960	D

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	66	16	1324	1090	0.060	66	731	0.1	0.1	3.517	A
2 - A5 South-East	1536	384	253	2199	0.699	1552	1137	6.4	2.4	5.700	A
3 - Site Access	253	63	1565	778	0.325	255	240	1.1	0.5	6.913	A
4 - A5 North-West	1340	335	675	1846	0.726	1381	1146	12.8	2.7	8.380	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	55	14	1084	1270	0.043	55	604	0.1	0.0	2.962	A
2 - A5 South-East	1287	322	206	2237	0.575	1291	933	2.4	1.4	3.819	A
3 - Site Access	212	53	1301	935	0.226	212	196	0.5	0.3	4.987	A
4 - A5 North-West	1123	281	561	1930	0.582	1128	952	2.7	1.4	4.519	A

Ref Case + Development, AM (09:00 - 10:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	6.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.59	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)	Run automatically
D9	Ref Case + Development	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	105	100.000
2 - A5 South-East		ONE HOUR	✓	1274	100.000
3 - Site Access		ONE HOUR	✓	258	100.000
4 - A5 North-West		ONE HOUR	✓	1339	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	61	3	41
	2 - A5 South-East	304	38	0	932
	3 - Site Access	11	133	1	113
	4 - A5 North-West	154	973	206	6

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	2	5	2
	2 - A5 South-East	2	32	0	9
	3 - Site Access	4	11	0	22
	4 - A5 North-West	2	8	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.12	4.28	0.1	A	96	145
2 - A5 South-East	0.67	5.13	2.0	A	1169	1754

3 - Site Access	0.34	6.45	0.5	A	237	355
4 - A5 North-West	0.77	8.16	3.3	A	1229	1843

Main Results for each time segment

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	79	20	1018	1321	0.060	79	352	0.0	0.1	2.898	A
2 - A5 South-East	959	240	193	2183	0.439	956	904	0.0	0.8	2.926	A
3 - Site Access	194	49	991	1127	0.172	193	157	0.0	0.2	3.852	A
4 - A5 North-West	1008	252	365	2042	0.494	1004	819	0.0	1.0	3.457	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	94	24	1218	1168	0.081	94	421	0.1	0.1	3.353	A
2 - A5 South-East	1145	286	231	2150	0.533	1144	1081	0.8	1.1	3.572	A
3 - Site Access	232	58	1186	1007	0.230	232	188	0.2	0.3	4.640	A
4 - A5 North-West	1204	301	437	1988	0.605	1202	980	1.0	1.5	4.563	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	116	29	1488	962	0.120	115	515	0.1	0.1	4.253	A
2 - A5 South-East	1403	351	282	2106	0.666	1399	1321	1.1	2.0	5.071	A
3 - Site Access	284	71	1451	844	0.337	283	230	0.3	0.5	6.412	A
4 - A5 North-West	1474	369	535	1916	0.770	1467	1199	1.5	3.2	7.915	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	116	29	1494	957	0.121	116	516	0.1	0.1	4.279	A
2 - A5 South-East	1403	351	283	2105	0.666	1403	1327	2.0	2.0	5.126	A
3 - Site Access	284	71	1454	842	0.337	284	231	0.5	0.5	6.453	A
4 - A5 North-West	1474	369	536	1915	0.770	1474	1202	3.2	3.3	8.158	A

09:45 - 10:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	94	24	1227	1161	0.081	95	423	0.1	0.1	3.378	A
2 - A5 South-East	1145	286	232	2149	0.533	1149	1089	2.0	1.2	3.612	A
3 - Site Access	232	58	1191	1004	0.231	233	190	0.5	0.3	4.671	A
4 - A5 North-West	1204	301	439	1987	0.606	1211	985	3.3	1.6	4.679	A

10:00 - 10:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	79	20	1024	1316	0.060	79	354	0.1	0.1	2.910	A
2 - A5 South-East	959	240	194	2182	0.440	961	909	1.2	0.8	2.951	A
3 - Site Access	194	49	996	1124	0.173	195	158	0.3	0.2	3.875	A
4 - A5 North-West	1008	252	367	2040	0.494	1010	823	1.6	1.0	3.501	A

Ref Case + Development, PM (16:00 - 17:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	4.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.76	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)	Run automatically
D10	Ref Case + Development	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	381	100.000
2 - A5 South-East		ONE HOUR	✓	1061	100.000
3 - Site Access		ONE HOUR	✓	481	100.000
4 - A5 North-West		ONE HOUR	✓	1196	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	242	14	125
	2 - A5 South-East	69	55	0	937
	3 - Site Access	6	202	3	270
	4 - A5 North-West	19	1087	68	22

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	0	0	1
	2 - A5 South-East	0	1	0	6
	3 - Site Access	0	4	0	5
	4 - A5 North-West	0	6	19	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.43	6.56	0.8	A	350	524
2 - A5 South-East	0.53	3.45	1.1	A	974	1460

3 - Site Access	0.51	7.05	1.0	A	441	662
4 - A5 North-West	0.62	4.48	1.6	A	1097	1646

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	287	72	1078	1340	0.214	286	71	0.0	0.3	3.412	A
2 - A5 South-East	799	200	174	2275	0.351	797	1190	0.0	0.5	2.431	A
3 - Site Access	362	91	907	1320	0.274	361	64	0.0	0.4	3.752	A
4 - A5 North-West	900	225	251	2208	0.408	898	1016	0.0	0.7	2.742	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	343	86	1290	1184	0.289	342	84	0.3	0.4	4.275	A
2 - A5 South-East	954	238	208	2249	0.424	953	1424	0.5	0.7	2.776	A
3 - Site Access	432	108	1085	1202	0.360	432	76	0.4	0.6	4.668	A
4 - A5 North-West	1075	269	301	2171	0.495	1074	1216	0.7	1.0	3.279	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	419	105	1579	971	0.432	418	103	0.4	0.8	6.497	A
2 - A5 South-East	1168	292	255	2213	0.528	1167	1742	0.7	1.1	3.436	A
3 - Site Access	530	132	1328	1041	0.509	528	93	0.6	1.0	6.982	A
4 - A5 North-West	1317	329	368	2121	0.621	1314	1488	1.0	1.6	4.446	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	419	105	1582	968	0.433	419	103	0.8	0.8	6.557	A
2 - A5 South-East	1168	292	255	2212	0.528	1168	1746	1.1	1.1	3.446	A
3 - Site Access	530	132	1330	1040	0.509	530	94	1.0	1.0	7.050	A
4 - A5 North-West	1317	329	369	2121	0.621	1317	1491	1.6	1.6	4.478	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	343	86	1295	1180	0.290	344	85	0.8	0.4	4.312	A
2 - A5 South-East	954	238	209	2248	0.424	955	1430	1.1	0.7	2.789	A
3 - Site Access	432	108	1088	1200	0.360	434	77	1.0	0.6	4.709	A
4 - A5 North-West	1075	269	302	2170	0.495	1078	1220	1.6	1.0	3.305	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	287	72	1083	1336	0.215	287	71	0.4	0.3	3.433	A
2 - A5 South-East	799	200	175	2275	0.351	800	1196	0.7	0.5	2.443	A
3 - Site Access	362	91	910	1318	0.275	363	64	0.6	0.4	3.771	A
4 - A5 North-West	900	225	253	2207	0.408	902	1021	1.0	0.7	2.760	A

Ref Case + Development, PM (17:00 - 18:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	8.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.92	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)	Run automatically
D11	Ref Case + Development	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	607	100.000
2 - A5 South-East		ONE HOUR	✓	1174	100.000
3 - Site Access		ONE HOUR	✓	365	100.000
4 - A5 North-West		ONE HOUR	✓	1439	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	404	31	172
	2 - A5 South-East	86	50	0	1038
	3 - Site Access	8	168	2	187
	4 - A5 North-West	28	1287	62	62

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	2	0	4
	2 - A5 South-East	3	6	0	5
	3 - Site Access	2	2	0	2
	4 - A5 North-West	4	5	17	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.83	25.73	4.5	D	557	835
2 - A5 South-East	0.60	4.26	1.5	A	1077	1616

3 - Site Access	0.44	7.00	0.8	A	335	502
4 - A5 North-West	0.73	6.29	2.7	A	1320	1981

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	457	114	1224	1214	0.377	455	92	0.0	0.6	4.743	A
2 - A5 South-East	884	221	247	2228	0.397	881	1432	0.0	0.7	2.669	A
3 - Site Access	275	69	1057	1251	0.220	274	71	0.0	0.3	3.682	A
4 - A5 North-West	1083	271	236	2239	0.484	1080	1095	0.0	0.9	3.095	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	546	136	1464	1041	0.524	544	110	0.6	1.1	7.208	A
2 - A5 South-East	1055	264	295	2190	0.482	1054	1713	0.7	0.9	3.167	A
3 - Site Access	328	82	1264	1110	0.296	328	85	0.3	0.4	4.600	A
4 - A5 North-West	1294	323	282	2204	0.587	1292	1310	0.9	1.4	3.938	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	668	167	1790	808	0.827	656	134	1.1	4.2	22.143	C
2 - A5 South-East	1293	323	358	2141	0.604	1290	2088	0.9	1.5	4.220	A
3 - Site Access	402	100	1544	920	0.437	400	104	0.4	0.8	6.917	A
4 - A5 North-West	1584	396	345	2157	0.735	1579	1600	1.4	2.7	6.176	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	668	167	1796	804	0.832	667	134	4.2	4.5	25.726	D
2 - A5 South-East	1293	323	362	2138	0.605	1293	2101	1.5	1.5	4.259	A
3 - Site Access	402	100	1550	916	0.439	402	105	0.8	0.8	7.003	A
4 - A5 North-West	1584	396	346	2156	0.735	1584	1606	2.7	2.7	6.290	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	546	136	1472	1036	0.527	559	110	4.5	1.1	7.768	A
2 - A5 South-East	1055	264	301	2186	0.483	1058	1731	1.5	0.9	3.200	A
3 - Site Access	328	82	1272	1104	0.297	330	86	0.8	0.4	4.654	A
4 - A5 North-West	1294	323	283	2203	0.587	1299	1318	2.7	1.4	4.005	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	457	114	1230	1209	0.378	459	92	1.1	0.6	4.815	A
2 - A5 South-East	884	221	249	2226	0.397	885	1441	0.9	0.7	2.687	A
3 - Site Access	275	69	1062	1247	0.220	275	72	0.4	0.3	3.706	A
4 - A5 North-West	1083	271	237	2238	0.484	1085	1100	1.4	0.9	3.128	A

Ref Case + Development, PM (18:00 - 19:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	9.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.05	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)	Run automatically
D12	Ref Case + Development	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	779	100.000
2 - A5 South-East		ONE HOUR	✓	1048	100.000
3 - Site Access		ONE HOUR	✓	311	100.000
4 - A5 North-West		ONE HOUR	✓	1269	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	408	24	347
	2 - A5 South-East	82	29	0	937
	3 - Site Access	7	137	2	165
	4 - A5 North-West	34	1045	125	65

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	1	0	1
	2 - A5 South-East	1	23	0	5
	3 - Site Access	0	7	0	11
	4 - A5 North-West	4	4	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.86	24.01	5.4	C	715	1072
2 - A5 South-East	0.59	4.52	1.4	A	962	1442

3 - Site Access	0.41	7.38	0.7	A	285	428
4 - A5 North-West	0.63	4.35	1.7	A	1164	1747

Main Results for each time segment

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	586	147	1053	1359	0.432	583	92	0.0	0.8	4.627	A
2 - A5 South-East	789	197	422	2098	0.376	787	1214	0.0	0.6	2.741	A
3 - Site Access	234	59	1095	1152	0.203	233	113	0.0	0.3	3.912	A
4 - A5 North-West	955	239	193	2296	0.416	953	1136	0.0	0.7	2.674	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	700	175	1260	1209	0.579	698	110	0.8	1.4	7.014	A
2 - A5 South-East	942	236	505	2036	0.463	941	1453	0.6	0.9	3.285	A
3 - Site Access	280	70	1310	1017	0.275	279	136	0.3	0.4	4.875	A
4 - A5 North-West	1141	285	231	2266	0.503	1140	1359	0.7	1.0	3.193	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	858	214	1542	1005	0.854	843	135	1.4	5.0	20.663	C
2 - A5 South-East	1154	288	612	1955	0.590	1152	1772	0.9	1.4	4.468	A
3 - Site Access	342	86	1599	835	0.410	341	166	0.4	0.7	7.268	A
4 - A5 North-West	1397	349	282	2225	0.628	1395	1658	1.0	1.7	4.318	A

18:30 - 18:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	858	214	1545	1002	0.856	856	135	5.0	5.4	24.012	C
2 - A5 South-East	1154	288	619	1950	0.592	1154	1782	1.4	1.4	4.520	A
3 - Site Access	342	86	1607	830	0.412	342	166	0.7	0.7	7.377	A
4 - A5 North-West	1397	349	283	2225	0.628	1397	1666	1.7	1.7	4.349	A

18:45 - 19:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	700	175	1264	1205	0.581	716	111	5.4	1.4	7.597	A
2 - A5 South-East	942	236	514	2029	0.464	944	1467	1.4	0.9	3.325	A
3 - Site Access	280	70	1322	1010	0.277	281	137	0.7	0.4	4.948	A
4 - A5 North-West	1141	285	232	2265	0.504	1143	1371	1.7	1.0	3.218	A

19:00 - 19:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	586	147	1058	1355	0.433	589	93	1.4	0.8	4.714	A
2 - A5 South-East	789	197	425	2095	0.377	790	1221	0.9	0.6	2.759	A
3 - Site Access	234	59	1101	1149	0.204	235	114	0.4	0.3	3.940	A
4 - A5 North-West	955	239	194	2295	0.416	957	1142	1.0	0.7	2.693	A

Ref Case + Development (With Travel Plan Targets Met), AM (07:00 - 08:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	7.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.44	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)	Run automatically
D13	Ref Case + Development (With Travel Plan Targets Met)	AM (07:00 - 08:00)	ONE HOUR	06:45	08:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	76	100.000
2 - A5 South-East		ONE HOUR	✓	1445	100.000
3 - Site Access		ONE HOUR	✓	302	100.000
4 - A5 North-West		ONE HOUR	✓	1385	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	48	6	22
	2 - A5 South-East	394	43	0	1008
	3 - Site Access	10	155	1	136
	4 - A5 North-West	198	999	185	3

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	2	4	5
	2 - A5 South-East	1	8	0	6
	3 - Site Access	0	9	0	20
	4 - A5 North-West	2	7	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.09	4.05	0.1	A	70	105
2 - A5 South-East	0.71	5.55	2.4	A	1326	1989

3 - Site Access	0.43	8.01	0.7	A	277	416
4 - A5 North-West	0.80	9.44	3.9	A	1271	1906

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	57	14	1039	1325	0.043	57	452	0.0	0.0	2.838	A
2 - A5 South-East	1088	272	163	2299	0.473	1084	934	0.0	0.9	2.955	A
3 - Site Access	227	57	1103	1095	0.208	226	144	0.0	0.3	4.137	A
4 - A5 North-West	1043	261	452	2063	0.505	1039	877	0.0	1.0	3.496	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	68	17	1244	1177	0.058	68	540	0.0	0.1	3.245	A
2 - A5 South-East	1299	325	195	2274	0.571	1297	1117	0.9	1.3	3.679	A
3 - Site Access	271	68	1320	964	0.282	271	172	0.3	0.4	5.195	A
4 - A5 North-West	1245	311	541	1997	0.624	1243	1049	1.0	1.6	4.758	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	84	21	1518	978	0.086	84	660	0.1	0.1	4.023	A
2 - A5 South-East	1591	398	238	2241	0.710	1587	1364	1.3	2.4	5.468	A
3 - Site Access	333	83	1614	785	0.424	331	210	0.4	0.7	7.916	A
4 - A5 North-West	1525	381	662	1906	0.800	1516	1283	1.6	3.8	9.030	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	84	21	1526	973	0.086	84	663	0.1	0.1	4.049	A
2 - A5 South-East	1591	398	239	2240	0.710	1591	1370	2.4	2.4	5.545	A
3 - Site Access	333	83	1618	782	0.425	332	211	0.7	0.7	8.007	A
4 - A5 North-West	1525	381	664	1905	0.801	1525	1287	3.8	3.9	9.437	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	68	17	1254	1169	0.058	68	544	0.1	0.1	3.269	A
2 - A5 South-East	1299	325	196	2273	0.572	1303	1127	2.4	1.3	3.728	A
3 - Site Access	271	68	1326	960	0.283	273	174	0.7	0.4	5.251	A
4 - A5 North-West	1245	311	544	1995	0.624	1254	1055	3.9	1.7	4.917	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	57	14	1046	1320	0.043	57	454	0.1	0.0	2.849	A
2 - A5 South-East	1088	272	164	2298	0.473	1090	940	1.3	0.9	2.984	A
3 - Site Access	227	57	1108	1092	0.208	228	145	0.4	0.3	4.169	A
4 - A5 North-West	1043	261	455	2062	0.506	1045	882	1.7	1.0	3.553	A

Ref Case + Development (With Travel Plan Targets Met), AM (08:00 - 09:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	17.00	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.00	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)	Run automatically
D14	Ref Case + Development (With Travel Plan Targets Met)	AM (08:00 - 09:00)	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	73	100.000
2 - A5 South-East		ONE HOUR	✓	1709	100.000
3 - Site Access		ONE HOUR	✓	264	100.000
4 - A5 North-West		ONE HOUR	✓	1460	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	67	2	4
	2 - A5 South-East	514	35	0	1160
	3 - Site Access	22	165	1	76
	4 - A5 North-West	264	961	225	10

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	0	0	50
	2 - A5 South-East	1	25	0	7
	3 - Site Access	1	11	0	42
	4 - A5 North-West	2	10	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.09	4.25	0.1	A	67	100
2 - A5 South-East	0.86	11.73	5.9	B	1568	2352

3 - Site Access	0.51	12.63	1.0	B	242	363
4 - A5 North-West	0.92	24.42	10.2	C	1340	2010

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	55	14	1047	1295	0.042	55	600	0.0	0.0	2.901	A
2 - A5 South-East	1287	322	181	2255	0.571	1281	920	0.0	1.3	3.678	A
3 - Site Access	199	50	1292	929	0.214	198	171	0.0	0.3	4.915	A
4 - A5 North-West	1099	275	552	1931	0.569	1094	937	0.0	1.3	4.274	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	66	16	1252	1141	0.058	66	717	0.0	0.1	3.347	A
2 - A5 South-East	1536	384	217	2226	0.690	1533	1101	1.3	2.2	5.172	A
3 - Site Access	237	59	1545	781	0.304	237	204	0.3	0.4	6.609	A
4 - A5 North-West	1313	328	661	1851	0.709	1308	1121	1.3	2.4	6.575	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	80	20	1515	943	0.085	80	872	0.1	0.1	4.174	A
2 - A5 South-East	1882	470	262	2188	0.860	1868	1333	2.2	5.7	10.803	B
3 - Site Access	291	73	1883	583	0.499	289	247	0.4	1.0	12.140	B
4 - A5 North-West	1607	402	805	1745	0.921	1581	1366	2.4	9.1	19.376	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	80	20	1534	928	0.087	80	880	0.1	0.1	4.247	A
2 - A5 South-East	1882	470	266	2185	0.861	1881	1349	5.7	5.9	11.729	B
3 - Site Access	291	73	1896	575	0.505	291	250	1.0	1.0	12.627	B
4 - A5 North-West	1607	402	811	1741	0.923	1603	1375	9.1	10.2	24.421	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	66	16	1283	1117	0.059	66	729	0.1	0.1	3.425	A
2 - A5 South-East	1536	384	223	2221	0.692	1551	1126	5.9	2.3	5.485	A
3 - Site Access	237	59	1564	770	0.308	240	210	1.0	0.5	6.814	A
4 - A5 North-West	1313	328	669	1846	0.711	1343	1134	10.2	2.5	7.592	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	55	14	1056	1288	0.043	55	604	0.1	0.0	2.920	A
2 - A5 South-East	1287	322	183	2254	0.571	1290	928	2.3	1.3	3.750	A
3 - Site Access	199	50	1301	924	0.215	199	172	0.5	0.3	4.976	A
4 - A5 North-West	1099	275	557	1928	0.570	1104	944	2.5	1.3	4.394	A

Ref Case + Development (With Travel Plan Targets Met), AM (09:00 - 10:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	6.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.29	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)	Run automatically
D15	Ref Case + Development (With Travel Plan Targets Met)	AM (09:00 - 10:00)	ONE HOUR	08:45	10:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	105	100.000
2 - A5 South-East		ONE HOUR	✓	1274	100.000
3 - Site Access		ONE HOUR	✓	237	100.000
4 - A5 North-West		ONE HOUR	✓	1314	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	61	3	41
	2 - A5 South-East	304	38	0	932
	3 - Site Access	11	126	1	99
	4 - A5 North-West	154	973	181	6

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	2	5	2
	2 - A5 South-East	2	32	0	9
	3 - Site Access	4	12	0	26
	4 - A5 North-West	2	8	31	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.12	4.16	0.1	A	96	145
2 - A5 South-East	0.66	4.99	1.9	A	1169	1754

3 - Site Access	0.32	6.35	0.5	A	217	326
4 - A5 North-West	0.76	7.67	3.0	A	1206	1809

Main Results for each time segment

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	79	20	994	1336	0.059	79	352	0.0	0.1	2.862	A
2 - A5 South-East	959	240	174	2196	0.437	956	899	0.0	0.8	2.895	A
3 - Site Access	178	45	991	1108	0.161	178	139	0.0	0.2	3.865	A
4 - A5 North-West	989	247	360	2041	0.485	986	809	0.0	0.9	3.400	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	94	24	1189	1187	0.080	94	421	0.1	0.1	3.295	A
2 - A5 South-East	1145	286	208	2166	0.529	1144	1075	0.8	1.1	3.517	A
3 - Site Access	213	53	1186	990	0.215	213	166	0.2	0.3	4.627	A
4 - A5 North-West	1181	295	431	1988	0.594	1179	968	0.9	1.4	4.438	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	116	29	1453	984	0.117	115	515	0.1	0.1	4.141	A
2 - A5 South-East	1403	351	254	2125	0.660	1400	1314	1.1	1.9	4.941	A
3 - Site Access	261	65	1451	830	0.314	260	203	0.3	0.5	6.313	A
4 - A5 North-West	1447	362	527	1916	0.755	1441	1184	1.4	3.0	7.471	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	116	29	1459	980	0.118	116	516	0.1	0.1	4.164	A
2 - A5 South-East	1403	351	255	2124	0.660	1403	1319	1.9	1.9	4.989	A
3 - Site Access	261	65	1454	828	0.315	261	204	0.5	0.5	6.349	A
4 - A5 North-West	1447	362	528	1916	0.755	1447	1187	3.0	3.0	7.666	A

09:45 - 10:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	94	24	1197	1181	0.080	95	423	0.1	0.1	3.314	A
2 - A5 South-East	1145	286	210	2165	0.529	1148	1082	1.9	1.1	3.554	A
3 - Site Access	213	53	1191	987	0.216	214	167	0.5	0.3	4.658	A
4 - A5 North-West	1181	295	433	1987	0.595	1187	972	3.0	1.5	4.539	A

10:00 - 10:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	79	20	1000	1332	0.059	79	354	0.1	0.1	2.873	A
2 - A5 South-East	959	240	175	2196	0.437	961	904	1.1	0.8	2.917	A
3 - Site Access	178	45	996	1106	0.161	179	140	0.3	0.2	3.885	A
4 - A5 North-West	989	247	362	2040	0.485	991	813	1.5	0.9	3.443	A

Ref Case + Development (With Travel Plan Targets Met), PM (16:00 - 17:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	4.58	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.58	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)	Run automatically
D16	Ref Case + Development (With Travel Plan Targets Met)	PM (16:00 - 17:00)	ONE HOUR	15:45	17:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	381	100.000
2 - A5 South-East		ONE HOUR	✓	1061	100.000
3 - Site Access		ONE HOUR	✓	427	100.000
4 - A5 North-West		ONE HOUR	✓	1189	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	242	14	125
	2 - A5 South-East	69	55	0	937
	3 - Site Access	6	184	2	235
	4 - A5 North-West	19	1087	61	22

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	0	0	1
	2 - A5 South-East	0	1	0	7
	3 - Site Access	0	4	0	6
	4 - A5 North-West	0	6	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.42	6.32	0.7	A	350	524
2 - A5 South-East	0.53	3.49	1.1	A	974	1460

3 - Site Access	0.46	6.45	0.8	A	392	588
4 - A5 North-West	0.61	4.35	1.6	A	1091	1637

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	287	72	1059	1354	0.212	286	71	0.0	0.3	3.368	A
2 - A5 South-East	799	200	168	2261	0.353	797	1177	0.0	0.5	2.455	A
3 - Site Access	321	80	907	1309	0.246	320	58	0.0	0.3	3.635	A
4 - A5 North-West	895	224	237	2218	0.404	892	990	0.0	0.7	2.710	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	343	86	1267	1200	0.285	342	84	0.3	0.4	4.191	A
2 - A5 South-East	954	238	201	2236	0.427	953	1408	0.5	0.7	2.805	A
3 - Site Access	384	96	1085	1191	0.322	383	69	0.3	0.5	4.455	A
4 - A5 North-West	1069	267	284	2183	0.490	1068	1185	0.7	1.0	3.224	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	419	105	1550	991	0.423	418	103	0.4	0.7	6.269	A
2 - A5 South-East	1168	292	246	2201	0.531	1167	1723	0.7	1.1	3.476	A
3 - Site Access	470	118	1328	1030	0.457	469	85	0.5	0.8	6.401	A
4 - A5 North-West	1309	327	347	2136	0.613	1307	1450	1.0	1.6	4.326	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	419	105	1553	989	0.424	419	103	0.7	0.7	6.321	A
2 - A5 South-East	1168	292	247	2200	0.531	1168	1726	1.1	1.1	3.486	A
3 - Site Access	470	118	1330	1028	0.457	470	85	0.8	0.8	6.448	A
4 - A5 North-West	1309	327	348	2136	0.613	1309	1452	1.6	1.6	4.354	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	343	86	1272	1197	0.286	344	85	0.7	0.4	4.227	A
2 - A5 South-East	954	238	202	2235	0.427	955	1413	1.1	0.7	2.818	A
3 - Site Access	384	96	1088	1189	0.323	385	69	0.8	0.5	4.487	A
4 - A5 North-West	1069	267	285	2182	0.490	1071	1188	1.6	1.0	3.246	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	287	72	1064	1350	0.212	287	71	0.4	0.3	3.387	A
2 - A5 South-East	799	200	169	2260	0.353	800	1182	0.7	0.5	2.467	A
3 - Site Access	321	80	910	1307	0.246	322	58	0.5	0.3	3.660	A
4 - A5 North-West	895	224	238	2217	0.404	896	994	1.0	0.7	2.728	A

Ref Case + Development (With Travel Plan Targets Met), PM (17:00 - 18:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	8.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.40	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)	Run automatically
D17	Ref Case + Development (With Travel Plan Targets Met)	PM (17:00 - 18:00)	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	607	100.000
2 - A5 South-East		ONE HOUR	✓	1174	100.000
3 - Site Access		ONE HOUR	✓	327	100.000
4 - A5 North-West		ONE HOUR	✓	1433	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	404	31	172
	2 - A5 South-East	86	50	0	1038
	3 - Site Access	8	154	2	163
	4 - A5 North-West	28	1287	56	62

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	2	0	4
	2 - A5 South-East	3	6	0	5
	3 - Site Access	2	2	0	3
	4 - A5 North-West	4	5	18	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.82	23.29	4.1	C	557	835
2 - A5 South-East	0.60	4.23	1.5	A	1077	1616

3 - Site Access	0.40	6.53	0.6	A	300	450
4 - A5 North-West	0.73	6.10	2.6	A	1315	1972

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	457	114	1209	1224	0.373	455	92	0.0	0.6	4.664	A
2 - A5 South-East	884	221	242	2231	0.396	881	1421	0.0	0.7	2.662	A
3 - Site Access	246	62	1057	1244	0.198	245	67	0.0	0.2	3.599	A
4 - A5 North-West	1079	270	225	2247	0.480	1075	1077	0.0	0.9	3.065	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	546	136	1446	1054	0.518	544	110	0.6	1.1	7.032	A
2 - A5 South-East	1055	264	290	2194	0.481	1054	1700	0.7	0.9	3.155	A
3 - Site Access	294	73	1264	1104	0.266	294	80	0.2	0.4	4.438	A
4 - A5 North-West	1288	322	269	2213	0.582	1286	1288	0.9	1.4	3.875	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	668	167	1768	823	0.812	657	134	1.1	3.8	20.480	C
2 - A5 South-East	1293	323	351	2146	0.602	1290	2074	0.9	1.5	4.197	A
3 - Site Access	360	90	1545	915	0.394	359	97	0.4	0.6	6.462	A
4 - A5 North-West	1578	394	329	2168	0.728	1573	1574	1.4	2.6	5.994	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	668	167	1774	819	0.816	667	134	3.8	4.1	23.286	C
2 - A5 South-East	1293	323	355	2143	0.603	1293	2086	1.5	1.5	4.233	A
3 - Site Access	360	90	1550	911	0.395	360	98	0.6	0.6	6.529	A
4 - A5 North-West	1578	394	330	2168	0.728	1578	1580	2.6	2.6	6.095	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	546	136	1454	1049	0.520	558	110	4.1	1.1	7.512	A
2 - A5 South-East	1055	264	295	2190	0.482	1058	1717	1.5	0.9	3.184	A
3 - Site Access	294	73	1272	1099	0.267	295	81	0.6	0.4	4.482	A
4 - A5 North-West	1288	322	271	2213	0.582	1293	1296	2.6	1.4	3.937	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	457	114	1215	1220	0.375	459	92	1.1	0.6	4.744	A
2 - A5 South-East	884	221	244	2230	0.396	885	1430	0.9	0.7	2.678	A
3 - Site Access	246	62	1062	1241	0.198	247	67	0.4	0.2	3.624	A
4 - A5 North-West	1079	270	226	2246	0.480	1081	1082	1.4	0.9	3.094	A

Ref Case + Development (With Travel Plan Targets Met), PM (18:00 - 19:00)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Site Access - 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	8.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.42	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)	Run automatically
D18	Ref Case + Development (With Travel Plan Targets Met)	PM (18:00 - 19:00)	ONE HOUR	17:45	19:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Mira Drive		ONE HOUR	✓	779	100.000
2 - A5 South-East		ONE HOUR	✓	1048	100.000
3 - Site Access		ONE HOUR	✓	279	100.000
4 - A5 North-West		ONE HOUR	✓	1255	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	408	24	347
	2 - A5 South-East	82	29	0	937
	3 - Site Access	7	126	2	144
	4 - A5 North-West	34	1045	111	65

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		1 - Mira Drive	2 - A5 South-East	3 - Site Access	4 - A5 North-West
From	1 - Mira Drive	0	1	0	1
	2 - A5 South-East	1	23	0	5
	3 - Site Access	0	8	0	12
	4 - A5 North-West	4	4	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Mira Drive	0.84	21.50	4.9	C	715	1072
2 - A5 South-East	0.59	4.46	1.4	A	962	1442

3 - Site Access	0.37	6.97	0.6	A	256	384
4 - A5 North-West	0.62	4.23	1.6	A	1152	1727

Main Results for each time segment

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	586	147	1034	1371	0.428	584	92	0.0	0.7	4.552	A
2 - A5 South-East	789	197	412	2106	0.375	787	1206	0.0	0.6	2.725	A
3 - Site Access	210	53	1095	1143	0.184	209	103	0.0	0.2	3.852	A
4 - A5 North-West	945	236	185	2301	0.411	942	1120	0.0	0.7	2.644	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	700	175	1237	1224	0.572	698	110	0.7	1.3	6.816	A
2 - A5 South-East	942	236	492	2045	0.461	941	1443	0.6	0.8	3.258	A
3 - Site Access	251	63	1310	1009	0.249	250	123	0.2	0.3	4.745	A
4 - A5 North-West	1128	282	221	2272	0.497	1127	1340	0.7	1.0	3.142	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	858	214	1514	1023	0.838	845	135	1.3	4.6	18.945	C
2 - A5 South-East	1154	288	598	1966	0.587	1152	1761	0.8	1.4	4.409	A
3 - Site Access	307	77	1599	828	0.371	306	150	0.3	0.6	6.886	A
4 - A5 North-West	1382	345	270	2233	0.619	1379	1635	1.0	1.6	4.204	A

18:30 - 18:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	858	214	1517	1021	0.840	856	135	4.6	4.9	21.498	C
2 - A5 South-East	1154	288	604	1961	0.588	1154	1770	1.4	1.4	4.458	A
3 - Site Access	307	77	1607	823	0.373	307	151	0.6	0.6	6.971	A
4 - A5 North-West	1382	345	271	2232	0.619	1382	1643	1.6	1.6	4.231	A

18:45 - 19:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	700	175	1242	1221	0.574	714	111	4.9	1.4	7.301	A
2 - A5 South-East	942	236	501	2039	0.462	944	1456	1.4	0.9	3.297	A
3 - Site Access	251	63	1321	1002	0.250	252	124	0.6	0.3	4.805	A
4 - A5 North-West	1128	282	222	2271	0.497	1131	1351	1.6	1.0	3.165	A

19:00 - 19:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Mira Drive	586	147	1039	1368	0.429	589	93	1.4	0.8	4.635	A
2 - A5 South-East	789	197	415	2103	0.375	790	1213	0.9	0.6	2.745	A
3 - Site Access	210	53	1101	1139	0.184	210	103	0.3	0.2	3.877	A
4 - A5 North-West	945	236	186	2300	0.411	946	1126	1.0	0.7	2.663	A

Appendix 6

Matt Stevens

From: Martin Seldon <Martin.Seldon@nationalhighways.co.uk>
Sent: 10 November 2023 15:40
To: Matt Stevens
Cc: Andy MacDonald; Graeme Warriner; Russell Gray; Ben Simm
Subject: A5 MIRA Southern Extension

Hi Matt

It was good to meet you and your colleagues on Wednesday.

Further to discussions regarding the geometric check of the proposed junction improvement drawings, I've received the comments below:

A5 Watling Street/MIRA Roundabout (SK01A)

- A drawing panel showing the existing layout of the A5/MIRA Roundabout has not been provided

A5/A444 Redgate Island Mitigation (SK13A)

- The drawing also shows part retention of the existing A444(N) arm with movement limited to access only to the A5. It's unclear why this has been retained when the A444(N) is to be realigned

A5 Watling Street/Drayton Lane (Left-In/Left-Out) SK15)

- A drawing of the existing junction layout has not been provided

In addition, for all the above drawings, as well as A5 Watling Street/Woodford Lane (SK14A):

- Regarding geometry, proposals appear to be based on Ordinance Survey maps rather than site measurements and as such this may affect scheme viability/delivery.
- Drawings issued do not show scheme extents, land ownership, highway boundaries, SRN interface with the Local Road Network (LRN), constraints, levels, etc.
- Furthermore, dimensions of all proposed geometric changes are not provided on the drawings issued to enable checking. As set under CD116 (roundabouts) and / or CD123 (priority junctions), this would include elements such as: entry / exit widths, entry / exit kerb radii, visibility splays etc
- Visibility requirements cannot be checked to DMRB requirements due to insufficient information. Appropriately sized drawings are necessary to demonstrate visibility in the horizontal and vertical planes.
- Existing and proposed cross sections and long sections have not been provided to enable alignment checks.
- Swept paths are required to demonstrate proposed geometry is appropriate.

Apologies for delay in providing these to you.

Kind regards

Martin Seldon, Assistant Spatial Planner

National Highways | The Cube | 199 Wharfside Street | Birmingham | B1 1RN

Tel: +44 (0) 300 4703345 | **Mobile:** + 44 (0) 7787 321 881

Web: www.nationalhighways.co.uk

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Appendix 7